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# AGA <br> American Gas Association <br> Energy Analysis 

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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. ${ }^{1}$ 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

[^0]serve", even if the customer does not use any gas for that billing period. ${ }^{2}$ 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. ${ }^{3}$ 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

[^1]1). Residential (excluding master metered apartments) and small commercial ${ }^{4}$ 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 $\$ 304.94^{5}$.

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. ${ }^{6}$

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 | $\$ 1.95$ | $\$ 14.90$ |  |

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.;

[^2]- 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. ${ }^{7}$

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 | $16 \%$ |

[^3]
## 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

|  | 2010 |  | 2015 |  |
| :---: | :---: | :---: | :---: | :---: |
| Census Region | 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 - Continued
NATURAL GAS CUSTOMER CHARGE

| NATURAL GAS CUSTOMER CHARGE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Company | State | Residential |  | Small |  |
|  |  |  |  | Commercial |  |
| THE GAS COMPANY | HI | \$ | 8.50 | \$ | 62.00 |
| ALLIANT - INTERSTATE P\&LIA | 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
NATURAL GAS CUSTOMER CHARGE




| Appendix 1 - Continued |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NATURAL GAS CUSTOMER CHARGE |  |  |  |  |  |
|  |  |  |  |  | all |
| Company | State |  | ential |  | ercial |
| 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


[^0]:    ${ }^{1}$ 2011-2013 Performance Benchmarks for Natural Gas Utilities, American Gas Association, January 31, 2015

[^1]:    ${ }^{2}$ Gas Rate Fundamentals, American Gas Association, 1987
    ${ }^{3}$ Natural Gas Utility Rate Structure: The Customer Charge Component - 2010 Update American Gas Association April 9, 2010.

[^2]:    ${ }^{4}$ For tariffs with more than one commercial category, the lowest level of consumption was selected.
    ${ }^{5}$ One tariff had a commercial customer charge in excess of $\$ 1,000$, which was not included in the sample
    ${ }^{6}$ Based on a total bill of $\$ 718$ per customer calculated from Gas Facts 2013 Data

[^3]:    ${ }^{7}$ Median charge of $\$ 11.25 /$ month divided by 0.46 (portion of fixed costs recovered)

