

Climate Economy Work Group

Work Plan

During the next three months, the work group will convene four times to identify sectors or subsectors that have a unique “Vermont advantage” and recommend actions that can accelerate these sectors. We will focus the meetings around sector identification, the “Vermont advantage” around these sectors, and an analysis of effective economic development tools (both financial and non-financial incentives).

The attached material provides lists of factors that the work group will integrate to arrive at recommendations for improving Climate Economy businesses in Vermont. The goal is to identify specific actions that will move one or more business activities forward. These specific actions will include:

- introducing partnerships that enhance marketing or improve processes or supply chains for a sector
- refining finance tools
- focusing current incentive programs
- other actions that the Commission can play a role in facilitating

During future work group meetings, in addition to adding to the attached lists, we will explore a few of the business sectors (Part Two) to determine if particular Vermont attributes (Part Three) provide unique business advantages and from that determine the partnership (Part One), financing and incentives that might move the sector forward. The exercise may identify specific business sectors that will benefit from a workplan leading to the growth of that sector.

In addition, by carrying out the exercise for a few of the business sectors, we may identify a consistent set of activities that are clearly beneficial for many of the clean energy businesses therefore leading to a recommendation regarding incentives and business supports that will be valuable for the full set of clean energy businesses.

Proposed Meeting Schedule:

Friday, April 6, 2018 – 1 p.m. – @ ACCD – Sector Discussion

Friday, April 27, 2018 – 1 p.m. – @ ACCD -- The Vermont Advantage

Friday, May 18, 2018 – 1 p.m. – @ ACCD – Acceleration / Incentive Tools

Friday, June 22, 2018 – 1 p.m. – @ ACCD - Draft Recommendations

Part One –Support that is available for current and future climate economy businesses

- The organizations that provide support to businesses
 - Vermont Department of Economic Development
 - Small Business Development Center <https://www.vtsbdc.org/>
 - Regional Development Corporations <http://accd.vermont.gov/economic-development/resources/rdc>
 - Vermont Chamber of Commerce and regional Chambers <http://www.vtchamber.com/>
 - International Trade Administration
 - Vermont Sustainable jobs fund <http://www.vsif.org/>
 - Vermont Center for Emerging Technologies <http://vermonttechnologies.com/>
 - Burlington Ignite
 - Trade associations
 - Universities and colleges
 - Others

- The programs that are examples of support to businesses
 - VEGI – cash payments based on increasing payroll and capital investment
 - Vermont Training program – cash support for businesses providing training to employees or to training providers offering service to multiple companies
 - Department of Labor – training and placement programs
 - Grant programs
 - Northern Border Regional Commission
 - Windham County Development Program
 - USDA Rural Development
 - Community Development Block Grants
 - Others
 - Small Business Innovation Research program – multiple levels of grants moving technology ideas from the laboratory to the market
 - capital gains treatment within the Vermont State Income Tax
 - Networking activities – ranging from general get-to-know you, to content specific workshops
 - Brownfields program – grant money to rehabilitate contaminated sites
 - R&D tax credit
 - Financing programs
 - VEDA
 - Other public sector financing
 - Flexible Capital Fund
 - Milk Money
 - Small Business Offering Exemption

- Links to other private sector financing
 - Others
- The marketing support that is available to businesses
 - Specific events such as the Big E, trade shows
 - Think Vermont, etc.
 - International markets
 - Support of pitch events

Part Two - Business sectors that can be a focus for Vermont

- Renewables
 - Solar – electric generation
 - Solar – thermal services
 - Wind – electric generation
 - Biomass – electric generation
 - Biomass – thermal services
 - Waste to energy
 - Liquid biofuels
 - Hydroelectric generation including pump storage
- Efficiency
 - Building thermal efficiency (new and existing buildings)
 - Industrial process efficiency (unique to each manufacturing process)
 - Largest industrial sectors in Vermont (by NAICS 3-digit employment)
 - Food manufacturing
 - Computer and electronic products
 - Machinery manufacture
 - Electricity use efficiency (currently the emphasis of Efficiency Vermont)
 - Lighting
 - Air handling (V of HVAC)
 - Heat pumps for thermal or domestic hot water
 - Other
 - Generally, using new technology to reduce energy use
 - Telecommuting
 - Retail
 - Robotics
 - Artificial Intelligence
 - Other
 - Other

- Transportation
 - Electrification of fleet (focus of the EV working group)
 - Improve efficiency of transit (e.g use of smart phone technology for dynamic routes)
 - Improve efficiency of goods transportation
 - Autonomous vehicles to better utilize vehicle fleet
 - Other

- Delivery of electric services
 - Smart grid integration of distributed generation
 - Storage
 - Time of use to match use patterns with generation patterns for expanding businesses

- Energy using businesses that match well to Vermont energy providers
 - Cogeneration
 - Wood processing
 - Food processing
 - Other
 - Large electric demand that is not easily located in regions with low electricity costs
 - Ski areas
 - Education establishments
 - Health care establishments
 - Hospitality establishments

Part Three –Unique attributes in Vermont that can be leveraged

- Vermont's small scale
 - Easier to network
 - Access to officials
 - Access to customers developing public support

- Vermont's electric utilities
 - Vertically integrated (unlike adjoining states that underwent dereg in the 00s)
 - Clean generation portfolio
 - VELCO (utility owned transmission unique to Vermont?)
 - Efficiency Vermont (first in the nation, relatively large revenue stream)
 - Neighbor to Hydro Quebec (very large source of renewable electricity)

- Vermont workforce

- High proportion of college education
 - Lower wage due to isolation from large urban centers
 - May have different motivations (due to lower wage)
- Vermont's physical capital
 - Water
 - Clean air
 - Forest resources
 - Farm land
 - Aesthetic
- Business sectors with high Location quotients (meaning Vermont has more activity on a per capita basis)
 - Dairy
 - Craft beer
 - Maple
 - Lodging
 - Craft
 - Arts
- Non profit sector
 - Advocacy (potentially useful for marketing)
 - Research (including Regulatory Assistance Project, although that is not a non-profit)
 - Community support (e.g. VECAN, Vital Communities, CAP agencies)
 - Business support (VBSR)
- Public education – low student:teacher ratios
- Higher education – highest proportion of out-of-state students of all states
- Second homes – large proportion – some in ski towns, some on lakeshores
- Strengths of higher education institutions
 - UVM
 - St. Mike's
 - Champlain
 - Norwich
 - Middlebury
 - Vermont Technical College
 - Other
- Vermont Quality of Life
 - Low traffic
 - Low crime
 - Small towns with town centers
- Health outcomes
 - Lower obesity rates

- Others
- Vermont political environment
 - LGBTQ
 - Minimum wage
 - Progressive Income Tax
 - Progressive Washington delegation
 - Women in positions of power (legislature, justice and administration)

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