1.0 NAME OF POLICY

SRU ENERGY CONSERVATION POLICY

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A. Background

1. Energy Conservation and Trend Five of the SRU Strategic Plan

The SRU Energy Conservation Committee (ECC) has been working to conserve energy and reduce utility costs at SRU for many years. Working with the Natural Resources Committee, the ECC helped develop a portion of the SRU Strategic Plan focusing on "Trend Five: The world is reaching a point of diminishing returns regarding resource utilization". This part of the Strategic Plan recognizes that energy conservation is an integral part of the Campus Sustainability Initiative, with several action items to be supported by the ECC.

In 2011, the Trend Five goals and actions were officially accepted as part of the SRU Strategic Plan. The plan includes the establishment of the Office of Sustainability that is charged with working in concert with and coordinating the existing environmentally related SRU committees, including the President's Commission on Sustainability, the Environmental Zoning Committee, The Institute for Community Service-Learning and Nonprofit Leadership, the Green Fund, the Macoskey Center, and the Energy Conservation Committee. One of the Action Steps contained in Trend Five of the Strategic Plan is to implement a campus energy policy to support the achievement of carbon neutrality in order to meet the American College & University Presidents' Climate Commitment. This campus energy conservation policy was developed to support the Strategic Plan and was recommended for approval to Cabinet by the Office of Sustainability, who officially adopted this policy in 2011.

2. Energy Conservation Policy Background and Goals

SRU spends over three million dollars each year on essential utilities, including electricity, natural gas, coal, and water. The unit price of all forms of energy is generally expected to continually increase in the future. Every dollar we as a community save, rather than spending on utilities, is a dollar we can apply toward:

- Improving the academic programs of the university
- Improving the quality of our buildings and grounds
- Avoiding potential cutbacks in faculty and staff positions
- Limiting potential increases to student housing costs

Spurred by a number of factors – including rising utility costs, tighter budgets, a growing emphasis on the need to conserve our limited natural resources, and the President's Climate Commitment to reduce greenhouse gases - Slippery Rock University is dedicated to reducing the energy use of our campus. Despite significant growth in both enrollment and facilities over the past decade, SRU has managed to decrease its energy consumption by performing

energy efficiency upgrades and investing in technology. Through the efforts of the SRU Facilities and Planning Department and the Energy Conservation Committee, many technological upgrades have been made which have had a significant impact on reducing SRU's annual energy usage and costs, far in excess of the PASSHE goal of reducing energy usage by 1.5% per year. As new, capital-intensive technologies emerge, they will also be considered for implementation where financially feasible. Even more energy conservation opportunities and greater cost savings, however, are dependent upon the habits of those who occupy our buildings. It is important to note that as much as 20% of the energy consumed in institutional buildings, and 40% or more of the energy consumed in residential buildings, is dependent upon the behavior of the building users. The Action Steps contained in this Energy Conservation Policy are easily implemented steps that every SRU community member can take to conserve energy, reduce SRU's annual energy costs, and benefit the environment.

Goal:

To reduce SRU's overall Energy Utilization Index (EUI) by 3 % each year, using financially feasible technological upgrades to SRU's facilities and the action steps taken by all stakeholders in the SRU community included in this Energy Conservation Policy.

The EUI normalizes energy usage to account for variances in the size of the campus facilities building stock (square footage floor area of all buildings) and is expressed as thousands of Btu's of energy used per square foot of floor area each year. In 2009, the campus EUI was calculated to be 126,124 Btu/SF-year based on a total floor area of 2,414,074 GSF. Reducing the EUI by 3% would result in reducing energy costs by approximately $100,000 per year and reducing our GHG emissions by 1,335 tons CO2 of per year, which is equivalent to protecting 13 acres of old growth forest each year.

B. SRU ENERGY CONSERVATION POLICY

1. Intent, Purpose, Scope and Enforcement

Intent:

The intent of this policy is to establish energy related standards that assist SRU in its efforts to reduce energy usage and costs through the adoption of best practice energy and water conservation strategies for the entire campus community. This policy will be reviewed and updated periodically as public awareness, energy management techniques and energy efficient technologies change. This policy not only reflects SRU's Climate Commitment but also supports its Strategic Plan, which includes a move toward sustainable goals.

Purpose:

Simply stated, SRU's policy is to "use the minimum amount of water, electric, coal, and natural gas commensurate with our true needs." This policy recognizes that, as important as conserving our natural resource is, the cost of lost staff productivity greatly outweighs potential energy cost savings. Therefore, this policy is not meant to require students, faculty

or staff to sacrifice comfort; rather, its intent is for the community to use resources prudently and in an economically sustainable manner.

Scope:
This policy is applicable to all Slippery Rock University facilities users, employees and students, including those using SRU-owned or leased facilities.

Enforcement:
University leaders are expected to lead by example, stressing to the community the importance of energy conservation in achieving our Strategic Plan's sustainability goals, benefiting the local environment, and helping mitigate the consequences of future global climate change. Questions regarding this policy or its enforcement should be addressed to the SRU Sustainability Office at sustainability@sru.edu .

PROCEDURES

C. Action Steps

The following action steps are hereby incorporated into the SRU Energy Conservation Policy and reflect best management energy conservation practices intended to reduce the campus's energy use by consciously using less energy where less is needed.

Action Step 1: Reduce Artificial Lighting Energy Use. Employees and students shall endeavor to reduce the amount of energy associated with artificial lighting in all University facilities by:

(a) Maximizing the use of natural lighting, turning off unessential lighting, and using task lighting whenever possible.

(b) Minimizing the use of artificial lighting by turning off lights when leaving a space, no matter how long they plan to be gone.

(c) Using energy efficient Lamp Types where financially feasible. As incandescent bulbs are being phased out, all new indoor lighting shall be fluorescent, compact-fluorescent or LED. Contact the Office of Facilities and Planning (extension 6666 on campus, 2678 in residence halls; if calling from a cell phone please call 724-738-2073) for upgrading lighting options.

(d) Establish late-night hours when unessential (non-safety or security related) landscape or architectural lighting is turned off. Personal safety shall not be compromised from lighting energy reduction decisions.

Action Step 2: Use Energy-Conserving Practices in Controlling the Interior Environment

(a) Standardize Thermostat Setpoints

Use the campus Building Automation System to apply standard thermostat setpoints to all University buildings, including residential halls, whose HVAC systems have the ability to maintain reasonable temperature control. Slippery Rock University will follow the temperature setpoints recommended in the July 25, 2008 PA Governor's Management Directive 720.5 Amended regarding Energy Conservation in Commonwealth-Owned or Leased Buildings, as follows:

(1) Summer Setpoints - During the air-conditioning season, room thermostats will be set at 75° F during the "occupied" mode, meaning the room temperature should be maintained between 73° and 77° F when occupied. Whenever it is economically and technically feasible, without adversely affecting processes such as printing or critical laboratory functions, night set-up features of the Building Automation System will be utilized to allow temperatures to rise to 85° F during unoccupied periods. Areas that are too cold or too hot should be reported to the Office of Facilities and Planning (extension 6666 on campus, 2678 in residence halls; if calling from a cell phone please call 724-738-2073).

(2) Winter Setpoints - During the heating season, room thermostats will be set at 67° F, meaning room temperatures should be maintained between 65° and 69° F. when occupied. Whenever it is economically and technically feasible, without adversely affecting the ability of the HVAC system to "recover" to provide standard occupied mode space temperatures at the start of the next occupied time period, night setback features of the Building Automation System will be utilized to allow temperatures to drop to 55° F during unoccupied periods. Areas that are too cold or too hot should be reported to the Office of Facilities and Planning (extension 6666 on campus, 2678 in residence halls; if calling from a cell phone please call 724-738-2073). The energy savings resulting from this winter setpoint adjustment alone is estimated to reduce SRU's greenhouse gas emissions by 321 metric tons of CO2 per year, the equivalent of planting over 7,000 tree seedlings or reducing our landfilled municipal solid waste by 102 tons each year.

(3) Exceptions - The Office of Facilities and Planning will evaluate requests for exceptions on an individual basis. This includes areas that currently are not heated or cooled and areas with special environmental needs.

(b) Occupant Responsibilities – General: Occupants with manual control of the equipment that heats or cools their space shall operate the equipment so that the least amount of energy is consumed in maintaining room temperatures as described above. Occupants of University buildings should not expect space temperatures to be adjusted unless they fall outside of the acceptable ranges established in this policy. Occupants should report all energy-related problems (heating, cooling, and lighting), or provide suggestions for reducing energy and water consumption, to the Office of Facilities & Planning (extension 6666 on campus, 2678 in residence halls; if calling from a cell phone please call 724-738-2073).

(c) Occupant Responsibilities in Laboratories and R&D Spaces - Occupants of special use areas such as laboratories and R&D areas should also follow energy-saving best practices such as:

(1) Faculty using classes, laboratories, and research spaces employing fume hoods should educate themselves and their students on their impact on energy costs, the need to keep them at the minimum sash position required, and closed when they are not in use and it is safe to do so.

(2) Store chemicals in appropriate cabinets and turn fume hood off when safe and practical.

(3) Turn off chilled centrifuges, ovens and similar equipment when not in use.

(4) Do not use incubators as refrigerators.

(5) Use appropriate size containers for ice, dry ice, and liquid nitrogen.

(6) Choose the right size appliances.

(7) Defrost and clean refrigerator/freezer coils.

(8) Recycle old freezers and buy Energy Star™ replacement appliances.

(9) Use a task light if alone in the lab.

(10) Use multi-level light switches appropriately.

(11) Eliminate water stills if possible.

(d) Portable Heating and Cooling Devices

(1) Space Heaters – The use of space heaters in College facilities, except for emergency use as noted below, is prohibited for safety and occupant comfort reasons. Space heaters are only allowed if an exception has been made and the specific equipment has been reviewed and approved by the Office of Facilities and Planning.

Whether they are purchased by the University or are personal property, two issues affect the use of space heaters in campus buildings - fire safety and energy efficiency. All space heaters used on campus must be approved for fire safety, as classified by the National Fire Protection Association. No liquid fueled space heaters (e.g., kerosene heaters) shall be used in any residential, office, classroom or research buildings. Some electric space heaters also pose an unacceptable fire hazard; as such, all space heaters must meet the following four specifications: Heaters must (a) be UL approved, (b) have heating elements that are protected from contact, (c) be tilt-proof (when tipped over, heater goes off), and (d) be thermostat-controlled.

The issue of energy efficiency is also important - electric space heaters are a very costly means of heating. If a member of the campus community feels that a space heater is necessary for adequate comfort, this may indicate that the central heating system needs repair. The Office of Facilities and Planning should be consulted if the central heating system is incapable of meeting comfort requirements. Energy star appliances will be used whenever possible and as new technologies become available.

The use of space heaters can upset normal operation of building HVAC systems causing uncomfortable conditions for space occupants and those in nearby spaces. For example, the use of a space heater in a room with a thermostat can cause the building temperature control system to increase the flow of cool air in order to reduce the temperature at the thermostat. The individual using the space heater will feel heat from the space heater and cool air from the supply diffuser in their room. Other occupants of the same zone will only feel cool air from the supply diffuser in their room. Thus a space heater used in a room with the zone thermostat can reduce the temperature of the remaining spaces in that zone. State regulations require that the University follow ASHRAE Standard 90.1, which states that heating and cooling are not allowed simultaneously in the same space for the sole purpose of achieving comfort.

(2) Window Air Conditioning Units – The use of window air conditioning/heat pump units is discouraged except in cases of last resort. They can cause damage to the buildings, have high life cycle costs (energy and maintenance), and are noisy. Additionally, operating a unit in air conditioning mode below approximately 50 F outside air temperature will quickly damage the unit. The Office of Facilities and Planning must approve a new application for any window unit equipment. Specific petitions for installation will be reviewed only after it has been determined that the primary heating/cooling source is not capable of meeting University Temperature Guidelines.

(f) Ventilation

Doors and windows are generally designed to be kept closed at all times and should not be opened to alleviate heating or cooling problems in the buildings. Furnishings should not block heating/cooling vents nor should devices be placed near thermostats that would affect the space temperature sensed. Areas that are too cold or too hot should be reported to the Office of Facilities and Planning (extension 6666 on campus, 2678 in residence halls; if calling from a cell phone please call 724-738-2073).

(g) Smart Scheduling

During summer and evening hours, classes will be consolidated into specific buildings and/or floors to maximize efficient use of resources. Note that "unoccupied" space temperatures may not be suitable for normal activities, but are within OSHA standards. During Holiday Periods, past history has shown that very few people occupy the buildings for any substantial time during the holidays. With this in mind, buildings will be only minimally heated/cooled during holiday periods. The exception to the policy will be buildings that contain special collections or sensitive equipment, or buildings that are officially open during the holidays. A building will not be officially open just because a few people may want to work during the holidays. Requests for exceptions to this policy with justification should be addressed to the appropriate central administration office after curtailment plans for the upcoming holiday period have been issued.

(h) Switchover from Cooling to Heating

In some buildings, Facilities personnel must perform required changeover from air-conditioning to heating in the fall. Because of the varying equipment installed throughout campus, some buildings must be changed over individually.

Facilities performs the changeover on the basis of priorities established to (1) provide comfort to students living in University Housing, (2) maintain required temperatures to protect equipment and research in progress, and (3) serve the greatest number of individuals and activities. Heating may not begin until the high outside air temperature has dropped below at least 55 F for three consecutive days. Temperature projections are also considered. The wide swings in temperature during the Fall of the year have made this policy necessary. Special problems or hardships with this policy should be addressed to the Facilities and Planning Office.

Action Step 3: Reduce Energy Use of Computers & Office Equipment

All users of computers, projectors, and other electronic equipment are encouraged to practice the following energy-saving practices:

(a) Power Down – Computers, projectors and monitors should be turned off when not in use. Other office equipment (e.g. copiers, faxes, & shredders) should be placed on standby when not in use and turned off at the end of the work day, and in particular, during the weekend and/or holiday periods.

(b) Computer Sleep Mode - Energy savings features should be enabled within 15 minutes or less of inactivity.

(c) Management Software - Computer management software should be enabled to minimize the operation and consumption of electricity when computers and projectors are not in use.

(d) Unplug – Equipment chargers, electronics, and unessential devices should be unplugged when not in use to prevent "vampire" energy consumption.

Action Step 4 : Minimize Use of Energy-Consuming Personal Use Devices/Appliances (whether or not provided by SRU)

(a) Every effort shall be made to limit the use of any non-essential energy-consuming devices or appliances in individual offices, or for personal use.

(1) All appliances, with the exception of those that must run continuously, shall be turned off when not in use. Note that plug strips, particularly "smart" plug strips, are the most convenient and energy efficient means to turn off multiple small appliances/electrical devices; they can also avoid the "vampire electrical losses" of electronic devices that continue to draw small amounts of electricity even when in the "sleep" or "off" mode.

(2) All new personal appliances and energy-using devices shall be EnergyStar models if available, and any existing appliance shall be replaced with an EnergyStar model at the end of its useful service life.

(3) As space renovations and moves occur, all refrigerators in non-residential facilities shall be consolidated to one refrigerator per department or business unit on each floor unless approved by the Office of Diversity and Equal Opportunity to accommodate disabilities or medical necessity. Refrigerators should be sized appropriately for their use and shall be replaced with EnergyStar models at the end of their useful service lives. Note that refrigerator energy use is reduced when the refrigerator is "fully loaded", so a slightly undersized refrigerator operates more efficiently than one that is oversized.

(4) Portable fans for personal use shall be EnergyStar models if available, desktop style fans rated at less than 50 watts.

Action Step 5 : Implement Sustainable Purchasing Procedures

(a) Energy Star - University employees may purchase only Energy Star certified products for all authorized appliances and equipment where this rating exists.

Action Step 6: Implement Water Conservation Procedures

(a) Faucets, hose bibs and other water-using equipment should never be left open and unattended. Low flow devices should be used where practical and economically justified.

Action Step 7: Vehicle "No Idling" Policy

(a) In accordance with Facilities and Planning "USE OF UNIVERSITY-OWNED VEHICLES AND EQUIPMENT" Policy #F&P-4830-11, "Unsafe operation, leaving an unoccupied vehicle/piece of equipment idling, or smoking in a university vehicle/piece of equipment may result in the loss of university driving privileges."

SANCTIONS

Unsafe operation, leaving an unoccupied vehicle/piece of equipment idling, or smoking in a university vehicle/piece of equipment may result in the loss of university driving privileges.

RESPONSIBILITY FOR IMPLEMENTATION

University leaders are expected to lead by example, stressing to the community the importance of energy conservation in achieving our Strategic Plan's sustainability goals, benefiting the local environment, and helping mitigate the consequences of future global

climate change. Questions regarding this policy or its enforcement should be addressed to the SRU Sustainability Office at sustainability@sru.edu .

SCOPE OF POLICY COVERAGE

This policy is applicable to all Slippery Rock University facilities users, employees and students, including those using SRU-owned or leased facilities.

Authority for creation and revision
Approved by University Cabinet: April 8, 2013