



Energy Management Report

Year Four of Program

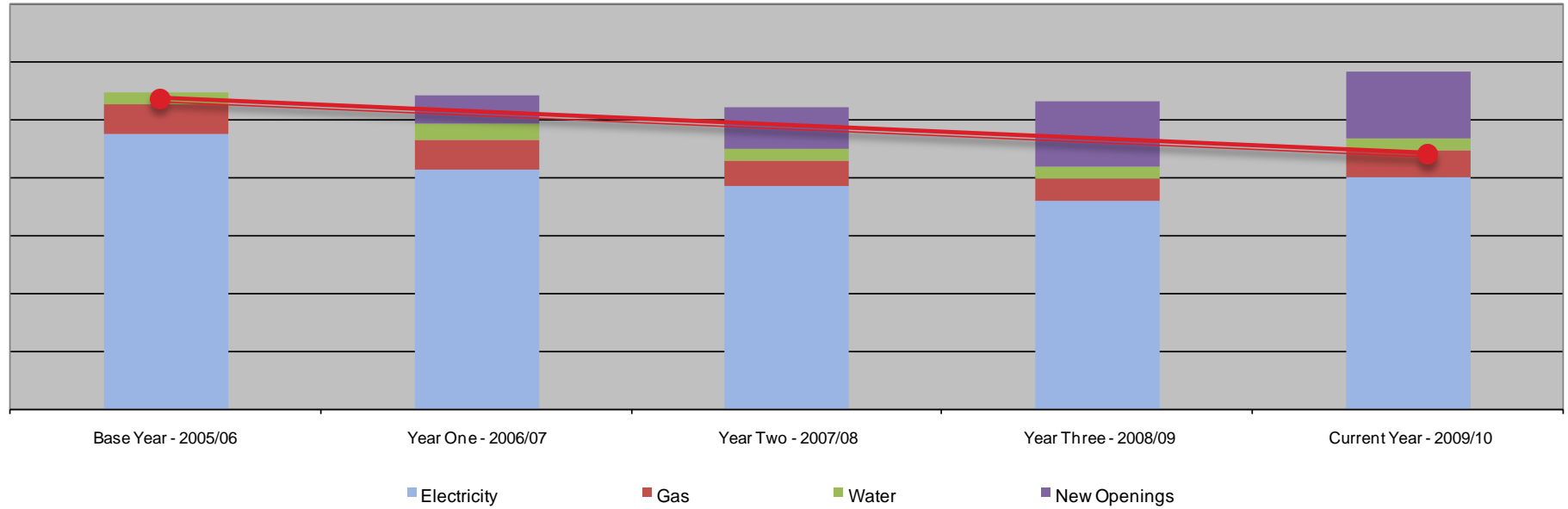
Mid-Year Report

July 2009 – December 2009

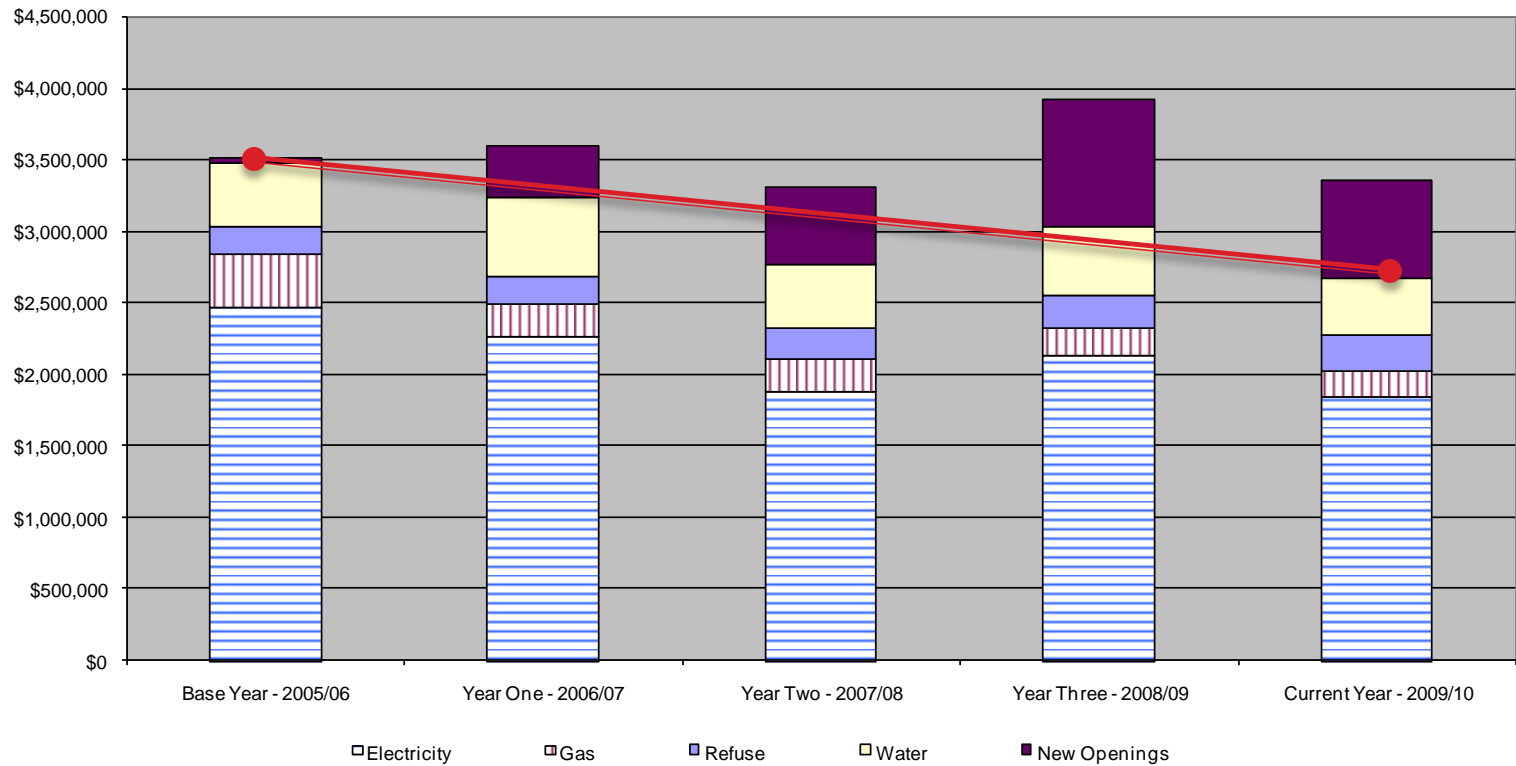
Accomplishments

- Continued efforts to tightly manage HVAC Systems through the EMS system.
- Completed mechanical work at several schools.
- Began implementation of “intelligent” irrigation controls at several schools.
- Began implementation of Phase two lighting retrofits at 19 schools.

Total Consumption Comparison (July – December)



Total Cost Comparison (July – December)



Summary

- Total spend on utilities was \$3,359,359 compared to \$3,928,897 last year. This is a cost decrease of \$569,538 for the first six months of the school year.
- This decrease included a cost increase from a new opening (ECDC), and 187,695 sq. ft. of new space in existing district facilities.
- Cost reductions are due to District's continued focus on energy and water conservation opportunities as well as electric and natural gas unit cost decreases experienced during this period.
- Same school costs without new openings (ATC, Navo, Savannah, Nelson, Paloma, Blanton, Harpool, Stephens or ECDC) are down \$803,940 from the 2005-2006 base year.

Analysis of Utility Type

Electricity:

- Unit cost (rate) decreased by 22.2%
- Consumption increased by 12.0%
- 13.8% less cooling degree days
- Net decrease in dollars of \$281,325

Analysis of Utility Type (continued)

Gas:

- Unit cost (rate) decreased 27.3%
- Consumption increased 19.0%
- 66.1% more heating degree days
- Net decrease in dollars of \$26,868

Analysis of Utility Type (continued)

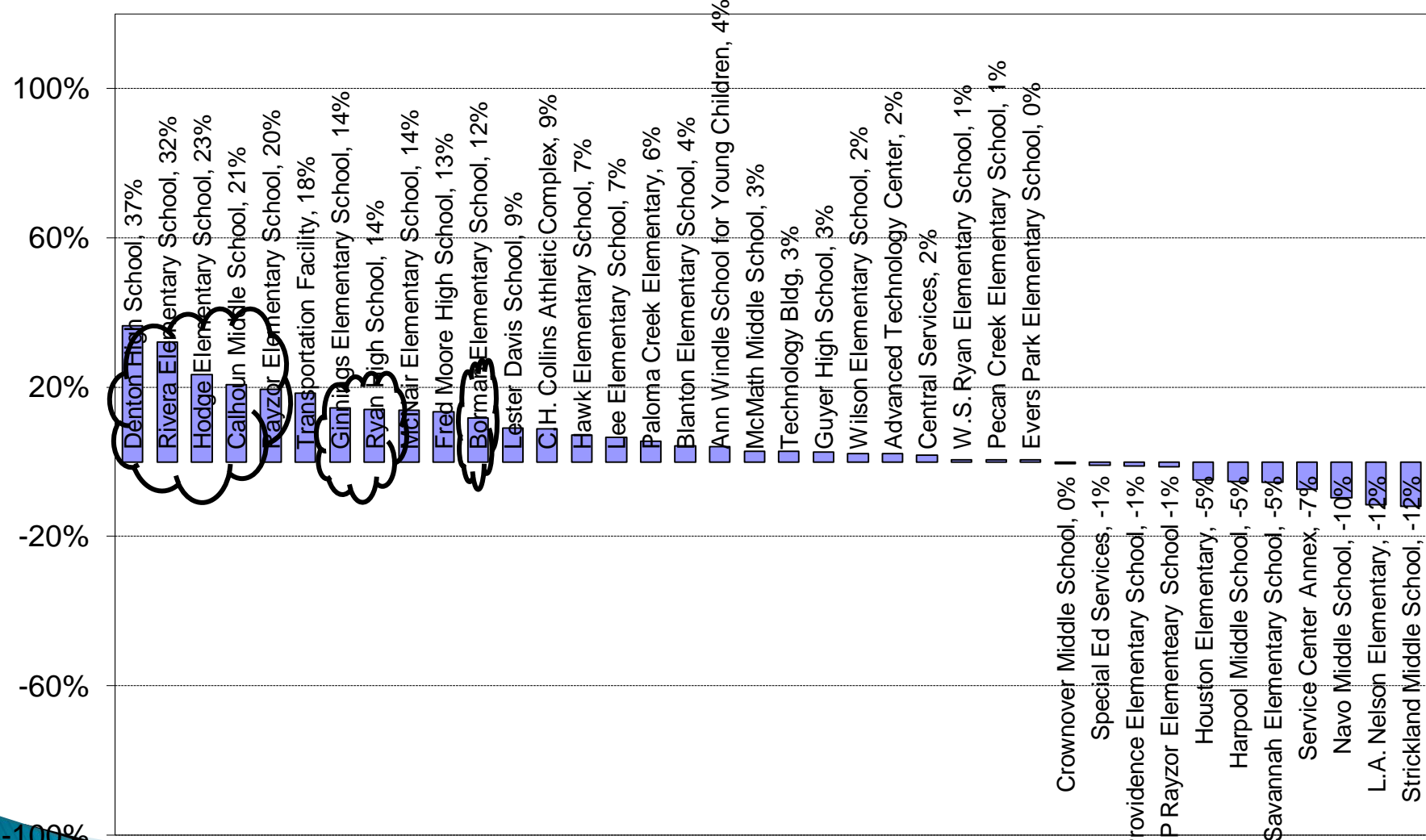
Water:

- Unit cost (rate) increased 4.8%
- Consumption decreased 32.0%
- Rainfall increased by 11.85 inches
- Net decrease in dollars of \$75,823

Refuse:

- Net increase in dollars of \$25,749

Percent Change of Energy Use



New Square Footage



House Bill 3693

- The District is required to set a goal to reduce electrical consumption by 5% for each year from 2007 for the next six years (as of May 2007).
- To date the program has resulted in electricity consumption reduction of 15.6%.
- Although not required in the bill, to date the program has resulted in gas consumption reduction of 7.7%.

Note: Analysis does not include new campuses.

Looking Forward

- Continue to tightly manage building operation through the use of information and the EMS/Control System (Approximately 5,500 Pieces of HVAC Equipment).
- Develop next phase of comprehensive energy conservation measures:
 - Intelligent Irrigation @ 12 Schools
 - Supplemental cooling @ Guyer HS
 - High-efficiency Boilers @ McNair / Hodge / McMath
 - Lighting retrofits @ Sam Houston / Fred Moore
 - Other retrofits with positive return on investment
- On site monthly analysis to identify areas of concern for immediate investigation and corrective action.
- Develop and implement analysis of the performance of the geothermal systems at the two new schools to validate the savings achieved by the District.
- Perform detailed site analysis on irrigation water accounts that appear to be billed as domestic accounts.