

Texas Workforce Commission (TWC) Update to State Agency Energy Savings Plan

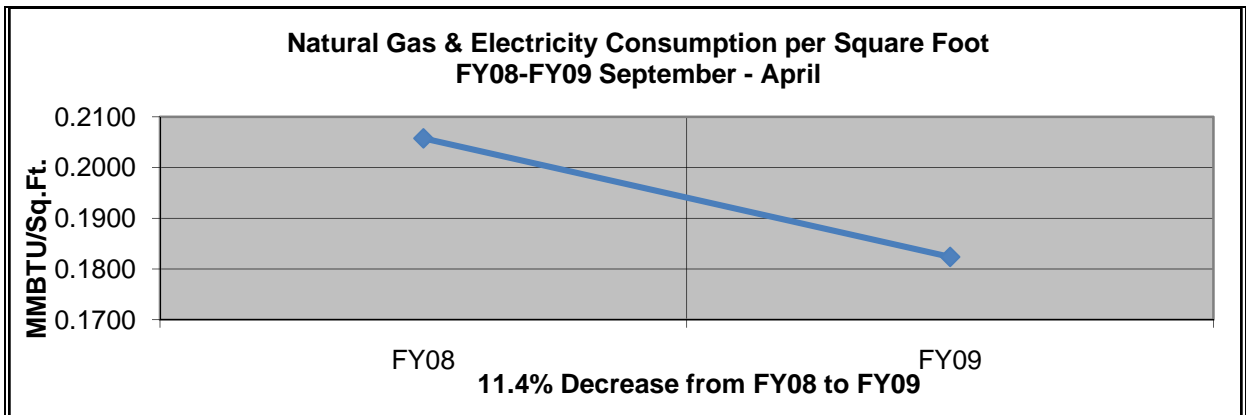
July 2009

A. TWC Energy Consumption Update

With Executive Order RP49, TWC established a goal to reduce electric and natural gas energy consumption (reported as MMBTUs/sq. ft.) by **2%** per year for 5 years. Since December 2005, TWC has met or exceeded our goal.

Electricity and Natural Gas –FY09 Update

TWC is pleased to report a **decrease of 11.4%** in energy consumption for the period September to April of FY09 compared to the same period of FY08.



TWC believes that energy conservation efforts and the installation of energy efficient systems and equipment have significantly contributed to our consumption savings efforts.

Vehicle Fleet Fuel Usage - FY 09 Update

Reduction in overall fuel usage (gasoline, propane, & diesel) **decreased 17.7%** for September to April of FY 09 over the same time period for FY08.

Ninety-eight percent of TWC's fleet is either capable of using propane or other alternative fuels or is waived from the alternative fuel requirements due to size. TWC continues to replace propane vehicles with new vehicles using other alternative fuels such as Ethanol with each vehicle refresh.

B. Results of Planned Initiatives to Increase TWC Consumption Goals

Detailed below are deferred maintenance projects initiated this year intended to reduce future energy consumption.

- **Trinity Headquarters Building - Roof Replacement:** The new roof system is a combination of standard 3-ply fiberglass felt over a vented base sheet with a

modified bitumen reflective cap sheet (white solar reflected roof increasing energy savings). The bottom layers of the roof system are standard construction, the cap sheet adds the energy efficiency by reflecting heat. In addition, the R value of the insulating system has been increased; the existing roof was rated at R14.5, the new insulation system is rated at R19.

- **Trinity Headquarters Building – HVAC System Upgrade:** The upgrade at the Trinity building replaced three old air handlers in the building. By replacing these units with one energy efficient unit, it has reduced maintenance and consumption while improving the comfort of TWC staff working on the first floor.

The replacement unit is a reciprocal 110 ton chiller with a scroll chill water compressor. The Energy Efficiency Ratio (EER), which is the ratio of output cooling vs. input power in watts, went from a 9 EER rating to a 16 EER rating that will almost double the efficiency. TWC received a rebate check from the City of Austin for buying this energy efficient product, and the earth friendly refrigerant counted as green building points.

Upgrade of the DDC systems for the new air handler will allow a zone by zone time and temperature setting, allow for night and weekend setback temperatures and better control of fresh air into the building. The energy savings using the new direct digital control system is estimated at 10-20% over existing consumption.

- **McAllen Telecenter Building - HVAC unit replacement:** TWC installed two roof top air conditioners (Carrier 48PG units) equipped with natural gas heat. These Carrier 48PG units provide industry-leading operating efficiencies and are fully ASHRAE 90.1 compliant.

C. Additional ideas the agency has for reducing energy expenditures

- Request employees to shut off non-essential computers, coffee makers, other nonessential equipment and if feasible, 50% of copiers.
- Turn off the water cooler during periods of high electrical use, which is from 4 to 8 PM.
- Consider using battery-powered laptop computers in place of docking stations, and charge the batteries at night during off-peak hours.
- Increase telecommuting options where feasible.
- Have security personnel ensure all lights are turned off after office hours.

D. Additional ideas to minimize fuel usage of all vehicles

- Replacing all agency vehicles with hybrid electric/gasoline vehicles or motorized carts to perform campus facility services.