

# Clouds on Solar's Horizon

Diane Cardwell, New York Times, 4-13-12

Late Wednesday night, BrightSource Energy, a start-up formed to build solar thermal power plants, was forced to make a humbling admission: Despite a year of hopes and efforts, it could not find the market it wanted for its stock. The company canceled its initial public offering of shares just hours before trading was to begin.

Not too long ago, the prospects for BrightSource seemed so limitless that the company incorporated the word into its logo. It had raised tens of millions of dollars from leading venture capitalists, struck partnerships with corporations like Google, Siemens and NRG Energy and secured a coveted \$1.6 billion federal loan guarantee for its signature Ivanpah plant in the California desert. Supported by state policy that encouraged utilities to buy lots of solar power, BrightSource had also signed long-term deals to sell much of its planned electricity output to two large utilities.

Then prices plunged for power generated by competing energy sources like natural gas and traditional photovoltaic solar panels. Government subsidies dried up. And investors who once clamored to get a piece of any clean-energy company started shunning all of them.

"The continued market and economic volatility are not optimal conditions for an I.P.O.," John Woolard, BrightSource's chief executive, said in a prepared statement announcing the withdrawal of the stock offering.

In part, the company's I.P.O. troubles show the limits of investor faith in the kinds of large-scale solar power projects that BrightSource develops, analysts say. The projects often pose environmental challenges, need new infrastructure and take up acres of land, and they require enormous investments before generating revenue, posing large risks for developers.

But BrightSource is also emblematic of the dark clouds that have settled over the solar market, analysts and industry executives say. Despite a vast increase in the installation of solar panels in the United States and the rollout of new utility-scale plants, profits are scarce.

As a result, the stock prices of even leading companies are down sharply. Shares of First Solar, for example, are down 93 percent from their 2008 high, closing at \$22 on Thursday. Shares of Suntech have dropped 96 percent from their 2007 peak, closing at \$2.80 on Thursday. The I.P.O.'s of two alternative energy companies have run into trouble, and the American subsidiaries of Solar Millennium, a German solar thermal power company that is in insolvency proceedings, recently filed for bankruptcy protection.

"It's an election year, there's policy risk, these stocks have been serial underperformers" said Chris Kettenmann, an analyst at Miller Tabak. "The industry pulse that we are hearing is accelerated consolidation."

And it may get worse before it gets better.

A glut in solar panels has driven down prices, and the oversupply may take a while to clear, according to industry executives. At the same time, some European countries are cutting subsidies, which could weaken demand, while in the United States, natural gas prices are at about \$2 per million British thermal units, the lowest price in more than a decade, making gas-fired plants more attractive.

Andrew Beebe, chief commercial officer of Suntech, one of the largest Chinese suppliers of solar panels, said that at current natural gas prices, "we're really not competitive."

In some ways, the industry is reeling from the aftershocks of its own success. The combination of subsidies and government requirements to buy green power created fast-growing markets in the United States and abroad that analysts now say are undergoing a correction, reflected in Wall Street's lack of enthusiasm.

"For solar stocks, things are bad; for solar, things are good," Mr. Beebe said. "The thing that's causing the disconnect is that it was too hot for a while. Solar was too exciting. So many companies came in that there was a greater supply than there is demand."

For BrightSource the problem may be more complicated. The company, which sought to raise about \$152 million by selling 6.9 million shares for \$21 to \$23 each, does not use photovoltaic panels but thousands of computer-guided mirrors to concentrate the sun's heat on a water tower to produce steam that is then used to make electricity.

The technology works only at a large scale and in very sunny places, making it harder to compete with the simpler photovoltaic systems, which generate electricity directly from sunlight. The prices of photovoltaic systems have plummeted in recent years as solar plants in China achieved large economies of scale and benefited from what the Commerce Department found were illegal export subsidies from the Chinese government.

The projects that BrightSource has lined up, which include one to help Chevron extract more petroleum from an [oil](#) field, still appear to be on track. But competition for new business is getting tougher.

"The risk for BrightSource is that they have a hard time building a new pipeline" of projects, said Shayle Kann, managing director for solar at GTM Research. "BrightSource's technology is relatively competitive. But P.V. is generally considered to be a more established and mature technology, so they really have to win on economics, not just compete."

Although there were signs that the overall stock market was becoming more encouraging for I.P.O.'s, stocks had some of their biggest declines of the year just before BrightSource's planned offering.

"We withdrew because the market conditions weren't attractive to us at this time," Mr. Woolard, the company's chief executive, said through a spokesman. "We're in a strong financial position and we have the support of world-class investors and partners."

Mr. Woolard and other officials declined to discuss whether BrightSource would now pursue alternative ways of raising funds. It was unclear whether BrightSource would continue with plans for a private sale of about \$75 million in stock to Alstom Power, an existing investor, and Caithness Development, that was supposed to occur along with the I.P.O.

David Crane, chief executive of NRG, which is an investor in the BrightSource's Ivanpah project, said there is still demand for solar thermal technology, which generates electricity more smoothly than photovoltaic and easily integrates with storage systems, allowing utilities to better manage the intermittent energy from sunlight.

"Depending on how strong the grid is, some utilities are extremely wary about making their system too dependent on solar P.V.," Mr. Crane said in an interview. "The minute a cloud comes over, solar P.V. comes down."

NRG has invested in both solar thermal and photovoltaic plants.

Mr. Crane said he was confident that the 392-megawatt Ivanpah project would go forward, although the prices negotiated for the electricity on that deal were higher than what producers can generally get now.