



# Energy Edge

A NEWSLETTER FOR MEMPHIS LIGHT, GAS AND WATER DIVISION GENERAL POWER CUSTOMERS  
SEPTEMBER 2008

## TVA reveals plan to raise wholesale rate and FCA due to higher fuels costs

TVA officials announced an impending rate increase that will affect 8.6 million electric customers served by TVA's distributors. The increase is a dual rate action, impacting both the variable Fuel Cost Adjustment (FCA) and TVA's wholesale base rate. Combined, the increase will account for a 16.5% to 18% increase in the cost of electricity for non-residential customers.

The majority of the increase is attributed to the FCA, which fluctuates quarterly to reflect costs of fuel and purchased power. Huge increases in fuel costs (both raw fuels and purchased power) have exceeded TVA's projections for FCA, as detailed below.

The second part of the rate action is a 3% increase in wholesale electric rates charged to TVA's electric distributors, which will require MLGW to revise its published electric base rates. MLGW expects to release new tariff schedules showing the exact impact for each retail rate class by 9/12/08.

In early August, TVA revealed the impact of the FCA increase, but the wholesale base rate increase was not announced until mid-month. MLGW President and CEO Jerry Collins addressed the TVA Board at its 8/20/08 meeting in Knoxville and raised objections about the rate increase, imploring the TVA Board to delay its decision pending further examination of its operating costs and internal cost control measures.

Tom Kilgore, TVA's President and CEO, noted that the prices of fuels commonly used to generate electricity are sky-rocketing due to global supply and demand challenges. He also cited reduced low-cost hydro generation due to historic drought conditions as a contributor to the increase. TVA generates approximately 56% of its power mix from fossil fuels—coal, oil and natural gas.

Key factors in TVA's decision include:

### COAL

- Since December 2007, coal prices have more than doubled as global demand for coal has exploded. Whereas U.S. coal was historically sold on the domestic market, it is now part of a global market as international consumption increases. (To support is burgeoning economy, China currently builds the

## MLGW Rates

MLGW's current and historic electric, natural gas and water rates are published at [www.mlgw.com](http://www.mlgw.com), along with updated Purchased Gas Adjustment and Fuel Cost Adjustment rates.

### Purchased Gas Adjustment (PGA)

MLGW Rate	Consumption	Demand
G-1 residential	\$0.548	na
G-7	\$0.413	na
G-8 / G-9	\$0.254	\$0.209
G-10 / G-12	\$0.279	na

Adjustment in \$/Ccf to published natural gas rates for meters read on or after 8/26/08.

### Fuel Cost Adjustment (FCA)

TVA Rate Class	MLGW Rate Code	FCA Amount
GSA, Part 1	E-2	\$0.00715
GSA, Part 2	E-2	\$0.00715
GSA, Part 3	E-2	\$0.00705
Residential	E-1	\$0.00724
Outdoor Lighting	E-3	\$0.00724

Adjustment in \$/kWh to all firm kWh, beginning with meters read on 6/28/08 and lasting for three consecutive billing periods.



## Important Contact Information

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VIEW YOUR BILL ONLINE AT [www.mlgw.com](http://www.mlgw.com)

equivalent of one coal-fired power plant every 7 to 10 days.)

- Transportation has also caused problems with TVA's coal supply, 45% of which is mined from west of the Mississippi River. Flooding in the Midwest stopped or slowed some coal deliveries, forcing TVA to buy more expensive coal on the spot market. A major rail construction project underway through 2010 will cause traffic to be rerouted, increasing congestion and delays.
- In 2007, nearly 22% of TVA's revenue was used to buy coal, totaling more than \$2 billion. For 2008, that percentage is expected to be even larger.

### NATURAL GAS

- Since December 2007, natural gas prices have increased by more than 65%.
- TVA spent roughly \$490 million on natural gas as a generation fuel source in 2007, with 2008 figures forecasted to be \$750 million.

### HYDRO GENERATION

- Long the low-cost staple of TVA's generation mix, hydro generation output is 50% below normal since October 2007.
- Last summer, the Tennessee Valley suffered its worst drought in 118 years. While rainfall has been better in 2008, it has not been sufficient to overcome the effects of last summer—especially in the eastern part of the state. For 2008, rainfall in the Valley is still 23% below normal but the run-off into lakes and reservoirs is 52% below normal.

### PURCHASED POWER

- The majority of power available for sale on the U.S. market is generated by gas-fired peaking power generation facilities. Since 2000, more than 166,000 megawatts of gas-fired generation capacity has been built in the U.S. As market demand for peak power increases, it drives up the cost of natural gas in summer months, which have historically been a low-cost period when utilities purchased storage gas for the coming winter.
- TVA has purchased 12% more market power in the past six months than in the same period last year. This summer, TVA is buying more than 1,000 megawatts of power on a daily basis—the equivalent of one nuclear unit—to replace the loss of hydro power.
- In the first six months of 2008, TVA's purchased power costs were \$701 million, compared to \$220 million in the same period of 2007.

Through its contract with the federal power generator, MLGW—like all 158 TVA distributors—is required to pass both the wholesale rate increase and the FCA directly to customers without absorbing or offsetting the impact. MLGW will realize no additional revenue from TVA's rate increase. The increase will be effective with MLGW meters read beginning 9/26/08, to coincide with revenues received in October, the start of TVA's fiscal year.

## **MLGW urges customers to adopt energy efficiency measures to offset impact of fourth-quarter TVA electric rate increase**

Rising energy costs are inevitable, even as MLGW implements cost-cutting strategies to control the 20% of each energy dollar that funds MLGW's operations. The best way to control your organization's energy costs is to identify and implement energy-saving improvements that will reduce your consumption. The good news: Higher energy costs have improved the payback for most energy efficiency projects, making them easier to justify to management and stakeholders. See previous issues of *Energy Edge* for details about available MLGW services, benchmarking software, energy tools and other resources to help you develop a strategy for controlling utility costs or visit [www.mlgw.com](http://www.mlgw.com) for access to Business eValuation, Business Energy Advisor and other resources.

## Governor holds Energy Policy Task Force meeting at MLGW

Governor Phil Bredesen convened the fourth meeting of his Energy Policy Task Force in Memphis 8/15/08. The group rotates among Tennessee cities in its quest to research energy issues and identify solutions that can be addressed at the local, legislative or executive level.

Established by Executive Order in March 2008, the 17-member task force includes MLGW Board chairman Lynn Evans and Memphis homebuilder Phil Chamberlain. Other members represent business, community and state interests.

Attendees heard presentations on MLGW's residential energy initiatives, including the EcoBUILD green building program, as well as solar power generation, growth of clean technology industries, and a fact-finding report from the residential sub-committee. To view the webcasts, visit:

<http://www.tennesseeanytime.org/energy/>



*Gov Phil Bredesen (center) leads discussion during the Governor's Energy Policy Task Force meeting, held in Memphis on 8/15/08.*

## Department of Energy compiles building energy software directory

Today's buildings consume more energy than any other sector of the U.S. economy, including transportation and industry, according to Department of Energy (DOE) statistics. In addition, almost three-quarters of our nation's 81 million buildings were built before 1979, providing countless opportunities to improve operations and maintenance.

DOE's Energy Efficiency and Renewable Energy (EERE) Building Technologies Program—in partnership with the private sector, state and local governments, national laboratories, and universities—works to improve the efficiency of buildings and the equipment, components, and systems within them. The program supports research and development (R&D) activities and provides tools, guidelines, training, and access to technical and financial resources.

The Building Energy Software Tools Directory at [www.eere.energy.gov/buildings/tools\\_directory/](http://www.eere.energy.gov/buildings/tools_directory/) provides information on 341 building software tools for evaluating energy efficiency, renewable energy, and sustainability in buildings. From the website, tools listed in the directory include databases, spreadsheets, component and systems analyses, and whole-building energy performance simulation programs. As a helpful guide, a short description is provided for each tool along with other information including expertise required, users, audience, input, output, computer platforms, programming language, strengths, weaknesses, technical contact, and availability. As utility costs rise, these building tools can help you identify and implement energy improvements.

## Green building returns outweigh costs, research review confirms

Reviews of new studies on green building initiatives indicate that costs are not necessarily higher than traditional buildings yet operational cost savings can be significant, according to an article published on the Sustainable Design website.

Highlights from the research review reveal:

- Experienced users of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program find it possible to achieve LEED Silver and Gold levels for the same costs as

conventional buildings, while others report cost increases of 1% to 2%--costs that are easily recouped in the first year or two of building operation.

- Costs associated with building commissioning, energy modeling and professional services typically are viewed as a risk mitigation strategy for building owners, to ensure optimum building operation.
- Buildings designated at LEED or Energy Star facilities achieve rent premiums, attract tenants with environmental commitments and serve as showcases for property owners.

Read the entire article at [http://www.sustainablefacility.com/CDA/Articles/Leed/BNP\\_GUID\\_9-5-2006\\_A\\_1000000000000367818](http://www.sustainablefacility.com/CDA/Articles/Leed/BNP_GUID_9-5-2006_A_1000000000000367818)

If your business or organization is planning to build a new facility, consider the energy-saving, environmental, indoor air quality and worker productivity benefits of green building practices. Memphis has an active chapter of the U.S. Green Building Council and more than 75 area engineers, architects and others have achieved LEED Associated Professional credentials to assist you. To find resources, visit: <http://chapters.usgbc.org/memphis/>

## **Deloitte survey reveals competitive advantages overshadow costs associated with commercial green retrofits**

### **73% of respondents report cost savings from green retrofit**

Existing commercial real estate that does not undergo a “green retrofit” will relinquish market leadership within three years in terms of higher operating costs, lower productivity, declining attractiveness to workers and negative brand image, according to Deloitte’s *The Dollars and Sense of Green Retrofits* survey released in July 2008. The survey was co-authored with green real estate authority and consultant Charles Lockwood.

A green retrofit can help building owners and corporate tenants introduce green benefits into existing occupied facilities — whatever their size, age, location, use or ownership — in a prompt and cost-effective manner, with only minor impact on day-to-day operations. Findings from Deloitte’s survey of organizations that have undergone at least one LEED-certified green building retrofit include:

- While savings from energy efficiency was a top goal, as cited by 75% of respondents, corporate environmental commitment was the leading motive. Seventy-three percent of respondents reported an actual cost savings resulting from the retrofit.
- 93% of respondents reported a greater ability to attract talent.
- 81% of respondents saw greater employee retention.
- 87% of respondents experienced an improvement in workforce productivity.
- 75% of respondents reported improvement in employee health.
- 100% of respondents experienced an increase in goodwill/brand equity.



"The value of green retrofitting helps demonstrate that sustainability is rapidly becoming a critical business strategy," said Chris Park, leader of Deloitte’s Enterprise Sustainability service line. "This survey shows that green is more than just a reputational issue. It is clear to us that it is necessary for companies to implement a wide variety of sustainable practices in order to attract and retain talent and increase worker productivity."

“Despite the financial considerations in choosing a green retrofit over a conventional one, the overall benefits of green outweighed the costs enough for our survey respondents to be satisfied with their green retrofit projects,” said David Jacobstein, senior advisor to Deloitte’s Real Estate industry group. “Somewhat surprisingly, benefits

related to corporate image and employee relations were at least as important considerations as operational cost savings.”

“Green retrofits are the single most important measure that corporations and real estate owners can take to reduce their operating costs, raise commercial property values and achieve important environmental benefits like reduced carbon dioxide emissions,” Lockwood said. “New green buildings represent a minute percentage of the existing building inventory, and few corporations want to empty out a building for a conventional renovation. Green retrofits are the most successful, cost-effective procedure. Owners and investors who do not carry out green retrofits of their conventional buildings will be less able to compete in the marketplace as green buildings become tenants’ preferred choice and enjoy higher lease, occupancy, sales rates and property values compared to conventional buildings.”

Deloitte performed an on-line survey in 2007 of organizations that had carried out at least one U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED)-certified green retrofit using either the LEED-Existing Buildings (LEED-EB) or LEED-Commercial Interiors (LEED-CI) rating program.

A copy of the eight-page report is available on Deloitte’s website [www.deloitte.com/us/greenretrofit](http://www.deloitte.com/us/greenretrofit) and at Charles Lockwood’s website [www.charleslockwood.com](http://www.charleslockwood.com).

## **New federal standards spur aggressive TVA tree trimming**

No one wants to lose trees. No one wants to experience a power outage. But, trees and power lines do not mix—a fact that was evident in August 2003, when tree limbs came into contact with transmissions lines in Ohio, triggering a cascade of events that led to a massive blackout affecting 50 million people in the East Coast and Canada for several days. The resulting legislation, part of the Energy Policy Act of 2005, requires electric utilities across the nation to be more aggressive in their control of tree growth along transmission lines.

As a result, TVA has become more aggressive with trees growing along its 17,000 miles of transmission line easements in order to avoid penalties of \$1 million per day if a tree-triggered outage occurs. Any tree with a growth habit of 10 feet or above that is located in the TVA easement, or encroaching on the easement, is targeted for removal. Though some believe the approach is excessive, TVA’s actions mirror those of utilities across the country, as part of the national system reliability effort coordinated by the North American Electric Reliability Corporation (NERC), an organization of electric grid operators.