

SCFP SUBCOMMITTEE ON TWIN CITIES FACILITIES AND SUPPORT
SERVICES (STCFSS)
MINUTES OF MEETING
FEBRUARY 19, 2008

[In these minutes: Utility Master Plan and the University's Sustainability Efforts]

[These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate; none of the comments, conclusions or actions reported in these minutes represent the views of, nor are they binding on, the Senate, the Administration or the Board of Regents.]

PRESENT: George Wilcox, chair, Keith Carlson, Anne Falken, Michael Berthelsen, Bernadette Corley Troge, Jeremy Todd for Steve Fitzgerald, Denny Olsen, Laurie Scheich, Gordon Girtz, Lyndel King, Patrice Morrow, Howard Towle, Amber Melaney

REGRETS: Lorelee Wederstrom, Andrea Backes, Daniel Malm, Judith Martin

ABSENT: Gary A. Davis

GUESTS: Jerome Malmquist, Energy Management

I). Professor Wilcox called the meeting to order.

II). Members unanimously approved the November 20, 2007 and December 18, 2007 minutes.

III). Professor Wilcox welcomed Jerome Malmquist from Energy Management who was invited to provide the committee with information about the University's Utility Master Plan and its sustainability efforts. Mr. Malmquist distributed to members copies of the Utility Master Plan presentation that had been given to the Board of Regents. Key findings from this presentation included:

- The University's tallest boiler is 7 stories tall.
- The University's Minneapolis steam plant can heat the equivalent of 55,000 average size homes.
- The University's largest boiler produces 250,000 pounds of steam per hour, which equals approximately 9,000 HP.
- The University has over 8.5 miles of steam tunnels, and this figure is growing as the campus grows.
- The chiller capacity on the Twin Cities campus is 54,000 tons and can cool the equivalent of approximately 27,000 average size homes (the University does not cool all of its buildings, but it does heat all of its buildings).
- The campus-cooling district consumes 21,500,000 kWh of electricity, 57,000,000 pounds of steam, and 67,200,000 gallons of water due to evaporation. Water programming changes have reduced water-cooling consumption by 21,000,000 gallons per year.

- The University's highest recorded electrical consumption was 72 mega watts, which is equivalent to 1.2 million 60-watt light bulbs. This event occurred in September 2005, which is interesting; in light of the fact the University has grown since that time.
- The Twin Cities campus has the equivalent of 240 miles of high voltage cable.
- The campus has 132 emergency generators that are capable of producing 33 mega watts of electricity.
- The Department of Energy Management's core values are reliability, cost control and environmental stewardship. Mr. Malmquist stated that in terms of different types of fuels, the best alternative to fuel consumption is fuel conservation.
- The institution's preventative maintenance (PM) programs serve to increase utility reliability.
- Seven percent of the University's steam is obtained from burning oat hulls.
- Energy Management tracks electrical and steam events, or, in other words, incidents that result in a loss of electricity or steam.
- Energy Management's 2008 budget is \$87 million, which has increased significantly over the last several years primarily as a result of rising fuel costs.
- While solid fuels (coal, wood and oat hulls) are less expensive than other types of fuels, their prices are on the rise too. Bio-fuels are becoming increasingly popular, and, demand is causing these prices to increase. Coal prices have also risen due, in part, to increased transportation costs.
- The University hedges the price it pays natural gas.
- Examples of the University's sustainability efforts include, but are not limited to:
 - Re-commissioning MCB (For sustainability purposes, the University's goal is to use less fuel. Steam usage in Molecular and Cell Biology (MCB) has been trimmed by 25% and electricity usage has been reduced by 6.5%. By examining the needs of MCB and properly adjusting the building's controls served to accomplished this reduction in fuel usage)
 - Centralized Compressed Air Project
 - Centralized AHC Vacuum Pump Project
 - Use of renewable fuels such as oat hulls and wood
 - Member of the Chicago Climate Exchange (CCX)
- The University has a carbon footprint, which includes its electrical load. Members' attention was turned to the chart of the University's carbon footprint. Despite the University's growth, it is doing a good job managing its carbon footprint reported Mr. Malmquist.
- The Utility Master Plan is driven by strategic positioning, the Campus Master Plan, staying ahead of the institution's growth, budget development, reliability, cost control and environmental stewardship.
- Phase 1 of the Utility Master Plan (acquiring baseline data) has been completed. Phase 2 involves developing a 20-year plan, and these efforts are currently underway as is Phase 3, development of a 6-year plan, which lays out the steps to accomplish the 20-year plan. The entire Utility Master Plan is expected to be complete by late spring 2008 or early summer.

Members spent the remainder of today's meeting directing questions to Mr. Malmquist and Mr. Berthelsen regarding the University's sustainability efforts and utility usage and management.

Professor Wilcox thanked Mr. Malmquist for sharing this information with the committee.

IV). Hearing no further business, Professor Wilcox adjourned the meeting.

Renee Dempsey
University Senate