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## **Carnegie Mellon Receives \$1.85 Million Research Grant To Accelerate Safe Development of Clean Energy Technologies**

PITTSBURGH— With a \$1.85 million grant from the New York-based Doris Duke Charitable Foundation (DDCF), Carnegie Mellon University's M. Granger Morgan will lead a team of investigators from Carnegie Mellon, the University of Minnesota, the Vermont Law School and the Washington, D.C.-based energy law firm Van Ness Feldman to develop and promote a regulatory structure for the safe and economical capture, transport and deep geological sequestration of carbon dioxide (CO<sub>2</sub>) in the United States.

Morgan and his colleagues note that CO<sub>2</sub> can be removed from coal or natural gas in variety of ways before or after combustion. Once it is removed, it can be deposited deep underground in appropriate geological formations. Most of the technologies for doing this exist today at commercial scale, but have not yet been combined for power plants. The National Energy Technology Laboratory (NETL) in Pittsburgh and Morgantown, W.Va., is supporting much of the research that is needed to make such processes commercially viable.

"Getting the technology right is important," Morgan said. "But if the U.S. is going to put large quantities of CO<sub>2</sub> underground, we need to be sure it is done in a safe and effective way."

Morgan and his colleagues argue that before any definitive regulations can be developed, the U.S. must first get experience with several commercial-scale facilities. For this reason, developing an "adaptive, two-stage" approach to regulation will be a key part of the new DDCF-supported project.

"This grant is further recognition of the great strength that Carnegie Mellon has built up in technically-focused work in energy policy," said Pradeep K. Khosla, dean of the College of Engineering at Carnegie Mellon.

"Previous work done by Carnegie Mellon's Ed Rubin and his colleagues on modeling carbon capture, by Jay Apt, Lester Lave and Paul Fischbeck on the electricity industry, and by investigators associated with our NSF-supported Center for Climate Decision Making, have laid the groundwork that makes us the obvious choice to do this kind of work," Khosla said

The grant to Carnegie Mellon is part of a \$100 million Climate Change Initiative created by the DDCF to develop new energy technologies that can help society reduce greenhouse gas emissions and create a cleaner economy.

“By focusing these grants on how energy technology innovation occurs and how it can be improved through better policy, the aim is to ensure that tomorrow’s clean energy technologies emerge on an accelerated timeline,” said Andrew Bowman, director of the DDCF’s Climate Change Initiative.

The grants, totaling more than \$6.6 million to an elite group of research universities and policy think tanks nationwide, support research in two categories. The first set will assess the innovation systems already in place for energy technologies and suggest improvements to policies that guide this type of research. The second group of research grants will address ways new technologies can quickly be brought on line.

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**About Carnegie Mellon:** Carnegie Mellon is a private research university with a distinctive mix of programs in engineering, computer science, robotics, business, public policy, fine arts and the humanities. More than 10,000 undergraduate and graduate students receive an education characterized by its focus on creating and implementing solutions for real problems, interdisciplinary collaboration, and innovation. A small student-to-faculty ratio provides an opportunity for close interaction between students and professors. While technology is pervasive on its 144-acre Pittsburgh campus, Carnegie Mellon is also distinctive among leading research universities for the world-renowned programs in its College of Fine Arts. A global university, Carnegie Mellon has campuses in Silicon Valley, Calif., and Qatar, and programs in Asia, Australia and Europe. For more, see [www.cmu.edu](http://www.cmu.edu).