

## **Green tech: Bigger than the Internet?**

Colorado at the forefront of renewable transformation

*By Kris Wiesenfeld & Kevin Geminiuc*

"Green tech could be the largest economic opportunity of the 21st century," said John Doerr, partner with Kleiner Perkins Caulfield & Byers, when he announced in 2006 that the company is raising a \$100 million "green tech" fund.

The VC giant behind Compaq, LSI, Sun Micro, Amazon.com, Google and Netscape said, along with other VCs, that green tech is going to be larger than the Internet in terms of investment and market potential.

Big concept. And until recently, unthinkable except by those few considered for decades to be 'on the fringe'.

Yet there are seismic shifts occurring in the worldwide public consciousness regarding the availability and pricing of current energy sources, and the impact of those sources on our future.

Whether driven by the belief in global warming, or peak oil and coal, or the desire for energy independence, the worldwide transformation from a fossil fuel-based economy to a renewable energy economy is the biggest single market in the history of mankind.

### **Other countries are doing it**

Denmark and Iceland have achieved this goal, Denmark through bountiful wind and Iceland by harnessing their abundant geothermal energy. Converting the rest of the world will take a mix of many new energy technologies.

The question for the U.S. is whether we will buy this technology from overseas, thus converting the cash-for-oil hemorrhage to a cash-for-green-tech hemorrhage, or can we create those green technologies here, sell them to the world and reverse the flow of that transfer of wealth.

### **Colorado at the forefront**

Colorado is answering that question with a strong assertion that we will develop those technologies. The state has a flourishing green tech community and the potential to become one of the preeminent green tech areas of the country, akin to Silicon Valley in the high-tech industry, and is already gaining note in the international community with investments from Spain, Denmark and Germany.

Colorado's potential to be at the forefront of the green tech boom is dependent on the four essential corner stones of a developing industry:

1. Technology development

2. Company formation and growth
3. Supportive legislative environment
4. Prepared workforce that grows as the industry does

### **Technology development**

Green tech innovations start as ideas; turning these ideas into technologies takes hard work and support. Fortunately, Colorado also has many entities fostering the development of green tech. These include our universities with individual programs such as the Energy Initiative at the University of Colorado, the Engines & Energy Conversion Laboratory at Colorado State University, and the Colorado Energy Research Institute at the Colorado School of Mines.

And, with the National Renewable Energy Laboratory in our backyard, working both independently and in collaboration with our universities in the form of the Colorado Renewable Energy Collaboratory, the state continues to push the green tech envelope.

### **Company formation and growth**

Once green tech is developed, it must be funded and incubated. Developing the business acumen of green tech entrepreneurs are numerous incubators such as the Boulder Innovation Center (BIC) and the Rocky Mountain Innovation Initiative (RMI2) in Fort Collins.

There are independent groups such as CORE Colorado and our own Colorado Green Tech Group that help inventors meet investors and business savvy partners. Progressive municipal efforts include the Fort Collins net-zero energy district, which applies alternative energies at the city and regional scale.

Colorado green tech VC firms such as Access Venture, Sequel Ventures, Infield capital, and Green Spark Ventures play an essential role for green tech startups providing mentoring and funding.

### **Government**

Colorado's elected officials created a renewable portfolio standard with Amendment 37, which established 10 percent of the state's electricity being derived from renewable energy sources by 2015, doubling that with 2007 legislation to 20 percent by 2020.

Sen. Ken Salazar, Governor Ritter and the Colorado Legislature have made renewable energy a significant part of their strategy. In 2007 alone, eight Colorado laws were passed that help develop and use green tech directly or create a supportive for them. With these initiatives, Colorado has opened the door for local and international companies to build factories and develop technology here in the state.

## **Workforce**

The rapid shift to green tech industries occurring in Colorado has created demand for workers at all levels including executives, researchers and "green collar" technicians.

Our universities are responding vigorously with green tech business, architecture and legal programs and degree offerings. Technical colleges and private institutions like Solar Energy International offer vocational training and certificate programs to help provide the skills needed for manufacturing and installation of green tech.

From government support at the highest level to a unique wealth of universities, from NREL to the large number of high tech individual and investment firm success stories looking for the next wave to ride, Colorado is well positioned to lead the way in the green tech space.

*Kris Wiesenfeld and Kevin Geminiuc are Front Range green tech business evangelists working to help empower the creation of the technology to power a clean future. They are the founders of the Colorado Green Tech Group, whose monthly meetings (open to the public) allow networking of the Front Range green tech community and early stage companies to present their efforts and potential to investors. Find out more or contact Kris and Kevin at [coloradogreentech.net](http://coloradogreentech.net).*