

SOLARFEST 2018 WORKSHOPS



RENEWABLE ENERGY
& CONSERVATION



GREEN
BUILDINGS



INNOVATION, TECH
& TRANSPORTATION



MUSIC
& ARTS



PUBLIC POLICY
& ACTIVISM



SUSTAINABLE
LIVING & FOOD

SATURDAY AUGUST 18TH



Living off grid -- Tiny House to McMansion A discussion on off-grid living at all levels. How is it different from living on the grid?
John Blitterdorf; Sat. 9 -9:50 AM, Mezzanine East

The drawbacks of breathing: *Nighttime carbon dioxide (CO₂) levels in bedrooms in 22 Vermont homes* We tested the indoor air quality in the bedrooms of 22 Vermont homes spanning a wide range of size, age, airtightness, heating system type, and occupancy. Over four days of measuring carbon dioxide (CO₂) levels, bedroom doors were left open and closed on alternating nights. All homes exceeded CO₂ concentrations of 1000 ppm on at least one of the four nights, and the vast majority exceed twice the (1000 ppm) threshold targeted by energy and ventilation standards. We evaluated why some homes performed better/worse and found the "smoking gun." New data from homes with balanced / fresh air ventilation systems is also presented, along with the latest on why we care about CO₂ and other pollutant levels in our homes, program and education approaches for tackling the issue, and best practices for design and commissioning of proper ventilation in new and existing buildings.
Brian Just; 9 - 9:50 AM, Northface Hall



Solar Investments for Income Aggressive tax saving incentives still exist for investors in solar power with typical rates of returns on investments exceeding 15%. Despite recent permitting restrictions for investments in moderate and large ground-mounted solar arrays, opportunities abound for alternate, creative approaches to modest and moderate solar investments. This workshop will provide the basic framework of how to put together a profitable commercial solar project that benefits everyone involved, including the community! We will also discuss how to build a small community-owned solar array.
Karen Lee; Sat. 9 -9:50 AM, Slopeside Clubroom



Community Solar – How does it work? The opportunities present in community solar and the challenges ahead.
Kevin Bailey; 9 – 9:50 AM, Grizzley's



We can Cool the Planet Now: Food, Water, Climate, Soil, Hope Through natural systems we can bend the temperature curve down and at the same time draw down carbon for the future.
Henry Swayze; 9 – 10:20 AM, Mezzanine West



Climate Justice 101 Curious what the phrase climate justice means? This workshop explores what the intersection of climate change and justice work is -- specifically at this moment in the context of Vermont. In this interactive workshop, we will explore the many ways we can center justice in our work to bring solutions to the climate crisis and have the opportunity to explore multiple perspectives and entry points to seeing the climate crisis with new eyes.
Bob Atchinson & Jane Pekol; 9 - 10:20 AM, Lower Level Lounge



Building Science Don't let your home renovation become a nightmare! Something as simple as using the wrong type of insulation can lead to moldy and rotting walls. During this invaluable talk, local architect, Alan Benoit, will explain the major elements of "Building Science" and help you avoid many common renovation pitfalls. He will clarify good versus bad wall designs, pass around various building materials, and teach you the pros and cons of each.
Alan Benoit, AIA; 10 – 10:50 AM, Slopeside Clubroom



The Future of Food *What is the future of food?* Who will it favor in the tug-of-war between industrial food and sustainable food systems? Considering the fast pace of advances in engineered food and precision agriculture, consumers, farmers, and policymakers worldwide are challenged to reach a consensus on a clear vision for the future of the world's food supply. This workshop presents a survey of what's on the horizon, plus clarifying information and a cautionary message.
Darryl Benjamin; 10 - 11:20 AM, Northface Hall



Exploring the Nonviolent Life Ken Butigan writes: "We are living in an age when the immense power and potential of nonviolence is steadily being revealed. The catastrophic challenges we face today - climate change, global poverty, permanent war, systematic violations of human rights, and many others- will not be solved by more violence. Effective solutions to these cataclysmic dangers will require monumental problem solving..." This workshop is a dive into the Nonviolent Life and nonviolent strategies and activism. Glenn and Steve have been leading nonviolence training workshops together in 2018. They offer information, education, valuable insights, life experiences and strategies on how "we the people" can make a positive impact for change leading up to the 2018 general elections and beyond.
Glenn Cratty & Steven Berry; 10 - 11:20 AM, Grizzley's



Backyard and Kitchen Cupboard Medicine Weed walk and discussion of how to use plants for common ailments. Samples will be available.
Helena Wu; 10 - 11:20 AM, Clocktower Courtyard

SATURDAY AUGUST 18TH



The Path to Zero Energy Homes Learn how to get your home on a path toward total home energy transformation. With a project combining energy improvements, efficient electrification and renewable energy you can retire your energy bills while making a comfortable, healthy, renewed home.
Li Ling Young; 10:30 – 11:20 AM, Mezzanine West

 **Design Workshop: Climate Solutions for People of the Future** Our planet is changing and our weather is becoming more extreme. What does this mean for the people of the future? What will our lives look like in 50 years? What will our kids' lives look like when they're middle-aged? How can we help these future-people cope? A fun, interactive workshop in which we will imagine and create inventions to support daily life in the year 2067.
Jack Doane, Dia Brown; 10:30 AM – 12:20 PM, Grizzley's



Biodiversity Through Permaculture Biodiversity Through Permaculture, will introduce you to principles of Permaculture which you can integrate into your own landscape and Alan will present examples they have used in their gardens. Then he will show how permaculture has stimulated a surprising variety of species to flourish in their yard.
Alan Benoit, AIA; 11 - 11:50 AM, Slopeside Clubroom



Theater as the Vehicle for Social Change From a quick overview of Theater in the Woods at SolarFest and its evolution to an educational summer camp to the transformational work of Falconworks in Brooklyn, NY, our interactive workshop explores how theater is used as the means to initiate conversations which can transform a community, to transmit the skills of being a human that we can take to the workplace as well as the play place.
Melissa Chesnut-Tangerman, Meg Bouchard, Rainbow Squier; 11:30 – 12:20 PM, Mezzanine East



Get Power Over Your Energy Bills Efficiency Vermont's best advice about how to save energy from behavior changes to do it yourself air sealing and equipment replacement.

Li Ling Young; 11:30 – 12:20 AM, Mezzanine West

 **PV, Dual-cropping, Micro-grids, and Reaching Sustainable 3 tons Carbon Dioxide Per Person per Year** How to get from where we are to a 100% renewable and sustainable local economy. Features using dual-cropping, PV on working farms, building and owning local micro-grids, and developing local plans and finance for locally owned sustainable transformation.
Roy Morrison; 11:30 – 12:20 PM, Northface Hall

 **Nurturing a Thriving Creative Economy** A poet, an artisan cheesemaker, a music teacher, a graphic designer. You probably know some of these people in your community; maybe you are one of these people! What do they have in common? They are all a part of the creative economy. There is a growing awareness worldwide of the power and potential of the creative sector as a vital piece of healthy, sustainable communities. In Vermont, the creative sector represents approximately 8.6% of the total economy and it is a hugely important factor is the state's identity and in enriching the quality of life of its residents. In this workshop, we'll explore the role of the creative economy in Vermont, the challenges it faces, and the ways that the Vermont Creative Network is helping to galvanize this sector to ensure and healthy and vibrant state.
Amy Cunningham, Robert McBride, Melissa Chesnut-Tangerman; 1 - 1:50 PM, Mezzanine East



Using Heat Pumps for Saving, Decarbonization & Comfort This session will cover the basics of what a heat pump is, different applications for heat pumps, evaluating whether your situation could benefit from a heat pump, and how to use one to best effect. If you've had questions like, "how is a heat pump different from an air conditioner?", "can I use a heat pump water heater with solar hot water?", "is a heat pump really green?", or "can I replace my boiler with a heat pump?," this presentation is for you.
Li Ling Young; 1 – 1:50 PM, Mezzanine West



Low-tech Birthing in a High-Tech World Exploring options and alternatives for birthing parents to the usual high-tech scenario most people experience.
Helena Wu; 1 – 1:50 PM, Slopeside Clubroom



Solar Powered Transportation Presentation on Past, Present and Future Solar Powered Transportation.
David Borton; 1 - 1:50 PM, Lower-Level Lounge



Solar Power Walking Tour Includes explanation of the solar trailer & "Freedom Rack" with 35 to 300-watt panels from the 1980s forward.
John Blitterdorf; Sat. 1 -1:50 PM, Clocktower Courtyard

 **How are Racial Justice and Climate Justice Connected?** This workshop is designed to support individuals and groups to dig into the roots of the climate crisis and explore how and why working for climate justice necessitates the dismantling of racism and white supremacy culture. Participants will have the opportunity to reflect on their own experiences and consider next steps to support their own learning and concrete actions they can take within their own activism.
Phoebe Gooding, Dia Brown, Brittany Dunn; 1 - 5:00 PM, Northface Hall



Biophilic Design Theory, Practice and Process Workshop The concepts of Biophilia "love of life" and Biophilic Design are growing as they are now part of several major building certification programs intending to promote human health and well-being. We, as a species, evolved as an interconnected part of nature, however, due to industrialization and modern technologies have become increasingly disconnected from our biocentric roots. Incorporating nature and natural systems & processes back into our built environment is the key to shifting how we design our world—to be more resilient and balanced for both people and planet. This workshop will review the science, theory and practice of biophilic design while intermittent design vignettes will allow attendees to explore the biophilic design process. *4 AIA CE credits are available for a fee of \$100. Read The Practice of Biophilic Design before the workshop, www.Biophilic-Design.com.* Elizabeth Freeman Calabrese, AIA, 1 – 5:00 PM, Grizzley's



Standing in Balance An Earth connecting Masterclass/Workshop on standing balancing poses. How to find balance in the standing poses and cultivate it - experiencing the calm, focus and power in a balancing body. Alternatives and variation of asanas for different abilities will be given. Balancing vinyasa practice and holds. Examples of possible poses; stargazer, trikonasana, half moon, tree, bird of paradise. Parvati Lina Hanson, RYT E-500; 1:30 – 2:50 PM, Summit Platform **NOTE: Rain Location** 11:30 AM in Grizzley's



The Truth Has Changed offers both a warning and a way forward for our besieged democracy. The water has changed. The climate has changed. The rules have changed. There's toxic data everywhere. How do we know what's true?

The Truth Has Changed is a solo monologue which traces the arc of American political life from 9/11 to the Trump era. The show, which will be filmed as part of a feature film for release in 2019, traces Josh's experiences as a first responder during 9/11, his groundbreaking reporting on fracking, his eye-opening eco-flights over the Gulf of Mexico during the BP oil spill, Hurricane Sandy, the massive rallies for Bernie Sanders the 2016 Democratic Convention, Standing Rock, and beyond. And Fox tells his story in an uncompromising way like never before. Golden Globe winner Alex Ebert of *Edward Sharpe and the Magnetic Zeroes* has penned the score for this performance, adding an immediate emotional musical impact to the work. Josh Fox; 2:30 – 4:50 PM, Mezzanine East



Phased Renovation to a Passive Standard This project took three years to complete and was done in three distinct phases. Paul Sipple; 2:30 – 3:20 PM, Mezzanine West



Fundamentals of a Successful Town Energy Committee Methodology used to establish a successful energy committee for the Town of Wallingford, Vt. Key to development is choosing the correct mix of individuals who have the time, interest and knowledge base to achieve the goals. The discussion will identify the ranking all of our successes and failures, our largest project to date (an energy upgrade of Wallingford's elementary school, which included heating and ventilation improvements, fuel switching, HVAC energy recovery systems, renewable technologies, photovoltaics and an energy monitoring dashboard) will be discussed in depth as representative of the kinds of projects completed by this committee. The end game is to provide an educational component for the students and parents showing how much energy the building's various mechanical systems are using and how much energy is being created through the roof mounted PV thereby introducing the students a visual of the conceptual goal of a Zero Energy Building...which is in addition to facilities potential energy savings and lower building operations costs. Ken Welch; 2:30 – 3:20 PM, Slopeside Clubroom



Waterless Composting Toilets: An Alternative to Flush Toilets Have you ever been somewhere where the power went out due to a storm and the flush toilets stopped working? Rising sea levels and increased storm severity & frequency due to climate change are making this a more common reality for many. Ever think of have your own off-grid backup toilet? Or maybe are you thinking of building a Tiny House in the woods but don't want the expense of a septic system? Waterless composting toilets are a great alternative in both these cases. Learn how TFP makes the TFP Composting Toilet, plus the non-profit work TFP does in developing countries to bring hygienic sanitation to those in need of non-polluting toilets as an alternative to flush toilets which pollute local water resources. One fully constructed composting toilet will be on display for demonstration purposes.

Jason Kass; 2:30 – 3:20 PM, Lower-Level Lounge



Fossil Free New England: How and Why Rachel speaks about the fight against VT Gas pipeline including safety issues, presenting "energy realities"; we cannot just call for no new fossils or 100% renewables without a deep systemic change in our relationship to energy and more. Cathy addresses the pipeline battles currently waging in Massachusetts and New Hampshire which include fracked gas pipeline proposals from Liberty Utilities, Columbia Gas and National Grid. Irvine presents on grassroots organizing with a focus on movement-building, using a variety of strategies, and some of the challenges we face in this work.

Laura Simon, Moderator; Rachel Molker, Cathy Kristofferson, Irvine Sobelman; 3:30 – 4:50 PM, Slopeside Clubroom

KEYNOTE SPEECH



Chris Martenson: "Building Resilience" 5:00 PM, Main Stage Tent

Global events are unfolding rapidly, and you need to be both aware and prepared. But are you? The economy, energy and environment are all areas where significant disruptions are happening, most in plain sight and yet rarely discussed. We will both discuss the changes, the implications and, most importantly, what you can DO about them in order to be happier, healthier, and more resilient.

Our approach to solutions operates at the individual/family level and covers eight different forms of capital including financial (of course), social, emotional, living, knowledge, time, cultural and material.