

AGENDA

SCHOOL BOARD WORKSHOP

GADSDEN COUNTY SCHOOL BOARD  
MAX D. WALKER ADMINISTRATION BUILDING  
35 MARTIN LUTHER KING, JR. BLVD.  
QUINCY, FLORIDA

September 18, 2012

4:00 P.M.

THIS WORKSHOP IS OPEN TO THE PUBLIC

1. CALL TO ORDER
2. HONEYWELL ENERGY COST AVOIDANCE REPORT
3. ITEMS BY THE SUPERINTENDENT
4. SCHOOL BOARD REQUESTS AND CONCERNS
5. ADJOURNMENT

**SUMMARY SHEET**

**RECOMMENDATION TO SUPERINTENDENT FOR SCHOOL BOARD AGENDA**

**AGENDA ITEM NO.** 2

**DATE OF SCHOOL BOARD MEETING:** September 18, 2012

**TITLE OF AGENDA ITEMS:** Honeywell Energy Cost Avoidance Report

**DIVISION:** Maintenance and Finance Departments

**PURPOSE AND SUMMARY OF ITEMS:**

Attached is a copy of the Energy Cost Avoidance Report from Honeywell for the second year of implementation. In addition, copies of the quarterly Energy Analysis Reports are available in the Maintenance and Finance Departments.

**PREPARED BY:** Wayne Shepard and Bonnie Wood

**POSITION:** Director of Facilities and Assistant Superintendent for Business Services

# Gadsden County Schools Energy Cost Avoidance Report

**Energy Guarantee Year 2 of 10**  
April 2011 through March 2012



*Helping customers manage energy resources to  
improve financial performance*

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## *Gadsden County Schools* *Building a Brighter Future*

35 Martin Luther King, Jr. Blvd. Quincy, Florida 32351  
(850) 627-9651 - PHONE (850) 627-2760 - FAX



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# Program Overview

## Measurement & Verification Services

Honeywell is pleased to provide this comprehensive report of your energy consumption. This report was processed using an industry-standard program based on proven and accepted engineering formulas for energy conservation and analysis.

**M&V Contract Number:** 992-85-12329

**Baseline Period:** June 2007 - May 2008  
**Guarantee Period:** April 2010 - March 2024  
**Guarantee Term:** 10 Years

**Report Period:** April 2011 through March 2012

**Report Preparation By:** Dan Ponton, MVS  
 Joel Bruedigam, EA

June 2012



## Meters Included in Report



<u>Location</u>	<u>Utility</u>	<u>M&amp;V Methodology</u>
Administration	Electric	Option A
	Water	Option A
Transportation	Electric	Option A
	Water	Option A
Carter Parramore Elementary	Electric	Option A
	Natural Gas	Option A
Chattahoochee Elementary	Electric	Option A
	Water	Option A
George Munroe Elementary	Electric	Option A
	Natural Gas	Option A
	Water	Option A
Greensboro Elementary	Electric	Option A
	Water	Option A
Gretna Elementary	Electric	Option A
	Natural Gas	Option A
Havana Elementary	Electric	Option A
	Water	Option A
St. Johns Elementary	Electric	Option A
	Natural Gas	Option A
Stewart Street Elementary	Electric	Option A

<u>Location</u>	<u>Utility</u>	<u>M&amp;V Methodology</u>
Havana Middle	Water	Option A
	Electric	Option A
James Shanks Middle	Water	Option A
	Electric	Option A
	Natural Gas	Option A
East Gadsden High	Water	Option A
	Electric	Option A
West Gadsden High	Electric	Option A
Gadsden Technical	Electric	Option A
	Water	Option A

## **Retrofit Highlights**

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- High Efficiency Lighting Upgrade
- High Efficiency HVAC Upgrade
- High Efficiency Plumbing Fixtures
- High Efficiency Marquee Sign
- Web Enabled HVAC Controls Upgrade
- Energy Awareness Program

## Determination of Energy Savings

### Theory of Energy Management

The primary motivation behind most energy management projects is cost avoidance. Cost avoidance is defined as the avoided expense, in today's dollars, attributable to a retrofit or other energy management initiative. In order to determine if a project has yielded the expected level of cost avoidance, it is necessary to measure and verify the cost avoidance in the post-retrofit period. By comparing the pre-retrofit energy consumption and cost with post-retrofit data, the performance of the energy retrofit can be determined.

The Federal Energy Management Program (FEMP) of the U.S. Department of Energy and its Measurement and Verification Guidelines for Federal Energy Projects classify measurement and verification approaches as Option A, B, C and D, and are selected based on the complexity of the retrofit project energy conservation measures (ECMs) and their potential operating interaction with each other. The FEMP Guidelines, based on the International Performance Measurement and Verification Protocol (IPMVP), were originally developed for U.S. federal projects. The FEMP and IPMVP protocols have since become the de facto standards used to measure and verify performance contract energy management project results.

*Option A:* Verification techniques determine savings by measuring the performance of a system before and after a retrofit, either through physical measurement or the use of manufacturer data, and multiplying the difference by an agreed-upon or stipulated factor, such as hours of operation.

*Option B:* Verification techniques are designed for projects where long-term continuous measurement of performance is desired. Metering is conducted on an individual system level, and the measured performance is compared with a baseline to determine cost avoidance.

*Option C:* Verification techniques involve utility whole building meter analysis, reviewing overall energy use, and identifying the effects of energy projects on a facility. Energy use before and after a retrofit project is compared to determine cost avoidance.

*Option D:* Computer models are developed that use calibrated simulations of baseline and post-installation energy use to measure cost avoidance.



# Methodology

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## Explanation of Adjustments

If all things were equal, energy management results could be simply determined by subtracting current year energy use units from their base year equivalent (kilowatt-hours, cubic feet of gas, cubic feet of water, etc.) The costs avoided would then simply be the energy use units saved between the two measured periods multiplied by a given billing rate.

However, as all conditions are never equal between the current and base year periods of tracking, adjustments are required to assure an equivalent comparison in order to accurately calculate the energy cost avoidance. These adjustments are made to the base year period utility bill data in order to reflect energy usage that would have occurred during the base year period if all the conditions of the current year period had existed then. The result is referred to as the baseline. Baseline adjustments include, but are not limited to, differences in billing period days, weather, rate schedules, equipment that has been recommissioned, added or removed, increases or decreases in building square footage, changes in enrollment counts, etc. These are variables affecting consumption which warrant adjustment to the baseline.

*Billing Days Adjustment* - Typically, utility companies do not bill for the same number of days each month. The energy tracking/auditing software program used adjusts for differences in the number of days in the billing period between the base year and current year before calculating energy cost avoidance/savings.

*Weather Adjustment* - As energy consumption is often weather-related, a regression analysis is performed to identify the relationship between historic meter performance and weather, denoted by heating or cooling degree-day variables. The analysis results in a regression model utilized in calculating the baseline, adjusted for the weather difference between the pre- and post-installation period. The program adjusts for weather variation using weather data degree-days while also recognizing that not all energy consumption is weather sensitive.

*Cost Adjustment* - Utility company rate schedules are generally used to calculate the cost of energy consumption. These rates may change frequently. The applicable utility rate schedule as determined by the performance contract is used for cost calculation in the current review period. This schedule achieves an accurate comparison of the pre- and post-installation period cost of energy.

*Runtime Adjustment* - A building's hours of operation (runtime) typically vary and will affect energy usage. Set hours of operation are agreed upon on a building-by-building basis and documented in the contract. Review period runtime is tracked on a monthly basis and compared to the agreed upon operating hours. Adjustments can be made in the event actual hours of operation exceed agreed upon hours.

# Methodology

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*Miscellaneous Adjustments* - A change in consumption will occur if the square footage or occupancy levels of the facility change or if the facility adds, deletes, or changes equipment that affects building load. Savings lost or gained by the change can be calculated by standard engineering formulas.

## Methods Contained in This Report

Option A is used to calculate energy cost avoidance for all facilities. This method gives a truer picture of the cost avoidance achieved by a lighting retrofit, regardless of the operation of the other building systems, especially where controls were omitted from the scope of work.

The baseline adjustment is stipulated to be an escalation of 4% per year for the unit cost of electric utilities and 4% per year for gas utilities, and 4% per year for the unit cost of water used in the determination of cost avoidance each year.

The energy avoidance identified in the Post Installation/Guarantee Period 1 measurement and verification activities will be stipulated as the achieved energy avoidance for years 2 through 14. The associated cost avoidance will be calculated using the stipulated utility unit avoidance times the agreed upon escalated utility unit costs.

Operational cost savings identified and described in the contract were deemed satisfied upon contract execution. Operational cost savings categorized as capital cost avoidance are part of, or are causally connected to scope of work specified in Attachment A and are documented by industry standard engineering methodologies acceptable to the Customer. The baseline adjustment is stipulated to be an escalation of 4% per year for operational costs used in the determination of operational cost avoidance each year.



# Executive Summary

In compliance with contract provisions, FEMP Option A methodology of Measurement & Verification, "Potential to Perform" was used to quantify energy cost avoidance and performance results reported herein. Every attempt has been made to generate the most accurate energy audit possible. Honeywell will follow Option A "Potential to Perform" methodology in Year 2 and through the rest of the guarantee period. On site verification by observations of operations and captured screen shots from EMS of the operating parameters will be completed.

Summary of Savings --Year 2			
Energy Conservation Measure	Cost Savings		
	Cost Savings Projected	Cost Savings Result	% to Projection
High Efficiency Lighting Upgrade	\$141,389	\$140,584	99%
High Efficiency HVAC Upgrade	\$5,272	\$5,244	99%
High Efficiency Plumbing Fixtures	\$11,682	\$16,704	143%
High Efficiency Marquee Sign	\$3,853	\$4,057	105%
Web Enabled HVAC Controls Upgrade	\$60,379	\$60,379	100%
Energy Awareness Program	\$82,904	\$82,904	100%
<b>Total</b>	<b>\$305,479</b>	<b>\$309,872</b>	<b>101%</b>

Honeywell Home & Building Control provides a wide array of products, services, and programs to conserve energy and increase the operating efficiency of your building. When Honeywell applies advanced control and maintenance techniques to your existing buildings.

Excellence Is Our Standard  
Delighting You Is Our Goal

Thank You for Choosing Honeywell

# Total Cost Avoidance Summary

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## Year 2 Results

Energy Cost Avoidance	\$ 309,872
Operational Savings	\$ 171,484
<hr/>	
Total Cost Avoidance	\$ 481,356
Annual Guarantee	\$ 476,963
Excess Savings/(Shortfall)	\$ 4,393
Percent of Plan	101%

## Cumulative Results

TIME PERIOD		TOTAL COST AVOIDANCE	ANNUAL ENERGY GUARANTEE	EXCESS SAVINGS/ (SHORTFALL)
Year 1	4/10 - 3/11	\$ 462,869	\$ 458,618	\$ 4,251
Year 2	4/11 - 3/12	\$ 481,356	\$ 476,963	\$ 4,393
Year 3	4/12 - 3/13	\$ -	\$ -	\$ -
Year 4	4/13 - 3/14	\$ -	\$ -	\$ -
Year 5	4/14 - 3/15	\$ -	\$ -	\$ -
Year 6	4/15 - 3/16	\$ -	\$ -	\$ -
Year 7	4/16 - 3/17	\$ -	\$ -	\$ -
Year 8	4/17 - 3/18	\$ -	\$ -	\$ -
Year 9	4/18 - 3/19	\$ -	\$ -	\$ -
Year 10	4/19 - 3/20	\$ -	\$ -	\$ -
<b>TOTAL</b>		<b>\$ 944,225</b>	<b>\$ 935,581</b>	<b>\$ 8,644</b>

# Energy Cost Avoidance Summary

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## Year 2 Results

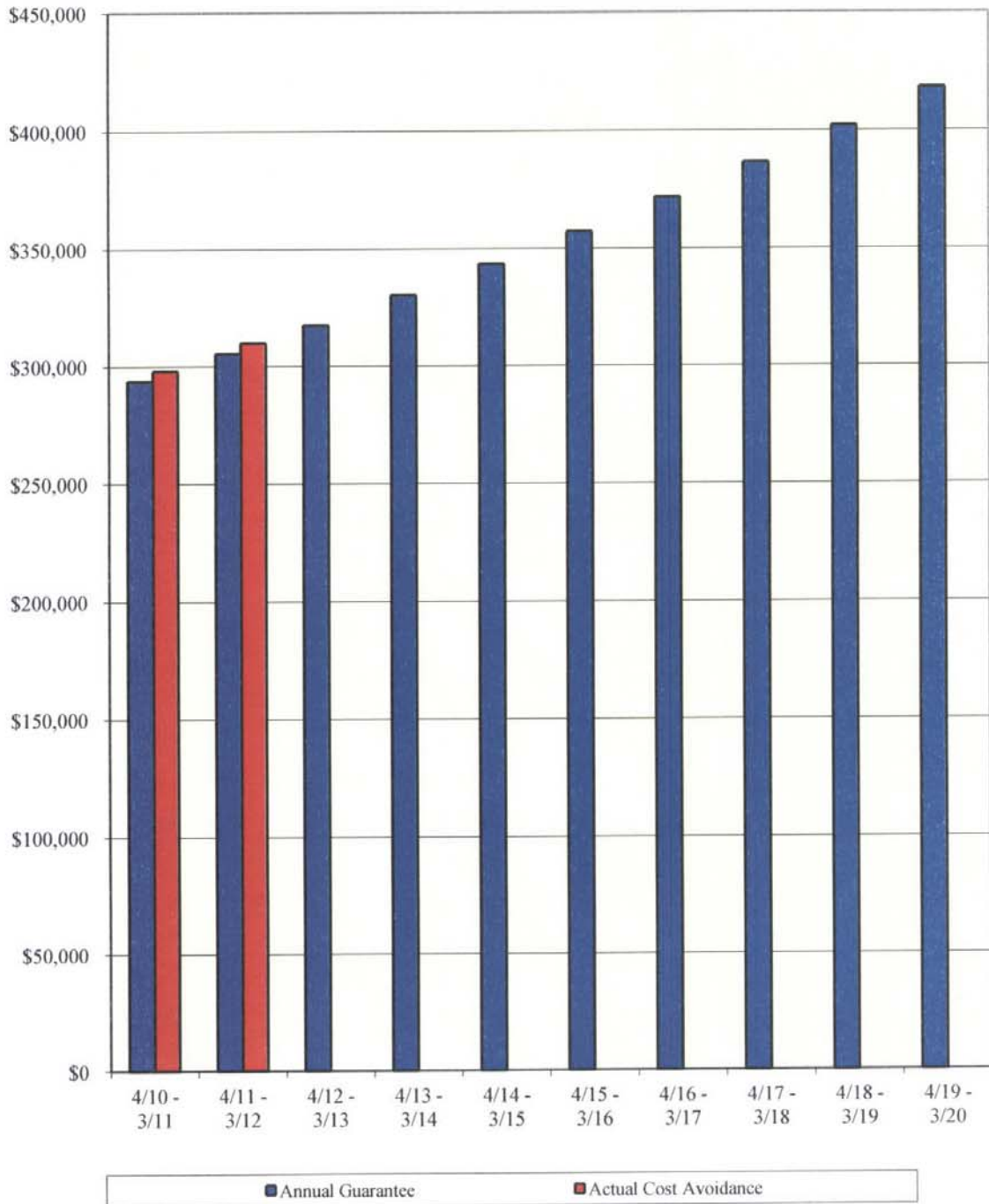
Utility Savings	\$ 309,872
Annual Energy Guarantee	\$ 305,479
Excess Savings/(Shortfall)	\$ 4,393
Percent of Plan	101%

## Cumulative Results

TIME PERIOD		TOTAL COST AVOIDANCE	ANNUAL ENERGY GUARANTEE	EXCESS SAVINGS/ (SHORTFALL)
Year 1	4/10 - 3/11	\$ 297,981	\$ 293,730	\$ 4,251
Year 2	4/11 - 3/12	\$ 309,872	\$ 305,479	\$ 4,393
Year 3	4/12 - 3/13	\$ -	\$ -	\$ -
Year 4	4/13 - 3/14	\$ -	\$ -	\$ -
Year 5	4/14 - 3/15	\$ -	\$ -	\$ -
Year 6	4/15 - 3/16	\$ -	\$ -	\$ -
Year 7	4/16 - 3/17	\$ -	\$ -	\$ -
Year 8	4/17 - 3/18	\$ -	\$ -	\$ -
Year 9	4/18 - 3/19	\$ -	\$ -	\$ -
Year 10	4/19 - 3/20	\$ -	\$ -	\$ -
<b>TOTAL</b>		<b>\$ 607,853</b>	<b>\$ 599,209</b>	<b>\$ 8,644</b>

# Performance Savings

## Annual Energy Guarantee vs. Actual Cost Avoidance



# Project Overview/Review Detail

## Validation of ECM Savings

### Measurement & Verification Methods

Measurement and Verification (M&V) is based on the Federal Energy Management Program's (FEMP) publication, "Measurement and Verification Guideline for Federal Energy Projects," (DOE/GO-102000-0960, September 2000). The M&V plan for this contract consists of the following:

**Year One:** Honeywell will follow FEMP Option "A" "Potential to Perform" (as scheduled in Attachment "G", Exhibit G-3 & G-4) for the Measurement and Verification to quantify the energy cost avoidance of Gadsden County Schools facilities. This option will be applied on an ECM specific basis and was selected for this determination to provide an accurate but economical reconciliation. Savings will be realized from both energy and operational improvements. Energy savings for the Facilities for such Guarantee Year will be quantified and summarized on an ECM basis as defined below. The energy savings will be multiplied by the applicable energy rate as defined in Attachment G section 1.1 to calculate the Energy cost avoidance.

**Year Two and Remaining Guarantee Years (ongoing):** Honeywell will follow FEMP Option "A" "Potential to Perform" (as scheduled in Exhibit G-3 & G-4). On-site verification by observation of operation and captured screen shots from the EMS of the operating parameters will be completed for the Measurement and Verification of the installed ECMs. The annual inspection of time schedules in the Energy Management System will be performed to quantify equipment runtimes and the energy cost avoidance of the customer's facility as stated in Exhibit "G1".

### Energy Conservation Measures (ECMs) Implemented

#### Applicable ECMs

ECMs (and associated energy types) applicable to the project include:

- ECM #1 – High Efficiency Lighting Upgrade (Electricity)
- ECM #2 – High Efficiency HVAC Upgrades (Electricity & Gas)
- ECM #3 – High Efficiency Plumbing Fixtures (Water)
- ECM #4 – High Efficiency Marquee Sign (Electricity)
- ECM #5 – Web Enabled HVAC Controls Upgrade (Electricity)
- ECM #6 – Energy Awareness Program (Electricity)

#### Projected Savings

Attachment G, Section 1.1, Schedule of Savings in the contract, indicates that these ECM is to generate **\$305,479 of energy savings/cost avoidance in year 2 of the performance contract, escalated 4% annually.**

Baseline operating parameters are stipulated and agreed upon. See Energy Savings Calculations, attached hereto and incorporated herein for further information regarding stipulated baseline parameters.

Guarantee Period operating parameters are stipulated and agreed upon, and are displayed in the Energy Savings calculations.

# Project Overview/Review Detail

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**ECMS # 1 - 6 – Summary Listed in Table 1 (directly taken from attachment “G” in the contract).**

The energy consumption baseline for these ECMS was generated using the Engineering calculations in Exhibit G-2 in the contract based on the pre-retrofit HVAC equipment, the existing control system, applicable electric cost rates, and the operating parameters stipulated in the contract document. The post data was gathered and quantified after the installation of the new equipment and control systems using the post-installation operating parameters also stipulated in the contract document in Exhibit G-4. The comparison of these pre- and post-installation profiles validates the potential to achieve the projected cost avoidance for this ECM.

- 1.1 Energy Savings.** The amount of energy savings for guarantee year 2 is the sum of the below listed ECMs. The schedule of savings does not include the absolute increase in energy use due to the implementation of measures to increase environmental comfort as directed by the customer, and other baseline adjustments (see 1.3.1.1). The Guaranteed savings are less than the projected savings, represented in Exhibit G-1. The Cost Avoidance is based on the listed Energy and Operational Cost Avoidance Guarantee Practices contained in Section 1.3 herein.

**Table 1 – Detailed Explanation of Year 2 ECM cost avoidance**

<b>Att A</b>	<b>ECM Description</b>	<b>Electric Year 2</b>	<b>Non-Electric Year 2</b>	<b>Water Year 2</b>	<b>Total Year 2</b>
1	High Efficiency Lighting Upgrade	\$141,389			<b>\$141,389</b>
2	High Efficiency HVAC Upgrade	\$2,125	\$3,119		<b>\$5,244</b>
3	High Efficiency Plumbing Fixtures			\$11,682	<b>\$11,682</b>
4	High Efficiency Marquee Sign	\$3,853			<b>\$3,853</b>
5	Web Enabled HVAC Controls Upgrade	\$60,379			<b>\$60,379</b>
6	Energy Awareness Program	\$82,904			<b>\$82,904</b>
	<b>Totals</b>	<b>\$290,650</b>	<b>\$3,119</b>	<b>\$11,682</b>	<b>\$305,451</b>



# ECM 1 - Lighting Upgrade

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Building	# Existing	# Retrofitted	Year 2 rate		
	Fixtures	Fixtures	kWh Saved	per kWh	Cost Avoidance
George Munroe Elem	1,049	870	109,879	0.111	\$12,250
James Shanks Middle	1,497	1,379	231,061	0.111	\$25,761
Greensboro Elem	1,036	883	132,450	0.128	\$16,902
Stewart Street Elem	488	464	51,289	0.111	\$5,718
Gadsden Technical	549	540	125,318	0.080	\$10,062
Havanah Mid	1,517	1,515	246,732	0.093	\$22,889
Chattahoochee Elem	1,164	1,169	113,843	0.084	\$9,543
Havana Elem	633	617	111,583	0.133	\$14,866
Administration	259	221	97,799	0.080	\$7,852
Transportation	88	88	31,011	0.111	\$3,457
Howser Pre-K	38	38	2,962	0.080	\$238
Warehouse	162	162	22,337	0.111	\$2,490
Personnel	77	43	18,606	0.080	\$1,494
Midway	38	38	4,013	0.134	\$536
Vending	45	45	57,062	0.114	\$6,528
<b>Total</b>	<b>8,640</b>	<b>8,072</b>	<b>1,355,945</b>	<b>0.104</b>	<b>\$140,584</b>

# ECM 2 - HVAC Upgrades

**Building:** George Munroe

**OVERVIEW:**

The existing 5 ton, packaged units serving the building are aging and less efficient than newer equipment currently available. They will be replaced with a new High Efficiency packaged unit in the existing location. The savings calculation assumes an average cooling load over the period that the equipment is in operation. It also assumes that the savings will be based upon the current building loads, including ventilation.

**ASSUMPTIONS:**

Present cooling energy usage.....	<u>36,486</u> KWH/yr	
Electrical demand period.....	<u>8</u> months	<b>SEER Ratings</b>
Existing cooling equipment EER rating.....	<u>7.2</u> MBTU/KWH	8
New cooling equipment EER rating.....	<u>11.7</u> MBTU/KWH	13
Cooling equipment rated capacity.....	<u>35.0</u> tons	
Weekly cooling system operation.....	<u>42</u> hrs/wk	
Cooling season length.....	<u>33</u> wk/yr	
Avoided cost of electricity.....	<u>\$0.1115</u> /KWH	
Avoided cost of demand.....	<u>\$0.00</u> /KW	
Cooling conversion factor.....	<u>12</u> MBTU/ton-hr	

**UTILITY SAVINGS CALCULATIONS:**

<b>Load Factor</b>	=	<input type="text" value="0.45"/>
<b>Demand Savings</b>	=	<input type="text" value="9.18 KW"/>
<b>Cooling Savings</b>	=	<input type="text" value="12,910 KWH/yr"/>
<b>Cost Savings</b>	=	<input type="text" value="\$1,439 /yr"/>

**UTILITY SAVINGS FORMULAS:**

Baseline Calculation Data					
Tons	Hrs/dy	Dy/Wk	Wk/yr	LF	EER
35.0	6	7	33.1	0.45	7.2

$$Load\ Factor = \frac{cooling\ KWH\ x\ (exist\ EER)}{tons\ x\ 12\ x\ \left(\frac{oper.}{period}\right)}$$

$$Demand\ Savings = \left(\frac{load}{factor}\right) x (tons) x (12) x \left(\frac{1}{exist\ EER} - \frac{1}{new\ EER}\right)$$

$$Cooling\ Savings = \left(\frac{demand}{savings}\right) x \left(\frac{oper.}{period}\right)$$

$$Cost\ Savings = \left(\frac{demand}{savings}\right) x \left(\frac{demand}{cost}\right) + \left(\frac{cooling}{savings}\right) x \left(\frac{elect.}{cost}\right)$$

# ECM 2 - HVAC Upgrades

**Building:** Gretna Elementary

**OVERVIEW:**

The existing 20 ton air cooled chiller serving the cafeteria is aging and less efficient than newer equipment currently available. It will be replaced with a new High Efficiency unit in the existing location. The savings calculation assumes an average cooling load over the period that the equipment is in operation. It also assumes that the savings will be based upon the current building loads, including ventilation.

**ASSUMPTIONS:**

Present cooling energy usage.....	20,849 KWH/yr	
Electrical demand period.....	8 months	SEER Ratings
Existing cooling equipment EER rating.....	7.2 MBTU/KWH	8
New cooling equipment EER rating.....	10.0 MBTU/KWH	11.1
Cooling equipment rated capacity.....	20.0 tons	
Weekly cooling system operation.....	42 hrs/wk	
Cooling season length.....	33 wk/yr	
Avoided cost of electricity.....	\$0.1276 /KWH	
Avoided cost of demand.....	/KW	
Cooling conversion factor.....	12 MBTU/ton-hr	

**UTILITY SAVINGS CALCULATIONS:**

Load Factor	=	<input type="text" value="0.45"/>
Demand Savings	=	<input type="text" value="3.28 KW"/>
Cooling Savings	=	<input type="text" value="5,371 KWH/yr"/>
Cost Savings	=	<input type="text" value="\$685 /yr"/>

**UTILITY SAVINGS FORMULAS:**

Baseline Calculation Data					
Tons	Hrs/dy	Dy/Wk	Wk/yr	LF	EER
20.0	6	7	33.1	0.45	7.2

$$Load\ Factor = \frac{cooling\ KWH \times (exist\ EER)}{tons \times 12 \times \left(\frac{oper.}{period}\right)}$$

$$Demand\ Savings = \left(\frac{load}{factor}\right) \times (tons) \times (12) \times \left(\frac{1}{exist\ EER} - \frac{1}{new\ EER}\right)$$

$$Cooling\ Savings = \left(\frac{demand}{savings}\right) \times \left(\frac{oper.}{period}\right)$$

$$Cost\ Savings = \left(\frac{demand}{savings}\right) \times \left(\frac{demand}{cost}\right) + \left(\frac{cooling}{savings}\right) \times \left(\frac{elect.}{cost}\right)$$

# ECM 2 - HVAC Upgrades

## Boiler Retrofit

### Carter Parramore - Model Baseline - Natural Gas (70% Eff)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat Reject.	0	0	0	0	0	0	0	0	0	0	0	0	0
Refrigeration	0	0	0	0	0	0	0	0	0	0	0	0	0
Space Heat	341.5	296.1	128	39.5	9.4	0	0	0.3	2.5	34.2	124.3	311.5	1,287.40
HP Supp.	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Water	27.4	25.5	28.2	28.9	27.5	4	4.2	23.9	21.8	24.5	22.5	26.2	264.6
Vent. Fans	0	0	0	0	0	0	0	0	0	0	0	0	0
Pumps & Aux.	0	0	0	0	0	0	0	0	0	0	0	0	0
Ext. Usage	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. Equip.	0	0	0	0	0	0	0	0	0	0	0	0	0
Task Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
Area Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>368.9</b>	<b>321.6</b>	<b>156.2</b>	<b>68.4</b>	<b>36.9</b>	<b>4</b>	<b>4.2</b>	<b>24.2</b>	<b>24.3</b>	<b>58.7</b>	<b>146.9</b>	<b>337.7</b>	<b>1,551.90</b>

### Carter Parramore - Boiler Efficiency Improvement (85% Eff)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat Reject.	0	0	0	0	0	0	0	0	0	0	0	0	0
Refrigeration	0	0	0	0	0	0	0	0	0	0	0	0	0
Space Heat	281.2	243.8	105.5	32.5	7.8	0	0	0.3	2	28.2	102.4	256.5	1,060.20
HP Supp.	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Water	27.4	25.5	28.2	28.9	27.5	4	4.2	23.9	21.8	24.5	22.5	26.2	264.6
Vent. Fans	0	0	0	0	0	0	0	0	0	0	0	0	0
Pumps & Aux.	0	0	0	0	0	0	0	0	0	0	0	0	0
Ext. Usage	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. Equip.	0	0	0	0	0	0	0	0	0	0	0	0	0
Task Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
Area Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>308.6</b>	<b>269.3</b>	<b>133.6</b>	<b>61.5</b>	<b>35.2</b>	<b>4</b>	<b>4.2</b>	<b>24.1</b>	<b>23.8</b>	<b>52.7</b>	<b>124.9</b>	<b>282.7</b>	<b>1,324.70</b>

### Boiler Efficiency Improvement

Baseline Fossil Fuel Model	1,552
Model (After New Boiler)	1,325
MMBTU Savings	227
GSF Total	101,339
GSF Eff	68,244
% Total	67%
<b>Guaranteed MMBTU Savings</b>	<b>141</b>
<b>Cost Avoidance</b>	<b>\$ 2,279</b>

# ECM 2 - HVAC Upgrades

## Boiler Retrofit

St. John's - Model Baseline - Oil (74/74/72/72) 70% Eff

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat Reject.	0	0	0	0	0	0	0	0	0	0	0	0	0
Refrigeration	0	0	0	0	0	0	0	0	0	0	0	0	0
Space Heat	144.86	128.17	50.61	17.12	3.85	0	0	0	0.59	12.88	46.38	124.86	529.31
HP Supp.	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Water	13.35	12.4	13.69	14.05	13.32	1.89	1.98	11.57	10.56	11.9	10.96	12.74	128.41
Vent. Fans	0	0	0	0	0	0	0	0	0	0	0	0	0
Pumps & Aux.	0	0	0	0	0	0	0	0	0	0	0	0	0
Ext. Usage	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. Equip.	0	0	0	0	0	0	0	0	0	0	0	0	0
Task Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
Area Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>158.21</b>	<b>140.56</b>	<b>64.3</b>	<b>31.17</b>	<b>17.17</b>	<b>1.89</b>	<b>1.98</b>	<b>11.57</b>	<b>11.15</b>	<b>24.78</b>	<b>57.33</b>	<b>137.59</b>	<b>657.72</b>

St. John's - Model Boiler Replacement - Oil (74/74/72/72) 80% Eff

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	0	0	0	0	0	0	0	0	0	0	0	0	0
Heat Reject.	0	0	0	0	0	0	0	0	0	0	0	0	0
Refrigeration	0	0	0	0	0	0	0	0	0	0	0	0	0
Space Heat	126.75	112.15	44.28	14.98	3.37	0	0	0	0.51	11.27	40.58	109.25	463.14
HP Supp.	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Water	13.35	12.4	13.69	14.05	13.32	1.89	1.98	11.57	10.56	11.9	10.96	12.74	128.41
Vent. Fans	0	0	0	0	0	0	0	0	0	0	0	0	0
Pumps & Aux.	0	0	0	0	0	0	0	0	0	0	0	0	0
Ext. Usage	0	0	0	0	0	0	0	0	0	0	0	0	0
Misc. Equip.	0	0	0	0	0	0	0	0	0	0	0	0	0
Task Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
Area Lights	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>140.1</b>	<b>124.54</b>	<b>57.97</b>	<b>29.03</b>	<b>16.69</b>	<b>1.89</b>	<b>1.98</b>	<b>11.57</b>	<b>11.07</b>	<b>23.17</b>	<b>51.54</b>	<b>121.99</b>	<b>591.56</b>

### Boiler Efficiency Improvement

Baseline Fossil Fuel Model	657.72
Model (After New Boiler)	591.56
MMBTU Savings	66.16
GSF Total	49163
GSF Eff	31630
% Total	64%

<b>Gauranteed MMBTU Savings</b>	<b>39</b>
<b>Cost Avoidance</b>	<b>\$ 840</b>

## ECM 3 - Plumbing Fixtures

BUILDING NUMBER	Total	Baseline	Savings (Gal)	Savings	Quantities					Cost Avoidance	
	STUDENTS	WATER (Gal)	WATER (GAL)	ENERGY (MMBtu)	TOILETS	URINALS	COMMON AREA BATH / CLASSROOM SINKS (NO HOT WATER)	KITCHEN / NURSE SINKS	SHOWERS	WATER	FUEL
CHATTAHOOCHEE ELEMENTARY	215	470,700	170,067	1.95	11	7	28	5	0	\$ 699	\$ 34
GADSDEN CENTRAL ACADEMY	200	0	122,430	0.78	5	2	14	2	0	\$ 503	\$ 14
GADSDEN ELEMENARY MAGNET	125	64,800	19,217	1.95	35	9	22	5	0	\$ 79	\$ 34
GADSEN TECHNICAL INSTITUTE	50	76,600	1,546	3.13	14	11	20	8	0	\$ 6	\$ 54
GEORGE MUNROE ELEMENTARY	733	1,244,800	384,517	2.74	32	8	77	7	0	\$ 1,580	\$ 47
HAVANA ELEMENTARY	603	1,310,700	403,517	1.17	18	4	48	3	0	\$ 1,658	\$ 20
HAVANA MIDDLE	214	1,591,000	522,803	25.69	0	0	66	13	33	\$ 2,148	\$ 445
JAMES A SHANKS	607	2,231,500	732,442	1.95	29	6	99	10	42	\$ 3,009	\$ 34
STEWART STREET ELEMENTARY	530	2,231,500	732,442	1.95	10	1	55	5	0	\$ 3,009	\$ 34
FAMILY INFORMATION		0	3,809	0.39	0	0	1	1	0	\$ 16	\$ 7
MAINTENANCE BUILDING		124,300	40,317	0.78	2	1	2	2	0	\$ 166	\$ 14
PERSONNEL OFFICE		0	3,905	0.00	0	0	1	0	0	\$ 16	\$ -
TRANSPORTATION BUILDING		303,800	91,066	2.50	3	2	6	0	4	\$ 374	\$ 43
CARTER PARAMORE ACADEMY	365	1,400,000	270,596	0.78	8	4	42	2	0	\$ 1,112	\$ 14
DIAGNOSTIC CENTER		0	7,273	0.78	1	0	1	2	0	\$ 30	\$ 14
GREENSBORO ELEMENTARY	415	983,450	334,985	4.69	15	14	46	12	0	\$ 1,376	\$ 81
MAX WALKER ADMINISTRATION		0	5,562	0.39	6	2	9	1	0	\$ 23	\$ 7
WAREHOUSE		0	1,905	0.00	0	0	1	0	0	\$ 8	\$ -
	<b>4,057</b>	<b>12,033,150</b>	<b>3,848,396</b>	<b>52</b>	<b>189</b>	<b>71</b>	<b>538</b>	<b>78</b>	<b>79</b>	<b>\$ 15,809</b>	<b>\$ 895</b>

Total Cost Avoidance \$ 16,704

# ECM 4 - Marquee Sign

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Area	Components	# Lamps	Watts/Lamp	Connected kW	Sign Utilization Factor	Average Utilized kW	Hours of Operation	Projected kWh Used
Existing Marquee Sign	30 watt Incandescent	2,048	30	61	30%	18.4	2,138	35,469
Marquee Exterior Sign	Red LED Retrofit	2,048	2.8	6	30%	1.7	2,138	3,678
kWh Saved								31,791
Cost Avoidance \$								4,057

## ECM 5 - Web Enabled HVAC Controls Upgrade

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Facility w/ Controls ECM	Yr Built	Lighting	Primary Technologies			GSF	kWh	Total Cost
			Cooling	Heating				
GADSDEN ELEMENTARY MAGNET	1919/1951	T-12	Air Cooled DX	NG	61,953	54,134	\$ 5,332	
GRETNA ELEMENTARTY	1924/1963	T-12	Air Cooled Chiller	Propane	50,534	-	\$ -	
CARTER PARRAMORE	1954/1974	T-12	Air Cooled DX	NG	101,339	-	\$ -	
HAVANA ELEMENTARY	1955/1980	T-12	Air Cooled Chiller	NG	81,900	-	\$ -	
GEORGE MUNROE ELEMENTARY	1956/1992	T-12	Air Cooled DX	NG	87,248	138,331	\$ 11,110	
WALKER ADMIN	1958/1988	T-12	Air Cooled DX	NG	18,062	49,748	\$ 3,995	
ST. JOHN ELEMENTARY	1959/1969	T-12	Air Cooled Chiller	NG	49,163	-	\$ -	
STEWART STREET ELEMENTARY	1965/1972	T-12	Air Cooled DX	NG	74,810	72,216	\$ 5,800	
JAMES A. SHANKS MIDDLE	1967/1987	T-12	Water Cooled Chiller	NG	138,149	-	\$ -	
CHATTAHOOCHEE ELEMENTARY	1971/1973	T-12	Air Cooled DX	NG	59,861	81,760	\$ 6,850	
GADSDEN TECHNICAL	1972/1975	T-12	Air Cooled DX	NG	100,507	73,860	\$ 5,932	
TRANSPORATION – BUS GARAGE	1990/1990	T-12	Air Cooled DX	Electric	17,872	2,744	\$ 303	
EAST GADSDEN HIGH	2001/2004	T-8	Air Cooled Chiller	Propane	206,005	102,948	\$ 9,463	
WEST GADSDEN HIGH	2005/2005	T-8	Air Cooled Chiller	Propane	116,691	124,936	\$ 11,593	
						700,677	\$ 60,379	



## ECM 6 - Energy Awareness

Facility w/ Controls ECM	Yr Built	Primary Technologies			GSF	kWh	Total Cost
		Lighting	Cooling	Heating			
GADSDEN ELEMENTARY MAGNET	1919/1951	T-12	Air Cooled DX	NG	61,953	33,564	\$ 3,306
GRETNA ELEMENTARTY	1924/1963	T-12	Air Cooled Chiller	Propane	50,534	89,340	\$ 8,800
CARTER PARRAMORE	1954/1974	T-12	Air Cooled DX	NG	101,339	120,820	\$ 11,901
HAVANA ELEMENTARY	1955/1980	T-12	Air Cooled Chiller	NG	81,900	112,300	\$ 14,966
GEORGE MUNROE ELEMENTARY	1956/1992	T-12	Air Cooled DX	NG	87,248	25,070	\$ 1,852
WALKER ADMIN	1958/1988	T-12	Air Cooled DX	NG	18,062	-	\$ -
ST. JOHN ELEMENTARY	1959/1969	T-12	Air Cooled Chiller	NG	49,163	74,590	\$ 7,347
STEWART STREET ELEMENTARY	1965/1972	T-12	Air Cooled DX	NG	74,810	44,775	\$ 3,596
JAMES A. SHANKS MIDDLE	1967/1987	T-12	Water Cooled Chiller	NG	138,149	-	\$ -
CHATTAHOOCHEE ELEMENTARY	1971/1973	T-12	Air Cooled DX	NG	59,861	50,692	\$ 4,247
GADSDEN TECHNICAL	1972/1975	T-12	Air Cooled DX	NG	100,507	45,794	\$ 3,678
TRANSPORATION - BUS GARAGE	1990/1990	T-12	Air Cooled DX	Electric	17,872	-	\$ -
EAST GADSDEN HIGH	2001/2004	T-8	Air Cooled Chiller	Propane	206,005	147,300	\$ 12,457
WEST GADSDEN HIGH	2005/2005	T-8	Air Cooled Chiller	Propane	116,691	129,200	\$ 10,754
						873,445	\$ 82,904

## Operational Savings

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The operational cost savings described below and identified in Attachment G section 1.2 of the contract are deemed satisfied upon contract execution.

Year 1	\$164,888
Year 2	\$171,484
Year 3	\$178,343
Year 4	\$185,477
Year 5	\$192,896
Year 6	\$200,611
Year 7	\$208,636
Year 8	\$216,981
Year 9	\$225,661
Year 10	\$234,687
<b>Total</b>	<b>\$1,979,664</b>

ECM #	Operational Savings Description (OSD)	Cost Avoidance Category (O&M, Capital)	Year 2 Breakdown
1	High Efficiency Lighting Upgrade	O&M	\$23,874
2	High Efficiency HVAC Upgrade	Capital & O&M	\$99,777
3	High Efficiency Plumbing Fixtures	O&M	\$730
4	High Efficiency Marquee Sign	O&M	\$3,423
5	Web Enabled HVAC Controls Upgrade	O&M	\$2,080
6	Web-Based Maintenance Management	O&M	\$41,600
	<b>Total</b>		<b>\$171,484</b>

# Site Visit Findings

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Site visit conducted 5-30-12 with Wayne Sheppard, Dan Ponton and James Frostick

Positives	Water savings measures intact and operating as installed Lighting operating as installed
Negatives	A large part of the controls are not reporting to the EBI server. According to the H'well controls tech. many controls have been bypassed by the customer

# Energy Savings Tips

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## The Goal

- Eliminate wasted energy in buildings while ensuring a comfortable and safe learning environment for all students and staff.
- Educate every student and employee about contributing to energy efficiency so that every person will be an energy saver, as well as an energy user.

## General Energy Savings Tips

- Be sure all automatic controls are in good working condition, calibrated properly and reviewed often.
- Monthly, review time schedules in the programmable thermostats. Make the most of your energy management system or programmable thermostats by turning heating/cooling systems off during unoccupied periods, including holidays, and maintaining energy-saving temperature setpoints. Start a shutdown list and hand out for use at each site during holidays and summertime. *Did you know that:*

Heating and cooling an average-sized elementary school is like heating and cooling 40 average-sized homes?

For every hour that an HVAC system operates at an average-sized elementary school when no one is there, it costs about \$15 to heat and \$14 to cool?

Every degree a thermostat is lowered during heating season or raised during cooling season decreases costs by 3-5%?

- Turn lights off in all areas, especially gyms, cafeterias, and auditoriums, when they are not occupied; instruct custodians to shut lights off as soon as classes end and turn them on again in an area only while cleaning it. (The average classroom can save \$25 a year by shutting off the lights for 2 additional hours each day.)
- Use daylight (it's free) to enhance lighting and reduce the use of electric light.
- Turn off computers, copiers, and other office machines every night, and make sure they are set on "energy-saver" mode while in use.
- Install Vending Misers on canned/bottled drink and other vending machines to turn them off 12 hours a day. Permanently de-lamp vending machines and disconnect ballasts, and turn them off completely during months when school is not in session. (Note: The cost of operating vending machines can exceed the shared revenue provided by the vendor.)
- Turn off exhaust fans in kitchens and bathrooms during unoccupied periods.
- Use equipment that consumes high amounts of electricity before noon whenever possible. This helps cut peak demand charges on a school's utility bill. This type of equipment includes kilns, electric ovens, sawdust collectors, and sports lights.
- Limit the use of small refrigerators in classrooms. Approximate annual cost is \$75 to \$90 per unit.

# Energy Savings Tips

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## Prepare for Heating Season

- Clean boilers, test all heating-related equipment, and check piping for steam leaks to be sure everything is in good working order *before* it is needed.
- Keep hot water temperatures to 120-130 degrees Fahrenheit for sinks and showers.
- Routinely inspect steam traps and repair those not operating properly. Avoid the domino effect of Steam trap failure = Loss of condensate = Increased make-up water = Increased use of costly treatment chemicals and Increased fuel consumption
- Insulate, caulk and repair or replace weather stripping around doors and windows to reduce heat loss.
- Be sure that building doors, as well as individual classroom and office doors, are closed when heating equipment is in operation. Repair gaps in doors.
- Space heaters use 1000 watts per hour. Flat leg or foot warmers may be substituted and use much less energy (approximately 100 watts per hour). These devices should be turned off at the end of the day.
- Negotiate fuel contracts whenever possible to avoid the unpredictable and frequent price spikes that occur each year.

## Cooling Season Tips

- If your air conditioning systems have automatic temperature controls, make sure outside air dampers are closed during unoccupied times.
- Be sure that building doors, as well as individual classroom and office doors, are closed when air conditioning equipment is in operation. Repair gaps in doors.
- Where cross-ventilation is available during mild weather, shut down air conditioning equipment and open windows and doors.
- Do not turn lights on unless needed, as they add heat to the building.

## Glossary of Terms

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actual cost	Actual energy cost taken directly from utility bill.
actual savings	Savings derived through the Metrix™ program; baseline less actual costs. Positive actual savings indicate utility costs have been reduced after adjusting for weather and other variables in dollars.
balance point	(HtgDD), the outdoor temperature below which space heating is required or (ClgDD), the outdoor temperature above which space cooling is required.
baseline	The adjusted, tuned pre-retrofit bills (usually 1 year) used to compare to post-installation usage in order to calculate savings.
baseline cost	Cost calculated for the baseline using current rates.
billed dollars	Amount billed from utility company.
bill matching	Adjustment made by Metrix™ to account for differing number of days in the billing period before calculating cost avoidance.
cost avoidance	The difference between the baseline cost and the actual or SimActual cost in dollars.
degree-day	Unit representing one degree of difference between the balance point selected and the average temperature during one day.
EER	Energy Efficiency Ratio of cooling equipment defined as the cooling effect in BTU's divided by the power use in watts
guarantee period	Time period specified in contract for which Honeywell will guarantee energy savings.
guarantee year	Number identifying for which year the review is performed based on the number of years the guarantee is in effect.
guaranteed savings	Those savings Honeywell promises the customer through the use of maintenance programs, retrofits, upgrades and energy management systems.

# Glossary of Terms

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HVAC	Industry standard abbreviation for Heating, Ventilating and Air Conditioning.
HtgDD/ClgDD	HtgDD = Heating degree-days ClgDD = Cooling degree-days
kW	Kilowatt - a unit of electrical power, equal to 1000 watts.
kWh	Kilowatt hours - a unit of electrical energy or work, equal to that done by one kilowatt acting for one hour.
modification	An allowance for changes in the facility which affect utility usage that occur while tracking the performance of a meter. Modifications correct both the actual and baseline usage and cost for meters.
pre-installation	Time period (start month and stop month, typically one year's time) that is used as a benchmark for comparison which consists of all energy bills applicable to the retrofit.
R <sup>2</sup>	A measure of how well the independent variable in a regression can explain changes in the dependent variable. An R <sup>2</sup> = "1.0" indicates a perfect correlation.
rate tariff	Actual amount the utility company charges per unit of energy or demand; used by Metrix <sup>TM</sup> to calculate utility costs for the SimActual & Baseline scenarios.
reference year	The actual usage for designated baseline period.
review period	Time period for which savings are reported.
runtime adjustment	Adjustment made for those hours equipment has run beyond the operating hours specified in the contract.
simactual	The total cost for the billing period as calculated by Metrix <sup>TM</sup> .
weather adjustment	Adjustment made by Metrix <sup>TM</sup> for weather variations using degree days.



## Cost Avoidance Report Delivery Receipt

**Honeywell has presented the Cost Avoidance Report for  
Gadsden County Schools  
M&V Contract No. 992-85-12329**

This annual report details savings results for Year 2 of 10 and indicates energy & operational savings of \$481,356 for the year, as compared to the contractual Year 2 guarantee per the contract of \$476,963. The cumulative overall total cost avoidance through the end of Year 2 is \$944,225 as compared to the cumulative total guarantee per the contract of \$935,581.

This calculates into a contract to date excess cost avoidance of \$8,644.

**Please sign below to acknowledge receipt of this report. Your signature does not indicate acceptance of the results.**

**Please sign, scan and email this sheet to Dan.Ponton@Honeywell.com**  
**Or Fax it to 407-650-3488**

If the results are not agreed upon, Gadsden County Schools has forty-five (45) days from the delivery date of this report to provide a detailed explanation and request for action, in writing, to:

Honeywell International Inc.  
Attn: Dan Ponton  
3657 Maguire Blvd., Suite 100  
Orlando, FL 32803

Otherwise, the cost avoidance results will be deemed accepted.

Received by:

Presented by:

\_\_\_\_\_  
Name (please print)

Dan Ponton, MVS  
\_\_\_\_\_  
Name (please print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date



## ELECTRICITY

9/13/2012 3:07 PM

CTR. NO.	NAME	EXPENDITURES FOR ELECTRICITY 2011/2012	EXPENDITURES FOR ELECTRICITY 2010/2011	EXPENDITURES FOR ELECTRICITY 2009/2010	EXPENDITURES FOR ELECTRICITY 2008/2009	EXPENDITURES FOR ELECTRICITY 2007/2008	EXPENDITURES FOR ELECTRICITY 2006-2007	EXPENDITURES FOR ELECTRICITY 2005/2006	EXPENDITURES FOR ELECTRICITY 2004/2005	EXPENDITURES FOR ELECTRICITY 2003/2004
0021	CHATTAHOOCHEE HIGH					\$ 27,770	\$ 21,119	\$15,252	\$ 22,675	\$ 65,154
0041	GEORGE W. MUNROE	\$ 84,521	\$ 130,657	\$ 134,290	\$ 141,417	\$ 106,693	\$ 99,286	\$88,100	\$ 85,328	\$ 81,734
0051	WEST GADSDEN HIGH	\$ 225,001	\$ 232,722	\$ 255,739	\$ 334,669	\$ 273,498	\$ 124,538	\$107,678	\$ 91,954	\$ 70,382
0061	HAVANA MIDDLE	\$ 111,819	\$ 117,919	\$ 117,326	\$ 132,795	\$ 112,915	\$ 111,727	\$117,412	\$ 93,601	\$ 86,265
0071	EAST GADSDEN HIGH	\$ 304,732	\$ 307,907	\$ 300,526	\$ 318,550	\$ 302,115	\$ 317,086	\$340,372	\$ 258,453	\$ 194,100
0081	HAVANA NORTHSIDE				\$ -	\$ 7,247	\$ 7,516	\$12,595	\$ 17,627	\$ 29,966
0091	HAVANA ELEMENTARY	\$ 60,157	\$ 88,641	\$ 89,126	\$ 107,313	\$ 109,188	\$ 96,157	\$98,030	\$ 77,286	\$ 70,525
0101	GEMS	\$ 48,173	\$ 70,981	\$ 66,911	\$ 69,227	\$ 56,081	\$ 55,608	\$49,954	\$ 49,208	\$ 46,854
0141	GREENSBORO ELEMENTARY	\$ 80,067	\$ 117,693	\$ 52,657	\$ 11,912	\$ 36,297	\$ 59,744	\$56,870	\$ 52,467	\$ 44,795
0151	CHATTAHOOCHEE ELEM.	\$ 57,893	\$ 76,683	\$ 75,254	\$ 75,061	\$ 83,151	\$ 84,809	\$93,876	\$ 59,531	\$ 72,504
0171	GRETNA ELEMENTARY	\$ 53,452	\$ 55,383	\$ 52,558	\$ 59,629	\$ 61,702	\$ 62,861	\$52,281	\$ 56,407	\$ 43,322
0191	ST. JOHN ELEMENTARY	\$ 42,724	\$ 49,376	\$ 54,279	\$ 58,049	\$ 55,772	\$ 52,940	\$48,369	\$ 36,163	\$ 34,531
0201	STEWART ST. ELEM.	\$ 53,905	\$ 81,192	\$ 71,313	\$ 92,374	\$ 81,002	\$ 79,977	\$69,128	\$ 71,792	\$ 77,097
0211	SHANKS MIDDLE SCHOOL	\$ 129,054	\$ 181,402	\$ 164,075	\$ 164,871	\$ 147,157	\$ 158,177	\$127,962	\$ 142,086	\$ 143,117
0212	ADULT PROGRAM				\$ -		\$ 21,811	\$18,288	\$ 14,338	\$ -
0231	CARTER PARRAMORE	\$ 64,590	\$ 83,561	\$ 74,496	\$ 77,092	\$ 81,106	\$ 79,685	\$75,009	\$ 76,060	\$ 73,203
0245	GAD TECH INSTITUTE	\$ 28,036	\$ 34,392	\$ 38,853	\$ 38,072	\$ 78,818	\$ 21,811	\$18,288	\$ 18,063	\$ 36,132
9001	WALKER BUILDING	\$ 57,976	\$ 50,755	\$ 46,237	\$ 49,044	\$ 54,004	\$ 53,492	\$43,847	\$ 36,729	\$ 37,423
9002	WEST SIDE ADMIN BLDG				\$ -	\$ -	\$ -	\$0	\$ -	\$ 976
9003	TRANSPORTATION DEPT	\$ 5,736	\$ 20,219	\$ 16,620	\$ 20,681	\$ 17,815	\$ 17,729	\$16,868	\$ 16,124	\$ 16,617
9020	MAINTENANCE DEPT	\$ 1,602	\$ 14,349	\$ 10,290	\$ 10,749	\$ 8,179	\$ 8,763	\$8,044	\$ 9,801	\$ 9,586
9050	WAREHOUSE	\$ 28,036	\$ 34,392	\$ 39,388	\$ 38,072	\$ -	\$ 35,989	\$36,576	\$ 32,400	\$ 36,132
9026	HEADSTART	\$ 8,081	\$ 8,901	\$ 6,563	\$ 2,930	\$ 3,105	\$ 2,496	\$2,709	\$ 2,268	\$ 2,108
9106	GADSDEN CENTRAL ACAD	\$ 438	\$ 465	\$ 449	\$ 448	\$ 735	\$ -		\$ 380	\$ 8,156
	TOTALS	\$ 1,445,992	\$ 1,757,589	\$ 1,666,951	\$ 1,802,955	\$ 1,704,350	\$ 1,573,321	\$1,497,508	\$ 1,320,740	\$ 1,280,678