

January 8, 2010

**Pulaski County Board of Commissioners
Court House Annex Building
81 North Lumpkin Street
Hawkinsville, Georgia 31036**

● **Executive Summary**

Brooks Bailey, County Commissioner, contacted Danny Whittle to request an energy evaluation and energy simulation of the Pulaski County Court House Annex Building. A site visit was made and a building simulation was performed comparing the existing building with updated efficiency changes. The updated changes consist of adding R-19 insulation above the ceiling, retrofitting the light fixtures with 25 watt T8 lamps and electronic ballast, updating the windows to double pane low e and updating the existing heat pumps to 14.5 SEER heat pumps.

The estimated energy savings for these changes is **\$5,613.82/year** with a reduction of 69,213 kWh/year.

● **Purpose & Scope**

The purpose of this report is to provide an energy cost comparison between the existing building and the building with updated heat pumps, added insulation over the ceiling, lighting retrofit and window upgrades.

● **Basis for Solutions**

Assumptions

- Electric energy cost based on Georgia Power's Power and Light Medium Commercial Rate
- Average cost \$0.1257/kWh, peak demand 45 kW, average hours use of billing demand 222.
- Existing HVAC equipment 10 SEER package heat pumps
- New HVAC equipment 14.5 SEER package heat pumps
- Cooling temperature set points based on 74°f
- Heating temperature set points based on 70°f
- Existing lighting 26.6 kW, new lighting 16.72 kW
- Building occupied Monday-Friday 8:00 am to 5:00 pm

Methods

We used our proprietary energy simulation software EnerSim to generate monthly demand and consumption figures for calculating monthly utility bills.