

Solar jobs rising in Oregon

by Richard Read, The Oregonian

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At least three big solar companies are considering Oregon for manufacturing plants that, along with the unannounced expansion of an existing project, could provide thousands of family-wage jobs.

The Oregonian has uncovered expansion plans and potential plants that would build the state into something of a Solar Forest, capitalizing on Oregon's expertise in silicon, an ingredient of both solar cells and semiconductors.

Government and business brokers of the potential deals -- including Gov. Ted Kulongoski, who recently hinted at imminent news -- refuse to name companies.

Recruiters use cloak-and-dagger terms in discussing the solar manufacturers eyeing Oregon: Project Ark. Project Harvester. And an especially big one, Project Tahoe.

They know that all could slip through their fingers. Oregon narrowly missed another deal, dubbed Project Apricus, that could have brought the world's largest solar complex, with 3,000 jobs, to Hillsboro.

SOLAR MANUFACTURING IN OREGON:

Solar manufacturing	Company/headquarters	Products	Investment	Jobs
Highlights of manufacturing projects in Oregon already under way in the solar-energy industry: 	Peak Sun Silicon Corp. Millersburg Starts: 2008	Polysilicon, other solar chemicals	\$700 million	500 by 2012
	PV Powered Inc. Bend Started: 2004	Inverters	Undisclosed	65, expanding to 100+
	Solaicx Inc. Santa Clara, Calif. Started: 2007	Wafers and ingots	\$76 million	180, at full capacity
	SolarWorld Bonn, Germany Starts: 2008	Cells	\$400 million	350 initially, expanding to 2,000
	SpectraWatt Inc. Hillsboro Starts: 2009	Cells	\$50 million	135, initially, expanding to 1,000
	XsunX Inc. Aliso Viejo, Calif. Starts: 2009	Modules	\$45 million	160 by end of 2009

Sources: companies, Oregon Department of Energy

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Benjamin Brink, *The Oregonian* Dorina Cornea-Hasegan (left), instructor and department chair of microelectronics at the Rock Creek campus of Portland Community College, and students Dexter Yee (center) and Landon Bigelow work in the school's microelectronics lab. On Thursday, 18 out of 20 students in the class will interview for jobs at Hillsboro's SolarWorld.

SpectraWatt, an Intel spin-off about to break ground for a plant to make solar cells in Hillsboro, initially announced it would employ 135. Now, the company reveals a second phase - - there, or outside Oregon, depending partly on tax incentives -- that would boost its work force to about 1,000.

Out-of-state companies are considering Oregon for factories half again as big as the largest U.S. solar plant, which SolarWorld is completing in Hillsboro. A solar company -- clues point to a division of Japan's Sanyo Electric Group -- is also negotiating to build a plant in Salem, according to sources close to the project. Economic development officials won't discuss any of the potential projects, citing confidentiality agreements and the possibility that publicity would scare off the companies. "I'm not talking," said Bruce Laird, a state investment recruiter. "But if we can keep this thing rolling, I think in two years people are going to be quite amazed."

State officials face stiff competition from other regions and countries. Yet as the state's economy teeters on recession, they hope to build Oregon into a hub for companies attracted by experienced silicon workers, relatively cheap power, green values and substantial tax breaks.

Toward that end last week, officials and corporate representatives collaborating to recruit solar companies donned blue shirts emblazoned with Oregon sunbursts to buttonhole executives at a San Francisco trade show. Team members will head to Valencia, Spain, in September to make more contacts. Many of the big solar players are based in Europe and Asia.

Team member Larry Pederson, Hillsboro economic development director, said Monday that "more than one" company is considering Oregon for a plant of about 750,000 square feet. That's substantially larger than the 480,000-square-foot, \$400 million plant that Germany's SolarWorld is converting from a Hillsboro semiconductor plant that never opened. SolarWorld plans to hire 350 workers initially, expanding to about 2,000.

Pederson and other officials would not comment on projects Tahoe and Harvester. But Pederson said Project Ark referred to a solar-cell manufacturer.

"It is a name everyone will recognize," Pederson said. "And then I'm not going to tell you any more."

Project Ark was the code name for the solar division of Sanyo when the company considered Millersburg earlier this year for a manufacturing site, said John Pascone, president of the [Albany-Millersburg Economic Development Corp.](#) Sanyo was considering building a plant of between 25,000 and 39,000 square feet to employ perhaps 30 to 50 people, said Pascone, who believes Sanyo passed up his area for Salem.

An unidentified solar company is negotiating with the city of Salem and with [Sedcor](#), an economic development organization for Marion and Polk counties, over the so-called Gaffin Road site off Oregon 22 east of central Salem, said Alex Rhoten, a Sedcor board member and commercial broker.

"I know Salem and Sedcor have worked very hard to land them in terms of concessions and opportunities," Rhoten said.

Salem Mayor Janet Taylor said she had heard of Sanyo Solar but would neither confirm nor deny that it was the company negotiating with the city. But Ray Burstedt, Sedcor president, said he'd never heard of Sanyo and had "no idea" what Project Ark meant.

Nathan Buehler, [Oregon Economic and Community Development Department](#) marketing manager, urged The Oregonian to withhold company names, saying publication could prompt firms to back out.

Asked whether Sanyo was considering an Oregon site, company spokesman Aaron Fowles in Tokyo said: "Sanyo is always looking at opportunities to expand. Nothing has been officially decided at this time."

In Japan, Sanyo executives take pride in a 1,000-foot-wide ark-shaped array of solar panels, called Solar Ark.

Kulongoski met with Sanyo Clean Energy Co. executives in Tokyo in June 2006. Shortly before then, a Sedcor official said at the time, Sanyo had backed out of an "offer of interest" on a former semiconductor wafer plant in Salem.

Anna Richter Taylor, a spokeswoman for the governor, declined comment Monday on companies considering the state.

"The governor talks to a lot of companies and has an aggressive effort to recruit solar-manufacturing and other renewable-energy companies to Oregon," Taylor said. "Not only is the (solar) product beneficial to the state, but there are thousands of good family-wage jobs in a sustainable industry, too."

A solar-factory line worker can earn in the mid or upper \$40,000-\$50,000 range, plus benefits, Buehler estimated. A 2006 study placed the average solar-industry salary at \$59,149, when construction workers and professional and technical employees were included, he said.

Oregon already has a cluster of solar manufacturing companies, ranging from Millersburg's Peak Sun Silicon Corp., which will make ingredients for cells, to XsunX Inc., which will make solar panels in Wood Village.

Andrew Wilson, SpectraWatt's chief executive, said the startup, which will break ground shortly for a 65,000-square-foot plant, plans to build a second factory within two or three years that will be five to eight times larger. The expansion would increase SpectraWatt's work force from 135 to around 1,000 within eight years as the company aims to supply about 5 percent of the world's solar cells, Wilson said.

"We have the land here in Oregon to do it," said Wilson, noting the first plant will occupy about 6 acres of a 21-acre site. But SpectraWatt could decide to site its second plant elsewhere, he said, depending on tax incentives and other factors.

Oregon offers state tax credits to renewable-energy companies in a program that legislators recently expanded. So far, solar companies have received preliminary certification for credits totaling almost \$39 million over five years, according to the Oregon Department of Energy.

Oregon offered another tax-incentive package during the 1990s to attract semiconductor plants. Critics of tax-break development point out that some of those operators have since moved elsewhere.

The incentives aren't always enough. Hillsboro's Pederson disclosed Monday that he and others scrambled about a year ago to attract Norway's Renewable Energy Corp. in an effort code-named Project Apricus.

"It was a huge project," Pederson said, "like 300 acres."

Pederson believes REC, which makes solar polysilicon in Moses Lake, Wash., eliminated all U.S. sites, except Hillsboro. In October, REC announced Singapore as the location for the complex, which will make wafers, cells and panels.

REC's likely total investment there within five years: more than \$4.7 billion, creating about 3,000 jobs.

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