



Administration

Berney

Blue Ridge

Edison

Green Park

Prospect Point

Sharpstein

Garrison

Paine

Pioneer

Walla Walla High School

Support Services

ENERGY MANAGEMENT PROGRAM: YEAR 9

The Purpose: Avoid wasting utilities in order to save money to be used for instructional and facility needs.

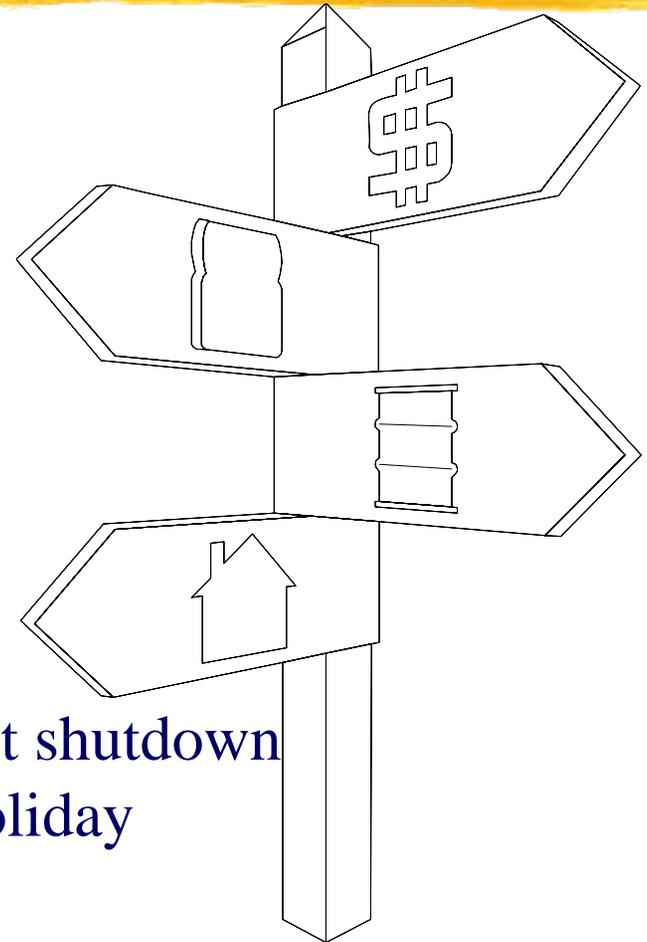
➤ ENERGY REPORT

Background Information:

- Contract awarded to EEI by Board action – June 1999
- Energy Program Start Date – October 1999
- Base Period - October 1998 to September 1999
- Year 1 Reporting Period – October 1999 to September 2000
- Year 5 Reporting Period – October 2005 to September 2006
No longer under contract to Energy Education Inc.
- Year 9 Reporting Period – October 2007 to September 2008

E.M.P. CONSERVATION GOALS

- To not interfere with classroom instructional program.
- To not light areas that are not in use.
- To not heat or cool unoccupied areas.
- To establish and practice equipment shutdown procedures for daily, weekend and holiday savings.



Three Phases of Program



I) Management

II) Education

III) Accounting

Phase I - Management



We know that:

- **Energy efficiency is brought about by conservation strategies and technologies.**
- **People determine and control the use of energy.**
 - **The positive spirit and accountability of all the Walla Walla School District Employees will contribute to the success of the program!**

What is My Role as an Energy Manager?



- **Follow the training, experience, guidelines and advice of Energy Education Inc..**
 - **Audit Utility Meters/Bills and District Buildings on a regular basis.**
 - **Implement energy saving programs and set up guidelines and procedures for each building.**
 - **Help save energy and money for the Walla Walla School District.**

Phase II - Education



Establish an :

- **“Energy Ethic” with each Teacher, Employee and Administrator.**
 - **Energy Education and Conservation in the Classroom.**

Phase III – ACCOUNTING

To Determine Cost Avoidance

The district uses Automated Logic and Energy CAP computer software for energy control and accounting.

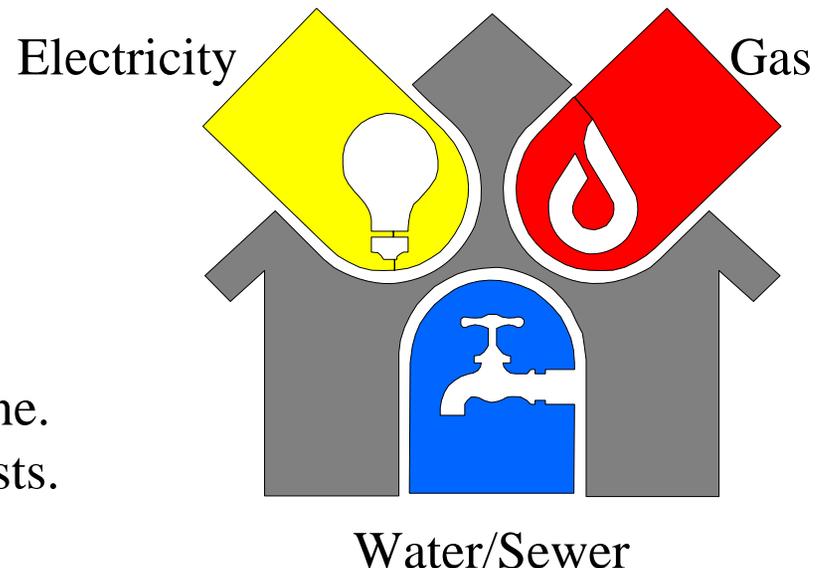
ACCOUNTING PROCESS:

Begins with usage during the base period.

Adjusts For:

- Temperature changes
- Billing period lengths
- Special adjustments
- Develops adjusted baseline.
- Applies current utility costs.
- Building size changes

Utilities Tracked:



AUTOMATED LOGIC

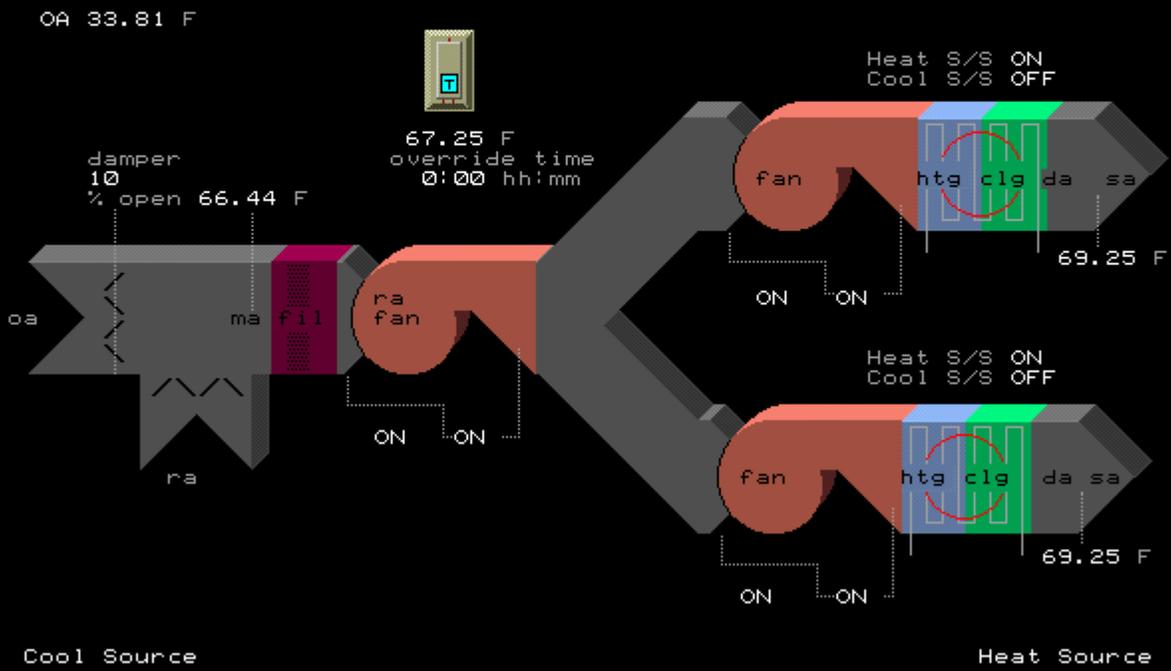


H.P. 9&10 MULTI



(Manual Commands)

AUTOMATED LOGIC



Enter Monthly

Reports

Cost Avoidance



Savings



Use Vs Weather



Calculate Savings



Update Meters

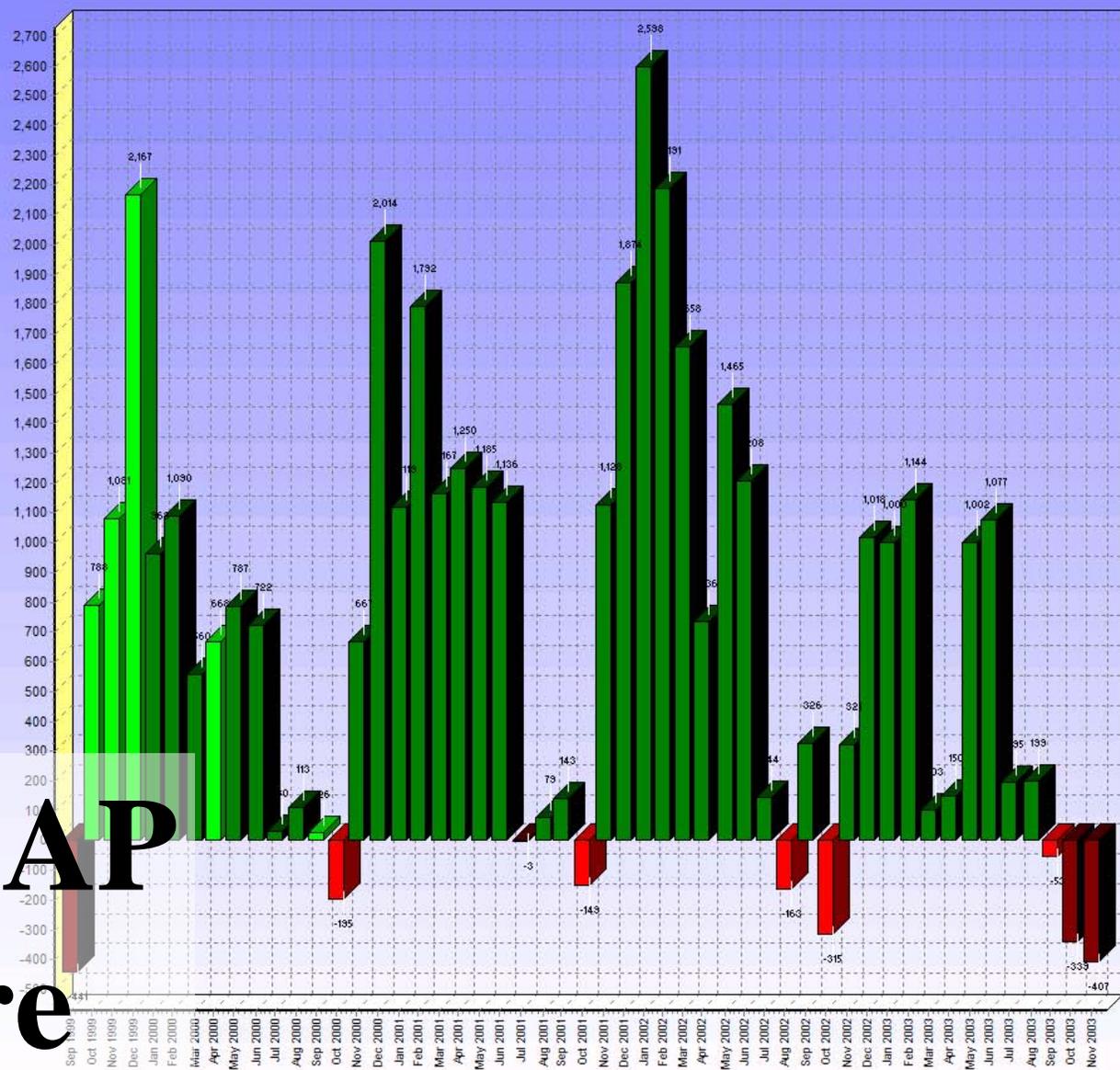
Filter

Meter Code: G#05-539-0393-1
 Meter: PIONEER MIDDLE SCHOOL
 Account: G#05-539-0393-1
 Building: PIONEER MIDDLE SCHOOL
 Site: PIONEER MIDDLE SCHOOL
 Energy Type: Natural Gas

Baseline Start Date: 10/1/1998 Baseline Length (months): 12
 Savings Start Date: 10/1/1999

Mth	Year	Without CAP Cost	Actual Cost	Cost Avoidance	Wthr Htg	Wthr Clg
Nov	2003	\$4,939	\$5,346	-\$407	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Oct	2003	\$1,521	\$1,860	-\$339	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sep	2003	\$492	\$545	-\$53	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Aug	2003	\$334	\$135	\$199	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jul	2003	\$294	\$99	\$195	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jun	2003	\$1,275	\$197	\$1077	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
May	2003	\$2,274	\$1,272	\$1002	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apr	2003	\$2,510	\$2,361	\$150	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mar	2003	\$3,129	\$3,027	\$103	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Feb	2003	\$6,364	\$5,219	\$1144	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jan	2003	\$5,859	\$4,859	\$1000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dec	2002	\$4,776	\$3,757	\$1018	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Nov	2002	\$5,126	\$4,805	\$321	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Oct	2002	\$2,377	\$2,692	-\$315	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sep	2002	\$579	\$252	\$326	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Aug	2002	\$288	\$451	-\$163	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jul	2002	\$254	\$110	\$144	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jun	2002	\$1,404	\$196	\$1208	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
May	2002	\$2,635	\$1,171	\$1465	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apr	2002	\$2,401	\$1,665	\$736	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mar	2002	\$5,427	\$3,769	\$1658	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Feb	2002	\$6,088	\$3,898	\$2191	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jan	2002	\$6,655	\$4,057	\$2598	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dec	2001	\$5,990	\$4,116	\$1874	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Nov	2001	\$4,383	\$3,254	\$1128	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Oct	2001	\$1,954	\$2,103	-\$149	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sep	2001	\$464	\$322	\$143	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Aug	2001	\$349	\$270	\$79	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jul	2001	\$247	\$251	-\$3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jun	2001	\$1,456	\$320	\$1136	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
May	2001	\$2,238	\$1,053	\$1185	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apr	2001	\$3,323	\$92	\$325	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mar	2001	\$4,129	\$1,077	\$3052	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Feb	2001	\$6,439	\$5,320	\$1119	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jan	2001	\$6,481	\$4,467	\$2014	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Nov	2000	\$4,288	\$3,620	\$667	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Oct	2000	\$2,108	\$2,303	-\$195	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sep	2000	\$764	\$48	\$716	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Aug	2000	\$521	\$77	\$444	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jul	2000	\$1,521	\$32	\$1489	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jun	2000	\$3,334	\$72	\$3262	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
May	2000	\$1,463	\$576	\$787	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apr	2000	\$1,878	\$1,210	\$668	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Cost Avoidance Graph



Energy CAP Software

Dec. 1998 = 640,000 kWh
Base Year Cost = \$24,000

Dec. 2002 = 368,000 kWh
Used: 42% Less Cost = \$18,000

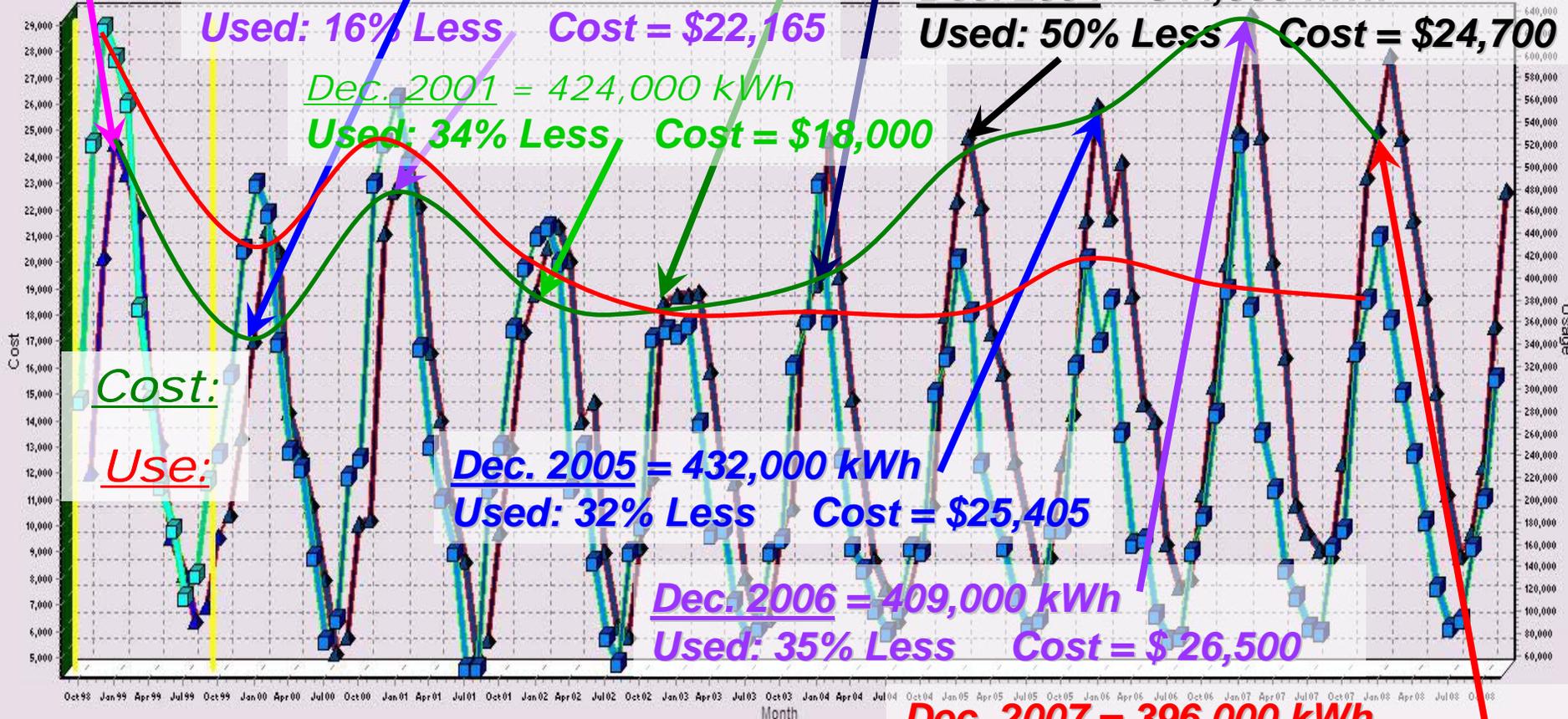
Dec. 1999 = 440,000 kWh
Used: 32% Less Cost = \$16,486

Dec. 2003 = 376,000 kWh
Used: 41% Less Cost = \$18,600

Dec. 2000 = 536,000 kWh
Used: 16% Less Cost = \$22,165

Dec. 2004 = 344,000 kWh
Used: 50% Less Cost = \$24,700

Dec. 2001 = 424,000 kWh
Used: 34% Less Cost = \$18,000



WA-HI Dec. 2007 = 396,000 kWh
Used: 37% Less Cost = \$24,465

Electric Meter History: Cost and Use

CHANGES IN THE DISTRICT “AFFECTING UTILITY CONSUMPTION”



CHANGES:

- Increased Technology**
- Increased Building Usage/Square Footage**
- Repair/Maintenance of Existing HVAC Equipment**

Overall Utility Costs

Reporting Period – October 2005 to September 2006

Base Year Costs: \$748,288

Year 6 Costs: \$812,237

Year 7 Costs: \$881,543

Year 8 Costs: \$967,473

Year 9 Costs: \$962,116

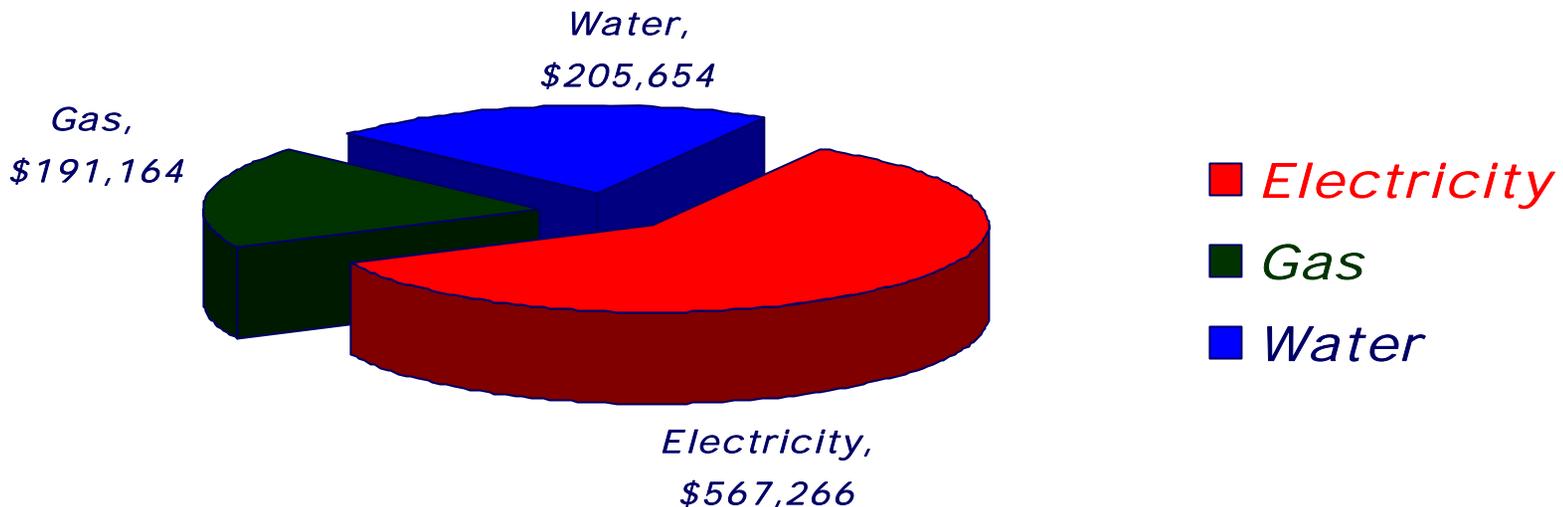
Year 1 Costs: \$645,033

Year 2 Costs: \$681,280

Year 3 Costs: \$749,180

Year 4 Costs: \$767,412

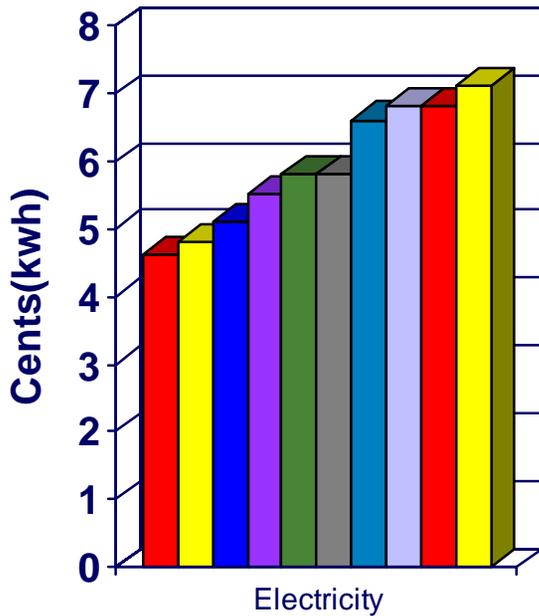
Year 5 Costs: \$781,437



Walla Walla Public School System Utility Rate Comparison

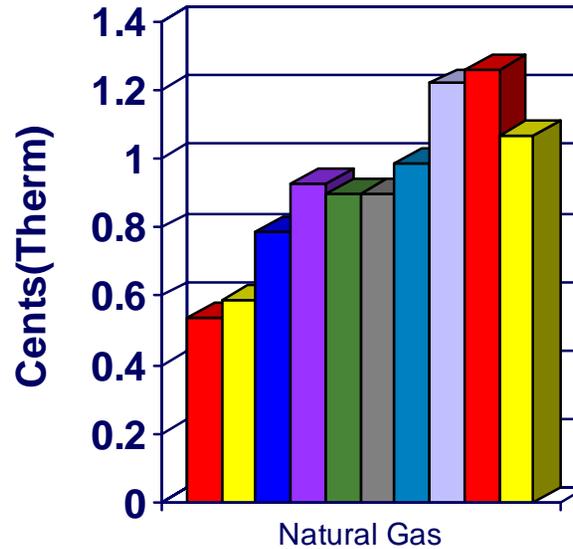
Electricity

Up 53% (7.1 Cents)



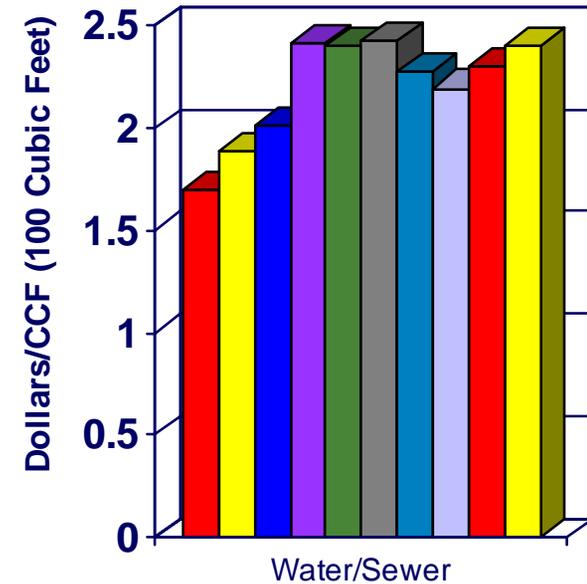
Natural Gas

Up 97% (\$1.07)



Water/Sewer

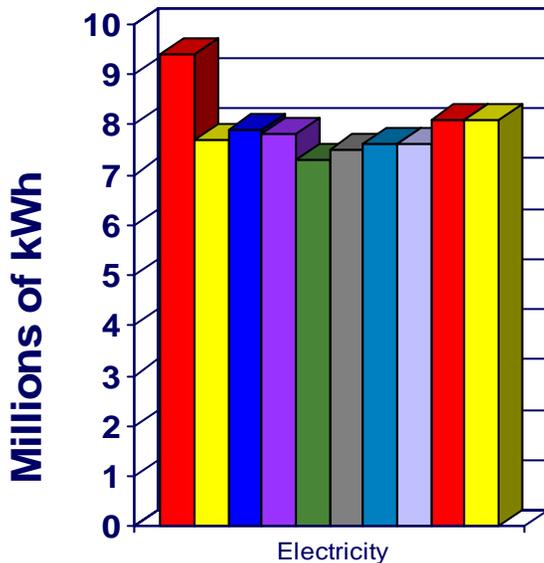
Up 40% (\$2.37)



Walla Walla Public School System Consumption Comparison

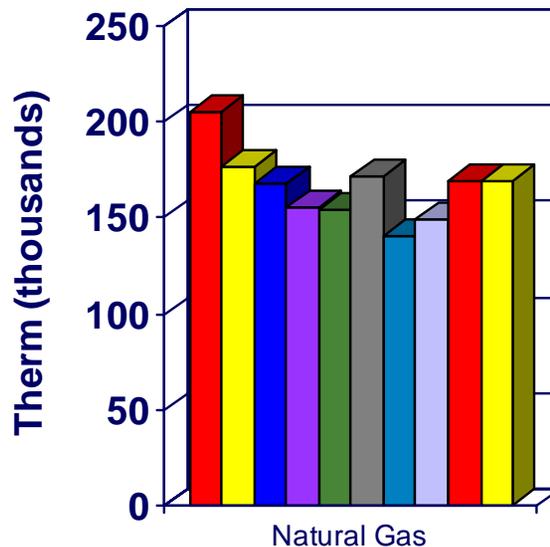
Electricity

Saved 128,253 kWh
15% (9.4 - 8.1)



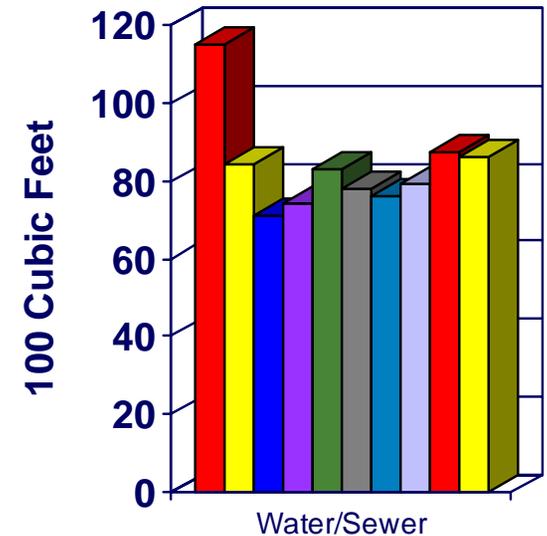
Natural Gas

Saved 26,438 therms
18% (205 - 169)

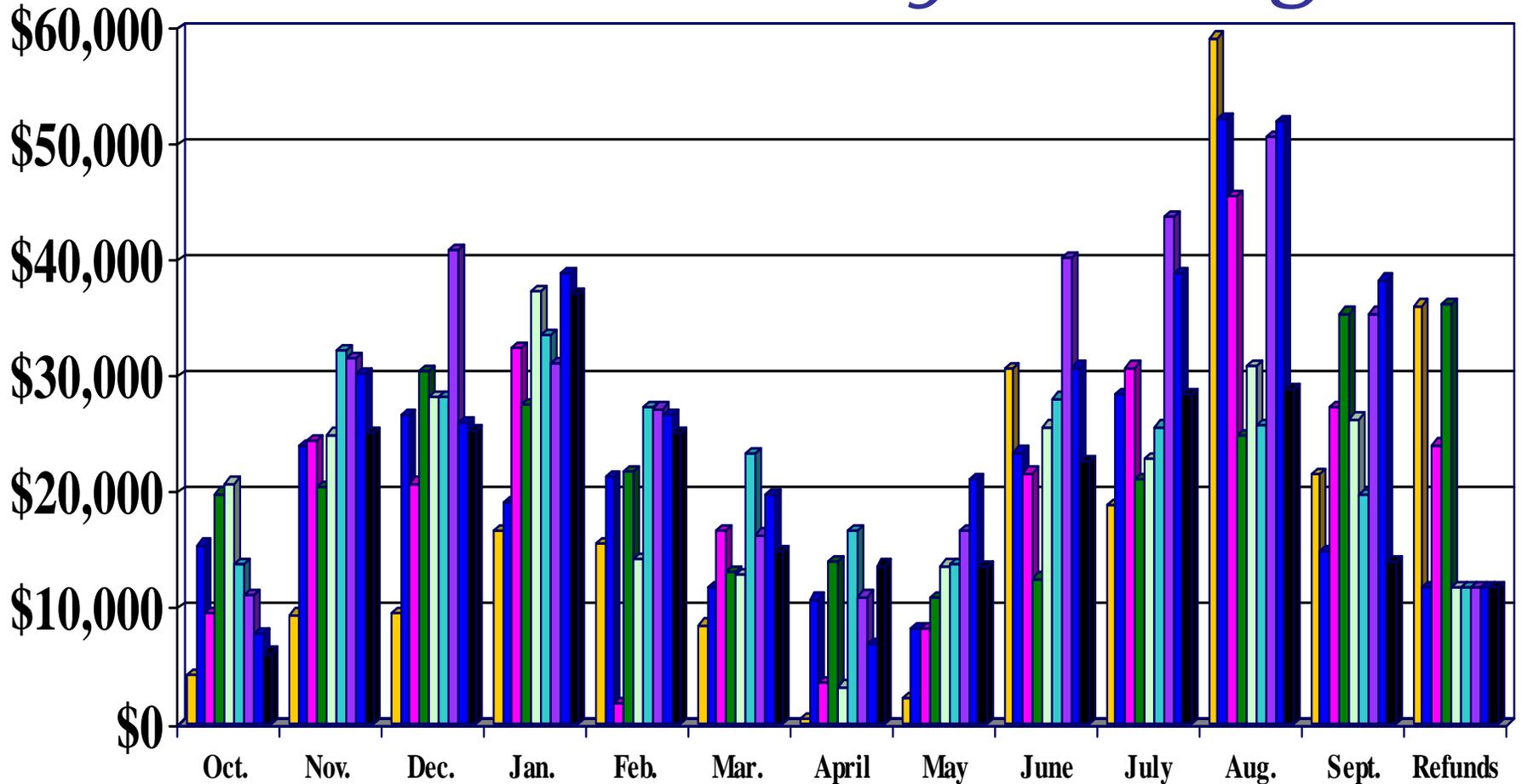


Water/Sewer

Saved 86,00 CCF
(86,000 CF)
25% (115 - 86)



Actual Monthly Savings



Year 1

Year 4

Year 7

Year 2

Year 5

Year 8

Year 3

Year 6

Year 9

SUMMARY (Year 9)

October 2007 - September 2008

Anticipated Costs Without Energy Program

Actual Base Year Costs	\$746,854
Base Year Old Sharpstein Costs	\$ -37,812
Base Year New Sharpstein Costs	\$ 58,819
Rate Changes (Increase)	\$ 404,893
Weather (Harsher)	\$ 16,441
Technology/Utility Load Increase	\$ 13,060
Billing Period Change (4 days more)	\$ 561
Refunds and Rebates	\$ 11,856

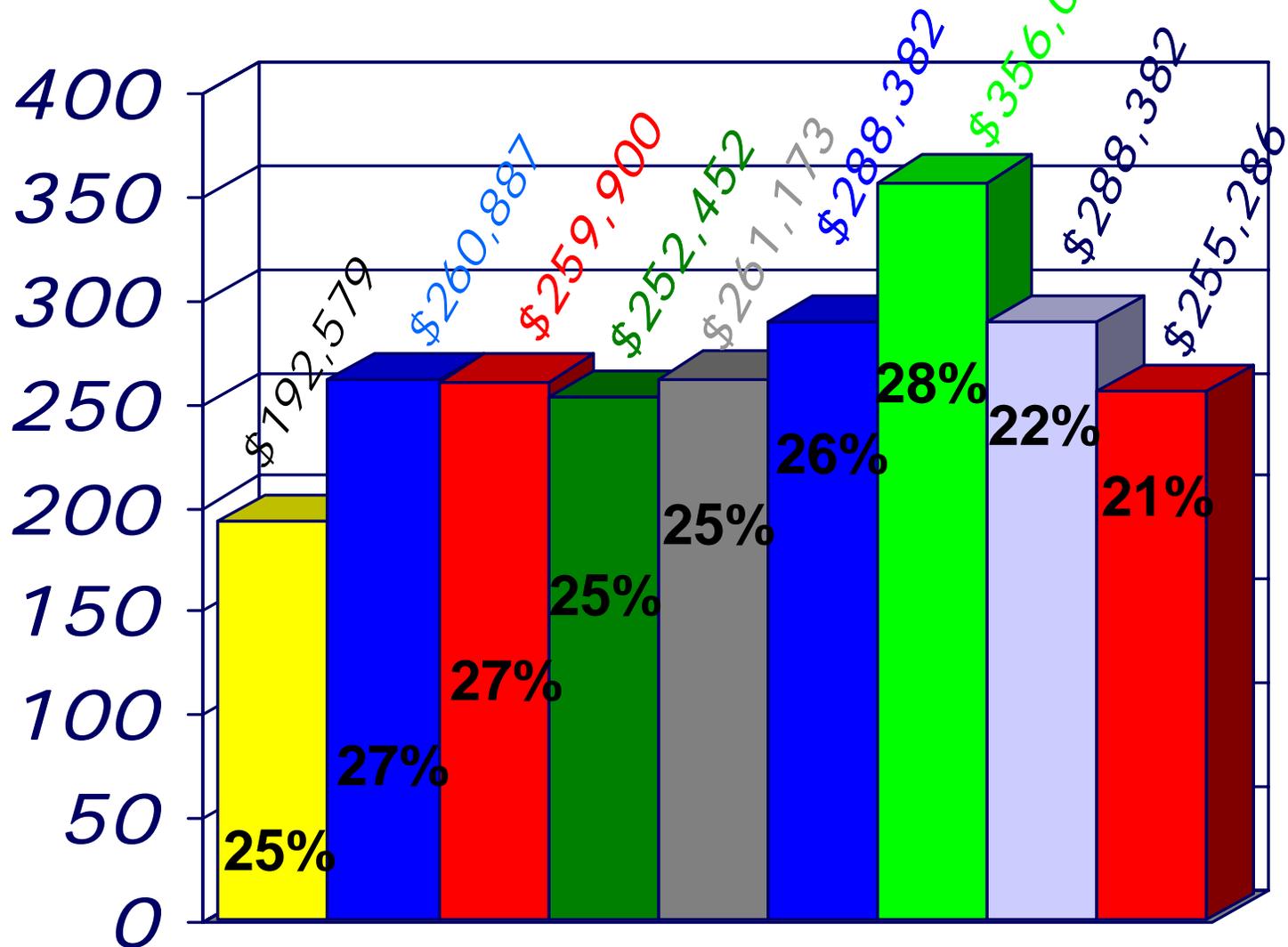
Total Anticipated Energy Cost **\$ 1,214,672**

Actual Year 9 Costs **\$ 962,116**

Total Cost Avoidance from Energy Reduction **\$ 255,285**

Thousands

Energy Cost Avoidance



Year 1 Year 2 Year 3 Year 4 Year 5
Year 6 Year 7 Year 8 Year 9

*Total Energy Cost Avoidance
Oct. 1999 through Nov. 2008
9 Years - 1 Month*

