

SHADES OF GREEN EMERGE

Rise of alternative energy industry could mark major shift in valley

By Jesse Nance

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TREASURE VALLEY — Although still in its infancy, officials believe the emerging alternative energy industry has the potential to rejuvenate an economic landscape still reeling from a battered local high-tech industry.

Micron, hit by rounds of layoffs and 11 straight quarterly losses, last week announced plans to manufacture LED lighting technology through funds provided by the federal stimulus package. And the dormant MPC Computers plant in Nampa has been scoped out recently by a German solar-panel manufacturer that officials say could soon announce plans to locate there.

All of this coincides with the emergence of several high-tech "green" startups in the Boise area that have grown exponentially in recent years with entrepreneurial talent built up locally over the decades at Micron, Microsoft and Hewlett-Packard. And the local market for residential alternative energy systems that convert power from solar, geothermal and wind sources continues to grow steadily in the metro area, fueling growth in that budding industry.



Photos by Charlie Litchfield/IPT

Jerid Hayward, mechanical engineer with Inovus Solar, gathers data from one of the company's off-grid solar street lights, or SmartPole, on Thursday afternoon in southwest Boise.



Valley industry primed for 'green' revolution

Local officials say the valley is now primed to tie itself to the emerging "green" revolution.

"We're very optimistic that this is going to be a very good growth industry in the future, and the fact that we are very well-positioned is evidenced by companies coming in and taking a look and short-listing us in their efforts," Paul Hiller, director of the Boise Valley Economic Partnership, said.

Hiller cites two major solar-manufacturing companies expected to soon announce whether they will set up shop in the valley. One — a Fortune 100 company that is looking to build its own solar manufacturing site — has scoped out sites in Canyon and Ada counties that are on its short-list of four potential locations. And the German solar-manufacturing company that has expressed interest in setting up shop at the former MPC plant in Nampa could mean hundreds of jobs, Hiller said.

Hiller said his organization has traveled with Micron officials to partake in talks with international consulting firm Deloitte on attracting alternative energy opportunities.

"Micron went along with us on the road to sit down and talk with those folks and explain to them why we have the labor force that is trained in very similar technology at Micron, and that we also have extremely competitive electricity rates compared to other parts of the country, which is a big factor," Hiller said.

Micron spokesman Dan Francisco declined to discuss any specific opportunities in the alternative energy industry, but does not rule out future options in solar or other manufacturing.

"From the standpoint that Micron has semiconductor expertise, that pairs itself well to what we call system-level technologies, and that's where LED research came about," Francisco said. "And there could be other system-level solutions in our future."

Hiller conceded there are some drawbacks for large alternative energy system manufacturing in the valley. Namely, the lack of proximity to prime residential markets for such technology, in places like California or the Southwest, would mean higher shipping costs for manufacturers.

Local economists remain skeptical about the industry's potential impact on the area economy, saying it's too early to tell at this point.

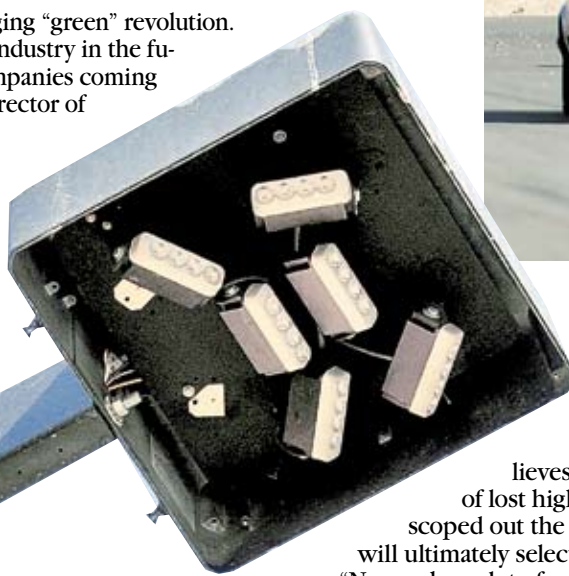
"It's what you would call an infant industry ... I don't even know if it's really born yet," Don Holley, an economist at Boise State University, said. "Nothing has happened yet to demonstrate that alternative energy is really a viable alternative. But if they're successful it could be a boon to the valley. There's just no information out there to indicate that this is where it's headed."

The Idaho Department of Labor does not have any statistics on that industry or its current impact on the economy, but has recently applied for a grant to create the method for determining that data. Still, labor officials agree the economy is at a major crossroads.

"The only thing that all of us here at the Labor Department agree on is that this recession means that some kind of structural shift in the economy is occurring, but nobody really knows what that is," spokesman Bob Fick said. "It would appear that when this thing is over, Idaho's economy and possibly the economy of the entire country will look a lot different from what it was in 2006."

Above: The SmartPole, pictured at top right and above, is a fully off-grid solar street light that is being installed as an alternative to the more conventional high pressure sodium lamps which are found in most street lights.

Below: Clay Young, CEO of Inovus Solar, stands at a work bench near an illuminated LED street light module at the Inovus Solar office.



With loss of MPC, Nampa ready for 'green' industry

Cliff Long, Nampa's economic development director, believes the pieces are in place for that industry to shore up thousands of lost high-tech jobs. A number of alternative energy companies have scoped out the Nampa area this year, and Long is optimistic that one of them will ultimately select a local site to set up shop.

"Nampa has a lot of assets for the alternative energy industry, particularly in manufacturing," Long said. "We have a high-skilled, available workforce that has experience in high-tech manufacturing. Obviously, the recession has taken its toll on our high-tech manufacturing workforce the last couple of years, particularly on the computer and semi-conductor industries."

MPC Computers, formerly the city's largest private employer, shuttered its doors for good early this year, contributing to a county-wide unemployment rate that stood near 11 percent in September.

In Canyon County

Canyon County Commissioner Steve Rule said the county will need to tap additional energy resources to fuel any significant future growth in the commercial sector.

"From a commercial standpoint, in order to have the growth we would like to see in the Treasure Valley, we need more power," Rule said. "You need to have more energy from an industrial standpoint, and all I know is

we're getting near the limit."

In Canyon County, officials have discussed tapping into wind energy at the Pickles Butte landfill. Rule said any such project is at least more than a year away.

"We'd have to do study to monitor wind generation for 12 months," Rule said. "And I haven't had any conversations with anyone about solar, but I really think that should be a priority for the county ... and as each year passes it becomes more and more of a priority for our state."

Boise startup embodies 'green' entrepreneurial spirit

Founded in 2007 with talent from local high-tech companies, Inovus Solar embodies the local manifestation of the "green revolution."

The company seeks to remake traditional outdoor street and area lighting with its solar-powered SmartPole or LED retrofitting. The company estimates the world has about 200 million outdoor lights around the world producing an average of 10 tons of CO2 per light with costs amounting to billions of dollars each year in power to maintain. The company's signature SmartPole first hit the market at the end of last year.

"We essentially build typical street and area lighting that we've been using for years without grid infrastructure," President and CEO Clay Young, a Boise State graduate and former Hewlett-Packard employee, said. "It's completely self contained and autonomous, and looks just like any other light bulb, which gives us the ability to be accepted by standards committees and essentially produce what people want for outdoor lighting."

The company has grown exponentially since last year, getting its first order in Boise at the Winco distribution center.

Young — a co-founder of Boise software company ProClarity, which was sold to Microsoft in 2006 — said it was the toughest experience he's ever had raising enough capital to get the company rolling with the onset of the recession. The company's 22 employees are mostly ex-Micron, Microsoft and Hewlett-Packard employees. At the company's current growth rate, Young expects to double its number of staff in the next year. He believes idle talent from longstanding high-tech companies in the area will fuel future growth of companies like Inovus Solar in the Boise area.

Inovus Solar relocated to a new "green" high-tech business center at 300 S. 23rd St. in Boise. The company is the first to move into the complex, but expects to be joined soon by Trout Architects, which has a green focus from an architectural perspective.

'Green' incentives

Personal Income Tax Deduction

Section 63-3022C of the Idaho Statutes allows taxpayers an income tax deduction of 40 percent of the cost of a solar, wind or geothermal device used for heating or electricity generation. Taxpayers can apply this 40 percent deduction in the year in which the system is installed and can also deduct 20 percent of the cost for three years

thereafter. Total maximum deduction is \$20,000.

Sales Tax Exemption

Section 63-3622QQ of Idaho Code provides sales tax/use tax rebate for qualifying equipment and machinery used to generate electricity from fuel cells, low impact hydro, wind, geothermal resources, biomass, cogeneration, solar or landfill gas. Equipment must be used to develop a facility or project capable of generating not less than 25 kilowatts of electricity.



Energy types

■ **Bioenergy** - Derived from organic matter such as agricultural byproducts, forest residues and lawn clippings. It also includes methane gas collected from municipal solid waste landfills and wastewater treatment plants.

■ **Geothermal** - Created by the natural heat emanating from the earth. The most common applications in the state are direct uses such as crop drying, fish farming, agriculture and space heating.

■ **Solar** - Radiant energy that comes from the sun.

■ **Wind** - Windmills have provided power to pump water in Idaho for decades. Such recently, new technologies more as wind turbines and wind energy converters have begun to generate electricity in Idaho, and more are in development.