



**GBIC**

*Good Jobs In A Clean Environment*

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**THE GREEN ECONOMY AND  
ENVIRONMENTAL ENTERPRISES IN  
VERMONT**

**OPPORTUNITIES FOR THE 21ST CENTURY**

**APRIL 2, 2008**

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# THE GREEN ECONOMY AND ENVIRONMENTAL ENTERPRISES IN VERMONT

## OPPORTUNITIES FOR THE 21ST CENTURY

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This report was produced by The Snelling Center for Government ([www.snellingcenter.org](http://www.snellingcenter.org))  
under contract to GBIC. Glenn McRae and Heidi Klein are the primary authors.



## EXECUTIVE SUMMARY

This report summarizes the work conducted by the Snelling Center for Government (Snelling Center) in tandem with the Greater Burlington Industrial Corporation (GBIC), to generate strategic concepts that inform public policy and legislation to advance development of the green economic sector and green practices in all Vermont businesses and institutions. GBIC commenced work on this project in the summer of 2007 and contracted with the Snelling Center in December to conduct a fast cycle policy development and outreach process. The two organizations designed and implemented a multi-step engagement project to solicit the ideas, experiences and recommendations of Vermont's leading green business leaders and stakeholders essential to successful development and implementation of future efforts to create a vibrant green economic cluster and enhance green practices in Vermont.

*How do we grow and sustain a vibrant green economy in Vermont?*

This project and the resulting recommended actions have four objectives:

- Building a vibrant and strong sustainable green economic sector that creates high wage jobs for Vermonters in environmental enterprises and industries committed to developing value-added products, goods and services that protect or enhance the world's natural systems, encourage new sources of clean energy, or reduce negative impacts on the environment.
- Maximize the number of companies, organizations and communities participating in sustainable and "green" operations and practices.
- Raising Vermont's profile as a hub of environmental integrity, innovation and opportunity.
- Stimulating entrepreneurial activity, research and technology in environmental and sustainable enterprises.

### ***Definition of the Green Economic Sector***

*The sector of companies and organizations that create value-added 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.*

*--from the GBIC/LCRCC Summer Study*

In order to achieve these aims, VT must consider the unique needs and abilities of its entrepreneurial leaders, protect our treasured natural and social resources and make investments in economic development that will allow Vermonters and Vermont-based enterprises to compete in the global economic marketplace. In order to succeed, 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.

Four key areas of strategic action were distilled from the process:

- A. Creating intellectual capital and supporting innovation through a nexus of coordinated action by government, business and higher education
- B. Strategic investments in workforce development that are targeted to green sector needs
- C. The diversity of green enterprises and green business practices is a strength and supporting initiatives should recognize the special needs of different sectors along with the shared
- D. Governmental leadership, modeling and focused marketing and promotions will play a major role in the successful branding and actualization of a green economy

Vermont's actions must be bold, sustainable, forward thinking and coordinated to build a foundation, year by year, for a dynamic green economic cluster to grow and develop; a wide variety of actions, some small steps and others more aggressive, represent a broad based strategic approach that can be continued within the context of resources that can be reliably invested by the State and coordinated by all partners in this enterprise. Actions today should be building blocks for future initiatives.

## I. INTRODUCTION

GBIC commenced work on this project in the summer of 2007 and contracted with the Snelling Center in December to conduct a fast cycle policy development and outreach process. This report summarizes the work conducted by the Snelling Center for Government (the Snelling Center), in tandem with the Greater Burlington Industrial Corporation (GBIC), to generate strategic concepts that can inform public policy and legislative options to advance a ‘Green Economic Development Strategy.’ The primary objective of the strategy is to design, develop and cultivate a “Green Economic Sector” that creates high wage jobs and encourages entrepreneurial activities.

The Snelling Center sought to expand upon the information gathered and the ideas generated by a summer study convened by the GBIC and LCRCC. The Center designed and implemented a multi-step engagement project to solicit the ideas, experiences and recommendations of Vermont’s leading green business leaders and stakeholders essential to successful development and implementation of future efforts to create a vibrant green economic sector in Vermont.

The result of the engagement process was two-fold: 1) development of public policy recommendations that can be utilized by the Vermont legislature and state agencies, which reflect the experiences and expertise of Vermont’s leading green sector entrepreneurs; and 2) creation of connections with new sets of partners moving forward to stimulate additional growth of a variety of sectors in a green economy. This report outlines the process used and the evolution of ideas as a broader array of entrepreneurs, strategic partners, and state experts considered the key items needed to foster and sustain a vibrant green economic sector. The report chronicles this specific process and it is not intended as a comprehensive analysis or accounting of the green economy in Vermont. Future actions based on this initiative should provide that resource.

## II. BACKGROUND

### GBIC/LCRCC Summer Study

During the summer of 2007, The Greater Burlington Industrial Corporation and the Lake Champlain Regional Chamber of Commerce engaged in a summer study 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 study group developed the following working definition of green economic sector:

*The Green Economic Sector is the sector of companies and organizations that create value-added 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. The sector definition is intrinsically tied with positive economic growth rather than restrictive policy.*

Vermont's objective should be maximizing the number of companies, organizations and communities participating in sustainable and "green" operations and practices. This will truly build Vermont's reputation and brand as a "green state". This includes companies which have "green" products and services as their core business activity, and also those who have multiple products and activities, some of which achieve the "green" definition to be developed, and also those companies and organizations with products and services which are not identifiable as "green", but who conduct their business and activities in a manner which promotes sustainable and environmentally sound objectives. Vermont can and will become the most "green" when every company, organization and community pursues this objective.

### **The GBIC /LCRCC Green Economic Development Strategy Summer Study Group**

Chair: Charlie Kireker, Fresh Tracks Capital

Members:

- Ted Adler, Union Street Media
- Gretchen Babcock, UVM
- Daniel Hecht, VEC
- RB Klinkenberg, Harrington's of VT
- Mary Lintermann, DEW Construction
- Santo Longo, Paul Frank and Collins
- Peter MacDougall, Paul Frank and Collins
- Jeff McMahan, Dinse Knapp and McAndrew
- Senator Hinda Miller
- Tom Moreau, CSWD
- Kimberly Murray, Town of Colchester
- Carrie Violette, Town of Milton
- Brad Worthen, VT Commercial

**Green Products and Services Companies:** Those companies and organizations which create value-added products or deliver services that protect or enhance the world's natural systems.

#### **THEMES**

The following factors were identified as important in stimulating additional sector growth:

- State government leadership
- Workforce development
- Financing/access to capital
- Collaboration between green sector businesses and higher education
- Statewide infrastructure,
- Markets for green products and services
- Support for green practices across all businesses and institutions
- Branding of Vermont.

**Green Operating Companies:** Those companies and organizations that manage and control their day to day activities, or provide public service, so as to provide a measurable protection or enhancement to the world's natural systems through waste reduction, remediation, recycling, energy conservation, reduction of carbon footprint, utilization or creation of alternative clean energy sources, employ innovation of work or production schedules, employ transportation efficiencies, so as to reduce negative impacts on the environment.

The study committee developed a strategy that seeks to encourage the retention, attraction and growth of companies and organizations that create value-added 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. A full copy of the strategy can be found in Appendix A.

### **III. POLICY DEVELOPMENT THROUGH A MULTI-STAGE ENGAGEMENT PROCESS**

GBIC recognized that there was a wide and diverse range of experience in growing environmental enterprises and green economic activity in Vermont. Not all of this experience had been tapped for the summer study. In addition, a wide range of stakeholders would have to be engaged to devise a forward thinking strategic process to enhance the cluster of green enterprises that was present in Vermont and grow it as a dynamic part of the broader economy of the state. GBIC contracted with The Snelling Center for Government to bring their expertise in convening diverse stakeholders and identifying new opportunities for advancing initiatives in Vermont. The Snelling Center proposed a three stage process of engagement and development in this process.

In the first stage, a series of three focused conversations with green business leaders and entrepreneurs was conducted to identify key factors that encourage or limit the development and flourishing of a green economic sector in Vermont that creates high wage jobs, brings revenue to Vermont, and encourages entrepreneurial activities. One of the sessions was focused upon branding and marketing. Second, a meeting of the state's key stakeholders was convened to solicit their expertise in and perspectives regarding implementation strategies that will create/bolster a vibrant green economic sector in Vermont given the themes identified in the focused discussions. Finally, GBIC brought a summary and distillation of the themes and potential actions to a group of tax and economic Advisors for their review and consideration. What follows is an overview of the engagement process and the participants. A presentation of the outcomes and ideas from the process are presented in the next section of the report.

## The Focused Conversations

On behalf of GBIC, The Snelling Center engaged approximately 30 entrepreneurs and business leaders<sup>1</sup> whose companies and organizations fit a broad definition of green enterprise and were associated with a variety of core business activities including: manufacturing, energy production, consulting, contracting, agriculture, and the provision of other green industry services. These companies ranged from start ups to mature value-adding businesses; whose products, goods and or services are primarily, but not exclusively, exported and generate revenue from out of state while creating high wage jobs in Vermont; and representing geographic diversity from around Vermont. This group of entrepreneurs and business leaders served as the ‘experts’ in developing green businesses in Vermont and the primary source of raw policy ideas to formulate possible actions to stimulate and advance Vermont’s green sector.

The goal of the focused discussions was to identify key factors that encourage or limit the development and flourishing of a green economic sector in Vermont that creates high wage jobs, brings revenue to Vermont, and encourages entrepreneurial activities. These professionally facilitated two hour discussions followed a script of fifteen questions to capture participants’ reflections on: assets available in Vermont; barriers/obstacles to “green” business development in VT; and legislative/regulatory changes that would support development and growth of these companies. The discussions were also used to test out themes identified in the summer study, specifically the role of the following factors in stimulating additional sector growth:

### **Participants in the Focused Conversations (January 2008)**

- Ben & Jerry's Homemade, Andrea Asch
- Biocardel, Steve Daigle
- BrighterPlanet, Pattie Prairie
- Chelsea Green Publishing Co., Shay Totten
- Chittenden County Solid Waste District, Tom Moreau
- Distributed Energy Systems, Erika Schramm
- Geotech Environmental Equipment, Peter Murray
- Green Mountain Coffee Roasters, Paul Comey
- Green Planet Partners, Kevin Hartley
- groSolar, Dori Wolfe
- High Mowing Seeds, Tom Stearns
- LED Dynamics, Jonathan Wish
- Marlboro College MBA, Ralph Meima
- National Life Group, Shawn Bryan
- NativeEnergy, Inc., Rob Smart
- Neuton, Inc./Country Home Products, Tom Hughes
- NRG Systems, Abby White
- Radiantec, Bob Starr
- RecycleNorth, Tom Longstreth
- Resource Systems Group, Clay Adams
- Seldon Technologies, Inc., Jonathan Wilson
- Stone Environmental, Inc., Chris Stone
- The Regulatory Assistance Project, Richard Sedano
- TruexCullins Architecture, Tom Hengelsberg
- URS Corporation, Lee Gustaphson
- Vermont Country Store, Ken Martin

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<sup>1</sup> The pool of invitees was more than 60 institutions aggregated from a number of sources, including the Vermont Environmental Consortium, Renewable Energy Vermont, a list generated by The Snelling Center for the Commission on the Future of Vermont, and suggestions from associates of GBIC. A survey was provided to businesses that expressed interest but could not participate. Respondents included: Draker Laboratories; Jasper Hill Farm; Smugglers' Notch Resort; Vermont Natural Coatings; IBM Corp.; Seventh Generation; Kilawatt Technologies; King Arthur Flour.

workforce, financing or access to capital, collaboration between green sector businesses and higher education, statewide and community infrastructure, markets for green products and services, and branding of VT. A copy of the discussion guide and a description of the themes that emerged from the discussions can be found in Appendices B and C respectively.

The last focused discussion was designed to explore the notion of branding in greater depth. This session included representatives from highly successful Vermont-based businesses which did not necessarily fit within the definition of a green enterprise but are associated with Vermont, contribute to Vermont's branding and utilize Vermont in the company's brand.

## The Stakeholder Meeting

A group of approximately 50 key stakeholders participated in a half day working session on February 22, 2008. More than 100 possible participants were identified and invited. All of the enterprises who participated in the focused discussions were invited along with a wide selection of economic development and green enterprise support institutions including nonprofit groups with an interest in energy and the environment, business membership organizations, economic development corporations, faculty and administrators in higher education, governmental leaders and others.

While also a source of raw policy ideas, this group was invited primarily to help vet and refine the ideas that were generated by the business leaders. Participants were presented with the information gathered and the themes that emerged through the summer study and the focused conversations related to factors affecting the development and growth of a green economic sector. They were then asked to review and build upon the potential strategies identified and to offer any cautions about pursuing these strategies. This meeting yielded two important tangible products: 1) a list of the participants and the assets/resources they bring in stimulating the green economic sector; and 2) a list of strategic options that have been developed and reviewed by key stakeholders who will ultimately be essential in the implementation of the strategies to stimulate and support future economic development and/or businesses. Resources from this meeting can be found in the Appendices, including: a copy of the agenda (Appendix D), the list of strategic options and recommendations to consider (Appendix E), the list of participants (Appendix F) and the summary of ideas generated by participants (Appendix G).

## GBIC Economic and Tax Policy Advisors

As the last part of the formal engagement process, GBIC invited a small group of advisors who have worked with them on other issues in the past and who have a good understanding of the Vermont economy and economic and tax policy experience. This group reviewed the themes, proposed policies and potential activities that emerged from the other group processes, and made recommendations of how to group them and prioritize ideas for short, medium and long term actions. They also helped GBIC to consider what implementation structures might be most effective for different approaches. From this analysis GBIC worked to formulate more specific proposals to advance.

## **IV. THE EVOLUTION OF IDEAS: THEMES AND STRATEGIES**

The engagement process was designed as a developmental series where information gathered in the stage before is shared and then considered by another set of individuals with a different lens and/or expertise. The following is a description of the key ideas generated through the exploration of the question: *How do we grow and sustain a vibrant green economic sector in Vermont?*

### Themes from the Summer Study

The following factors were identified as potentially important in stimulating additional sector growth: workforce, financing/access to capital, collaboration between green sector businesses and higher education, statewide infrastructure, markets for green products and services, and branding of Vermont.

### Initial Themes Generated from Focused Conversations with Green Businesses

The focused conversations yielded additional information about the factors identified in the summer study. Some of the discussion yielded themes common to all economic sectors. Other themes might be more specific to companies in the green economic sectors.

#### **A. Themes in Common with Other Sectors**

Not surprisingly, many of the ideas and recommended actions generated might have emerged from any focused conversation about the Vermont economy in general or most other clusters of economic activity. These included:

##### ***Vermont's Quality of Life (QOL)***

- We live here, we start businesses here, we grow our business here because we like to live in Vermont (Community, accessibility, scale, natural beauty)
- QOL is a critical factor in recruitment, attraction and retention of quality workforce

##### ***The Vermont Business Environment***

- Doing business in Vermont can be challenging and can offer great opportunities
- It is easy to stand out
- Great access to government, local, state, federal
- Space is inexpensive compared to other regions
- Image as "bad for business" → Hard to attract investors
- Limited business to business networks
- Vermont has high tax rates and can be an expensive place to conduct business
- Housing is very expensive which adversely affects employment attraction, recruitment and retention

### ***Financing and Access to Capital***

- Local banking community is very supportive
- Local/municipal loan and incentive programs helpful but limited
- State loan and incentive programs have been helpful to some but very limited in scope and scale
- Limited venture capital for start-ups and R&D
- Venture capital often pulls companies to leave Vermont
- Not many tools for accessing capital

### ***Workforce***

- Perhaps the most critical factor mentioned in all 3 focused conversations; without a strong and skilled workforce companies cannot survive and grow
- VT workers are dedicated, loyal, and largely here because they want to be here
- Vermont workers seek out jobs that match values as well as economic needs
- Specialists are hard to identify in VT and recruit to VT in some industries
- Young people with necessary skills are often not available for entry level jobs
- Little connection seen between Vermont's institutions of education and possible jobs
- Weak knowledge of young entry workers (high school and college grads) as to employment and career opportunities with companies in Vermont
- High tax rates and real estate taxes may be deterrents especially for higher level employees
- Entrepreneurs who make it big feel "punished" for success (tax rates)

### ***Higher Education***

- Good institutions but not always accessible
- Institutions not aligned with economic development needs
- Not necessarily producing grads for VT companies, especially in the technical fields

### ***Infrastructure***

- Need border to border ubiquitous broadband and cell coverage
- Need good road system for transit of goods and people
- More public transit would help connect workers to workplace
- More air travel options
- Energy costs are high
- Shortage of commercial / manufacturing space in some regions

### ***Government Programs and Leadership***

- Many good programs at local level, towns and regions (limited but helpful)
- Good workforce training and development programs
- VOSHA and P2 at ANR excellent assistance programs
- Efficiency Vermont is a good program
- Government needs to set a positive tone about business in Vermont
- Better alignment of government programs and services is necessary

## **B. Themes in the Green Economic Sector**

Themes which might uniquely apply to the development and growth of companies and businesses in green economic sectors include:

### ***State Brand as GREEN***

- Vermont is associated with quality, frugality, authenticity
- Vermont enjoys a international reputation and has a cache as being a green, sustainable and environmentally conscious place
- Vermont is recognized for past leadership in developing policies to protect and enhance the environment (billboards, bottle bill, Act 250); continued leadership is critical to the authenticity of green branding in the future
- Green Mountain image and positive association in minds of people outside VT
- Vermont's working landscape is a key factor in its green brand identity
- In green technology, Vermont not seen as a leader or innovator when compared to Washington, Oregon, Michigan, California or Canada efforts
- Vermont is not as green as it seems; thin façade
- VT "cache" is important to workforce recruitment, business development, and sales/marketing

### ***Government leadership***

- State government programs tend to be in silos - no innovative interaction
- State regulatory environment does not embrace "green" innovations in the very technologies that Vermont companies are trying to market and grow
- Government needs to do a better job of "walking the talk" if the "green" label is to stick in Vermont; this is essential to both business development and workforce recruitment
- To grow innovative green businesses and technologies, government should be the first customer and leading promoter
- Establish first rate (national) programs for incentives for consumers to buy green (e.g., solar tax credits; expanded net metering)

### ***Infrastructure that specifically supports lowering the carbon footprint***

- Added benefit of ubiquitous broadband and cell coverage is to allow telecommuting and connectivity so that work can be virtual and globally connected as possible.
- Good public transit and compact community design also feed the interest and needs of green enterprises that want to showcase their values in both product and operations—again related to the green branding of Vermont .

### ***Vermont Markets***

- A number of businesses, mostly green technology enterprises, do not see Vermont as a major market for their products, but do see Vermont as an important place for their products to be in use and showcased by Vermont businesses and institutions
- Local markets can however play an important function in demonstrating leadership to external investors, increase external sales, add to VT brand in recruiting workforce and attracting investment

### ***Workforce***

- Need better programs to prepare the next generation of Vermonters for jobs in the green economy - particularly the green economy of Vermont - more interaction between employers and k-16 training/education programs
- Develop workforce programs that meet the core needs of businesses in this economic cluster
- If we want to grow the workforce in this field, provide direct incentives for people working in it (tax rates, college loan forgiveness, etc.)

### ***Higher Education***

- Vermont higher education needs to play a more significant role in growing the green economy in Vermont through career introduction and development, workforce preparation, technology transfer, and innovation
- There are lots of successful models elsewhere for higher education leadership in workforce development, research and development, internship programs, business innovation and incubators.
- There needs to be a business- government - higher education nexus for the green economic sector; it should also include relevant nonprofit actors
- Higher education facilities should reflect the use of the best that green technology and process has to offer - a showcase

### ***Regulation***

- Align state regulatory and policy development to support green sector growth
- Regulations and policy that allows for and encourages innovation in using technology and processes that addresses environmental problems and issues

### ***Sectors for Growth***

- *Green technology and manufacturing:* Vermont may not best positioned for high volume manufacturing; instead focus on innovative or cutting edge technology (e.g. nanotech, LED, electric mower) and specialized high quality, manufacturing
- *Energy alternatives:* Vermont is a leader in wind and solar technology that is being used elsewhere
- *Financial industry:* There is some interest in developing new financial products that are in line with a green economy and public interest in sustainability. It is hard however, to justify VT to venture capitalists and to attract financial leaders due to low wages and “provinciality”.
- *Sustainable agriculture and niche products:* One of the key defining features of Vermont and our existing brand is the working landscape. There is a strong network of individuals and companies committed to creating a vibrant economic sector based in sustainable agriculture, agricultural niche products and the “slow food” movement. It is speculated that VT could anticipate venture capital and external financial support.
- *Innovation technology:* technology companies that are leaders in innovation focused on the creation of world class technology design, development, manufacturing, production and services. Such innovation is taking place in large and small, old and new Vermont firms. For example, IBM Vermont developed and manufactures the new sets of computer chips powering parts of IBM's most recently announced "z" series computers. These main

frame systems will reduce information technology energy expense by approximately 70% from current "blade" server installations. Hazelett Strip Casting in Colchester has found a global market for its specialized machinery in part because of how energy efficient the process is. These long established companies, along with emerging firms in LED lighting and nanotech innovations provide a core for a growing cluster of such pioneering technology companies and institutions.

## V. Actions to Stimulate and Support the Growth of Vermont’s Green Economic Sectors

### Areas of Potential Action Identified

Participants in the focused conversations suggested a number of concrete administrative and legislative actions, business support programs, and promotional opportunities to stimulate the growth of the green economic sector in Vermont. These suggestions were categorized using the schemata below to bring forward for consideration at the stakeholder meeting.

<b>A. Higher Education - Business – Government</b>	<i>Create nexus among 3 sectors to support green enterprise</i>
<b>B. Promotional efforts</b>	<i>Enhance marketing and branding efforts related to Vermont's green business sector</i>
<b>C. Workforce</b>	<i>Develop and support a continuum of workforce recruitment, retention and skill development initiatives specific to the current and future needs of the green economic sector</i>
<b>D. Financing</b>	<i>Expand the range of financing options and capital resources for green businesses</i>
<b>E. Business development</b>	<i>Create focal points in business development programs and opportunities for green businesses</i>
<b>F. Model the green sector</b>	<i>Establish policies for government and public sector institutions to model green practices, products, services and stimulate Vermont green business markets</i>
<b>G. Regulation and Policy</b>	<i>Align state regulatory and policy development to support green sector growth</i>
<b>H. Cross-Cutting Strategies</b>	<i>Strategies which may serve/address two or more critical factors in stimulating and supporting a vibrant green economic sector</i>

The summary of all input was then brought to a broad range of Vermont leaders for their consideration in the stakeholder meeting. This meeting was designed to solicit responses to the following central question: *What concrete actions, strategies or changes will help to stimulate and advance a green economic sector in Vermont?*

Participants were given an initial list of potential actions, culled from the summer study and focused conversations, which were organized around the categories above. They were asked to amend the suggestions, add new ideas, and offer cautionary notes to the ideas presented. A full reporting of the results of the focused conversations blended with the input of the stakeholders can be found in Appendix G. The cumulative findings and recommendations were then vetted with the group of tax and policy advisors.

The following suggested actions are a consolidation of cross-cutting ideas originating in one of the three venues (the summer study, the focused conversations or the stakeholder meeting), and were refined in each successive step of the engagement process. The notes below are not intended to fully summarize the wealth of ideas and actions collected to date or to suggest priority for attention and action. Rather the intent is to bring forward themes which are linked and suggested actions which may serve more than one end point. GBIC has further consolidated these ideas into set of action steps that can be found in Appendix H.

## **ACTIONS TO SUPPORT AND STIMULATE THE GROWTH OF VT'S GREEN ECONOMIC SECTORS**

### **A. Creating Intellectual Capital and Innovation**

Participants in the engagement process spoke of the convergence needed to create a critical mass of intellectual capital to stimulate and support a green economic sector. The example given was the convergence in Stanford/Silicon Valley of the public and private sectors, educational institutions, and entrepreneurs in creating the opportunities for new ideas and technologies to flourish into a vibrant economic sector. There were three sets of action consistently mentioned in the engagement process which could each enhance intellectual capital, provide mentoring for the next set of environmental enterprise leaders, and support networking of existing enterprises:

#### ***1. Establish an Environmental Enterprise Institute/Collaborative***

A formal collaboration of government, institutions of higher education, businesses leaders and the non-profit sector is needed for research, development and commercialization of new technologies. This collaborative would:

- Harness cross-sector creativity in the development of a statewide environmental enterprise strategy
- Stimulate innovation and exploration
- Encourage the collaboration of key state agencies and the network of Vermont's statewide colleges and institutions to stimulate development of environmental education, environmental technology, sustainable agriculture, and green economics
- Invest in research and development focused on new products/technologies and to solve problems (e.g., University of Waterloo)

## ***2. Create Vermont Green Enterprise Zones: Incubators + Eco-Industrial Parks***

Environmental entrepreneurs are seeking opportunities to collocate to share expenses, innovative ideas, etc. Incubators were also considered as one idea to accelerate business development. Intrinsic to the success of the an environmental enterprise incubator and/or an eco-industrial park is the simultaneous investment of funding, technical support (i.e. access to researchers and technical specialists, connection to institutions of higher education) and mentoring in business planning and development. Investing in incubators/eco-industrial parks holds promise in accomplishing multiple endpoints:

- Creating financing and/or other necessary capital (commercial or manufacturing space) to start ups
- Enhancing innovation by enabling the convergence of intellectual capital
- Connecting businesses for B→ B (business to business) market development
- Branding – through walking the talk and promoting entrepreneurial efforts

## ***3. Provide Supported Networking, Business Development and Peer Assistance for Green Enterprises***

The enterprises in the green economic sectors need an active and supportive mechanism for networking, business development, peer assistance and mentoring to:

- share business ideas and developing sound business plans
- move from "idea to product" phase as well as to plan for and manage growth
- identify and share capital
- create opportunities for B→ B sales and product integration and/or potential mutual investment in R & D
- identify possibilities for joint marketing and promotion

A variety of specific actions were recommended to support networking and provide peer assistance:

- 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
- Create an inventory and mechanism for networking of "green" companies, organizations, and efforts; internet-based with local contacts
- Develop an online social networking tool, a Facebook-like community, for green sector
- Create a "Vermont Virtual Enterprise Zone" that supports networking and peer assistance through the actions list above could also assist in market development and branding efforts by creating a showcase for Vermont Green Products and Services and an online map, the "Vermont Green Trail," of publicly accessible LEEDS certified buildings

## **B. Investing in Workforce Development**

Existing environmental enterprises noted workforce recruitment and retention were the most critical factors in starting and growing their enterprises and that a skilled and dedicated workforce is perhaps the most important factor to continued success. Mission-oriented and values-based enterprises did not identify recruitment as a problem except for highly technical or specialized positions. These entities noted that branding of Vermont is very helpful in recruitment efforts. One key challenge is finding personnel for entry-level jobs when college educated population in 20's leaves for bigger cities while those who remain in Vermont often lack the necessary skills required. Participants noted that many workers are more committed to Vermont than to specific company, leading to a great potential for (re)training workforce. If the green economic sector is to grow, a growing workforce of skilled, entry-level workers and experience workers with new skill will be required.

Key actions suggested to ensure an adequate workforce include:

1. Conduct a labor skills study to determine which skills are vital, and how access to training so skills can be upgraded and expanded.
2. Develop industry councils/organizations that can coordinate with employers and develop the specific curriculum/strategies to “fill the pipeline” for talent/workers – career development and guidance.
3. Conduct an analysis of the curriculum in Vermont’s education to evaluate whether it reflects the workforce needs of the green economic sector
4. Develop an implementation plan for secondary schools to fulfill the requirements of the labor market for environmental employment

### *Actions specific to Secondary Education*

5. Pilot Project: create a Virtual Academy and Green Curricula of applied science and technology curriculum that includes a community partnership between a school district, Vermont’s institutions of higher education, and the private sector.
6. Establish on-going programs (e.g. internships, work study, career days and career introduction opportunities) between green enterprises and high schools to create steady flow of personnel for entry level jobs
7. Create green certification programs in trades/professions that would focus tech schools on green.

### *Actions specific to Higher Education*

8. Create career introduction events and internship events throughout Vermont that brings together students of Vermont institutions and Vermont businesses to promote sector and recruit workforce: ex: Vermont green job fair(s) and the Tech Jam in Burlington convened by Seven Days and Champlain College
9. Provide state college aid for students to take up green trades and fields within Vermont.

### **C. Expanding Financing and Capital**

Limited capital and financing options are significant barriers to the growth of the environmental enterprises in green economic sectors. Participants specifically recognized the need to:

1. Create incentives for investments in green sector growth and “green” practices
2. Establish a research and development grant fund
3. Explore options for a green economic sector research tax credit.

In determining which options hold the most promise, participants in the engagement process urged the consideration of the following:

- Make sure the timing of needs and availability of funds is well matched –e.g. tax credits may not be meaningful to start-up businesses
- Provide in-depth technical assistance to entrepreneurs as they develop their business—do not just drop in \$ without business planning assistance
- Offer the best ideas, products, opportunities to provide in-depth support rather than giving a little bit to everyone and not enough to anyone.

### **D. Promoting Business Development through Governmental Leadership in Modeling, Incentives, Direct Branding, Marketing and Promotions**

A common theme throughout the engagement process was the essential role of governmental leadership and commitment in support of green sector innovation and entrepreneurial enterprises. Governmental leadership will add substance to Vermont’s green brand, attract external investors, increase external sales, and assist in recruiting a high quality workforce. This leadership needs to be demonstrated through concrete actions such as purchasing Vermont green products/services, showcasing entrepreneurs, expediting permitting for environmental enterprises, coordinating services to/for green businesses, and using legislative incentives to stimulate and reward green enterprises.

#### *1. Best Practices for State Institutions and Government Agencies*

- a. Coordinate Governmental Access and Support Across Agencies
  - Map out key points of connection needed based on stages in business development, permitting needed by business sector, regulatory requirements, etc.
  - Facilitate cross-agency support and expedite green business sector development
- b. Develop environmental design objectives for each new building and major renovation
- c. Establish purchasing preferences for Vermont green sector goods and services; develop bid opportunities for Vermont environmental enterprises— source in state first and provide cost incentive for buying from local green biz.
- d. Plan for maximizing the operating efficiency of the solid waste management system - innovations to increase recycling and minimize waste

- e. simple but highly visible practical tools available to citizens and visitors (e.g., free air pump service at Interstate rest stops; portable home energy meters to be checked out of every public library in Vermont)
  - f. Review opportunities to fast track permitting for environmental enterprises
  - g. Establish joint legislative committees to oversee the integration and leadership for the green economic sectors and environmental enterprise
2. *Incentives for Investment in Green Economic Sectors*
- a. Changes within the Act 250 regulatory framework that will encourage sustainable and efficient building and project design
  - b. Certification of exception when a pilot or other project primarily develops and implements, for testing, a significant and innovative technology
3. *Branding*
- a. Authenticity is essential; must be backed by true leadership, clear standards and proven action
  - b. Branding is important to market development + workforce recruitment
  - c. Start with (bold) action to demonstrate commitment to green business sector development; then work to develop/reinforce brand
  - d. Establish Vermont green biz seal/ certification to demonstrate quality – back up seal with clear criteria and monitoring
4. *Promotion and Marketing of Green Industries*
- a. Showcase Vermont state investments in green sectors through display of new technologies, products and services in state-owned buildings or properties and at government sponsored events
  - b. Utilize Vermont’s tourism and economic development agencies to promote green enterprises both within and out of state
  - c. Convene Global conference on Green Economic Development, Environmental Enterprise and Sustainability
  - d. Support Marketing and advertising; consider green standard/seal/certificate as part of showcasing Vermont green technologies
  - e. Green Practices: Create the process for advancing green practices that enhance Vermont’s brand in those companies, organizations and communities that manage and control their day to day activities, or provide public service, so as to provide a measurable protection or enhancement to the world’s natural systems through waste reduction, remediation, recycling, energy conservation, reduction of carbon footprint, utilization or creation of alternative clean energy sources, employ innovation of work or production schedules, employ transportation efficiencies, so as to reduce negative impacts on the environment.

## VI. GUIDING PRINCIPLES IN MOVING FORWARD

Vermont's objective should be maximizing the number of companies, organizations and communities participating in sustainable and "green" operations and practices. This will truly build Vermont's reputation and brand as a "green state". This includes companies which have "green" products and services as their core business activity, and also those who have multiple products and activities, some of which achieve the "green" definition to be developed, and also those companies and organizations with products and services which are not identifiable as "green", but who conduct their business and activities in a manner which promotes sustainable and environmentally sound objectives. Vermont can and will become the most "green" when every company, organization and community pursues this objective.

### A. Vermont's green economic cluster is composed of an array of subsectors, each requiring attention. These subsectors include, but are not limited to:

- *Environmental Remediation and Pollution control*: air and water pollution control, potable water systems, waste and storm water treatment systems, waste management, recycling, and ecological restoration businesses.
- *Clean technology*: technology companies focused on treatment and prevention of environmental impacts or contamination through pollution prevention and clean alternatives.
- *Energy efficiency and conservation*: products and services specific to promoting and enabling the efficient use of energy
- *Renewable energy*: Generation 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.
- *Finance*: The use of innovative financial services to enable clients to offset their carbon footprint, finance energy efficiency, to create local risk capital pools and invest in alternative energy.
- *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.
- *Innovation technology*: technology companies that are leaders in innovation focused on the creation of world class technology design, development, manufacturing, production and services.

### B. Green operating practices are increasing as standard practice among many types of businesses and institutions in Vermont whether or not they have "green" products and services as their core business activity. Businesses and institutions that conduct, or seek to conduct, their activities in a manner which promotes sustainable and environmentally sound objectives also need to be recognized as part of the state strategy for growing a green economy. Vermont can and will become the most "green" when every company, organization and community pursues this objective. The measurements may include: Those companies, organizations and communities that manage and control their day to day activities, or provide public service, so as to provide a measurable protection or

enhancement to the world's natural systems through waste reduction, remediation, recycling, energy conservation, reduction of carbon footprint, utilization or creation of alternative clean energy sources, employ innovation of work or production schedules, employ transportation efficiencies, so as to reduce negative impacts on the environment. Work to enhance green operating practices that should continue and be further developed includes:

- Efficiency Vermont's support to businesses and institutions to reduce electrical usage.
- The Governor's Awards for Environmental Excellence and Pollution Prevention
- The Vermont Environmental Consortium's recent "Green Makeover" video

**C. To meet the needs of these clusters and green business practices, Vermont must do better in the following ways.**

1. Government must provide leadership and demonstrate commitment to green practices, focus on providing coordinated support to environmental enterprises and function in a client-focused manner.
2. Education must be committed to providing the workforce with the knowledge base and versatility to tackle the challenges and imagine the opportunities in technological innovation.
3. Business must be prepared to coordinate its response, investment and address its responsibility.
4. All three must work together, in a coordinated manner, to ensure harness the creativity and stimulate the innovation necessary for the growth of a vibrant green economic cluster.

**D. The state of Vermont must demonstrate through its internal actions and investments a significant commitment to Vermont's environmental entrepreneurs** by supporting the expansion of the green sector through implementing the tools, goods, and services developed locally in state, municipal and institutional buildings whenever practicable. The adoption of green practices is vital to sustaining the Vermont brand of environmental integrity and innovation.

**E. Vermont's working landscape and tight knit communities are key defining features of its green brand identity.** The economic vitality of Vermont's communities and working landscapes are vital to the preservation of Vermont's brand of environmental integrity, authenticity and quality.

**F. Building a vibrant green economic sector will require new skill sets, new entrepreneurial energy, and a growing workforce of skilled, entry-level workers.** Succeeding will require continued innovation in the ways in which Vermont is already investing in programs to attract and retain young professionals to become active players in the state economy.

## CONCLUSION

This engagement process was initiated to better understand the needs of Vermont's environmental entrepreneurs and leaders. What we found was a strong entrepreneurial spirit, deep green ethic and widespread commitment to economic growth that meets the needs of this generation without compromising the needs of the next. We heard numerous suggestions for how we can grow environmental enterprises and industries committed to the development of value-added goods, 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, and create high wage jobs for Vermonters.

In order to continue to grow these sectors, Vermont's actions must be bold, sustainable and coordinated to build a foundation, year by year, for a dynamic green economic cluster to grow and develop; a wide variety of actions, some small steps and others more aggressive, represent a broad based strategic approach that can be continued within the context of resources that can be reliably invested by the State and coordinated by all partners in this collective enterprise. A framing of those steps is offered in a Policy Memorandum by GBIC that grew directly out of this process (See Appendix H).

In the global marketplace, the fundamentals of business and commerce are necessarily changing. This is a time of enormous challenge and tremendous opportunity for those places that seek to advance through creativity and innovation. Green represents the largest economic and innovation opportunity of the 21<sup>st</sup> century. Vermont is recognized globally as a green and sustainable place, green is our brand. Now Vermont has the opportunity to build upon this brand and create economic opportunities for Vermonters while making significant contributions toward protecting and enhancing the world's natural systems and reducing negative impacts on the environment. Vermont's objective should be maximizing the number of companies, organizations and communities participating in sustainable and "green" operations and practices and producing innovations in products and practices that are viable to compete in the global marketplace. Vermont can and will become the most "green" when every company, organization and community pursues this objective.

# APPENDICES

## SUMMER STUDY

Appendix A:  
GBIC /LCRCC Green Economic Development Strategy Summer Study

## FOCUSED CONVERSATIONS

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Discussion Guide

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Themes from the Focused Conversations

## STAKEHOLDER MEETING

Appendix D:  
Stakeholder Meeting Agenda (February 12, 2008)

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## POTENTIAL ACTIONS

Appendix H:  
GBIC Policy Memorandum on the green economic sector

SUMMER STUDY

**Appendix A:**  
**GBIC /LCRCC Green Economic Development Strategy Summer Study**



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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Fax (802) 860-1899 Web: <http://www.vermont.org/gbic> • e-mail: [gbic@vermont.org](mailto:gbic@vermont.org)  
*Greater Burlington Industrial Corporation*

## 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, support 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 by a study committee 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, 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 New Capitalism Movement,

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.
- 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.

**FOCUSED CONVERSATIONS**

**Appendix B: Discussion Guide**

**DISCUSSION GUIDE**

**Green Economic Sector**

**January 2008**

**-- Heidi Klein, for *The Snelling Center for Government***

*“GBIC concept of a Green Economic Sector is 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. The sector definition is intrinsically tied with positive economic growth rather than restrictive policy.”*

**GBIC Goals:**

- Building a vibrant and strong sustainable green economic 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.
- Raising Vermont’s profile as a hub of environmental integrity, innovation and opportunity.
- Encouraging green entrepreneurial activities within state borders including the attraction of external venture capital through educational and economic incentives.

**Project Goal:** Develop strategic concepts that lead to public policy and legislation to advance a ‘Green Economic Development Strategy’ for Vermont’s economy.

**Discussion Goal:** to identify key factors that encourage or limit the development and flourishing of a green economic sector in Vermont that creates high wage jobs, brings revenue to Vermont, and encourages entrepreneurial activities

## *Discussion Guide (January 2008)*

### **(10) Welcome and Introductory Remarks**

- **Why We Are Here Today**
  - We are here to learn from you, specifically, we hope to hear about your experiences in creating new businesses in Vermont and what factors either eased or limited your ability to do so
  - We also hope to hear some of your ideas regarding how the State of Vermont could better support your efforts to create and/or maintain a green business sector in Vermont
  - We are building on the work of GBIC and the Lake Champlain Regional Chamber of Commerce and the framing of the Green Economic Development Strategy
  - This discussion is part of an effort sponsored by the GBIC which will inform the development of a set/series of legislative proposals
  - Share working definition of green economy – developed through a summer study group convened by GBIC and LCRCC
- **Why You Were Chosen/Asked To Participate**
  - Each of you has been invited because of your experience in creating a green product or service in VT
- **What We Hope You Will Contribute**
  - Your experiences
  - Your understanding of the key issues you face in considering the start-up, growth and/or maintenance of your business in Vermont
- **What Specific Perspective (Hat) We Hope You Will Be Speaking From Today**
  - We recognize that you all have demonstrated leadership and likely have many thoughts on opportunities to create a more supportive green business economy. During this session, we are asking that your responses reflect your personal experiences rather than any particular ideology.
- **My role/job:**
  - pose questions
  - help ensure that everyone who wants to has an opportunity to respond
  - keep the discussion moving forward -- I appreciate your understanding if I need to interject in the discussion to get us back on track.

### **(10) Introductions**

Let's start with quick introductions. Please introduce yourself briefly, by sharing your name, and a BRIEF description of your business: primary product/service, # of years in operation in VT, and size (either # of employees or gross sales in 2007).

**AFTER PARTICIPANTS HAVE GONE AROUND THE ROOM, ASK OBSERVERS TO STAND AND INTRODUCE THEMSELVES (NAME AND AFFILIATION)**

*Discussion Guide (January 2008)*

(PART I: OPEN/PARTICIPANT DRIVEN)

(30 min) Vermont Assets

1. **How did you choose to base your company or office in Vermont?** (quick call out)
  
2. **What are some of the assets that were available to you in creating/ growing/ maintaining a “green” business in VT?**
  - What would you say are some of the competitive strengths or advantages in the state of Vermont? (Possible probes: Infrastructure, Labor pool, Skilled workers, Quality of life)
  
  - Are there any additional assets or advantages in VT that will hold you here?
  
3. **What types of initiatives or incentives have been helpful to you?**
  - What state support, for training or financing, have you utilized or relied upon?

(15 min) Vermont Barriers

4. **Did you experience any obstacles in creating/growing/maintaining a “green” business in VT?**
  - What factors in VT do you think/believe may have limited your company’s development?

Possible probes: workforce, customers, financial/capital, business climate

- |   |   |
|---|---|
| <input type="checkbox"/> Tax Structure            | <input type="checkbox"/> Transportation                     |
| <input type="checkbox"/> Credit Availability      | <input type="checkbox"/> Housing Availability/Affordability |
| <input type="checkbox"/> Workman’s Comp. Cost     | <input type="checkbox"/> Health Care Costs                  |
| <input type="checkbox"/> Energy Costs             | <input type="checkbox"/> Permit/Regulatory Process          |
| <input type="checkbox"/> Labor Costs/ Supply      | <input type="checkbox"/> Access to Telecom/Technology       |
| <input type="checkbox"/> State Support/Incentives |   |

- What factors might lead to a decision to re-locate outside of Vermont?

(10 min) Open-ended legislative/regulatory

5. **Is there specific legislative or regulatory action(s) that would enhance your ability to do business in the State?** (Note: Offer this question for thinking not full response; set up for discussion in Part II.)

(65 mins)

*Discussion Guide (January 2008)*

(PART II: TESTING OUT THEMES)

As I mentioned we are building off of the work of GBIC/LCRCC in developing a Green Economic Development Strategy. I want to share with some **themes** that have emerged in discussing ways to stimulate and support a green business sector. We are hoping to get your feedback on the issues, how they might affect your business or others like yours, and whether you would consider them key priorities in supporting businesses in creating a green economy. (NOTE: We may skip some of the issues if they were discussed in the first part of the meeting).

(15 min each) Themes

**6. Can anyone speak to VT's Workforce and how it has affected their growth?**

- How can the state respond to that experience?

**7. Can anyone speak to issues related to financing or access to capital and how it has affected their growth?**

- What could the state do to improve this?

Possible probes:

- Use of innovative tax structures to provide capital to encourage environmental enterprise
- Other sources of capital?

**8. How might collaboration between green sector businesses and higher education assist an emerging green sector and improve VT's competitive advantage?**

Possible probes:

- Targeting skill sets identified by entrepreneurs...
- Improved research capacity in the community (e.g. via a research grant fund)
- Improved technology transfer and support for commercialization efforts

**9. Can you help me to better understand "improved infrastructure?" What infrastructure improvements would to support green/environmental enterprise? (public sector investments, e.g. transportation, broadband, electricity, TA)**

**10. We have heard that for many companies in the green sector, their primary markets are not in VT. What are some incentives that could strengthen Vermont's communities as markets for green products and services and as a state that 'walks the walk' and reinforces its brand with action?**

*Discussion Guide (January 2008)*

(15 min) Branding campaign

- 11. What value do you think a branding campaign for Vermont would have for you and other like businesses?**

Possible probes:

- for business recruitment
- for selling Vermont green goods and services into national and international markets;
- Canadian outreach?

- 12. What opportunities, in your industry, do you see for Vermont to leverage its green brand and support the expansion of your businesses and those like it?**

(15 min) Priorities

- 13. If you had to reflect on priorities, is there any item that we have discussed that would be a lower priority in operating your business?** (quick call out only)

- 14. What have we missed in discussing the key factors** that encourage or limit the development and flourishing of a green economic sector in Vermont that creates high wage jobs, brings revenue to Vermont, and encourages entrepreneurial activities?

(10 min) Wrap Up

- 15. Suppose you had only 30 seconds with your state representative to talk about changes that you think would help to stimulate future development of a green economic sector in Vermont, what would you emphasize?** (Go around the room to hear from each participant)

**CLOSING**

THANK PARTICIPANTS AND OBSERVERS  
SHARE INFORMATION THAT PARTICIPANTS CAN TAKE WITH THEM

(115 minutes)

## FOCUSED CONVERSATIONS

### Appendix C: Themes from the Focused Conversations

## Strategic Options to support an emerging vibrant green economic sector in Vermont

### 1. Higher Education - Business - Government

*Create nexus among 3 sectors to support green enterprise*

- Create an Environmental Enterprise Institute
  - Develop curriculum to ensure **workforce readiness** for participation in a global green economy.
  - Initiate a **research program** committed to the development of a statewide environmental enterprise strategy.
  - Encourage the University of Vermont to create a globally premiere **Masters in Business Administration (MBA)** program in its business school centered upon the New Capitalism Movement, the Green Economy and Global Businesses for Social Responsibility.
  - Create **internships** within the program and require every eligible MBA candidate in the program to develop a viable green brand, concept or business plan.
- Conduct **labor skills study** to determine which skills are vital, and how access to training for those necessary skills can be upgraded and expanded.
- Establish **green business incubators** connected to support services and tied to higher education R&D, education and other resources

### 2. Promotional efforts

*Enhance marketing and branding efforts related to Vermont's green business sector*

- Regular showcasing of Vermont green businesses in public buildings, institutions and publications
- Showcase/promote VT entrepreneurial green business success stories
- Develop an Annual Green Business of the Year award/ Sustainable Business Plan Award in cooperation with the Vermont Environmental Consortium.
- Convene Vermont green job fair to promote sector and recruit workforce
- Enhance marketing efforts to regional, national and international trade shows
- Explore best framing for branding campaign –
  - Vermont is green business paradise
  - Vermont as the best place to work for green businesses
  - Vermont green products = quality, cutting edge innovation
- Establish Vermont green biz seal/ certification to demonstrate quality

## **Themes from the Focused Conversations**

### **3. Workforce**

*Develop and support a continuum of workforce recruitment, retention and skill development initiatives specific to the current and future needs of the green economic sector*

- Develop a virtual academy of applied science and technology curriculum, taught at the secondary school level that includes a community partnership between a school district, Vermont's institutions of higher education and the private sector.
- Support relationships between specific businesses and educational institutions (Tech Ctrs, colleges, training programs) to meet specific needs
- Provide state college aid for students to take up green trades and fields within VT
- Establish on-going programs (e.g. internships, work study, career days) between green businesses and high schools to create steady flow of personnel for entry level jobs

### **4. Financing**

*Expand the range of financing options and capital resources for green businesses*

- Develop a green economy tax incentive for businesses that engage in clean technology innovation.
- Explore innovative options such as the aggressive implementation of the Clean Energy Investment Fund or bond issuance for renewable energy.
- Provide seed grants for R&D phase
- Establish seed fund (e.g. UVM fund) for Higher Ed Research to production phase
- Encourage development of Venture Capital that is friendly to keeping innovative businesses in Vermont
- Create Green Economic Incentives (Green VEGI)
- Provide economic incentives for installing local power production; using green Vermont energy technology

### **5.. Business Development**

*Create focal points in business development programs and opportunities for green businesses*

- 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.
- Facilitate eco-tourism by developing a web-based inventory of green activities, green buildings and sustainable community assets.
- Government sponsored linking of green businesses – formal network;
- Establish eco-industrial parks to cluster green businesses for networking, innovation and B→B integration of products and services
- Promote Business to Business networks, matching interests, needs for goods and services, doing business together, sourcing from each other; encouraging collaboratives and partnerships

## **Themes from the Focused Conversations**

- Provide technical assistance and mentoring support to entrepreneurs and small business in developing sound business plans
- Focused assistance for "idea to product" phase of green business ideas
- Coordinate governmental support, across agencies, to green sector businesses

### **6. Model Green Sector**

*Establish policies for government and public sector institutions to model green practices and stimulate Vermont green business markets*

- Set standards for state buildings, public institutions, etc. to meet LEED; to demonstrate commitment to and take advantage of Vermont grown green technology
- Showcase Vermont technology (goods and services) in/on public institution buildings(e.g. statehouse, welcome centers, universities and colleges)
- Establish purchasing preference for Vermont green product and services - source in state first and provide cost incentive for buying from local green biz
- Develop and utilize green standard/seal/certificate as part of showcasing Vermont green technologies
- Identify a bold policy to demonstrate VT commitment to being “green” and to support green sector development – a necessary precursor to effective and authentic branding and promotion

### **7. Regulation and Legislation**

*Align state regulatory and policy development to support green sector growth*

- Encourage development and use of incentives within local and Act 250 regulatory frameworks to stimulate sustainable and efficient building design (e.g. floor area or height bonuses in local zoning, expedited permit review, or fee reductions).
- Expedite approval process for temporary siting of meteorological measurement systems
- Encourage legislation to expand the statutory definitions of farming in Act 250 to facilitate on site production of fuel or power from technology relying on a resource consumed at or below its natural rate.
- Allow agricultural development funds for a broad variety of renewable or low carbon agricultural energy projects.
- 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.
- Fast track and tightly coordinate permitting (state to local) for green business start-up or expansion

**Themes from the Focused Conversations**

**8. Cross-Cutting Strategies**

*Strategies which may serve/address two or more critical factors in stimulating and supporting a vibrant green economic sector*

## STAKEHOLDER MEETING

### Appendix D: Stakeholder Meeting Agenda (February 12, 2008)

#### **Green Economic Sector Stakeholder Meeting**

February 12, 2008, 9:00 am to 12:00 pm

*How do we grow and sustain a vibrant green economic sector in Vermont?*

**Goal:** Obtain stakeholder ideas and perspectives on implementation strategies that will create/bolster a vibrant green economic sector in Vermont

#### **Objectives:**

- Share themes from the GBIC/LCRCC summer study and focused conversations
- Build upon potential strategies identified
- Articulate key criteria to assess strategic initiatives
- Note stakeholder priorities for strategic action

#### **Agenda:**

##### **Welcome and Framing the Project Objectives**

- Review purpose of project/initiative
- Share GBIC working definition of “Green Economic Sector”
- Outline process used by GBIC to generate policy agenda

##### **Today’s Meeting**

- Review goal and objectives
- Share agenda – process and logistics

##### **Emergent Themes**

*What we have learned from our research and from Green Businesses in Vermont about the factors that affect the development and growth of a green economic sector?*

- Outline themes related to doing business in VT
- Share categories of potential strategic action

##### **Linking the Assets in the Room (small group discussions)**

*What do you or your agency/organization have to offer in building or supporting a green economic sector in Vermont?*

##### **Break and Chart Walk Of Resources**

##### **Strategic Options to Create a Vibrant Green Economic Sector**

*What concrete actions, strategies or changes will help to stimulate and advance a green economic sector in Vermont?*

- Review suggestions from summer study and focused conversations
- Add new ideas and offer cautions

##### **Criteria for Setting Priorities for Strategic Action**

*What criteria will be used to select among the potential strategies?*

- Share initial set of criteria for setting priorities for strategic action
- Solicit additional criteria for consideration

**Session Wrap-Up** Next steps in the process

##### **Chart Walk and Priority Notation**

*Which of the strategies suggested do stakeholders find most compelling?*

## STAKEHOLDER MEETING

### Appendix E: Participants at the Stakeholder Meeting (February 12, 2008)

Alliance for Building Community	Greg Moschetti
Associated Industries of Vermont	Bill Sayre
Brattleboro Dev. Credit Corp.	Jeff Lewis
Chittenden County Regional Planning	Greg Brown
Commission on the Future of Economic Development	Jay Kenlan
Commission on the Future of Economic Development	Mary Lintermann
Community Investments	Jill Michaels
Franklin County Industrial Dev. Corp.	Timothy Smith
Freshtracks Capital	Tim Davis
Green Planet Partners	Kevin Hartley
groSolar	Dorothy M. Wolfe, P.E.
Marlboro College	Ralph Meima
National Life Group	Shawn Bryan
NativeEnergy, Inc.	Rob Smart
Northeastern Vermont Dev. Assoc.	Steve Patterson
NRG Systems	Abby White
REV/Biofuels Association	Sam Swanson
Small Business Development Center	Mark Blanchard
U.S. Congress - Office of Peter Welch	Patricia Coates
U.S. Congress - Office of Senator Patrick Leahy	Ted Brady
UVM College of Engineering	Melody Brown Burkins
UVM College of Engineering	Domenico Grasso
Vermont Business Roundtable	Lisa Ventriss
Vermont Businesses for Social Responsibility	Will Patten
Vermont Center for Emerging Technologies	David Bradbury
Vermont Chamber of Commerce	Chris Carrigain
Vermont Community Loan Fund	Sam Buckley
Vermont Country Store	Ken Martin
Vermont Energy Investment Corporation	Nancy Wasserman
Vermont Environmental Consortium	Daniel Hecht
Vermont Natural Resources Council	Johanna Miller
Vermont State Colleges	Philip Petty
Vermont Sustainable Jobs Fund	Ellen Kahler
Vermont Sustainable Jobs Fund	Janice St. Onge
Vermont Technical College	Joan Richmond-Hall
Vermont Technology Council	John Evans
VT Agency of Agriculture	Anson Tebbets
VT Agency of Agriculture	Dan Scruton
Agency of Natural Resources	George Crombie
VT Department of Education	Doug Webster
VT Department of Labor	Patricia Moulton Powden
VT Dept. of Public Service	Robert Ide
VT Legislature	Gaye Symmington
Washington Electric Coop	Avram Patt

## STAKEHOLDER MEETING

### Appendix F: Assets in the Room Stakeholder Meeting (02-12-08)

#### **Linking the Assets in the Room**

##### **Alliance for Building Community (Brattleboro) – Greg Moschetti**

- Community organization working on issue of poverty and economic development group focused on employment opportunities in green economy for impoverished individuals
- Training and transitional employment in green collar jobs
- Own market research/consulting company
- Worked in brand equity, positioning, new product development for Fortune 500 companies

##### **Agency of Natural Resources – George Crombie**

- Establishment of Center for Climate Change and Waste Reduction
- Developing Climate Change Collaborative
  - Agencies and higher education
  - Broad state think tank, coordinated and collaborative
  - Development of comprehensive bio fuels market

##### **Associated Industries of Vermont – Bill Sayre**

- Environment Issues Task Force
- Sustainable Forestry Initiative – green certification program to wood products
- Potential to absorb and store carbon emissions
- Renewable energy sources

##### **Brattleboro Development Credit Corp. – Jeff Lewis**

- Local knowledge – people and companies
- Strong relationships, resources, contributors, policy makers
- Network building
- Access for small businesses to mentoring, capital, debt financing

##### **Center for Sustainable Practice at Vermont Tech – Phil Petty**

- Education; Outreach
- Sustainable design and technology program
- Center for sustainable practices
- Programs that really matter in the green economy
- Workforce training Vermont students who stay/live/work in Vermont

##### **Chittenden County Regional Planning – Greg Brown**

- Land use/ housing/ environmental policy analysis for legislature
- Assistance to RDC, and business with location decisions and permitting
- Implementation of state and federal programs; ex: Brown Fields Assessment
- Explore potential for innovative land use environmental regulation

##### **Community Investments – Jill Michaels**

- Organizational development; Small business development; Recruitment
- Policy development; Lobbying (advocacy)
- Fundraising/secure financing
- Eastern/small town Vermont

## ***Linking the Assets in the Room***

### **Congressman Welch**

- Connecting Vermont with federal resources
- Advocacy for Green Economic Sector in US Congress

### **Department of Education**

- Change environmental education funding
- Adjust skill standards, assessments, and curriculum that support environmental education
- Facilitate aligning education with economic clusters --Demonstrated security of investment

### **Department of Labor – Pat Moulton Powden**

- Developing a workforce development plan for the green economy
- Have resources/training grants to help do customized training for Vermont employers
- Working on developing workforce development systems to support all sectors including green
- Like to see where we can embed green training into existing and new programs
- Like to work with business associations/organizations to develop statewide/systems approaches to training/workforce development

### **Department of Public Service – Rob Ide**

- I bring
  - Knowledge of Vermont
  - Experience being regulated
  - Now a regulator
  - Clean Energy Fund administrator

### **Franklin County Industrial Development Corp. – Tim Smith**

- RDC serves in the capacity of conduit between state and federal programs in the recruitment of value added companies (green or otherwise)
- Franklin County has a number of alternative energy projects, ex: methane, biomass, compost heat collection

### **Freshtracks Capital – Tim Davis**

- Provide process for business plans
- Provide access to sources of business services
- Provide access to capital in Vermont --Demonstrated security of investment

### **GBIC**

- Promote Vermont as place for investors and companies to make investments and create jobs for Vermonters
- Be a catalyst to advance green economic development strategies in Vermont government
- Facilitate government education and business services and programs to green businesses
- Bring economic development tools to business: finance, training, permit assistance, incentives, workforce development, and as a facilitator.

### **Green Planet Partners – Kevin Hartley**

- Building national consumer brands (focused on progressive values) that can successfully compete on the national stage
- Tons of marketing strategy research to help brands succeed

## ***Linking the Assets in the Room***

### **GroSolar -- Dorothy Wolfe**

- Experience and perspective
- Education and teaching
- Pioneered path to success in Vermont
  - Demonstrated security of investment; Bringing investment dollars from out of state

### **HACC – Joan Richmond**

- Vermont Tech Sustainable Design and Technology
- Center for sustainable practices
- Technical education
- Awareness of green and sustainable careers
- Agency of Agriculture – methane
- NRG – workforce

### **John Evans**

- UVM College of Medicine
- Entrepreneur – business owner
- Vermont Tech Council / Vermont Center for Emerging Tech
  - Help bring technology to private sector – 150 scientists, 100 million research budget – lots of basic technology
  - Environmental health as a niche area

### **Marlboro College – MBA in Managing for Sustainability**

- Program inaugurated this fall
- 2/3 of students not Vermont based
- Required course in climate change and carbon markets
- Emphasis on systems thinking and triple bottom line

### **National Life Group / Vermont Green Building Network (BOD) – Shawn Bryan**

- Capital for investment (NCG)
- Education (VGBN)
- Resource networking (VGBN)
- Consumer of services (NCG)
- Corporate leadership (NCG)
- Employment (NCG)

### **Native Energy – Rob Smart**

- Brand leadership in emerging US voluntary carbon market
- Job growth in green sector
- National and Vermont consumer brand clients (national recognition)
- Renewable project development in disadvantaged communities

### **NRG Systems – Abby White**

- Knowledge, relationships, networks in wind industry
- Jobs in wind
- Entrepreneurial know how

## ***Linking the Assets in the Room***

### **NVDA – Steve Patterson**

- Coordination of projects and Planning assistance
- Site location
- Financial assistance

### **Renewable Energy Vermont – Sam Swanson**

- Represent diverse community of renewable energy providers
- Link to industry trying to deploy renewable energy
- Link to national markets for clean energy

### **Senator Patrick Leahy**

- Flexible, targeted funding
- Expansion of past investments in WDC, STF, higher education
- National programmatic to PGMS that could assist Vermont in green jobs initiative
- National leadership

### **Snelling Center – Charlie Smith**

- Staffing GBIC Green Sector
- CFED process (Vermont Strategic Economic Development Plan)

### **UVM – College of Engineering and Mathematical Sciences – Domenico Grasso**

- Research and education for environment and energy in holistic systems
- Support, contract for, and build in state renewable resources
  - Utility scale
  - Distribute generation – landfill
  - Personal – net metering
  - Community
- Efficiency and conservation residential
  - Electric
  - Thermal
- Utility support of broadband in rural areas

### **UVM College of Engineering and Mathematical Sciences / Vermont Engineering and Environment Advisory Council – Melody Burkins**

- Economic development partnerships
- Developing and organizing portals
- Education
- Research/ R&D innovation/ Tech transfer
- UVM access

### **VEIC – Nancy Wasserman**

- Expertise in: Renewable; Energy efficiency; Program development; Green building; Policy development
- Jobs; Analysis
- Efficiency measures
- Better building by design conference

## ***Linking the Assets in the Room***

### **Vermont Agency of Agriculture – Dan Scruton**

- Farm based renewable energy
- Design and project development assistance
- Technical and funding assistance for farm projects
- Expertise in anaerobic digestion
- Advocate for agricultural issues
- Realistic goal setting for energy from agriculture sector
- Track new product development and progress

### **Vermont Agency of Agriculture – Anson Tebbetts**

- Farmers
- Buy local
- Specialty food industry
- Value added products
- Renewable energy projects on farms
- Technical assistance

### **Vermont Business Roundtable – Lisa Ventriss**

- Mission: to make Vermont the best place in America to do business, be educated, and live life.
- Address long range policy issues in Vermont through independent research and develop recommendations that benefit all Vermonters, and seek to ensure equilibrium between economic, community, and environmental issues.

### **Vermont Businesses for Social Responsibility – Will Patten**

- 600 Vermont businesses committed to creating a new, green business model for Vermont and demonstrating its success

### **Vermont Center for Emerging Technologies – Dave Bradbury**

- Start-ups

### **Vermont Chamber of Commerce – Chris Carrigan**

- Industry resource
- Advocacy at state house
- Marketing/advertising
- Partnerships/International trade

### **Vermont Community Loan Fund**

- Affordable housing lending
- Child care lending
- Business lending – filling niche of risk
  - Livable wage jobs
  - Downtowns
  - Working landscape
- Knowledge and facilitation of other sources of capital and business assistance

## ***Linking the Assets in the Room***

### **Vermont Country Store – Ken Martin**

- Strong commitment to green thinking
- Passionate
- Trusting in community/nation
- Ability to offer products and knowledge to large customer base
- Large and diverse workforce covering central and southern parts of state
- Large consumer of products/services
- Vermont born business – deep in culture – family owned

### **Vermont Environmental Consortium – Daniel Hecht**

- Non-profit membership organization (formed in 2000) with 75 members
- Provide services to members and to green sector generally
- Help build market for awareness of green enterprise; Define sector broadly – interdisciplinary
- Work in interdisciplinary, intersector partnerships
- Track trends, promote networking, track Vermont industries, survey the sector
- Special projects pioneer innovative technology and practices
- Data on what/who (green enterprises) is in Vermont
- Nexus of information on industry developments, resources, people, technologies
- Broad contacts within every green segment
- Often work in partnership with state agencies – Agriculture, ANR, Commerce
- PR, promotion, journalism, grant writing, publications

### **Vermont National Resources Council – Johanna Miller**

- Extensive land use and energy policy expertise
- Statewide, active membership
- Connection to growing network of engaged, inspired town energy committees in Vermont
- Co-founder of Vermont Energy and Climate Action Network (town energy committees)
- Member of Governor’s Commission on Climate Change
- Member based statewide land use and environmental policy organization at local and state level--Planners, scientists, writers, lawyers, organizations

### **Vermont Sustainable Jobs Fund -- Janice St. Onge & Ellen Kahler**

- Market sector development enterprise – in sustainable agriculture, forestry, bio fuels, renewable energy, environmental technology, and waste reduction
- Technical assistance – peer to peer coaching for growing companies in core sectors above
- Networks – access to broader networks connecting entrepreneurs
- Strategic thinking/future orientation – we look ahead to where Vermont needs to be
- Grant making; Technical assistance and network building
- Market building approach (strategic) in natural resource and green enterprise sectors
  - To build green enterprises at different stages of development
  - Leading to job creation by these in the sectors we work in

### **VTSBDC Technology Commerce – Mark Blanchard**

- Work with existing or start up businesses researching innovations which enable better economic returns.
- Strategic planning and evaluation of the fundability of the technology

**Appendix G: Potential Strategies Generated by Stakeholders**  
(February 12, 2008)

**CODING** Black = brought to meeting; Blue = new ideas; Red = cautions; Yellow = priority

**Strategic Options to support an emerging vibrant  
green economic sector in Vermont  
From the Stakeholder Process (2-12-08)**

**1. Higher Education - Business - Government**

*Create nexus among 3 sectors to support green enterprise*

- Create an Environmental Enterprise Institute
  - **Caution:** Make environmental enterprise collaborative not institute. The ideas under this category should be independent but all under a single additional bureaucracy.
  - Develop curriculum to ensure workforce readiness for participation in a global green economy.
  - Initiate a research program committed to the development of a statewide environmental enterprise strategy.
  - Encourage the University of Vermont to create a globally premiere Masters in Business Administration (MBA) program in its business school centered upon the New Capitalism Movement, the Green Economy and Global Businesses for Social Responsibility. (1 dot)
  - Change the UVM business school into the leading green business school in the world.
  - **Caution:** broaden category for UVM MBA to include all/more environmental disciplines.
  - Create internships within the program and require every eligible MBA candidate in the program to develop a viable green brand, concept or business plan. (1 dot)
  - **R&D** focused on new products/technologies and to solve problems (e.g., University of Waterloo). (1 dot)
  - Create various colleges at UVM (could also expand out to other colleges/universities): environmental education institute, natural resources, engineering and business, economics, agriculture, forestry.
  - **Caution:** Don't reinvent the wheel and create more committees and initiatives that are already happening. (4 dots)
  - **Caution:** Keep state's scale in mind when thinking of Stanford Silicon Valley concept.

## Potential Strategies Generated by Stakeholders

- Conduct ***labor skills study*** to determine which skills are vital, and how access to training for those necessary skills can be upgraded and expanded. (4 dots)
  - Establish ***green business incubators*** connected to support services and tied to higher education R&D, education and other resources. (3 dots)
    - **Caution:** ensure significant funding is available to invest in new business.
  - First step is to convene a forum or summit of major education and industry stakeholders to share info, explore possible collaborations, and brainstorm.
  - Develop higher education programs to do research on innovative ways to meet environmental permit requirements. (1 dot)
  - Expand beyond 3 important sectors to the nonprofit sector to harness people power and cultivate different ideas.
  - Build leadership capacity to implement all these good ideas – create leaders.
  - Remember that environmental education is a green enterprise segment with great growth and branding potential.
  - Inventory what resources are here now – what’s in our toolbox
  - What are the metrics of success? Need to establish benchmarks/goals.
  - 25 x 25 committee already in motion and should be encouraged to continue in developing renewable energy that is agriculture and forest based.
  - Legislature needs to make hard choices and move up from #47 in funding of higher education – thus boost innovating of technology transfer. (1 dot)
  - Coordinate existing resources so that education institutions and initiatives share information and work together – perhaps via climate change collaborative or comparable model.
  - Expand to public education and technology education beyond higher education.
- 

## **2. Promotional efforts** (1 dot)

*Enhance marketing and branding efforts related to Vermont's green business sector*

- Regular showcasing of Vermont green businesses in public buildings, institutions and publications
- Showcase/promote VT entrepreneurial green business success stories
- Develop an Annual Green Business of the Year award/ Sustainable Business Plan Award in cooperation with the Vermont Environmental Consortium. (1 dot)
- Convene Vermont green job fair to promote sector and recruit workforce
- Enhance marketing efforts to regional, national and international trade shows
- Explore best framing for branding campaign –
  - Vermont is green business paradise
  - Vermont as the best place to work for green businesses
  - Vermont green products = quality, cutting edge innovation
- Establish Vermont green biz seal/ certification to demonstrate quality

## Potential Strategies Generated by Stakeholders

- Secure grant funding to do innovative project like building a green sector business in \_\_\_ months/years.
- State level BHAG (Big Hairy Audacious Goal) – the first “Carbon Neutral State” (see interface carpet/Ray Anderson, Voxja in Sweden)
- Quality national perceptions of Vermont brand with regional cuts – National Research Project.
- Most brand-able segments:
  - Environment-related education (post secondary) if inter-institutional, businesses, and public agencies create statewide coordination effort.
  - Green consumer products
  - Products of sustainable agriculture practices
  - Carbon and ecology certification (highest standards)
- “Walk the Walk” – heard repeatedly in focus groups, that is Vermont’s policy environment and culture should be truly green.
- Get private sector involved in promoting their good work – joint marketing efforts.
- Financial support to Vermont Environmental Conservation to play advocacy policy role needed.
- Here’s the recipe:
  - BHAG – carbon neutral state by 2050
  - Legislative passes
    - Solar
    - Wind
    - Public transportation system
    - Gas mileage tax credits
  - Financing guys create a \$100 million private equity
  - Do national media branding campaign
  - Do national PR campaign
  - Bring UVM on board as the “Green University” – be the Stanford of the Silicon Valley
  - Revel in the success
- Promote/capture market for 21<sup>st</sup> century engineering for environment and green global economy.
- **Caution:** seals/certification need validation, weight, credibility or meaningless.
- **Caution:** leadership and budget changes impacting continuity of vision/BHAG (need law)
- **Caution:** goal is too lean – should be North American energy dependent by 2050 (3 dots)
- **Caution:** don’t do “farting around” things not connected to BHAG
- **Caution:** Be realistic! Every environmental enterprise area is not brandable. Pollution remediation science and engineering services are not. Green building design and build are somewhat. Traditional environmental industry sectors, ex: waste management is generally not. Need to prioritize branding efforts.

## Potential Strategies Generated by Stakeholders

### **3. Workforce**

*Develop and support a continuum of workforce recruitment, retention and skill development initiatives specific to the current and future needs of the green economic sector*

- Develop a virtual academy of applied science and technology curriculum, taught at the secondary school level that includes a community partnership between a school district, Vermont's institutions of higher education and the private sector.
- Support relationships between specific businesses and educational institutions (Tech Centers, colleges, training programs) to meet specific needs
- Provide state college aid for students to take up green trades and fields within VT.
  - **Caution: is this the most effective use of resources?**
- Establish on-going programs (e.g. internships, work study, career days) between green businesses and high schools to create steady flow of personnel for entry level jobs
- What "standards" do we teach and train? Need to develop/agree on the standard.
- Training/mentoring for impoverished and/or challenged individuals into "green collar" jobs.
- Embed green practices career counseling in green jobs/possibilities.
- Raise awareness of teachers, guidance councilors, etc to opportunity in green jobs.
- Customized training for existing green businesses -- incumbent worker training and new employees training.
- Utilize WETF and VTP resources.
- Develop industry councils/organizations that can coordinate with employers and develop the specific curriculum/strategies to "fill the pipeline" for talent/workers – career development and guidance. (7 dots)
  - **Caution:** WIB's exist for this purpose – "green the WIB"
- Ensure more senior level opportunities to retain and retrain our experienced workforce.
- Organize a 2-3 day green expo for:
  - Companies to display
  - Career fair
  - High school student visits
  - One in north and one in south
  - High school problem solving competition
- Develop a summer "grow" institute targeted at incoming college and tech school students (grades 10-14).
- Develop a continuum of green education and workforce activities that support the green sectors. K-16 with workforce development/incumbent worker training/lifelong learning. Involve all involved k-12, high education, and training resources.
- Green certification programs in trades/professions that would focus tech schools on green.

## Potential Strategies Generated by Stakeholders

### 4. Financing

*Expand the range of financing options and capital resources for green businesses*

- Develop a green economy tax incentive for businesses that engage in clean technology innovation. (1 dot)
- Explore innovative options such as the aggressive implementation of the Clean Energy Investment Fund or bond issuance for renewable energy.
- Provide seed grants for R&D phase (1 dot)
- Establish seed fund for Higher Ed Research to production phase (1 dot)
- Encourage development of Venture Capital that is friendly to keeping innovative businesses in Vermont (1 dot)
- Create Green Economic Incentives (Green VEGI)
- Provide economic incentives for installing local power production; using green Vermont energy technology (1 dot)
- Provide match making services – market sector management talent with entrepreneur/business who have outgrown their skill set in growing business. Being done informally now.
- Encourage and support broader spectrum of capital for green sector
  - Flexible, patient capital like sub debt/royalty that matches business plan with financing instrument – model cash flow.
  - There are good growth plans that are too risky for bank debt, and not high enough margins/growth rate for venture capital.
- Reduce capital oasis tax rate for Vermont and/or “green” investments.
- Enhance/beef up financing mechanisms with tech assistance and mentorship (don’t just leave the money and run). (1 dot)
- Create an insurance model for REC’s in Vermont. (3 dots)
- A coherent/supportive system including both funding, TA, etc.
- Fund any initiatives with significant amounts – critical mass counts; better to focus on fewer initiatives and do them effectively. *Peanut butter effect – spreading so thin you can’t taste it.*
- Higher risk = higher return (2 dots)
- Raise instate venture fund to increase access to needed capital (very hard to attract outside capital). (1 dot)
- Provision of rigorous technology assessment.
- Provision of rigorous market assessment – funding academic/private analysis for selected ventures on a competitive basis.
- Reduce/eliminate capital gains tax on certain investments held for “longer” multi-year periods.
- Create a guarantee program for loans from existing financing sources.
- Create the largest per capita business start up grants in the nation (*the Vermont legislature contributes more dollar per citizen to green business start-ups than any state in the nation*).
- **Caution:** Need rigorous assessment of initiatives to support – avoid picking winners and losers

## Potential Strategies Generated by Stakeholders

- **Caution:** Need more venture money but we have venture/angle money for good deals with right growth rate/margins. Need to improve deal flow by developing management talent, good business plan, and strong linkage to in depth TA.
- 

## 5. Business Development

*Create focal points in business development programs and opportunities for green businesses*

- 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.
- Facilitate eco-tourism by developing a web-based inventory of green activities, green buildings and sustainable community assets. (1 dot)
- Establish eco-industrial parks to cluster green businesses for networking, innovation and B→B integration of products and services
- Promote Business to Business networks, matching interests, needs for goods and services, doing business together, sourcing from each other; encouraging collaborative and partnerships
- Provide technical assistance and mentoring support to entrepreneurs and small business in developing sound business plans (4 dots)
- Focused assistance for "idea to product" phase of green business start-ups
- Coordinate governmental support, across agencies, to green sector businesses. (6 dots)
  - Financial assistance
  - Distribute university research capability
  - Create intellectual capital in every region.
  - Link student groups to growing businesses to develop business plans to meet growing needs of a "host" business.
  - Small R&D grants cooperative. (1 dot)
  - Market development/teaching companies how to be "green"
  - Technical assistance across all stages of business development.
  - Bars and social network building.
  - Focus on system improvement based on experience (older workers)
  - Create 15 fellowships where the State of Vermont pays executives from Apple, Wall Street, Global Advertising agencies, etc. to do your long fellowship to help the green businesses in the state.
- **Caution:** Incubator – failure if no on-going support.

## Potential Strategies Generated by Stakeholders

### 6. Model Green Sector

*Establish policies for government and public sector institutions to model green practices and stimulate Vermont green business markets*

- Set standards for state buildings, public institutions, etc. to meet LEED; to demonstrate commitment to and take advantage of Vermont grown green technology
  - Showcase Vermont technology (goods and services) in/on public institution buildings(e.g. statehouse, welcome centers, universities and colleges)
  - Establish purchasing preference for Vermont green product and services - source in state first and provide cost incentive for buying from local green biz. (2 dots)
  - Develop and utilize green standard/seal/certificate as part of showcasing Vermont green technologies (1 dot)
  - Consider a seal that sets standard that Vermont consumers can use to buy green friendly projects.
  - **Caution:** Will be difficult for Vermont standard/seal to get above many existing ones in US/International markets.
  - **Caution:** May make it harder to start or grow business
  
  - Identify a bold policy to demonstrate VT commitment to being “green” and to support green sector development – a necessary precursor to effective and authentic branding and promotion
  - Statewide collaborative – coordinated and promoted (not just money). Link and advertise:
    - Educational
    - Governmental
    - Private sector resources
  - Government must walk its talk and not set the bar higher for everyone than it sets for itself.
  - Government should set ambitions but achievable (smart) goals and create step-by-step mandates and funding to move toward them. (1 dot)
-

## Potential Strategies Generated by Stakeholders

### **7. Regulation and Legislation**

*Align state regulatory and policy development to support green sector growth*

- Encourage development and use of incentives within local and Act 250 regulatory frameworks to stimulate sustainable and efficient building design (e.g. floor area or height bonuses in local zoning, expedited permit review, or fee reductions).
- Expedite approval process for temporary siting of meteorological measurement systems
- Encourage legislation to expand the statutory definitions of farming in Act 250 to facilitate on site production of fuel or power from technology relying on a resource consumed at or below its natural rate. (2 dots)
- Allow agricultural development funds for a broad variety of renewable or low carbon agricultural energy projects.
- 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. (1 dot)
- Develop criteria for the expedited site review of small-scale hydro electric projects.
- Fast track and tightly coordinate permitting (state to local) for green business start-up or expansion
- Ensure that the environmental regulatory system approach allows or supports innovative green technologies
  - **Caution: politically DOA – any special treatment for green sector.** (1 dot)
- Make use of scientific enterprise available on issues and technologies, ex: VASE.
- Have standing science and technology committees in house and senate – focal point of expertise. (1 dot)
- Carbon taxes to fund renewable energy development. (6 dots)
- Add processing of fuel crops and generation of energy to accepted agriculture practices exempt from local permitting.
- Expand RGGI beyond electric to all fuels. (1 dot)
- State actively embraces through policy of regulation, the development of commercial scale (ex: industrial) renewable generation. (5 dots)
- Pass the most aggressive green business legislation in the nation! (2 dots)
  - Car fuel economy credits
  - New business start up credits
  - Creation of a \$20 million annual national marketing budget
  - 15 national fellowships panel
- Review all steps to regulatory, process and shorten all time, blocks aggressively. (1 dot)
- Develop innovative transit system and financing statewide
- A statewide single public transportation authority (7 dots)
- A Vermont seal of authenticity like the capital insurance model.
- Expand criteria 5 in Act 250 to consider energy consumption and carbon benefits. (2 dots)

## Potential Strategies Generated by Stakeholders

- A new Vermont corporate charter that expands fiduciary responsibility beyond “earnings per share” – community and environment (2 dots)
  - Why not require use of incentives in state and local regulatory procedures for sustainable building design
  - Feed in tariffs to promote renewable energy. (8 dots)
  - **Caution:** Net metering does not increase cost for others – saves on cost of expanding production capability.
  - **Caution:** Net metering will raise the cost of electricity for other customers. (3 dots)
- 

## 8. Cross-Cutting Strategies

*Strategies which may serve/address two or more critical factors in stimulating and supporting a vibrant green economic sector*

- Part of plan competition areas where the business needs support...then link them to resources. (1 dot)
  - Conduct a business plan competition for “green sector” (1 dot)
  - Facebook like community for green sector
  - Inventory and networking of “green” companies, organizations, and efforts. Internet based with local contacts. (1 dot)
  - Harness the interest, goals, and enthusiasm growing at local level in town energy communities – Vermont Energy and Climate Action Network. (2 dots)
  - Greater awareness of the role that working forests and wood products play in absorbing carbon dioxide, and in storing carbon in renewable energy. (4 dots)
  - Higher education institutions, ACCO, DOL, RDC work together to create career introduction and internship events throughout Vermont that brings together students of Vermont institutions and Vermont businesses: ex: the Tech Jam in Burlington convened by Seven Days.
  - **Caution:** Lessen the burden and cost of regulation and taxation on all, not just on favored sectors. Be very cautious about any proposals that do the latter. (2 dots)
- 

## 9. Other Strategies

- Harness the interest, goals, and enthusiasm growing at local level in town energy communities – Vermont Energy and Climate Action Network. (2 dots)
- Greater awareness of the role that working forests and wood products play in absorbing carbon dioxide, and in storing carbon in renewable energy. (4 dots)
- Financial support to Vermont Environmental Consortium to play advocacy policy role needed.

**POTENTIAL ACTIONS**

**Appendix H: GBIC Policy Memo on the green economy in Vermont**



**MEMORANDUM**

TO: GBIC Board, Cynosure Board and the LCRCC Executive Committee  
FROM: Frank Cioffi, President, GBIC and Dan Smith, Vice President, GBIC  
DATE: March 26, 2008  
RE: The Green Economy in Vermont

In the global marketplace the fundamentals of business and commerce are fundamentally changing. This is a time of enormous challenge and tremendous opportunity for those places that seek to advance their economies through creativity and innovation. Green represents one of the most significant economic and innovation opportunities of the 21<sup>st</sup> century. Vermont sits in a position of initial leadership in the development and expansion of a Green Economic Sector. Vermont has long been known for its ethic of environmental integrity, recently being named the “greenest state” by Forbes magazine. Vermont is recognized globally as a green and sustainable place; green is our brand and we should capitalize upon further developing our brand. Furthermore, we should focus upon building a vibrant and strong sustainable green economic sector that creates high wage jobs and economic opportunities for Vermonters while making significant contributions toward protecting and enhancing the world’s natural systems and reducing negative impacts on the environment. GBIC recognizes that this is an opportunity for the state of Vermont to both lead the way on green economic development and to leverage our green brand identity into the creation of value-adding, high wage jobs and enterprises while maintaining our core values and preserving the Vermont way of life.

The GBIC Green Economic Strategy engagement process was initiated to better understand Vermont’s economic opportunities. What we found was a strong entrepreneurial spirit, deep green ethic and widespread commitment to economic growth that meets the needs of this generation without compromising the needs of the next. During the course of this process it became apparent that the ethos of a green economic sector is inherent to the practices of a widespread and diverse group of businesses across our state. Green provides connectivity between every sector of the Vermont economy and, as such, the necessary strategies to support growth must create a transferable support and knowledge base for all members of the Green economy. Because of the diversity of goals and interests our recommended strategic actions provide an immediate and dynamic first step in what promises to be a long-term opportunity to build and develop a vibrant green economic opportunity for the State of Vermont.

Vermont's objective should be to maximize the number of companies, organizations and communities participating in sustainable and "green" operations and practices. This will truly build Vermont's reputation and brand as a "green state." This includes companies that have "green" products and services as their core business activity and also those that have multiple products and activities, some of which achieve the "green" definition to be developed and also those companies and organizations with products and services that are not identifiable as "green," but who conduct their business and activities in a manner that promotes sustainable and environmentally sound objectives. Vermont can and will become the most "green" when every company, organization and community pursues this objective.

By working together Vermonters can succeed in this initiative.

## **GBIC RECOMMENDATIONS**

During the course of this process it became apparent that the ethos of a green economic sector is inherent to the practices of a widespread and diverse group of businesses across our state. Green provides connectivity between every sector of the Vermont economy and, as such, the necessary strategies to support growth must create a transferable support and knowledge base for all members of the Green economy. Because of the diversity of goals and interests the following strategic actions provide an immediate and dynamic first step in what promises to be a long-term opportunity to build and develop a vibrant green economic opportunity for the State of Vermont.

### **2008 Actionable Items for Legislation:**

- Support for the continued development of a Vermont Green Economic Strategy through the working group of: The Vermont Climate Collaborative: The State of Vermont and The University of Vermont together with Regional Economic Development (RDC) Professionals, the Chairperson of the Senate Committee on Economic Development and General Affairs and the Chairperson of the House Committee on Commerce. This collaborative will work to draft and present “Green Economic Strategy” legislation in January 2009.
- Green Workforce Development
  - Department of Labor assessment and survey of the green economic sector
    - Inventory of environmental enterprise employees
    - Development of regional profiles of workforce skill sets
    - Survey of environmental enterprises to determine competencies necessary for success

### **2008-09 Actionable Items for Implementation by Business/Economic Development Corporations:**

- Green Enterprise Zones
  - Each RDC should develop a plan for submission to the Department of Economic Development. The plans will focus on the revitalization of a property in their regions to provide space on a right of first offer basis to companies in the green economic sector. Each plan shall make funding recommendations for achieving site control, development and operations. The goal is to create innovative enterprise parks and facilitate the sector development by enabling collocation.
- Continued support for the State of Vermont – Higher Education - Business collaborative to advance Green economic development initiatives.

### **2008-09 Actionable Items for Implementation by Higher Education:**

- Encourage the creation of Green Summer Academies by Vermont institutions of higher education and state agencies linking students to identified and emerging fields.
- Continue support for the State of Vermont – Higher Education - Business collaborative to advance Green economic development initiatives.
- Encourage every Vermont institution of higher education to host a regional job/career fair for the green economic sector.

## **2008-09 Actionable Items for Implementation by State Government:**

We believe that the following are important steps that could be advanced within the existing resource base of state government:

- The Department of Economic Development should conduct a market analysis for environmental goods and services.
- The Workforce Development Council should host a job fair for the green economic sector.
- Promotion of Vermont's Green Economic Sector
  - ACCD/ANR plan a global conference on Green Economic Development, Environmental Enterprise and Sustainability to take place in 2009-2010.
  - ACCD and the Department of Tourism and Marketing consider:
    - Creating a Vermont Life Magazine profile on the Green Economic Sector.
    - Collaborating with Vermont Public Television to create a program on the green economic sector.
    - Developing an advertising campaign highlighting the green economic sector for use in on-line video search engines and international broadcast.
    - Developing a targeted marketing campaign on green economic sector opportunities for media markets with common community characteristics and/or professional schools and higher education institutions.
- Recruitment and Business Development Strategy
  - ACCD consider developing a program for the green economic sector, including attendance at green economic sector events, and direct outreach to the state's largest employers to seek investment in the development of new environmental value-added products and the creation of new environmental enterprise jobs.
- Directed funding support and strategy for the Vermont Environmental Consortium (VEC) whereby the VEC uses the funding to:
  - Develop a virtual enterprise zone and online social networking tool for the green economic sector.
  - Create a website showcasing green products and services, and the Vermont Green Trail: publicly accessible examples of green development, LEEDs certification and renewable energy projects.
- **Best Practices**
  - Department of Buildings and General Services consider developing environmental design objectives for new buildings and renovations, and a policy for showcasing Vermont technologies and products. BGS shall also develop a policy for instate sourcing of clean energy technology and services.
  - The EEU consider purchasing portable energy meters for each public library and make them available for check out.
  - ANR seeks to work with solid waste management districts to improve district operating efficiencies, improve the rate of diversion and promote waste reduction.
  - The Agency of Transportation considers providing free air pump service at all rest areas, and promote with appropriate signage, the mileage value of proper tire inflation.

## **GBIC Endorses:**

- A complete green economic sector strategy requires action on the following items:
  - Full support and implementation of the E-State Initiative by the Telecommunications Authority.
  - Full implementation of the goals and actions required by the 25x '25 Initiative.
  - Full implementation and support for the terms of S. 209.
  - The Green Vermont Employment Growth Initiative proposed in S. 359
  - The amendments to the licensed lender statute proposed in S. 227.
  - Full support and implementation of the recommendations in the report of the Vermont Environmental Engineering Advisory Council on Holistic and Systems Engineering.
  - Support for the emerging Vermont Climate Collaborative: a partnership between the State of Vermont led by the Secretary of Natural Resources and the University of Vermont.
  - Continued growth in the innovative energy programs and value added agriculture product programs presently conducted by the Agency of Agriculture.



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*Greater Burlington Industrial Corporation*





# GBIC

*Good Jobs In A Clean Environment*

## **GBIC ~ The Greater Burlington Industrial Corporation**

Frank Cioffi, Dan Smith, Curt Carter, Seth Bowden, Andrea Fiekers,  
Dawn Francis, Cathy Davis.

*Building strong communities in a clean environment through good jobs for Vermonters*

### **GBIC Vision Statement**

*“A thriving Lake Champlain region with an economic environment providing meaningful employment consistent with an uncompromised natural environment, enabling present and future generations of Vermonters to live, learn, work, and play in the Champlain Valley.”*

### **GBIC Mission Statement**

*“To attract, retain, and expand environmentally sensitive high-paying jobs in the Champlain Valley; and to initiate and support advocacy, education, and collaboration programs in promoting our Vision.”*

**T**he Greater Burlington Industrial Corporation ~ GBIC is a non-profit economic development corporation. **GBIC** was incorporated by 50 municipal officials and civic leaders from the Greater Burlington area and was created in 1954 by an Act of the Vermont Legislature. The founders were citizens interested in creating sustainable economic opportunities for future generations.

GBIC is affiliated with the State of Vermont as Vermont's certified regional economic development corporation for Chittenden County Vermont. Chittenden County is Vermont's largest county and it has Vermont's most diversified economic and demographic region. GBIC is a key partner in Vermont's overall economic development. As one of Vermont's twelve Certified Regional Economic Development Corporations (RDC), GBIC is continually working with the Vermont Department of Economic Development, The Vermont Agency of Commerce and Community Development, state officials and others to help sustain a positive business climate in such areas as the labor and housing markets, business financing, education, export assistance, transportation, growth planning and development issues, and environmental concerns.

Since its founding in 1954, GBIC has served as a catalyst for economic opportunity in Chittenden County, helping local businesses with their concerns, and working to attract new business investments and high value-added employment opportunities to the region. **GBIC's** efforts have provided sustainable economic opportunities and jobs for thousands of Vermonters.

GBIC has developed seven industrial parks and operates a Foreign-Trade Zone in the Chittenden County Area. For 53 years, GBIC has played an important role in assisting in the creation and retention of thousands of new jobs in the value-added industry sectors, which have paved the way for thousands of additional support jobs in the wholesale, retail, and service trades.

The primary goal of GBIC is the creation and retention of value-added jobs that will strengthen the region's economy and improve the quality of life for area residents. The primary economic market focus of GBIC is the region's value-added industry sectors and the region's economy-driving businesses.

GBIC conducts annual visits to each municipality. Additionally, GBIC completes more than 200 business visits with Chittenden County businesses annually. GBIC conducts continuous community outreach efforts with many organizations both regionally and statewide that affect economic and community development such as the Vermont Technology Council, the Lake Champlain Regional Workforce Investment Board, the Lake Champlain Regional Chamber of Commerce, the University of Vermont, the Vermont Center for Emerging Technologies, and many others.

For over 50 years, GBIC has provided the following core economic development programs and services to the municipalities and value-added businesses of Chittenden County.

- Economic Incentives Assistance to Municipalities
- Business Resource Forums
- Incentive Program Assistance
- Legislative & Gov't Advocacy
- Business Development Support
- Business Recruitment Services
- Permit Facilitation Services
- Business retention/expansion support
- Regional Promotion & Marketing
- VEDA Financing Assistance
- Workforce Education & Training
- Comprehensive Economic Development Support Strategy (CEDS)

