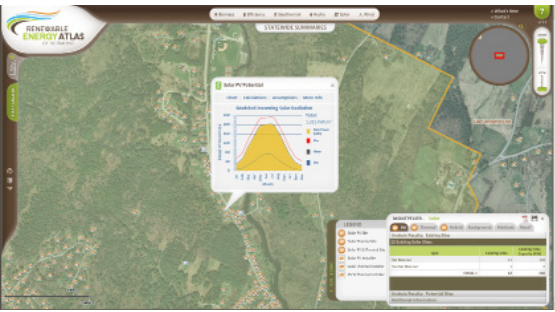


RENEWABLE ENERGY ATLAS OF VERMONT: Your tool for finding renewable energy locations

About 90% of Vermont's total energy consumption is generated from non-renewable energy sources. Town energy committees, utilities, regional planning commissions, renewable energy businesses, nonprofits, state government, and many other stakeholders are interested in knowing how much renewable energy Vermont could produce. Historically, information on existing and potential renewable energy generation has been located in dozens of places, making it very difficult for Vermonters to accurately assess renewable energy potential.



VSJF worked with the Vermont Center for Geographic Information and Fountains Spatial, Inc. to develop a map-based website, the Renewable Energy Atlas of Vermont, that provides town energy committees, policy makers, and homeowners with decision making tools to assist in the deployment of renewable energy

and energy efficient projects throughout the state. The Atlas is the only website of its kind in the world that enables end users to 'zoom' down below the town level to show existing and potential renewable energy sites for biomass, efficiency, geothermal, hydro, solar, and wind. VSJF has fielded calls from around the U.S., Canada, England, and New Zealand about the website, and has won two awards for it. To date, over 9,000 visitors have been to www.vtenergyatlas.com.

To learn more about the Renewable Energy Atlas of Vermont, contact Scott Sawyer, scott@vsjf.org.

HARVEST FOR USE INITIATIVE: Keeping the chain intact from the forest to showroom floor

Consumers are increasingly asking questions about where the forest products they buy come from and how they are made. Many Vermont wood products companies are shifting their practices to take advantage of this emerging demand for sustainably managed products from sustainably harvested forests. At the same time, land ownership patterns in Vermont create challenges for aggregating a lumber supply for wood manufacturers that meets their needs for species, volumes, lead times, and consistency.

In 2010, VSJF worked with 4 consulting forestry firms to continue an initiative to aggregate Vermont grown, FSC certified wood from 6 private land owners. Landowners and loggers were paid a premium for the stumpage. 115 jobs were indirectly impacted at the participating lumber mill and wood manufacturing plant, as a result of this pilot project. One wood manufacturing plant has developed a line of Vermont-grown, FSC certified furniture and is marketing the line with this local forest-to-finished product story.

This pilot is currently being expanded to include forest products industry participants in the Northeast Kingdom. VSJF assisted these same 4 consulting forestry firms in forming a new joint venture (The Forest Partnership, L3C), including support with their business plan and operating agreement development.

To learn more about the Harvest for Use Initiative, contact Ellen Kahler, ellen@vsjf.org.

PEER TO PEER COLLABORATIVE: Providing CEO advisory services to growing vermont companies

VISUAL LEARNING COMPANY | BRANDON, RUTLAND COUNTY | NUMBER OF EMPLOYEES: 10

Visual Learning Company (VLC) was established in 1999 by Brian and Stephanie Jerome. The company produces science videos, teacher's guides, and digital media to support elementary, middle, high school, and introductory college curriculum. VLC's mission is to provide teachers with engaging visual media and instructional materials to help students achieve a high level of success in the classroom. They create their own content, do all the media production, and manufacture in a variety of media and digital formats for schools, television stations, and state departments of education in the U.S. and abroad.

In 2010, the Jerome's approached the P2P for help. They felt that they'd taken VLC to a level that had been comfortable for them, but have been experiencing stagnating sales for a few years now. They came to the VSJF looking for a fresh approach to help grow their business.

"Working with a team of experienced Vermont business owners has given us the advice we desperately need to help us put systems in place to accelerate growth."

—Brian and Stephanie Jerome

The Jeromes want to see their business triple, groom additional management within the company, and take their company forward in a way that will increase their influence on the future of science education. P2P advisors are currently helping VLC address issues related to their sales and financial systems, identifying future product opportunities and finding ways to build upon their brand and expertise so they can grow and achieve their vision of having a meaningful influence on how students learn, retain and use science in and out of the classroom.

VLC's Peer Advisors:

- Karen Martinsen Fleming, Director, Sustainable MBA Program, Green Mountain College
- Bill Schubart, Serial Entrepreneur; Founder, Resolution, Inc.
- Paul Whalen, President / CEO, Hill Associates

To learn more about the Peer to Peer Collaborative, contact Janice St. Onge, janice@vsjf.org.

VSJF Staff

<p>Ellen Kahler, EXECUTIVE DIRECTOR</p> <p>Janice St. Onge, DEPUTY DIRECTOR, PRESIDENT OF VSJF FLEXIBLE CAPITAL FUND, L3C</p> <p>Scot Sawyer, RESEARCH, EVALUATION, AND COMMUNICATIONS COORDINATOR</p> <p>Netaka White, BIOENERGY PROGRAMS DIRECTOR</p> <p>Heather Pipino, FINANCE / OFFICE MANAGER</p> <p>Kit Perkins, FARM TO PLATE PROJECT MANAGER</p>	<p>Lenae Quillen-Blume (Secretary / Treasurer), VERMONT SMALL BUSINESS DEVELOPMENT CENTER</p> <p>Brendan Cosgrove, AGENCY OF NATURAL RESOURCES</p> <p>Joan Goldstein, GREEN MOUNTAIN ECONOMIC DEVELOPMENT CORPORATION</p> <p>Kevin Harper, BRISTOL BAKERY</p> <p>David Lane, VERMONT AGRICULTURAL CREDIT CORPORATION</p> <p>Kelly Launder, DEPARTMENT OF PUBLIC SERVICE</p> <p>David Marvin, BUTTERNUT MOUNTAIN FARM</p> <p>Bill Noyes, DEPARTMENT OF ECONOMIC, HOUSING, AND COMMUNITY DEVELOPMENT</p> <p>Bruce Shields, PHD, RETIRED</p>
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Board of Directors (FY10)

<p>Nancy Wood (Chair), HOME, FARM & GARDEN RESEARCH ASSOCIATES, LLC, & THE CHARLOTTE NEWS</p> <p>Edward J. Kiniry (Vice Chair), RETIRED</p>	
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Special thanks to all our partners who made FY10 a successful year for us!



2010 WAS A BIG YEAR FOR VSJF.

We launched the *Renewable Energy Atlas of Vermont*, a groundbreaking website for depicting existing and potential renewable energy locations in Vermont. We conducted a statewide public input gathering and research process to assemble the *Farm to Plate Strategic Plan*, a 10-year plan for strengthening Vermont's food system. *The Vermont Biofuels Initiative* and the *Harvest for Use Initiative* continue to develop and expand local and regional markets for locally produced bioenergy and forest products. The new *VSJF Flexible Capital Fund L3C* will provide critical financing to green economy enterprises.

FARM TO PLATE INITIATIVE: Food system development is sustainable development

Vermont's food system is critical to our economy, identity, quality of life, and sustainability. Jobs throughout the entire food system represent 18.8% (or 55,581) of all private sector jobs and are connected to 13.2% (or 10,974) of all private businesses. Retail food purchases generated over \$2 billion in sales in 2008. When measured by employment and gross state product, food manufacturing is the second-largest manufacturing industry in Vermont. However, a number of recurring issues, gaps, barriers, and emerging problems, have affected our food system, including the loss of dairy farms, rising energy and feed costs, the volatility of commodity markets.

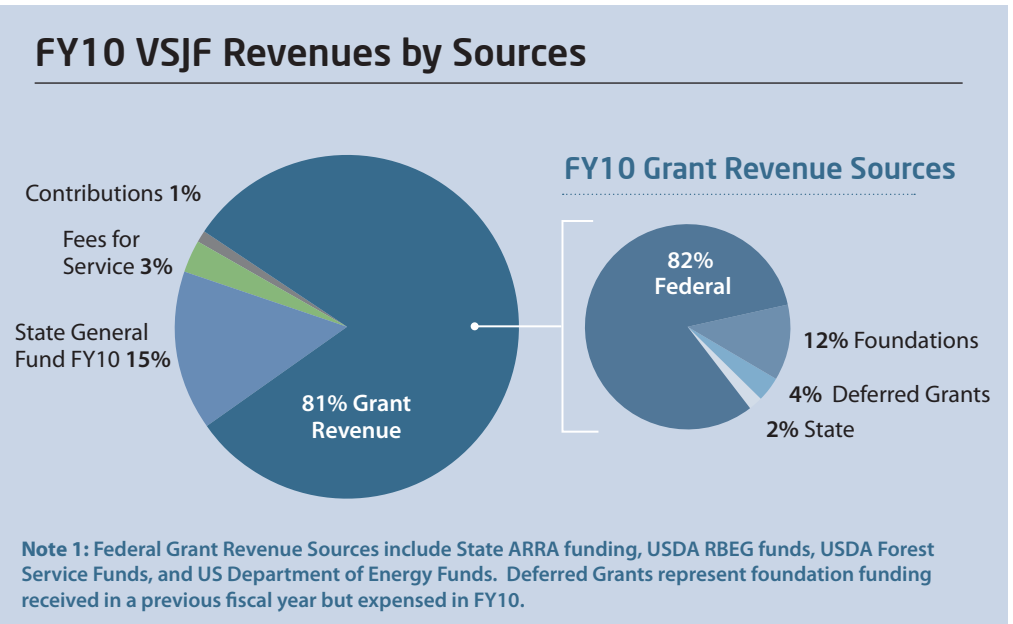


In May 2009 the Legislature tasked VSJF with crafting a strategic plan to increase economic development in Vermont's food system, create jobs in the food and farm economy, and improve access to healthy local foods. Over the last 18 months, VSJF staff and researchers conducted a statewide public input process that involved over 1,200 Vermonters to develop the F2P Strategic Plan. A \$200,000

investment from Act 54 (2009) and Act 78 (2010) leveraged an additional \$220,000 in other state, federal and private foundation support.

The F2P Strategic Plan reviews current conditions and opportunities in Vermont's food system and presents 33 goals and hundreds of strategies intended to fortify and coordinate all elements of the food system for all types of markets. Vermont's major agricultural and food product output totaled \$2.7 billion in 2007, the latest year of the Census of Agriculture. We estimate that the direct economic impact of just a 5% increase in farming and food manufacturing in Vermont would generate \$135 million in annual output. When the multiplier effect is considered, total output would increase by an average of \$177 million per year from 2011 to 2020. We estimate that for every 5% increase in production (farming and/or food manufacturing), total food system employment would increase by 1,500 jobs.

To learn more about the F2P Strategic Plan, contact farm2plate@vsjf.org.



VSJF FLEXIBLE CAPITAL FUND: A new kind of flexible risk capital for sustainable development

Companies in rural areas like Vermont tend to be smaller and work on a less-than global scale, offering a return on investment that does not always meet venture capital levels. These rural companies may need a form of "equity" to fuel growth but need it in lesser amounts and perhaps at lower returns than traditional venture capital requires.

The VSJF Flexible Capital Fund L3C is the first of its kind in Vermont to focus on the risk capital needs of Vermont's green economy businesses. These businesses need equity-like financing, they just need it in lesser amounts and at a lower return than traditional equity investors are willing to provide. By using royalty financing and subordinated debt, combined with technical assistance, at a Vermont scale, the Flex Fund hopes to encourage more lenders and investors to consider royalty financing as a viable instrument for financing growth stage businesses with a gap in their financing packages.

The Flex Fund will provide \$100,000 - \$300,000 in mezzanine financing (subordinated debt, royalty financing and/or warrants) to growth stage businesses in the renewable energy, sustainable agriculture, sustainable forestry, green technologies, and waste management sectors.

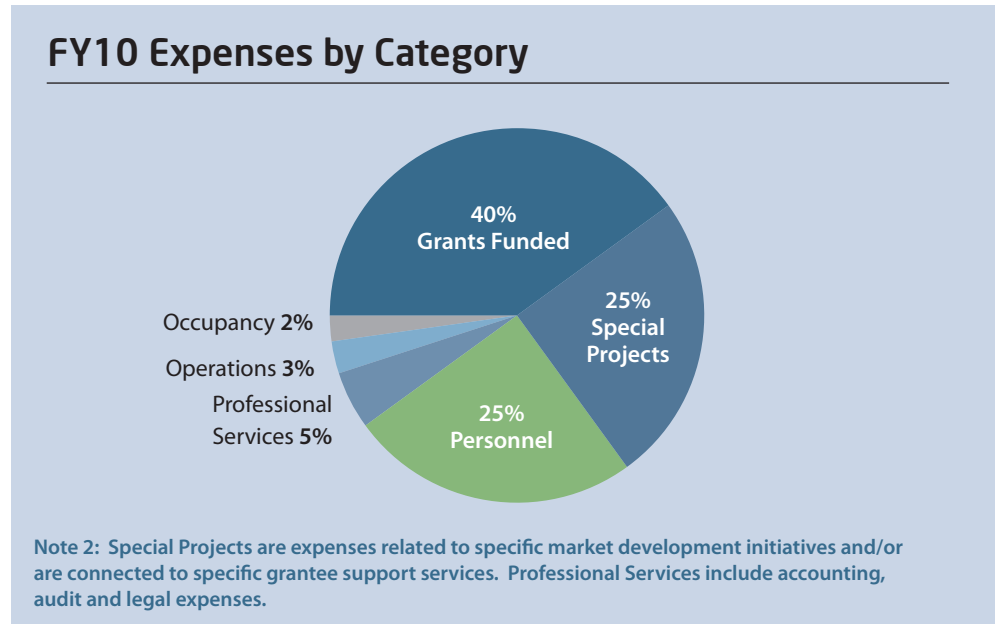
In 2010, VSJF leveraged \$500,000 in federal appropriations through the office of U.S. Senator Leahy, to secure an additional \$1.1 million in private equity to capitalize the new Flex Fund. With \$1.6 million in committed capital, we are well on our way to reaching our goal of raising a total of \$4 million to fully capitalize the Flex Fund.

These committed investors have been first-movers on the local investment front, helping the Flex Fund reach our initialization capitalization goal:

- The Office of U.S. Senator Leahy (through U.S. Department of Housing & Urban Development)
- State of Vermont and American Recovery and Reinvestment Act funds
- Vermont Sustainable Jobs Fund
- Clean Yield Asset Management Clients
- Vermont Community Foundation
- Vermont Land Trust
- Shelburne Farms
- Castanea Foundation
- High Meadows Fund
- Sandy River Charitable Foundation

By keeping some portion of their investment dollars local, these organizations are supporting entrepreneurial activities that will build healthy food and energy systems, create jobs, and preserve our working landscape.

To learn more about the Flex Fund, contact [Janice St. Onge at flexfund@vsjf.org](mailto:Janice.St.Onge@flexfund@vsjf.org).



VERMONT BIOFUELS INITIATIVE: Fostering a viable bioenergy sector in Vermont

Vermont farmers spent nearly \$33 million on petroleum and over \$144 million for animal feed in 2007, the last year of the Census of Agriculture. About 54% of Vermont's total energy consumption comes from petroleum, and well over \$2 billion leaves the state for petroleum purchases. Our dependence on petroleum makes us all vulnerable to price increases and geopolitical events, while rising farm input costs are hurting our farmers.

Through the *Vermont Biofuels Initiative* (funded by the U.S. Department of Energy secured by U.S. Senator Patrick Leahy) VSJF provides grants, contracts, and technical assistance to support the development of a biomass-to-biofuels industry in Vermont that uses oilseeds (e.g., sunflower, soybean and canola), microalgae, and biomass such as bulk wood pellets and perennial grasses, for fuel, feed, food and fertilizer.

VBI activities and outcomes of our local production for local use model, in FY10 included:

- Over \$612,000 in grant making and contracts supporting 2 new biodiesel and oilheat blending facilities and 18 new bioenergy research and development projects to determine best practices for production of oilseed crops, perennial grass biomass crops, and microalgae as biofuel feedstocks.
- Improvements to on-farm oil and fuel quality and stability
- Total VBI expenditures having direct or indirect impacts on 32 jobs, FY10; and on 228 jobs anticipated in FY11.
- More than 340 acres planted in oilseeds and over 126 tons of livestock feed and 3,500 gallons of biodiesel produced for use on Vermont farms.

Using the new VSJF Oilseed Profit/Loss Calculator, the costs to produce biodiesel and oilseed meal (for livestock feed or organic fertilizer) on five Vermont farms averaged \$2.50 per gallon and \$369/ton respectively. Ongoing efforts to improve practices will lead to reduced costs in the future.

To learn more about the VBI, contact [Netaka White, netaka@vsjf.org](mailto:Netaka.White@vsjf.org).

Grantee Profile: Carbon Harvest Energy

The Brattleboro landfill is the home to Carbon Harvest Energy's (CHE) first landfill gas-to-energy project. On a crisp October morning the CHE owners, Don McCormick and his wife Kim Locke, introduced a wide-ranging group of business, government, and NGO leaders to the CHE Brattleboro project. The event culminated when Senator Patrick Leahy "threw the switch" on the facility, starting the generators that would consume the landfill (methane) gas to make electricity.

The Vermont Biofuels Initiative provided a grant to CHE to conduct research on microalgae that will one day consume the emissions (and the carbon dioxide they contain) from the gas-fired electric generators. Over the next few years, CHE's Brattleboro facility will construct a greenhouse and aquaculture fish farm, producing tons of vegetables and fish protein annually for local distributors, including the Vermont Foodbank. The algae, which will feed on wastewater nutrients from the fish farm, and the heat and exhaust from the generators, will be harvested for its high oil content. A variety of value added products are in store, from omega rich foods and supplements, to fish feed, soil amendments, and bioenergy feedstocks.

Total VBI Funding Awarded: \$234,515