

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,  
Complainant,

DOCKET UG-170929

v.

CASCADE NATURAL GAS  
CORPORATION,  
Respondent.

**CASCADE NATURAL GAS CORPORATION**

**EXHIBIT RJA-R4**

**RON. J. AMEN**

*American Gas Association Energy Analysis, "Natural Gas Utility Rate Structure: The Customer Charge Component – 2015 Update"*

**March 23, 2018**



American Gas Association

# Energy Analysis

POLICY ANALYSIS GROUP  
400 N. Capitol St., NW  
Washington, DC 20001  
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EA 2015-03

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## **NATURAL GAS UTILITY RATE STRUCTURE: THE CUSTOMER CHARGE COMPONENT – 2015 UPDATE**

### **I. Introduction**

The largest part of a natural gas customer's bill is the cost of the gas itself, over which the utility has little control. This cost accounts for about 41 cents of every dollar of revenue received by a distribution utility.<sup>1</sup> The bill amount for the gas portion varies with price as well as amount consumed. Natural gas utilities also incur costs that are not dependent on a customer's consumption. These "fixed" costs may include:

- Meter reading
- Billing
- Fixed costs on plant and equipment
  - Depreciation and taxes
  - Distribution mains, meters, and service lines
- Most administrative and general expenses
  - Wages
  - Buildings, energy, etc.
- Natural gas storage
- Customer and service O&M

Most utilities recover at least a portion of these costs through a fixed charge on a customer's bill. This is most often called the "customer charge", but is also called minimum bill, facility charge, service charge, fixed charge, and access fee. In addition to recovering some of the fixed costs, the customer charge also represents a fee for "readiness to

<sup>1</sup> 2011-2013 Performance Benchmarks for Natural Gas Utilities, American Gas Association, January 31, 2015

serve”, even if the customer does not use any gas for that billing period.<sup>2</sup> This charge is typically determined between the utility and its government regulators through a rate case.

In the past few years the customer charge has increased in prominence in gas utility rate cases. In some cases utilities are finding it difficult to achieve authorized rates of return in an unpredictable gas market due in part to:

- declining use per customer;
- significant swings in the commodity cost of natural gas;
- increased costs from recent legal and regulatory mandates (pipeline safety, pension, etc.); and,
- growing bad debt costs.

Some companies have sought to increase their customer charges to better capture the actual fixed costs of serving these customers, citing the following benefits:

- moderates volatility in customer bills;
- encourages utilities to promote customer conservation;
- makes utility earnings less dependent on sales volumes;
- improves cash flow, mitigating need for working capital;
- reduces winter bills for high use customers;
- reduces the need for future rate cases; and;
- Is a more appropriate way to recover fixed costs.

This analysis updates a report done five years ago.<sup>3</sup> The purpose of this analysis is to illustrate the current levels of customer charges, estimate the portion of fixed costs that these charges cover, and track their historical growth.

## **II. Executive Summary**

The customer charge is a part of the natural gas utility customer’s bill that does not vary with consumption. Based on Internet searches and AGA surveys, this charge:

- is typically \$11.25 per month for residential customers and \$22 for small commercial customers (median values represent about 237 rate jurisdictions);
- represents approximately 19 percent of a residential customer’s annual bill;
- typically recovers only 46 percent of a utility’s actual fixed costs; and,
- would be about \$24 per month for the residential sector, on average, in order to recover all of a utility’s typical fixed costs.

## **III. Current Customer Charge Levels**

A February 2015 internet search of natural gas utility tariffs provided data on customer charges for 197 rate jurisdictions in all states and the District of Columbia (see Appendix

<sup>2</sup> Gas Rate Fundamentals, American Gas Association, 1987

<sup>3</sup> *Natural Gas Utility Rate Structure: The Customer Charge Component – 2010 Update* American Gas Association April 9, 2010.

1). Residential (excluding master metered apartments) and small commercial<sup>4</sup> rates were examined.

The median customer charge for the residential sector was \$11.25 per month, with 75 percent of the companies having a residential customer charge of \$15.38 or less. The highest charge was \$45.06. The commercial customer charges showed a wider variation. For the small commercial customer, the median monthly customer charge was \$22.00, with 75 percent at or below \$30.31. The high for this sector was \$304.94<sup>5</sup>.

Table 1  
**2015 Natural Gas Utility Monthly Customer Charges**

	First Quartile	Median	Third Quartile
Residential	\$9.00	\$11.25	\$15.38
Commercial	\$15.00	\$22.00	\$30.31

Based on that \$11.25 monthly figure, the customer charge comprises 19 percent of the typical residential customer’s annual natural gas bill.<sup>6</sup>

The utilities were grouped by Census region to determine if charges varied by location. The median residential charge was highest in the Middle Atlantic region at \$14.60 per month, compared to the lowest charge of \$4.95 in the Pacific region. (See Appendix 2 for a map of the Census regions.) The highest median monthly commercial customer charge (\$28.41) occurred in the New England region, while the Pacific region again had the lowest (\$14.90 – see Table 2).

Table 2  
**2015 Natural Gas Utility Median Monthly Customer Charges by Census Region**

Census Region	Residential	Commercial
New England	\$ 13.50	\$ 28.41
Middle Atlantic	\$ 14.60	\$ 23.60
East North Central	\$ 11.38	\$ 24.00
West North Central	\$ 13.16	\$ 24.40
South Atlantic	\$ 10.00	\$ 22.00
East South Central	\$ 14.00	\$ 16.96
West South Central	\$ 13.24	\$ 18.51
Mountain	\$ 10.80	\$ 20.00
Pacific	\$ 4.95	\$ 14.90

It should be noted that these variations in customer charges are caused by a number of factors, such as:

- the company itself – age of system, number of customers, employee wages and benefits, etc.;

<sup>4</sup> For tariffs with more than one commercial category, the lowest level of consumption was selected.

<sup>5</sup> One tariff had a commercial customer charge in excess of \$1,000, which was not included in the sample

<sup>6</sup> Based on a total bill of \$718 per customer calculated from Gas Facts 2013 Data

- local regulatory environment – regulatory philosophy (particularly in California), intervenor activity, etc.;
- geographic location – climate, cost to install mains (e.g. rocky ground = higher cost, so proportionally more fixed costs compared to sandy soils), etc.; and,
- rate case frequency – companies that have not had a rate case in a relatively long time tend to have a relatively lower fixed charge.

#### IV. Customer Charges Relative to Utility Fixed Costs

The customer charge recovers only a percentage of the utility’s actual fixed costs, with the remainder of the fixed costs allocated to volumetric charges. In the spring of 2015, the American Gas Association asked its members,

***What percentage of the utility's fixed costs for the residential sector do you estimate is recovered in the residential monthly customer/service charge?***

Companies representing more than 62 rate jurisdictions in 32 states and the District of Columbia responded. The median recovery value of responders was 46 percent of actual fixed costs on a monthly basis. Only five responders estimated that they recovered 25 percent or less of the fixed costs through the customer charge (Table 3). Based on an \$11.25 median monthly charge, on average the customer charge would be about \$24 in order to recover all of a utility’s fixed costs on a monthly basis.<sup>7</sup>

Table 3  
**Portion of Fixed Costs Recovered by Customer Charge – Monthly Basis**

At Most 25%	5 Companies
At Most 50%	22 Companies
At Most 75%	8 Companies

Source: AGA Survey, 2015

On a monthly basis, the percentage of fixed costs recovered by the customer charge varied by geographic area (Table 4). The highest reported recovery portion is in the West South Central section of the country, while the lowest occurred in the Pacific region.

Table 4  
**Regional Breakout of Portion of Fixed Costs Recovered by Customer Charge (Medians) – Monthly Basis**

New England	31%
Middle Atlantic	34%
East North Central	64%
West North Central	55%
South Atlantic	48%
East South Central	48%
West South Central	85%
Mountain	42%
Pacific	16%

Source: AGA Survey, 2015

<sup>7</sup> Median charge of \$11.25/month divided by 0.46 (portion of fixed costs recovered)

## V. Comparison to Previous Report

This report updates an analysis from 2010. Of the 133 gas utility rate jurisdictions in both samples, 83, or 62 percent, increased their residential customer charge since 2010. For these companies, the average increase was \$1.25 for the residential class. There was no change for 41 companies and six had a decline in their residential customer charge. For the commercial sector, the median increased \$2.93 (Table 5). Regionally the largest increase in residential customer charge occurred in the East South Central (\$4.00), and the lowest was a negative value (-\$1.05) in the Pacific.

Table 5  
**Natural Gas Utility Median Monthly Customer Charges 2010 vs. 2015**

Census Region	2010		2015	
	Residential	Commercial	Residential	Commercial
New England	\$ 10.94	\$ 18.60	\$ 13.50	\$ 28.41
Middle Atlantic	\$ 12.57	\$ 19.89	\$ 14.60	\$ 23.60
East North Central	\$ 10.38	\$ 17.65	\$ 11.38	\$ 24.00
West North Central	\$ 12.13	\$ 20.10	\$ 13.16	\$ 24.40
South Atlantic	\$ 9.31	\$ 19.00	\$ 10.00	\$ 22.00
East South Central	\$ 10.00	\$ 25.00	\$ 14.00	\$ 16.96
West South Central	\$ 10.85	\$ 20.70	\$ 13.24	\$ 18.51
Mountain	\$ 9.50	\$ 21.00	\$ 10.80	\$ 20.00
Pacific	\$ 6.00	\$ 11.50	\$ 4.95	\$ 14.90
United States	\$ 10.00	\$ 19.07	\$ 11.25	\$ 22.00

Source: AGA Surveys, 2010 & 2015

Five years ago, AGA had surveyed its members, asking utilities to estimate what portion of their fixed costs were recovered by the customer charge. The results show that utilities today recover slightly more of their fixed costs through the fixed charge, but still less than 50 percent on average (Table 6). The largest relative increase in this proportion occurred in the South Atlantic region. Four of the nine Census regions exhibited a reduction in the portion of fixed costs recovered by the fixed charge.

Table 6  
**Regional Breakout of Portion of Monthly Fixed Costs Recovered by Customer Charge (Medians), 2010 vs. 2015**

	2010	2015
New England	36%	31%
Middle Atlantic	40%	34%
East North Central	47%	64%
West North Central	47%	55%
South Atlantic	22%	48%
East South Central	46%	48%
West South Central	88%	85%
Mountain	30%	42%
Pacific	23%	16%
United States	40%	46%

Source: AGA Surveys, 2010 & 2015

## VI. Trends in Customer Charges

AGA surveys its members regarding customer bills on a quarterly basis. Results are available back to December 1985. While the survey does not specifically cover customer charges, it does ask what a customer's bill would be if the customer did not use any gas that month ("zero use"). The historical values for "zero use" should be a good indicator of trends in customer charges.

Table 7 shows the historical average values for residential "zero use" bills for the month of December for various years. The average value started out at \$4.91 in 1985. By 2014, the average value had risen to \$13.95.

Table 7  
**Trends in Average Residential Customer Charge Levels, 1985-2014**

12/85	12/90	12/95	12/01*	12/05	12/10	12/14
\$4.91	\$5.47	\$6.73	\$8.04	\$8.91	\$12.49	\$13.95

Source – AGA Surveys

\* December 2000 data not available

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Appendix 1			
<b>NATURAL GAS CUSTOMER CHARGE</b>			
<u>Company</u>	<u>State</u>	<u>Residential</u>	Small
			<u>Commercial</u>
CONTINENTAL ENERGY - ENSTAR NATURAL GAS CO	AK	\$ 14.00	\$ 30.00
SEMPRA - MOBILE GAS SERVICE	AL	\$ 8.50	\$ 16.30
ARKANSAS OKLAHOMA GAS CORP - AR	AR	\$ 10.70	\$ 15.95
CENTERPOINT ARKLA AR	AR	\$ 9.75	\$ 13.00
SOURCEGAS LLC AR	AR	\$ 10.20	\$ 18.51
SOUTHWEST GAS CORP AZ	AZ	\$ 10.70	\$ 27.50
UNISOURCE ENERGY SERVICES	AZ	\$ 10.00	\$ 20.00
PACIFIC GAS & ELECTRIC CO	CA	\$ -	\$ 8.10
SEMPRA - SAN DIEGO GAS & ELECTRIC CO	CA	\$ -	\$ 10.00
SEMPRA - SOUTHERN CALIFORNIA GAS CO	CA	\$ 4.90	\$ 14.80
SOUTHWEST GAS CORP CA	CA	\$ 5.00	\$ 11.00
ATMOS ENERGY CORPORATION CO	CO	\$ 11.00	\$ 26.28
BLACK HILLS ENERGY - CO	CO	\$ 10.08	\$ 15.12
COLORADO SPRINGS, CITY OF	CO	\$ 11.79	\$ 23.58
SOURCEGAS LLC CO	CO	\$ 10.00	\$ 20.00
XCEL - PUBLIC SERVICE CO OF COLORADO	CO	\$ 11.50	\$ 32.08
UIL - CONNECTICUT NATURAL GAS CORP	CT	\$ 16.50	\$ 47.50
UIL - SOUTHERN CONNECTICUT GAS CO	CT	\$ 14.00	\$ 35.00
YANKEE GAS SERVICES CO	CT	\$ 18.50	\$ 46.00
WASHINGTON GAS LIGHT CO DC	DC	\$ 9.90	\$ 17.10
CHESAPEAKE UTILITY CORP DE	DE	\$ 10.50	\$ 26.00
DELMARVA POWER & LIGHT COMPANY	DE	\$ 11.41	\$ 34.37
AGL - FLORIDA CITY GAS	FL	\$ 8.00	\$ 9.50
CHESAPEAKE UTILITY CORP FL	FL	\$ 11.00	\$ 20.00
GAINESVILLE REGIONAL UTIL GAS DEPT	FL	\$ 9.75	
TECO PEOPLES GAS SYSTEM INC	FL	\$ 12.00	\$ 25.00
AGL - ATLANTA GAS LIGHT CO	GA	\$ 11.00	\$ 45.00
LIBERTY UTILITIES GA	GA	\$ 26.31	\$ 55.60

Appendix 1 - Continued			
<b>NATURAL GAS CUSTOMER CHARGE</b>			
<u>Company</u>	<u>State</u>	<u>Residential</u>	Small
			<u>Commercial</u>
THE GAS COMPANY	HI	\$ 8.50	\$ 62.00
ALLIANT - INTERSTATE P&L IA	IA	\$ 12.82	
BLACK HILLS ENERGY - IA	IA	\$ 18.25	\$ 29.00
LIBERTY UTILITIES IA	IA	\$ 7.95	\$ 13.00
MIDAMERICAN ENERGY COMPANY IA	IA	\$ 10.00	
AVISTA CORP - ID	ID	\$ 8.00	\$ 12.00
MONTANA - DAKOTA UTILITIES INTERMOUNTAN	ID	\$ 6.50	\$ 9.50
AGL - NICOR	IL	\$ 13.55	\$ 20.80
AMEREN - ILLINOIS	IL	\$ 22.31	\$ 39.77
INTEGRYS - NORTH SHORE GAS CO	IL	\$ 24.48	\$ 29.56
INTEGRYS - PEOPLES GAS LIGHT & COKE CO	IL	\$ 30.83	\$ 38.24
LIBERTY UTILITIES IL	IL	\$ 9.90	\$ 25.00
MIDAMERICAN ENERGY COMPANY IL	IL	\$ 12.69	\$ 93.18
MT CARMEL PUBLIC UTILITY CO	IL	\$ 15.00	\$ 15.00
CITIZENS GAS & COKE UTILITY	IN	\$ 9.00	\$ 22.00
NISOURCE - NIPSCO	IN	\$ 11.00	\$ 30.00
VECTREN - INDIANA GAS CO INC	IN	\$ 11.25	\$ 17.00
VECTREN - SOUTHERN INDIANA GAS & ELECTRIC CO	IN	\$ 11.00	\$ 22.00
ATMOS ENERGY CORPORATION KS	KS	\$ 18.19	\$ 40.88
BLACK HILLS ENERGY - KS	KS	\$ 17.25	\$ 26.45
ONEOK - KANSAS GAS SERVICE	KS	\$ 15.35	\$ 28.65
ATMOS ENERGY CORPORATION - KY	KY	\$ 16.00	\$ 40.00
DELTA NATURAL GAS CO INC	KY	\$ 20.90	\$ 31.30
DUKE ENERGY KENTUCKY	KY	\$ 16.00	\$ 47.50
EQUITABLE RESOURCES KY	KY	\$ 7.50	\$ 7.50
LOUISVILLE GAS & ELECTRIC CO	KY	\$ 13.50	\$ 35.00
NISOURCE - COLUMBIA GAS OF KENTUCKY INC	KY	\$ 15.00	\$ 37.50
RICHMOND NATURAL GAS & SEWAGE WKS	KY	\$ 15.49	\$ 15.49
ATMOS ENERGY CORPORATION LA	LA	\$ 13.96	\$ 23.24
ATMOS ENERGY CORPORATION TRANS LA	LA	\$ 14.00	\$ 14.00
CENTERPOINT ARKLA LA	LA	\$ 10.00	\$ 16.00
CENTERPOINT ENTEX LA	LA	\$ 11.25	\$ 16.00
ENTERGY NEW ORLEANS, INC	LA	\$ 20.40	\$ 112.58

Appendix 1 - Continued			
<b>NATURAL GAS CUSTOMER CHARGE</b>			
			Small
<u>Company</u>	<u>State</u>	<u>Residential</u>	<u>Commercial</u>
HOLYOKE GAS & ELECTRIC DEPT, CITY OF	MA	\$ 6.00	\$ 10.00
LIBERTY UTILITIES MA	MA	\$ 9.90	\$ 22.00
NATIONAL GRID - BOSTON GAS CO	MA	\$ 10.00	\$ 21.00
NATIONAL GRID - COLONIAL GAS CO	MA	\$ 6.00	
NATIONAL GRID - ESSEX COUNTY GAS CO	MA	\$ 21.00	\$ 39.00
NISOURCE - COLUMBIA GAS OF MASSACHUSETTS INC	MA	\$ 12.20	\$ 19.80
UIL - BERKSHIRE GAS CO	MA	\$ 11.42	\$ 12.51
UNITIL - FITCHBURG GAS & ELECTRIC LIGHT CO	MA	\$ 8.50	\$ 24.00
AGL - ELKTON GAS SERVICE	MD	\$ 5.75	\$ 11.00
BALTIMORE GAS & ELECTRIC CO	MD	\$ 13.00	\$ 35.00
CHESAPEAKE UTILITY CORP MD	MD	\$ 8.75	\$ 17.25
EASTON UTILITIES COMMISSION	MD	\$ 9.65	\$ 33.25
NISOURCE - COLUMBIA GAS OF MARYLAND INC	MD	\$ 13.62	\$ 36.68
UGI - CENTRAL PENN GAS, INC MD	MD	\$ 9.68	
WASHINGTON GAS LIGHT CO MD	MD	\$ 10.20	\$ 18.50
ENERGY EAST - MAINE NATURAL GAS	ME	\$ 24.34	\$ 34.77
GAS NATURAL - BANGOR GAS CO LLC	ME	\$ 14.29	
UNITIL - NORTHERN UTILITIES INC (ME)	ME	\$ 23.06	\$ 54.77
CONSUMERS ENERGY CO	MI	\$ 11.50	\$ 12.50
CONTINENTAL ENERGY - SEMCO	MI	\$ 11.50	\$ 11.50
DTE - CITIZENS GAS FUEL CO	MI	\$ 10.50	\$ 20.00
DTE - MICHIGAN CONSOLIDATED	MI	\$ 10.50	\$ 26.20
INTEGRYS - MICHIGAN GAS UTILITIES CO	MI	\$ 12.00	\$ 33.00
INTEGRYS - WISCONSIN PUBLIC SERVICE CORP MI	MI	\$ 5.00	\$ 7.50
XCEL - NORTHERN STATES POWER CO OF MICHIGAN	MI	\$ 7.25	\$ 16.00
ALLIANT - INTERSTATE P&L MN	MN	\$ 5.00	
CENTERPOINT ENERGY MN	MN	\$ 9.50	\$ 15.00
INTEGRYS - MERC MN	MN	\$ 8.50	\$ 14.50
MONTANA - DAKOTA UTILITIES GREAT PLAINS MN	MN	\$ 6.50	\$ 20.00
XCEL - NORTHERN STATES POWER CO OF MINNESOTA	MN	\$ 9.00	\$ 25.00
AMEREN - UNION ELECTRIC CO	MO	\$ 15.00	\$ 28.83
LACLEDE GAS CO	MO	\$ 20.70	\$ 25.50
LIBERTY UTILITIES MO	MO	\$ 20.00	\$ 23.80
SOUTHERN UNION - MISSOURI GAS ENERGY	MO	\$ 27.87	\$ 40.74
THE EMPIRE DISTRICT GAS COMPANY	MO	\$ 16.50	\$ 25.00
ATMOS ENERGY CORPORATION MS	MS	\$ 6.95	\$ 11.27
CENTERPOINT ENTEX MS	MS	\$ 11.29	\$ 16.96

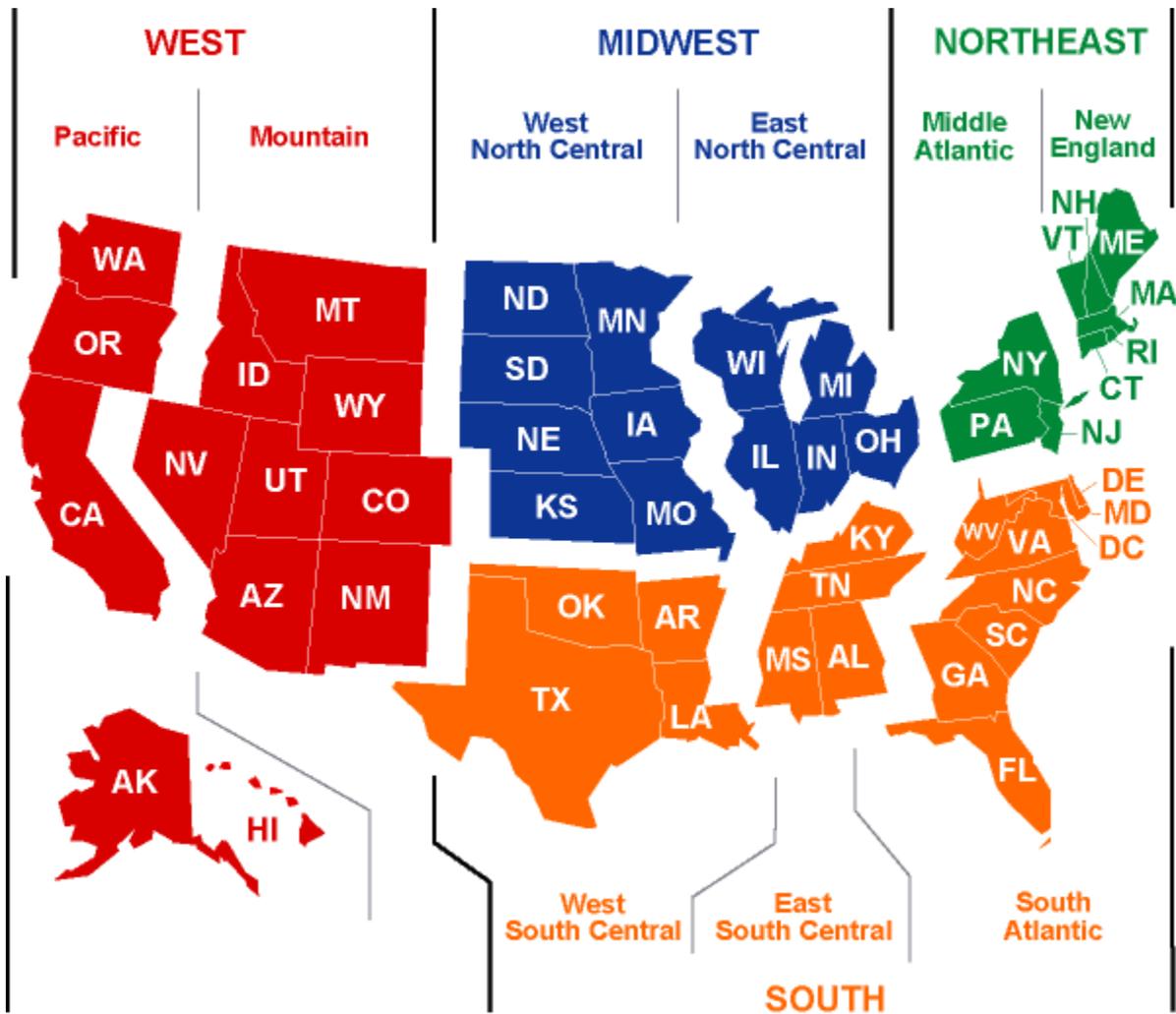
Appendix 1 - Continued			
<b>NATURAL GAS CUSTOMER CHARGE</b>			
<u>Company</u>	<u>State</u>	<u>Residential</u>	Small
			<u>Commercial</u>
MONTANA - DAKOTA UTILITIES CO MT	MT	\$ 6.90	\$ 12.00
NORTHWESTERN ENERGY LLC MT	MT	\$ 7.30	\$ 19.00
GREENVILLE UTILITIES COMMISSION	NC	\$ 8.00	\$ 22.00
PIEDMONT NATURAL GAS CO INC NC	NC	\$ 10.00	\$ 22.00
SCANA - PUBLIC SERVICE CO OF NORTH CAROLINA	NC	\$ 10.00	\$ 17.50
MONTANA - DAKOTA UTILITIES CO ND	ND	\$ 14.81	\$ 20.10
MONTANA - DAKOTA UTILITIES GREAT PLAINS ND	ND	\$ 3.50	\$ 3.50
XCEL - NORTHERN STATES POWER CO OF NORTH DAKOTA	ND	\$ 18.48	\$ 30.00
BLACK HILLS ENERGY - NE	NE	\$ 13.50	\$ 18.50
METROPOLITAN UTILITIES DISTRICT	NE	\$ 13.72	
MIDAMERICAN ENERGY COMPANY NE	NE	\$ 10.00	\$ 135.10
NORTHWESTERN ENERGY LLC NE	NE	\$ 8.00	\$ 9.00
SOURCEGAS LLC NE	NE	\$ 15.00	\$ 23.05
LIBERTY UTILITIES NH	NH	\$ 19.85	\$ 46.71
NATIONAL GRID - ENERGY NORTH NATURAL GAS INC	NH	\$ 8.00	\$ 11.00
UNITIL - NORTHERN UTILITIES, INC. (NH)	NH	\$ 20.01	\$ 63.18
AGL - ELIZABETHTOWN GAS CO	NJ	\$ 8.00	\$ 16.50
NEW JERSEY NATURAL GAS CO	NJ	\$ 8.25	\$ 25.00
PUBLIC SERVICE ELECTRIC & GAS CO	NJ	\$ 5.46	\$ 10.44
SOUTH JERSEY GAS CO	NJ	\$ 9.63	\$ 29.16
CONTINENTAL ENERGY - NEW MEXICO GAS	NM	\$ 11.50	\$ 20.00
NATURAL GAS PROCESSING - ZIA NATURAL GAS CO	NM	\$ 10.96	\$ 300.00
NV ENERGY	NV	\$ 14.00	\$ 18.00
SOUTHWEST GAS CORP NV	NV	\$ 10.80	\$ 25.80
CENTRAL HUDSON GAS & ELECTRIC CORP	NY	\$ 17.03	\$ 24.33
CONSOLIDATED EDISON - ORANGE & ROCKLAND UTILITY INC	NY	\$ 18.63	\$ 29.08
CONSOLIDATED EDISON CO OF NEW YORK	NY	\$ 18.60	\$ 30.45
CORNING NATURAL GAS CORP	NY	\$ 19.75	\$ 1,220.00
ENERGY EAST - NYSEG	NY	\$ 16.30	\$ 23.60
ENERGY EAST - ROCHESTER GAS & ELECTRIC	NY	\$ 16.30	
NATIONAL FUEL GAS DISTRIBUTION CORP - NEW YORK	NY	\$ 15.54	\$ 7.10
NATIONAL GRID - LONG ISLAND	NY	\$ 21.66	\$ 17.60
NATIONAL GRID - NIAGARA MOHAWK	NY	\$ 20.35	\$ 24.22
NATIONAL GRID - NY CITY	NY	\$ 45.06	\$ 76.91
ST LAWRENCE GAS CO INC	NY	\$ 15.00	\$ 25.00
VALLEY ENERGY, INC.	NY	\$ 7.62	\$ 7.62

Appendix 1 - Continued			
NATURAL GAS CUSTOMER CHARGE			
Company	State	Residential	Small
			Commercial
DOMINION EAST OHIO	OH	\$ 23.58	\$ 26.00
DUKE ENERGY OHIO	OH	\$ 33.03	\$ 91.64
NISOURCE - COLUMBIA GAS OF OHIO INC	OH	\$ 24.69	\$ 24.69
VECTREN ENERGY DELIVERY OF OHIO	OH	\$ 18.37	\$ 20.00
ARKANSAS OKLAHOMA GAS CORP - OK	OK	\$ 15.65	\$ 30.15
CENTERPOINT ARKLA OK	OK	\$ 13.24	\$ 43.59
ONEOK - OKLAHOMA NATURAL GAS CO	OK	\$ 14.73	\$ 30.28
AVISTA CORP - OR	OR	\$ 4.25	\$ 95.00
MONTANA - DAKOTA UTILITIES CASCADE OR	OR	\$ 3.00	\$ 3.00
NORTHWEST NATURAL GAS CO OR	OR	\$ 8.00	\$ 15.00
EQUITABLE RESOURCES PA	PA	\$ 13.25	\$ 17.00
NATIONAL FUEL GAS DISTRIBUTION CORP PA	PA	\$ 12.00	
NISOURCE - COLUMBIA GAS OF PENNSYLVANIA	PA	\$ 16.75	\$ 21.25
PECO ENERGY CO	PA	\$ 11.75	\$ 28.55
PEOPLES NATURAL GAS COMPANY	PA	\$ 13.95	\$ 14.88
PHILADELPHIA GAS WORKS	PA	\$ 12.00	\$ 18.00
UGI - CENTRAL PENN GAS, INC PA	PA	\$ 14.60	\$ 30.40
UGI - PENN NATURAL GAS PA	PA	\$ 2.19	\$ 2.80
UGI - UGI UTILITIES, INC PA	PA	\$ 8.55	\$ 8.55
NATIONAL GRID - RI	RI	\$ 13.00	\$ 22.00
GREENWOOD COMMISSION OF PUBLIC WORKS	SC	\$ 10.00	\$ 16.25
PIEDMONT NATURAL GAS CO INC SC	SC	\$ 17.45	\$ 44.00
SCANA - SOUTH CAROLINA ELECTRIC & GAS CO	SC	\$ 10.90	\$ 21.54
MIDAMERICAN ENERGY COMPANY SD	SD	\$ 8.87	\$ 304.94
MONTANA - DAKOTA UTILITIES CO SD	SD	\$ 8.40	\$ 10.50
NORTHWESTERN ENERGY LLC SD	SD	\$ 8.00	\$ 10.00
AGL - CHATTANOOGA GAS CO	TN	13/16	25/29
ATMOS ENERGY CORPORATION TN	TN	\$ 15.40	\$ 13.85
KNOXVILLE UTILITIES BOARD	TN	\$ 6.65	\$ 13.00
MEMPHIS LIGHT GAS & WATER DIVISION	TN	\$ 10.00	
MIDDLE TENNESSEE NATURAL GAS UTIL DIST	TN	\$ 7.00	\$ 16.00
PIEDMONT NATURAL GAS CO INC TN	TN	\$ 17.45	\$ 44.00
ATMOS ENERGY CORPORATION TX	TX	\$ 18.20	\$ 38.50
CENTERPOINT ENTEX TX	TX	\$ 15.29	\$ 17.24
CORPUS CHRISTI, CITY OF - GAS DIV	TX	\$ 11.44	\$ 26.30
COSERV GAS, LTD	TX	\$ 7.00	\$ 13.30
QUESTAR GAS COMPANY UT	UT	\$ 6.75	\$ 18.25

Appendix 1 - Continued			
<b>NATURAL GAS CUSTOMER CHARGE</b>			
<u>Company</u>	<u>State</u>	Small	
		<u>Residential</u>	<u>Commercial</u>
AGL - VIRGINIA NATURAL GAS	VA	\$ 11.00	\$ 14.10
ATMOS ENERGY CORPORATION VA	VA	\$ 10.98	\$ 22.00
CHARLOTTESVILLE, CITY OF	VA	\$ 10.00	\$ 10.00
NISOURCE - COLUMBIA GAS OF VIRGINIA INC	VA	\$ 18.00	\$ 22.00
RICHMOND, CITY OF	VA	\$ 11.70	\$ 13.83
SOUTHWESTERN VIRGINIA GAS CO	VA	\$ 9.55	\$ 12.75
WASHINGTON GAS LIGHT CO VA	VA	\$ 11.25	\$ 20.45
VERMONT GAS SYSTEMS INC	VT	\$ 19.80	\$ 32.82
AVISTA CORP - WA	WA	\$ 9.00	\$ 87.40
MONTANA - DAKOTA UTILITIES CASCADE WA	WA	\$ 4.00	\$ 10.00
NORTHWEST NATURAL GAS CO WA	WA	\$ 7.00	\$ 15.00
PUGET SOUND ENERGY	WA	\$ 10.29	\$ 33.42
ALLETE - SUPERIOR WATER LIGHT & POWER CO	WI	\$ 7.25	\$ 15.00
ALLIANT - WISCONSIN POWER & LIGHT CO	WI	\$ 1.51	
CITY GAS CO	WI	\$ 8.50	\$ 12.75
INTEGRYS - WISCONSIN PUBLIC SERVICE CORP WI	WI	\$ 17.00	\$ 30.00
MADISON GAS & ELECTRIC CO	WI	\$ 21.60	\$ 24.00
WE ENERGIES	WI	\$ 9.90	\$ 25.50
WISCONSIN GAS CO	WI	\$ 9.90	\$ 25.50
XCEL - NORTHERN STATES POWER CO OF WISCONSIN	WI	\$ 10.25	\$ 20.00
DOMINION HOPE	WV	\$ 8.99	\$ 17.97
EQUITABLE RESOURCES - Peoples WV	WV	\$ 8.50	\$ 12.50
MOUNTAINEER GAS CO	WV	\$ 10.10	\$ 31.75
MONTANA - DAKOTA UTILITIES CO WY	WY	\$ 12.00	\$ 27.00
QUESTAR GAS COMPANY WY	WY	\$ 11.00	\$ 32.50
SOURCEGAS LLC WY	WY	\$ 15.00	\$ 70.00

Source: Spring 2015 Internet Search of Natural Gas Utility Tariffs

## APPENDIX 2 U.S. CENSUS REGIONS



Source: U.S. Dept. of Energy [http://www.eia.doe.gov/emeu/cbecs/census\\_maps.html](http://www.eia.doe.gov/emeu/cbecs/census_maps.html)