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Seminar Presentation

Dr. Emily Grubert
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Thursday, February 27, 2020
4:00-5:00pm, MCB 102

Conventional Hydroelectricity and the Energy Transition

Abstract: Decarbonizing the energy system requires infrastructural transformation with diverse and far-reaching implications for socioenvironmental outcomes. Some infrastructural systems will disappear, leaving their communities with needs for end-of-life management and alternative economic and other structures. Other infrastructural systems need to be created, leading to industrialization effects that might be variably well received. Still other infrastructural systems will adapt, with implications for operational structures, permitting, and resource management. Conventional hydroelectricity systems are among those that might be asked to adapt. As the grid faces disruptive changes, most notably with respect to the relationship between electricity supply and electricity demand and which system is asked to respond to the other, conventional hydro could be tasked with fundamental shifts in operational goals. Physical constraints, however, including major safety and resource allocation issues, need to be adequately understood. This talk discusses the relationship between conventional hydro's infrastructural constraints and socioenvironmental constraints, focusing particularly on the interaction between physical requirements for water flows and societally mediated requirements for water-based electricity.

Bio

Emily Grubert is an Assistant Professor of Civil and Environmental Engineering and, by courtesy, of Public Policy at the Georgia Institute of Technology. Grubert studies how we can make better decisions about large infrastructure systems, with a particular focus on societal priorities and energy and water systems in the US.

