

Emerging Industrial Innovations for New Energy Efficiency Gains

John A. “Skip” Laitner
American Council for an Energy-Efficient Economy
1001 Connecticut Avenue, NW, Suite 801
Washington, DC 20036
o: (202) 478-6365
email: jslaitner@aceee.org

Benjamin Sovacool
Virginia Polytechnic Institute and State University

R. Neal Elliott
American Council for an Energy-Efficient Economy

Abstract

The discussion surrounding industrial efficiency gains typically focuses on industry’s own use of energy and the set of technologies that might cost-effectively reduce that consumption. Often overlooked is industry’s role as a primary developer of the materials and technologies that can generate large efficiency gains within all other sectors of the economy. For example, its role in developing a new generation of fuel cell vehicles, “on-demand” manufacturing capabilities, or new plastics that double as integrated photovoltaic systems may play an even larger role in the more productive use of our energy resources. This paper explores recent work on industrial innovation, often involving “enabling technologies” through public-private partnerships. It will provide a context to understand the role of innovation in stimulating both direct and indirect industrial energy efficiency opportunities. It highlights a number of emerging technologies that may foster an even greater energy savings than might be apparent from looking at industry’s own current energy use patterns alone.