

Power to the People

Smart business minds are moving renewable energy discoveries from lab to market.



Designed by Reno resident Chris Gabrys, the Windspire can produce a third of a home's electricity needs.

PHOTO COURTESY MARIAH POWER

Solar, wind, biofuels: These resources are touted as the way of the future, but those who manage to harness their powers are often stymied by the bureaucratic web of patenting and funding inherent to bringing new products and services to market.

Yet, in the northeast corner of Lake Tahoe, an interconnected group of entrepreneurs is delving into the expanding fields of renewable resources, and bringing efficient new businesses to the mainstream.

THE SPARK

"When my wife and I moved up here from San Francisco, there wasn't any kind of organized network where budding entrepreneurs could come for funding," says retired executive and Incline resident Bob Goff. So in 1997, Goff founded the Sierra Angels, a group of investors based in Incline Village.

Angel investors step into shallow waters where venture capitalists don't yet swim. They support local entrepreneurs in a variety of fields—including green technologies—by providing capital and mentoring, and often bring their own experience to the table. Among the group's 50 members are fellow Incliners Ian Rogoff and Mike Hess.

About four years ago, Rogoff was alerted to the work of Reno resident Chris Gabrys. A Penn State University PhD grad, Gabrys had started several companies and even built his own solar car in college—though he says, "Ten years ago, it really wasn't the place to be getting financing."

This time, Gabrys was in the right spot at the right time. Rogoff met the engineer, who was then working out of his garage, at a coffee shop to discuss his project, a wind power appliance, but found the business strategy needed work. So Rogoff arranged for a meeting between Gabrys and Hess to prepare Gabrys for a presentation to the Sierra Angels.

"Mike and I sat down, and he said, 'This looks interesting, but your business plan sucks,'" says Gabrys. "I said, 'Well, why don't you rewrite it then?'" Not only did Hess retool the plan and create a stock package, he was named the company's CEO.

STARS ARE BORN

The business that emerged from those fortuitous meetings is Reno-based Mariah Power, which makes the Windspire, a small vertical-axis turbine with a built-in inverter that weighs about 600 pounds, retails for less than \$6,000 and is capable of producing about a third of the average home's electrical needs. But the outcome had an even further reach.

The successful meshing of scientist and entrepreneur led Rogoff, Goff and Incline engineer Atam Lalchandani to found the Nevada Institute for Renewable Energy Commercialization (NIREC), where they are currently trustees, in 2006. Housed in the Tahoe Center for Environmental Sciences—Sierra Nevada College's LEED platinum-certified facility—NIREC brings together leaders in science, business and

education with the goal of turning new green technologies into viable companies.

“What’s sorely lacking in academia is business acumen,” says NIREC CEO Christine Gulbranson. “Unfortunately, you have these great scientific discoveries that remain stuck in the laboratory.”

NIREC pairs scientists from the University of Nevada (both Reno and Las Vegas campuses), Desert Research Institute and UC Davis with “entrepreneurs in residence,” retired executives who work at NIREC to bring valuable business skills to scientists and their projects. “The entrepreneurs look at all aspects of the commercialization process,” Gulbranson says. “Such as, what market sector can this discovery be used in? And, is it commercially viable?”

The three-year-old institute just completed its first year distributing funds to three promising projects: One helps businesses and homeowners focus on the most cost-effective use of energy, another enhances heat transfer in steam condensation to improve effectiveness of geothermal power plants and a third involves producing fuel from the cellulose in trees and grasses.

OPPORTUNITIES ALIGN

“Back in 2003–04, few people were talking about renewable energy,” Rogoff says. “Getting funding was a challenging process.”

Rogoff knows something about that process. A few years back, he decided to put energy-efficiency theories to the test, adding solar panels to a commercial building he owned in Carson City. Energy consumption and costs went down, and the improved operating income increased the value of the building.

Rogoff, who’d been a Sierra Angel for about seven years, was convinced of a larger economic opportunity; in 2007, he and his partners won financial approval from the Angels and established the Incline Village-based HelioGroup, an umbrella corporation consisting of three stand-alone companies: solar integrator, energy management and renewable energy finance and development.

“If you look at the evolution of HelioGroup, it’s an interesting trajectory for alternative energy,” says Tom Millhoff, one of Rogoff’s partners, also an Incline resident. “It addresses the three greatest challenges: conservation and energy management; clean, zero feedstock energy production; and financing the solutions.”

For example, the Helio Micro Utility company in Berkeley develops, finances and oversees the implementation of solar systems for customers who simply pay for the electricity that the system produces, says Rogoff. Through this model, the customers are able to forgo the upfront cost of solar installation. The Tech Museum of Innovation, a client in San Jose, reports a ten percent savings on utility bills and is, more importantly, an educational tool to make solar energy a reality for visitors.

This web of minds, money and mentoring is putting northern Nevada on the renewable energy map: Hess was named the *Reno Gazette Journal’s* 2009 Entrepreneur of the Year, HelioGroup’s revenues grew 20 percent last year and *Popular Science* magazine distinguished the Windspire as the best new technology in its field in 2008.

Fortunately, what happens in Tahoe doesn’t stay in Tahoe. And if this mountaintop brain-trust of green energy entrepreneurs stays the course, they’ll be bringing affordable renewable energy to a rooftop or backyard near you, soon. **TQ**

Truckee resident Jackie Ginley has written for the San Francisco Chronicle, The Washington Post and the Associated Press.



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