



Energy Management Overview

School Year

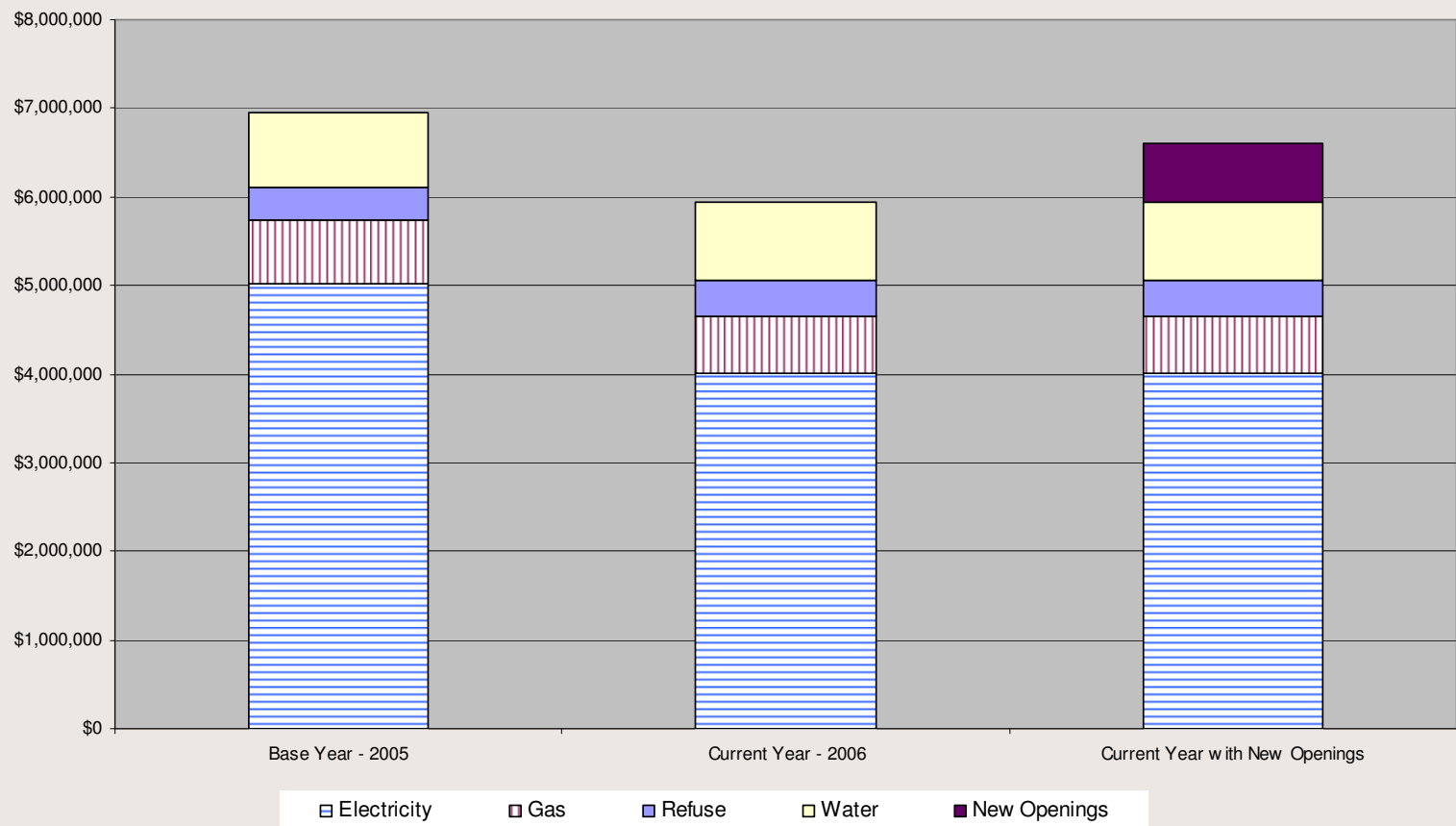
July 2006 - June 2007



Accomplishments

- Purchased a new database software program for utility tracking & entered over 10,000 utility bills.
- Performed walk-through energy audits on all open campuses.
- Revised the policies and process for scheduling after-hours heating and air conditioning.
- Focused on reduction in utility use using information and the EMS/Control system.
- Installed controls to reduce the amount of water used for irrigation.
- Made recommendations for capital improvements that will save \$200,000 each year.

Total Cost Comparison





Summary

- Total utility savings of \$1,023,454
- New openings utilities cost \$660,127
(Savannah ES, Navo MS, ATC & Paloma ES)
- Net utility savings of \$363,327
- Total spend for electricity, gas, water, sewer and refuse service \$6,594,207

Analysis of Utility Type (not including new Openings)

Electricity:

- Unit cost (rate) decreased 8%
- Consumption decreased 13%
- 10% less cooling degree days
- Net decrease in dollars of \$1,017,940

Analysis of Utility Type (not including new Openings)

Gas:

- Unit cost (rate) decreased 16%
- Consumption increased 9%
- 20% more heating degree days
- Net decrease in dollars of \$56,151

Analysis of Utility Type (continued)

Water:

- Unit cost (rate) increased 8%
- Consumption decreased 5%
- Net increase in dollars of \$23,776

Refuse:

- Net increase in dollars of \$26,861



Observations from Walk-Through Audits

- Abundance of plugged-in appliances costing \$47,000 a year.
- Wall-mounted televisions left on at night and weekends costing \$49,000 a year.
- Accent lighting in newer schools is costly to operate.
- Some hallways are over illuminated.
- Lights left on in some unoccupied areas.
- Opportunity to replace gymnasium lighting with more energy efficient fixtures in most older schools.
- Opportunity to perform an energy efficient retrofit on the classroom lighting in both Denton and Ryan High Schools.
- Portable classroom heating and air conditioning units are not controlled by the energy management system and are on when unoccupied.



Campuses with the largest decrease in Energy Use

- Rivera Elementary School -42%
- Guyer High School -29%
- Crownover Middle School -13%
- McNair Elementary School -9%
- Hawk Elementary School -8%



Campuses with the largest Increase in Energy Use

- Transportation +37%
- Central Services +24%
- Technology +20%
- CH Collins +17%
- Fred Moore HS +10%

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Looking Forward

- Continue efforts to tightly manage utilities through the use of information and the EMS/Control System.
- Involve campus leadership for a collaborative effort.
- Implement capital improvements to reduce energy consumption in existing campuses.
- Reduce cost by changing changing electricity providers at the campuses that are in deregulated territory.
- Support the district's LEED initiatives.