

## 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.



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 Center employs hundreds of area residents. In addition, 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. It has clients in 46 countries and 47 states. The EERC's list of clients includes hundreds of national and international companies from giants such as General Motors, the 3M Company, General Electric, and Amoco to smaller, regional firms such as Otter Tail Power Company and American Crystal Sugar Company. In addition to corporate clients, the EERC works with scores of domestic and international academic institutions and government agencies.



\*Including 25 full-time equivalent employees elsewhere on the campus of the University of North Dakota.

## A Resource for Jobs

The EERC employs an exceptionally talented 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, two-thirds of its employees come from North Dakota and Minnesota, and 60 percent of degreed employees are graduates of UND.

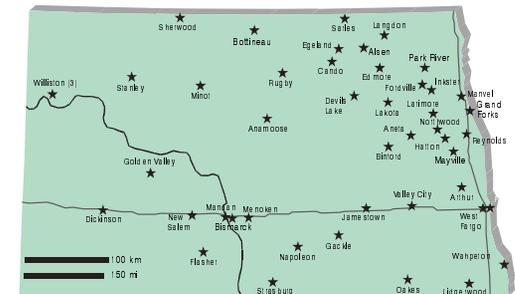
One of the biggest employers in the Grand Forks region, the EERC gives area residents, particularly our youth, a good reason to live and work in the place they call home.

## Student Employment

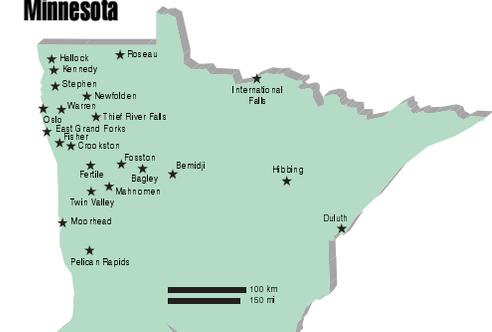
Each year, the EERC employs approximately 50 students from UND and other universities, ranging from undergraduates to postdoctorates. Students come from across the nation and around the world to take advantage of the opportunity to gain firsthand experience by working with the Center's team of multidisciplinary scientists and engineers. Science areas include geology, hydrogeology, computer technology, chemistry, analytical chemistry, physics, biology, microbiology, ecology, and paleontology. Engineering areas include chemical, civil, geological, electrical, mechanical, and metallurgical. The EERC also hires students to work in administrative resources, accounting, purchasing, computer network administration, safety, graphics, communications, and maintenance.

### Area Hometowns of EERC Staff

#### North Dakota



#### Northern Minnesota



## 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 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 \$11.3 million in lost equipment and contract research.

### Contracts

- Of the 176 contracts currently active, 66 percent are with the private sector.

### Employment

- Total employment of 200 scientists, engineers, and support personnel, including 25 full-time equivalent employees supported elsewhere on UND campus.
- 50 percent of employees are from North Dakota.
- 23 percent of employees are from Minnesota.
- 60 percent of degreed employees are graduates of UND.
- 68 percent of degreed employees are graduates of North Dakota State institutions.
- In the last 5 years, 82 percent of degreed employees graduated from North Dakota State institutions.
- Total salaries and benefits: \$8.1 million.
- Total estimated regional impact: \$24 million.

### Travel

- Spends more than \$400,000 each year on travel.

### Visitors

- Averages three international groups per week.
- Hosts more than 1500 visitors a year, including more than 1000 students (college through preschool) touring EERC facilities.

## EERC Summary

### Mission

To develop innovative solutions to energy and environmental problems worldwide and to facilitate commercialization of innovative new technologies.

### Strategy

The EERC researches and develops energy and environmental technologies in partnership with private companies, government agencies, and academic institutions. Following development, the EERC seeks to demonstrate and commercialize promising technologies.

### Programs

- Cleaner, more efficient energy technologies
- Air and water pollution prevention
- Contamination cleanup and site remediation
- Waste utilization and disposal
- Education and training



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# EERC Economic Impact

Technological Excellence  
for a Better World

University of North Dakota