

USC Energy Institute

Presents

**“How Can Technology Enable Greenhouse
Gas Mitigation through Agriculture?”**

Dr. David Brown

ARPA-E Fellow

U.S. Department of Energy



Friday, March 11, 2016

3:00—4:00 pm

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USC Energy Institute

Abstract: The Advanced Research Projects Agency-Energy (ARPA-E) advances high-potential, high-impact energy technologies that are too early for private-sector investment. ARPA-E projects have the potential to radically improve U.S. economic security, national security, and environmental well-being. ARPA-E empowers America's energy researchers with funding, technical assistance, and market readiness. The talk is an introduction to the process the agency uses to develop funding opportunities. A forthcoming solicitation, ROOTS, will be discussed. This program seeks to develop systems that enable identification and translation into field cultivars of root phenotypes, as well as their interactions with soil conditions. The solicitation focuses specifically on field deployable sensor technology and advanced models with functional or mechanistic components, and it has the long-term goal of substantial decreasing nitrogen pollution from crops and increasing soil carbon storage. The presentation will discuss how to become more involved with ARPA-E through current funding announcements as well as opportunities for employment as a Program Director, T2M advisor or summer intern, or Fellow.

Dr. David Brown currently serves as an ARPA-E Fellow, with interests in energy agriculture, thermal materials, and advanced manufacturing. While at ARPA-E, his principal work has been in developing a program to mitigate greenhouse gas emissions through advanced agricultural technology. Dr. Brown received his Ph.D. in Applied Physics at the California Institute of Technology, under the guidance of Dr. G. Jeffrey Snyder. He was named a Resnick Sustainability Institute Fellow while at Caltech.