

**MEMORANDUM**  
**Central College**  
July 1, 2008

TO: The Central College Community

FROM: David Roe, President

SUBJ: Campus-Wide Thermostat Temperature Set Point Policy

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**Background**

We have studied and discussed the issue since December 2005. We need now to move forward with a community-wide commitment to energy conservation, cost savings, and long-term carbon neutrality. This is consistent with our formal institutional endorsements of the Talloires Declaration and the American College & University Presidents Climate Commitment. Accordingly, the Budget Committee has formally approved the implementation of a policy of campus-wide, seasonal, building thermostat set points based on the recommendations of our Campus Sustainability Working Group (SUSTAIN) and Facilities Planning and Management (FP&M).

This energy-saving and carbon reduction policy is a direct, grass-roots outgrowth of SUSTAIN which studied, designed, and approved the recommendation that was brought forward to the Budget Committee in December 2007 for endorsement. The proposal was also presented to and formally approved by the Student Learning and Development Council (SLDC) and the Enrollment and Financial Resources Council (EFRC) in academic year 2007-08.

Facilities Planning & Management personnel are now in the process of implementing Phase I of the temperature set point policy that will become effective in all academic buildings in the very near future. I am firmly committed to the effective implementation of this policy and look forward to the time when all campus buildings are included.

There is strong campus-wide consensus that our phased-in temperature set point policy is an important way for all members of the college community to become actively committed to energy conservation and carbon neutrality by reducing personal energy use in our offices, residences, classrooms, and public spaces.

**Policy Specifics**

All campus electronic adjustable thermostats are being reprogrammed to predefined temperature bands which will be changed according to the season. This will permit a level of individual occupant controllability, as well as allow the community to save **more energy** than what has

been mandated by the highest and lowest allowable temperatures within the policy, thus ultimately reducing the amount of carbon emitted into the atmosphere.

### **Seasonal Thermostat Ranges**

In the summer the lowest possible cooling temperature set point will be 73 degrees (when the thermostat is adjusted to the coolest setting). The warmest possible cooling set point will be 78 degrees. The set point at midrange will be approximately 75 degrees, the temperature that we encourage you to keep as the *coolest* setting during cooling season.

In the winter the highest allowable heating temperature set point will be 70 degrees (when the thermostat is adjusted to the warmest setting). The coolest possible heating set point will be 66 degrees. The set point at midrange will be approximately 68 degrees, the temperature that we encourage you to keep as the *warmest* setting during heating season.

### **Please Note**

- Not all of our thermostats are adjustable. These thermostats, located in buildings such as Central Hall, Maytag, Kruidenier, Jordan, Cox Snow, and Lubbers will be seasonally adjusted to the midrange settings listed above UNLESS they were found to be already set to a more energy/carbon saving setting.
- Individual space heaters will not be permitted under the new policy and will be collected by FP&M personnel.
- Temperature set points will not be altered in places of critical processes such as advanced labs and data center equipment rooms.

### **Energy/Carbon/Cost Savings**

In terms of energy savings, our engineers have calculated that we can expect to save 1,740 kilowatt hours of electricity per year for every 10,000 square feet of building floor space for every degree the *cooling* set point is increased. This translates to 7,976 pounds of CO<sub>2</sub> kept out of our atmosphere annually for every degree the *cooling* set point is increased.

We can expect to save 147 therms of natural gas per year for every 10,000 square feet of campus building floor space for every degree the *heating* set point is reduced. This translates to 7,976 pounds of CO<sub>2</sub> kept out of our atmosphere annually for every degree the *heating* set point is reduced.

Campus-wide, if we allow the temperature to increase to 78 degrees in all our facilities (from 73 degrees) in the summer, we could prevent 3,988,000 pounds of CO<sub>2</sub> from entering our atmosphere annually. This translates to \$71,295 in annual savings.

If we allow the temperature to decrease to 66 degrees in all our facilities (from 70 degrees) in the winter, our campus could keep an additional 3,147,200 pounds of CO<sub>2</sub> from entering our

atmosphere annually. That translates to \$92,400 in annual savings. These calculations are based on an anticipated 65% increase in natural gas prices and a 6.41% estimated electricity rate increase.

In summation if Central College aggressively implements the proposed plan to drop the heating set point from 70 degrees to 66 degrees and raise the cooling set point from 73 degrees to 78 degrees, this would result in preventing 3,567 tons of CO<sub>2</sub> from entering the atmosphere every year. Total annual savings would be \$163,695; scarce dollars that the college could use to enhance our academic programs. The sooner we implement this conservation strategy, the sooner we will reduce the CO<sub>2</sub> emissions into the atmosphere and save significantly on operating costs. Continued energy consumption has an ever increasing environmental and financial impact, until such a time as we are using only renewable sources for our energy combined with enhanced CO<sub>2</sub> sequestration.

### **Phase Two: Apply the new policy to all student residences**

The most significant challenges are undoubtedly posed by student rooms and residences. This issue is being sensitively and honestly discussed with the Office of Student Life. The consensus is that it would be better to bring student residences into the campus-wide set point policy after the academic buildings. Many residences can be reprogrammed for lower heating set points; however, there are several facilities where FP&M does not have ease of control, including Graham Hall, Firth, and McKee Hall (Phase I). Indeed, one of the green advantages of McKee Hall (Phase II) was bringing a large number of student controlled thermostats under an easier electronic control strategy.

### **Conclusion**

An important step in pursuit of Goal 2 for the Central College Community in the 2006-2009 Strategic Plan is having everyone positively embrace this new temperature set point policy and positively assist in its implementation. Goal 2 is “to promote and model appreciation of our natural environment and stewardship of its limited resources.” Active pursuit of this goal also has the positive correlation of significantly reducing our energy expenses and thereby freeing funds for other programs.