

Life Cycle Models and Metrics: The Sustainability Compass

for Energy Systems, Products, & Technology



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This presentation will highlight research at the University of Michigan's Center for Sustainable Systems (CSS) to improve the sustainability of energy systems, products and technology. Life cycle models and metrics provide a scientific basis for measuring progress toward sustainability and serve as important navigation tools for guiding the transformation of technology, consumption patterns, and corporate and governmental policies for achieving a more sustainable society. Life cycle models for a diverse set of products and technology (e.g., automotive technology, renewable energy, buildings and infrastructure, appliances, food systems) will be presented. Metrics examined include non-renewable energy and material resource consumption, carbon intensity, land use intensity, life cycle costs and other socioeconomic indicators. Novel approaches that will be demonstrated range from life cycle optimization of product service life to a life cycle based sustainable material design framework.

Dr. Keoleian serves as co-director of the Center for Sustainable Systems and is an Associate Professor in the School of Natural Resources and Environment at the University of Michigan. He holds a Ph.D. in Chemical Engineering from the University of Michigan.

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Global Institute of Sustainability, Tempe Center, Room 158
Arizona State University, Tempe campus

The Institute is on the SE corner of Mill and University. Limited parking (\$2 hour) is available on the north end of Tempe Center. We also have a limited number of parking stickers valid for Lot 16 spaces. For more information, contact Tee Engle at 480-965-2975 or Tamlin.Engle@asu.edu

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