

# PEAK LOAD MANAGEMENT

# PLM

A Summertime Energy Conservation Protocol for MCPS

Maryland's Largest School District

**MONTGOMERY COUNTY PUBLIC SCHOOLS**



# Peak Load Management (PLM)



## WHAT IS IT?

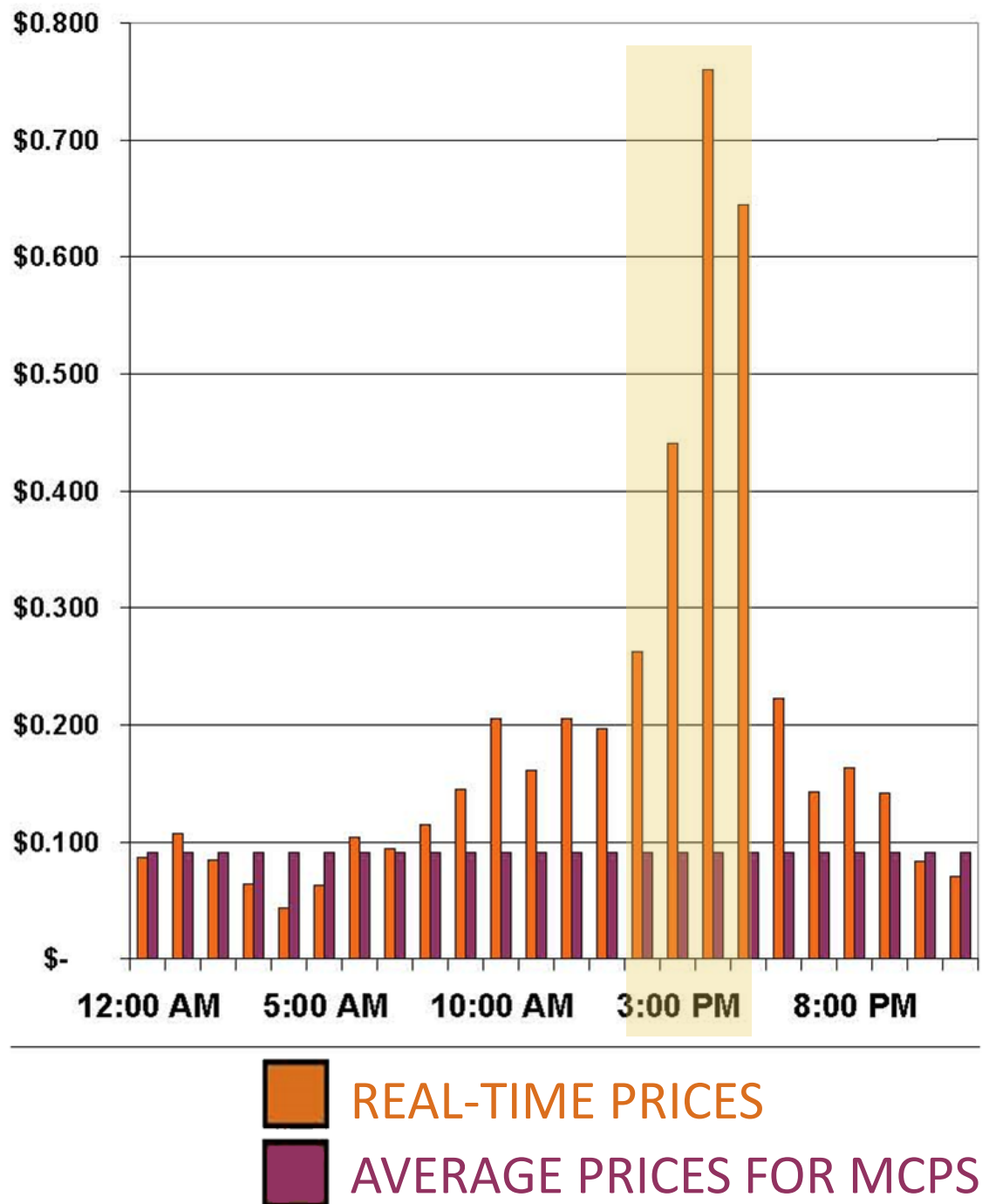
Montgomery County Public Schools has instituted a late afternoon curtailment of air conditioning operations in schools each summer from 4:00–5:00 p.m.

## WHY USE IT?

The energy we use during peak hours in the summer affects MCPS' electricity costs year round. Because these peak demand periods drive our price of electricity for all 12 months of the year, conserving energy is vitally important.

The chart shows the increase in kilowatt hour pricing during the peak hours of 3–5:00 p.m. on a typical hot August afternoon.

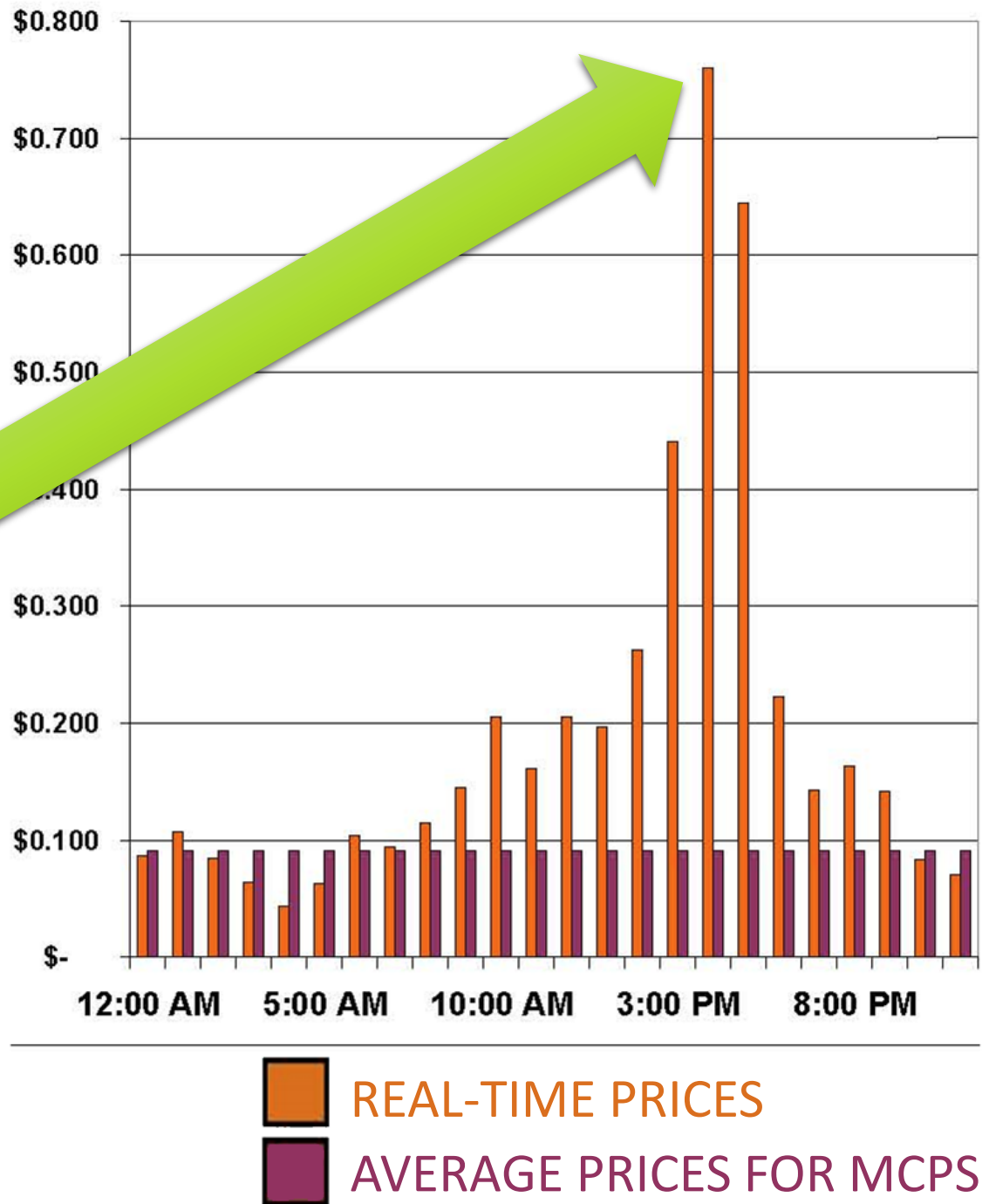
On this day, the electric demand briefly exceeded the capacity of the power grid to generate and transmit electricity, resulting in a voltage reduction, or brown-out, to protect the system.



When this happens, the real-time price of electricity becomes very costly.

On this day, it rose from the normal \$0.12/kWh and spiking up to \$0.75/kWh.

This is a clear signal to customers to shut down all non-essential uses of power.



# Peak Load Management (PLM)



## SUMMARY

It's incredibly important for MCPS schools to limit how much electricity is being used during the peak hours of 3:00-5:00 p.m. This is the "peak" time of day when electricity is the most expensive!

# All MCS Schools Participate in Peak Load Management

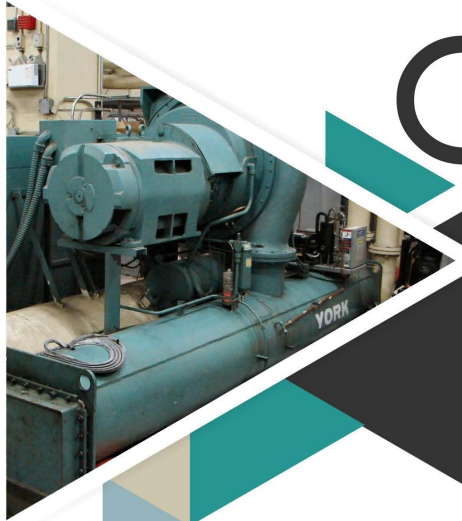


- Each day, at or before 3:00 p.m., begin the shutdown process. Turn off lights, plug loads or systems which are not in use.
- The BSM is responsible for ensuring that this important task is completed each day.
- BSM may assign this task to BSAM to complete while BSAM checks the building.

**This year, PLM runs  
June 19 through  
August 23, 2019**

**EVERY DAY, 4:00–5:00 P.M.**

# SUMMER CHILLER PROTOCOL



Montgomery County Public Schools (MCPS) has instituted a late afternoon curtailment of air conditioning operations in schools each summer from 4:00 – 5:00 p.m.

MCPS saves energy during the Peak Load Management period.

**SHUT DOWN EVERY DAY, 4:00 – 5:00 P.M.  
JUNE 19 – AUGUST 23, 2019**

The shutdown process for chillers should begin at 3:45 p.m. Chillers should be off from 4:00 – 5:00 p.m. If the chiller is on at 4:00 p.m., please call the **EMS HOTLINE** at **301-252-3533**. EMS will then shut down your chiller. If your school has scheduled evening activities, air conditioning will resume at 5:00 p.m.

Your efforts to save energy will help your school win SERT awards. Summer SERT awards are deposited into the custodial service supply account.

**IF THE CHILLER IS ON AT 4:00 P.M., CALL  
301-252-3533**



Department of Facilities Management | **SERT PROGRAM**  
45 W. Gude Drive, Suite 4000 | Rockville, MD 20850  
SERT@mcpsmd.org | [www.GreenSchoolsFocus.org](http://www.GreenSchoolsFocus.org)

**GOT  
QUESTIONS?**

**CONTACT**

**SHELA PLANK**  
ENERGY PROGRAM MANAGER  
Shela\_Plank@mcpsmd.org  
240-314-1091

**RICHARD BENJAMIN**  
SERT PROGRAM MANAGER  
Richard\_Benjamin@mcpsmd.org  
240-314-1090

**MONTGOMERY COUNTY  
PUBLIC SCHOOLS**

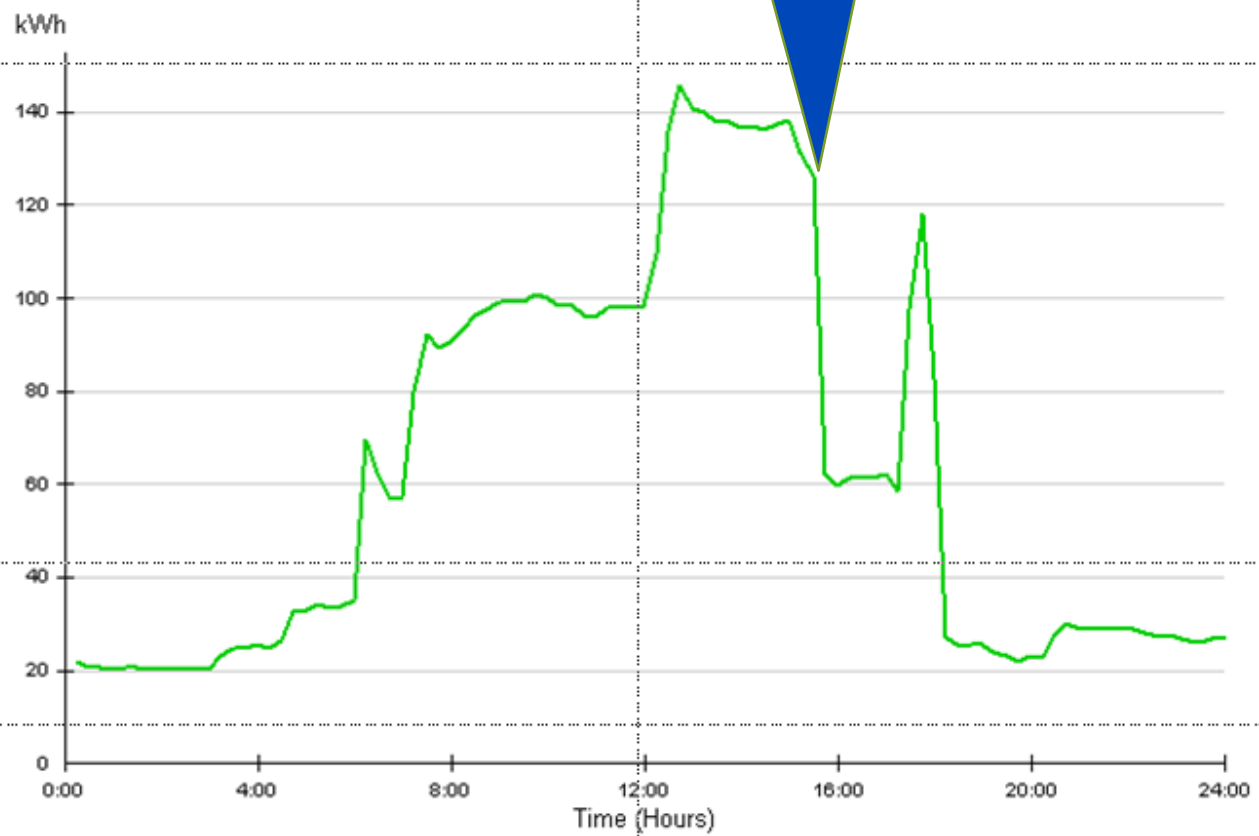


# The dip makes a big difference!



Daily Energy Profiles

The dip represents PLM shutdown at 4:00



- ⦿ Every school should have a sheet posted that lists the dates and times for PLM and the EMS hotline phone number.
- ⦿ Some schools are not controlled by EMS. If your school does not have EMS, then your chiller must be manually shut down by building service staff.
- ⦿ Your maintenance depot HVAC shop staff can train you and your team how to manually shut down your chiller.

EMS Hotline:  
**301-252-3533**



A photograph of a large industrial chiller unit, likely a York brand, with various pipes and components. The image is framed by a white border and is partially obscured by a large, stylized arrow graphic pointing to the right. The arrow is composed of several overlapping shapes in shades of teal and black.

# SUMMER CHILLER PROTOCOL

PEAK LOAD MANAGEMENT (PLM)

Shut down every day, 4:00–5:00 p.m.

**JUNE 19 – AUGUST 23, 2019**

If the chiller is on at 4:00 p.m., call the EMS Hotline.

**301-252-3533**

*Check your chiller at 4:00 p.m. every day during the PLM period.*



This can be done by physically observing the chiller at your school.

If the chiller is running at 4 p.m., call  
the EMS Hotline: **301-252-3533**



# When you call the EMS Hotline—



- Provide your name, the name of your school, and inform EMS that your chiller is still on.
- If you get the answering service, leave a voicemail. Clearly say your name, the name of your school, the date and time of your call, and that you're calling to say that your chiller is on.
- EMS will remotely shut down the chiller. Your school will receive a credit in the active school file when you call. (hint: award)

# Ground Source Heating and Cooling Systems



- Most new MCPS schools have ground source heating and cooling systems instead of chillers.
- If this is the case at your school, you only need to focus on shutting down the lights and other plug loads that are not in use.



- Some schools are not controlled by EMS. If your school does not have EMS, then your chiller must be manually shut down by building service staff.
- Your maintenance depot HVAC shop can train you and your team on how to manually shut down your chiller.



*Find out whether EMS controls your chiller, or if it must be shut down manually.*





# Red Day Email Alerts



## **ACTION DUE: PEAK LOAD MANAGEMENT**

Please be aware that energy providers have projected today to be a RED day, one of the most expensive days of the year.

Please turn off and properly shut down any unnecessary lighting, computers, and appliances.

Although this behavior should be observed every day from now until August 23 during the peak load hours of 4:00-5:00 p.m., shutting down today is even MORE critical.

Computer servers, network printers and copiers, and cafeteria computers should remain on to preserve data and memory.

If your chiller is on at 4:00 p.m., please call the EMS Hotline at **301-252-3533** and notify them immediately.

# Red Day Email Alerts



## **SUMMARY**

Pay attention to your incoming emails – especially in the summer. When we are notified that a day is a “red” day, we’ll send you an email.

Please make sure that all unnecessary lights, computers, and appliances are turned off.

If your chiller is on at 4:00 p.m., please call the EMS Hotline immediately.

# Communication is Crucial



- Make sure your team understands the importance of PLM.
- Use your SERT facilitator as a resource for contest information, energy data, procedures, etc.
- PLM is a big deal! If you earn a SERT award by being a top performing school during the summer, the award funds get transferred directly into your building services custodial supplies account.



# Know Your System!



Keep track of what's going on with your chiller so you can inform EMS and Maintenance about any energy-related issues.

# Peak Load Management Summary



- You and your staff play an important role in energy conservation. This is especially important during the summer months.
- Peak Load Management (PLM) starts the week after school gets out for the summer and runs until the week the teachers return to work.
- At 3:00 p.m., start turning off lights and unplugging equipment that isn't needed.
- Chiller shut down occurs between 3:30-4:00 p.m. each day during PLM.
- If your chiller is still on at 4:00 p.m., call the EMS Hotline (301-252-3533) so they can shut your system down.

*You can make a difference!*



Thank you for doing your part to help MCPS save on electricity costs. Your efforts help to free up power for others with essential needs while helping to preserve the environment.



Contact SERT if you have any questions about PLM.  
Click on the SERT logo for more information  
about saving energy at your school.

*SERT is here to help you succeed!*



School Energy and Recycling Team  
Department of Facilities Management  
45 West Gude Drive, Suite 4000  
Rockville, MD 20850

[SERT@mcpsmd.org](mailto:SERT@mcpsmd.org)

240-314-1090

[www.GreenSchoolsFocus.org](http://www.GreenSchoolsFocus.org)