

---

## Uncle Sam Needs to Solve the Energy Crisis

---



Presidential priorities helped get an electric vehicle on the moon.

James Irwin / NASA / Michael Light

**T**he key to heading off devastating climate change—and to sidestepping out-of-sight oil prices along the way—is to improve technology. We need good alternatives to fossil fuels, not the ersatz variety in which we convert corn to ethanol and then face soaring food prices. We need to harness vast amounts of solar power and start storing the carbon dioxide emitted by coal-fired power plants underground. We need green buildings that demand less energy for heating and cooling, and automobiles that get vastly more miles per gallon.

These are all achievable goals. The technologies are within reach. Yet to take them from the research phase into widespread use will require major investments, both public and private. When it comes to climate change, President George W. Bush's greatest failure is that he dithered for eight years instead of investing in new technologies for a sustainable planet.

Bush will have been in the Oval Office for almost as long as it took NASA to answer John F. Kennedy's call to send a man to the moon and back. In Bush's first term, he announced plans for a new type of coal-fired power plant that captures its carbon dioxide exhaust and pumps it safely underground, where it cannot affect the climate. Yet not only will he leave the White House without having broken ground on a zero-emissions power plant, but his Administration once again put off the initiative in January. Why? Persistent failure to think through the project.

The government has been equally deficient when it comes to bringing energy-efficient automobiles into the mainstream. In his 2003 State of the Union address, Bush praised the concept of hydrogen-powered cars that emit no carbon dioxide. Yet there has been little follow-through on hydrogen or other long-mileage technologies. And the government has done little to help advance existing technologies like hybrids. One sign of Washington's torpor was the decision in December 2007 to raise fuel-economy standards to 35 m.p.g. by 2020. Not too impressive a goal, considering that today's hybrids already exceed 40 m.p.g. And new plug-in hybrids, like the Chevrolet Volt prototype that GM had up and running in April, should get 100 m.p.g. by 2010—and they could get even better mileage as electric batteries improve.

An important measure of the government's technology commitment is the federal budget for energy research and development. According to the International Energy Agency, U.S. spending for all energy research—nuclear, wind, coal, solar, biofuels, etc.—was a meager \$3.2 billion in 2006. The Pentagon spends that much in about 40 hours. Spending on carbon capture and sequestration was a mere \$67 million.

---

## Uncle Sam Needs to Solve the Energy Crisis

---

At the start of the next Administration, it will be high time to increase our annual energy-research budget to \$30 billion, which would make it at least comparable to what we spend on medical research each year at the National Institutes of Health (NIH). And I propose, with the same sense of mission that gave rise to NASA and NIH, that we create a National Institutes of Sustainable Technology. A return to America's can-do attitude of the 1960s would help make the U.S. a winner in countless ways. We would help put a brake on our contribution to climate change, lower America's dependence on the tumultuous Middle East and reclaim our competitive edge in science, technology and the global economy.

So, what can we do besides drive less and use fluorescent bulbs? For starters, we should keep the presidential candidates focused not on the merits of temporary tax cuts on gasoline but on how the U.S. can marshal its resources to tackle our biggest environmental and geopolitical problems. Which candidate will successfully guide our generation's «moon shot» to achieve sustainable energy, food and water for the planet?