



## 8<sup>th</sup> Annual Montana Clean Energy Fair Full Workshop Schedule and Bios



### 10:00 – 10:45 am: Solar Electricity Basics (Exhibit Building #2)

Dan Kenworthy, Kenworthy Electric

*Think solar is expensive? When's the last time you checked? Solar photovoltaic costs have dropped dramatically over the last 5 years, and there's never been a better time to produce your own power from the sun. Learn the ins and outs from industry veteran Dan Kenworthy.*

Dan Kenworthy is a Master Electrician and has been the owner and operator of Kenworthy Electric Inc. since 1996. He is a third generation Montana electrician, and is proud to offer his interest in the energy spectrum to MREA and their vast and diverse membership. Dan operates his full service electrical shop in Sheridan, MT, and focuses on solar, electrical, and generator projects for local residences, ranches, businesses, healthcare, educational and industrial facilities. When not being consumed by business, he enjoys getting outside with his family to recreate in all the great ways that Montana offers.

### 10:00 – 10:45 am: Large-Scale Solar and Wind (Exhibit Building #3)

Amy Berg Pickett, Cypress Creek Renewables

*Montana has tremendous wind and solar resources, and in the past decade more than a dozen wind farms have been built across the state. Recently, large scale solar arrays have made their way to Montana. What's next for large-scale wind and solar development?*

Amy Berg Pickett is the Regional Northwest Zoning and Outreach Manager at Cypress Creek Renewables, with a focus on Montana, Oregon, and Washington. The first utility-scale solar farm in Montana was originated by Amy and has focused her work 2015-2016 on the other five – from the ground up until construction. Her outreach efforts in Montana continues today. The focus of Northwest Zoning is to work with local jurisdictions and community members to ensure project zoning, realize realistic and practical sustainable development concepts for local projects, and engage in Participatory Community Communication. Amy also acts as “boots on the ground” for Northwest projects. Amy has a B.S. in Sustainability and a B.A. in Liberal Studies with a focus on communication from Oregon State University.

### 11:00 – 11:45 am: Smart Solar Shopping (Exhibit Building #2)

Ben Brouwer, Montana Energy Office, Department of Environmental Quality

*How do I even begin if I'm thinking about buying solar electricity to offset my power bill? Ben will explain how to set appropriate solar goals for your home or business, estimate costs, find a contractor, and review solar bids. This session is a must for anyone who's interested in the exciting market of solar energy.*

Ben Brouwer is an Energy Resource Professional at the Montana Energy Office. He joined the Energy Office in 2016, where he manages the Alternative Energy Revolving Loan Program, and provides support and assistance to advance the development of renewable energy in Montana. Prior to his position with the Energy Office, Ben worked for eight years in the non-profit sector on renewable energy education and policy issues.

### 11:00 – 11:45 am: Batteries and Energy Storage (Exhibit Building #3)

Kyle Bolger, Blue Planet Energy

*Have you been wondering when and if you need batteries for emergency backup or how to store electricity for your on-grid or off-grid house? Join Kyle Bolger to learn about battery history, options, and the evolving technologies of energy storage. The battery revolution is on and is poised to change our entire way of thinking about electricity and independence!*

Kyle Bolger grew up in Alaska, where he developed a unique appreciation and ambition to harness our perpetual energy source, the sun. After installing hundreds of solar energy systems in Oregon he began traveling far and wide to spread his lessons learned. As an instructor with SEI since 2005 Kyle has worked in more than half of the states in the USA and has

experience in several international locations including North America, Central America, Europe and Africa. His career experience spans from mobile solar systems, remote industrial applications, copious grid-tie solar applications and small to medium scale micro-grids. With a mixture of student inquisitions from across the world, government regulatory consulting and hundreds of quality control inspections, Kyle brings a vast amount of real time industry expertise to his work while maintaining an open mind for the journey ahead.

### **12:00 – 12:45 pm: Financing and Incentives (Exhibit Building #2)**

Ben Brouwer, Montana Energy Office, Department of Environmental Quality; Paul Herendeen, Missoula Federal Credit Union

*There's no such thing as a free lunch, but there are incentives, tax credits, low interest loans, and other programs that can help you finance your renewable energy project. Find out which incentives will work for you, and see how your investment will net returns.*

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Paul Herendeen is the Director of Impact Market Development at the Missoula Federal Credit Union, where he works to develop lending programs with positive social outcomes. Prior to finance, he worked for ten years as an environmental scientist studying forests, water, and climate.

### **12:00 – 12:45 pm: Electric Vehicles Show-and-Tell (Exhibit Building #3)**

Kyla Maki, Montana Department of Environmental Quality; Alicia Cox, Yellowstone-Teton Clean Cities; Bill Clem, KERBSpace; plus electric vehicle owners.

*Get the low-down on electric cars and what they have to offer you and your community. This workshop starts with an overview of the technology, will cover how electric buses are changing the public transit landscape, and ends with a show and tell from car owners. This electric car show is truly a unique event for Montanans!*

Kyla Maki is an Energy Resource Professional with the Montana Energy Office at the Department of Environmental Quality in Helena, Montana focusing on alternative fuels and transportation technology, policy and planning. Kyla is a self-identified “energy nerd” and has worked on renewable and clean energy policy issues in Montana for over a decade.

Alicia Cox is the Executive Director of Yellowstone-Teton Clean Cities, she has been with YTCC since 2011. Yellowstone-Teton Clean Cities works to promote and advance alternative fuels, advanced vehicle technologies and efficient transportation options in the transportation sector throughout the Greater Yellowstone Ecosystem (GYE).

Bill Clem is the CEO and Founder of KERBSpace, an electrified mobility company located in Bozeman. A native of Montana, a graduate of MSU, and an Industrial Designer, Bill has worked on dozens of products as varied as tools for Open heart and plastic surgery, automobile interiors, fitness equipment, electric bicycles and facility robotics.

### **1:00 – 1:45 pm: Solar 2.0: Taking Solar Electricity to the Next Level (Exhibit Building #2)**

Dave Ryan, P.E., Balance Engineering

*You've already installed solar on your home. But what's next? Join us for a workshop on living life after installing solar. Now that you are producing your own electricity, have you thought about getting more out of your PV system? Did you know you may be able to expand your system with more panels? Have you thought about integrating an electric vehicle or at-home battery storage? We cover all this and more at this exciting workshop.*

Dave Ryan is a mechanical engineer practicing in Montana. As an independent contractor, he works with various clients, including agricultural producers. He spent 10 years working as a maintenance engineer in large surface coal mines. He then went to work for the Montana Power Company, then NorthWestern Energy on energy conservation projects. At MPC he helped develop conservation programs, and developed the first renewable energy program for the utility. In 2005, he went to work at the National Center for Appropriate Technology, and also started his own contracting engineering business, going full time self-employed in 2013. Along with developing many conservation and distributed energy

projects, he also does pre-development work on large scale wind projects. He received the North West Energy Coalition's Conservation Eagle award in 2000, and the AERO Sustainable Energy award in 2010. Dave is a founding member of the Montana Renewable Energy Association. He lives in Butte.

### **1:00 – 1:45 pm: Efficient Water Heating Options for Home and Business (Exhibit Building #3)**

Todd Hoitsma, Liquid Solar Systems

*Water heating uses up to a third of a building's energy demand. With lower cost solar PV and new innovative water heaters, there are many ways to improve on the standard inefficient water heating systems. In this session Todd Hoitsma of Liquid Solar will review water heating technologies and compare tank vs tankless, electric vs. gas, heat pump water heaters, and solar thermal vs solar PV to help determine what makes most sense in your home or business.*

Todd is the owner of Liquid Solar Systems, a Bozeman-based small business specializing in solar hot water and solar-heated radiant floor systems. With over 150 solar heating installations around Montana, Liquid Solar emphasizes simple-as-possible designs using US-made hardware. Todd a strong advocate for renewable energy and energy efficiency, both at work and at home. He and his wife just completed their new super-insulated 1500 SF house with passive solar, solar PV, solar heating that is very close to being a Net Zero home.

### **2:00 – 2:45 pm: Renewable Energy Policy (Exhibit Building #2)**

Brian Fadie, Montana Environmental Information Center; Diego Rivas, NW Energy Coalition

*The upcoming legislative session is likely to see another round of bills addressing net metering, renewable energy incentives and tax credits, and more. The Public Service Commission will soon be considering whether to change the rules for distributed generation (e.g. rooftop solar and small wind). And discussions around large scale solar and wind continue at the Public Service Commission and among legislators. Join this session to hear what's happening now and what's on the horizon for state renewable energy policies.*

Brian Fadie is the Clean Energy Program Director at the Montana Environmental Information Center based in Helena and chairs the MREA Policy Committee. He has advocated for clean energy and energy efficiency policies at the local, state, and federal level, including lobbying the state legislature and working with state regulatory agencies. Prior to MEIC, Brian completed a master's degree in environmental policy from the University of Michigan with a focus on clean energy policies and project siting. He has also previously worked on clean energy development in Washington D.C. and Nevada.

Diego is a Senior Policy Associate and covers all things energy policy in Montana and Idaho for the NW Energy Coalition. Diego has been with the Coalition since 2010, initially focusing largely on energy efficiency before taking on a more comprehensive role. Previously, Diego has worked on federal climate legislation, organizing the group Montanans for a Healthy Climate. He has also worked in politics and continues to dabble in that arena in his free time. Diego lives in Helena with his wife and two kids and is also the owner of a soccer retail business, Play On Soccer.

### **2:00 – 2:45 pm: Off-Grid Living (Exhibit Building #3)**

Henry Dykema, Sundance Solar Systems

*Trying to power an RV, cabin or a remote home? Or just wanting to be more self-sufficient? Learn the basics of off-grid technologies, such as battery storage and load management, and hear first-hand what it takes to cut the power cord.*

Henry Dykema is the President of the MREA Board of Directors and owner of Sundance Solar Systems, a renewable energy business specializing in the design, sale, and installation of photovoltaic and wind energy systems. He has lived off the grid since 1992 and started Sundance Solar Systems in 1994. He is a NABCEP certified renewable energy provider.

### **3:00 – 3:45 pm: Community-Scale Solar (Exhibit Building #2)**

Garrett Martin, Montana Department of Environmental Quality; Natalie Meyer, City of Bozeman

*Communities around Montana are turning to renewable energy to further their energy goals and to save money. Meanwhile, Montana utilities, including rural electric Co-ops, are starting to explore shared solar projects which allow individuals to buy into a single solar electric system. Hear from our panelists about developments in community based efforts to go solar and how shared solar is becoming more viable in Montana.*

Garrett Martin is the Senior Energy Analyst for the Montana Department of Environmental Quality's Energy Bureau. Garrett works on renewable energy policy and planning and energy security for the State of Montana. Mr. Martin holds Masters Degrees in Environmental Management and Public Policy from Duke University.

Natalie Meyer is the Sustainability Program Manager for the City of Bozeman where she oversees implementation of their Climate Action Plan. She monitors energy use and community emissions, advises on policy issues, and develops diverse programs and partnerships to advance energy efficiency and renewable energy. Natalie earned a M.S. in Land Resources & Environmental Sciences from Montana State University and is a LEED Green Associate.

**3:00 – 3:45 pm: Lithium-Ion Batteries (Exhibit Building #3)**

Kyle Bolger, Blue Planet Energy

*You probably already use them in your phones, power tools, and maybe your hybrid car. But did you know that there is a major transformation taking place at this moment within the energy storage industry? Lithium ion batteries are leading the way for homes, businesses, and the surging electric car market. Find out the details of this technology and why the costs are coming down and the efficiencies are going up.*

Kyle Bolger grew up in Alaska, where he developed a unique appreciation and ambition to harness our perpetual energy source, the sun. After installing hundreds of solar energy systems in Oregon he began traveling far and wide to spread his lessons learned. As an instructor with SEI since 2005 Kyle has worked in more than half of the states in the USA and has experience in several international locations including North America, Central America, Europe and Africa. His career experience spans from mobile solar systems, remote industrial applications, copious grid-tie solar applications and small to medium scale micro-grids. With a mixture of student inquisitions from across the world, government regulatory consulting and hundreds of quality control inspections, Kyle brings a vast amount of real time industry expertise to his work while maintaining an open mind for the journey ahead.