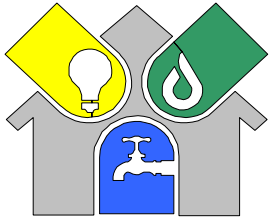


# The Energy Educator



## ENERGY MANAGEMENT

YEAR FIVE

Walla Walla Public Schools  
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Walla Walla, WA 99362  
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## The Energy Management Program

**Purpose:** To avoid wasting utilities in order to save money to be used for instructional needs.

### **Guiding Rules:**

- Do not interfere with the classroom instructional program.
- Do not light areas that are not in use.
- Do not heat or cool unoccupied areas. Establish and practice equipment shutdown procedures for daily and holiday savings.

### Three Steps to Energy Savings

1. Turn off lights when you leave the room.
2. Turn off all electronic equipment at the end of the day.
3. Turn off or setback the thermostat every day.

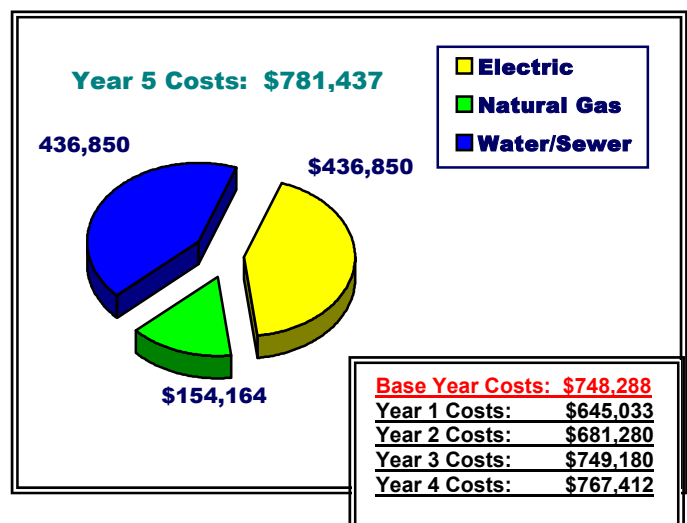
Settings for Setback: Heating 55 Degrees  
Cooling 90 Degrees  
(Fans set on Auto.)



### **Special points of interest:**

- The four year contract the district had with Energy Education, Inc. has ended. The district will no longer be required to pay the consulting fee which will result in an additional \$78,000 savings each year.
- Energy Education Inc. works for and with only K-12 public schools nation wide. They currently have over 400 contracts, 3 in Washington State.
- There was a total reduction of \$105,000 in energy costs in the 1st year of the Energy management program.
- The Energy Management program uses Energy CAP software to track utilities and Automated Logic: Supervision to control energy systems.
- Utilities Tracked: Electricity, Gas, Water / Sewer/, Sanitation.
- There are three phases to the Energy Management Program:  
Management, Education and Accounting.
- The positive spirit and accountability of the Energy Manager, Principals, Custodians and Teachers will contribute to the success of the program.
- Energy efficiency is brought about by conservation strategies and technologies.
- The WWPS Energy Management Program has received over \$120,000 in Refunds and Rebates during the last five

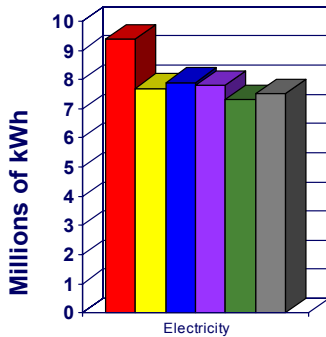
Year 5/ Oct. 2003– Sept. 2004	
	<u>Percent Saved</u>
ADMINISTRATION	.3%
BERNEY ELEMENTARY	22%
BLUE RIDGE ELEMENTARY	21%
EDISON ELEMENTARY	32%
GARRISON MIDDLE SCHOOL	23%
GREEN PARK	16%
PAINE CAMPUS	14%
PIONEER MIDDLE SCHOOL	34%
PROSPECT POINT	27%
SHARPSTEIN	3%
SUPPORT SERVICES	11%
WALLA WALLA HIGH SCH.	29%
<b>Total District:</b>	<b>25 %</b>



# Consumption Comparison

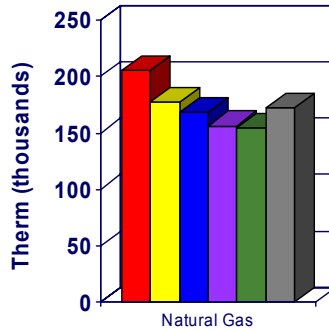
## Electricity

Saved 1,900,000 kWh  
20% (9.4 - 7.4)



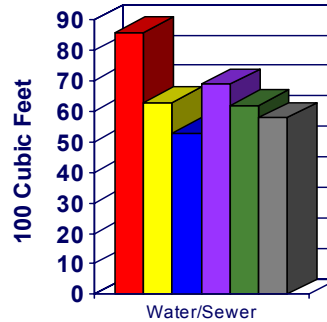
## Natural Gas

Saved 33,000 therms  
16% (205 - 172)



## Water/Sewer

Saved 28,000 CCF  
32% (86 - 58)



■ Base    ■ Year 1    ■ Year 2  
■ Year 3    ■ Year 4    ■ Year 5

## FULL PROGRAM SAVINGS

Site Code & Name	Cost		Cost	
	Without CAP	Actual Cost	Avoidance \$	Avoidance %
ADMINISTRATION	\$115,943.61	\$101,915.33	\$14,028.28	12.10%
BERNEY ELEMENTARY	\$313,107.86	\$241,576.67	\$71,531.19	22.85%
BLUE RIDGE ELEMENTARY	\$312,374.55	\$256,957.95	\$55,416.60	17.74%
EDISON ELEMENTARY	\$167,500.31	\$123,472.46	\$44,027.85	26.29%
GARRISON MIDDLE SCHOOL	\$435,287.99	\$343,597.74	\$91,690.25	21.06%
GREEN PARK	\$274,766.98	\$232,213.87	\$42,553.11	15.49%
PAINE CAMPUS	\$191,174.15	\$141,698.48	\$49,475.67	25.88%
PIONEER MIDDLE SCHOOL	\$524,682.87	\$384,658.43	\$140,024.44	26.69%
PROSPECT POINT	\$336,698.80	\$255,292.20	\$81,406.60	24.18%
REFUNDS AND REBATES	\$124,196.88	\$0.08	\$124,196.80	100.00%
SHARPSTEIN	\$141,241.50	\$132,799.95	\$8,441.55	5.98%
SUPPORT SERVICES	\$129,131.21	\$110,746.95	\$18,384.26	14.24%
WALLA WALLA HIGH SCHOOL	\$1,796,131.11	\$1,296,347.05	\$499,784.06	27.83%
<b>Totals:</b>	<b>\$4,862,237.81</b>	<b>\$3,621,277.16</b>	<b>\$1,240,960.65</b>	<b>25.52%</b>

## WWPS Energy Management:

[http://www.wwps.org/support/energy\\_management.htm](http://www.wwps.org/support/energy_management.htm)

## PROGRAM COST SUMMARY

Year 5 Cost Avoidance	\$261,173
<b>Operating Expenses:</b>	
EI Consulting Fees	\$0.00
Salaries	\$21,624
Software & Computing Costs	\$200
Miscellaneous	\$1,400
<b>Net Savings:</b>	<b>\$237,949</b>

### Year 1 Savings

**Oct. 1999 - Sept. 2000**

ELECTRIC	25%
NATURAL_GAS	10%
WATER	29%
<b>Total:</b>	<b>24%</b>

### Year 2 Savings

**Oct. 2000 - Sept. 2001**

ELECTRIC	23%
NATURAL_GAS	18%
WATER	42%
<b>Total:</b>	<b>27%</b>

### Year 3 Savings

**Oct. 2001 - Sept. 2002**

ELECTRIC	26%
NATURAL_GAS	18%
WATER	36%
<b>Grand Total:</b>	<b>27%</b>

### Year 4 Savings

**Oct. 2002 - Sept. 2003**

ELECTRIC	30%
NATURAL_GAS	16%
WATER	19%
<b>Grand Total:</b>	<b>25%</b>

### Year 5 Savings

**Oct. 2003 - Sept. 2004**

ELECTRIC	21%
NATURAL_GAS	16%
WATER	32%
<b>Grand Total:</b>	<b>25%</b>

### Total Program Savings

**Oct. 2003 - Sept. 2004**

ELECTRIC	28%
NATURAL_GAS	14%
WATER	25%
<b>Grand Total:</b>	<b>25%</b>

## DID YOU KNOW?

- The benefits of turning equipment off include financial savings, longer equipment life and reduced risk of damage to motors, computers and lighting caused by power fluctuations/lightening.
- It takes 20 times the energy to keep a classroom at 68 degrees for 14 hrs., then it does to set it back to 55 degrees for 14 hrs. and then bringing it back up to 68 degrees (in 10 degree weather).
- It is more economical to turn incandescent and fluorescent lights off each time you leave the room.
- A F40 rapid start fluorescent lamp operating continuously lasts 4.3 yrs. The same lamp used for a normal 40 hr. work week, lasts 10 ½ yrs. You cut Power Consumption and Replacement Costs.
- A computer left on 24 hrs. Per. day is wearing out its components at least 3 to 4 times faster than necessary. A computer operating continuously will have an average life of 2.3 yrs. Turned off nights and weekends it increases to 9.6 yrs.
- Experts in the computer industry have determined that turning them off will not hurt them. They have determined that heat is the primary reason for failure. A computer left on for 8 hrs. a day will cost the district about \$50.00 annually, 24 hrs. = \$150.00 annually.
- WWPS uses Vending Misers on vending machines and the Watt Stopper: Isolé Occupancy Power Strips on some desktops.