Vehicle Electrification in China: Preference, Policy and Technology Trajectories

Dr. John Helveston

Monday, September 18, 2017
12:30 - 1:45 pm
Cabot 205
Light lunch will be served

John will be presenting a summary of two studies based on his dissertation research on the development and adoption of plug-in electric vehicles (PEVs) in China. The first study models consumer preferences for conventional, hybrid electric, plug-in hybrid electric (PHEV), and battery electric (BEV) vehicle technologies in China and the U.S. The study finds that American respondents have significantly lower relative willingness-to-pay for BEV technology than Chinese respondents. While U.S. and Chinese subsidies are similar, favoring vehicles with larger battery packs, differences in consumer preferences lead to different outcomes: Chinese consumers are willing to adopt today’s BEVs and mid-range PHEVs at similar rates relative to their respective gasoline counterparts, whereas American consumers prefer low-range PHEVs despite subsidies. This implies potential for earlier BEV adoption in China, given adequate supply. The second study investigates the institutional origins of divergent innovation trajectories by Chinese firms in China's PEV industry.

John Paul Helveston is a Postdoctoral Fellow at the Institute for Sustainable Energy at Boston University. His primary research interest is understanding the factors that shape technology change, with a particular focus on transitioning to environmentally sustainable and energy-saving technologies. Within this broader category, he studies consumer preferences and market demand for new technologies as well as relationships between firm innovation, industry structure, and technology policy. His dissertation explores these themes in China’s electric vehicle industry. He is a fluent speaker of Mandarin Chinese and also an avid swing dancer. John holds a Ph.D. and M.S. in Engineering and Public Policy from Carnegie Mellon University and a B.S. in Engineering Science and Mechanics from Virginia Tech.