

Advanced Technology & Policy Workshop Presentations

Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Washington Perspective on Energy	Yester House	Friday July 15 th	3:00 PM	50 Min.	George Twigg	Office of Congressman Peter Welch	welch.house.gov

Workshop Description
George Twigg from the office of Congressman Peter Welch will be joined by Haley Pero from Senator Sanders office and Tom Berry from Senator Leahy's office to provide an update on federal issues related to renewable energy and energy efficiency.

Presenter Email & Biography george.twigg@mail.house.gov
George Twigg is State Director for Congressman Peter Welch.

Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Carbon Pricing & Energy Independence in VT	Studio South	Saturday July 16 th	9:00 AM	80 Minutes	Hannah Huber, Walter Gustafson & Laura Mistretta	Energy Independent Vermont	www.energyindependentvt.org/vnrc.org

Workshop Description: There are no silver bullets to solve global warming, economic inequality, or accessibility to affordable energy-saving technology. But there is a policy mechanism that can catalyze progress on all of these fronts while smoothly transitioning Vermont away from fossil fuels. Enter, carbon pricing. It's an up-and-coming climate-economy initiative that's being discussed for implementation here in Vermont, even though carbon pricing mechanisms have a long history of use in 40+ other countries. Enter the conversation and learn more about how we can keep energy dollars local, assist the job market, unite Vermonters in the effort to create a clean economy, and increase energy independence for all.

Presenter Email & Biography hhuber@vnrc.org; walter@vpirg.org; laura@vpirg.org
Hannah Huber is the Energy & Climate Community Organizer for the Vermont Natural Resources Council (EIV). She supports communities in understanding the equitable economic value in reducing fossil fuel use. Hannah holds a B.S. from Paul Smith's College with concentrations in biology, environmental science, and chemistry. In addition to climate action, Hannah has experience in solar energy education, invasive species management, and worked in the fungi herbarium at the New York Botanical Garden. Originally from the midwest, Hannah lives in Montpelier with her leash-trained cat, and is a swing and contra-dancer, semi-professional musician, and mushroom hunter.
Walter Gustafson is a Field Organizer for the Vermont Public Interest Research Group (VPIRG). A native Vermonter raised in Addison County, Walter began his career as a VPIRG canvasser in 2010 and 2011, after which he was hired to lead a citizen outreach campaign with Environment California where his office succeeded in banning plastic bags in Santa Cruz, CA. Walter returned to Vermont in early 2014, when he was awarded a New Organizing Institute Climate Fellowship working with VPIRG's Campaign to Stop the Fracked Gas Pipeline. He returned to VPIRG's canvass operation as an assistant director in 2014 and lead director in 2015, where he inspired the team about the power of face-to-face organizing and happened to break office records along the way.
Laura Mistretta is a Field Organizer for the Vermont Public Interest Research Group (VPIRG). Laura graduated from Duke University with a B.A. in Environmental Science and Policy and was involved with a student-led effort to divest Duke's endowment from the top 200 publicly traded fossil fuel companies. Before starting with VPIRG Laura completed a year-long fellowship in grassroots organizing with Green Corps, during which she worked to end the overuse of antibiotics on factory farms, built public support for the designation of Basin and Range National Monument in Nevada and went door to door in New Jersey to close loopholes in the Clean Water Act. As a field organizer, Laura's job is to recruit and mobilize activists across the state to show Vermont's legislature that taking action on climate change is the right thing to do for Vermonters, for the economy and for the environment.

Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Commercial Solar PV Business & Finance	Studio South	Saturday July 16 th	10:30 AM	50 Min.	Thomas Polich	TAP Synergy Works, LLC	www.tapsynergyworks.com

Workshop Description: Mastery of a solar system's location, assessment, production and installation is just the beginning of the skills needed. If you seek to create a successful solar business you must have a working knowledge of creation and finance of the business, solar legislation, regulation, incentive, tax, finance and contract issues to properly validate, assess, develop, contract and procure projects that attract the right participants, secure the site, finance the construction, operate and maintain the project for the life of the System. This course will introduce you with the tools to identify and develop the skills to compete in the solar market place.

Presenter Email & Biography Thomas@TAPSynergyworks.com
25 years of working experience in energy, and 18 years' direct experience in solar, serving in the capacities of outside counsel, General Counsel/Secretary, Chief Administrative Officer, and Chief Operating Officer for R&D, manufacturing, product and project development, and construction companies. My practice emphasizes transactions in solar and energy technologies, including, business development, mergers, product sales, strategic alliances, intellectual property, employment, warranty compliance, and financing (Mkt. cap \$50k to \$1.4B) international and domestic, private and public. Clients include international developers, manufacturers, contractors, investors and governments.

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Cold Climate Heat Pumps	Studio South	Saturday July 16 th	11:30 AM	80 Min.	ken welch	Energy Innovation Center	

Workshop Description
Presenting the results of a study in fuel assisted residences in Vermont, their economic and health effects, and potential for state policy switch from fuel to electric assistance programs.

Presenter Email & Biography kwelch@vermontel.net
Building analyst and energy efficiency consultant.

Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Electric Vehicles & the Grid	Museum North	Saturday July 16 th	12:00 PM	50 Min.	Pete O'Connor	Union of Concerned Scientists	www.ucsusa.org

Workshop Description: How can electric vehicles help the grid accommodate greater levels of variable renewable energy like wind and solar? How far in the future are "smart charging" and "vehicle-to-grid" ideas? Dr. O'Connor has been researching this topic with the Union of Concerned Scientists and will share what he has learned.

Presenter Email & Biography poconnor@ucsusa.org
Peter O'Connor joined UCS in May 2015. His research focuses on the integration of solar power and electric vehicles into the electricity system. Before coming to UCS, Dr. O'Connor conducted research on energy and environmental issues for the Global Environment & Technology Foundation in Arlington, VA. Clients included U.S. Environmental Protection Agency, the U.S. Department of Energy, states, companies, and non-governmental organizations. He subsequently conducted research for the World Bank, the National Association of Regulatory Utility Commissioners, and other clients. Dr. O'Connor received a Ph.D. in geography from Boston University. His doctoral dissertation focused on aspects of energy transitions, including statistical economic analysis, historical factors, energy return on investment (EROI), and climatology. He holds an M.S. from Stanford University in geothermal engineering and a B.A. from Harvard University in physics.

Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Environmental Impacts of War and Militarism	Yester House	Saturday July 16 th	1:00 PM	50 Min.	Adrienne Kinne, Richard Czaplinski & Larry Hamilton	Veterans for Peace	wmgmvfp.wix.com/vermont

Workshop Description: Join us for a rich dialogue about the cross-sections of environmental protection, climate change, and peace work. This workshop will address questions such as: How does war affect the environment? How do we, each one of us, foster peace? Can peace between countries be fostered by working to protect the environment? And, can working to protect the environment help foster peace?

Presenter Email & Biography adriennej@hotmail.com; rczaplinski@madriver.com; silverfox@gmavt.ne
Richard is active in the sustainable living movement both in life and through his writing on living simply and strengthening community. He served in the U.S. Navy from 1964 to 1969 and is a member of the Vermont chapter of Veterans For Peace. Larry is a member of Veterans For Peace.
Larry was born in Canada, and served in World War II in the British Royal Navy Fleets Air Arm as a pilot. He now is retired, living in Charlotte Vermont where he volunteers with The Vermont Nature Conservancy as a Trustee. Larry is also Tree Warden in his Town and Emeritus Professor of Forest Conservation from Cornell University.

Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Energy Storage - Technology, Policy and Opportunities	Museum North	Saturday July 16 th	1:00 PM	50 Min.	John Cerveny	NY-BEST	www.ny-best.org

Workshop Description: Energy storage has become a major topic of conversation at state utility commissions, among renewable energy advocates and even in the popular press. The workshop will provide baseline information on what is happening with battery and storage technologies, market policies and energy markets to drive the enthusiasm around storage.

Presenter Email & Biography icerveny@ny-best.org
John Cerveny is the Director of Resource Development for NY-BEST where he leads efforts to make connections between and among members, funding sources and the community at large. Immediately prior to his work with NY-BEST, he was founder and President of New Energy Resources in Schenectady and Vice President at TechCity Properties in Kingston, NY. Cerveny has held senior leadership positions at several clean tech companies' including Plug Power, GE MicroGen, MTI MicroFuel Cells and Lilliputian Systems' where he led efforts that resulted in creation of hundreds of jobs, modification of regulations to pave the way for new products and funded programs valued at over \$100 million. He was a founder of the US Fuel Cell Council and has provided merit review services for the US Department of Energy. Cerveny serves as a NYSERDA Entrepreneur in Residence and has mentored numerous companies through the CleanTech Open. Cerveny is a Climate Reality Leader and has given Al Gore's presentation on Climate Change to numerous groups. He earned a B.S. in Industrial Engineering at Rensselaer Polytechnic Institute and an MBA from the Lally School of Business at RPI.

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Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Advanced Aerodynamics Concepts in Transportation	Studio South	Saturday July 16 th	2:00 PM	50 Min.	Daniele Gallardo	Actasys	www.actasysinc.com
Workshop Description A revolutionary system that will change traditional aerodynamics.							
Presenter Email & Biography daniele.gallardo@actasysinc.com Dr. Gallardo received his Ph.D. in aeronautical engineering from the Rensselaer Polytechnic Institute in 2013, and is currently the cofounder and vice president for business development of Actasys Inc., a startup company based in Watervliet, NY. Dr. Gallardo focused his entire career on renewable energy and aerodynamics, starting with his M.Sc. thesis in MIT on fuel cells. Dr. Gallardo has been featured in several technical, popular and business magazines and is the inventor of several patents related to active flow control and aerodynamics. Since its foundation, Dr. Gallardo has been leading the business development department of Actasys, developing a successful path to market for Actasys revolutionary platform technology.							
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Renewable Natural Gas	Outdoors 1	Saturday July 16 th	2:00 PM	80 Min.	Paul Scheckel	Parsec Energy Consulting Inc	www.parsecenergy.com
Workshop Description: Make your own renewable natural gas from farm and kitchen wastes, or from wood. Learn how to make and use a small biogas digester, and a simple wood-gas camp stove. This workshop will help you understand the basics of both biogas and wood gas, and how you can produce renewable natural gas from biomass and waste resources found at home or on the farm. Participants will be introduced to the fundamentals of both anaerobic digestion and pyrolysis.							
Presenter Email & Biography paul@parsecenergy.com Paul Scheckel is an experienced energy efficiency and renewable energy practitioner and consultant. He is the author of The Homeowner's Energy Handbook and The Home Energy Diet. He's appeared twice on the acclaimed TV show Ask This Old House and is a writer and blogger for Mother Earth News. Paul's writing and presentations come from experience gained over 20+ years as an energy auditor, renewable energy system installer, electric car converter, and hands-on, off-grid homesteader.							
Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Solving the World's Sustainability Problems	Museum North	Saturday July 16 th	3:00 PM	50 Min	Taborri Bruhl		www.sustainableus.org
Workshop Description: The world faces a huge number of environmental problems--climate change, deforestation, habitat loss, and pollution, just to name a few. The good news is that the technology already exists, today, for many of these problems to be solved. Join Taborri as he outlines what future systems and lifestyles might look like and how they might function, and how we will be able to transition from where we are today to where we will need to be tomorrow. His presentation will include discussion of how basic economic principles inform our understanding of future economic systems, as well as video clips of places where some of these technologies and ideas have already been put into practice.							
Presenter Email & Biography taborrib@yahoo.com Taborri Bruhl lives in rural New Haven, Vermont, with his wife, three children, and two dogs in a net-zero house powered by solar and wind. Taborri is a former Marine Corps officer, and holds a bachelor's degree in history and journalism from Texas A&M University and a master's degree in history from California State University. He currently teaches history, economics, and government at the high school level, and is on the board of directors for the Acorn Renewable Energy Co-op in Addison County, VT.							
Workshop Title	Location	Date	Time	Length	Presenter (s)	Organization	Website
Heat Pumps - A Fuel Switching Paradigm	Studio South	Saturday July 16 th	4:00 PM	50 Min.	Ken Welch	Energy Innovation Center	
Workshop Description: Workshop will present the results of a recent study that installed cold climate heat pumps in low income Vermont residences and monitored the cost of operation compared to that of their previous fossil fuel heaters. The results of the study showed dramatic savings in both heating and cooling annual costs along with increased comfort, health and carbon reductions.							
Presenter Email & Biography kwelch@vermontel.net Building analyst and energy efficiency consultant.							