

***Missouri's Gateway to Energy Innovation:  
The Powerplex*****Joshua Schlegel**

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Missouri University of Science and Technology

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3:30-4:30 p.m., Wednesday, December 10  
Room 124, Butler-Carlton Hall

**Abstract:**

Missouri S&T is leading a transformative initiative to establish the nation's first nuclear-integrated clean energy testbed. The Powerplex will combine small modular reactors (SMRs), solar, and storage technologies to address key DOE challenges: dispatchable clean electricity, high-quality industrial heat, alternative fuels, and grid resilience. Anchored by existing campus assets and national partnerships, this living testbed will drive regional economic development, workforce development, and advanced energy systems research. With feasibility studies underway and strong institutional support, PowerPlex represents a once-in-a-generation opportunity to position Missouri as a national center of excellence in resilient, integrated energy solutions. We invite faculty collaborators to help shape this living laboratory for resilient, decarbonized energy futures.

**Bio:**

Dr. Joshua Schlegel Dr. Schlegel is an associate professor and associate chair for academic affairs in nuclear engineering and radiation science at Missouri S&T. After earning a Ph.D. from Purdue University, he served as a postdoctoral researcher, which sparked his interest in academic leadership. Since joining Missouri S&T in 2014, he has built a research program in thermal-hydraulics and multiphase flow, publishing extensively in the field. His innovative, student-centered teaching has earned him multiple honors, including two Outstanding Teaching Awards, the Governor's Teaching Award and the Senior Faculty Award from the Mines and Metallurgy Academy. Schlegel also leads the university's Powerplex initiative to establish a second research reactor on campus and serves as an elected officer on the Faculty Senate.