

“Creating Positive Feedback Loops to Accelerate the Energy Transition”

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Photovoltaic solar electricity has grown much faster than was expected. Continuation of the historical growth rate would enable solar to generate as much electricity as the entire world uses by ~ 2030. California, in particular, has taken a leading role; 19% of electricity generated in 2018 in the state of California was from solar energy. However, growth of solar is now slowing, both worldwide and in California. As the state of California and many others around the world seek to move away from fossil fuels to a zero-carbon energy system, it will be critical to maintain the momentum. Positive feedback has been helpful in the growth of solar so far. This talk will discuss how positive feedback loops can help accelerate the energy transition by taking a balanced approach. The talk will also discuss how choices we make in designing our new energy system can reduce or increase the size of the problem.

Sarah Kurtz obtained her PhD in 1985 from Harvard University and has worked since then at the National Renewable Energy Laboratory, in Golden, CO. She is known for her contributions to developing multijunction, GaInP/GaAs solar cells, supporting the Concentrator Photovoltaic (PV) industry, and, more recently, her work with PV performance and reliability. Her work has been recognized with a jointly received Dan David Prize in 2007 and the Cherry Award in 2012. For about a decade before 2017, she managed the PV Reliability Group at NREL and worked to facilitate the growth of the PV industry through improved understanding of the performance and reliability of PV. She has now moved to the University of California Merced, where she is excited about the opportunity to support the state of California in their adoption of renewable energy through research and education.