Americans' views on energy offer an intriguing example of the challenge facing the scientific community in its efforts to insure that the United States makes sound policy decisions in areas where scientific and technological knowledge is crucial. As the country faces pivotal policy decisions on climate change and the soaring need for energy worldwide over the next 50 years, the broad public's grasp of these challenges and their potential solutions is perilously limited. Unfortunately, widely-held misconceptions and gaps in knowledge could leave the public vulnerable to sloganeering and political exploitation. Based on an in-depth national survey of 1,001 Americans conducted by Public Agenda, The Energy Learning Curve,™ large swaths of the public do not understand the basic concepts needed to follow the national policy debate. Half of all Americans cannot identify a renewable energy source. Nearly 4 in 10 cannot name a fossil fuel. More than half think that by reducing smog, the United States has gone "a long way" in addressing global warming. At the same time, there are hints the public is becoming more realistic about the nation's energy future: 73 percent of Americans disagree with the statement that "if we get gas prices to drop and stay low, we don't need to be worried about finding alternative sources of energy," and fully 53 percent "strongly disagree." Moreover, despite partisan debate, Americans find common ground on many measures to address the nation's energy problems. At least 10 major energy proposals that would provide incentives for more energy efficiency, reducing gasoline usage and supporting alternative energy have widespread support. Even so, much of the public may not be prepared for the tradeoffs and challenges needed to make these proposals a reality, and unfortunately, the problem cannot be solved just by giving people more information. In addition to reviewing the survey findings, the presentation will focus on three questions: What can and should the scientific community do to advance public understanding on energy and the environment? What do public views on energy and the environment tell us about Americans' ability to grasp other issues with some scientific and technical complexity? What strategies offer the best hope for advancing the broader public's ability to participate in realistic, purposeful debate on these issues?