



WWPS

WALLA WALLA
PUBLIC SCHOOLS

Administration

Berney

Blue Ridge

Edison

Green Park

Prospect Point

Sharpstein

Garrison

Lincoln

Pioneer

Walla Walla High School

Support Services

Transportation

ENERGY MANAGEMENT PROGRAM: YEAR 12

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

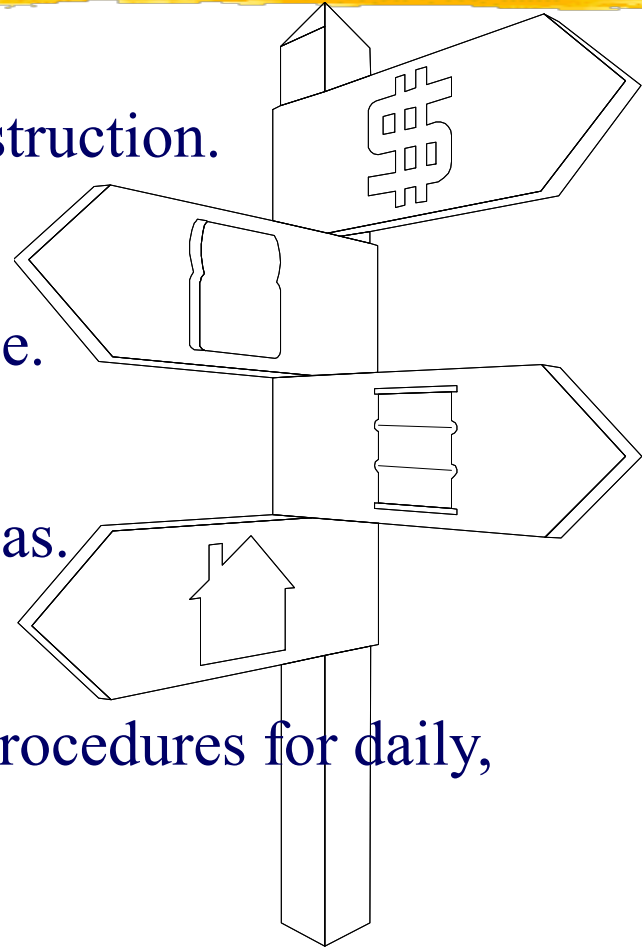
➤ ENERGY REPORT

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 12 Reporting Period – October 2010 to September 2011

E.M.P. CONSERVATION GOALS

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



To Determine Cost Avoidance or Savings

Automated Logic and Energy CAP computer software is used for energy control and accounting.

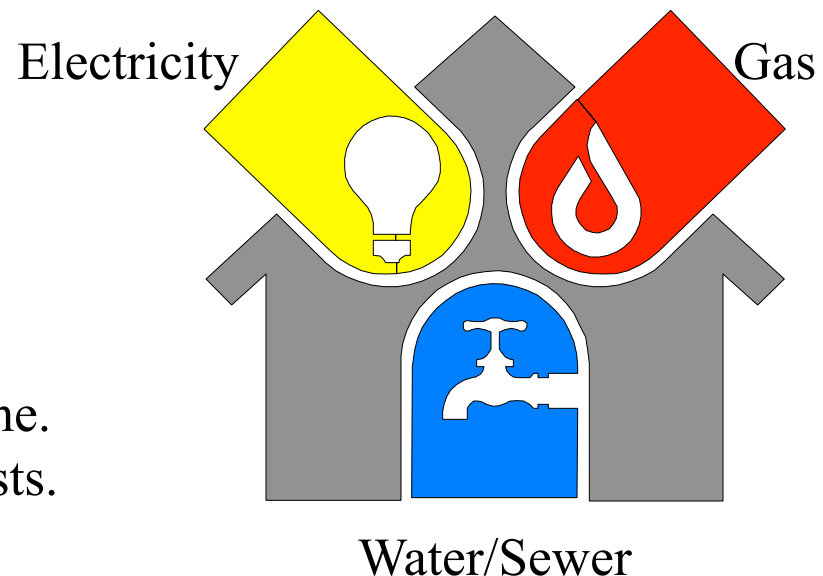
ACCOUNTING PROCESS:

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

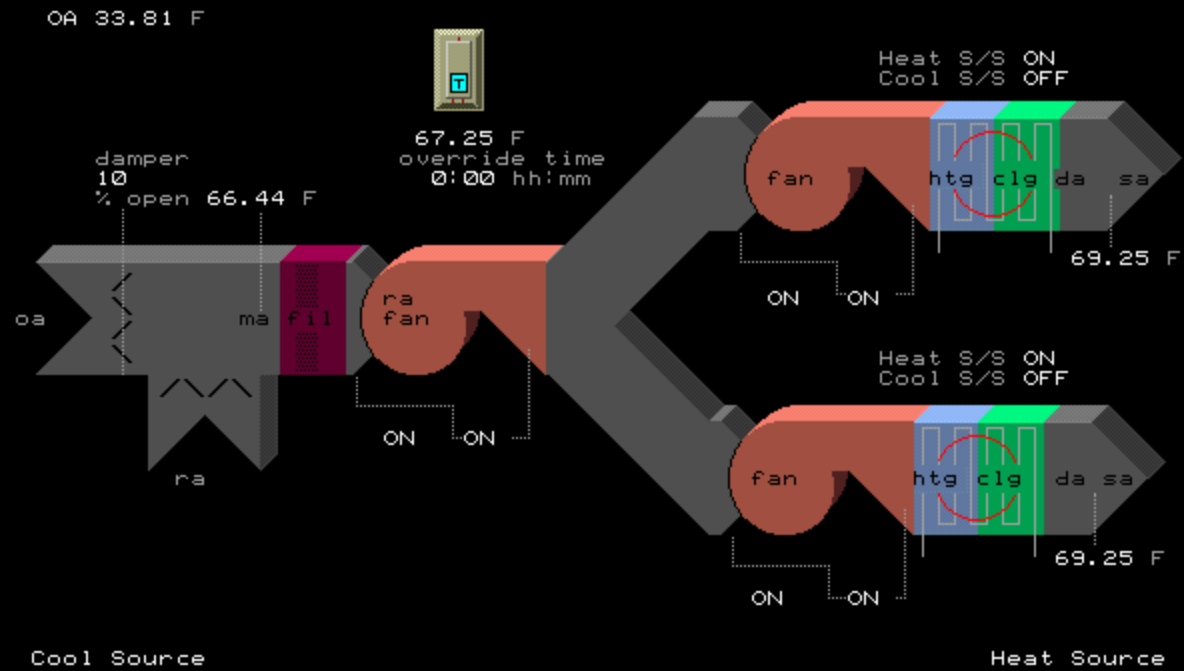
Utilities Tracked:



AUTOMATED LOGIC



AUTOMATED LOGIC



Enter Monthly

Reports

Cost Avoidance

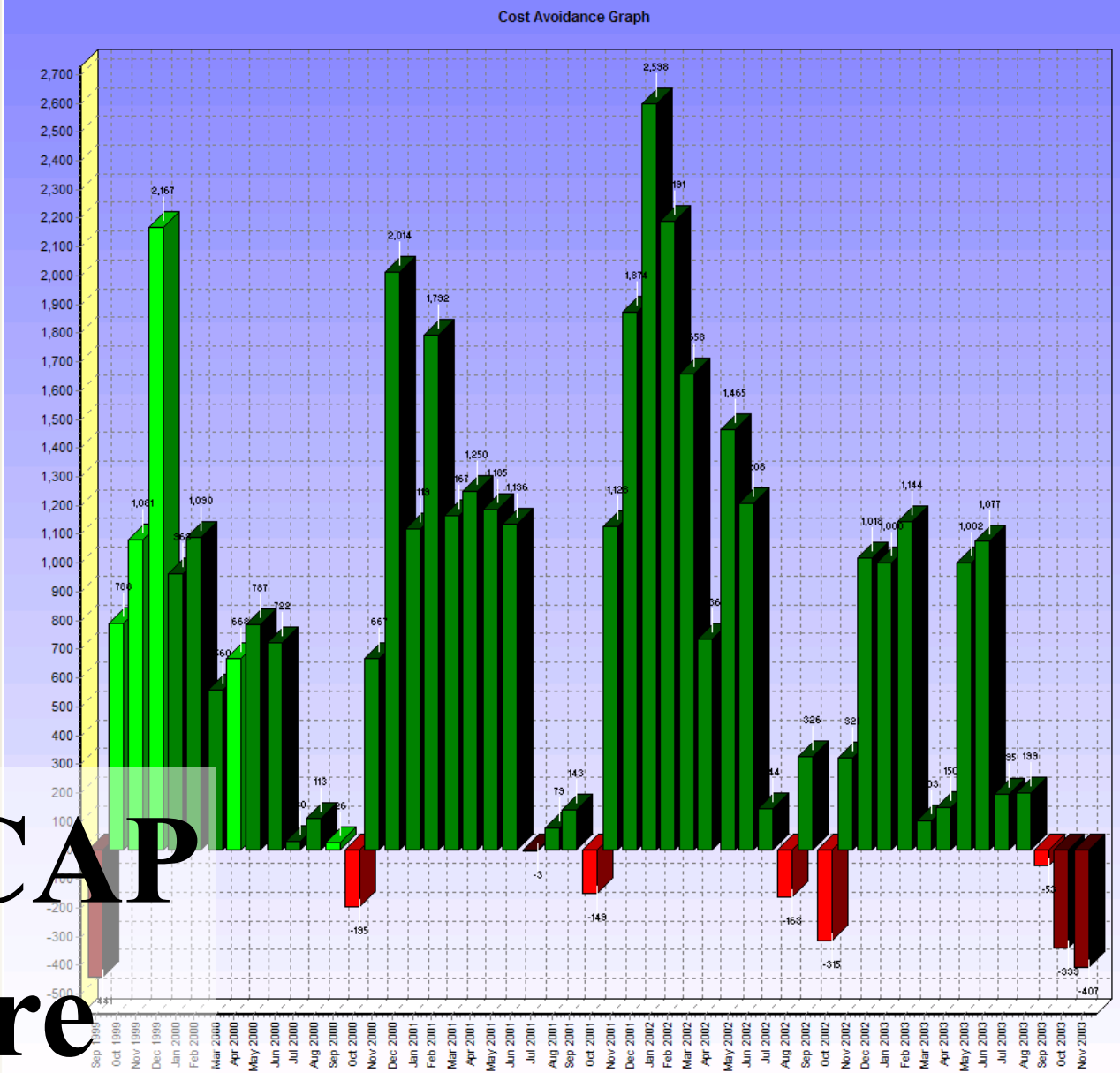
Meter Code: G#05-539-0393-1
 Meter: PIONEER MIDDLE SCHOOL
 Account: G#05-539-0393-1
 Building: PIONEER MIDDLE SCHOOL
 Site: PIONEER MIDDLE SCHOOL
 Energy Type: Natural Gas

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 | W/thr Htg | W/thr Clg |
|-----|------|------------------|-------------|----------------|-------------------------------------|--------------------------|
| Nov | 2003 | \$4,939 | \$5,346 | -\$407 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Oct | 2003 | \$1,521 | \$1,860 | -\$339 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Sep | 2003 | \$492 | \$545 | -\$53 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Aug | 2003 | \$334 | \$135 | \$199 | <input type="checkbox"/> | <input type="checkbox"/> |
| Jul | 2003 | \$294 | \$99 | \$195 | <input type="checkbox"/> | <input type="checkbox"/> |
| Jun | 2003 | \$1,275 | \$197 | \$1077 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| May | 2003 | \$2,274 | \$1,272 | \$1002 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Apr | 2003 | \$2,510 | \$2,361 | \$150 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Mar | 2003 | \$3,129 | \$3,027 | \$103 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Feb | 2003 | \$6,364 | \$5,219 | \$1144 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Jan | 2003 | \$5,859 | \$4,859 | \$1000 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Dec | 2002 | \$4,776 | \$3,757 | \$1018 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Nov | 2002 | \$5,126 | \$4,805 | \$321 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Oct | 2002 | \$2,377 | \$2,692 | -\$315 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Sep | 2002 | \$579 | \$252 | \$326 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Aug | 2002 | \$288 | \$451 | -\$163 | <input type="checkbox"/> | <input type="checkbox"/> |
| Jul | 2002 | \$254 | \$110 | \$144 | <input type="checkbox"/> | <input type="checkbox"/> |
| Jun | 2002 | \$1,404 | \$196 | \$1208 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| May | 2002 | \$2,635 | \$1,171 | \$1465 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Apr | 2002 | \$2,401 | \$1,665 | \$736 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Mar | 2002 | \$5,427 | \$3,769 | \$1658 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Feb | 2002 | \$6,088 | \$3,898 | \$2191 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Jan | 2002 | \$6,655 | \$4,057 | \$2598 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Dec | 2001 | \$5,990 | \$4,116 | \$1874 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Nov | 2001 | \$4,383 | \$3,254 | \$1128 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Oct | 2001 | \$1,954 | \$2,103 | -\$149 | <input type="checkbox"/> | <input type="checkbox"/> |
| Sep | 2001 | \$464 | \$322 | \$143 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Aug | 2001 | \$349 | \$270 | \$79 | <input type="checkbox"/> | <input type="checkbox"/> |
| Jul | 2001 | \$247 | \$251 | -\$3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Jun | 2001 | \$1,456 | \$320 | \$1136 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| May | 2001 | \$2,238 | \$1,053 | \$1185 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Apr | 2001 | \$3,323 | \$2,253 | \$1070 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Mar | 2001 | \$4,127 | \$2,927 | \$1200 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Feb | 2001 | \$6,366 | \$4,955 | \$1411 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Jan | 2001 | \$6,439 | \$4,322 | \$2117 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Dec | 2000 | \$6,481 | \$4,967 | \$1514 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Nov | 2000 | \$4,288 | \$3,520 | \$667 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Oct | 2000 | \$2,108 | \$2,303 | -\$195 | <input type="checkbox"/> | <input type="checkbox"/> |
| Sep | 2000 | \$764 | \$48 | \$716 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Aug | 2000 | \$250 | \$17 | \$233 | <input type="checkbox"/> | <input type="checkbox"/> |
| Jul | 2000 | \$32 | \$12 | \$20 | <input type="checkbox"/> | <input type="checkbox"/> |
| Jun | 2000 | \$48 | \$72 | -\$24 | <input type="checkbox"/> | <input type="checkbox"/> |
| May | 2000 | \$1,463 | \$676 | \$787 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Apr | 2000 | \$1,878 | \$1,210 | \$668 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Bill Auditor

Setup



Energy CAP Software

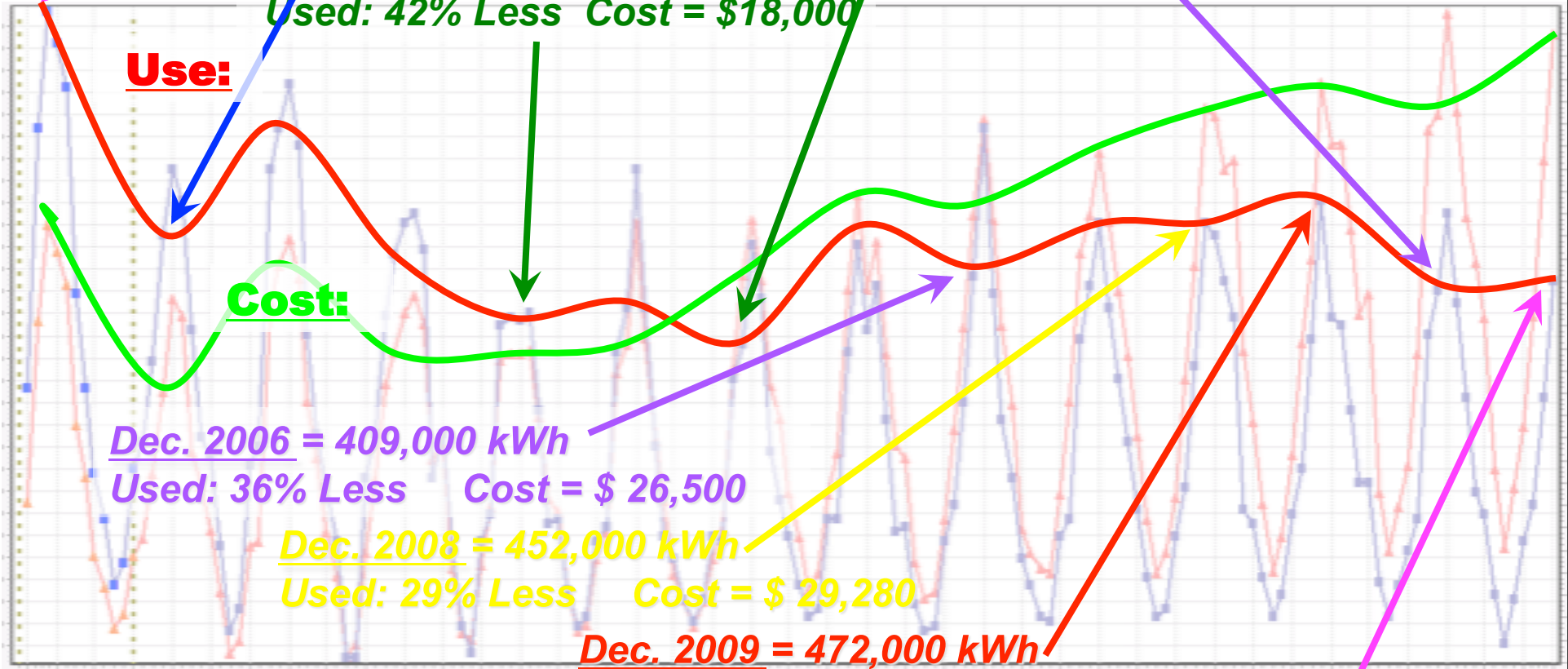
Dec. 1998 = 640,000 kWh
Base Year Cost = \$24,000

Dec. 2004 = 324,000 kWh
Used: 49% Less Cost = \$24,700

Dec. 1999 = 440,000 kWh
Used: 31% Less Cost = \$16,486

Dec. 2010 = 392,000 kWh
Used: 38% Less Cost = \$ 29,000

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



Dec. 2006 = 409,000 kWh
Used: 36% Less Cost = \$ 26,500

Dec. 2008 = 452,000 kWh
Used: 29% Less Cost = \$ 29,280

Dec. 2009 = 472,000 kWh
Used: 26% Less Cost = \$ 30,422

WA-HI

Electric Meter: Cost and Use

Dec. 2011 = 400,000 kWh
Used: 37% Less Cost = \$ 32,675

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 2010 to September 2011

Base Year Costs: \$748,288

Year 7 Costs: \$881,543

Year 1 Costs: \$645,033

Year 8 Costs: \$967,473

Year 2 Costs: \$681,280

Year 9 Costs: \$962,116

Year 3 Costs: \$749,180

Year 10 Costs: \$1,072,046

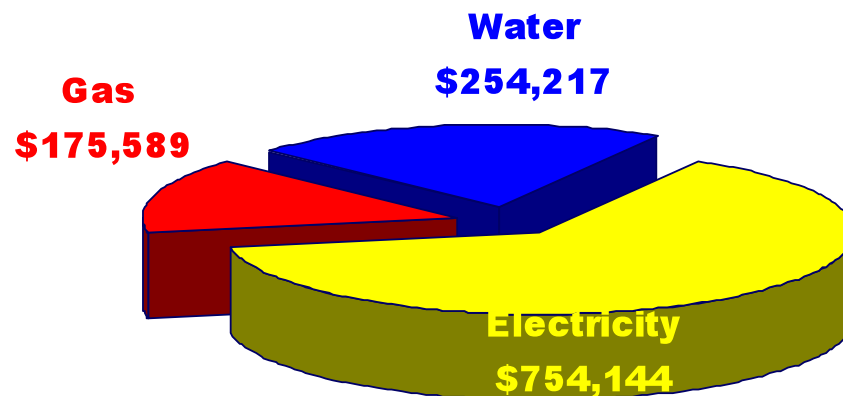
Year 4 Costs: \$767,412

Year 11 Costs: \$1,107,411

Year 5 Costs: \$781,437

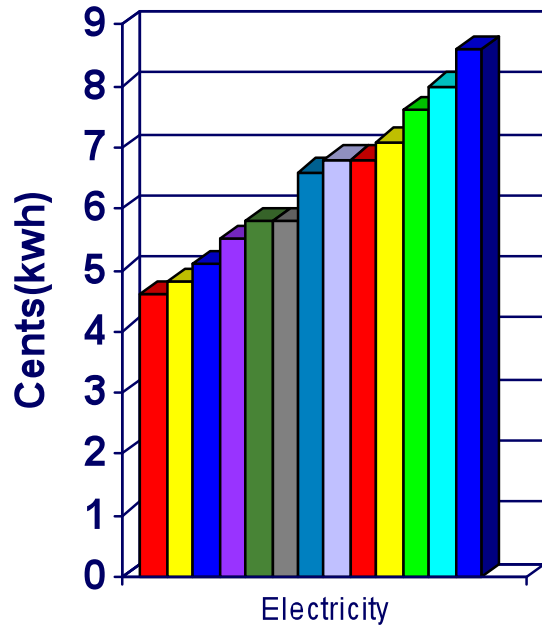
Year 12 Costs: \$1,183,950

Year 6 Costs: \$812,237

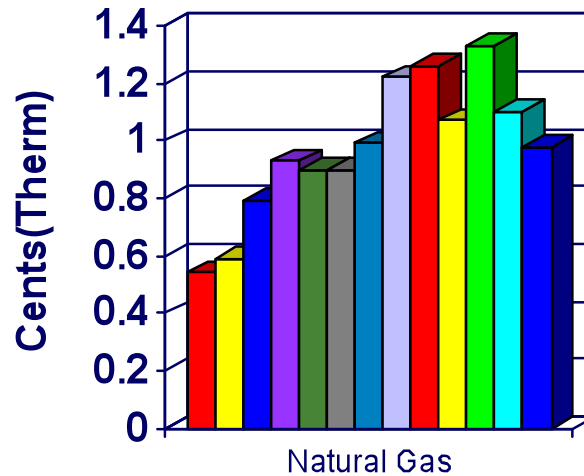


Walla Walla Public School System Utility Rate Comparison

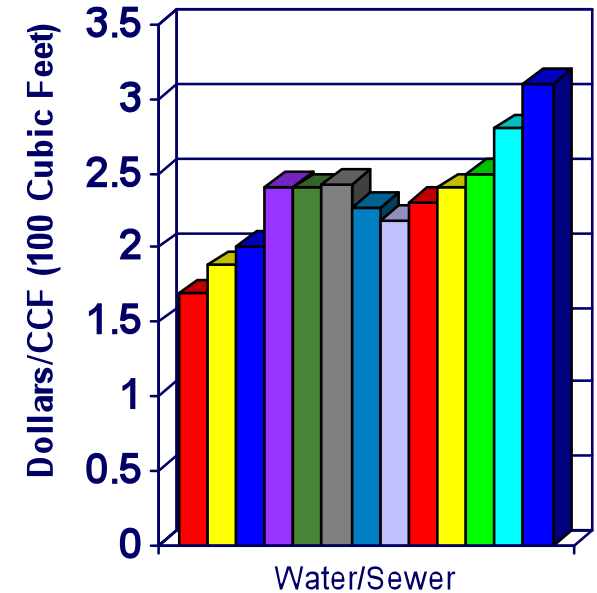
Electricity
Up 85% (\$.086)



Natural Gas
Up 82% (\$.99)



Water/Sewer
Up 86% (\$3.15)

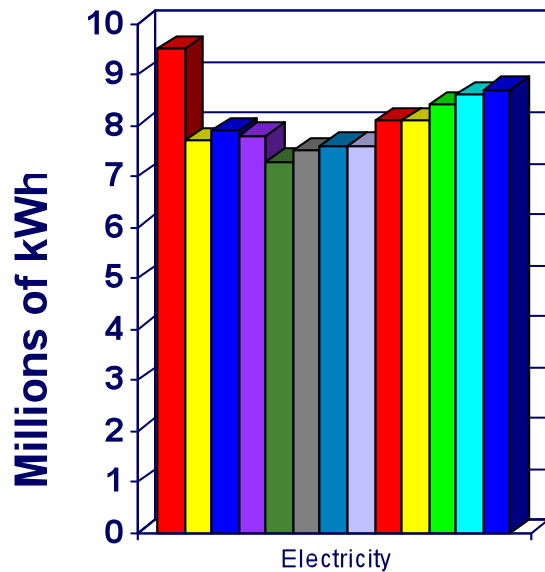


- | | | |
|-----------|-----------|-----------|
| ■ Base | ■ Year 1 | ■ Year 2 |
| ■ Year 3 | ■ Year 4 | ■ Year 5 |
| ■ Year 6 | ■ Year 7 | ■ Year 8 |
| ■ Year 9 | ■ Year 10 | ■ Year 11 |
| ■ Year 12 | | |

Walla Walla Public School System Consumption Comparison

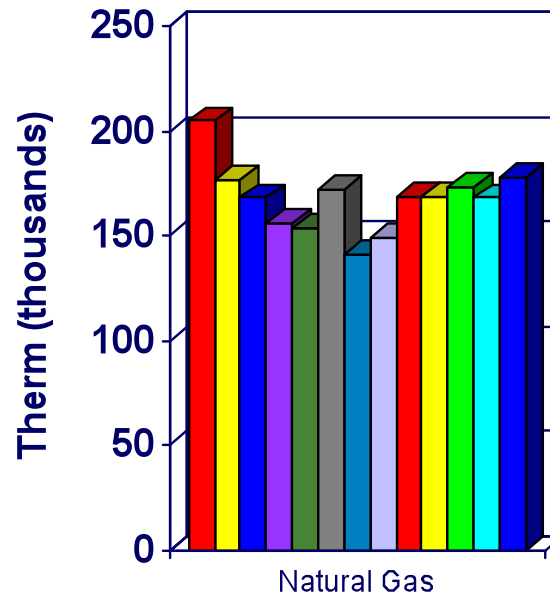
Electricity

Saved 682,672 kWh
7% (9.5 - 8.7)



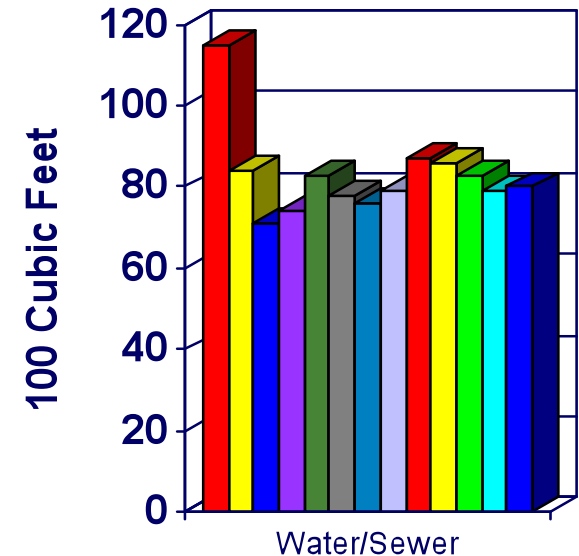
Natural Gas

Saved 26,727 therms
13% (205 - 178)

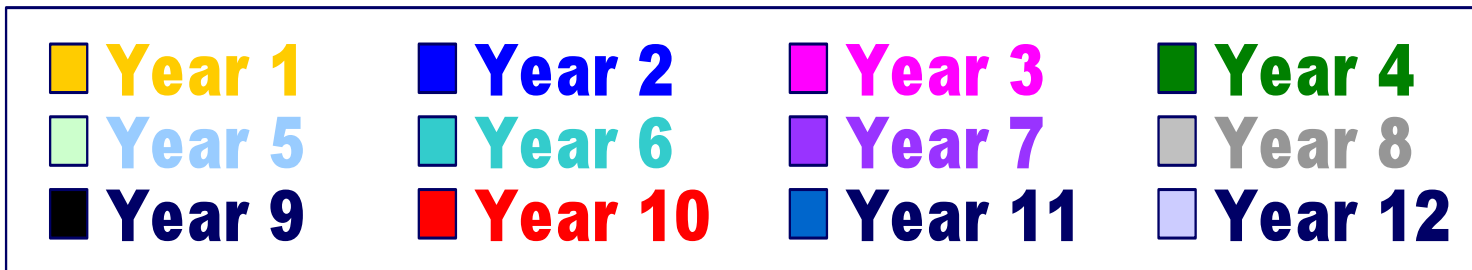
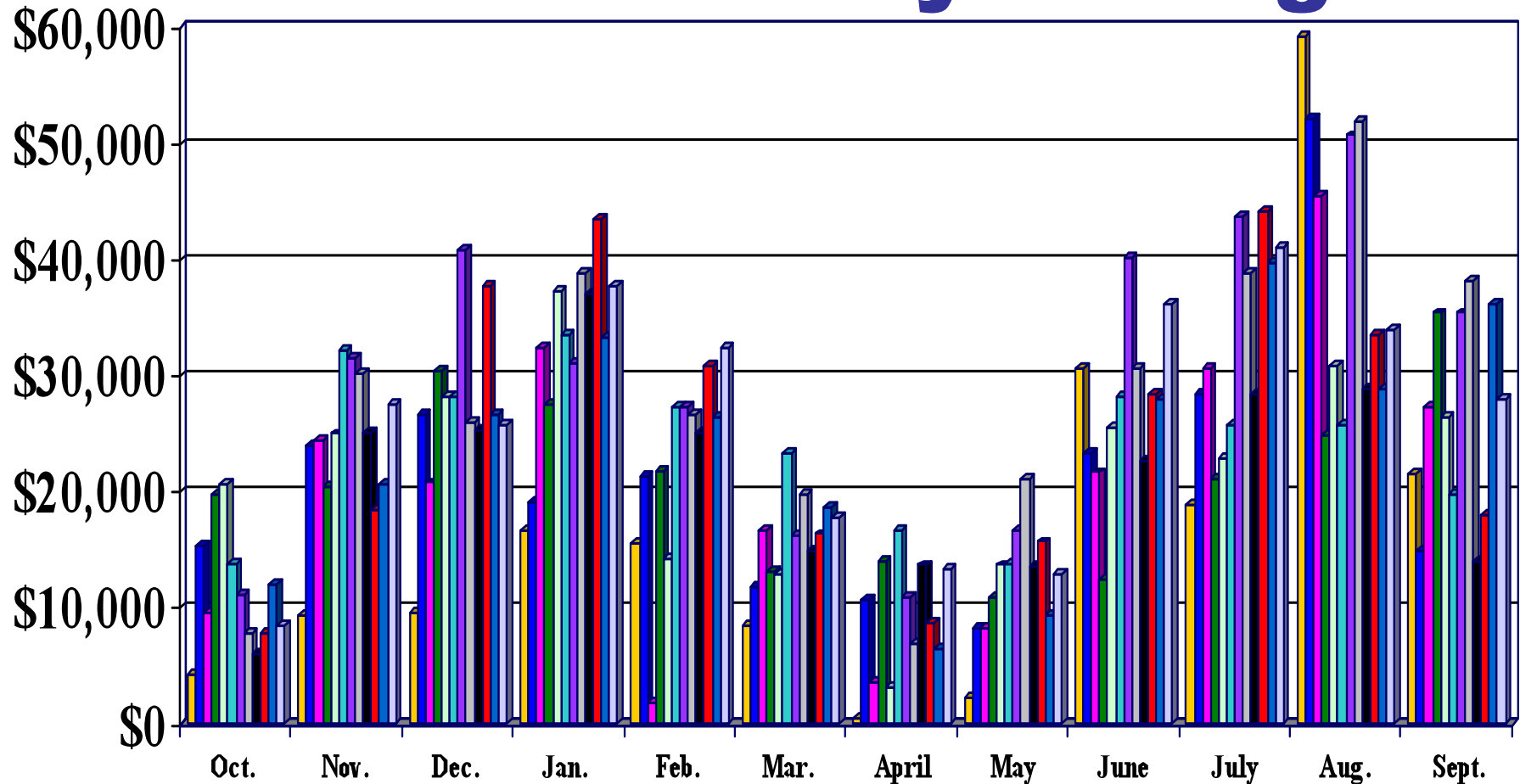


Water/Sewer

Saved 3,445 CCF
(34,457 CF)
30% (115 - 83)

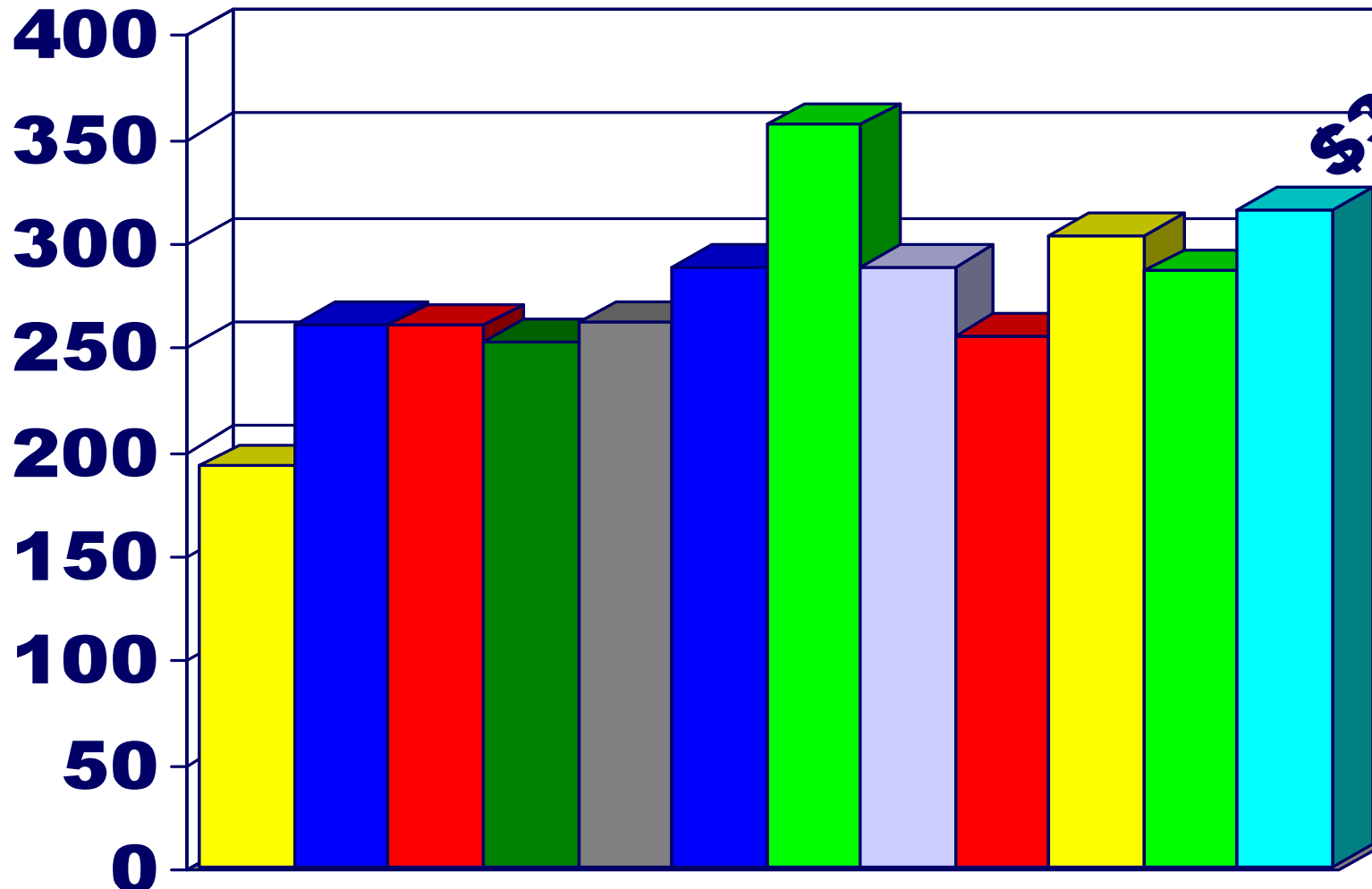


Actual Monthly Savings



Thousands

Energy Cost Avoidance



Year 1

Year 2

Year 3

Year 4

Year 5

Year 6

Year 7

Year 8

Year 9

Year 10

Year 11

Year 12

\$315,450

SUMMARY (Year 12)

October 2010 - September 2011

Anticipated Costs Without Energy Program

| | |
|-------------------------------------|------------|
| Actual Base Year Costs | \$ 746,854 |
| Rate Changes (Increase) | \$ 630,550 |
| Weather (Harsher) | \$ 31,627 |
| Technology/Utility Load Increase | \$ 15,012 |
| Billing Period Change (5 days less) | \$ -12,455 |
| Base Year Costs of Old SH/ED/SS | \$ 83,838 |
| Refunds and Rebates | \$ 11,856 |

Total Anticipated Energy Cost **\$ 1,477,258**

Actual Year 12 Costs **\$ 1,183,950**

Total Cost Avoidance from Energy Reduction

\$ 315,450

Walla Walla School District Energy Star Ratings

Building **Rating**
Larger the number the Greater Energy Efficiency/Scale: 1-100

| | |
|----------------------------------|-----------|
| <u>EDISON ELEMENTARY</u> | <u>95</u> |
| <u>GARRISON MIDDLE SCHOOL</u> | <u>93</u> |
| <u>GREEN PARK ELEMENTARY</u> | <u>89</u> |
| <u>ADMINISTRATION</u> | <u>89</u> |
| <u>BERNEY ELEMENTARY</u> | <u>83</u> |
| <u>SHARPSTEIN ELEMENTARY</u> | <u>83</u> |
| <u>LINCOLN CAMPUS</u> | <u>82</u> |
| <u>PROSPECT POINT ELEMENTARY</u> | <u>76</u> |
| <u>PIONEER MIDDLE SCHOOL</u> | <u>74</u> |
| <u>SUPPORT SERVICES</u> | <u>50</u> |
| <u>BLUE RIDGE ELEMENTARY</u> | <u>59</u> |
| <u>WALLA WALLA HIGH SCHOOL</u> | <u>44</u> |
| <u>TRANSPORTATION</u> | <u>NA</u> |



**Total Energy Cost Avoidance
Oct. 1999 through Nov. 2011
12 Years - 2 Months**

