Lafayette College
Campus Energy Policy

INTRODUCTION

- Lafayette College is committed to a policy of energy efficiency, energy conservation, and the reduction of our environmental impact, particularly during this time of increased environmental awareness, rising utility costs, tighter budgets, and new construction on campus..
- The goal of the 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 as well as developing better ways to operate to reduce our environmental impact.
- Since making the commitment to the "American College & University Presidents Climate Commitment" our focus has been enhanced to include, beyond all of our conservation measures, the goal of operating our campus with the least effect on our environment.
- This document details steps that will be taken to address these issues and reach the goals of the college. This policy will be reviewed and updated periodically as public awareness, management techniques and technologies change.

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CONSERVATION GOALS

- Lafayette College has taken various measures over the years to conserve energy.
- In January 2008 President Dan Weiss signed the American College & University Presidents Climate Commitment (ACUPCC).
- With this signing as well as all of the other resource conservation initiatives that were already part of our operational structure, Lafayette College has enhanced its focus and commitment not only to energy/resource conservation, but to the minimization of our operational impact on the environment.
- By following the specific measures outlined in Section 111, the campus will achieve all of its goals in due time.

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SPECIFIC MEASURES

Buildings

- Windows and doors of the conditioned spaces should be kept closed.
- Personal computers, other office equipment, lighted, window air conditioners and personal heaters should be turned off when not in use.
- The use of personal heaters and air conditioners is discouraged (unless some unforeseen medical reason exists).
- Power management features of personal computers should be enabled.
- The International Energy Code should be followed not only in design of buildings, but also in their operation.
- As this time and funding allow, the buildings and the mechanical systems will be connected to the campus-wide energy management system (Siemens). This will permit grater control over operating schedules and temperatures, will reduce energy costs.

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SPECIFIC MEASURES

New Renovation & Construction

- All new renovations and construction should be designed and built to minimize energy use.
- The most recent version of ASHRAE Standard 90.1- Energy Efficient Design of New Buildings except Low Rise Residential Buildings should be set as the minimum energy efficiency guideline, since it has been shown that further reductions in energy use are economically achievable.
- All construction efforts should consider LEED criterion applicability and application where warranted and possible.
- The design process should include energy life cycle costing analyses.
- New construction should be added to campus-wide energy management system (Siemens) for enhanced energy management capabilities.
- Alternative energy sources such as solar (thermal and photovoltaic), wind, biomass, biofuels, hydro (conventional and low-head), co-generation, and energy recovery should be considered, as well as delighting 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 (“best available technology”).
- All new construction should include utility metering (electricity, natural gas, steam, and water).

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SPECIFIC MEASURES

Lighting

- Most lighting on campus is being retrofitted or upgraded to high efficiency lighting (such as T5 fluorescent, LED technology, etc.) with electronic ballasts. Remaining areas should be upgraded as funding is available.
- New construction and remodels should use high efficiency lighting and minimum incandescent lighting.
- Interior decorative lighting should be kept at a minimum and exterior decorative lighting should be discouraged.
- Lighting levels recommended by Illuminating Engineering Society Lighting Handbook should be used as guidelines to avoid over-lit spaces.
- Increased use of day lighting and delighting controls should be considered because use of daylight spaces decreases energy costs and may improve productivity.
- Lighting, wherever possible, should be controlled by our campus-wide energy management system (Siemens). Occupancy times, unoccupied period set-backs, and environmental parameters, as well as campus-related (and athletic) activities will be coordinated to ensure that the best possible use (or conservation) of resources is taking place.

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SPECIFIC MEASURES

Heating

- During the heating seasons, room temperatures should be maintained at between 68 and 70 degrees F when occupied.
- Whenever it is economically and technically feasible, night setback features of the BACS system will utilized to allow temperatures to drop to 60 degrees F during unoccupied periods.
- The only exceptions to this policy are special areas such as animal care units or research facilities that require constant or warmer temperatures. The Provost's Office will evaluate request for exemptions on an individual basis (and only for the reasons previously stated or for health reasons).
- Facilities Operations will utilize the most energy efficient means of supplying heat for approved off-hour/holiday requests.
- Use of electric heaters in the College buildings should be minimized.
- Areas that are either too hot or too cold should be reported as soon as possible to Plant Operations Department. Any deviation from these parameters will be granted only with the expressed permission of a department head level (as a minimum).

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SPECIFIC MEASURES

Cooling

- During the air-conditioning season, the room temperatures should be maintained at between 76 and 78 degrees F when occupied.
- Whenever it is economically and technically feasible, night setbacks features of the BACS system will be utilized to allow temperatures to rise to 80 degrees F (and/or a maximum relative humidity of 60%) during unoccupied periods.
- The only exceptions to this policy are special areas such as animal care units, research facilities, library/special collection spaces, and art galleries that require constant humidity levels or cooler temperatures.
- Consideration will be given to the installation of separate and dedicated, stand-alone dehumidification equipment if this equipment's operation will allow the lowering of the use of the building's cooling systems (payback analysis will play a major role in this evaluation).
- The Provost's Office will evaluate requests for exemptions on an individual basis (and only for the reasons previously stated or for health reasons).
- Window air conditioners will continue to be used in areas that lack central cooling. Temperatures settings for these units should be raised manually or the unit should be turned off when areas are not in use.
- Management is encouraged to accommodate reasonable requests from employees who wish to wear more casual clothing because of the increase temperatures.
- Areas that are too cold or too hot should be reported to the Plant Operations Department. Any deviation from these parameters will be granted only with the expressed permission of a department head level (as a minimum).

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SPECIFIC MEASURES

Water Usage

- Use of irrigation water should be minimized through rainfall monitoring. The installation and/or use of existing storm water detention/retention will be considered for future inclusion into the operational policy for irrigation (both at the main and Metzgar campuses).
- The College should also investigate collecting storm water for non-potable uses on campus. Low water use automated flush valves (or 2-way flush valves), waterless urinals, 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 (exception to this may be made for scientific/pedagogical equipment). 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 Plant Operations Department.

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SPECIFIC MEASURES

Transportation

- Use of the LANTA and Lafayette's LCAT's programs and car/van pooling should be promoted.

- Faculty, staff and students are encouraged to walk or bike to get around campus. Fleet vehicles used on campus should not be left idling.

- The scheduling of the LCATS shuttle will be refined and coordinated with both varsity and intramural schedules to maximize possible use of the shuttle by our student-athletes as well as our students.

- Investigations into the feasibility of LCATS vehicle(s) being powered by alternative fuels will be encouraged and implementation will take place where possible.

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

- Varsity athletics will consider coordinating their schedules with other competing institutions so as to optimize travel (i.e. if the men's basketball team is playing Bucknell on a particular date, an effort should be made to have the women's basketball team also play Bucknell's that same date).

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SPECIFIC MEASURES

Purchasing

- Energy efficient products shall 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.

Recycling

- The Office of Campus Sustainability, in cooperation with the Plant Operations Department, is responsible for the campus recycling program. Disposal of the materials in the solid waste stream represents an increasing expense for the college.

- Design of the campus facilities should incorporate the facilities necessary to make recycling convenient for College users.

- When economically feasible, recycling shall be expanded to include (or enhance existing programs) regarding such things as green waste (for composting), construction waste, and used office waste such as computers.

- The college will continue to support all its current programs while seeking to grow the overall recycling program.

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CONTINUED SUCCESS

There are several ongoing activities that will help ensure the success of Lafayette College's energy policy.

Monitoring

- No energy conservation program will be successful if progress is not monitored on a continuing basis.
- 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.
- The college currently has most of its campus buildings metered for electric consumption, other utilities (such as potable water, sewer, and steam/condensate) shall be metered on a "per-building basis" as funding is made available. We consider this an important initiative since this will enhance our ability to measure progress in our conservation/operational efforts.

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.

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CONTINUED SUCCESS

Maintenance

- Mechanical system efficiency tends to degrade over time. Proper maintenance is required to ensure the systems operate as efficiently as possible.
- The Plant Operation and Facilities Planning & Construction Departments are committed not only to providing quality in all construction projects, but also in the maintenance of that quality throughout the life of the project.
- Maintenance and operational procedures will incorporate sound, resource conservation practices so as to reduce waste and minimize energy expenditure to the extent possible.

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CONTINUED SUCCESS

Operations

- Buildings will be operated in a manner most conducive to energy/resource conservation.
- Doors and windows will not be opened (or left open) while the building's HVAC systems are in operation – permissible deviation from this would be the use of operable windows during the fall and spring seasons (as long as the building's HVAC system is not in operation).
- "Turn-downs" of the campus' HVAC systems during periods of low usage – such as between the Christmas and New Year's holidays – will be implemented whenever possible. During these "turn-down periods" any building where occupancy drops to 20% or below will observe "off-peak" operational parameters.
- Varsity and intramural athletics programs will consider scheduling the use of lighted/conditioned venues during times when minimal "conditioning and lighting" is required.
- Our food services provider, Sodexo, will assist the administration in evaluating the substitution of "greener" procedures in both food preparation and acquisition. The substitution or locally and organically grown foods will be evaluated. The consumption of grass-fed beef (better carbon footprint) versus the commercially grain-fed variety will be part of this evaluation.

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EDUCATION

- Lafayette College 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.
- The Sustainability Committee is charged with the development of this program.

SUGGESTIONS

Any suggestions for ways of reducing energy consumption on campus should be addressed to the Facility Operations Manager.