# **The Energy Educator**



## ENERGY MANAGEMENT

YEAR 11

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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 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 <u>all</u> electronic equipment at the end of the day.
- 3. Turn off or setback the thermostat every day.

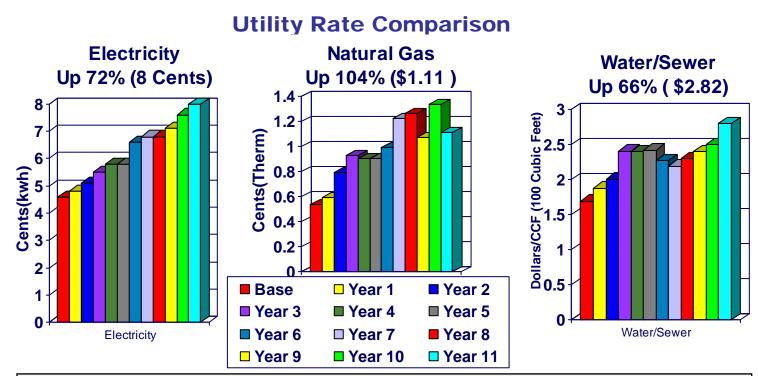
Settings for Setback: Heating 55 Degrees/Cooling 90 Degrees (Fans set on Auto.)

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 500 contracts. 4 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.
- Energy Saving Achievements this far: Reduced water meter usage in WA-HI's Agriculture field will save more then \$20,000.00 annually. Rebated \$35,000.00 on an sewer charges at WA-HI. Rebated \$2,500.00 on overcharged water meter at Prospect Point. Rebated \$10,000.00 on overcharged water meter at WA-HI. Rebated \$800.00 on overcharged water meter at WA-HI. Rebated \$800.00 on overcharged water meter at Pioneer Middle School. Removal of 4 meters that were not being used, but were being charged for. Reduction of \$200.00 to \$500.00 monthly on sanitation charges at various schools.
- Energy rate increases have totaled over \$ 564,000 in additional costs.
- Over the ten years WWPS Energy Management Program has saved over 24% and 2.9 Million dollars.

Oct. 2009– Sept. 2010		
	<u>Pe</u>	rcent Saved
ADMINISTRATI	ON	1%
BERNEY ELEMENTARY		30%
BLUE RIDGE ELEMENTARY		10%
EDISON ELEMENTARY		36%
GARRISON MIDDLE SCHOOL		28%
GREEN PARK		16%
LINCOLN CAMPUS		1%
PIONEER MIDDLE SCHOOL		14%
PROSPECT POINT		24%
SHARPSTEIN		8%
SUPPORT SERVICES		6%
WALLA WALLA HIGH SCH.		30%
Grand Totals:		22 %
Saved: \$233,588		
Electical 17%	Gas 13%	Water 37%

Year 11 Costs: \$1,107,4	Electricity Gas Water
\$224,179 \$187,143 \$696,089	Base Year Costs: \$748,288   Year 1 Costs: \$645,033   Year 2 Costs: \$681,280   Year 3 Costs: \$749,180   Year 4 Costs: \$767,412   Year 5 Costs: \$811,367   Year 6 Costs: \$812,237   Year 7 Costs: \$881,543   Year 8 Costs: \$967,473   Year 9 Costs: \$962,116   Year 10 Costs: \$1,083,937



#### 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 then 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 desktops.

