



Energy Edge

A NEWSLETTER FOR MEMPHIS LIGHT, GAS AND WATER DIVISION COMMERCIAL CUSTOMERS

FEBRUARY 2006

TN Dept of Economic & Community Development offers energy loans for small- to mid-size businesses

Tennessee businesses with fewer than 300 employees or less than \$3.5 million in annual gross sales or receipts are eligible for the Small Business Energy Loan Program. Offered through the Energy Division of the Tennessee Department of Economic and Community Development (TECD), the program enables small- and moderate-size businesses to fund energy efficiency improvements in their buildings, plant and manufacturing processes.

The Energy Division offers free audits to identify potential sources of energy efficiency improvements, technical assistance and low-interest loans. The loan term is equal to the energy savings payback period, up to seven years. Current interest rate is 3.0%. For information, call the TECD Energy Office at 800-342-1340.

TVA explores electric rate increase in early 2006

TVA has announced that it will likely implement an electric rate increase this spring to offset higher generation costs. The federal power generator has begun discussions with MLGW and its 157 other electric distributors.

At this time, it is unknown when the rate increase would take effect or how much rates would rise. The increase could come in the form of an across-the-board hike or a fuel adjustment charge, much like MLGW's purchased gas adjustment (PGA) for natural gas users. Fuel adjustment charges have been common among the nation's investor-owned utilities for many years.

Like natural gas users across the nation, TVA has experienced an increase in natural gas costs for its gas-fired generation facilities. In addition, the electric generator cited increased costs for purchased power and coal, which is used at fossil fuel plants, including the Allen Steam Plant in Memphis. TVA cites these

Purchased Gas Adjustment (PGA)

Rate	Consumption	Demand
G-1 residential	\$0.6117	na
G-7	\$0.6055	na
G-8 / G-9	\$0.6442	(\$0.0805)
G-10 / G-12	\$0.6578	na

Adjustment in \$/Ccf to published rates for bills rendered on or after 1/26/06.

Interesting Webs....



TN Energy Division, Business Energy Loan Program:

http://www.state.tn.us/ecd/energy_loans.htm

US Dept of Interior, Minerals Mgmt Service, Hurricane impact analysis

<http://www.mms.gov/ooc/press/2006/press0119.htm>



Important Contact Information:

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increased operating costs as justification for the rate increase.

This would be the second TVA rate increase during the federal agency's 2006 fiscal year, which ends September 30. Under terms of MLGW's power distributor contract, TVA rate increases are automatically passed through to end-use customers and do not require approval by the Memphis City Council. The only authorizing board involved in the rate decision is TVA's Board of Directors, which was recently expanded from a three-member, full-time board to a nine-member, part-time board. MLGW will share information as TVA releases details.

Internet tools help ID energy waste, improve operating efficiency

Offering energy information you need, when you need it, is our goal. To meet this challenge, MLGW has refined its online resources to include more streamlined, interactive tools. (Go to www.mlgw.com, select **Commercial & Industrial**, then click on **Energy-Saving Tools** to see the list of resources which are summarized here.)

- **Business Energy Advisor** has been redesigned to provide easier access to the information you seek. It features three subsections—Commercial Energy Advisor, O&M Advisor and Purchasing Advisor—described below.
 - **Commercial Energy Advisor** provides detailed information on energy consumption for Offices, Hotels and Motels, Hospitals, Restaurants, Retail Businesses, Supermarkets and Schools. Text features advice on low- and no-cost steps you can take immediately to make your facilities operate more efficiently and reliably, as well as recommendations for upgrading to more efficient equipment to improve building performance over the long run. This information is beneficial for new employees, as well as more experienced staff.
 - **O&M Advisor** gives you highly detailed information about the steps you can take to improve the performance and energy efficiency of your equipment and facility.
 - **Purchasing Advisor** is an extensive online library of energy-related technology buyer's guides and management tips. Each guide offers a concise summary of the key facts about a given technology and its optimal application. Sections explain the importance of each technology in the context of overall energy management, review the available options, and offer an unbiased recommendation for the technology's use in a variety of commercial settings. Content may be printed and shared with other decision makers.
- **Business eValuation** enables small and mid-sized businesses to analyze their facility's energy use and identify energy efficiency improvements. The database is built around MLGW's E-2 rate (for customers with monthly consumption of less than 15,000 kWh and no electric demand) and the G-7 gas rate. If your business or organization is on a different rate, cost information will vary but the recommendations—which are based on your responses—will be valid.
- **Business Energy Library** offers details on heating, cooling, weatherization, lighting, food storage & cooking, water heating & laundry, light industrial uses and Energy Star qualifications. The library provides easy to navigate, straight-forward information that can be printed or forwarded to other decision makers.

Analysis reveals hurricanes' unprecedented impact on oil, gas supply

Minerals Management Service (MMS), an agency of the U.S. Department of the Interior, estimates that 3,050 of the Gulf's 4,000 platforms and 22,000 of the 33,000 miles of Gulf pipelines were in the direct path

of either Hurricane Katrina or Hurricane Rita. Because of the large amount of infrastructure in the path of hurricane force winds and waves, the amount of damage was substantial. In comparison with Hurricane Ivan, Hurricanes Katrina and Rita accounted for considerably more damage because of the paths taken by these two devastating storms. However, there was no loss of life or significant oil spills from wells on the outer continental shelf (OCS) attributed to either storm.

Hurricane Katrina, which was a category 5 hurricane when it entered the OCS, destroyed 46 platforms and damaged 20 others. To date, 100 damaged pipelines and 211 minor pollution incidents on the OCS have been reported to MMS. Minor pollution incidents are defined as incidents involving less than 500 barrels of oil that do not reach the coast line. Included in the 100 damaged pipelines in Federal waters were 36 large diameter pipelines (10" or larger) that were damaged. Twelve of these 36 have returned to service.

Hurricane Rita, which was a category 4 hurricane when it entered the OCS, destroyed 69 platforms and damaged 32 others. To date, 83 damaged pipelines and 207 minor pollution incidents on the OCS have been reported to MMS. Included in the 83 damaged pipelines in Federal waters were 28 large diameter pipelines (10" or larger) that were damaged. Ten of these 28 have returned to service.

"The overall damage caused by Hurricanes Katrina and Rita has shown them to be the greatest natural disasters to oil and gas development in the history of the Gulf of Mexico," according to the federal agency's report.

"The overall damage caused by Hurricanes Katrina and Rita has shown them to be the greatest natural disasters to oil and gas development in the history of the Gulf of Mexico," MMS Regional Director Chris Oynes said. He noted, "Just last year (2004), in the devastating Hurricane Ivan, there were seven platforms destroyed, compared with the 115 platforms destroyed in Katrina and Rita."

One hundred percent of Gulf oil production, which is approximately 1.5 million barrels a day, was shut-in during both storms and 94 percent of gas production, which is 10 billion cubic feet of gas a day, was shut-in during Hurricane Katrina. More than 90 percent of the manned platforms and 85 percent of working rigs were evacuated at one time. Daily production of about 396,000 barrels of oil and about 1,804 cubic feet of gas remain shut-in. For a long-term projection, approximately 255,000 barrels a day and 400 million cubic feet of gas a day will probably not be restored to production prior the start of the 2006 hurricane season.

Natural gas prices still high, but trending down

Customers urged to use conservation, efficiency improvements to minimize impact on utility costs

Milder than normal temperatures and steadily increasing natural gas production in the Gulf Coast are having a positive impact on natural gas prices, although federal and local energy officials warn that costs will still be higher than last winter. These seemingly conflicting statements have caused confusion and frustration for utility customers across the nation who are grasping to understand why bills are so much higher this winter.

Market Deregulation and Natural Gas Rates

Confusion stems from the gas purchasing process and changes that have occurred in the last 15 years as the industry deregulated. A brief history lesson is necessary to show the evolution from federally-regulated prices to market-driven prices. In 1990, the New York Mercantile Exchange (NYMEX) began trading natural gas contracts, tracking prices for future deliveries of fuel. Following a few years of early hedging on the exchange, MLGW became the first local distribution company approved to trade on NYMEX. In

1993, full industry deregulation occurred—separating the functions and fees of natural gas suppliers and natural gas transportation companies (pipelines). Instead of government-controlled pricing for natural gas, prices were now determined by market factors including supply, demand, weather and profit. In 1993, the Memphis City Council authorized MLGW to institute the Purchased Gas Adjustment (PGA), a per-unit-of-consumption fee that varies each month to reflect the difference between the cost built into MLGW’s base rate and what MLGW paid suppliers to buy gas for that billing period. For the first several years, PGA fees were credits, actually reducing customers’ gas costs. As the market evolved and natural gas prices rose, the monthly PGA began increasing too. When MLGW raised its base rate for natural gas in January 2005, reflecting a shift in historic average wholesale prices from \$2.10 to \$4.25 per million British thermal units (MMBtu), it was anticipated that PGA fees would decrease—but recent market activity and record high prices of more than triple the base rate have prevented downward movement.

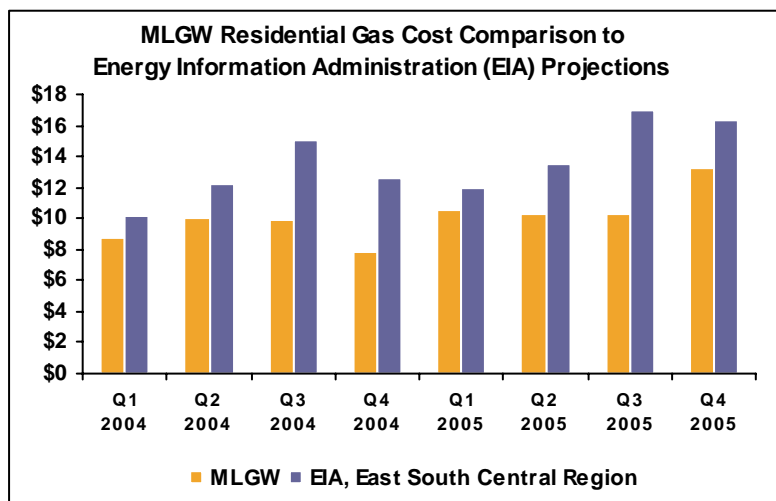
Natural Gas Buying Strategy

MLGW employs dual strategies for its gas purchasing activities—one to buy gas for physical delivery to Shelby County and another to manage the inherent price risks. To physically move the natural gas to Shelby County, MLGW purchases the majority of gas a season in advance, at an index-related price. This means the value of the gas is negotiated, but the actual price paid will only be known one week before the delivery month—a practice that has become standard among utilities since deregulation. In concert with the physical purchases, MLGW purchases natural gas futures and options on the NYMEX at least one year in advance and continues making incremental futures and options purchases throughout the year. In even the warmest of winters, MLGW’s system will flow approximately 27 billion cubic feet of natural gas between November and March. This is considered the baseline for MLGW’s gas purchases. In order to reduce price fluctuations on this quantity of gas, MLGW locks the price of one-third of the supply in advance (with futures), caps the price of another one-third in advance (with options) and purchases the remaining one-third at market prices. This strategy protects two-thirds of the gas from exposure to rising prices, but also allows two-thirds of the gas to take advantage of falling prices.

Compared to buying 100% of its supply at market prices, MLGW’s natural gas buying strategy has already saved customers more than \$31 million this winter, with another \$15 million expected by winter’s end. Every penny saved goes directly to offset gas costs to customers.

This winter, wholesale gas prices have been extremely volatile. The market price on NYMEX has gone as high as \$15.38. However, because MLGW locked in one-third of its purchases at \$8.54 with futures and capped another one-third at \$12.89 with options, customers have been insulated from more drastic swings in the wholesale price. Savings achieved through this pricing strategy are used exclusively to offset gas costs to customers.

Many customers heard gas cost projections issued by the federal Energy Information Administration (EIA) and utilities across the nation prior to the start of the heating season. This information, which is based on residential delivered cost of gas as tracked by EIA, became an important tool in creating awareness among businesses and households about the financial impact of winter heating costs. EIA’s projected cost increases varied



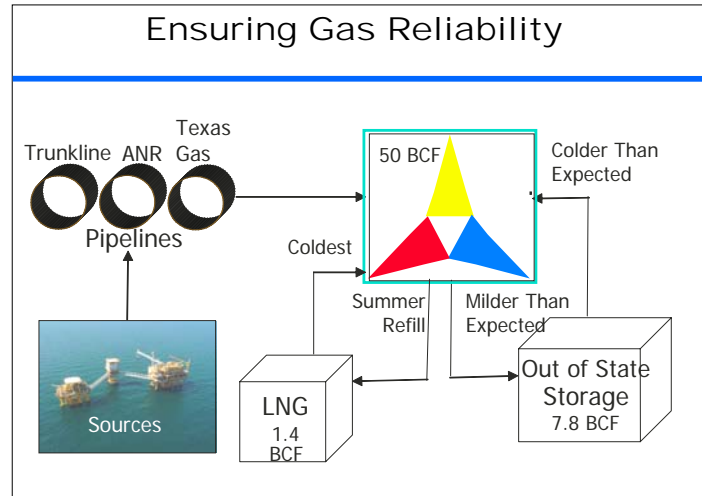
by region, with 70 percent being a commonly-quoted range from the Memphis area. In reality, MLGW's gas costs consistently have been below EIA's projections for utilities in the east south central Census region, as seen in the above graph. MLGW's effective gas buying strategy is one reason for this positive position. MLGW's Q4 2004 delivered costs were significantly lower than the rest of the region. Although our cost increase was on average sharper than the surrounding region, our costs are still less than the surrounding region.

Storing and Delivering Natural Gas

Natural gas is a commodity but, unlike other commodities—such as paper towels or staples—you cannot easily “stock up and save.” Although there is a year-round base load for natural gas used in processes and cooking, most natural gas is consumed for space heating—seasonal demand that is not conducive to long-term storage. MLGW does utilize some underground storage along the pipelines and liquefied natural gas (LNG) storage in Shelby County to ensure supply availability, but storage is expensive and adds to the retail cost.

How Your Gas Dollars Are Spent

As a distribution company, MLGW buys 100% of the gas it delivers to customers from suppliers across the nation. The gas is moved from the supplier to MLGW through a network of pipelines by gas transportation companies. Gas rates and the PGA charged to customers reflect the wholesale price of the natural gas, plus transportation charges, storage and risk management. Last winter, 79 cents of every dollar on your gas bill was paid to suppliers and transportation companies. This winter, supply and transportation account for 86 cents of every dollar. The remaining 14 cents of your gas dollar funds MLGW's operations, including construction, maintenance and customer service activities.



For more information on MLGW's gas purchasing strategies, see related articles in September 2005 and October 2005 issues.

Energy Edge is published by the Economic Development department of Memphis Light, Gas and Water Division. Comments and distribution list changes may be e-mailed to: crc@mlgw.org