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National Wildlife Federation®

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**Ball State University
Muncie, Indiana
Spring 2005, Transportation**

BACKGROUND

Campus Profile

Ball State University (BSU), which is situated on 940 acres in Muncie, Indiana, serves approximately 19,000 students (45 percent male, 55 percent female). Seven academic colleges offer 120 undergraduate programs, 80 master's programs and 20 doctoral programs in 46 departments and schools. The employee base comprises some 750 faculty, 550 professional staff, and 1,500 support personnel.

Contacts

Kevin Kenyon
Associate Vice President for
Facilities Planning and Management
Phone: 765-285-8988
Fax: 765-285-8758
Email: kkenyon@bsu.edu

Robert J. Koester
Professor of Architecture
Director, Center for Energy
Research/Education/Service
Phone: 765-285-1135
Fax: 765-285-5622
Email: rkoester@bsu.edu

GOALS AND ACCOMPLISHMENTS

Goals

After acquiring a hybrid-electric bus for use in the campus shuttle bus fleet, BSU will evaluate the effectiveness of the vehicle on a performance level and as a tool for building campus awareness of alternative transportation technology while raising awareness of the need to take local action that will address the reduction of green house gases and global warming.

Accomplishments

The university acquired a hybrid-electric shuttle bus for use in its fleet and has been running the vehicle as part of its north-south campus shuttle service for students and faculty members. Currently, detailed records are being accumulated, but no analysis has been conducted yet. The goal will be to cross-compare the operational performance of the vehicle against the other vehicles in the fleet, all of which are diesel-powered, but run on a 20 percent biodiesel fuel mix. Once an analysis has been completed, the university administration will be in a better position to consider expanding the number of hybrid-electric vehicles in the fleet.

Challenges and Responses

The primary challenge encountered in securing the vehicle was the delivery delay from the manufacturer. The vehicle was to go in service in the fall of 2004, but did not enter service until late spring. The delays were attributed largely to the fact that the manufacturer is a fledgling company that is new to the alternative technology industry.

ENGAGEMENT AND SUPPORT

Leaders and Supporters

The office of facilities planning and management's leadership and staff members were instrumental in making the decision for vehicle purchase. The vice president for business affairs and treasurer provided the final level of administrative endorsement needed for implementation.

Funding and Resources

The cost of this vehicle was somewhat higher than the other shuttle buses in the fleet, but the university was willing to absorb the differential in support of the technology. Funding comes from annual appropriations through the state legislature. To read the article on our campus website go to

<http://www.bsu.edu/news/article/0,,32282--,00.html>.

Community Outreach and Education

Certainly, the day-to-day use of the bus by students, faculty, and staff members offers an immediate experience with the new technology and exposes a broad base of campus community members to the issues at play. News articles have been released (see example on the website). Once the data statistics are accumulated, additional stories will be promoted in the on-campus newspapers, as well as in the *East Central Indiana* and statewide print media.

Climate Change

Use of this technology has a direct effect on global warming. Reduced emissions because of the efficiency of a hybrid-electric vehicle are self evident. The capture of what would otherwise be wasted energy through the use of electric motors as generators during the breaking cycle offers one of the most significant measures of conservation effect.

National Wildlife Federation's Campus Ecology® Program

Our affiliation with the National Wildlife Federation's Campus Ecology program added some leverage to our request. We continue to maintain a membership in the program, to interact routinely with members of the program's staff, and to anticipate the opportunity to establish this as a goal for the year and to submit the results to the *Campus Ecology Yearbook* as a final entry, thus adding weight to the argument to proceed with this experimental purchase.

CLOSING COMMENT

In the news article circulated on campus regarding this initiative, the connection to NWF's Campus Ecology program was amplified with the following quote: "Converting the fleet to the cleaner fuel source earned accolades from the National Wildlife Federation's *Campus Ecology Yearbook* as one of 46 initiatives honored in 2003-2004." The introduction of a hybrid-electric shuttle was seen as an extension of the commitment embedded in the use of biodiesel fuel that was already at play in the other shuttle buses in the university fleet.

The transparency and public declarations associated with this initiative speak for themselves. The opportunity to place this new technology in mainstream, day-to-day use by the campus community offers the greatest promise for leveraging the effect of the mission of NWF's Campus Ecology program on students, faculty, and staff members alike.

