Universities team up to pursue energy innovation

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Four leading research universities are joining forces to accelerate innovations to address challenges and opportunities facing the energy sector.

Case Western Reserve University, Carnegie Mellon University, the University of Pittsburgh and West Virginia University are forming the Tri-State University Energy Alliance.

The universities have agreed to work more closely to align their individual and collective expertise for research, technology commercialization, partnerships with industry and more.

"We're committed to working together to enhance the region's resources towards energy innovation," said Alexis Abramson, professor of mechanical and aerospace engineering and director of the Great Lakes Energy Institute at Case Western Reserve. "In so doing, we look to create a stronger regional energy ecosystem."

The universities have overlapping areas of energy research, such as grid modernization, energy storage and oil and gas; taking advantage of a regional cooperation in these areas has the potential to lead to a formidable impact.

The Great Lakes Energy Institute at Case Western Reserve has a strong history in electrochemistry and materials applied to energy storage and growing expertise in data analytics used to explore the lifetime and

reliability of energy technologies. Faculty and university partners also are actively engaged in developing a "living laboratory" to address grid modernization challenges.

The University of Pittsburgh Center for Energy is dedicated to improving energy technology development and implementation including work in the areas of energy and electric power delivery, reliability, and security; energy efficiency and sustainability; advanced materials for demanding energy applications; clean energy development and integration; carbon management and utilization; direct energy conversion and recovery; unconventional gas resources; and energy workforce development.

The Wilton E. Scott Institute for Energy Innovation at Carnegie Mellon University, launched in 2012 as a university-wide research initiative, focuses on five strategic areas: pathways to a low-carbon future, smart grid, new materials for energy, shale gas, and building energy efficiency. The Scott Institute's holistic approach to research and development—across technology, policy, integrated systems and behavioral science—facilitates identification of real-world solutions for energy problems.

West Virginia University has over 120 faculty members performing research in collaboration with the WVU Energy Institute, focusing on fossil energy, sustainable energy, environmental stewardship, and energy policy. At WVU, the Marcellus Shale Energy and Environment Laboratory; the Center for Alternative Fuels, Engines and Emissions; and the US-China Clean Energy Research Center - Advanced Coal Technology Consortium; are three examples of federal-academic-industrial partnerships progressing the state-of-the-art in energy technologies.

Pittsburgh Mayor Bill Peduto announced the alliance at noon today

during Carnegie Mellon's Energy Week. Peduto addressed students, faculty and representatives from business and industry, government and non-governmental agencies and the public.

Alliance members will regularly discuss energy initiatives and activities, collaboration opportunities and enable faculty, research staff and students from the four universities to connect.

During the next six months, members will more specifically define the scope of alliance activities. Progress and opportunities will be reviewed and discussed regularly and at annual meetings.

Provided by Case Western Reserve University