



Utility Management Report Mid-Year Audit Jul 2015 – Dec 2015

Energy Audit Team

Cameron Ogrodnik, Student Intern

Jaaziel Valles, Student Intern

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Kathy Arrington, Purchasing Director

Justin Claybrook, Energy Engineer

Orland Hilliard, Account Manager

Bob Wilken, Executive Account Manager

Paul Andress, Executive Director of Operations



Summary of Utility Cost and Usage

Base Year Fiscal Year (2005-2006)	Fiscal Year 2011-2012	Fiscal Year 2012-2013	Fiscal Year 2013-2014	Fiscal Year 2014-2015	Fiscal Year 2015-2016 (Est. Annual Total)
Total Utility Cost \$6,957,534	\$7,114,894	\$6,806,387	\$7,422,598	\$7,440,670	\$7,783,823
Total Energy Mmbtu (Gas & Elect) 213,131	235,792	235,623	253,248	239,547	227,791
Total District SqFt 3,553,417	4,660,667	4,761,856	4,943,330	5,032,004	5,032,004
Total Cost/SqFt \$1.96	\$1.53	\$1.43	\$1.50	\$1.48	\$1.55
Energy Use Index kBtu/SF (Gas & Elect) 60.0	50.3	49.5	51.2	47.6	45.3

Analysis By Utility Type (6 mos)

Electricity

- Effective rate decreased -1.4%
- Consumption increased by 5.7%
- 13.7% more cooling degree days
- Net increase in dollars of \$115,475

Natural Gas

- Effective rate decreased by -13.0%
- Consumption decreased by -27.8%
- 21.9% less heating degree days
- Net decrease in dollars of -\$80,233



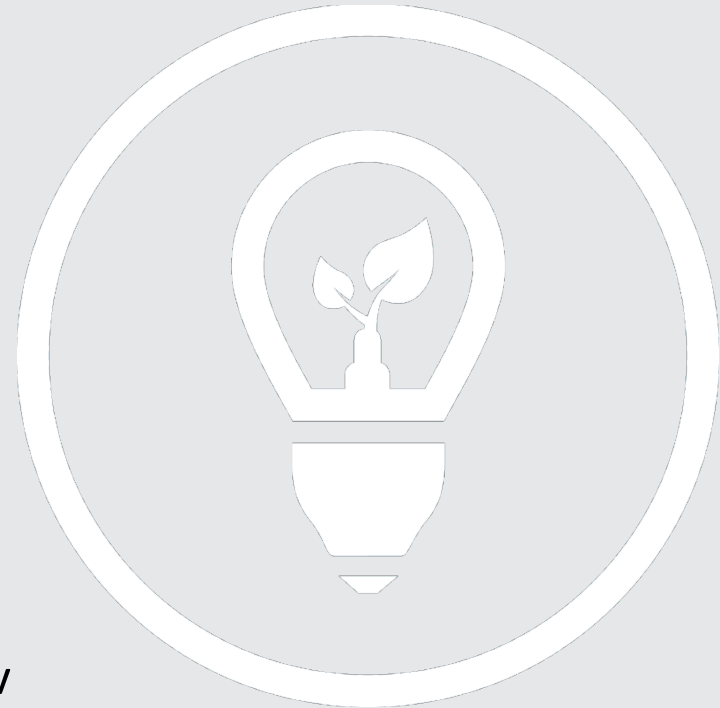
Analysis By Utility Type

Water

- Domestic effective rate increased 12.3%
- Domestic consumption increased 8.8%
 - Student count increased by 2%, 6 gal/std./day, Leaks at Lee & Wilson
- Domestic net increase in dollars of \$60,797
- Irrigation effective rate increased 1.7%
- Irrigation consumption increased 45.1%
- Irrigation net increase in dollars of \$144,582
- **Rainfall** down 4.7 inches Jul-Sep, but up 17.6” in Oct-Nov

Refuse

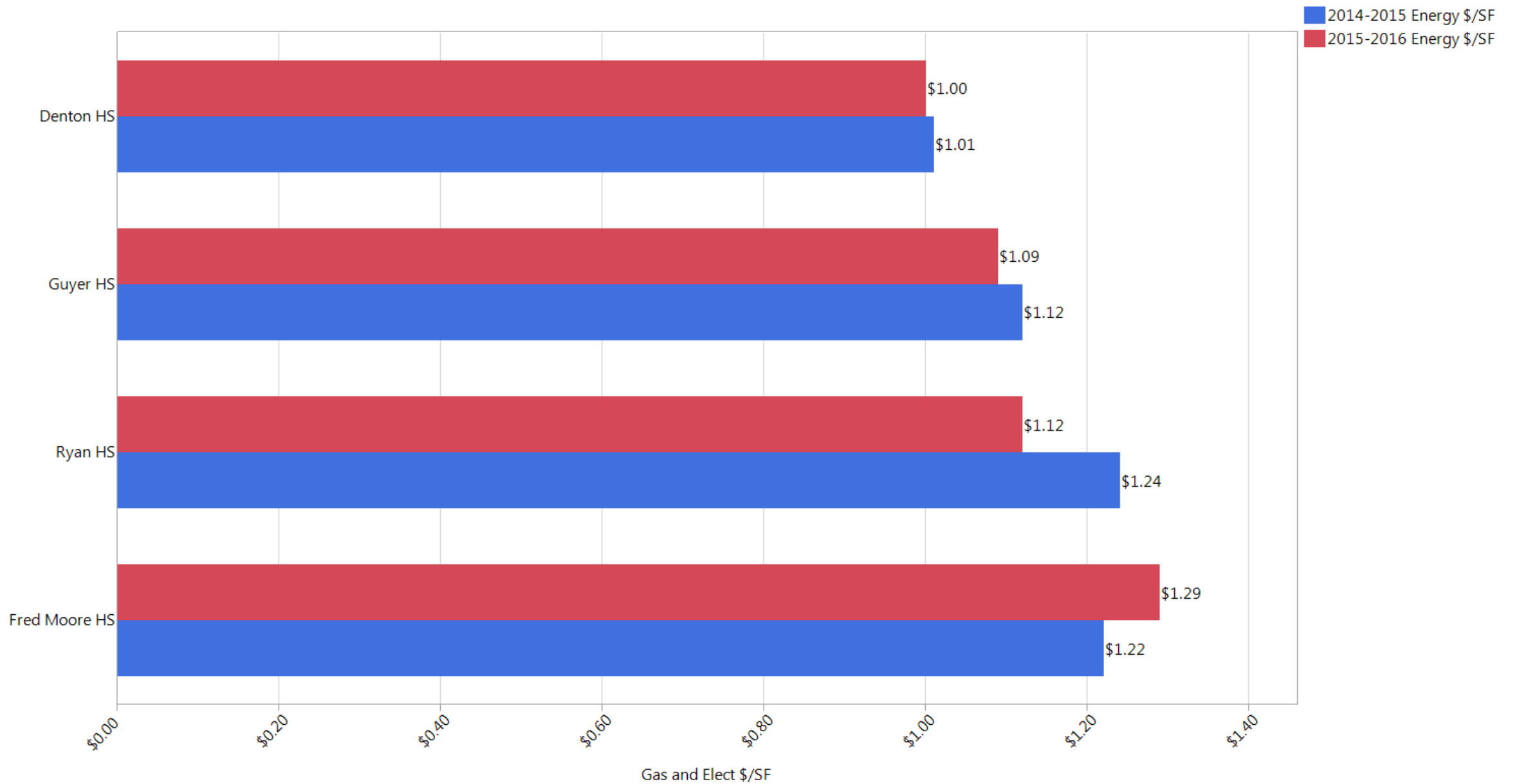
- Net increase in dollars of \$48,407



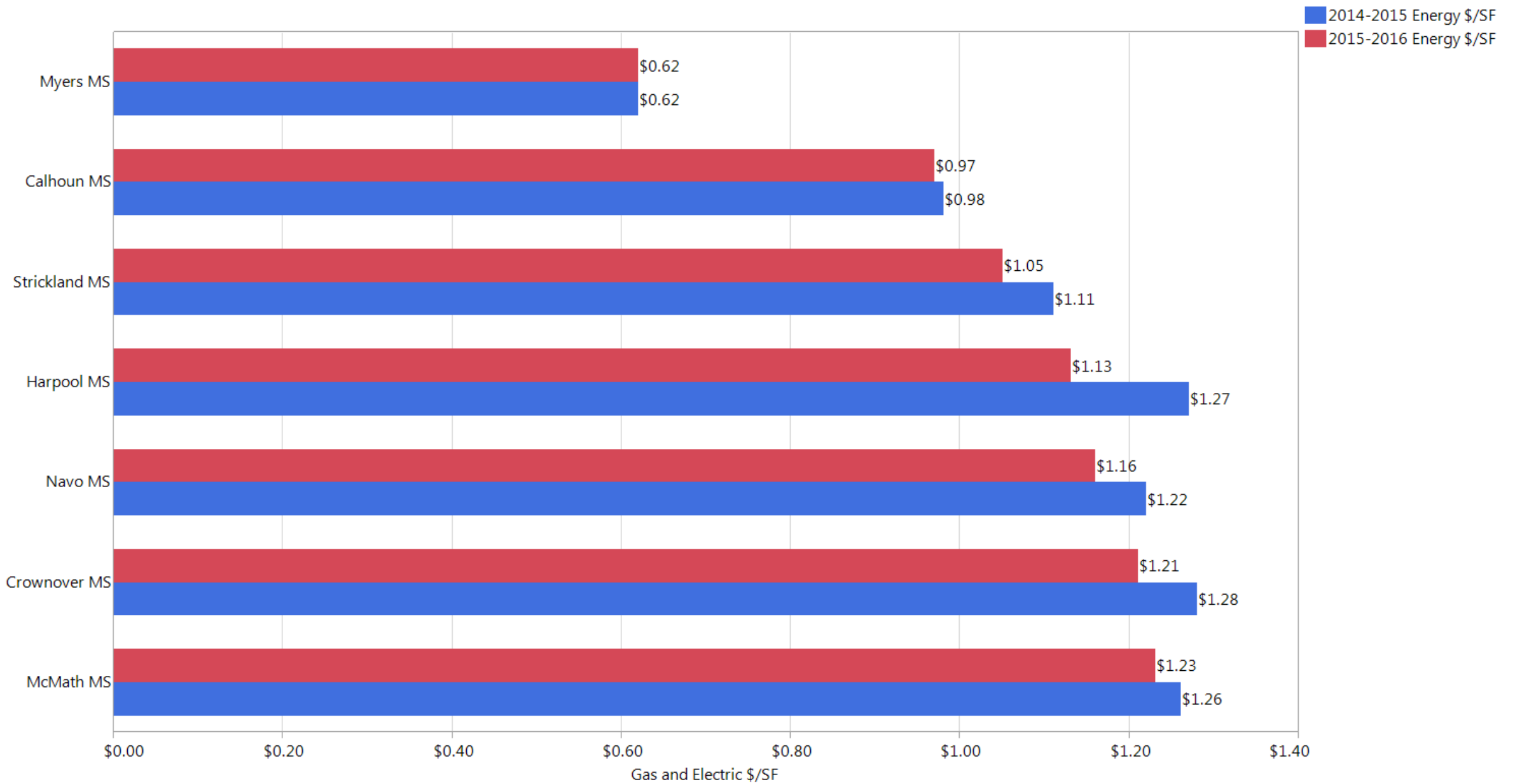
Total Cost Comparison By Utility

Category	6 Months	6 Months	% change	Cost Change
	Jul 2014 - Dec 2014	Jul 2015 - Dec 2015		
Electric	\$2,724,191	\$2,839,666	4.2%	\$115,475
Gas	\$215,399	\$135,166	-37.2%	-\$80,233
Domestic Water	\$273,970	\$334,767	22.2%	\$60,797
Irrigation	\$303,773	\$448,355	47.6%	\$144,582
Refuse	\$390,528	\$438,935	12.4%	\$48,407
TOTAL	\$3,907,861	\$4,196,889	7.4%	\$289,028

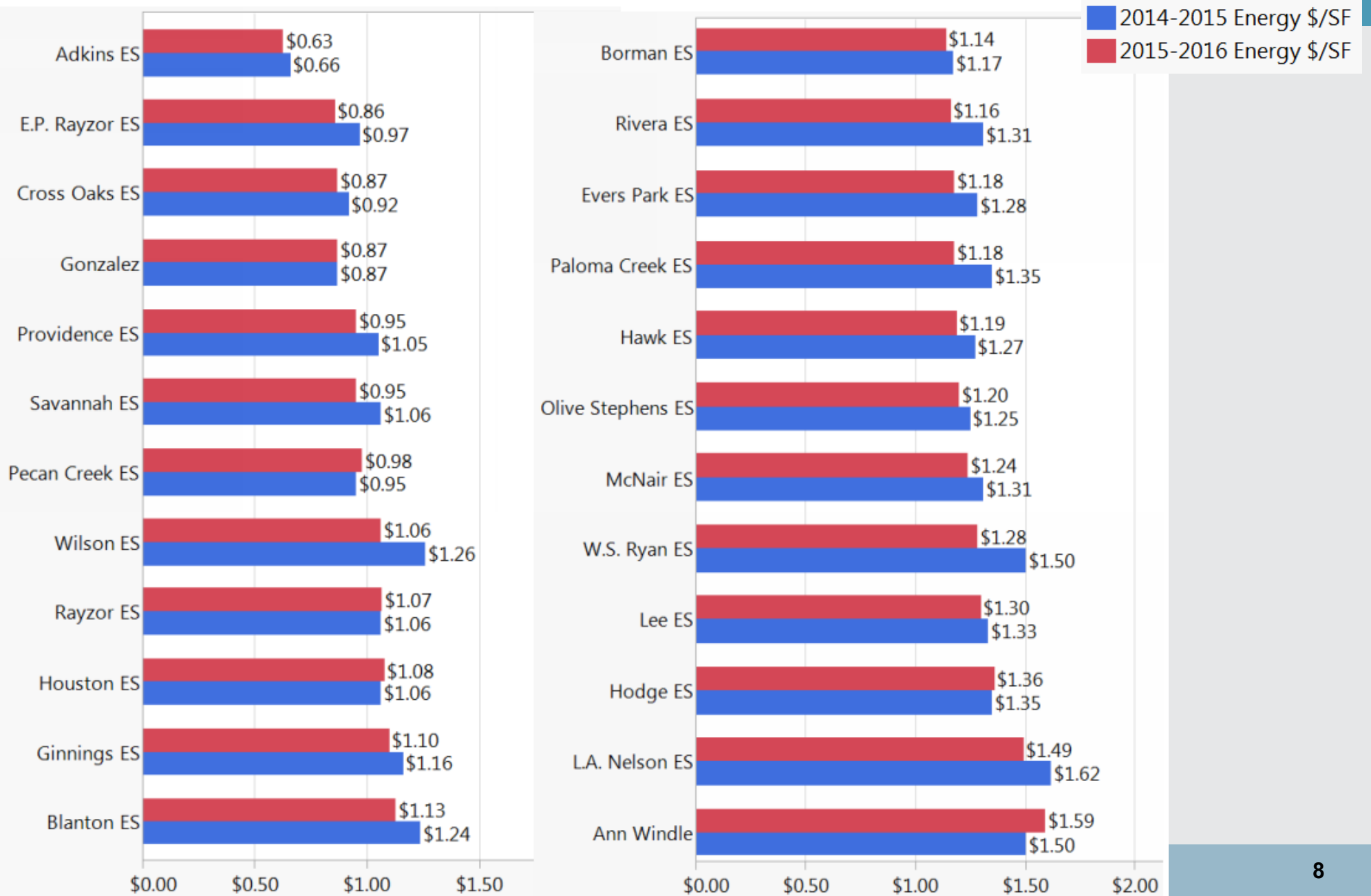
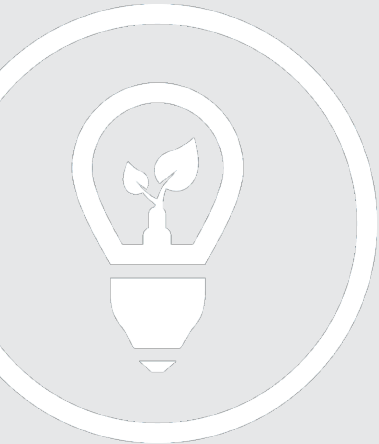
High School Gas-Elect Cost/Sf



Middle School Gas-Elect Cost/Sf

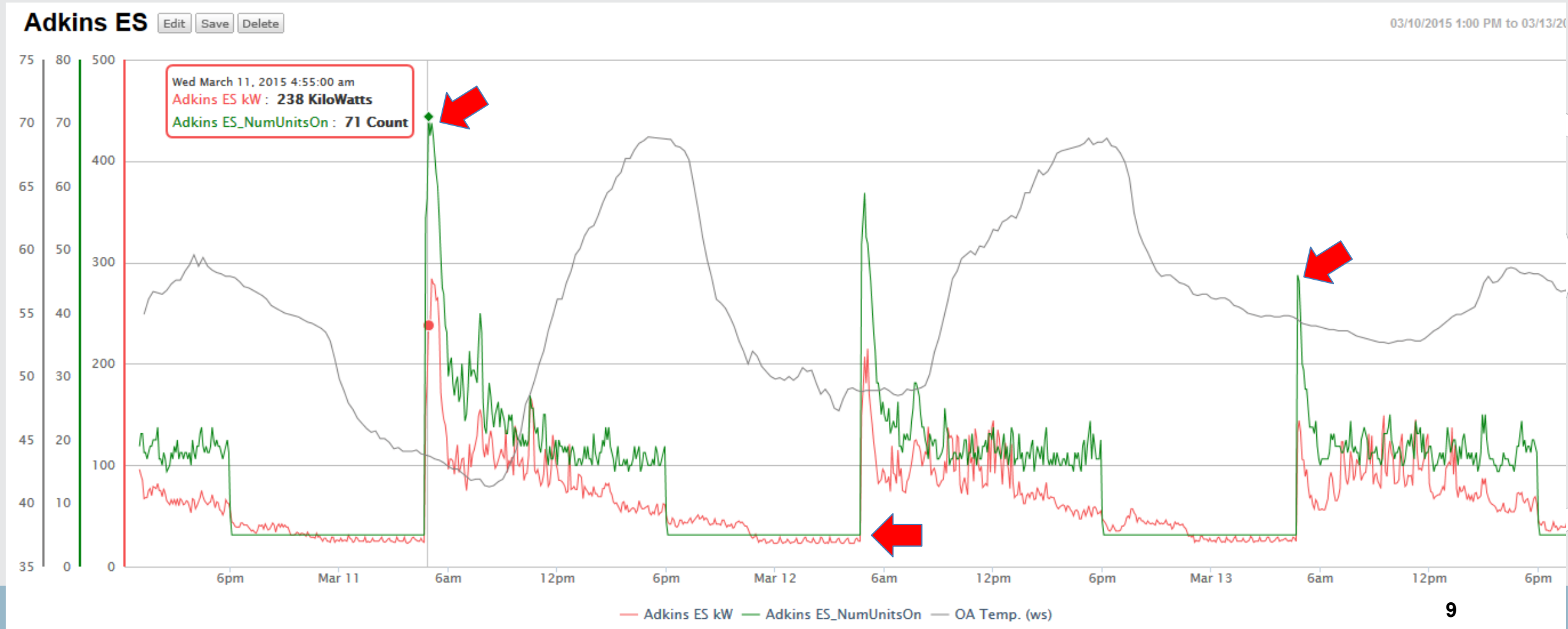


Elementary School Gas-Elect Cost/Sf



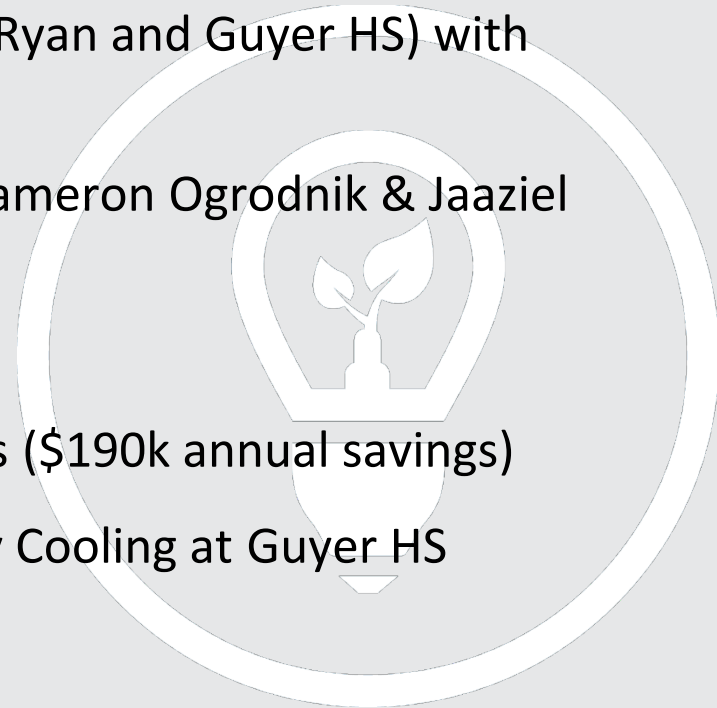
Building Performance Management Pilot Project

- Will continue thru June 2016
- Just under \$10k in avoided electric cost (Mar 2015 - Apr 2016)



Recent Activities

- Cross Oaks ES – Changed out individual lighting controllers
- Completed Water Evaporation Credit meter installation (Ryan and Guyer HS) with Projected Savings of \$5,300/yr
- Continued mentoring of 3rd Year Engineering students (Cameron Ogrodnik & Jaaziel Valles)
- Evaluated Solar Project with CoServ at Middle School #8
- Moving forward with 2013 Bond Program Energy Projects (\$190k annual savings)
 - Smart Irrigation, Exterior Lighting Retrofit & Auxiliary Cooling at Guyer HS



Recommendations

- Continue to upgrade Cross Oaks ES lighting controllers as needed
- Real Time Energy Accounting System
- Investigate Solar opportunities with TASB @ Myers, Stephens, Hawk, Crownover (Oncor)
- Add bar graphs for ATC, Davis, CDC, CH Collins to audit report

