EXHIBIT NO. ___(DEM-11)
DOCKET NO. UE-06___/UG-06___
2006 PSE GENERAL RATE CASE
WITNESS: DAVID E. MILLS

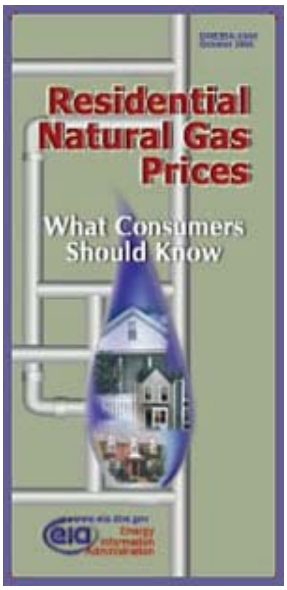
BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.,** **Respondent.**	**Docket No. UE-06____** **Docket No. UG-06____**

TENTH EXHIBIT (NONCONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF DAVID E. MILLS ON BEHALF OF PUGET SOUND ENERGY, INC.

FEBRUARY 15, 2006

Energy Infromation Administration Brochures



Residential Natural Gas Prices: What Consumers Should Know

Introduction

Typically, residential natural gas consumers have some basic questions as the winter approaches: How much will natural gas cost and will enough be available this winter heating season? The answers to these questions ultimately depend on ever-changing conditions in national and local markets for natural gas. Since the latter part of 2002, market conditions have fostered an upward trend in natural gas prices. The Energy Information Administration (EIA) expects that these generally higher prices will continue through this winter.

According to its Short-Term Energy Outlook (October 2005), assuming normal winter weather (and no catastrophic disruptions of supply), EIA expects that supplies of natural gas should be sufficient to satisfy all residential consumers' needs (although there is always the possibility of isolated shortages due to unusual regional or local conditions). EIA estimates that the representative average residential price of natural gas will be more than 43 percent higher than last winter, while consumption is projected to be almost 3 percent higher this winter. As a result, EIA expects that the total amount spent for gas consumed by the representative residential customer during this winter (October 2005-March 2006) will be about 48 percent greater than last winter.

To understand the current high-price environment for natural gas, it is helpful to know some basics about the commodity itself and the marketplace.

Where Does Your Natural Gas Come From?

Most of the natural gas used in the United States comes from domestic gas production. The remainder comes from imports, primarily from Canada. Domestic gas production and imported gas are usually more than enough to satisfy customer needs during the summer, allowing a portion of supplies to be placed into storage facilities for withdrawal in the winter, when the additional requirements for space heating cause total demand to exceed production and import capabilities.

Natural gas is injected into pipelines every day and transported to millions of consumers all over the country. Much of it travels long distances from production areas to population centers through interstate pipelines owned and operated by pipeline companies.

Natural gas is generally delivered to residential customers and other end-use consumers through the complex network of pipes owned and operated by local distribution companies (LDCs).

What Are Residential Customers Paying For in Their Natural Gas Bills?

The price of natural gas consists of two main parts (all cost estimates include a number of taxes):

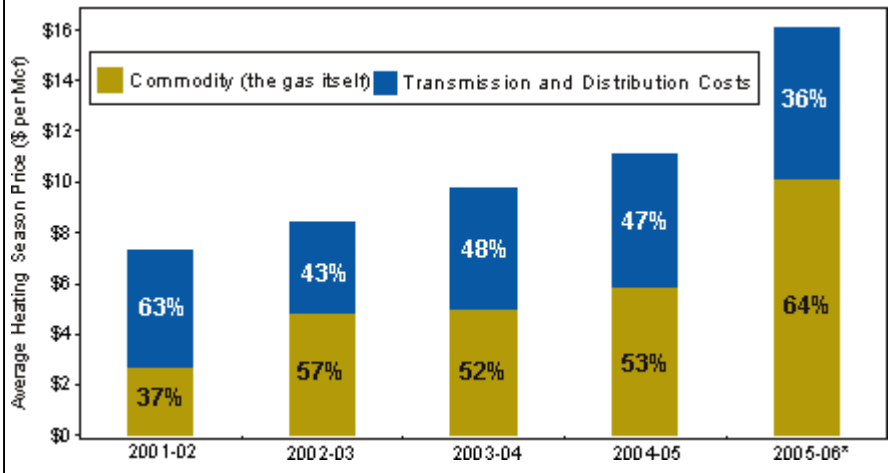
Transmission and distribution costs --to move the gas by pipeline from where it is produced to the customer's local gas company, and to bring the gas from the local gas company to your house.

Commodity costs-- the cost of the gas itself.

In the past three winters (2002-2003, 2003-2004, and last winter) the cost of natural gas at the wellhead (commodity cost) has comprised more than 50 percent of the residential price, and this trend is expected to

continue through the next winter (Figure 1).

Figure 1. Breakdown of Natural Gas Price Paid by Residential Consumers During the Heating Season



Mcf = Thousand cubic feet.
Source: Energy Information Administration, Natural Gas Monthly, September 2005.
*Energy Information Administration projections: Short Term Energ Outlook (October 2005).

This has been the result of unusually high prices for the natural gas commodity during these winters, driven by similar market conditions that included weak natural gas production response despite increased drilling levels, colder-than-normal weather for a number of consecutive weeks during each heating season, decreasing net imports at times, and record high crude oil prices.

Factors That Affect Current Natural Gas Prices

There are a number of underlying factors that have prevailed for most of 2005 that have affected prices. Depending on the factor, each has applied either upward (⬆) or downward (⬇)pressure on prices. These factors include:

⬆ **Weak production** – Production decreased by 0.6 percent in 2004, declining below the 2002 level, and reaching the lowest production level since 1999. The industry in 2004 drilled a record number of gas wells for a single year, and in the summer of 2005 rigs drilling for gas hit a record level, which indicates the number of gas well completions will be even higher this year. However, production has not increased proportionally or much at all. Production in 2005 is weak and is expected to be about 3 percent lower than the 2004 production level, despite an expected 16 percent increase in natural gas well completions in 2005.

⬇ **Rising net imports** – Net imports increased by almost 3 percent in 2004, however they did not increase enough to offset the decreases since 2001, leaving net imports almost 6 percent below the 2001 level. In 2004, both pipeline and liquefied natural gas (LNG) imports expanded, as capacity was added to existing pipelines and all four of the existing LNG terminals in the Lower 48 States were actively receiving imports. However, the increased imports were partially offset by growing exports. Current trends suggest net imports will expand by less than 1 percent in 2005.

⬆ **High Demand** – Natural gas demand has remained strong in 2005, owing to the continued strong performance of the economy. Additionally, unusually high temperatures prevailing across the country this summer have increased the need for home cooling, which adds to natural gas demand used by electric power generators.

⬆ **High Oil Prices** – Some large-volume customers (primarily industrial consumers and electricity generators) can switch between natural gas and other fuels, such as petroleum products, depending on the prices of each. As a result of this interrelation between fuel markets, when oil prices rise, the competitive pressure to maintain low gas prices diminishes, and the shift in demand to natural gas drives prices upward. Crude oil prices have increased to as much as $69.91 per barrel in trading during August 2005.

⬇ **Adequate inventories** – Underground storage facilities, as of October 4, 2005, held working gas stocks of 3,062 billion cubic feet (Bcf), 53 Bcf above the 5-year average of 3,009 Bcf. This left natural gas inventory levels in early October 2005 at 1.8 percent above the 5-year average level. However, the natural gas inventories in underground storage facilities are about 5 percent lower than last year at this time. The natural gas inventories are expected to track above normal levels through the rest of 2005 as long as weather conditions remain close to normal. Although storage levels are above recent historical norms, the relatively low injections during most of the summer have raised concerns about storage availability in the coming heating season.

⬆ Hurricane Activity – In August and September 2005, Hurricanes Katrina and Rita caused major service

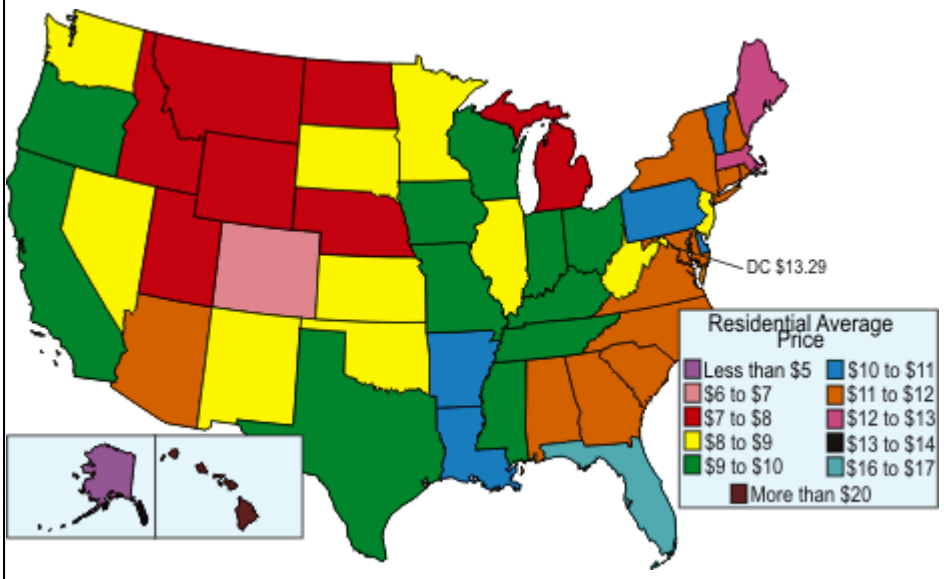
disruptions and production shut-ins, resulting in record high prices of natural gas. The recent hurricane activity contributed to an already tight market, as power generation owing to warmer-than-normal summer weather already had resulted in upward price pressure in the markets.

Other factors contributing to continued high natural gas prices in 2005 include the expectation that Pacific Northwest hydroelectric resources will be below normal through the rest of the year, and recent difficulties in maintaining rail shipments of coal to electric power generators.

Average Natural Gas Prices in the United States

Since 1999, residential natural gas prices in the United States have exhibited an overall increasing trend. The 2004 national average residential price of $10.74 per thousand cubic feet (Mcf) exceeded the 1999 average price by more than $4 per Mcf. Although residential natural gas prices decreased by $1.74 per Mcf between 2001 and 2002, they were still $1.20, or almost 18 percent higher than in 1999. The national average price of natural gas is only part of the story as the prices in individual States can differ greatly. These differences are often related to a market's proximity to the producing areas, the number of pipelines in the State, and the transportation charges associated with them, as well as State regulations and degree of competition. For example, based on 2003 data, the residential consumers along the Atlantic Coast tend to pay the most, with prices averaging $11 per Mcf or more (Figure 2). In contrast, States in the middle of the country benefit from either indigenous production or the presence of major trunk lines traversing the State. The availability of relatively abundant supplies results in prices less than $10 per Mcf.

Figure 2. U.S. Residential Natural Gas Prices by State, 2003 (Dollars per Mcf)



Source: Energy Information Administration, Natural Gas Monthly Administration , September 2005.

How Much Will Natural Gas Cost This Winter?

Each year, EIA projects the average price, consumption, and total cost of natural gas during the upcoming winter for a household in the Midwest. (The Midwest is used because over 70 percent of its 29.9 million households heat their homes with natural gas–the highest concentration of any region.) For the heating season of $1.55 per therm (1 therm=100,000 Btu, which is the heat content of about 100 cubic feet of gas), or about $15.95 per Mcf, for natural gas this winter (Table 1).

Assuming a return to normal temperatures, this winter will be colder than last winter. This should result in increased gas use by almost 3 percent for the representative Midwest residential gas customer. This increased gas use, coupled with the projected price increase of more than 43 percent, would result in an increase of about 48 percent in total expenditures for gas by the representative household (Figure 3).

Any forecast is uncertain, and changes to key factors could alter the forecast significantly. Key factors that may affect market prices and consumption regardless of region include:

A prolonged cold spell or even a brief episode of severe winter weather would increase per-household use of gas and total demand in the high-consumption winter months.

Disruptions of the pipeline or LNG delivery systems would affect deliverability of natural gas.

Problems in other energy supplies, such as a prolonged outage of a nuclear or coal-fired power plant, could

increase use of gas- fi red generators, thus increasing gas demand

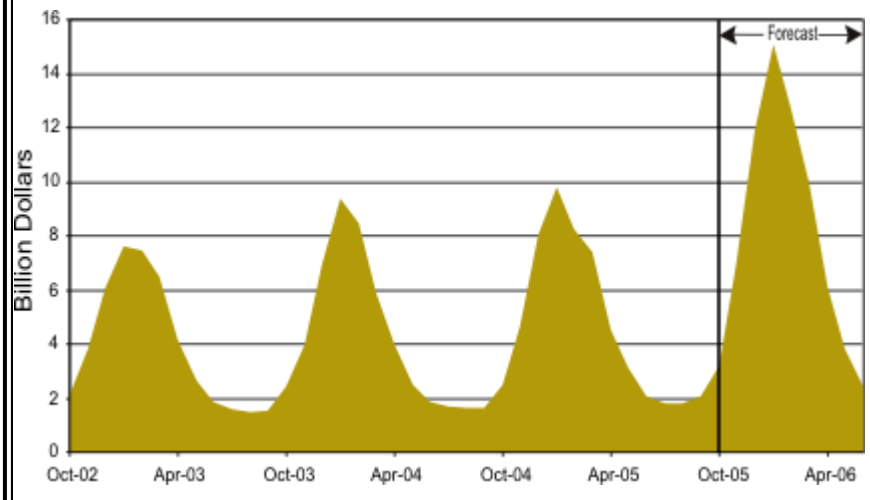
Table 1: Average Midwest Household Heating With Natural Gas

Heating Season (October - March)

	2002-2003	2003-2004	2004-2005	2005-2006*
Volumes Consumed				
(Therms)	978.4	918.6	687.7	708.3
(Mcf)	94.9	89.1	66.7	68.7
Residential Price				
(Dollars per therm)	$0.81	$0.95	$1.05	$1.55
(Dollars per Mcf)	$8.40	$9.77	$11.13	$15.95
Total Cost per Household for the Heating Season	$797	$870	$742	$1,096

*=Projection Mcf = Thousand cubic feet. 1 Mcf=10.31 therms. (Based on the national average gas heat content for gas consumed by other than electric utilities in 2003.
Source: Energy Information Administration, Natural Gas Annual 2003, (December 2004), Table B2.).
Source: Data and projection: Energy Information Administration, Short-Term Energy Outlook (October 2005).

Figure 3. Total U.S. Residential Natural Gas Expenditures



Source: Energy Information Administration, derived from data in the Natural Gas Monthly, September 2005.

Although increased commodity prices are passed along to consumers, residential households enjoy some protection from sudden, severe price fluctuations. This is partially because residential bills do not reflect daily market prices but rather the overall cost of an LDC's supply of gas, which depends on the LDC's usually diverse portfolio of supply sources and prices. This translates to a price to the consumer that is much more stable than the often highly variable daily "spot" prices. Also, transmission and distribution services make up a large fraction of residential bills. Further, residential customers have a number of steps they can take to mitigate the impact of commodity price changes.

What Can Residential Customers Do?

To cope with or reduce their gas bills, residential customers can:

- Shop for lower-priced gas, if their state sanctions customerchoice programs. (For information on the status of natural gas residential choice programs in each state, go to:http://www.eia.doe.gov/oil_gas/natural_gas/restructure/restructure.html
- Participate in their local gas company's yearly budget plan to spread gas costs evenly throughout the year, thereby lessening the impact of higher prices
- Obtain a home energy audit to identify ways to conserve energy
- Reduce thermostat settings, especially when they are not at home.

In addition, both Federal and State energy assistance programs are available to natural gas customers who have a limited budget. For example, the Low Income Home Energy Assistance Program (LIHEAP) is a Federal program that distributes funds to States to help low-income households pay heating bills. Additional State energy assistance and fuel fund programs may be available to help households pay energy bills during a winter emergency. To find out if you qualify for assistance in your State, contact your State public utility commission or your local gas company.

For More Information . . .
For the latest update on natural gas demand, prices, and inventories, see our Natural Gas Weekly Update on the EIA web site at: http://tonto.eia.doe.gov/oog/info/ngw/ngupdate.asp
and the Weekly Natural Gas Storage Report at: http://tonto.eia.doe.gov/oog/info/ngs/ngs.html

The Energy Information Administration is an independent atatistical agency within the U.S. Department of Energy whose sole purpose is to provide reliable and unbiased energy infromation. For further information, contact:

National Energy Information Center
Washington, DC 20585
Telephone: 202.586.8800
E-Mail: infoctr@eia.doe.gov
&
EIA's Web site at:
www.eia.doe.gov