

Vermont Energy and Climate Action Network and University of Vermont Extension *presents* 

Saturday, December 1, 2012 Fairlee, Vermont

# Getting to 90% Renewable by 2050... Community Energy and Climate Action Conference

#### Vermont Energy & Climate Action Network Energizing Vermont Communities www.vecan.net

#### **Vermont Energy & Climate Action Network**

(VECAN) is a network of organizations working to help start, support and strengthen town energy and climate action committees and their efforts to implement successful community-

based initiatives that help advance a sustainable, clean energy future. VECAN support organizations include Community Climate Action, New England Grassroots Environment Fund, Sustainable Energy Resource Group, Vermont Energy Investment Corporation and the Vermont Natural Resources Council.







New England Grassroots Environment Fund



**Vermont Natural Resources Council** has been the Green Mountain State's leading environmental education, policy and advocacy organization since 1963. Working from the grassroots to the Legislature, VNRC works to advance policies and programs that Vermonters care about—vibrant, walkable communities, clean and abundant water, working farms and forests, and an efficient, clean, renewable energy future. VNRC serves as the coordinator for VECAN and accomplishes its work with the support of over 5,000 members and activists.

**Community Climate Action** is a nonprofit working to advance education, outreach and public engagement to help mitigate and adapt to climate change. CCA works to build capacity for good policy, new thinking to action and collaborates with partners and entities to help achieve shared goals and project results across Vermont and beyond. <u>www.communityclimateaction.org</u>

Do you care about your community? We do too! The **New England Grassroots Environment Fund** inspires, connects and supports local change from the ground up. To date, the Grassroots Fund has provided seed grants and helpful resources to over 1,600 community groups in more than 50% of New England's cities and towns. To connect to a project in your community, or to start applying the solutions you're learning today, visit them on the web at <u>www.grassrootsfund.org</u>. Go Grassroots! **Sustainable Energy Resource Group** promotes energy conservation, efficiency and renewables through the formation and support of town energy committees in numerous Vermont and New Hampshire communities. SERG also develops and implements programs to help residents, businesses and the municipalities reduce energy consumption, save money, increase the sustainable use of renewables, strengthen the local economy and improve the environment.

The **Vermont Energy Investment Corporation** (VEIC) is a mission-driven nonprofit organization, founded in 1986, that is dedicated to reducing the economic, social and environmental costs of energy consumption through cost-effective energy efficiency and renewable technologies. VEIC operates Efficiency Vermont, Vermont's statewide "energy efficiency utility."

**University of Vermont Extension's** mission is to improve the quality of life of Vermonters by providing researchbased educational programs and practical information concerning Vermont communities, families and homes, farms, businesses and the natural environment. Located throughout the state, UVM Extension links Vermonters to the University of Vermont, providing timely, research-based information and education to individuals and families, supporting agriculture and the environment, and strengthening communities.



The Vermont Energy & Climate Action Network would like to thank GMCR for their support of this conference and their commitment to an active, engaged network of Vermonters working at the local level to save energy, develop renewable solutions and reduce greenhouse gas emissions.

## **Conference Agenda**

8:00 - 9:00	<b>Registration open</b> Coffee and light refreshments. Exhibits available for browsing.
9:00 - 9:50	Welcome / Opening Remarks / VECAN Energy Awards <b>Opening Remarks</b> – Outgoing Public Service Department Commissioner Liz Miller and Incoming PSD Commissioner Chris Recchia <b>VECAN Energy Awards</b> – Special recognition of energy committee members, energy committees and innovative projects.
10:00 - 11:15	<b>Concurrent Workshop Session A</b> Choose from a variety of concurrent sessions. See pages 8–9 for titles, descriptions and presenters.
11:15 - 11:30	Break
11:30 - 12:30	<b>Roundtable Discussions.</b> Participants will have the opportunity to meet by topic of interest and discuss energy issues at the local and state level and explore opportunities for cooperation, collaboration or further dialogue. See pages 7 for titles, and descriptions.
12:30 - 1:45	Lunch / Browse Exhibits / Visit Electric Vehicle Demonstration
1:45 - 2:45	<b>Keynote: Chris Martenson</b> , author of <i>The Crash Course</i> and economic researcher specializing in energy and resource depletion.
2:45 - 3:00	Break
3:00 - 4:15	<b>Concurrent Workshop Session B</b> Choose from a variety of concurrent sessions. See pages 10–11 for titles, descriptions and presenters.
4:15	<b>Adjourn</b> – Evaluations will be emailed. Paper copies can be requested at the registration desk. Or, go to <u>www.regonline.com/2012VTCommunityEnergySurvey</u>



What's your vision for 90 percent renewable by 2050? What will you do to help get there?

## Getting to 90 Percent Renewable by 2050 in Vermont

In December 2011, Vermont released a new Comprehensive Energy Plan, outlining an ambitious but essential goal of meeting 90 percent of the state's total energy needs in 2050 from renewable resources. That goal requires action across all sectors — efficiency, renewables, transportation and land use — and meeting it will require the partnership of all Vermonters. Today's conference aims to explore how we can work together — on programs, policies and projects — to realize an efficient, clean energy future. Here's where we stand now:



\*Note: Department of Public Service chart from 2009, which means it is a bit outdated and does not reflect changes to date, i.e. the fact that we source less nuclear power (as we no longer have a contract with Vermont Yankee), have brought more renewables online (like the 40 MW Sheffield wind project) etc.

Share your thoughts! Make a new commitment! Get more deeply involved!

For more information, visit www.vecan.net, vtenergyplan.vermont.gov or contact VECAN Coordinator jmiller@vnrc.org.

"To get to a renewable and sustainable energy future we need committed and engaged Vermonters doing the important work in their communities and informing and shaping what we are dong at the state level. State government can't do it alone."

Public Service Department
Commissioner Elizabeth Miller

#### Keynote

1:45 – 2:45 р.м.



### Time for Urgency: Why a 90 Percent Renewable Energy Goal By 2050 Is Now a Necessity

hris Martenson, PhD (Duke), MBA (Cornell), is an economic researcher and futurist specializing in energy and resource depletion. As one of the early economic bloggers who forecasted the housing market collapse and stock market correction years in advance, Chris rose to prominence with the launch of his seminal video seminar: *The Crash Course*. This recently published book offers a popular and extremely well-regarded distillation of the interconnected forces of the Economy, Energy and the Environment. These "Three Es," as Chris calls them, are shaping the future; a future defined by increasing challenges to growth as we have known it. Under that lens, Chris will speak to the challenges – and economic opportunities – the State of Vermont has in moving swiftly and strategically to a clean, renewable energy future.

"Getting to 90 percent renewable by 2050 is critical. To get there, however, will require major behavior modification by governments, corporations and individuals, and we will need to start almost immediately at an aggressive pace. The question is: Do we want to change now — on our own terms, as a process of insight, when it's a voluntary act — or change on other, potentially painful terms later on? The value of a comprehensive energy plan is that it's proactive, where we can change by insight. It's also smart from an economic standpoint, a jobs stand point, a carbon reduction standpoint and also helps support social justice."

www.peakprosperity.com

Special thanks to our keynote sponsor:



#### **VECAN Energy Awards**



#### **Best Project Award — Vermontivate**

Vermontivate is a community energy game that combines creativity, fun, and community leadership to foster energy awareness and action. Developed by creative climate activist Kathryn Blume, Vermont Energy Investment Corporation

Consultant Nick Lange and in partnership with other energy leaders, this frolicsome on-line/real-world competition brought playful innovation to the serious work of energy conservation. Hundreds of players across the state spent five weeks racking up points for everything from changing lightbulbs to starting compost piles and much more. This year's winner — Montpelier — enjoyed the grand prize of a town ice cream party, courtesy of Ben & Jerry's. Vermontivate!



#### Best Overall Energy Committee Award — Bradford

The Bradford Conservation Commission Energy Committee (BEC) began working on energy conservation efforts in 2007. The committee's accomplishments to date are many. Among them are organizing the annual Local Energy and Agriculture Festival, (where one year over 1,000 people attended), sponsoring a successful Solar Hot Water Challenge, municipal energy efficiency efforts and other creative public engagement strategies. BEC is currently looking into oil pre-heaters and insulating boiler headers at the Bradford Academy to further reduce oil usage, hopefully by 10 percent or more.



#### Individual Energy Leadership Award — Hunter Rieseberg, Hartford Town Manager and Martha McDaniel, Hartford Energy Commission

The Hartford Energy Commission and the Town of Hartford have been active for years advancing conservation, efficiency and renewable energy projects. A recent success story is the completion of a town-wide streetlight inventory, which resulted in a reduction and refixturing project that lowered the town's streetlighting bill by more than sixty percent. Though Hartford has undertaken many successful clean energy initiatives, this project was truly significant and was made possible through the leadership of two particular individuals — Martha McDaniel, Energy Commission Member and Hunter Rieseberg, Hartford Town Manager. To date, the Town of Hartford, through the leadership of its energy committee and town staff, remains the largest municipality in Vermont to carry out such a project (though they are working to share their model with other communities who want to do the same!).

#### **Roundtable Discussions**

11:30 а.м. – 12:30 р.м.

The purpose of the Roundtable Discussions is to provide a forum for dialogue and discussion of some timely, challenging and important topics related to advancing an energy efficient, clean energy future in Vermont. The idea is to create a venue for digging into these topics more deeply and identify potential areas of opportunity, intersection or divergence to inform or foster further action.





## **R1** Wind in Vermont: Moving Beyond Controversy to Community Supported Solutions

With no tradition of community-owned large wind development projects, and confronted with the problem of global climate change and the need to displace fossil fuels with cleaner sources, what is the role of wind in Vermont's energy future? This roundtable will examine how energy committees and other interested Vermonters connect to wind energy development, identify the points of vision to lead Vermont to a more secure energy future and consider ways to support wind as a source in Vermont's clean energy portfolio.

#### **R2** Town Energy Committee Roundtable: Great Projects, Stumbling Blocks and Solutions

Town energy committees are providing the heart, soul and motivation for energy action at the local level — and beyond. Find out what fellow energy committee leaders are doing, share strategies, stories, solutions and more at this roundtable.

#### **R3** Shaping and Advancing State Energy and Climate Legislation

All hands on deck are needed to meet Vermont's necessarily ambitious clean energy goals. In Vermont, there is a unique opportunity to align grassroots goals with supporting state policy. Help seize the opportunity in a far-ranging brainstorm on building an effective energy and climate movement.

#### **R4** Engaging Youth in Local Energy Actions

Young people are a critical but often-neglected part of the dialogue related to our transition to an alternative energy future. Learn how energy committees are getting young people involved in local energy projects and about some tips for effectively working with youth ... from young leaders themselves.

#### R5 It's Here: Harnessing the Potential of the Smart Grid

The Smart Grid has been and will continue to roll out across the state. Now that it's here, how can community leaders help influence its ability to serve as a powerful, technological tool? Learn how the Smart Grid could help homeowners save energy and realign our energy infrastructure in the state.

#### **R6** Electric Vehicle Demonstration & Exhibit

Don't miss the opportunity to check out an assortment of electric vehicles at this Electric Vehicle (EV) Demonstration & Exhibit. Step outside the main entrance to meet and talk with EV dealers and owners. View and test drive select electric vehicle models and experience the future of transportation! Demonstration continues through lunch.

#### Workshop Session A

10:00 – 11:15 а.м.





#### A1 Fostering Dialogue — and Better Outcomes — for Wind in Vermont

The conversation around wind power in Vermont is at times divisive. While many believe that wind has a role in the state's energy mix, how and where it's developed matters. Learn more about wind, what's happened to date and opportunities for stakeholder input and participation in the newly formed Governor's Energy Generation Siting Policy Commission.

Anne Margolis, Vermont Public Service Department Josh Bagnato, First Wind Richard Pion, Lowell Selectboard Member

#### A2 Community Initiatives to Support a Transition to Biofuels

This workshop will highlight several creative community programs and innovative efforts to encourage residential heating with chunk wood, wood pellets and biodiesel. Presenters will focus on strategies and avenues people can pursue to move from using fossil fuels to bio-fuels (wood, grass, or plant oils) to heat their homes.

*Warren King, Ripton Energy Coordinator Lynn Benander, President, Co-op Power and Northeast Biodiesel Tom Tailer, Vermont Sustainable Heating Initiative* 

#### **A3** Vermont's Thermal Efficiency Task Force: The Outcome and the Opportunities

Vermont is falling far short of meeting its thermal energy efficiency goals. To try to solve this, the Vermont Public Service Department convened a "Thermal Efficiency Task Force" comprised of diverse stakeholders. Find out the results to date of the TETF's work, its key findings and how the results can inform and support thermal efficiency success — with your help!

Kelly Launder, Vermont Public Service Department Richard Faesy, Energy Futures Group George Twigg, Vermont Energy Investment Corporation

## **A4** 90 Percent Renewable by 2050: Scenarios and Strategies to Meet Vermont's Goal

The state has set an ambitious goal of meeting 90 percent of the state's energy needs in 2050 through renewables. Getting there will require bold action, grassroots leadership and difficult decisions. But, it's possible! This workshop will outline some potential scenarios (statewide and regionally) for meeting that ambitious goal and highlight some strategies clean energy innovators — like Germany — are taking.

Leigh Seddon, Energy Action Network Deb Sachs, EcoStrategies, LLC Bob Walker, Sustainable Energy Resource Group

#### Workshop Session A

10:00 - 11:15 А.М.

#### A5 Opportunities to Reduce Municipal Energy Costs

Municipalities can reduce energy costs by implementing a range of energy efficiency measures. It is critical that municipalities lead by example and demonstrate to community members the benefits of efficiency improvements. This workshop will provide a step-by-step process for systematically reducing energy costs in municipal buildings, streetlights, treatment plants and vehicle fleets.

Paul Markowitz, Efficiency Vermont Mike Ghia, Rockingham Conservation Commission Evan Pilachowski, City of Rutland Public Works Commissioner

#### A6 Community-Based Social Marketing: A Tool for Motivating Action

Community-based social marketing (CBSM) blends the lessons of behavioral science and the value of community networks to encourage people to take action related to something of social value. This workshop will provide a stepby-step process for overcoming the barriers that limit the reach of traditional marketing and educational campaigns and provide a pathway of effectively getting residents to invest in efficiency and renewable energy.

Jon Floyd, Vermont Energy Investment Corporation/Efficiency Vermont Chris Granda, Grasteu Associates Aaron Brown, Vital Communities

#### A7 Electric Vehicles in Vermont: Their Challenges, Promise and Role

Electric vehicles are going to play an increasingly important role in weaning our auto-addicted society off of fossil fuel-powered vehicles. Learn about what's happening in the EV world, the opportunities and benefits for Vermont and what the potential challenges and consequences might be.

Karen Glitman, Vermont Energy Investment Corporation Karin McNeill, Vermont Public Service Department



#### Workshop Session B

3:00 - 4:15 р.м.





#### **Successfully Implementing the PACE Financing** Program in Your Community

This workshop will update communities that have passed PACE and are ready to implement it on new resources available to help homeowners. The resources help determine PACE eligibility and if the program makes sense for individual homeowners. It will also overview materials and strategies to help energy committees promote PACE and make it a true success.

Carol Weston and Lani Malapan, Vermont Energy Investment Corporation Becky Wigg, Montpelier Energy Action Committee Mike Kiess, Thetford Energy Committee

#### **B2** Community-Scale Solar

A great deal of work has been undertaken in Vermont to explore and implement community solar projects. Find out how individuals and communities in Vermont who want to go solar, but can't (because they don't have a good site), now can. Hear success stories and learn about new models to help your friends, neighbors, municipality or you go solar.

Greg Pahl, Acorn Energy Solar One Chad Farrell, Encore Redevelopment Jeff Forward, Richmond Climate Action Committee

#### **Promoting Home Energy Efficiency Through Effective** Communications, Community Campaigns and a Statewide Challenge

Learn about the results of new market research on what motivates Vermonters to improve efficiency in their homes and learn how your group can participate in the upcoming Vermont Home Energy Challenge — a campaign designed to encourage neighbors and friends to make whole-home weatherization and efficiency investments. Find out about turnkey community programs that your group can implement, as well as insights on how to pitch energy efficiency to fellow residents.

Paul Markowitz, Efficiency Vermont Gaye Symington, High Meadows Fund Laura Asermily, Middlebury Energy Committee

#### **B4** State Policy: A Look at the Coming Year's Legislative Landscape

This workshop will provide an overview of what's likely coming up in the 2013 Legislative Session, including what might happen on thermal efficiency investments, the Clean Energy Development Fund and more.

Chris Recchia, Incoming Vermont Public Service Department Commissioner Ginny Lyons, Vermont State Senator Johanna Miller, Vermont Natural Resources Council

#### Workshop Session B

3:00 - 4:15 р.м.

#### **B5** Small and Micro Hydro in Vermont: It's Promise and Challenges

How can communities and individuals help advance hydro? Find out in this workshop! Learn about small and micro-hydro for municipal, business, farm and residential applications including low-cost, affordable solutions. Hear inspiring success stories, including how a family dairy farm is now using new technology to produce low-cost, renewable energy. And find out how you can help address regulatory barriers to bring hydro to your home or community.

James Perkins, Little Green Hydro Fred Dunnington, Middlebury Town Planner

#### **EG** Starting, Strengthening, and Sustaining Town Energy Committees Through Local Energy Projects

Vermont's town energy committees are implementing inspiring, essential clean energy solutions at the local level. Find out about some of the most powerful work of Vermont's energy committees; hear about successful programs across the Northeast; and learn tips for starting, strengthening and sustaining energy committees.

Marc Companion, South Burlington Energy Committee Julia Dundorf, New England Grassroots Environment Fund Debra Sachs, Community Climate Action

#### **B7** Transportation Solutions that Drive Down Greenhouse Gas Emissions

Transportation remains the biggest greenhouse gas emitter in Vermont, challenging communities and decision-makers across the state. This session offers several "ready-to-roll" strategies to encourage and promote high occupant vehicles, reduce vehicle miles traveled and otherwise save energy.

Richard Ritter, Founder of Vermont Green Driving School Ross MacDonald, Vermont Agency of Transportation Tom McGrath, University of Vermont Transportation Research Center

#### **Presenters**

**Laura Asermily** has served on the Middlebury Energy Committee since 2007, helped the Acorn Renewable Energy Co-op in its first years, and provided outreach for the NeighborWorks H.E.A.T Squad project this past spring and summer. She helps implement Middlebury's Efficiency First campaign – <u>www.middleburyenergy.org</u>.

**Josh Bagnato** has extensive experience and expertise in wind and how it works, serving as the Manager of Environmental Permitting and Compliance at First Wind where he manages a variety of environmental work during the development, construction and operation of wind projects across the country. Previously, Josh held various positions related to energy and the environment for the Commonwealth of Massachusetts and nonprofit organizations in Northern California.

**Lynn Benander** has supported the development of community-based cooperatives and other group based businesses for the last 16 years. Lynn is excited about what a vibrant cooperative economy can contribute to justice and sustainability in our region.

**Aaron Brown** is the transportation program manager at Vital Communities, where he runs the Smart Commute program, including helping workplaces develop commuting programs for employees, and advocates for mobility improvements. Aaron holds two degrees in European history and a masters in environmental law and policy from Vermont Law School.

**Gina Campoli** is the Environmental Policy Manager for the Vermont Agency of Transportation where she is responsible for agency-wide climate change, energy, biodiversity, and air and water quality policy and planning initiatives. Gina is currently a member of the Hardwick Electric Department Board of Directors and the Craftsbury Energy Committee.

**Marc Companion** is a member of the South Burlington Energy Committee active in energy efficiency programs and community education/outreach initiatives. He is a civil engineer and natural resources management specialist with over 20 years experience in the US, Canada, Africa and southeast Asia. **Julia Dundorf** has nearly two decades of experience forming and working with nonprofits and community engagement programs. She currently works for the New England Grassroots Environment Fund as the Director of the Climate and Energy Program to enhance the work of local level climate and energy action in New England. Julia serves as Coordinator for the New England Local Energy Network, a bourgeoning collaboration of over 30 organizations and groups across New England working with energy committees and their like to further crosssector, measurable climate and energy action impacts.

**Fred Dunnington**, Middlebury Town Planner, grew up in Montreal and was a 1970's graduate of the University of Vermont with a BS in Environmental Studies. Fred has been Middlebury's town planner for 31 years. He is also the Middlebury Town Energy Coordinator and chairs the Middlebury Energy Committee.

**Richard Faesy** is a co-founder and principal of Energy Futures Group, former managing consultant at the Vermont Energy Investment Corporation and chair of the state's Thermal Efficiency Task Force Financing and Funding Subcommittee. Richard has extensive expertise in energy efficiency and over 20 years of experience with the design and implementation of energy efficiency programs, technologies and markets, with a focus on whole house retrofits and energy efficient new construction, energy codes, energy efficiency labeling, energy efficiency financing and more.

**Chad Farrell** is Principal and Founder of Encore Redevelopment LLC, a Burlington-based project development firm specializing in the redevelopment of underutilized property for the generation of new sources of community-scale renewable energy. At Encore, Mr. Farrell has led collaborative efforts to finance, design, permit, and construct numerous community scale solar PV and wind energy projects throughout the State of Vermont, including the largest rooftop solar arrays in the City of Burlington and the first commercial group net metering project in Vermont.

**Jeff Forward** is the Principal for Forward Thinking Consultants, LLC, a firm specializing in renewable energy and energy efficiency program design and implementation. He was a founding member of the Richmond Climate Action Committee and has been the Town Energy Coordinator for the Town of Richmond, Vermont since 1992. In 2011, Jeff installed a 13 kW group net metered solar PV system on his farm, which, this year, he is doubling in size. **Jon Floyd** has been a Marketing Senior Project Manager with Vermont Energy Investment Corporation since July of 2006. He is currently the Conference Chair of the Better Buildings by Design Conference held annually in Burlington, Vermont, and manages numerous marketing outreach efforts on behalf of Efficiency Vermont.

**Mike Ghia** is the founder and chair of the Rockingham Conservation Commission which also serves as the Town Energy Committee. He is also the volunteer Town Energy Coordinator.

**Karen Glitman** is the Director of Transportation Efficiency at the Vermont Energy Investment Corporation and manages VEIC's Drive Electric Vermont effort. Prior to her time at VEIC, Karen was Director of the University of Vermont's National University Transportation Center. She has served as the Vermont Clean Cities Coalition Coordinator, Director of Policy and Planning and Deputy Secretary of the Vermont Agency of Transportation and was a state representative from 1985–1990.

**Chris Granda** is the Principal Consultant of Grasteu Associates, a consulting firm offering innovative energy efficiency and renewable energy promotion program design to utility, government and non-profit clients. Chris has over 25 years of experience working in the energy efficiency industry as a program designer and implementer.

**Michael Kiess** is a former nuclear submarine officer, former Peace Corps deputy director for Cambodia and Bangladesh and currently works with Veteran Corps of America to support military and public response to chemical messes. Mike is an active member of the Thetford Energy Committee.

**Warren King** is the Ripton Energy Coordinator and sits on the Ripton Energy Assistance Program (REAP) Steering Committee. Warren helped co-author a successful Vermont Community Foundation grant to construct a woodshed for REAP's firewood. Combined with community and volunteer labor and financial contributions, the woodshed was completed in October. **Kelly Launder** is the Assistant Director of the Planning & Energy Resources Division at the Department of Public Service. Kelly staffs the Thermal Efficiency Task Force for the DPS and has 15 years of energy efficiency and renewable energy program experience. She currently serves on the Board of Directors for the Vermont Sustainable Jobs Fund and is a member of the Barre Energy Committee.

**Senator Ginny Lyons** is the chair of the Senate Natural Resources and Energy Committee. Senator Lyons also organized in depth presentations about climate change to the Legislature — resulting in policies that help Vermont lead on renewable energy development, efficiency, and other important elements of energy planning. Outside of the Legislature, Senator Lyons works as a biology professor.

**Lani Malapan** is Efficiency Vermont's PACE Program Coordinator, serving as the main source of contact for PACE participants and town administrators. Lani also provides program assistance to the Residential Existing Homes, Low Income and Multifamily programs.

**Anne Margolis**, as Renewable Energy Development Manager for the Vermont Public Service Department, is responsible for working statewide with stakeholders to advance the state toward the renewable energy goals outlined in the 2011 Vermont Comprehensive Energy Plan. She previously managed the Vermont Clean Energy Development Fund and directed solar, wind, fuel cell, and energy storage projects for the nonprofit Clean Energy States Alliance.

**Ross MacDonald** has spent nearly a decade in Vermont state government as public transit coordinator and Go Vermont program manager at VTrans, where he works with many partners statewide to encourage Vermonters to reduce costs and environmental impacts of driving alone. Before coming to Vermont, Ross worked at the New Jersey Department of Environmental Protection integrating land use and Transit Orientated Design standards into regional and statewide policies.

**Paul Markowitz** is Community Energy Program Manager with Efficiency Vermont where he promotes partnerships with non-profit organizations, businesses, and municipalities to implement community-based energy efficiency programs. Paul has 29 years experience in energy and environmental project management, community planning, leadership training, and facilitation in non-profit institutions, state government, and academia. **Tom McGrath** of UVM's Transportation Resource Center serves as coordinator of the Vermont Clean Cities Coalition, a US DOE-funded program that aims to reduce petroleum fuel consumption in transportation. Tom partners with private and public entities throughout Vermont to promote and meet this shared goal by reducing, replacing, and eliminating fuel use.

**Karin McNeill** works for Vermont's Public Service Department as an Energy Program Specialist. She fills a new transportation energy liaison role, has managed energy efficiency grants, and works on special projects with the CEDF. Karin collaborated on the development of the CEP, with a focus on Transportation and Land Use. She serves on the Climate Cabinet Electric Vehicle taskforce and on the Drive Electric Vermont Legislative & Policy working group.

**Elizabeth Miller**, an attorney, is the outgoing Commissioner of the Department of Public Service for Vermont and was recently appointed as Governor Shumlin's Chief of Staff. Miller led the state's recent, rigorous process to update Vermont's Comprehensive Energy Plan. Ms. Miller has been involved with many organizations, including the Lake Champlain Regional Chamber of Commerce, the Vermont Alliance for Arts Education, Local Motion and more.

**Johanna Miller** is the Energy Program Director at the Vermont Natural Resources Council, a nonprofit that has worked for the last 50 years to connect grassroots groups and local priorities with smart legislative action. Johanna also serves as the coordinator of VECAN and works to connect clean energy advocates — including the state's network of energy committees — with policy-shaping opportunities.

**Greg Pahl** is the author of numerous books on energy and also writes for *Mother Earth News* and various other publications on topics related to living in a post-carbon world. His new book, *Power From the People: How to Organize, Finance, and Launch Local Energy Projects*, was just released by Chelsea Green Publishing in September. Greg is a founding member of the Acorn Renewable Energy Co-op which recently led a successful effort to bring a 148 kW community solar project online. James Perkins is a seasoned technology entrepreneur/ executive; with an IBM/DEC background, his awardwinning companies (Dartmouth Greener Ventures, StartupNH! 2004) have been covered in Wired magazine, Harvard Business Review and NPR. Mr. Perkins is a graduate of UVM, the Wharton School Executive Program, holds 7 technology patents and has lived in Vermont with his family since 1973.

**Evan Pilachowski** is a professional engineer and the City of Rutland's Public Works Commissioner. Evan has a bachelor's degree in civil engineering from the University of Vermont and Masters of Civil Engineering from Norwich University.

**Richard Pion**, a logger and owner of a forest products business, has been a selectboard member in Lowell for over 30 years. Richard was chair of the Lowell Selectboard when the community voted, by a significant majority, to support the Kingdom Community Wind project in 2010.

**Chris Recchia** is the incoming Public Service Department Commissioner, recently transitioning from Deputy Secretary of the Vermont Agency of Natural Resources. Chris has worked on energy and environmental issues for nearly three decades, serving as Director of the Biomass Energy Resource Center and Commissioner of Vermont's Department of Environmental Conservation.

**Richard Ritter**, founder of Vermont Green Driving School, is a Public/Private Driver Education Teacher where Eco-driving is an integrated theme of High School Driver Education curriculum. Following his experience at CVUHS, Rick continues to successfully engage youth and college students in green driving behavior via Driver Education instruction.

**Debra Sachs** is CEO and President of EcoStrategies and founding Director of Community Climate Action, a Vermont-based non-profit working to proactively drive and guide energy conservation, efficiencies and renewable energy development. Debra is a founding member of VECAN, collaborating with partners to advance programs and strategies that help start, support and strengthen town energy committees across Vermont. **Leigh Seddon** is the founder of Solar Works, Inc., which became Alteris Renewables in 2008 and merged with Real Goods Solar in 2011. He currently works as a renewable energy consultant located in Montpelier, Vermont. He is also the chairman of Energy Action Network, a Vermont non-profit coalition of businesses, NGOs, and government agencies dedicated to creating a sustainable energy future through increased use of renewable energy and investment in energy efficiency.

**Henry "Tofer" Sharp** learned first-hand what it means to make the switch to clean, no-gas, all-electric transportation after driving an electric vehicle daily in Vermont for a year and a half. Tofer has a thorough knowledge of the technical aspects of EVs including their role in reducing emissions and how their impact will be leveraged by a grid made up of 80 percent renewables.

**Gaye Symington** is executive director of the High Meadows Fund, which provides grants and engages in research and convening to reduce greenhouse gas emissions attributed to buildings and transportation, promote sustainable agriculture, and encourage land use and watershed management consistent with a vibrant working landscape and village centers. Prior to leading the High Meadows Fund, Gaye worked for several mission oriented nonprofit organizations and businesses and served 12 years in the Vermont Legislature, four of them as Speaker.

**Tom Tailer** is the Executive Director of the Vermont Sustainable Heating Initiative (VSHI), Co-Director of the Governor's Institute of Vermont Engineering, and Co-Director on the United States International Earth Science Olympiad.

**George Twigg** is the Director of Public Affairs at the Vermont Energy Investment Corporation, working with legislators and other policy-makers to advance initiatives that support investment in energy efficiency and renewables. In 2011, he served as co-chair of the Building Energy Disclosure Working Group. Before joining VEIC, George spent 10 years working in local, state, and national politics.

**Bob Walker** is founder and executive director of Sustainable Energy Resource Group (SERG), founded 10 years ago to promote energy conservation, efficiency and renewables. Bob has been working on energy and environmental issues for over 30 years and recently was one of nine U.S. citizens to spend a week in Germany learning about their aggressive investment in renewable energy and energy efficiency. **Carol Weston** is Efficiency Vermont's PACE Program Manager and has managed the PACE implementation team for the past 12 months. Carol also manages Efficiency Vermont's Residential Existing Homes Program.

**Rebecca Wigg** is the communications associate at the Regulatory Assistance Project. Rebecca is also a member of the Montpelier Energy Advisory Committee and has been active in the committee's efforts to raise awareness about PACE, whole-home energy efficiency upgrades and residential renewable fuel systems as part of the city's 2015 energy goals.







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Like the choice to save customers money by merging with CVPS. And the choice to move forward with new smart grid technology for great service, reliability and opportunities for customers to lower their energy bills. From our long-term, stably-priced power supply contracts to harnessing the power of the wind and the sun, the choices we make help us supply our customers with cost effective, clean and reliable electricity.





Learn more at greenmountainpower.com.

#### **Get More Involved!** Big Energy Ideas and Opportunities for 2013

**Vermont Comprehensive Energy Plan.** Stay in tune and up-to-date on efforts afoot to implement the CEP, including a 2013 study on developing a "Total Energy Standard" in Vermont and tracking the results – and implementation efforts – of Vermont's Thermal Efficiency Task Force.

http://www.vtenergyplan.vermont.gov

**Vermont Home Energy Challenge.** Don't miss the opportunity to participate in this important 2013 challenge, focused on neighbors helping neighbors save through efficiency. This effort offers a fun way to help save Vermonters money and meet the state's energy efficiency goals. Find out more and tap into resources to support your community.

http://www.efficiencyvermont.com/homeenergychallenge

**Energy Generation Siting Policy Commission.** Governor Shumlin created a commission to explore ways to improve the siting of electric generation projects (excluding net-metered facilities) and increase public participation in the process. The commission will meet through April 2013 and hear ideas on how Vermont might improve the process, making recommendations to the Governor next spring. Find out more and get involved.

http://sitingcommission.vermont.gov

**Go Vermont.** Tap into the new and improved Go Vermont web site and the Go Vermont team as a resource to support your efforts to reduce the cost and environmental impact of driving. A pivotal energy and climate action!

http://www.connectingcommuters.org

**Tar Sands Free Vermont.** Stay tuned to and get involved in stopping a likely attempt to ship dirty, dangerous tar sands "oil" through Vermont's Northeast Kingdom by tracking Exxon Mobil's "Trailbreaker" project.

http://world.350.org/vermont/tar-sands-free-vt

**Property Assessed Clean Energy.** After a long and bumpy road, the PACE clean energy financing program is expected to be implemented and ready for further action across Vermont. Help make it a success in your community or work to help your community become a PACE town.

http://www.veic.org/resourcelibrary/PACE.aspx

**Advancing Renewables.** Many communities are undertaking communityscale or community owned projects, such as Middlebury's "Solar One" initiative. Help bring homegrown renewables to your community. For information and to connect with renewable energy installers, visit:

http://revermont.org

Thank You to Our Sponsors...







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CHITTENDEN COUNTY RPC





**VAPDA** 



Two Rivers-Ottauquechee REGIONAL COMMISSION The King Farm Woodstock, VT 05091

Vermont Sustainable Jobs Fund

www.trorc.org 802.457.3188, fax: 802.457.4728







