

# EECE Department Seminar

Friday, March 10, 2017

11:00am

Brauer Hall, Room 12

Energy, Environmental & Chemical Engineering



## Challenges and Pathways to Large-Scale CCS Deployment

### ABSTRACT

Preventing climate change is a daunting challenge. The Energy Information Agency estimates that global CO<sub>2</sub> emissions must fall 50% by 2050, including a near de-carbonization of the electric sector. Complicating matters, global energy consumption could rise by almost one-third during this period. A wide range of zero carbon technologies will be

needed to address climate change, but carbon capture and storage (CCS) is especially important. CCS can reduce emissions by as much as 90% from diverse sources ranging from gas-fired power plants to refineries to steel mills. It works on both new and existing plants, and can clean the emissions from any carbon-containing fuel. But CCS

is not widely used today. How can the technology reach a climate-relevant scale? This presentation will describe the economic, technical and political challenges facing CCS. It will focus on policies being developed in both China and the United States to drive CCS adoption and overcome these barriers.

### Mr. John Thompson, Director

Fossil Transition Project, Clean Air Task Force

John Thompson directs the Fossil Transition Project of the non-profit Clean Air Task Force. He is a frequent speaker on carbon capture at conferences in the United States, Asia and Europe. He works on technology transfer between US and Chinese companies, devel-

ops and models federal CCS policies, and communicates the need for carbon dioxide reductions in media outlets such as the Washington Post, New York Times, Bloomberg, and National Public Radio. John is a member of DOE's National Coal Council. He holds a B. S. in chemical engi-



neering from the University of Illinois, Champaign-Urbana, as well as an M.B.A. from the Executive Program at the Olin School of Business at Washington University in Saint Louis.