



GBIC

Good Jobs In A Clean Environment

MEMORANDUM

FROM: Frank Cioffi, President, GBIC
Dan Smith, Vice President, GBIC
RE: Green Economic Development Strategy
DATE: 10-25-07

Throughout the global community, there is an intensifying focus on climate change and environmental impacts of human activity. This concern is stimulating a market expansion in an economic sector that is now being commonly referred to as the “green economy.” Over the past several years, GBIC, together with the LCRCC, has come to the belief that Vermont needs to embark upon a process to cultivate the “green” economic sector. We encourage state leaders, policy makers and leaders of our institutions of higher education to support this economic opportunity for Vermont.

During this past summer, GBIC and the LCRCC created a committee to further explore the development of strategy for the cultivation of a “green” economic sector in Vermont. The attached strategy represents an attempt to define the “green” sector and its component subsectors in order to facilitate a disciplined effort to stimulate the retention, expansion and attraction of those economic opportunities here in Vermont.

Vermont already possesses a green brand identity. A recent Forbes article labeled Vermont the greenest state, due in large part to its low per-capita carbon emissions and strong efficiency policies. Leveraging that brand for the purpose of marketing goods, services and expertise generated here in this state will be an effective strategy for expanding employment opportunities for working Vermonters. As these markets grow, Vermont communities can either be producers of these goods and services, or purchase them from elsewhere. This strategy incorporates a number of specific ideas for the purpose of generating discussion. Some may be viable, and others may not. We continue to welcome new ideas with the understanding that these issues are ones that the state and nation must teach, learn and grow our way out of.

At the very least, the document represents a challenge to the government, higher education and the business community alike to link Vermont’s brand identity to value-added economic opportunities that can benefit all Vermonters.

Attached, for your review, comments and advice, please find our strategy. We would welcome your input and your help as we move forward and urge those with the human and financial resources to follow through on the development of this significant economic opportunity for Vermont.



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Lake Champlain Regional Chamber of Commerce



STRATEGY FOR GREEN ECONOMIC DEVELOPMENT

The Greater Burlington Industrial Corporation and the Lake Champlain Regional Chamber of Commerce encourage the State of Vermont to invest in, support and enhance economic development programs, providers, services and initiatives that focus upon the attraction, retention and creation of high-paying jobs. Vermonters have a strong work ethic and place high value on protecting our natural environment. Now, more than ever, we need to retain our strongest values, protect our treasured resources and make investments in economic development that will allow Vermonters and Vermont-based businesses to compete in the global economic marketplace. In order to succeed in any market sector, including the green economy, Vermont must provide a competitive climate that nurtures, cultivates and supports innovation. Furthermore, Vermont must invest in developing and maintaining a well-educated and trained workforce with a versatile set of skills. If Vermont does not successfully create, maintain, and enhance programs that provide a globally competitive workforce, we may miss the opportunity for positive economic growth that is tied to enhancing the long-term environmental well-being of the world.

This strategy statement was developed in large part by a committee of volunteers that was charged as follows: *to establish a working definition of the industry sector described as the "green economy" in order to analyze the structural elements necessary to cultivate that sector. The purpose of this effort from a public policy perspective is to recommend concrete strategies, goals and additional questions for the development of the sector, such that the long-term economic well-being of this state is tied to enhancing the long-term environmental well-being of the world. The strategy seeks to encourage the retention, attraction and growth of companies and organizations which offer products and services that protect or enhance the world's natural systems, encourage new sources of clean energy, or reduce negative impacts on the environment.*

Definitions

Green Economy: The sector of companies and organizations which offer products and services that protect or enhance the world's natural systems, encourage new sources of clean energy, or those which directly or indirectly reduce negative impacts on the environment.

Example: an alternative energy technology company, producing the parts and providing service for development of wind or solar facilities.

Sustainable Economy: economic growth that meets the needs of this generation without compromising the needs of the next. This is chiefly accomplished through the efforts of businesses and individuals to minimize or optimally offset their environmental footprint,

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even though their product or service offering may not be part of the green economic sector.

Example: Software Company located in a facility that relies on wind or solar technology, and has adopted best practices leading to maximum achievable reuse and recycling of waste streams.

Green Economy Industry Subsectors

The green economy encompasses a broad array of subsectors:

- *Traditional environmental industry:* remediation, air and water pollution control, potable water systems, waste and storm water treatment systems, waste management, recycling, and ecological restoration businesses.
- *Cleantech sector:* high-tech products and services, including renewable energy, demand side management, intelligent transportation systems. Includes technology companies focused on treatment and prevention of environmental impacts or contamination through pollution prevention and clean alternatives. Approximately \$1.6 billion was invested in US and Canada in 2005 in Clean Technology.
- *Energy efficiency and conservation:* products and services specific to promoting and enabling the efficient use of energy
- *Renewable energy:* Production of energy from renewable sources and equipment and services to facilitate such production
- *Agriculture:* The production and processing of livestock and plants for food, feed, fiber, or fuel in an environmentally sustainable manner, while relying on best management practices.
- *Finance:* The use of innovative financial services to enable clients to offset their carbon footprint, energy efficiency mortgages, and alternative energy venture capital.
- *Professional services:* engineers, researchers, knowledge-based professional service providers, consultants, lawyers, green architectural and design professionals, geologists, and other professional service providers, supporting sustainable development and green economy initiatives.

Objectives for Green Economic Development

The LCRCC and GBIC see the major objectives for green economic development as follows:

- Build a vibrant and strong sector that creates high wage jobs for Vermonters developing value-added products and services that will bring revenue into the state while reducing a community's overall impact on the environment.
- Raise Vermont's profile as a hub of environmental integrity, innovation and opportunity.

Market Forces Driving the Expansion of the Green Economy

There are a variety of factors contributing to the expansion of the green economy. Challenges to existing natural and environmental resources provide a significant portion of the demand for the products and services of the green economy. These include the

need to protect air and water quality, manage our waste, address the factors contributing to climate change, as well as moving away from a tenuous reliance on scarce resources.

As electricity cost, supply and reliability become greater challenges, those challenges may drive demand for an expanding supply of Vermont-based generation of low-impact and renewable alternatives, such as biomass, wind, geo-thermal, hydroelectric and solar energy production.

Investment dollars are increasingly flowing to the green economy. Large institutional investors often make the demand that investments reflect the environmental values of the institution. The State committed substantial capital to expansion of alternative energy sources through the Clean Energy Development Fund, which is intended to help address Vermont's longer-term energy supply issues. At the same time, technological advances have enabled critical mass production efficiencies to evolve that serve as a basis for improving the competitiveness of environmental enterprises. Additionally, Vermont has limited government resources to build or expand transportation and energy infrastructure, necessitating the most efficient possible use of our existing resources.

The green economy is being driven by social and cultural forces across the globe, including an increased awareness of environmental impacts, and an understanding that waste management and waste minimization or elimination is a necessary by-product of consumptive lifestyles. Vermont, the Green Mountain State, is known for environmental integrity and already possesses a green brand with which we should attempt to leverage those social and cultural forces to attract young professionals and expand economic opportunities.

Vermont Strategies

In order for the state of Vermont to stimulate innovation and develop a business climate capable of encouraging job creation in a green economy, the state will have to develop policies focused on workforce development, market stimulus and business development. We propose, for consideration, the following strategies:

Workforce Strategies

It is vital that Vermont continue to develop a workforce with the versatility and skills necessary to succeed in any sector of the global economy. Competing in a global market requires the ability to innovate, think creatively, and adapt to changing circumstances. The following strategies will help achieve that goal.

- Conduct an environmental enterprise labor skills study to determine which skills are vital, and how access to training for those necessary skills can be upgraded and expanded.
- Create an Environmental Enterprise Institute
 - Leverage partnerships between Vermont businesses, state government and higher education institutions to continue to push curriculum in the

direction of workforce readiness for participation in a global green economy.

- Conduct analysis of existing models for integrating industry, higher education, government and the nonprofit community in an enterprise research program committed to the development of a statewide environmental enterprise strategy.
- Support a university faculty chair committed to promoting environmental enterprise, overseeing an Environmental Enterprise Institute, and facilitating collaboration with other entities pursuing a green economic expansion.
- Encourage the University of Vermont to create a globally premiere MBA program in its business school centered upon the Green Economy and Global Businesses for Social Responsibility. Such a program should focus on optimizing the three capitals: Financial Capital; Human Capital and Environmental Capital in a new way. Annually select an Honorary Chair of the School with a global reputation for innovation; create internships within the program and require every eligible MBA candidate in the program to develop a viable green brand, concept or business plan.
- Develop a virtual academy of applied science and technology curriculum, taught at the secondary school level that evolves as a community partnership between a school district, the University of Vermont, Champlain College, Norwich University, all of the Vermont State colleges, Middlebury College, and Vermont's other institutions of higher education and in the private sector.
- Encourage K-12 schools in Vermont to create awards for community environmental service where students at their graduation may earn a Vermont Environmental Green Sash after conducting 4 hours per year of community and global environmental service in projects like "Green Up Day".
- University of Vermont, Vermont State Colleges and in Vermont's other institutions of higher education create the opportunity for students to earn a Vermont Environmental Green Sash after conducting 4 hours per year of community and global environmental service.

Market Strategies

Vermont companies and communities benefit from an increasing demand for environmental products and services. As demand for those products continues to expand both domestically and globally, the state's knowledge base in those goods and services grows in value. Vermont should aggressively leverage its green identity, brand and environmental capacity and promote these assets in communities around the nation and globe.

- Encourage more energy and environmentally aware individual practices to trigger green market expansion.
- Expand outreach strategies to Canada to access green markets north of the border for Vermont's environmental enterprises.
- Encourage the development and use of incentives within the local and Act 250 regulatory frameworks to stimulate sustainable and efficient building design –

these might include floor area or height bonuses in local zoning, expedited permit review, or fee reductions.

- Expedite approval process for temporary siting of meteorological measurement systems.
- Promote a sustainable business best practice checklist for various sectors.
- Encourage consumers to buy green.
- Encourage legislation to expand the statutory definitions of farming in Act 250 in order to facilitate the on site production of fuel or power from technology relying on a resource consumed at or below its natural rate.
- Allow agricultural development funds to go towards a broad variety of renewable or low carbon agricultural energy projects.
- Encourage the development of in-house training programs for businesses and institutions to adopt environmental and sustainable systems and programs.

Business Development Strategies

The Environmental Enterprise Institute described above should function both as a mechanism for developing the knowledge base, but also as a clearinghouse for new goods and services as they are developed. It could work in collaboration with the Vermont Center for Emerging Technologies in order to expand its research and commercialization initiatives. Additionally, it should be structured to facilitate the transition of value-adding green products and services from institutional research and development projects into market-worthy products. Other business development strategies include:

- Develop a set of indicators for green strategies that can be employed internally by businesses and organizations.
- Develop a statewide database of Vermont's green economic sector businesses and capabilities for local and global markets, and a network of similar companies through the Vermont Environmental Consortium.
- Develop an Annual Green Business of the Year award/ Sustainable Business Plan Award in cooperation with the Vermont Environmental Consortium.
- Generate a Green Innovation Pledge- encourage businesses to pledge to improve environmental performance, achieve cost savings and increase competitiveness.
- Develop a green economy tax incentive for businesses that engage in clean technology innovation.
- Facilitate eco-tourism by developing a web-based inventory of green activities, green buildings and sustainable community assets.
- Explore innovative financing sources and mechanisms for green economic development projects, such as the aggressive implementation of the Clean Energy Investment Fund or bond issuance for renewable energy.
- Expand net-metering authority to group systems and increase the definition limit for net-metering electrical generation from 15 kilowatts to 250 kilowatts, and expand authority to develop combined heat and power systems for group net-metering.
- Develop criteria for the expedited site review of small-scale hydro electric projects.
- Implementation of the statewide telecommunications plan, allowing full access to broadband and cellular and expanding opportunities to work remotely.

Targets: How do we measure progress of region as green hub?

- Recognition: Raising Vermont's green brand and profile as hub for environmental integrity and opportunity.
- Quantity: Increase the number of qualifying Vermont businesses as identified in Vermont Department of Labor or regional surveys. Identify relevant SIC codes, or rely on self-identification.
- Establish a metric for measuring the growth of gross state product as it compares to consumption of nonrenewable energy and fuels and comparing those rates with growth of Gross National Product and national rates of energy consumption.
- Reduce solid waste generation and increase recycling percentage.
- Populate a database/inventory of Vermont's green businesses; identified by industry sector and subsector.
- Creation of the Environmental Enterprise Institute.