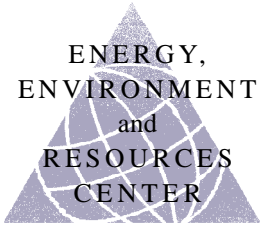


HIGHLIGHTS and INITIATIVES



Jack Barkenbus
Executive Director

Center for Clean Products and
Clean Technologies
Gary A. Davis, Director

Office of Communications
David Brill, Director

Center for Geography and Environmen-
tal Education
Rosalyn McKeown, Director

FORUM for Applied Research
and Public Policy
Dennis McCarthy,
Editor in Chief

Oak Ridge Technology Research
and Development Program
Sheila Webster, Director

Systems Development Institute
Donald Alvic, Director

Pro-Dialogue
Mary English and
David L. Feldman, Directors

Water Resources Research Center
Tim Gangaware, Assoc. Director

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INTERNATIONAL NEWS **Rosalyn McKeown**, director of EERC's Center for Geography and Environmental Education, returned in July from a one-year appointment to York University's faculty of education, where she continued in her position as secretariat to the UNESCO chair on reorienting teacher education to address sustainability. **McKeown** participated in a workshop to plan Ontario's response to global warming and also organized an international conference on reorienting teacher education, which drew deans and faculty from colleges and universities in 24 countries. **McKeown's** *Education for Sustainable Development Toolkit* <<http://www.esdtoolkit.org>> is seeing widespread use; she has granted permission for its translation into eight foreign languages.

PROJECTS More than 45 representatives from the electronics industry, state and local governments, and environmental nonprofits are meeting to formulate a national agreement on product stewardship for waste electronics. **Gary Davis**, director of the EERC's Center for Clean Products and Clean Technologies, and Senior Research Associate **Catherine Wilt** are facilitating this process under a grant from the U.S. Environmental Protection Agency. Their efforts led to the National Electronics Product Stewardship Initiative, or NEPSI, which held its inaugural meeting in San Francisco in June.

WELCOME The EERC is pleased to introduce a new staff member, **Greg Harrell**, who comes to us from Virginia Tech. **Harrell**, a mechanical engineer with expertise in steam production, compressed air systems, and other industrial processes, will help revitalize EERC's work on energy conservation and efficiency. **Harrell** conducts energy audits for industrial clients across the United States and abroad.

PUBLICATIONS In July, Executive Director **Jack Barkenbus** served as a presenter and moderator of a briefing organized by the American Chemical Society (ACS). The briefing, "R & D's Role in a Balanced Energy Policy," was part of the ACS's Science and The Congress program that provides monthly briefings to congressional staffers. The meeting, attended by 125 staffers and members of the executive branch, took place in the Rayburn Building on Capitol Hill. Fellow presenters came from the American Association for the Advancement of Science in Washington, D.C., and from the University of Oregon. **Barkenbus** also published "APEC and the Environment: Civil Society in an Age of Globalization," in *AsiaPacific Issues*, March 2001. **Barkenbus** formulates strategies for enlisting nongovernmental environmental groups in the struggle to improve Asia's environment.

Senior Research Scientist **Jean Peretz**, Research Scientist **Mary B. Swanson**, and **Richard Jendrucko** (professor, **Mechanical and Aerospace Engineering and Engineering Science**), published "Hazardous Waste Chemical Constituent Reduction: Evidence from Tennessee," in *Pollution Prevention Review*, Spring 2001. **Peretz** also published "Let's Remember Context of Environmental Decision Making," in *PA Times* (July 2001) and, along with **Bruce Tonn** of Oak Ridge National Laboratory, "A Method for Gauging Limits to Foresight in Environmental Decision Making," in *Technological Forecasting and Social Change* 67 (2001).

The Greening of the Orange



Each *Highlights and Initiatives* page presents an in-depth look at one of EERC's projects or activities. This edition focuses on *The Greening of the Orange*, a movement that may shepherd UT into a new era of sustainability.

The EERC conducts unbiased, analytical, and multidisciplinary research designed to promote real-world solutions to problems in the fields of energy, environment, technology, and economic development.

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The Greening of the Orange

A nationwide movement toward a greener campus environment is taking root at UT.

● BY ELISE LEQUIRE

Across the nation, colleges and universities are warming to a concept known as “greening the campus.” Recently, the University of Tennessee’s (UT) Committee on the Campus Environment (CCE), with the support of the Energy, Environment and Resources Center (EERC) and the Environment and Natural Resources Committee, hosted a public forum on issues of sustainability in the campus environment. Speakers from three sister institutions in the vanguard of the greening movement were invited to share their expertise with UT students, faculty, and staff.

“Sustainable companies will be tomorrow’s winners,” said David Newport, the director of the University of Florida’s (UF) Office of Sustainability. The worlds of banking, agriculture, and finance have embraced the goal of environmentally sustainable operations for good reason: They are good business. “UF is the first university to adopt a business approach to sustainability,” Newport said.

At Pennsylvania State University in University Park, Al Matyasovsky has helped tailor solutions to Penn State’s particular challenges. Matyasovsky, who is an 18-year veteran in the Office of the Physical Plant and front-line supervisor of a 24-man crew, says one of the more successful programs at Penn State is the Beaver Stadium Recycling Effort, initiated in 1995. Local Boy Scouts and Girl Scouts have been deployed over the past six years to encourage zero-waste tailgating, and post-game volunteers have pitched in to recycle 188.6 tons of material. Money earned from this effort goes to the Centre County United Way—which builds more community support for the recycling.

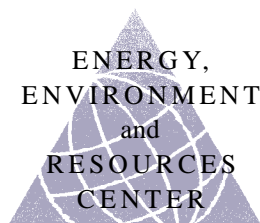
“Energy efficiency is an important part of

addressing green issues, but it is typically the hardest,” said J. Michael MacDonald, senior staff member in the Energy Division at Oak Ridge National Laboratory. MacDonald works in the U.S. Department of Energy’s Rebuild America program, which helps retrofit buildings, save money, and promote energy efficiency in target sectors, including K-12, higher education, state and local buildings, commercial buildings, and housing.

Colleges and universities typically lag behind the commercial sector in improving energy efficiency, MacDonald said. Yet, thanks to early efforts at increasing the energy efficiency of its buildings in the 1970s, UT has a head start. “However, UT could still get a one-third reduction of energy consumption,” MacDonald said.

Among other UT greening efforts is the authorization to purchase Green Power—electricity generated from alternative sources such as wind power and other renewable resources—from the Tennessee Valley Authority for a portion of the 189 megawatt-hours of electricity the university uses annually, said **Jack Barkenbus**, executive director of the EERC and chairman of the CCE. **Barkenbus** also praised the efforts of the Campus Beautification Committee and of the Students Promoting Environmental Action in Knoxville (SPEAK) organization. “There’s no mystery involved in making a top-tier sustainable institution. It takes high-level administrative enthusiasm, a fully funded sustainability coordinator, and broad-based student willingness to engage in such efforts,” **Barkenbus** said. ●

“The worlds of banking, agriculture, and finance have embraced the goal of environmentally sustainable operations for good reason: They are good business.”



Review CCE’s environmental policy on the Web at < <http://www.cce.utk.edu> > and UT’s draft Campus Master Plan 2001 at < <http://ur.utenn.edu/masterplan/draftplan.html> > .