

WINTHROP UNIVERSITY

ENERGY POLICY

Introduction

Winthrop University is committed to energy efficiency and energy conservation. The goal of this policy is to create a realistic and comprehensive document that identifies energy and water conservation and efficiency as significant issues for the entire campus community. This document details steps that will be taken to address these issues and reach the energy efficiency goals of the University. This policy will be reviewed and updated periodically as public awareness, management techniques and technologies change.

I. Conservation Goals

Each state agency shall submit for approval to the South Carolina State Energy Office an energy conservation plan for buildings in use on July 1, 2008, with a goal to reduce energy consumption by at least 1% annually for five consecutive years beginning July 1, 2008. The plan also must have a goal of ultimately reducing energy consumption for buildings in use on July 1, 2000, by 20% by July 1, 2020, relative to year 2000 levels. Winthrop University shall implement all available cost-effective energy-saving measures to pursue these goals. Winthrop University annually shall submit energy conservation reports in the manner and at the times required by the South Carolina State Energy Office.

II. Specific Measures

A. Buildings

As time and funding allow, buildings and mechanical systems will be added to the building automated control system (BACS). This will permit greater control over operating schedules and temperatures, will reduce energy consumption, and will permit implementation of demand management strategies to reduce energy costs. Windows and doors of conditioned spaces should be kept closed.

B. New Construction

New construction should be designed and built to minimize energy use. State law requires new construction of 10,000 square feet or greater must be LEED silver minimum rating. The design process should include energy life cycle costing analyses. New construction should be added to the existing building automated control system for enhanced energy management capabilities. Alternative energy sources such as passive

solar heating and heat recovery should be considered, as well as daylighting and other strategies for decreasing building energy consumption. Primary consideration should be given to connecting and/or extending central systems for heating, cooling and other mechanical systems. Year-round cooling needs should be met by utilizing the most energy efficient systems, for example plate-and-frame heat exchangers versus less efficient air-cooled systems. All new construction should include utility metering (electricity, natural gas, steam, and water).

C. Lighting

Most lighting on campus has been retrofitted or upgraded to high efficiency fluorescent lighting with electronic ballasts. New construction and remodels should use high efficiency lighting and minimize incandescent lighting. Interior decorative lighting should be kept at a minimum and exterior decorative lighting should be discouraged. Lighting levels recommended by the Illuminating Engineering Society Lighting Handbook should be used as guidelines to insure appropriate security lighting. Increased use of daylighting and daylighting controls should be considered because use of daylight spaces decreases energy costs and may improve productivity. Use of compact fluorescent lamps is encouraged wherever possible.

D. Heating

During the heating season, room temperatures should be maintained at 69°F when occupied. Whenever it is economically and technically feasible, night setback features of the BACS system will be utilized to allow temperatures to drop to 55°F during unoccupied periods. The exceptions to this policy include special areas such as library archives, laboratory or research facilities, performance facilities, and living spaces that require constant or warmer temperatures. Facilities Operations will utilize the most energy efficient means of supplying heat for approved off-hour/holiday requests. Use of electric heaters in University buildings is prohibited. Areas that are either too hot or too cold should be reported to Facilities Operations at 323-2459.

E. Cooling

During the air-conditioning season, room temperatures should be maintained at 76°F when occupied. Whenever it is economically and technically feasible, night setback features of the BACS system will be utilized to allow temperatures to rise to 85°F during unoccupied periods. The exceptions to this policy include special areas such as library archives, laboratory or research facilities, performance facilities, and living spaces that require constant or cooler temperatures. Window air conditioners are used in areas that lack central cooling. Temperature settings for these units should be raised manually to 76°F or the unit should be turned off when areas are not in use. Areas that are too cold or too hot should be reported to Facilities Operations at 323-2459.

F. Water Usage

Use of irrigation water should be minimized through rainfall monitoring. The University should also investigate collecting storm water for non-potable uses on campus. Low water use flush valves and flow restrictors on faucets and showers should be used in restrooms. No single-pass cooling water will be used on mechanical equipment in new construction or remodels. Existing equipment that uses single-pass cooling water will be eliminated as time and funding allows. Water that does not go to the sanitary sewer system (such as lawn irrigation, cooling towers, and fountains) should be metered to obtain a sewer credit from the City. Water leaks, dripping faucets and fixtures that do not shut off should be reported to Facilities Operations at 323-2459.

G. Office Equipment

Office equipment, lights, and window air conditioners should be turned off when not in use. The use of personal heaters is prohibited. Power management features of personal computers should be enabled.

Campus office computers are set to automatically follow a power saving scheme. Because virus scans and other maintenance tasks are run at night and centrally managed by Information Technology, computers should be left on all week and turned off each weekend or during a long break. Monitors, printers, and scanners should be turned off each day after use. All cell phone and personal electronic device chargers should be unplugged unless in use. (<http://www2.winthrop.edu/acc/dcit/default.asp>)

H. Transportation

Use of car/van pooling should be promoted. Faculty, staff and students are encouraged to walk, bike or use public transportation. Fleet vehicles used on campus should not be left idling.

Acquisition of new University fleet vehicles should be reviewed thoroughly, and vehicles should be purchased with the highest fuel efficiency possible.

I. Purchasing

Energy efficient products should be purchased whenever possible. For examples, see the U.S. Environmental Protection Agency Energy Star products list. Recyclable and reusable products should also be purchased when feasible to reduce disposal costs.

J. Recycling

Facilities Operations is responsible for the campus recycling program. Disposal of materials in the solid waste stream represents an increasing expense for the University. Design of campus facilities should incorporate the facilities necessary to make recycling convenient for University users. When economically feasible, recycling should be

expanded to include such things as green waste (for composting), construction waste, and used office waste such as computers.

III. Continued Success

A. Monitoring

No energy conservation program will be successful if progress is not monitored on a continuing basis. Some buildings on campus have electric metering devices installed, with a goal of being installed in all buildings within 5 years. Meter readings can be used to track utility consumption, and the data can be used to locate problem areas as well as determine if conservation goals are being met. Metering must be installed by Winthrop University, the cost of which must be borne by Winthrop University.

B. Training

Training must be provided to ensure that both operations and service technicians have the skills and knowledge to effectively apply the technology used to achieve energy savings, i.e. keeping systems operating to their design intent, preventive maintenance, etc.

C. Maintenance

Mechanical system efficiency tends to degrade over time. Proper maintenance is required to ensure that systems operate as efficiently as possible.

D. Education

University faculty, staff and student cooperation and support of the energy policy are key to its success. An education program that provides information on utility costs, trends, and user impact on these costs will enable the campus population to understand the need for this policy, and how it can positively impact them by freeing up money from utilities for educational purposes. This policy, and any subsequent additions, will be communicated to the campus and ideas and suggestions on energy savings are welcome.

IV. Suggestions

Any suggestions for ways of reducing energy consumption on campus should be addressed to the Facility Management Operations Manager at 323-2210 or rentschlerd@winthrop.edu.

Portions of the above were based on guidelines of the University of Kansas and are used by permission.

Approved by Winthrop Executive Officers, June 9, 2009.