America's Clean Energy Future: Smart from the Start

Solana Generating Station Project, Maricopa County, Arizona

The Solana Generating Station Project is smart from the start

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An alfalfa farm on the proposed Solana site

Bathed in sunlight almost all year round, Arizona may soon become a beacon for the nation on how to develop environmentally responsible renewable energy.

While the Arizona division of the U.S. Bureau of Land Management is drafting a plan to revitalize the state's brownfields (lands previously disturbed by other uses) with renewable energy, developer Abengoa Solar is working to convert old agricultural lands into a source of clean, solar energy for its proposed Solana facility.

The proposed Solana Generating Station is sited just 70 miles southwest of Arizona's largest city, Phoenix, close to highway I-8, and nearby existing energy-infrastructure. When completed in either 2011 or 2012, Solana could power up to 70,000 homes, even into the night – thanks to a high-tech molten-salt storage system capable of trapping heat in the day for evening use.

If approved, the Solana project, backed by $1.45 billion in loan guarantees through the American Recovery and Reinvestment Act, could be up and running by the end of next year.

Solana will consume around 75 percent less water than is already being tapped today for agriculture, which should come as good news to water-conscious residents and desert wildlife.

Fast Facts

Energy output: 280 megawatts

Technology: Solar thermal

Water use: Approx. 3,000 acre-feet per year

Site footprint: Approx. 1,900 acres, private lands

Developer: Abengoa Solar

Wildlife impact: Low

Project status: Environmental review completed

Fast-track: No

What is smart from the start? Renewable energy projects should…

- Be subject to a comprehensive environmental review based on thorough analyses of the direct, indirect and cumulative impacts of proposed projects
- Be built near cities, big energy users and existing transmission lines
- Be sited on disturbed and/or degraded lands (such as brownfields, former industrial sites, defunct mines, abandoned agricultural lands), or on places of low resource value
- Avoid wilderness quality lands, sensitive wildlife habitat and important natural and cultural resources
- Mitigate any impacts on wildlife and natural resources by protecting or restoring similar habitat and ecosystems