

Approaching abundance

business

Abound Solar flips the switch on an initial CdTe module line at its new 200 MW facility and seeks a federal loan guarantee for further expansion

Text: Garrett Hering

The dictionary definition of the word «abound» is to be present in great quantity or to be copiously supplied. Presently, Fort Collins, Colorado-headquartered thin-film PV module start-up Abound Solar Inc. is neither. But that may soon change.

A spin-off of Colorado State University founded in 2007 as AVA Solar, the privately owned venture-backed start-up re-branded itself as Abound Solar in March »to demonstrate the company's commitment to providing an abundance of low-cost solar panels to solar integrators around the globe,« according to its official explanation. But Pascal Noronha, Abound's president and CEO, admits, »We got tired of answering questions about what the acronym AVA stands for« – which is Air Vacuum Air, in reference to the company's process for making its cadmium telluride (CdTe) modules (see PI 1/2009, p. 128).

The real indication that Abound may be on the verge of living up to its new name came a month after its re-branding, when the company celebrated the opening of its first volume manufacturing facility about 20 miles north of Denver in Longmont, Colorado. »It was a much bigger day than I expected,« Noronha told PHOTON International following the ceremony on April 14, which featured remarks by Colorado Gov. Bill Ritter, environmentalist Robert F. Kennedy, Jr., German parliamentarian Hermann Scheer, and Dan Arvizu, director of the National Renewable Energy Laboratory (NREL) in Golden, Colorado, among others.

The company's big-name backers heralded Abound and its new factory as centerpieces of the state's emerging renewable energy economy. »Abound Solar is a true Colorado story,« said Gov. Ritter at the event, adding, »This solar company developed much of its technology at Colorado State University, secured early-stage funding from NREL and the Department of

Energy, and now is locally manufacturing the energy technologies to power our future.«

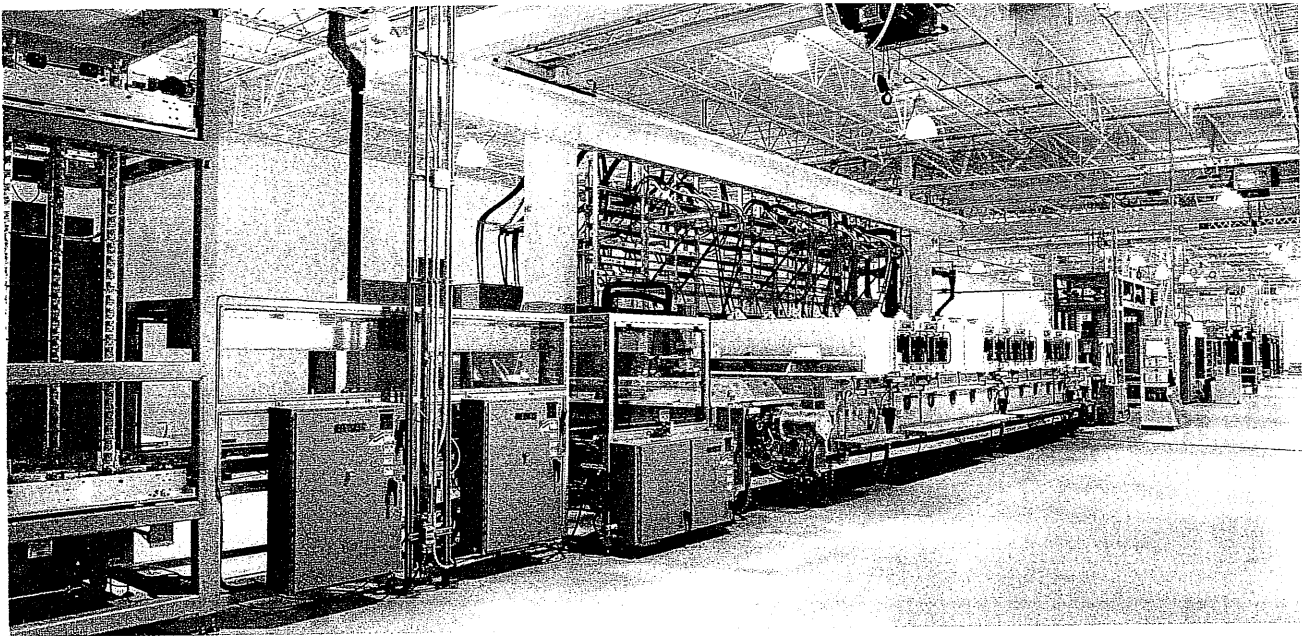
Supported by \$150 million in venture capital and federal research funding, Abound has continued its hiring spree as many other young solar companies have paced growth slowly, downsized or even closed shop amid the worsening recession (see PI 2/2009, p. 70). »Launching has not been a problem for us,« says Noronha, even with the recent financial upheavals. Following 15 years of technology development at Colorado State, the company expanded its workforce from about 25 in late 2007 to 140 by December 2008 and to about 200 by the plant opening in April. Noronha expects to add up to 300 new employees by the time the factory is scheduled to hit full stride in the first quarter of 2010 with an annual production capacity of 200 MW.

Already, Abound's initial 65 MW line is completely installed, but the company is producing its frameless 60 x 120 cm panels in low volume as its engineers work out the kinks. The line should reach full capacity by the end of July, according to Abound's CEO. »We are bringing on line the first unit carefully and slowly.« The second line is scheduled to be installed and in operation by the fourth quarter, when Abound expects to be »cash flow positive,« says Noronha, with the company's first sales to large undisclosed customers in Europe. »The first batch is already sold out,« he adds. But before large-scale shipments start, the company wants to obtain UL and IEC product certifications. Noronha anticipates receiving both »in a couple of months.«

Noronha believes Abound's first line will achieve a manufacturing cost of »about \$1 per W« this summer. But the company says it can reduce module production cost to under \$1 per W at the factory – an industry milestone that has only been reached by CdTe-competitor First Solar Inc., which is currently the world's lowest-cost – and second-largest – PV producer. Once

o Highlights

- AVA Solar re-brands itself as Abound Solar Inc. and opens its first full-scale factory in Longmont, Colorado
- Initial 65 MW line is fully installed and ramping up production
- The company expects to reach 200 MW of production capacity in the first quarter of 2010 and is seeking a federal loan guarantee for larger, second factory
- Goals of greater than 10-percent sunlight conversion efficiency and less than \$1 per W production cost appear on track



the factory is in full production next year, Noronha expects Abound's manufacturing costs to dip under 90¢ per W.

The sunlight conversion efficiency of the first panels to come out of its initial line are »about 10 percent,« according to Noronha, adding, »We have some headroom on efficiency.« He anticipates Abound will reach 12 percent in less than 2 years and eventually 14 percent.

Should its initial factory ramp and product roll-out run as smoothly as the company hopes, Abound may soon be as abundant as its new name implies. In fact, according to Noronha, without disclosing the precise details, the company in late February applied for a federal loan guarantee for several hundred million to expand its new factory and begin construction on a larger follow-up facility.



▲ First line: Abound's initial 65 MW line is completely installed. The CdTe module company plans to increase capacity to 200 MW in the first quarter of 2010.

▲ Pascal Noronha, president and CEO of Abound Solar, tours with Hermann Scheer; and Dan Arvizu, director of the US National Renewable Energy Lab through the new factory.



With The Power of The Sun

