



# Energy Edge

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

JULY 2016

## CRITICAL SITUATION

### Conservation required to avoid blackouts as MLGW begins extensive repairs on substation

Local weather forecasts show temperatures rising to 100 degrees this week, increasing the likelihood of blackouts—lasting about four hours each—in Arlington, Lakeland and surrounding areas served by Substation 68, which is under repair after the 7/11/2016 fire. Customers in these areas must voluntarily limit their power usage during the peak hours of 3:00pm to 8:30pm in order to reduce the need for mandatory blackouts.

“It’s an unprecedented situation,” said MLGW President and CEO Jerry R. Collins, Jr., about blackouts, which have not occurred in recent MLGW history. “The magnitude of the damage suffered by Substation 68 is unlike anything the utility has seen in the last 30 years. Voluntary curtailment is necessary to help manage power loads in these areas, especially on the hot days ahead.”

The concern is that traditionally high summer loads—driven largely by air conditioning—could further damage the electric distribution system, which is why voluntary curtailment is also viewed as a protection measure. MLGW will try to notify customers by phone in advance of a blackout during peak hours, although advance notice may not always be possible. Customers in Arlington, Lakeland and areas served by Substation 68 are advised to be prepared. Customers at greatest risk of blackouts (see map on page 2) were notified via automated dialer calls starting Sunday, 7/17/2016; customers in the moderate risk group will be notified early this week.

To avoid mandatory actions, MLGW urges customers in Arlington, Lakeland and surrounding areas to take immediate steps to preserve power supplies. These efforts will not only lower demand, they will lower your electricity costs.

Brownouts and rolling blackouts are common in power-constrained states such as California, where state-wide voluntary reduction programs have been developed to encourage broad-based participation. The local situation is critical but, if everyone in affected areas works together, we can preserve power for all.

*(See page 2 for the map of affected areas, as well as tips for reducing electricity use from 3:00pm to 8:30pm.)*

## 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	\$0.075	na
G-7	(\$0.140)	na
G-8 / G-9	(\$0.138)	\$0.102
G-10 / G-12	(\$0.139)	na

Monthly adjustment in \$/Ccf to published natural gas rates for meters read on or after 7/1/2016.

## Fuel Cost Adjustment (FCA)

TVA Rate Class	MLGW Rate Code	FCA Amount
GSA, Part 1	E-2	\$0.02412
GSA, Part 2	E-2	\$0.02412
GSA, Part 3	E-2	\$0.02384
Residential	E-1	\$0.02434
Outdoor Lighting	E-3	\$0.02317

Monthly adjustment in \$/kWh to all firm kWh, beginning with meters read on or after 7/1/2016.



## Important Contact Information

Business Solutions Center:

*Monday-Friday*

*8:00am-4:30pm Central*

Phone: 901-528-4270

Fax: 901-528-4547

E-mail:

[BusinessSolutionsCenter@mlgw.org](mailto:BusinessSolutionsCenter@mlgw.org)

Emergency: 901-528-4465

Outage: 901-544-6500

Maintenance,  
Trouble and Gas

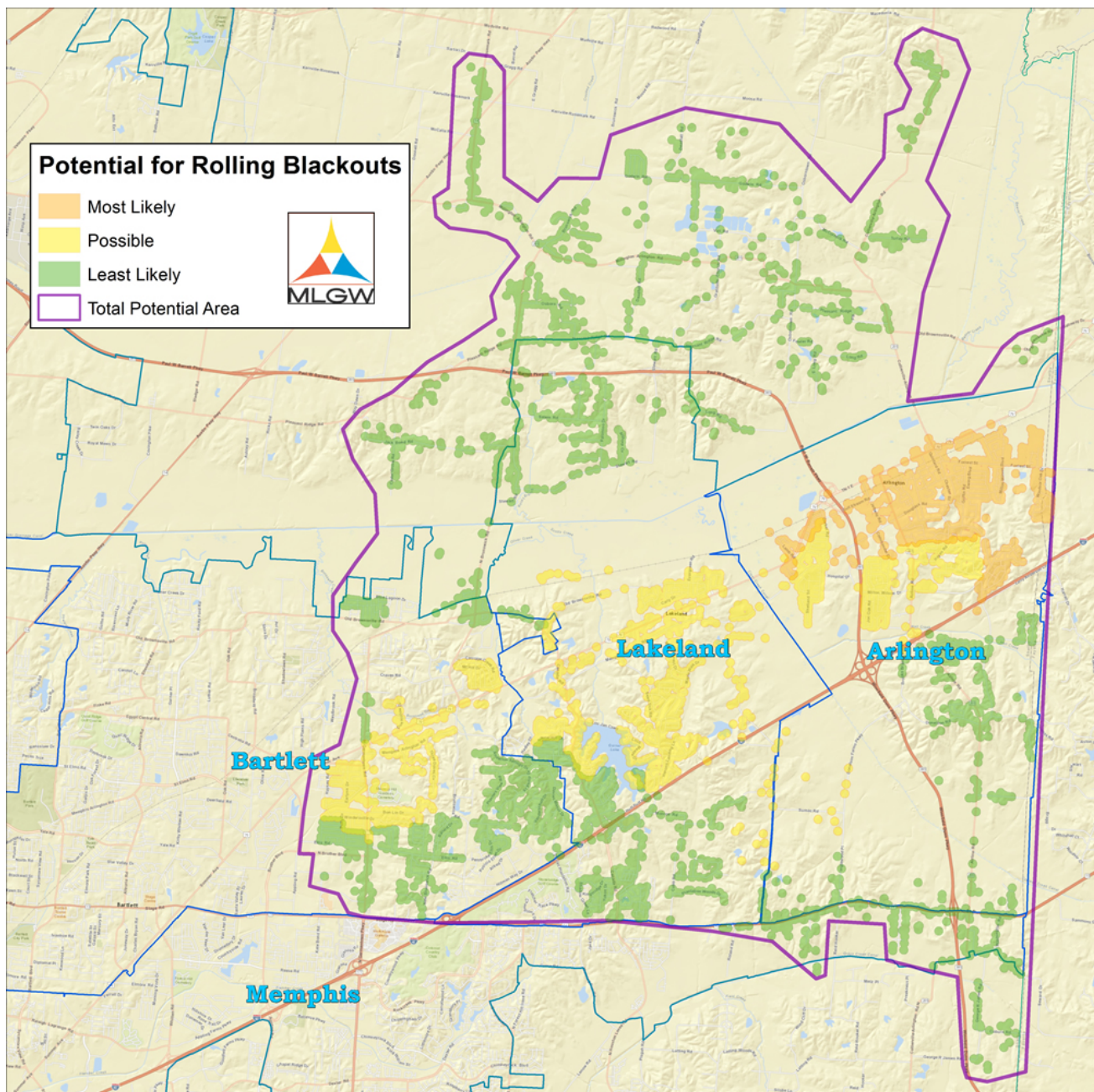
Pilot Safety: 901-820-7878

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

## MLGW identifies areas subject to blackouts during peak hours

The map below shows Substation 68 transformers in orange and yellow. Orange indicates the “most likely” areas that would be impacted by rolling blackouts if voluntary cut-backs are not sufficient. Yellow indicates areas where rolling blackouts are “possible.” Green indicates areas served by surrounding substations that also are temporarily providing power to customers previously served by substation 68. The green areas are “least likely” to be affected by rolling blackouts, provided everyone voluntarily reduces electricity use between 3:00pm and 8:30pm.

If needed, blackouts would last about four hours, occur during the peak hours of 3:00pm to 8:30pm, and rotate between sections, so entire communities would not be out simultaneously.



## Customers urged to reduce electricity use during peak hours

### MLGW offers tips to identify and reduce consumption to avoid blackouts

Reducing air conditioning load is the number one action every customer can take to help our community through this crisis. A variety of recommendations are shown below for commercial operations, as well as households. Please share this list with any employees who may live in the affected areas.

#### COMMERCIAL

- Raise thermostat settings to 80 degrees during business hours. (Yes, it will be warm, but will help avoid blackouts.) If 80 degrees is impossible, raise it as much as you can and then set thermostat even higher after hours to minimize energy use until 8:30.
- Encourage employees to dress casually for comfort.
- Use personal fans to provide supplemental cooling in key areas to offset some of the thermostat change. Remember to turn off fans when leaving the area. Fans do not lower room temperatures; fans create a breeze that speeds evaporation on your skin, making you feel about five degrees cooler.
- Reduce lighting in hallways, meeting rooms, restrooms, parking garages and office spaces. Use natural lighting or lower-wattage task lighting to compensate until close of business, then minimize further as employees and customers leave the property. (Now is a good time to consider occupancy sensors in these spaces. Read more at [https://mlgw.bizenergyadvisor.com/BEA1/PA/PA\\_Lighting/PA-10](https://mlgw.bizenergyadvisor.com/BEA1/PA/PA_Lighting/PA-10) )
- Ask employees to turn off office equipment, fans, task lighting and other personal electronics at the end of their workday. Computers, monitors, printers and seldom-used fax machines are frequent overnight power draws.
- Check the breakroom for small appliances and electronics that run unnecessarily and turn them off. Coffee pots are frequent all-day culprits, as are televisions and radios. You may need to post signs to encourage users to “turn it off” when finished.
- Post signs to encourage employees to take the stairs instead of elevator, if they are able.

#### RESIDENTIAL (please share with employees who may live in the affected areas)

- Raise your thermostat setting to minimize air conditioner operation. An 80-degree setting will have the greatest benefit to balancing the system and avoiding blackouts, but even a few degrees may help. Wear light-colored, loose fitting clothes and drink cool beverages to maintain comfort. (Avoid caffeine and alcohol.)
- Install a programmable thermostat, if you don't already have one. Program the system to raise indoor temperatures between 3:00pm and 8:30pm. Read your owner's manual or manufacturer's website carefully to see whether the device has “intelligent recovery,” which means it really activates earlier so you reach the desired setting by the programmed time. You want the system to begin resuming normal operation at 8:30pm.
- Check and replace your unit's air filter. A dirty air filter reduces airflow, which makes your air conditioner run harder and longer.
- Plan shopping and entertainment during the 3:00pm to 8:30pm period, so you won't notice the higher temperature in your home.
- Use ceiling fans and portable fans to provide supplemental cooling, but be sure to turn off fans if no one is in the room. (Fans stir the air to speed evaporation on your skin; they do not lower the actual room temperature.)
- Delay energy-intensive activities—such as laundry, dishwashing and extensive cooking—until after 8:30pm. Prepare meals in the microwave, which uses less energy than your stove or oven.
- Close curtains and blinds on west-facing windows and doors. Keep exterior doors tightly closed and make sure storm windows are lowered.

- Check and replace any torn weatherstripping along exterior door frames and windows. Those little cracks enable hot air to invade your home, causing discomfort and longer air conditioner run times.
- Minimize interior and exterior lighting as much as possible under after 8:30pm.
- Turn off unnecessary electronics. Plugging them into a surge protector strip with an on/off switch makes this task simple. This includes TVs, game consoles, computers, monitors, speakers and printers.
- Unplug chargers after use. Phone chargers and other devices that convert AC power to DC power continue to use small amounts of power, even if the device is not connected.
- Run pool pumps earlier in the day or later in the evening to avoid the peak hours of 3:00pm to 8:30pm.

## **Fire causes severe damage to MLGW substation; six-month repair period estimated**

The early morning fire on Monday, 7/11/2016, at MLGW's Arlington substation on Highway 70 caused such extensive damage that it is expected to take six months to rebuild and return to normal operation. The substation serves about 6,800 customers in Arlington, Lakeland and surrounding areas. Service has been restored to affected homes and businesses by routing circuits from three other substations in the general area, but low voltage issues and intermittent outages continue as MLGW works to implement temporary measures.

MLGW's Electric Crisis Team activated shortly after the incident and employees are working 24/7. Construction work began last week as MLGW developed and implemented plans for restoring partial service to the substation, which could take four weeks without weather and equipment delivery delays. Full restoration is expected to take six months.

In the meantime, MLGW continues to switch circuits to balance the system by drawing from MLGW substations serving adjacent areas. Crews have installed two of several planned regulator stations, which are automated devices to help increase voltage as needed. While these regulators will help deliver sufficient voltage to customers near the ends of circuits during lower demand periods, they likely will not solve the overall voltage problem when electric load is extremely high.

Climbing temperatures this week are expected to cause further damage to the electric distribution system, so MLGW has appealed to customers in the impacted area to minimize power use from 3:00pm to 8:30pm to avoid mandatory blackouts. There have been no blackouts thus far. Most outages have been storm-related or the result of MLGW working on switches, regulators and other equipment, which requires dropping some power lines for short periods to complete construction activity safely.

Businesses with critical loads are encouraged to stay on or move to on-site generation while MLGW works to stabilize the system and encourage demand reductions.

The cause of the fire remains under investigation.

Customers served by Substation 68 who are experiencing low voltage issues related to this incident should contact:

- Business Solutions Center for commercial and industrial customers at 528-4270
- Customer Care Center for residential customers at 544-6549