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The Energy Problem: What Can Physicist Do?

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Among Americans most serious concerns are national security, which is intimately tied to our energy security, economic competitiveness, and the environment. These issues transcend our national boundaries and have serious implications for the entire world. At the core of these problems is the need to secure, clean, affordable and sustainable sources of energy. Progress must be made to decrease the demand of energy per person and the creation of new sources of clean, CO₂ neutral energy. After briefly describing the energy problem with emphasis on the latest findings on climate change, the remainder of the talk will describe our current options and some areas of energy research that may lead to transforming technologies.