

# **Energy Savings Program 2014 Report**

**July 2009 – June 2014**

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Montgomery County Schools  
February, 2014



# Energy Savings Projects

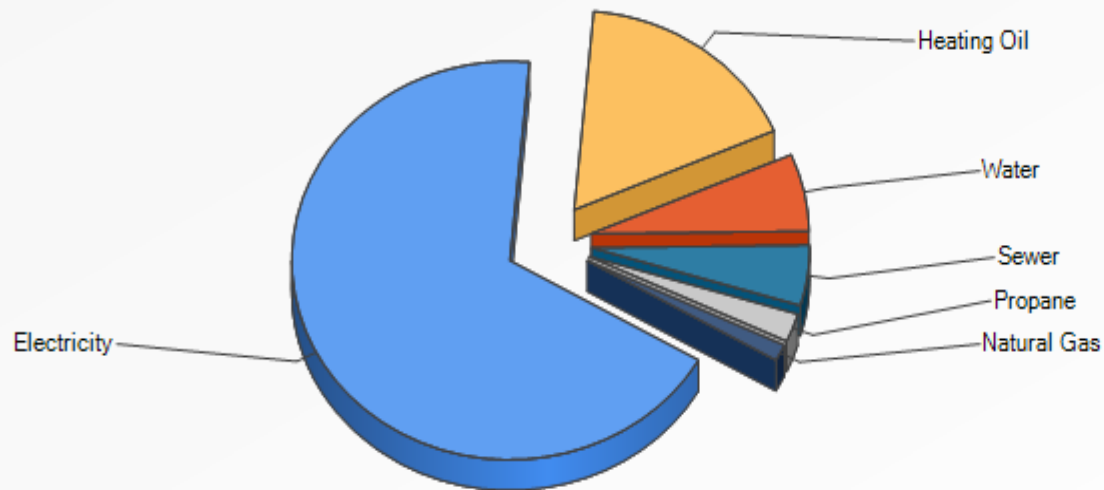
- New WSHP units install at Mount Gilead Elementary.
- New VFD pump motor installed at MGES boiler room.
- New Chillers EMS and WMS placed into operation 2014.
- New energy efficient boilers at both HS Auditoriums
- New thermal efficient windows in the HS math wings
- Requested and received **\$11,887.75** billing adjustments due to overcharges. ( Large water leaks at West Middle and West Montgomery High School)



## COMPARISON OF ACTUAL UTILITY USAGE

Usage	Electricity (kwh)	Water (GAL)	Sewer (GAL)	Natural Gas (CCF)	Propane (GAL)	Heating Oil (GAL)	Total Energy (MBtu)
July 2009 June 2010	6,491,271	11,603,743	8,450,802	11,036	14,256	63,836	34,213
July 2013 June 2014	6,495,250	8,610,363	6,639,059	15,190	11,474	60,975	33,962
Difference	-3,978	2,993,380	1,811,744	-4,154	2,782	2,861	251
Percentage	-0.1%	25.8%	21.4%	-37.6%	19.5%	4.5%	0.7%

**Montgomery County B.O.E.**  
**COST BY ENERGY TYPE**  
Period: 7/1/2013 - 6/30/2014



Service	Total	Percent
Electricity	\$ 744,538	68.1
Heating Oil	\$ 186,497	17.1
Water	\$ 68,767	6.3
Sewer	\$ 53,469	4.9
Propane	\$ 25,222	2.3
Natural Gas	\$ 14,708	1.3
TOTAL	\$1,093,201	

## UTILITY RATE COMPARISON - Red indicates rate increase

Rates	Electricity (per kwh)	Water (per GAL)	Sewer (per GAL)	Natural Gas (per CCF)	Propane (per GAL)	Heating Oil (per GAL)	Total Energy (per MBtu)
July 2009 June 2010	\$0.1172	\$0.0050	\$0.0080	\$1.2039	\$1.9013	\$2.4457	\$27.9770
July 2013 June 2014	\$0.1146	\$0.0080	\$0.0081	\$0.9683	\$2.1981	\$3.0586	\$28.5897
Difference	\$0.0026	(\$0.0030)	(\$0.0001)	\$0.2356	(\$0.2968)	(\$0.6129)	(\$0.6127)
Percentage	2.2%	-58.5%	-0.9%	19.6%	-15.6%	-25.1%	-2.2%





## Montgomery County Schools

ALL SITES

July 2009-June 2010 VS July 2013-June 2014

### COMPARISON OF ACTUAL UTILITY COST

Cost	Electricity Cost	Water Cost	Sewer Cost	Natural Gas Cost	Propane Cost	Heating Oil Cost	Total Energy Cost	Total Utility Cost
July 2009 June 2010	\$760,662	\$58,456	\$67,476	\$13,286	\$27,105	\$156,121	\$957,174	\$1,083,105
July 2013 June 2014	\$744,538	\$68,767	\$53,469	\$14,708	\$25,222	\$186,497	\$970,965	\$1,093,201
Difference	\$16,124	(\$10,311)	\$14,006	(\$1,422)	\$1,884	(\$30,376)	(\$13,791)	(\$10,096)
Percentage	2.1%	-17.6%	20.8%	-10.7%	6.9%	-19.5%	-1.4%	-0.9%

# Looking Ahead

- ◆ Rate increases will continue.
- ◆ Conservation will be even more important.
- ◆ Strategies:
  - Continued monitoring by Energy Manager.
  - Utilize most efficient facilities for after school programs.
  - Reduce HVAC run times when practical.
  - Discourage the use of overrides.
  - Continue to upgrade equipment.

# Environmental Impact

- Reduction in Carbon Dioxide Gases:  
**1,087,250 lbs.**
- Equivalent to taking **72 cars** off the road or planting **148 acres of trees.**
- **Actual Utility Cost \$1,093,201**
- **Adjusted Savings \$65,866**
- **5.7% (Any Question ?)**

