

Senior Faculty Positions in Energy Research at Case Western Reserve University

Three tenure track faculty positions are available in the area of energy research at Case Western Reserve University, Cleveland, Ohio. These positions are associated with the Great Lakes Institute for Energy Innovation. More information about the Institute can be found at <http://www.case.edu/energy>.

The Institute's vision is to enable the transition to advanced, sustainable energy generation, storage, distribution and utilization through coordinated research, development, and education. The Institute provides alignment and support for several focused research centers at CWRU at their interfaces with energy-related research. Appointments will be at rank of associate or full professor commensurate with experience and accomplishments and will be made in appropriate departments within the Case School of Engineering.

The positions involve research, undergraduate and graduate teaching, and advising graduate students and postdoctoral researchers. Successful candidates will play leadership roles in recruiting junior faculty in each of the thrust areas, and serve as focal points in forging collaborations with existing faculty to form funded, interdisciplinary teams/centers. The senior faculty hires will join over 25 current faculty members at Case Western Reserve University who are active contributors to the energy field.

Energy-related research at CWRU has enjoyed substantial investment in recent years and annually expends over \$5 million/year in sponsored research. In particular, these research efforts have played a pivotal role in expanding research funding and commercial applications of fuel cells and other energy systems in northeast Ohio.

The three thrust areas of interest for new senior faculty within the Great Lakes Institute for Energy Innovation are: Energy Storage and Conversion, Energy Efficiency, and Renewable Energy Generation. These are funded positions that will be filled in a timely manner.

Candidates for the position in **renewable energy generation** must have well-established records of success in multidisciplinary team research and education with a focus on wind energy. Areas of interest include, but are not limited to, computational fluid aerodynamics with emphasis on fluid-structure interactions in wind turbines, electro-mechanical power generation with application to wind turbines, and modeling and scaling issues in developing wind farms. The ideal candidate would be expected to lead a team encompassing Case's materials, structures and reliability, and power and control researchers to develop an off-shore wind farm demonstration project in Lake Erie.

Candidates for the position in **energy storage and conversion** must have well-established records of success in multidisciplinary team research and education in areas impacting energy technologies such as (but not limited to) fuel cells, batteries, ultracapacitors, and hydrogen storage, via the design, development and deployment of such devices and/or the fundamental science and nanotechnology of active materials used in such devices.

Candidates for the position in **energy efficiency** must have well-established records of success in multidisciplinary team research and education in areas impacting energy efficiency including industrial processing effectiveness, electrical and lighting systems, lightweight materials and

composites, membranes, sensing systems, thermal conversion and management, reliability/sustainability, smart grid management and control technology, and power/energy informatics.

Case Western Reserve University is located in the attractive University Circle cultural district of Cleveland Ohio, home of the internationally-famous Cleveland Orchestra, the Cleveland Museum of Art, the Cleveland Institute of Music, the Cleveland Institute of Art. Within a five-mile radius of campus are the nation's second largest theater district, multiple professional sports teams, a wide range of musical, artistic, and culinary venues, and numerous, diverse communities in which to live. Interested candidates should provide their CV and a brief research plan in confidence to:

Energy Search Committee
The Case School of Engineering
Case Western Reserve University - Nord 500
10900 Euclid Avenue
Cleveland, OH 44106-7220

Applications may be submitted electronically to: energyinstitute@case.edu

In employment as in education, Case Western Reserve University is committed to Equal Opportunity and Diversity. Case is a recipient of a National Science Foundation ADVANCE Institutional Transformation Grant to increase the participation of women in Science and Engineering.