



**Jim Harper**  
Senior Principal Technical Lead  
P216/P217  
Generation

Jim Harper is a Senior Principal Technical Lead in EPRI's Generation Sector – Thermal Fleet Area with 20+ years' experience as a thermal systems engineer in a range of industries.

Since joining EPRI, Jim has worked on gas turbine operation and energy transition projects, including hydrogen fueling. He has led and supported aspects of hydrogen fueling demonstrations as well as hydrogen generation, storage, and blending with natural gas studies. Jim has conducted technical assessments using systems modeling as well as detailed physics modeling gas turbines and energy systems. He has utilized his CAD and CFD skills to help develop a novel gas turbine combustor design recently tested by an EPRI utility member.

In addition, Jim has extensive gas turbine design, control, testing, and fleet experience. He was a Combustion Technical Leader at General Electric where he was a system owner of gas turbine combustion system mechanical, thermal, and control architectures. Jim has also worked in the electric vehicle automotive industry as a senior thermal systems design lead responsible for thermal systems design, validation, and fleet support, including battery, motor, power electronics, and cabin thermal systems. He has authored more than ten patents in gas turbine design and control as well as EV thermal system control architectures.