



Congratulations to Oakland's BrightSource Energy Inc. for winning the largest federal loan guarantee for a renewable energy project thus far — \$1.37 billion for the [Ivanpah](#) Solar Electric Generating System, to be constructed in the Mojave Desert. For an observer like me — one who is most definitely not a financial markets expert — the [U.S. Department of Energy's decision](#) to back the Ivanpah project leaves unanswered questions.

Is this the best way for DOE to promote its twin goals of encouraging renewable energy growth and creating jobs? Ivanpah would use mirrors to focus sunlight on central towers that would collect heat to boil water, which in turn would push a turbine to generate electricity. Although BrightSource offers technological enhancements that should make the process more efficient, the basic technology that has been used in the Mojave Desert for decades. And according to DOE, the project would create 1,000 temporary construction jobs and 86 permanent positions. Is that a promising return on a \$1.37 billion endorsement?

More than anything else, government loan guarantees can compensate for what otherwise might appear to be unacceptable investment risk. With several others where the [no guarantor needed](#), DOE has advanced the manufacture of new promising technologies that hold out the hope of accelerating innovation and multiplying new job opportunities down the road. Backing the Ivanpah project may speed the completion of one out of many central station solar thermal projects, but does it offer these other benefits?

The biggest question of all relates to the implication that an Ivanpah can't get the financing it needs without federal guarantees. That may well be the case. But if this project can't attract financial backing, then what renewable energy project can? Beyond the fact that central-collector solar thermal technologies have been time-tested, this project comes about as close as possible to having a guaranteed revenue stream to support investors. If it can break ground in 2010, BrightSource would qualify to recapture 30% of the investment in the form of federal grants (in lieu of investment tax credits). In addition, BrightSource has contracts with the Pacific Gas and Electric Company and the Southern California Edison

Company which are committed to pay for the project's output. Because of the utilities' ongoing renewable energy obligations, there will be a market for the project's generated power for a long time to come.

Investors will always argue that there is some uncertainty in markets that are dependent on the support of regulators. There is nothing to suggest, however, that renewable energy purchase requirements will ever go away. To the contrary the California Legislature and the Governor are working to make them even more ambitious. The most significant remaining risk appears to be related to the performance of the project. If there are unexpected equipment failures, output may suffer, and project proponents may need to make additional investments. But what investment in production facilities does not carry this kind of risk? Does the granting of loan guarantees to Ivanpah suggest that no new renewable energy project can raise needed capital on its own?

The answers to these questions become important when one considers the cutting-edge new technologies that won't have access in the near-term to the \$1.37 billion in guarantees directed to Ivanpah. If only it were as easy to answer as it is to ask.