WHAT AM I PAYING FOR IN MY NATURAL GAS BILL?

I. Overview

When a residential customer gets their natural gas bill, they tend to focus on the total cost of the bill and may not realize that the utility retains only a fraction of the payment as income. In fact, over half of the bill for the typical residential customer goes toward 1) the purchase of gas from a producer or marketer and 2) the delivery of gas to the utility by an inter- or intrastate pipeline. The utility then incurs operational costs to get that gas to the customer, including delivery expenses, measuring the amount of gas consumed, and sending out the bill. There are also other business expenses, such as taxes, past due bills, costs associated with the plant (primarily pipelines) and equipment. By the time the utility pays its bills and employees, about a nickel of every dollar paid by the residential customer remains. That net income is used to compensate investors and to reinvest in utility pipelines and other facilities. (See Figure 1.) This net income, or profit, is regulated by government commissions and on average is less than what the utility pays in taxes.

II. Cost Components of the Natural Gas Bill

Costs to Obtain Natural Gas

The largest expense of the residential gas bill is the cost of purchasing that gas. Known as the “wellhead cost of gas” - the cost of gas as it comes from the well excluding cleaning, compression, transportation, and distribution charges - in 2010 this cost accounted for more than one-third of the bill. In periods of relatively high prices, such as in early 2008, the wellhead component has been up to two-thirds of the total bill. Due to a very favorable current and anticipated long-term gas supply environment, the wellhead component has decreased.

Utilities strive to obtain this gas at reasonable costs and seek to minimize price volatility through physical and financial hedging. However, the marketplace determines the ultimate cost, as this wellhead price is not under regulatory constraints. This price has declined in recent years, and those savings have been passed down to the consumer. Natural gas utilities, by

1 American Gas Association, Natural Gas Glossary www.ag.org
law, do not mark up the cost of gas. Rather, the utilities charge the customer the same price the utility incurred and this amount is paid in its entirety to the natural gas producer or marketer. Utilities derive income from the regulatory-approved return on the plant and equipment.

The second-largest component is the cost of processing the wellhead gas and getting that gas delivered to the utility. (See Figure 2.) In 2010, those expenses accounted for about 18 percent of a residential customer’s bill. Natural gas is transported from the wellhead to the processing plant – a plant in which liquefiable hydrocarbons, such as propane, butane, ethane, or natural gasoline, which are initially components of the gas stream, are extracted or removed. Once processed, the gas is transported to the transfer point of the pipeline system and the utility, known as the city gate. As with the purchase price of natural gas at the wellhead, the utility has no control on the processing and transportation costs. The cost of purchasing and processing the gas, combined with the cost for transporting the gas to the utility, is known as the city gate cost of gas. The city gate cost of gas accounted for more than half of the typical residential customer’s bill in 2010.

Figure 1
Where Does Your Natural Gas Utility Payment Go?
(2010 Costs)

<table>
<thead>
<tr>
<th>Cost To Purchase Natural Gas, 37.2%</th>
<th>Depreciation &amp; Amortization, 5.7%</th>
<th>Other Taxes, 2.8%</th>
<th>Administrative &amp; General, 7.7%</th>
<th>Other, 4.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Sector Costs</td>
<td></td>
<td>Transportation of Natural Gas to the Utility, 17.9%</td>
<td>State &amp; Local Taxes, 4.3%</td>
<td>Customer Accounts &amp; Service, 3.4%</td>
</tr>
<tr>
<td>Sources: Energy Information Administration</td>
<td>SNL Financial LC</td>
<td>Distribution, 6.6%</td>
<td>Net Interest, 3.3%</td>
<td>Net Income, 4.9%</td>
</tr>
</tbody>
</table>

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Utility Operational Costs

Once the gas arrives at the city gate, the local gas utility reduces the pressure of the gas (pipeline gas is under high pressure to propel the gas through miles and miles of pipe), adds an odor to the gas for safety (natural gas in its original form is odorless), and transports the gas to the customer. These distribution activities comprise 6.6 percent of a typical residential customer’s bill.
Utility Service and Business Costs

Serving the utility customer includes measuring their gas use, billing those customers, and accounting for bills that go unpaid. The customer accounts and services portion of the residential bill is 3.4 percent, while the cost of unpaid bills, known as bad debt, is two percent. The basic business functions, such as employee costs, office equipment, fleets, and rents are known as administrative and general costs, and make up 7.7 percent of the bill.

Utility Financial Costs and Taxes

Gas utilities install the materials that deliver gas to the customer – pipes, compressors, meters, and services. These incur significant costs, and utilities, just like any other business, are allowed to recover those costs over time through depreciation charges. Other types of property are amortized, either written off or paid for over time. These depreciation and amortization costs accounted for 5.7 percent of a customer’s bill in 2010.

One way gas utilities raise the money needed to purchase that equipment is by borrowing through bonds. The utilities must pay interest to the bondholders on a regular basis. Net interest costs (payments adjusted for any discounts or premiums) made up 3.3% of the typical residential customer’s bill in 2010.

Investor-owned utilities, as opposed to municipal/government owned operations, are structured to make a profit set by a government regulator, and thus their income and assets are taxable. While these taxes are not always itemized on a customer’s bill, when summed they average 7.1 percent of that bill. Most of the tax liabilities are state and local taxes (excluding income taxes), and make up 4.3% of the bill. The types of state and local taxes paid by investor-owned utilities include:

- Property, ad valorem, etc. – taxes on physical assets and real estate, typically the highest state and local tax paid by utilities.
- Franchise – a privilege tax imposed on utilities for doing business in that jurisdiction.
- Gross receipts – a tax on the total gas utility’s revenues.

These investor-owned utilities also pay federal (and where applicable) state income taxes, payroll taxes and other miscellaneous taxes. These taxes are adjusted for deferred taxes and investment tax credits. Combined, these income and other taxes were 2.8 percent of the typical residential gas bill.

Other Utility Expenses

A number of other utility expenses, such as storage costs, sales, accretion expense (e.g., the amortization of bond discounts), gains/losses from disposition of utility plant, extraordinary items, etc., also are incurred during utility operations. For 2010, these items accounted for 4.2 percent of the residential bill.
Net Income

The remaining revenue after all expenses are deducted is known as net income, which in 2010 represented 4.9 percent of the residential customer’s bill. For investor-owned companies most of these funds - on average about 60 percent - are returned to stockholders in the form of dividends. These dividend payments help attract investors to purchase utility stock, as regulators limit the profits utilities can make. The remaining portion of net income is used either to fund utility investments or are retained by the company for future use.

III. Historical Components of the Natural Gas Bill

The largest portion of the residential bill is also the most volatile. The city gate price of natural gas (wellhead costs plus transport costs) has ranged from being 66.1 percent of the 2008 bill to 55.1 percent in 2010. As these costs have declined, the other costs automatically increased in proportion. However, most of the cost components did not radically change over the study period. The “other” category is an exception, influenced by extraordinary items not normally incurred in utility operations. The net income portion averaged below five percent over the three year period. On average, utilities paid more in taxes than made in profits.

Table 1

<table>
<thead>
<tr>
<th>Historical Components of the Typical Residential Natural Gas Bill</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellhead Cost Of Gas</td>
<td>57.4%</td>
<td>32.8%</td>
<td>37.2%</td>
</tr>
<tr>
<td>Transport to Utility</td>
<td>8.7%</td>
<td>24.9%</td>
<td>17.9%</td>
</tr>
<tr>
<td>Depreciation &amp; Amortization</td>
<td>4.7%</td>
<td>5.9%</td>
<td>5.7%</td>
</tr>
<tr>
<td>State &amp; Local Taxes</td>
<td>4.0%</td>
<td>4.9%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Other Taxes</td>
<td>2.2%</td>
<td>3.2%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Transmission &amp; Distribution</td>
<td>5.2%</td>
<td>7.4%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Bad Debt</td>
<td>2.0%</td>
<td>2.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Customer Accounts &amp; Service</td>
<td>2.6%</td>
<td>3.9%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Administrative &amp; General</td>
<td>5.9%</td>
<td>8.6%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Net Interest</td>
<td>2.7%</td>
<td>3.7%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Other</td>
<td>0.4%</td>
<td>3.1%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Net Income</td>
<td>4.2%</td>
<td>5.6%</td>
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</tr>
</tbody>
</table>

Sources: Calculated from Energy Information Administration and SNL Energy data
IV. Methodology

• The wellhead cost of gas portion of the bill was calculated by dividing the wellhead cost of gas by the average residential bill for bundled (sales) customers as reported by EIA.³

• The transportation cost of that gas to the city gate was determined by subtracting the wellhead price from the city gate price, and that result was divided by the average residential bill for bundled (sales) customers as reported by EIA.

• The utility’s expenses portion of the bill were calculated by dividing those total costs for each expense by total operating revenues net of gas acquisition costs for a sample of 92 gas utilities (utilities that deliver both natural gas and electricity were excluded).⁴

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³ Energy Information Administration www.eia.doe.gov
⁴ SNL Energy, www.snl.com