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Addressing global energy challenges in scale and complexity.

How are the topics of circular economy (CE) and environmental and energy justice (EEJ) connected?

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Location: Leeds School of Business - KOBL 123

Abstract:
How are the topics of circular economy (CE) and environmental and energy justice (EEJ) connected? It can be argued that they are connected through the broader topic of sustainability. Sustainable development is defined globally as meeting the needs of the present without compromising the well-being of future generations (United Nations General Assembly 1987). For the United States, sustainable development means a commitment "to create and maintain conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations" (NEPA 1969). Under these definitions, CE (or resource efficiency and conservation) and EEJ (or social impacts) would be tools for achieving sustainable development.

Sustainability analysis looks to simultaneously evaluate economic, social and environmental impacts of products, processes or systems and allows us to understand what are the challenges, opportunities and trade-offs around different solutions. Studies have shown that CE strategies can help to meet decarbonization goals. So, can the same be demonstrated for EEJ goals? And how can we identify and evaluate the potential synergies between CE and EEJ?

Bio:

Birdie Carpenter is a member of the Integrated Modeling and Economic Assessment Group in the Strategic Energy Analysis Center. She leads NREL's efforts for strategic analysis for the U.S. Department of Energy's Advanced Manufacturing Office. Birdie manages the team that developed and runs the Materials Flow through Industry tool. This tool provides supply chain impact analysis of the manufacturing sector, offering insight into energy and carbon hotspots within industrial supply chains and the impacts associated with implementing energy reductions strategies. Additionally, Birdie helps to lead lab efforts around evaluating impacts of circular economy strategies and technologies.