## Energy Savings Performance Contracting Projects - Savings Summary

projects. The monitoring year begins in July and ends June 30. The projects are made possible in part by the energy cost savings. The buildings range in age from 1919 to 2002. The facility upgrades typically include: The following graphs represent the 2008-09 year to date (3 quarters) of energy use and cost relative to the respective baselines of the various

- Reducing heating, cooling, domestic hot water, ventilation and other loads
- Sizing equipment and systems to fit the actual demands (Right sizing and load matching
- Reducing equipment runtime with controls (schedules, occupancy sensors, temperature controls)
- Equipment and system work includes:
- Lighting upgrades (T-8 lamps with electronic ballasts, LED exits, compact fluorescents, high bay fluorescent fixtures, and occupancy sensors and photo cells
- Boiler replacements with high efficiency (90+%) condensing boilers and modular boiler plants
- Near boiler piping modifications
- Variable Speed Drives on fan and pump motors
- Direct Digital Control systems
- Demand controlled ventilation with carbon dioxide sensors
- High Performance Windows
- Daylighting
- Ceiling, roof, wall and crawlspace insulation
- High efficiency chillers
- Evaporative cooling
- Air to air heat exchangers for ventilation air and energy recovery units
- Duct cleaning
- Duct repair and sealing

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- 0 Domestic hot water system replacements with 90+% efficient systems, smaller storage tanks, and tankless point of use heaters
- Infrared heating systems in high bay applications
- Air and water balance
- Systems commissioning
- Solar domestic hot water systems
- Solar photovoltaic systems with student access to realtime data
- Low flow water fixtures (showers, toilets, faucets, washing machines)







