

EPIC Seminar Series

My Journey to Rewarding Work in Engineering, Renewable Energy and the Environment

Electricity systems are changing throughout the world due to rapid reductions in solar manufacturing costs, wind technology maturity, and in some places, reductions in natural gas costs and decarbonization policies. These changes in electricity systems are shifting the relative economic competitiveness of generation technologies – especially coal and nuclear – and are also forcing new operating paradigms. In the Western U.S., such issues focus on heat waves and drought, since drought has a significant impact on hydropower generation and both drought and heat can limit thermal power plant operation. Southern California is especially susceptible to climate driven heat waves that stress the power system. In this talk Dr. Dyreson will describe her research at the intersection of engineering, renewable energy, climate change, and water resources, along her personal journey to finding rewarding work (and employment!)

Dr. Dyreson is an Assistant Professor in Mechanical Engineering – Engineering Mechanics at Michigan Technological University. Dr. Dyreson's research interests in the energy-water-climate nexus combine background in solar energy (PhD Mechanical Engineering, 2018, University of Wisconsin – Madison and M.S. Mechanical Engineering, 2014, Northern Arizona University) with her work in electricity grid modeling (Post-doctoral researcher 2018-2020, Grid Systems, National Renewable Energy Laboratory). Her work links power plant-level thermodynamic models, climate models, hydrology models, and electricity grid operation models to understand how heat and drought stress may impact future power systems. She is also interested in analysis and valuation of new and novel renewable energy systems and energy efficiency concepts such as radiative cooling, hydropower-solar photovoltaic hybrid power plants, and pumped hydropower at abandoned mines. Dr. Dyreson is passionate about teaching and improving the diversity of STEM fields. Dr. Dyreson is a registered Professional Engineer (Wisconsin)



Ana Dyreson, PhD

Assistant Professor in
Mechanical Engineering,
Michigan Technological
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**Wednesday,
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5:30-6:30 PM**

[Zoom Link](#)

Meeting ID: 863 6826 4760

Password: EPIC

