

## **PARTNERING FOR ENERGY EFFICIENCY WITHIN THE UNIVERSITY COMMUNITY**

Dr. M. Kathryn Mathis  
Ms. Linda Hardymon  
Middle Tennessee State University  
Murfreesboro, Tennessee

### **ABSTRACT**

Seeking ways to involve the individual departments within the university and to partner with the public, the Center for Energy Efficiency at Middle Tennessee State University has developed a three-point concept of campus, classroom, and community to promote energy efficiency and stewardship. The Center serves to generate an open relationship with each university area, administrative, academic, and supportive, in order to make improvements on campus that will benefit all.

### **INTRODUCTION AND BACKGROUND**

The goal of the Center for Energy Efficiency (Center) at Middle Tennessee State University (MTSU) is to support the overall education and community service mission of the University by implementing energy efficiency activities on campus designed to improve the facilities and provide educational opportunities to students and the professional community. In 1998, when the Academic Provost and the Vice President of Finance and Administration reacted to the need to have an organized approach to meeting this goal, they established the Center for Energy Efficiency. With their support, the Center has begun to bridge the gap between academic and administrative interests in realizing the mission of the University "to introduce, initiate, and implement programs that will improve safety, comfort, and energy efficiency in all campus buildings and to disseminate this information to other interested institutions and the community."

Generally on college campuses, administrators must balance the need to repair, renovate, or maintain the older buildings with continual growth in academic, research, and technology areas as well as the demand for increased services for students and faculty members. A large number of the facilities at MTSU, over 70%, were constructed prior to the 1970's with the median age of all campus buildings being 33 years. For several years, economic and budget restraints have hampered maintenance of these facilities, as well as development of new ones. Additionally, growth in enrollment at MTSU in recent years, along with an effort to hold down rising tuition costs and to cope with limited capital investment dollars, has created competition for maintenance funds. Creating infrastructure to support new technologies, attract students, and keep qualified faculty has

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contributed to the accumulated deferred maintenance quandary—where to put the limited funds available to the best use. Although all these items emerge as individual issues, they are interrelated and add to the whole concept of a university. The Center for Energy Efficiency is charged with discerning the broad picture and extending the focus to each department involved. The University's mission is education. Each department supports that mission. Whether academic, administrative, or supportive, all university departments and their functional areas serve as a part of the university community. By not isolating any department, the Center uses energy efficiency as the lever to maintain the relationship of the community.

### **THE CENTER FOR ENERGY EFFICIENCY and THE 3 C's**

Seeking ways to partner with the university departments, the Center for Energy Efficiency has developed a three-point concept of campus, classroom, and community to promote energy efficiency and environmental awareness and stewardship. Known as the 3-C's, the premise of the concept actually views each of these "C's" as small communities working together within the sphere of the Center and the University.

Under the "C" for campus, the Center partners with university academic and support departments, such as Facilities Services, Campus Planning, and Academic Affairs, to plan improvements to buildings and infrastructure that will benefit the students, faculty, and administration. Building retrofits, energy management projects, infrastructure upgrades, and improvements in operations and maintenance all contribute to progress in energy efficiency and to department relations at the campus level. By initiating energy efficiency studies and projects, the Center has interaction with all functional areas and serves to bridge any gap between them by maintaining an informative, open, and participatory relationship.

The "C" representing the classroom involves students as an academic population who not only benefit from course offerings and instruction in energy auditing and energy resource management, but also facilitate improvements on campus through assessment, auditing, and monitoring activities. Educational opportunities offered to the students at the university under the Environmental Science and Technology Program, administered by the Department of Engineering Technology and Industrial Studies, offer insight into real life workplace situations. Integration of energy management activities into academic experiences for the students is an extension of the improvements to the facilities on campus and the management of accumulated deferred maintenance.

The third "C" in this concept involves the community outside the university. Through interaction with local, state, and federal associations and partnerships, the Center offers certification seminars, educational and training opportunities, and leadership in assisting others to accomplish energy management and efficiency goals. In-house seminars have been well attended by personnel from local colleges, universities, utility companies, industries, and power companies. Partnerships with the Department of Energy and

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Rebuild America, the Environmental Protection Agency and Energy Star Buildings, and the State of Tennessee aid the Center in extending support to other agencies and energy professionals. Cooperative and internship opportunities and job placement for the classroom sector of the 3-C's is another benefit of the relationship between each of the interlocking, smaller communities within this larger picture. The university also supports the Center in developing a model to guide other institutions in achieving similar objectives.

The common thread among the "C's" is energy efficiency. Through organization and knowledge, the Center has taken a leadership role in setting goals to achieve changes on campus that will benefit all involved. Without the support of the university departments, the goals will not become a reality. This is the concept of community. This is where partnership is important.

### **OPPORTUNITIES FOR WOMEN**

The options available for women in the area of energy management are greatly enhanced by the interlocking communities that the Center supports. Through the classroom, technical education opportunities are offered. Through the campus, experience performing actual hands on assignments involving facilities, consultants, and project developments prepare the students for employment. Through the community, valuable educational opportunities in addition to university courses are made available, as well as chances to gain certifications, to make contacts and network within the energy community, and to learn from professionals. What the 3-C's offer are great interactive opportunities and each is a community within the whole. The Center, through involvement with the separate departments of the university, makes the interaction possible.

### **SUMMARY**

Energy efficiency on a university campus is the responsibility of the entire university community, including administration, faculty, and students. The Center's function in supporting the mission of the university is to promote energy stewardship for the campus community and to disseminate information among all related to the university. Further, by bridging the gap between the departments, the Center precludes isolation of any one functional area and encourages an interactive relationship. By example, the Center partners with all university communities for energy efficiency.

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