

University of Florida
Energy Efficiency Measures

1. Implemented To Date

- Indoor florescent lighting retrofits (Performance Contract)
- Efficient electric motor replacements: elevators, pumps, etc.
- De-lamping hallways and common areas
- Chiller replacements/retrofits refrigerant efficiencies
- Metasys Monitoring for control & efficiency
- VetMed Tissue Digester
- Reclaimed water for irrigation (95% of campus)
- Co-Generation Plant (50 mg watt plant)
- Central chilled water plants
- Health Science Center heating hot water filtration and de-aeration
- Energy Awareness Programs
 - Energy Bulletin Boards
 - Energy Runs
 - Building Energy Coordinators
 - News Articles
- HVAC heat recovery devices
- E85 availability at Physical Plant Motor Pool
- Bio-diesel 20% at Physical Plant Motor Pool
- UF Fleet Management Program & Policy
- Energy department established to manage energy matters
- Campus Steam System Survey. Improve steam traps and pipe insulation.
- Alternative fuel vehicles: electric maintenance trucks, hybrids, and control
- Energy Plant optimization through centralized monitoring and ethanol
- Infrared building envelope inspections
- LEED Construction Program (Silver LEED is goal)

2. In Progress

- Metering Improvement Program. Automatic Meter Reading
- Building HVAC Efficiency Program
- Central Energy Plant Optimization Improvements
- U/V light installation in air-handling units to increase efficiency and improve IAQ
- Replace major boiler (#4) to increase efficiency and capacity
- Heat recovery devices in HVAC equipment
- Building thermostats set-backs
- Use well or reclaimed water for HVAC cooling tower make-up
- SCADA/Cyme to monitor, control, evaluate electrical power distribution (software program)

3. Future Consideration

▪ Hardware

- Install Building Enterprise Management System
- Accelerate building and chilled water plant optimization
- Accelerate SCADA/Cyme
- Continue metering improvements
- Install equipment to optimize partial chiller loads
- Install steam chillers
- Install additional steam electric generators
- Install cold water storage & other thermal storage
- Indoor/Outdoor lighting wattage improvements
- Improved lighting controls
- Centralized server location
 - Install cooling specific for existing server rooms
- Solar water heating
- Photo voltaic
- Study Campus Biomass Reactor
- Replace 5KV campus electrical distribution

▪ Behavioral Change for Building Occupants

- Optimize Occupancy (space utilization)
 - Schedule summer classes in only certain buildings
 - Reduce or consolidate summer scheduling
 - Reduce or combine night classes
 - Reduce campus lighting at specific times
- Eliminate discretionary energy consumption
 - Turn off fountains
 - Reduce accent lighting
 - Reduce/eliminate evening outdoor events requiring lighting
- Consolidate server rooms and computing equipment
- Turn off unnecessary equipment
 - Lights
 - Autoclaves
 - Departmental machinery
 - Computers
- Reduce & eliminate one pass potable water used to cool lab experiments