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Preparing for new opportunities from clean energy

The wind will blow and the sun will shine” — a phrase attributed to **Thomas Edison** — has been quoted frequently by clean energy advocates to emphasize the availability of renewable energy. But even those who proclaim that the perfect storm is rising as a result of changes in public sentiment toward energy self-reliance and increased congressional focus admit the renewable energy debate dates back before World War II. What makes these times different, however, is the energy industry’s changing attitude toward renewable energy.

GUEST COLUMN



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In the face of rising costs of traditional sources of energy and increasing regulatory mandates, the energy industry is undergoing a transformation of historical importance. Today’s debate has changed from “what if” to “when” the clean energy sector becomes cost effective and economically viable.

Clean energy experts predict the new energy economy will take hold between five and 10 years from now. If this is so, the burning question for New England becomes: “How can we prepare to meet the new economic opportunities of the clean energy sector?” The answer: “We can start by looking at the industries in which we already have a foothold, namely technology, consulting and financial services.” Acknowledging that this is the tip of the iceberg, here are five areas our region’s industries should consider to prepare for a clean energy world.

(1) Industry experts suggest that solar ap-

plications are becoming more attractive as technological developments such as thin-film coating are beginning to solve greater energy efficiency problems. New England technology companies like **Konarka Technologies Inc.** and **Evergreen Solar Inc.** have been instrumental in achieving these technological advances. Still, the high manufacturing costs of these new advances prevent widespread adoption of these newer, more advanced solar applications. This presents a challenge to New England technology companies in their efforts to further the solar industry: They must continue to make technological advances that are not only more energy efficient but are also cost effective.

(2) Targeted and projected clean energy projects will require a significant amount of financing, providing Wall Street and financial services companies the opportunity to earn substantial revenue for an extended time period. One of our very own New England institutions has already taken a position: Manulife Financial has developed the reputation as a leader in arranging and providing debt financing to the wind industry in the United States and Canada, participating in more than 30 wind power financings over the past eight years. As the size of projects grows, even more opportunities will be created for New England financial services companies.

(3) At the most recent annual Renewable Energy Finance and Investment Summit (held in Phoenix in April 2007), speaker after speaker stressed the need to employ qualified consultants who can help companies face the challenges of the clean energy sector. Now is the time for New England consultants to step up to the plate and deepen their renewable energy expertise. Our

region’s consultants stand to lose missed economic opportunities if they choose to ignore the needs and demands of this burgeoning clean energy sector.

(4) There is some skepticism about whether New England’s development of fuel cell technology will become more available and widespread. One speaker at the Phoenix summit, **Brian Kremer of Ardour Capital Investments** — a New England company that specializes in renewable energy, including fuel cells — addressed this concern: He emphasized that fuel cells are already viable in select niches such as backup power systems and battery lift trucks. He predicts that the next viable niche could be handheld portable electronics or a military application. This suggests that New England companies can benefit from building on and expanding their fuel cell presence.

(5) Renewable sources of fuels include bio-fuel, cellulosic ethanol and renewable diesels. While New England may be “corn challenged” to compete with the more widely known ethanol sectors of the Midwest and Southeast regions, our technology expertise and related biotech strengths will allow us to participate in R&D and engineering areas related to these opportunities. Indeed, one local company, **Celunol Corp.**, has a pilot plant under construction in Louisiana, which is touted as the nation’s first “demonstration” cellulosic ethanol plant.

In short, New England’s knowledge workers in the technology, financial services, and consulting industries may be the key to the region’s economic success as the world moves faster toward a clean energy world.

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