



Green Solutions For Red States

By Dennis Cuneo

Much has been written about the need to expand and diversify our energy base. Some, including the Editor of the Randle Report, argue that the BP Oil Spill has created a sense of urgency to develop alternative energy sources. Others call for a balance between the environment and energy, saying that we shouldn't encourage renewables at the expense of fossil fuels. Whatever view one holds, if you "follow the money," it is clear that Clean Tech is the next big wave of economic development, and the South stands to benefit.

Clean Tech is a term used in the venture capital community to describe cutting edge technologies that address environmental and energy challenges. Those technologies include wind power, solar, bio-mass, bio-materials, green buildings, and carbon sequestration. The global market for Clean Tech is estimated at around \$300 billion and is growing rapidly.

As reported by the Wall Street Journal ("Silicon Valley 3.0: Tech's New Wave," Wall Street Journal, Oct. 22, 2010), Clean Tech now accounts for over 40% of the venture capital invested in Silicon Valley, creating 44,000 jobs there. Just as Silicon Valley start-ups in semi-conductor chips and software led to massive economic development over the past 3 decades (think Intel, Oracle, E-Bay), Clean Tech may be the next technology driven mega-industry. The business friendly South is in a position to capitalize on that growth.

I'm a baby boomer. I grew up in an era when gasoline was 25 cents a gallon. Horsepower, not miles per gallon, was the primary driver of vehicle purchases (excuse the pun). We took energy for granted, and assumed that an unlimited supply of energy was our birthright. Today, whether we are motivated by environmental concerns or national security, most of us recognize that we must find new sources of energy.

The energy equation is a simple case of supply and demand. Global demand for energy is expected to increase by nearly 50% over the next 25 years. To meet that demand, we must increase our energy supply. While fossil fuels will remain the primary source of energy for the foreseeable future, they are finite and are increasingly expensive to exploit. Renewables provide an infinite source of energy and their cost curve is decreasing. As the use of renewables grows, so do economic development opportunities, especially in the South.

I spent many years as a site selector in the auto industry, finding sites for auto assembly and parts plants. Today, I spend much of my time on Clean Tech projects. Over the past 6 months, I've worked on 4 projects in the solar, nano-technology and bio-mass fields. Each of these companies, funded by venture capital out of Silicon Valley, chose communities in the South to scale up production. Cumulatively, these 4 projects will create 2800 jobs with a total investment of over \$1.2 billion – the Clean Tech economic equivalent of an auto assembly plant.

One of those projects will convert bio-mass (wood chips) into a bio-crude that can be used as a direct feedstock for oil refineries. The wood chips are obtained from nearby softwood plantations, which are in abundance in the South. As the company scales up, some of the dollars that used to go off-shore for crude oil will now go to wood chippers and loggers in the rural South. This Clean Tech project not only satisfies environmental objectives; it puts renewable domestic energy sources to good use, and creates economic opportunities in regions where such opportunities are dearly needed.

Americans want domestic energy sources that are environmentally sound and cost competitive. Communities seek diversified and sustainable economic development. That's why we are seeing an explosion in Clean Tech start-ups, and why communities are redoubling their efforts to attract them, with aggressive incentives and initiatives, ranging from up-front loans to special incubator programs.

To be sure, not every Clean Tech start-up will succeed, as a quick Google search will confirm. Simply having a good idea or cutting-edge technology is not enough. Clean Tech companies require substantial up front capital to build manufacturing facilities. An acid test of the project's viability is the amount of venture capital that it has attracted. A successful Clean Tech project must have the same characteristics as any successful business – savvy and patient investors, a viable business plan, and an experienced management team with the operational ability to scale up the technology in a cost efficient manner. Above all, the project must be economically sustainable long after the government subsidies or mandates expire. As with any business, it must meet consumer demand by providing products that are competitive with existing sources of energy.

Society wants cost competitive, green solutions to our energy needs. Investors are ready to fund projects to meet these needs, and they will be looking for business friendly regions to scale up production. All of this has positive and profound implications for the South. Over the past 3 decades, high value-added industries such as automotive and aerospace have migrated to the South, providing good paying jobs and bolstering the region's economic base. The next great industrial migration could consist of large scale Clean Tech projects from Silicon Valley.

To go back to my title, Clean Tech projects are green solutions for red states. It is up to the leaders of the region to capitalize on this opportunity.

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