

Why energy saves the environment

Everyone knows how energy production can degrade the environment. But what about all of the ways energy saves it? Around the world, as people grow more food on less land, and move to cities, they leave more of the countryside to nature. Grasslands and forests grow back, and species return, when we move away from using wood as fuel, and working as subsistence farmers. Research shows that those processes of human development depends on significant increases in per capita energy consumption. While there are side effects, this is mostly a positive process, such as moving away from coal to natural gas. While impacts of natural gas should be mitigated, it is on most metrics an order of magnitude or more better than coal. There is a physical and moral progression between fuels. Where wood energy requires whole forests, coal mines required whole mountains, and natural gas required large fields, nuclear energy requires tiny patches of land for mining and electricity production. Einstein was right: energy can substitute for matter, and vice versa. Saving the environment, including the climate, means moving toward energy dense fuels and away from energy-dilute ones. Increasing energy density reduces material throughput in agriculture, transportation, manufacturing and other productive industries. In this talk Michael Shellenberger, Time Magazine Hero of the Environment and leading energy and environment writer will make the case for a high-energy environmental vision and agenda for the 21st Century.