



Utility Management Report Mid-Year Audit Jul 2014 – Dec 2014



Summary of Utility Cost and Usage

Base Year Fiscal Year (2005-2006)	Fiscal Year 2010 -2011	Fiscal Year 2011-2012	Fiscal Year 2012-2013	Fiscal Year 2013-2014	Fiscal Year 2014-2015 (Est. for annual total)
Total Utility Cost \$6,957,534	\$6,993,558	\$7,114,894	\$6,806,387	\$7,106,333	\$7,589,696
Total Energy Mbtu 213,131	237,958	235,792	235,623	233,824	231,558
Total District SqFt 3,553,417	4,648,225	4,660,667	4,761,856	4,943,330	4,997,990
Total Cost/SqFt \$1.96	\$1.50	\$1.53	\$1.43	\$1.46	\$1.52
Energy Use Index kBtu/SF 60.0	50.9	50.3	49.5	47.3	46.3

Total Cost Comparison By Utility

Category	6 Months	6 Months	% change	Cost Change	New Schools (Adkins) <small>Not Included in Comparison</small>
	July 2013-Dec 2013	July 2014-Dec 2014			
Electric	\$2,490,456	\$2,724,191	9.4%	\$233,735	\$26,690
Gas	\$200,046	\$215,399	7.7%	\$15,353	\$1,103
Domestic Water	\$283,759	\$273,970	-3.4%	-\$9,789	\$2,049
Irrigation	\$285,540	\$303,773	6.4%	\$18,233	\$21,332
Refuse	\$330,601	\$390,528	18.1%	\$59,927	\$8,295
TOTAL	\$3,590,402	\$3,907,861	8.8%	\$317,459	\$59,469

Analysis By Utility Type

Electricity

- Unit cost (rate) increased 8.4%
- Consumption increased by 0.9%
- 4.6% less cooling degree days
- Net increase in dollars of \$233,735

Natural Gas

- Unit cost (rate) increased by 10.6%
- Consumption decreased by -2.6%
- 22.2% less heating degree days
- Net increase in dollars of \$15,353



Analysis By Utility Type

Water

- Domestic Unit cost (rate) decreased -3.0%
- Domestic consumption decreased -0.4%
- Domestic net decrease in dollars of -\$9,789
- Irrigation Unit cost (rate) increased 2.0%
- Irrigation consumption increased 4.3%
- Irrigation net increase in dollars of \$18,233
- Rainfall increased by 40.5% / up 3.54 inches

Refuse

- Net increase in dollars of \$59,927



High School Energy Cost per Square Foot

Fred Moore HS

\$1.21

Ryan HS

\$1.19

Guyer HS

\$1.06

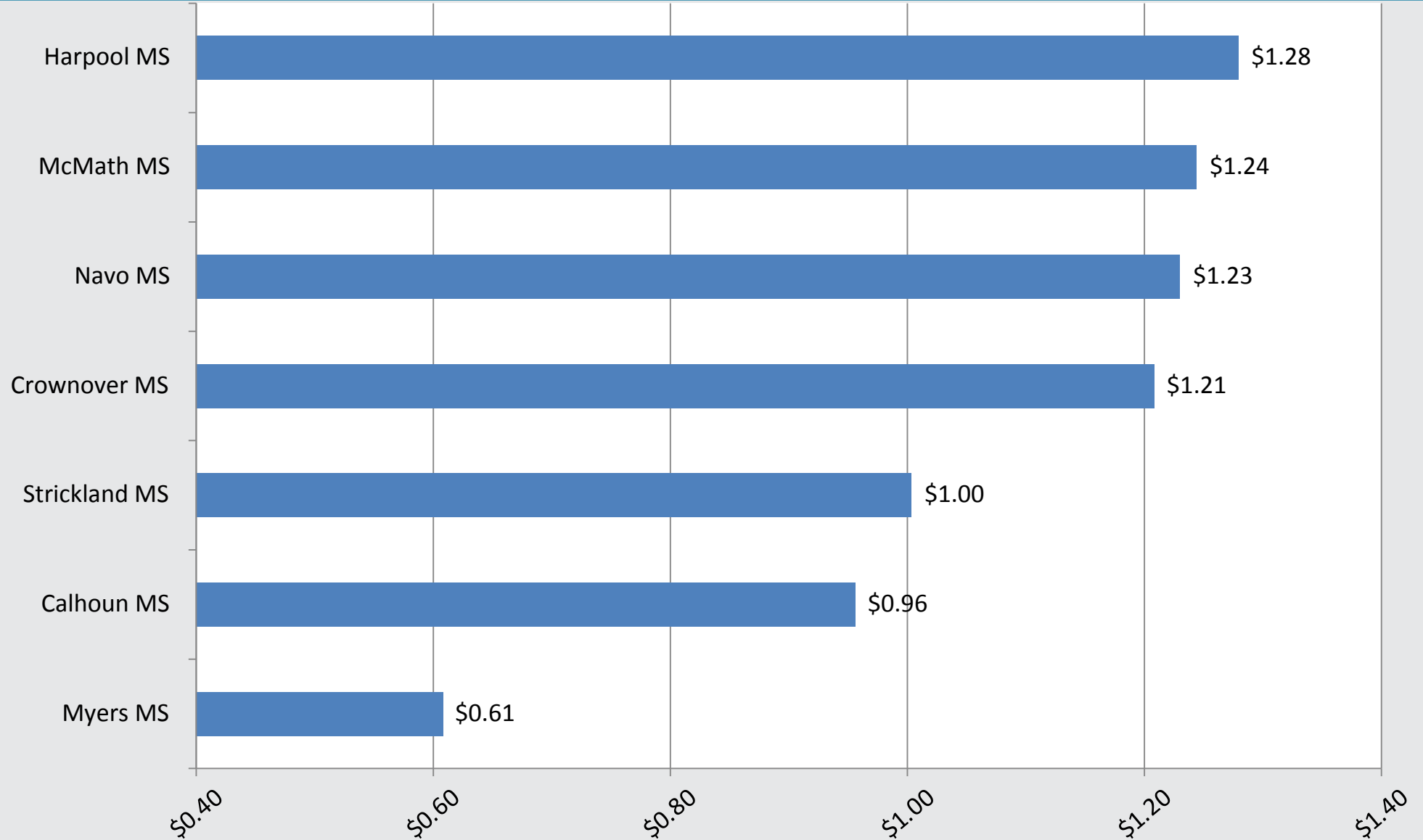
Denton HS

\$0.99



\$0.40 \$0.60 \$0.80 \$1.00 \$1.20 \$1.40

Middle School Energy Cost per Square Foot



Elementary School Energy Cost per Square Foot

Ann Windle School for Young Children

\$1.53

L.A. Nelson ES

\$1.46

Lee ES

\$1.28

Rivera ES

\$1.28

Evers Park ES

\$1.26

McNair ES

\$1.26

Blanton ES

\$1.25

Hawk ES

\$1.24

Hodge ES

\$1.24

Paloma Creek ES

\$1.23

Olive Stephens ES

\$1.23

W.S. Ryan ES

\$1.19

Borman ES

\$1.19

Ginnings ES

\$1.14

Houston ES

\$1.10

Providence ES

\$1.05

Rayzor ES

\$1.05

Wilson ES

\$1.04

E.P. Rayzor ES

\$1.03

Savannah ES

\$0.97

Pecan Creek ES

\$0.93

Cross Oaks ES

\$0.92

Gonzalez School For Young Children

\$0.80

Adkins ES

\$0.59



\$0.30

\$0.50

\$0.70

\$0.90

\$1.10

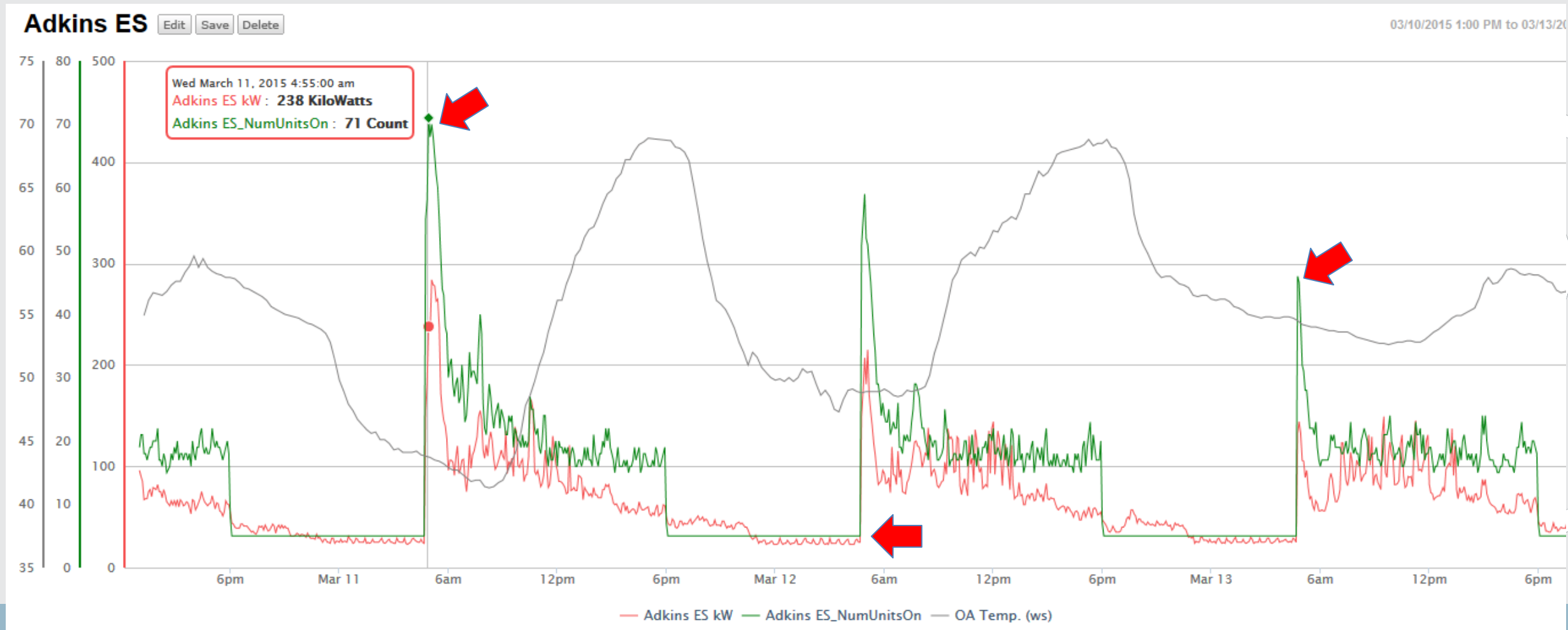
\$1.30

\$1.50

\$1.70

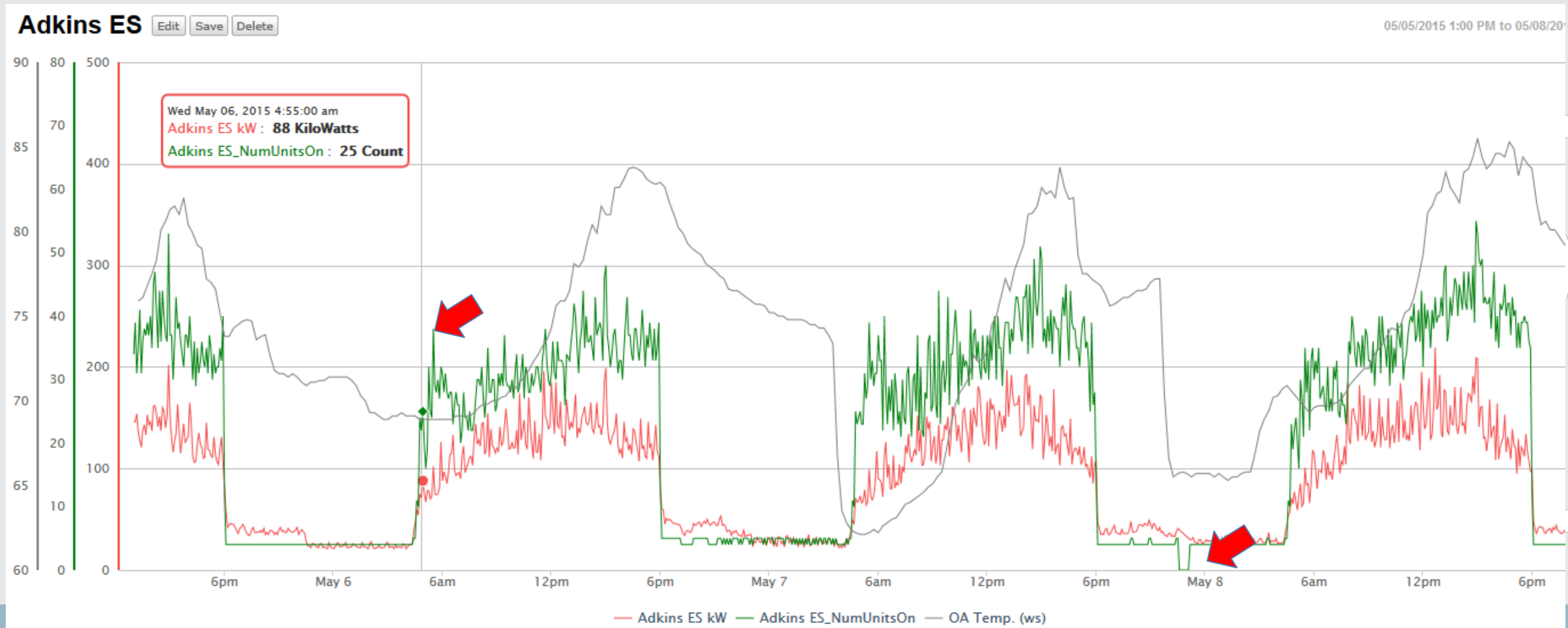
Building Performance Management Pilot Project

- Five Schools – Adkins & Cross Oaks ES, Myers MS, Denton and Guyer HS
- Determine Baseline Building Electric Usage when Unoccupied
- Evaluate Load Profiles
- Identify and Correct Unnecessary Energy Usage and Cost in Real Time



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Recent Activities

- Implemented Building Performance Management Pilot Project
- Identified and Corrected Water Leaks at Harpool MS
- Evaluated Solar Power on New Elementary #23
- Engineering Design Change on Irrigation Control System at Braswell HS and Elementary #23
- Currently Evaluating Power Factor Correction Study



Recommendations

- Eagerly Evaluate Impact of BPM Pilot Project
- Implement Utility Saving Retrofits Included in the 2013 Bond Program (\$190k annual savings)
- Evaluate Performance of Schools with Geo-Thermal HVAC

