

Role of Energy and Energy Technology in Addressing Climate Change
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Abstract

Energy technology plays a central role in addressing climate change. It is an important element in a larger portfolio of improved climate science, adaptation and emissions mitigation. Climate change is a global, century-scale public goods problem that is unique in the human experience. Stabilizing climate change will require developing and deploying technology in the near, mid and long term. It also entails a complete transformation in the global energy system, as eventually emissions of CO₂, the most important anthropogenic greenhouse gas, must decline to zero. This paper will outline the role of energy technology in the near, mid and long terms and explore some of the challenges in its development and deployment. It will draw on the results of a decade of research undertaken under **The Pacific Northwest National Laboratory's *Global Energy Technology Strategy Program*** at the **Joint Global Change Research Institute**, on the campus of the **University of Maryland at College Park**.