

Resource Stewardship at Hope College

Saving dollars and the environment
through common sense

Heating and Cooling

- Both the Martha Miller Center and the DeVos Fieldhouse meet ASHRAE 90.1 specifications with heat recovery on the building exhaust and night and weekend setbacks controlled by the Building Automation Computer.
- Review the natural gas industry reports and forecasts and pre-purchase natural gas as far out as five years. This protects the College against unusual spikes in rates, such as the recent one due to the Gulf hurricanes.
- Installed temperature limiting thermostats, 72 degree max, in all cottages and apartments.
- Dykstra Hall was remodeled with thermal pane windows and better zone heating controls.
- As we change furnaces in cottages and apartments we have gone from 78% efficient to 94% efficient models. We have changed approximately 45% of these furnaces to date.
- In all academic, administrative and residential buildings (which are on our central heating plant system) - lowered the heating water temperature between 10 and 20 degrees.

Heating and Cooling

- DePree Art Building - installed heat recovery on the paint studio exhaust and make-up air system.
- During Christmas break:
 - every cottage and apartment - turn down the thermostats to 60 degrees.
 - academic and residential buildings lowered to 60 degrees – as allowed by equipment and experiment requirements.
- College East apartments - running one heating pump instead of two
- Replacing HVAC equipment with the more energy efficient models - frequency drives and more efficient cooling coils, etc.
- 2006 - changed 10% of our steam traps on campus to “Steamguard” units. These units saved approximately 13% of our natural gas consumption over standard traps. This year we began the total replacement of steam traps on campus, funded through the operating budget with a two to three year payback.
- 2003 - replaced two old inefficient “Wickes” Boilers with two new “Johnston Boilers” as part of the Science Center building project.

Electrical

- Specify new and retrofit existing pump and air handler motors with frequency drives or “soft start” motor starters to lower peak demand charges.
- Martha Miller Center, DeVos Fieldhouse, and Lubbers Hall have lighting controls that utilize motion sensors and building automation scheduling to turn off lights when not in use.
- During Christmas break we turn off all unnecessary lights.
- Changed 36% of our outdoor light fixtures from mercury vapor lamps to 250 watt metal halide. This reduces energy consumption by 33%.
- 20 cottages, Brumler and Columbia Apartments have been changed over to the central campus 12Kv distribution system, which is on a lower electric rate.
- Lubbers Hall lighting changed from T-12 to T-8 fixtures and ballasts, which result in a 20% energy savings.

Electrical

- Dykstra Hall converted from T-12 to T-8 lights and ballasts.
- Gilmore Hall has all studies and bathrooms converted to T-8's.
- All apartment and cottage fluorescent fixtures from T-12 to T-8's and all incandescent lamps have been changed to compact fluorescent, which saves 78% electrical energy.
- The Thiel Building converted to T-8's.
- Voorhees Hall converted to T-8's.
- Durfee Hall has the basement, partial first floor and C.I.T. converted to T-8's
- Phelps Hall dorm rooms converted to T-8's
- Kollen Hall hallways and main entrance converted to T-8's.
- The main level of DeWitt converted to T-8's.
- Van Wylen Library converted to T-8's

Paper Reduction

- The Department of Computing and Information Technology is in the process of refining our campus work habits to help reduce the printing and copying by both students and staff. Even though the campus has been purchasing 30% PCC (post consumer content) paper, we still need to reduce the dependency on printed materials and use the technology already in place in a more productive and efficient manner.
- The “Hope ... IT Works” initiative, championed by CIT, is an effort to bring awareness of technological efficiency to campus departments. This initiative will help not only by saving paper, but by reducing the number of work hours required to perform recurring tasks. The elimination of the monthly printed budget reports (now sent as PDFs via email), the online student timecard project, and the “Copy Works” project are recent successes reducing printed materials and saving significant staff time.

Recycling

- The college has recycling programs for paper, metal, glass, and plastics for the student residence halls and apartments. All of our cottages participate in the City of Holland recycling program managed by the city's waste collection vendor. The college has office paper recycling available for all departments with the paper shredded and recycled into home insulation product (by an outside vendor).
- The Transportation Department recycles all of its fluids from vehicle maintenance and keeps the fleet in good running order, helping the vehicles be as fuel efficient as possible. The Transportation Department also tries to schedule vehicles for department use based on the occupancy in order to maximize the number of passengers and reduce the number of vehicles on the road.

Creative Dining Services

- Creative Dining Services is in the process of educating ourselves about what can be done to use more locally grown or produced foods. Hope College and Calvin College are leaders in our organization in this area. We have visited a couple of local farms who use minimal chemicals and gas powered farm equipment in southwest Michigan. We have been receiving produce from these two farms as well as from the local farmers market and a small local produce company when it is financially appropriate to do so. We also purchase all of our turkey breast for our deli and roast turkey applications from West Michigan Turkey Producers located in Wyoming, Michigan (1,200 to 1,500 pounds per week). Gordon Food Service is singling out Michigan based companies for us to use where appropriate.
- The Community Kitchen comes to both dining halls on a daily basis to pick up food that is left over and will not be reused by us. The Community Kitchen is located in Western Seminary in the commons area and we supply approximately 80% of their needs annually.

What else can we do?

- Eliminate space heaters - wear warmer clothes in the winter
- Turn off lights
- Turn off computers over weekends and breaks
- Reduce college vehicle use
- Think before you INK
- Work with students to reduce their use of convenience and comfort appliances in the residence halls (refrigerators, microwaves, TVs, gaming machines, fans)

Reduce our use

- Reducing energy and resource use can happen right now – no need to wait for alternative resource providers
- Reducing energy and resource use is easier and less expensive than investing in new energy systems
- Reducing energy and resource use gives us time to build better energy systems as world resources are depleted