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Energy for the 21st Century GORDON AUBRECHT, Ohio State University at Marion — The Fourth Assessment Report of the IPCC was released in 2007 and dealt with the scientific basis for climate change, consequences of emissions, and mitigation and adaptation. The Industrial Revolution began the large-scale emission of pollutants to Earth's atmosphere and water from exploitation of coal, oil, and minerals. Energy has been cheap, if we do not consider the unintended consequences. The times may finally be changing—the cost of oil (in constant dollars), and the gasoline made from it, was higher through the first half of 2008 than at any time in history before declining with the global economic downturn, and promises to rise again when the global economy recovers. For the first time, a majority of Americans polled understand that global warming will lead to significant change in climate. How will these changes affect future actions of citizens of North America and the world? What can be done to protect the future of our children and grand-children? This talk will focus on human effects on Earth of our need for energy and their import for the future.

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