

Good investments

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Wind turbines off the U.K. coast. Image by [Steve Fareham](#), licensed under [Creative Commons](#).

If I had only one wish for the next 50 years," said Bill Gates, "it would be to invent the thing that halves the cost of carbon dioxide." The founder of Microsoft went on: "We must innovate our way to zero CO2 emissions."

Gates is thinking like an entrepreneur: he knows there are profits to be made from developing an energy technology that is half as expensive as drilling for carbon-based fuels. But he is also thinking like an environmentalist: he knows the globe can't bear the ecological cost of spewing more and more carbon dioxide into the atmosphere.

And more spewing is on the schedule. World energy consumption is likely to grow by more than 50 percent over the next 25 years, largely due to rapid development in

China and India, where energy use is expected to double. It's estimated that 80 percent of energy consumption in 2035 will come from an old familiar source: fossil fuels. The use of clean energy sources is growing, but unless those sources become cheaper and more efficient, they won't put a dent in the rise in carbon emissions. The energy industry will keep investing in fossil fuels (like the ones buried in the Alberta tar pits, which Bill McKibben writes about in ["Pipeline to disaster"](#)).

The need for technological breakthroughs is what prompted a Republican-controlled Congress in 2005 to offer loan guarantees to companies that are developing significant clean energy projects. That program came under attack last month after one participant, the solar energy company Solyndra, collapsed and left taxpayers the bill for a \$535 million loan guarantee. Critics complained that the Obama administration had rushed its approval of the company's application and that it did so to please a Solyndra investor who had raised money for the Obama campaign. If that is true, the administration deserves to be censured. The competitive integrity of any loan program must be assured.

But it would be a mistake to conclude, as some critics have, that such a program is misguided or that the government should drop its support for research and development in clean energy. To draw that lesson would be to forget that government-supported research spurred some of the most important technological developments of the age: computer software, microprocessors and the Internet, as well as a host of aviation and medical innovations. Bill Gates, famed inventor and entrepreneur that he is, acknowledges that it was government-supported research that laid the groundwork for the computer revolution that he led.

Perhaps there are better ways for the government to encourage clean power than by judging applications from private firms. Congress might enact an across-the-board tax on fossil fuels or impose a cap-and-trade policy that penalizes the burning of fossil fuels. Both those measures would create financial incentives for companies to seek alternative energy technologies. Unfortunately, over the years both measures have been considered by Congress and rejected.

Government-funded research has spurred major technological innovations and created jobs and entire industries along the way. Such research has usually been done in pursuit of a military purpose. It should be done today for the sake of jobs, economic growth—and a sustainable planet.