



Fulfilling the Promise of Concentrating Solar Power

Low-Cost Incentives Can Spur Innovation in the Solar Market

By Sean Pool and John Dos Passos Coggin

June 2013

Introduction and summary

Concentrating solar power—also known as concentrated solar power, concentrated solar thermal, and CSP—is a cost-effective way to produce electricity while reducing our dependence on foreign oil, improving domestic energy-price stability, reducing carbon emissions, cleaning our air, promoting economic growth, and creating jobs. One physicist has even touted it as the “technology that will save humanity.”¹

Grandiose claims aside, concentrating solar power has recently garnered the attention of the U.S. Department of Energy. The agency has created the SunShot Initiative to lead research into the technology—work that aims to increase efficiency, lower costs, and deliver more reliable performance from concentrating solar power. Additionally, high-profile U.S.-based companies such as IBM have invested in CSP research. Increasingly, private and public stakeholders believe that the technology holds the greatest potential to harness the power of the sun to meet national sustainability goals.²

As the White House prepares a climate-change-reform agenda that embodies the bold spirit of this year’s State of the Union address, in which President Barack Obama emphasized executive authority to regulate greenhouse gases, Congress has begun debating the nation’s new energy future. Concentrating solar power should be a key component of this dialogue.

Some are concerned that clean technologies are too immature and unreliable to produce the vast stores of affordable baseload energy needed to power the 21st century American economy. Others are worried that the nation cannot switch to carbon-free electricity without ruining the economy. CSP technology, however, presents a compelling response to each of these concerns.

In this report we detail why the United States should invest in concentrating solar power and delineate the market and regulatory challenges to the innovation and deployment of CSP technology. We also offer the following low-cost policy solutions that can reduce risk, promote investment, and drive innovation in the CSP industry:

- Reducing risk and cost of capital for clean solar energy
 - Establish an independent clean energy deployment bank.
 - Implement CLEAN contracts for concentrating solar power.
 - Reinststate the Department of Energy Loan Guarantee Program.
 - Put a national price on carbon.

- Streamlining regulation and tax treatment of CSP
 - Reform the tax code to put capital-intensive clean technologies on equal footing with fossil fuels.
 - Guarantee transmissions grid connection for concentrating solar power and other solar projects.
 - Stabilize and monetize existing tax incentives.
 - Streamline the regulatory approval process by creating an interagency “one-stop shop” for concentrating solar power and other clean energy power-generation facilities.
 - Ensure long-term regulatory transparency.

The Center for American Progress is a nonpartisan research and educational institute dedicated to promoting a strong, just, and free America that ensures opportunity for all. We believe that Americans are bound together by a common commitment to these values and we aspire to ensure that our national policies reflect these values. We work to find progressive and pragmatic solutions to significant domestic and international problems and develop policy proposals that foster a government that is “of the people, by the people, and for the people.”

Science Progress, a project of the Center for American Progress, is designed to improve public understanding of science and technology and to showcase exciting, progressive ideas about the many ways in which government and citizens can leverage innovation for the common good. Since its inception in the fall of 2007, Science Progress has helped shape the conversation about our country’s investment in science.

Center for American Progress



science progress