

# State Sets Out to Capture Clean-Tech Investment

*Calif.'s renewable energy industry, agencies look to stimulus funds*

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Carey, a partner at PricewaterhouseCoopers in Silicon Valley.

California and its cities are jockeying for a spot in the race to access billions of dollars for renewable energy and other clean technology as venture capital investment declines, though it remains to be seen if local and state government efforts to promote the cleantech industry will push the state into a leading position.

The American Recovery and Reinvestment Act signed by President Obama in February provides \$83 billion for cleantech businesses, according to **PricewaterhouseCoopers**.

Clean-tech companies could benefit from \$12 billion in energy-efficiency grants and investments in government buildings and subsidized housing, \$5 billion for home weatherization, \$6 billion in loan guarantees and tax credits for renewable energy, \$7.2 billion in loan guarantees and grants for water treatment systems, \$11 billion for more efficient electricity transmission, \$21 billion in various tax incentives, \$3.4 billion for carbon capture research, and \$2 billion to research and develop electric cars.

Those funds and earlier Department of Energy programs will boost clean-tech investment in California, predicted Tim

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Carey said the loan guarantee program for renewable energy production from the DOE is the most important initiative.

"The hope is that it will be used for companies with capital intensive business models that have been looking for financing that hasn't been available," he said. "You will generally see that used more for companies that are in an expansion phase — they're looking to build their first production line or expand a production line."

In March, Fremont-based Solyndra Inc., which designs and manufactures solar panels and mounting hardware for commercial rooftops, was the first company to receive an offer for a loan guarantee from the DOE under Title XVII of the Energy Policy Act of 2005, a program expanded by this year's economic stimulus package.

Solyndra will use the proceeds from a \$535 million loan from the U.S. Department of the Treasury's Federal Financing Bank, backed by the Department of Energy, to expand its solar panel manufacturing capacity in California.

The company estimates that its second manufacturing plant will provide 3,000 construction jobs and produce more than 1,000 jobs to operate the facility with hundreds of additional jobs for people who will install Solyndra's systems on commercial, industrial and institutional rooftops.

## Venture Capital Decline

Such investments by the government could make up, at least in part, for declining venture capital investment.

As first-quarter 2009 numbers were collected in early April, it appeared that venture



capital investment in clean-tech companies was down 70 percent to 80 percent from the previous quarter, Carey said.

Venture capital investments in all industries in 2008 totaled \$28.3 billion, down 8 percent from 2007, but venture capital invested in clean tech increased 50 percent last year, according to the MoneyTree Report by PricewaterhouseCoopers and the National Venture Capital Association, based on data from **Thomson Reuters**.

However, while clean-tech investment increased from \$2.7 billion in 238 deals in 2007 to \$4.1 billion in 277 deals in 2008, the \$909 million in venture capital for clean tech in the fourth quarter was down 14 percent from \$1.1 billion in the third quarter.

Arno Harris, chief executive officer of San Francisco-based Recurrent Energy, said his company's recent purchase of a 350-megawatt solar project pipeline in the United States and Canada from Chicago-based UPC Solar reflects what's going on in the solar industry.

"Since last fall we have seen a trend since the financial crisis hit where other developers have found it difficult to keep their business going," Harris said.

Recurrent announced a partnership with an investment group last year to invest private equity dollars in renewable-energy projects and that venture remains in place despite the credit crunch. Hudson Clean Energy Partners committed an initial investment of \$75 million to Recurrent last year to expand its existing services for commercial and public building owners and for utilities.

Harris said Recurrent is doing some hiring now, but the projects acquired from UPC Solar included the employees that already were working on them. Where Recurrent is primarily looking to add employees is on its development and finance teams.

"Getting projects financed and under construction is going slowly right now," Harris said. "We're running as fast as we can to develop our pipeline and get it in the shovel-ready stage so that when the capital markets turn around we're ready to move forward on a big scale."

Recurrent supported the economic stimulus plan as it came forward and the company was happy with its final form, particularly the opportunities to replace renewable-energy tax credits with grants and to receive loan guarantees from the DOE. Harris said it likely will be the second half of next year by the time the loan guarantee program is finalized so that banks are comfortable lending

against it.

Buddy Arnheim, partner in the Menlo Park office of **Perkins Coie LLP**, said clean-tech companies will benefit from funding in the stimulus package, but it will take time for those funds to be distributed.

Arnheim works with emerging companies and the venture capital funds that invest in them with a focus on clean tech in general and water-related businesses in particular, including desalination of ocean water, low-cost water purification and water reclamation.

"Each of those segments are in different stages of their life," Arnheim said. "Desalination has been around for a long time. Because of the expense of the facilities and the time to build, there is quite a bit of potential innovation."

Companies that are pursuing water-related clean tech are gaining some traction in getting funding and selling their technologies, but he expects investor interest to increase in California as more water utilities discuss conservation and water rationing.

Arnheim said clean-tech companies are anxious to find out how money from the stimulus package will impact their industries, but it is not clear yet how funds will be distributed, especially for early-stage companies.

"It's really exciting that the [Obama] administration has come out with a stronger focus on increasing our clean-tech investments," he said. "We're expecting to see that money flow and become accessible later this year."

### Job Creation

San Diego-based Advanced Telemetry produces technology that allows homeowners and commercial landlords to view real-time information on how much electricity their properties are using and immediately correct excessive energy use.

Gus Ezcurra, chief executive officer of Advanced Telemetry, said his company could see a boost from money in the stimulus pack-

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age for home and commercial building owners that install equipment that improves their properties' energy efficiency. Federal rebates could be combined with state-funded rebate programs to make technology such as Advanced Telemetry's EcoView line of products more attractive to customers.

Advanced Telemetry also is looking into whether it could benefit from funds for research and development and for job training.

"Our first initiative is to get our customers

to look into [rebate money] and apply for the funds," Ezcurra said. "Then we will look into funds for hiring workers and retraining them."

Advanced Telemetry has about 20 employees, but Ezcurra expects to nearly double that number by the middle of this summer.

According to the Political Economy Research Institute at the University of Massachusetts, Amherst, investment in renewable energy and energy efficiency will create roughly three times more jobs than an equal investment in the oil, natural gas and coal industries.

As derived from U.S. Department of Commerce data, PERI found that \$1 million invested 70 percent in energy efficiency and 30 percent in renewable-energy sources would produce 17 jobs versus five jobs created by a \$1 million investment in fossil fuel industries.

California's Green Collar Jobs Act that was signed into law by Gov. Arnold Schwarzenegger on Sept. 26 established the Green Collar Jobs Council under the purview of the California Workforce Investment Board.

The Green Collar Jobs Council will analyze the workforce needs of the state's clean-tech industries and develop a comprehensive strategy to prepare California's workforce to meet those needs.

"As we continue to navigate California's economic recovery, we want to make sure our businesses and residents are ready to compete for new markets and changing jobs," Schwarzenegger said last year.

### Hot Spots

As in the biotech and high-tech industries, clean tech also is attracted to cities like San Diego and Boston because of access to venture capital investors as well as universities and research institutions.

The West Coast hot spots for clean tech are the Bay Area, Orange County, San Diego, Seattle and Portland, Ore., according to Matt Ellis, an associate in the San Diego office of **CB Richard Ellis** and West Coast leader of the firm's Clean Technology Group

"Because of its overall size base, the [San Francisco] Bay Area is far and away the leader and everyone is chasing their tail," Ellis said.

Marty Morici, senior vice president at **Colliers International** in San Jose, said there has been a lot of growth among clean-tech companies in Silicon Valley, from Solyndra's \$535 million loan guarantee to work that was

under way prior to the economic stimulus package by electric car companies, such as San Carlos-based Tesla Motors and Irvine-based Fisker Automotive.

In San Diego, clean tech firms are often so small that many literally are operating from their garages at home or small office or industrial suites.

"There are some that have been around for five or 10 years and they have 50,000 square feet of flex research-and-development space in North County, but we're not seeing any real office absorption," Ellis said. "We don't have a lot of very mature clean-tech companies here."

Northern California has more mature clean-tech companies because there are enough land sites and large facilities to handle major research and production facilities and because many jurisdictions have incentives for companies that design and manufacture green products.

"The Bay Area is good at incentives," Ellis said. "Clean-tech companies want to see labor incentives for hiring, easy permit access, real dollar tax credits and a fast track for permitting."

The **Green Valley Initiative**, a business and economic development group focused on attracting green and clean-tech companies to the Inland Empire, has seen a lot of interest in the federal economic stimulus funds from companies involved in solar energy and related industries, according to Daniel Cozad, president of **Integrated Planning and Management Inc.** and a project director with **GVI**.

"It could be a new breath of life into some of the financing deals that couldn't be done before," Cozad said.

There also are smaller solar and energy-efficiency companies in the Inland Empire that are targeting residential customers that expect to see more work and hire additional employees.

The **Community Redevelopment Agency** of the City of Los Angeles has been working on a clean-tech sector strategy for a year and a half. **CRA/LA** has a 20-acre site near downtown Los Angeles at Santa Fe Avenue and 15th Street that it is marketing as a clean-tech campus. The agency soon will seek proposals from developers and clean-tech companies for the site.

Cecilia Estolano, chief executive officer of **CRA/LA**, said the agency is in negotiations with **Ansaldo Breda**, an Italian rail car manufacturer that has an agreement to produce rail

cars for the Metropolitan Transit Authority in Los Angeles and is bidding on the opportunity to build 50 to 100 additional cars.

"It could be a huge win for the city in terms of the number of clean jobs and green jobs; it's a great use for the site," Estolano said. "We think they'd be able to bring 500 to 600 very well-paying jobs to the location."

A major manufacturer also could attract suppliers that want to locate their production facilities next to one of their biggest customers.

The agency is a member of **CleanTech Los Angeles**, a group of public agencies, universities, businesses and venture capitalists marketing Los Angeles as a clean-tech hub.

CRA/LA hopes to use Community Development Block Grant funds from the stimulus package meant for energy-efficiency projects and Economic Development Administration funds from the Department of Commerce to boost the city's sector.

"We have been promoting this vision a year or two ahead of these [economic] recovery plans," Estolano said. "We could certainly use resources to help accelerate this sector."

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California Gov. Arnold Schwarzenegger examines the final solar panel modules on the roof of Staples Center's roof in Los Angeles on Tuesday, Oct. 28, 2008. The roof is now covered by approximately 24,196-square-feet of 1,727 solar panel modules.

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