EERC Facts

History

1951 – Established as U.S. Bureau of Mines Robertson Lignite Research Laboratory.
1977 – Designated as one of five Energy Technology Centers with the U.S. Department of Energy.
1983 – Defederalized
– Facilities given to University of North Dakota.
– Renamed UND Energy Research Center.
1989 – Renamed UND Energy & Environmental Research Center.
1994 – $7.6 million expansion of labs and pilot plant facilities completed.
1997 – April flooding of the Red River forces EERC to close for 20 days.
– EERC flood damages estimated at $40 to $45 million in lost equipment and business.
1998 – EERC laboratories damaged in flood become fully operational.
1999 – Annual contract awards exceed $11 million.
2000 – Annual contract awards exceed $15 million.
2001 – Celebrated 50 years of innovative energy and environmental research.
2002 – Broke ground on $8 million addition/renovation.
2003 – 47,000-square-foot expansion and renovation project opens.
2004 – Annual contract awards expected to exceed $27 million.

Contracts

- In FY03, the EERC had 297 active contracts, of which 88% were nonfederal clients.

Employment

- Total employment of 266 in-house scientists, engineers, and support personnel, including 20 full-time-equivalent employees supported elsewhere on UND campus.
- 53% of employees are from North Dakota.
- 20% of employees are from Minnesota.
- 54% of degreed employees are graduates of UND.
- 59% of degreed employees are graduates of the North Dakota University System.
- Total expenditures for FY04 are projected at more than $20 million, with an estimated regional impact of more than $70 million.

Travel

- Spent more than $859,000 in FY03 on travel.

Visitor Calendar

- Averages three groups a week.
- In FY03, the EERC hosted nearly 1000 visitors, which included many international visitors and students (preschool through college).

EERC Economic Impact

EERC Technology – Putting Research into Practice

EERC
Energy & Environmental Research Center

UND University of North Dakota

Creating Opportunities

The Energy & Environmental Research Center (EERC) at the University of North Dakota (UND) is recognized internationally for its expertise in scientifically advanced energy systems and pollution prevention and cleanup technologies for air, water, and soil.

Established as a federal research and development facility in 1951, the EERC has been part of UND since 1983 when it was defederalized by the U.S. Department of Energy. Today, the EERC is recognized as one of the world's leading developers of energy and environmental technologies.

Director Gerald Groenewold

Through its development of innovative, practical solutions to today's pressing energy and environmental problems, Director Gerald Groenewold says the EERC is helping the area economy grow. "The Center is one of the best examples in this region of new wealth creation."

In addition, while pursuing its mission to address critical technical issues, solve problems, and help society, the EERC provides environmentally friendly, high-tech jobs that pay well. "It's a shame that we provide our children with quality educations, only to have them leave the state," Groenewold says. "The economic future of this region depends on the types of jobs the EERC is striving to create."

The impact of the EERC on the regional economy is substantial. The EERC has fostered the creation of several new businesses in the Grand Forks region that are based on technology and expertise developed at the EERC. It also commercializes innovative technologies and processes through partnerships with industry and government.

Global Connections

The EERC has enjoyed extraordinary growth since being defederalized in 1983, with over 740 clients in 47 countries and all 50 states. The EERC has well-established working relationships with numerous organizations throughout the world, including federal and state agencies, academic institutions, research and development organizations, equipment vendors, architecture and engineering firms, utilities, and industry, involving individual contracts as well as multiclient consortia.

Ground was broken July 30, 2002, for this $8 million expansion and renovation project, which has updated existing facilities and added 47,000 square feet of space to the original 169,000 square feet. The new facilities include a three-story building to accommodate 90 additional staff and meeting rooms to seat 300 people.

A Resource for Jobs

The EERC employs an exceptionally talented and diverse group of people whose work attracts business from around the world. While people from all corners of the globe can be found at the EERC, three-quarters of its employees come from North Dakota and Minnesota, and 59% of degreed employees are graduates of the North Dakota University System.

One of the biggest employers in the Grand Forks region, the EERC gives the area's young professionals a good reason to live and work in the place they call home.

Student Employment

Each year, the EERC employs more than 30 students from UND and other academic institutions, ranging from undergraduates to postdoctorates. Students come from across the nation and around the world to take advantage of the opportunity to gain firsthand experience working with the Center's team of multidisciplinary scientists and engineers.

EERC Professionals

Chemistry
- Analytical Chemistry
- Applied Chemistry
- Biochemistry
- Environmental Chemistry
- Fuel Chemistry
- Geochemistry
- Hydrochemistry
- Inorganic Chemistry
- Organic Chemistry
- Physical Chemistry
- Process Chemistry

Engineering
- Aerospace Engineering
- Biochemical Engineering
- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Energy Engineering
- Engineering Management
- Environmental Engineering
- Geological Engineering
- Industrial Engineering
- Mechanical Engineering
- Sanitary Engineering
- Thermal Engineering

Sciences
- Anthropology
- Applied Physics
- Archeology
- Bacteriology
- Biology
- Biomedical Research
- Computer Science
- Earth Science
- Environmental Biology
- Environmental Geology
- Environmental Science
- Fuel Science
- Geography
- Geohydrology
- Geological Sciences
- Geology
- Geophysics
- Hydrogeology
- Materials Science
- Mathematics
- Microbiology
- Mineralogy
- Natural Science
- Paleontology
- Petroleum Geology
- Physical Science
- Physics

Other Disciplines
- Accounting
- Business
- Communications
- Computer Information Systems
- Education
- Energy Resources
- English
- Environmental Technology
- Fine Arts
- General Agriculture
- German
- Humanities
- Industrial Technology
- Information Management
- Journalism
- Library Science
- Management
- Management Information Systems
- Marketing
- Natural Resources
- Psychology
- Research Methodologies
- Theater Arts
- Visual Arts

Technical Expertise and Capabilities
- Administrative Assistants
- Certified Welders
- Computer Programmers
- Database Analysts
- Database Managers
- Electricians
- Electronic Technicians
- Financial Analysts
- Graphic Artists
- Instrumentation Technicians
- Machinists
- Maintenance Mechanics
- Metallurgists
- Technical Editors
- Technology Demonstration Unit Operators

EERC Summary

Mission

To improve global quality of life by providing leadership in visionary multidisciplinary research and development leading to the demonstration and commercialization of innovative, clean, and efficient energy and environmental technologies addressing the protection of air, water, and soil worldwide.

Philosophy

The EERC emphasizes true working partnerships between private industry, government agencies, academic institutions, and the research community. By fostering private sector partnerships from the initiation of a research and development program, the opportunities for technology commercialization are dramatically enhanced.

Programs

Advanced Power and Energy Systems
Energy Conversion System Optimization
Environmental Control Technologies (particulates, air toxic metals, SO_x, NO_x, and SO_2)
Renewable Energy
Environmental Chemistry
Energy Resources (oil, gas, and coal)
Waste Management/Remediation
Water
Education and Training

Centers of Excellence

Center for Air Toxic Metals℠ (CATM®)
Center for Biomass Utilization℠
Coal Ash Research Center
Coal Utilization Technologies Center
Emission Control Technologies Center
National Alternative Fuels Laboratory℠ (NAFL℠)
Supercritical and Subcritical Extraction Technologies Center
Water Management Center
Wind Energy Resources Center

For More Information Please Contact:

Energy & Environmental Research Center
PO Box 9018
Grand Forks, ND 58202-9018
Phone: (701) 777-5000
Fax: (701) 777-5181
www.undeerc.org

Gerald H. Groenewold
Director
Phone: (701) 777-5131
E-mail: ghg@undeerc.org

Area Hometowns of EERC Staff