



Energy Edge

A NEWSLETTER FOR MEMPHIS LIGHT, GAS AND WATER DIVISION GENERAL POWER CUSTOMERS
AUGUST 2012

Participants receive more than \$1 million in TVA-EnerNOC Demand Response program incentives

MLGW customers have collected more than \$1 million in direct payments through the TVA-EnerNOC Demand Response program, simply by agreeing to reduce electricity use in response to specific TVA system needs. From 2009-2011, demand response (DR) events were called 19 times, for a total of 78 hours—requiring limited activity from participants but delivering financial rewards as well as crucial system benefits to ensure grid reliability and affordable electricity supplies.

Large commercial and industrial facilities with an electric load of 250 kW and above are targeted, as this load size has the most opportunity for limited-duration reductions with minimal impact on operations. Participants work with EnerNOC, a leading global demand response company, to identify demand response opportunities and develop an action plan that can be implemented during TVA-called DR events.

The program is as close to no-risk as you can get, offering revenue when electric load can be reduced for specified durations—without penalties. In addition, participants receive free access to EnerNOC’s DemandSMART® web-based energy management system, which provides real-time information on each facility’s energy consumption. Through this application, participants can identify additional savings opportunities and increase equipment reliability.

The TVA-EnerNOC Demand Response program currently includes 370 participating customers served by 101 utilities across the Tennessee Valley. Locally, 34 MLGW customers representing 144 locations participate, with a combined demand response capacity of 24.5 MW. Another 10 MW of contracts for MLGW customers are in development, but there’s still time to get involved. If your facility has an electric load of at least 250 kW and is interested in learning more about the benefits of this program, contact EnerNOC at www.enernoc.com/get-started

MLGW Rates

MLGW's current and historic electric, natural gas and water rates are published at 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	(\$0.301)	na
G-7	(\$0.379)	na
G-8 / G-9	(\$0.482)	\$0.094
G-10 / G-12	(\$0.458)	na

Monthly adjustment in \$/Ccf to published natural gas rates for meters read on or after 8/1/2012.

Fuel Cost Adjustment (FCA)

TVA Rate Class	MLGW Rate Code	FCA Amount
GSA, Part 1	E-2	\$0.02384
GSA, Part 2	E-2	\$0.02384
GSA, Part 3	E-2	\$0.02356
Residential	E-1	\$0.02410
Outdoor Lighting	E-3	\$0.02413

Monthly adjustment in \$/kWh to all firm kWh, beginning with meters read on or after 8/1/2012.



Important Contact Information

Commercial Resource Center:

Monday-Friday

7:30am-5:00pm Central

Phone: 901-528-4270

Fax: 901-528-4547

E-mail: crc@mlgw.org

Emergency: 901-528-4465

Outage: 901-544-6500

Maintenance,
Trouble and Gas

Pilot Safety: 901-820-7878

VIEW YOUR BILL ONLINE AT www.mlgw.com

Natural gas prices remain low; provide good news on MLGW bills

MLGW has been delivering good news in natural gas costs this Summer. Substantially lower Purchased Gas Adjustment (PGA) values have prompted several customers to wonder if MLGW was under-billing! No error here, just the positive market reaction to a warmer Winter (less seasonal demand) and new drilling sources (more supply)—both of which are causing natural gas prices to remain low.

Savings were greatest for MLGW bills produced in June and July, when the PGA for G7 rate customers was (\$0.693) and (\$0.703) per CCF, respectively. PGA rose for meters read beginning 8/1/2012, but stayed well in the negative, at (\$0.379) per CCF, compared to (\$0.138) in August 2011. That's a savings of \$24.10 for every 100 CCF of natural gas consumed, compared to August 2011 bills.

Customers on the G8/G9 gas rate enjoyed (\$0.860) and (\$0.787) PGA values for June and July, respectively, while meters read beginning 8/1/2012 have a GPA of (\$0.482) on consumption. That's a savings of \$25.70 per 100 CCF, compared to August 2011. This rate has a PGA value assigned to demand, as well. Every 100 CCF of demand this month costs \$2.80 less than August 2011.

The good news is expected to continue, based on industry forecasts:

- John Deutch, a professor at MIT and former undersecretary of energy, was quoted in the Wall Street Journal on 8/14/2012 stating, "Two summers ago, natural gas cost \$4.50 per thousand cubic feet, which was less than half what it had cost two summers earlier. Today the price is under \$2.50, as unconventional natural gas production has increased to 20% of domestic supply from 5% in 2008, with 40% anticipated by 2020. This new production depends on advances in directional drilling and hydraulic fracturing, the process that injects enormous amounts of fluid--90% water, nearly 10% sand, and less than 1% chemical additives--into the ground below the water table, typically at depths greater than one kilometer, and laterally over distances of several kilometers."
- Earlier this month, the U.S. Energy Information Administration (EIA) projected that the Henry Hub natural gas spot price, which averaged \$4.00 per million British thermal units (MMBtu) in 2011, will average \$2.67 per MMBtu in 2012 and \$3.34 per MMBtu in 2013. Read more: <http://www.eia.gov/forecasts/steo/>

If market projections hold true, customers will continue to enjoy low natural gas costs.

IMPORTANT REMINDER

Avoid electronic payment delays by ensuring complete information

Some customers who make electronic payments directly into MLGW's bank account have experienced obstacles due to incomplete information that delays payment posting and can trigger service disconnection. Here's a reminder on the best procedures to ensure electronic deposits are posted quickly and accurately.

- When making an electronic deposit into MLGW's bank account, be sure to send an email to mlgwcashops@mlgw.org so we know how to process your payment. The email should contain the business/organization name on the MLGW account, the 16-digit MLGW account number(s), the payment amount(s) and the date of the electronic transfer. These details are often referred to as a "payment remittance advice"—an electronic alternative to returning the tear-off portion of your bill with a mailed payment.
- When in doubt, refer to the information provided when you established your electronic payment option.
- Customers with questions about electronic payments should contact MLGW's Cashiering Operations staff at mlgwcashops@mlgw.org or 901-528-4641.

INSIGHT INTO MLGW'S ENERGY MANAGEMENT EFFORTS

Cooling tower rebuilding project planned for cost and comfort benefits

Like each of our customers, MLGW faces energy management and operating cost challenges. MLGW Energy Use Engineer Marguerite Epps, PE, CEM, CDSM, EPSC, provides occasional articles discussing MLGW's efforts to reduce operating costs through facility improvements. Here's a recent example.

Plans are under way to rebuild the existing 42-year-old, two-cell 2,400 gpm cooling tower that serves the heating, ventilation and air conditioning (HVAC) equipment at MLGW's downtown headquarters—the David F. Hansen Administration building. While a pro-active preventative maintenance program increased the life expectancy of the structure, deterioration from wear and age has reduced the tower's thermal performance.

The cooling tower rejects heat to the atmosphere through evaporation. Warm re-circulating water is sent to the cooling tower from the building where a portion of the water is evaporated into the air passing through the tower. As the water evaporates, the air absorbs heat, which lowers the temperature of the remaining water where it can be pumped back into the HVAC system to extract more heat from the building, thereby providing conditioned air for occupant comfort.

The existing induced draft counter-flow cooling tower is cast in concrete which would require cost prohibitive structural upgrades if newly constructed.

Rebuilding the tower will cost 50% less than new construction. Occupant and operation disruptions will also be reduced compared to that of new construction. The project can be completed during cooling tower operations, and during the facility's reduced load periods.

The major scope of the work includes removing the tower's internals and installing high performance ceramic fill, drift eliminators, an upgraded water distribution system, fan assemblies, variable speed drive system on the exhaust air stream fans and direct digital controls which will tie into the existing building automation system. The improvements also incorporate seismic protection by anchoring equipment in order to resist movement of the tower's components during an earthquake. Finally, testing, adjusting and balancing (commissioning) of the fan and hydronic systems will be completed before the construction is approved by MLGW.

Typically in a rebuild, a tower's cooling capacity can be increased by 30-60% depending upon the cumulative strategies deployed. The increased efficiency will help reduce the energy used by the systems.

Construction will begin in the autumn of 2012 when typically one chiller is needed to condition the facility. Rebuild projects can be accomplished with minimal interruption to the building's operations and its occupants. MLGW is pursuing rebates through TVA's Energy Right Solutions for Business program.

For more information about cooling towers, please see the Department of Energy's Cooling Tower Best Management Practice guide at http://www1.eere.energy.gov/femp/program/waterefficiency_bmp10.html.

Register to attend 6th annual Emergency Preparedness Conference

Local and regional emergency preparedness organizations are finalizing plans for the sixth annual Emergency Preparedness and Incident Conference (EPIC), slated for Wednesday, 9/19/2012, on the University of Memphis campus. The conference, hosted by the Mid-South Association of Contingency Planners (MSACP), will focus on "Making Resiliency a Reality".

For summaries of 2011 MLGW facility energy efficiency projects, view our Green Initiatives Report at <http://www.mlgw.com/about/greeninitiativesreport>

Each year, EPIC attracts speakers with expertise in disaster planning, business continuity and emergency management. They share lessons learned from recent worldwide events that significantly impact business processes and personal safety. Keynote speakers include: Dan Stoneking, Director of Private Sector Outreach, FEMA, and Bruce Blythe, a crisis management expert who has appeared on CNN, NBC, and 20/20. EPIC 2012 will offer three distinct tracks of information, networking opportunities and real information for the real world.

Attendees include businesses, organizations, community leaders and first responders. The conference registration fee is \$25 and includes breakfast and lunch. For more information, email secretary@msacp.org

MLGW celebrates success of business customer communications

August 2012 marks the eleventh year of publication for *Energy Edge*. What started as a quarterly effort to keep a few large customers updated has grown into a monthly newsletter covering our expanding variety of energy efficiency, conservation, demand response and renewable generation programs, as well as information on rates, emerging technologies and new customer service channels.

Today, more than 4,400 subscribers receive *Energy Edge* emails and countless other customers access the newsletter at www.mlgw.com/energyedge. While we don't have enough cake to share, we are always looking for information to cover, so contact us if you have suggestions or want to share experiences from an energy project at your facility.



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