

## Main Point

Five years ago, the Department of Energy (DOE) launched SunShot, an initiative to make solar cost-competitive with traditional energy sources. Since that announcement, the price of solar has nearly halved, solar industry employment has doubled, and solar electricity generation has grown twenty-fold. What we need now is to replicate this policy success with a SunShot for Carbon Capture Storage (CCS).

## Background

The International Energy Agency and the UN's Intergovernmental Panel on Climate Change have made it very clear—we're unlikely to win the climate fight without CCS. We know that CCS technology works. But getting it deployed as widely and as quickly as we need to will require additional policy incentives to make CCS more cost-effective, including an increase in federal RD&D activity.

As evidenced by SunShot and the more recent announcement of Mission Innovation, the Obama Administration clearly understands the importance and potential of aggressive, multi-year investment campaigns in energy R&D. The President's 2017 budget proposal streamlines DOE's CCS innovation activities and includes programmatic updates that prioritize the most effective and successful activities. With a few additional tweaks by Congress, this spending plan could lay the groundwork for an equally promising innovation effort—a "SunShot for CCS".

To ensure this urgently needed technology is ready for an enhanced innovation effort in the coming years, Congress should:

## Recommendation 1 and Evidence

### **Robustly Fund CCS and Advanced Power Systems**

- While the Administration's Fossil Energy request for 2017 was their largest to date, it is still slightly below 2016 enacted levels. Congress should meet or exceed previous funding levels for the recently-restructured "CCS and Advanced Power Systems" program within the Fossil Energy budget.

## Recommendation 2 and Evidence

### **Fund Carbon Use and Reuse**

- The 2017 budget proposal does not request any funding for the Carbon Use and Reuse activity. However, value-added products provide necessary cost reductions that allow for earlier and more effective CCS deployment and there is increasing private sector interest in carbon utilization, as demonstrated by the [Carbon XPRIZE](#). As a first step, Congress should add to this momentum by providing \$10 million for the Carbon Use and Reuse activity within the Carbon Capture subprogram.

Recommendation 3  
and Evidence

**Protect Demonstration Funding through the Clean Coal Power Initiative**

- The Clean Coal Power Initiative (CCPI) began in 2002 and is a cost-shared partnership with industry to develop and demonstrate cleaner coal power generation technologies at the commercial scale. The 2017 budget proposal requests that Congress include language to allow up to \$240 million in existing CCPI funds to be used towards the R&D budget, which would pull funding from potentially promising large-scale projects. Congress should leave these funds where they are in order to enable additional CCS deployment.

Recommendation 4  
and Evidence

**Request a CCS Cost-Reduction Plan from DOE**

- 2017 is a first step, but accelerating clean energy technology can't be done in a single year. Like SunShot, CCS needs a long-term commitment. Congress should request the DOE produce a detailed, multi-year plan with the goal of cost-competitive CCS deployment. This plan should include both the large-scale pilots in the 2017 budget and future demonstration projects.

Conclusions

Climate change is a complicated problem, but this part of the solution is simple: We need CCS to meet emissions goals; we need to lower technology cost to deploy more CCS; and we have a proven model for cost reduction in SunShot. When you line up the facts, a "SunShot for CCS" becomes a rare no-brainer for climate policy. Congress has a chance this year to lay the groundwork for such an initiative. They shouldn't pass it up.