

US EPA ARCHIVE DOCUMENT

Conservation Audit Basics

Energy/Water/Waste Streams

Energy Audit Basics

- Rate Analysis – contact local provider and ask them what rates are available.
- Enhanced Growth Credits for New Loads – contact Utility
- Peak Shaving – know your load curves – control if possible
- Use Generators Strategically if possible
- Recommissioning Systems – what are your settings on HVAC systems – when are you having systems come on/ go off, Are your boilers chillers operating year round, Programmable Thermostats, simple control systems for HVAC/lighting – occupancy sensing, testing apparatus to determine economic paybacks (\$100)
- Curtable Load Credits – 5 MR and 60 MR – use Generators to maximize savings
- Other Demand Incentives as they become available from Utility

Energy Audit Basics

- Lighting Analysis – Conduct count and inventory of all lighting types and the height of installation, Conduct lighting level analysis in footcandles (FC 4 foot level or work surface) Compare FC levels to IESNA standards, contact lighting expert for help

Warranty – 2-3 yrs. Lamps / 5-6 yrs. Ballasts – large maintenance savings for at least 2 years

Retrofit of lighting gains Energy cost reduction AND federal TAX credit deduction thru 2008 Contact lighting expert for help with these forms

New Constr. – BE Active in Specs/dual lamp cans ex. Specify correct ballast and lamps and color (temperature)

Water Conservation Basics

- Analyze fixtures for flush valve capacities – lowest available is 1.0 gallons/flush Demo Waterfree Urinals
- UTK saved 100,000 gallons in 2006 / currently 152 waterfree urinals on campus - Falcon/Sloan
- Install .5 GPM aerators/sinks – about \$4 each
- Water recapture systems – Tank or French Drain
1600 Gal Tank- \$10K installed
- Touchless faucets / low maintenance
- Ask for deduct meters for cooling towers, get meters checked, check for leaks – hook to control system

Waste Stream Analysis Basics

- List of ALL waste streams and estimate volumes
- Contact local recycler for help with possible alternative disposal methods and budget pricing
- Research Best Practices by Contacting Peer Companies – (Other Institutions example)
- Quarterly monitoring after establishing program – report numbers to employees
- Add items as new waste streams become evident
- Consider empowering employees or other non profits to take care of profitable waste