

2010 HARVESTING CLEAN ENERGY Conference Agenda
February 7-9, 2010
Tri-Cities Convention Center – Kennewick, Washington

SUNDAY, FEBRUARY 7, 2010

11:30am – 1:15pm OPENING LUNCHEON & CONGRESSIONAL LEADERS FORUM
-- Sponsored by Strategies 360 --

Top Northwest Congressional representatives discuss the best opportunities for bipartisan cooperation to advance economic development in our rural communities through clean energy.

Moderator: Rogers Weed, Director, Washington Department of Commerce

Welcoming Keynote: US Senator Maria Cantwell

Interactive Forum with:

- **US Congressman Jay Inslee**
- **Senator Cantwell**

1:30pm – 3:15pm SPECIAL WORKSHOPS

- **Plugging-In: Electric Trucks, Tractors, ATVs, and Orchard Platforms**
Major automakers and new companies are gearing up to mass-produce electric vehicles, beginning in 2010. This workshop will reveal how technologies driving vehicle electrification are being applied to existing and new agricultural equipment to: lower operating costs; reduce farm labor health risks; and contribute to energy independence.

Moderator/Speaker: Ron Johnston-Rodriguez, Advanced Vehicle Innovations Consortium, Port of Chelan County

Speakers:

- Tim Murphy, Idaho National Lab/Advanced Vehicle Testing Activity
 - Karen Lewis, WSU Extension and Washington Tree Fruit Research Commission
 - Bob Acheson, Barefoot Motors
- **Next-Gen Hydropower: Big Resource, Small Impact**
Just three percent of the 79,000 existing dams in the U.S. generate electricity. Learn about an agreement between historic adversaries to support adding power generation at some dams without adding new environmental impacts. Discover how new technologies are increasing efficiencies and adding renewable energy generation at

existing dams. And learn about BPA's efforts to facilitate wind power integration using the hydro system and other storage technologies.

Moderator: Andrew Munro, Grant County PUD and President, National Hydropower Association

Speakers:

- Richard Roos-Collins, Director of Legal Services, National Heritage Institute
- Ron Miller, Director of Sales, Voith Hydro
- Elliot Mainzer, Vice President-Corporate Strategy, Bonneville Power Administration (BPA)
- Kirby W. Gilbert, Manager, MWH Americas, Inc.

- **The Promise of Biochar: Generate Energy, Improve Soils, Store Carbon** (*1st session*)
This workshop introduces a promising new technology for rural economies -- biochar -- and then examines its potential use to generate energy, enhance soil productivity, and sequester carbon. This session is the first of two – it focuses on the technology of pyrolysis and applications of biochar to ag lands and forests (*second session is Tuesday afternoon*).

Moderator: Jim Amonette, Pacific NW National Laboratory

Speakers:

- Jim Amonette, Pacific NW National Laboratory
- Tom Miles, T. R. Miles Technical Consultants, Inc.
- Hal Collins, USDA Agriculture Research Service
- Mark Coleman, University of Idaho Forest Resources

- **Tapping Into USDA Funding for Your Project: What You Need to Know**
As farms and rural communities have been recognized as key players in improving America's energy security, USDA funding for clean energy projects has grown rapidly, with programs such as the Rural Energy for America Program (REAP), value-added producer grants (VAPG), and the Biomass Crop Assistance Program (BCAP). This workshop will compare key programs, help you understand which programs could help you do what, and dig into the details of what it takes to put together a successful application.

Moderator: Judy Olson, State Executive Director, USDA Farm Service Agency – Washington State Office

Presenters:

- Chris Cassidy, National Business Renewable Energy Advisor, USDA Rural Development, Wash DC
- Virinder Singh, Harvesting Clean Energy/Hat Trick Energy and Environment Consulting
- Rod Hamilton, Chief of Farm Programs, USDA Farm Service Agency – Washington State Office

- Brian Buch, Business Program Specialist, USDA Rural Development – Idaho State Office

3:30pm – 7:30pm SUPER BOWL PARTY!

Game on the Big Screen – No-host Bar and Munchies

Or

4:00pm – 5:30pm SPECIAL WORKSHOP

Isle of Eigg, Scotland: The Big Green Challenge

This workshop will explain the approach to energy use being pioneered on the Isle of Eigg, Scotland, a community owned island with a population of 96. The community has built its own generation scheme and distribution grid, harnessing hydro and wind with photovoltaic cell charged battery backup. Further, the workshop will describe the UK-wide, “Big Green Challenge”, how this has been taken forward and the Isle of Eigg’s success as one of the winners of this competition with a total prize of \$1.7 million.

Presenter: John C Hutchison, Chairman of the Isle of Eigg Heritage Trust.

MONDAY, FEBRUARY 8, 2010

8:00am – 9:00am FEATURED KEYNOTE SPEAKER

Welcome and Orientation from Conference Emcee Hal Calbom

Special Remarks: Congressman Doc Hastings

Introduction of Keynoter: Dr. Birgitte Ahring, Director, WSU Center for Bioproducts and Bioenergy

KEYNOTE SPEAKER: Richard Wynne, Director of Geopolitical and Policy Analysis, Boeing Commercial Airplanes

Boeing and the Pursuit of Sustainable Biofuels: Outlining the potential agricultural role in developing renewable energy sources for aviation

9:00am – 10:30am PLENARY PANEL – Harvesting Clean Energy 2020: A View to the Future

The past 10 years have seen rural clean energy production grow markedly in our region. Drivers include strong interest in energy security, climate change, and rural economic development. What will the next 10 years bring the Northwest?

Moderator: Read Smith, National Co-Chair, 25x25

Presenters:

- Anthony Crooks, Renewable Energy Specialist for USDA Rural Development, Washington DC
- Claudio O. Stöckle - Chair, Dept. of Biological Systems Engineering, Washington State University
- Terry L. Walton, Director, Energy and Environmental Programs, Pacific Northwest National Laboratory

10:30am – 11:00am NETWORKING BREAK – Visit Our Exhibitors!

11:00am – 12:30 pm “GET IN-DEPTH” BREAKOUT SESSIONS – Round 1

These smaller sessions enable you to learn from and interact with experts and successful pioneers in various technologies and applications.

- *Bio-Economy and Northwest Feedstocks* – **Northwest Bioenergy Feedstocks: Expanding Supply for Our Emerging Bio-Economy**

Technologies for transforming biomass into energy and co-products are rapidly improving. But which feedstocks – from agriculture wastes to dedicated crops – can Northwest farmers realistically, profitably and sustainably harvest and deliver to bioenergy markets in the next few years?

Moderator: Bill Warren, Washington State Farm Bureau

Presenters:

- Hal Collins, USDA Agriculture Research Service
- Scott Johnson, President, Sustainable Oils: camelina to biojet fuel
- Richard Hess, Idaho National Laboratory: Biomass handling/storage/delivery integration into existing infrastructure
- Rob Schram, Evergreen Fuel Technologies, Inc.: Ag. Crop Waste Biomass Electric Generation Resource in Grant County

- *Energy Opportunities for Rural Landowners and How to Finance Them* – **Large Wind: Big Money, Big Future**

Meet the key players who are doing commercial scale wind development in the Northwest. Listen to them discuss the genesis of their projects, the challenges of the industry and how they employed financing strategies that ensured project viability.

Moderator: Graham Noyes, Stoel Rives

Presenters:

- Paul Weatherbee, Resource Development Manager, Puget Sound Energy
- Grant Morgan, Public Works Director/County Engineer, Garfield County
- Larry Flowers, Wind Powering America Technical Director, National Renewable Energy Laboratory

- *Energy Innovation in Food Processing* – **Northwest Food Processors Association Energy Initiative: A Model for Industrial Energy Efficiency**

The Northwest Food Processors Association has stepped forward as the first industry group to adopt an industry-wide goal to reduce its energy intensity by 25% in the next ten years. Hear why NWFPA members took this bold step and what they are doing to achieve this audacious goal.

Presenters:

- Pam Barrow, Energy Director, Northwest Food Processors Association
- Jim Azumano, Rural Program Director, Northwest Food Processors Education & Research Institute

- *New Energy Opportunities for Irrigated Agriculture* --**Strategies to Save Energy in Irrigation Systems**

Efficient irrigation systems offer a variety of benefits, including energy, water, and labor savings. This session will feature how to evaluate irrigation system efficiency and what is included in an irrigation system audit, as well as BPA and co-op programs to encourage energy efficiency in irrigated agriculture.

Moderator: Stephanie Page, Oregon Department of Agriculture

Presenters:

- Frank Majer, Energy Services Specialist, Grant County Public Utility District -- Grant County PUD's energy efficiency programs for agriculture
- Tom Osborn, Mechanical Engineer, Energy Efficiency and Renewables, Bonneville Power Administration -- BPA energy incentives
- Fred Ziari, President and CEO, IRZ Consulting LLC -- The energy audit process; using infrared sensing to evaluate irrigation system efficiency

- *Clean Energy Policy for Rural Development* -- **Energy Legislation in DC: What's the Latest and What's in it for the Rural Northwest**

Come get the inside scoop on the latest twists and turns for major federal energy and climate legislation in play for 2010. Learn about the opportunities for agriculture and rural communities that are embedded in key bills that could reshape our nation's energy system.

Moderator: David Kolsrud, DAK Renewables

Presenters:

- Ross Macfarlane, Senior Advisor for Business Partnerships, Climate Solutions
- Chris Cassidy, National Business Renewable Energy Advisor, USDA Rural Development, Wash DC

12:30pm – 2:00pm LUNCHEON KEYNOTE SPEAKER

KEYNOTE SPEAKER: David Kolsrud, DAK Renewable Energy – “Farmers as Renewable Energy Entrepreneurs”

David has farmed for 35 years and, for the past 13 years he has helped organize and fund over \$1 billion worth of farmer-owned biofuel and wind power projects

2:00pm – 3:00pm PLENARY PANEL: The Bio-Economy and Northwest Feedstocks: Wrestling with ‘Sustainability’

Science and policy issues concerning *sustainability* – such as carbon, water, nutrients and land use -- continue to shape our use of biomass for power, fuels and chemicals production. How can good projects navigate these complex questions and move forward to deliver lasting value?

Moderator: Peter Moulton, Washington Department of Commerce

Presenters:

- David Huggins, Soil Scientist, USDA Agriculture Research Service
- Laurie Davies, *Waste 2 Resources* Program Manager, Washington Dept. of Ecology
- Chad Kruger, WSU Center for Sustaining Ag and Natural Resources

3:00pm – 3:30pm NETWORKING BREAK – Talk to Our Exhibitors!

3:30pm – 5:00pm GET IN-DEPTH BREAKOUT SESSIONS – Round 2

- *Bio-Economy and Northwest Feedstocks – Wood Waste in the Bio-Economy: Technology and Markets for Energy and Co-Products*

Millions of acres of Northwest forests may be subject to forest thinning operations in the coming years to reduce fire hazards and restore natural forest functions. This session examines the energy and co-products produced by the most promising technologies for processing the resulting streams of ‘woody biomass’ coming from the forests.

Moderator: Rachael Jamison, Washington Department of Natural Resources

Presenters:

- John Calhoun: Olympic Natural Resources Center, University of Washington - Adequate Feedstock Concerns
 - Bill Carlson, 25x’25 Steering Committee; Former Chair, National BioPower Association
 - Dave McEntee, Simpson Tacoma Kraft Paper - Combined heat and power
 - Rob Janicki, Janicki Energy
- *Energy Innovation in Food Processing-- Generating Energy from Food Processing Waste Streams*
Channeling food waste into energy production has clear environmental benefits, but it also has economic and social benefits as well. Learn about three very recent projects to convert food waste into energy.

Presenters:

- Mark Kendall, Summit Natural Energy – Before Cellulose: What’s Sweet and Ripe Today
- Matt Coen, EcoOregon – The Stahlbush Island Farms Project: Biodigesting Food Waste into Energy
- Larry Condon, Barr-Tech LLC – The Barr Regional Bio-Industrial Park

• *New Energy Opportunities for Irrigated Agriculture* – **Tapping Irrigation Water Delivery Systems to Produce Hydropower**

Irrigation water delivery systems are often excellent candidates for small hydropower developments. This session will include small hydropower technologies and projects in irrigation water delivery systems.

Moderator: Andrew Munro, Grant County PUD and President, National Hydropower Association

Presenters:

- Keith Knitter, Manager of Resource Planning, Grant County Public Utility District
- Burton Hamner, CEO, Hydovolts, Inc – “Hydrokinetic Turbines in Canals: Potential and Reality”
- Steve Rigdon, Generation Manager, Yakama Power

• *Clean Energy Policy for Rural Development* – **States at the Forefront: Policies to Power Up Rural Economic Development**

Washington, Oregon, Montana, and Idaho are all actively engaged in developing the new clean energy economy. Learn what state policies are making real-life projects come to fruition and what states think they can do better. And finally, learn how California influences the Pacific Northwest’s energy policies, supplies and demands.

Moderator: K.C. Golden, Policy Director, Climate Solutions

Panelists:

- David Van’t Hof, Lane Powell, former Energy Advisor to Oregon Governor Kulongoski
- Dave Ryan, Montana Renewable Energy Association
- Robert Neilson, Idaho National Laboratory
- Daniel Malarkey, Deputy Director, Washington State Department of Commerce

• *Northwest Pioneers of the Smart Grid* – **Pacific Northwest Smart Grid Efforts**

Smart Grid technologies are needed to integrate the Northwest's rapidly expanding portfolio of clean, renewable resources and to facilitate many of the region's new energy conservation and management schemes. This panel will present some pioneering regional efforts of the past, discuss current needs for a smarter grid for

resource integration and changes in energy consumption, and explore some future Smart Grid activities.

Moderator: Ronald B. Melton, Ph.D., Project Director, Pacific Northwest Smart Grid Demonstration Project, Battelle Memorial Institute

Presenters:

- Donald J. Hammerstrom, Ph.D., Principal Investigator, Pacific Northwest Smart Grid Demonstration Project, Battelle Memorial Institute
- Mark Osborn, Distributed Resources Manager, Portland General Electric
- Ken Dragoon, Research Director, Renewables Project Northwest
- Mike Charlo, Electric Superintendent, City of Milton-Freewater, Oregon

5:30pm – 7:00pm NETWORKING RECEPTION!

TUESDAY, FEBRUARY 9, 2010

8:00am – 8:50am MORNING KEYNOTE SPEAKER

Introductory Remarks: Peter Goldmark, Washington State Commissioner of Public Lands

Introduction of the Keynote Speaker: Mario Villanueva, State Director, USDA Rural Development – Washington State Office

Keynote Speaker: Dallas Tonsager, Under Secretary for Rural Development, US Department of Agriculture

9:00am – 10:30am GET IN-DEPTH TRACKS – Round 3

- *Clean Energy for Good Rural Jobs* – **Renewable Energy Trends, Job Creation and Workforce Development**

Hear the results of a recently-released study on renewable energy and workforce development, and learn directly from regional industry, labor and education leaders about the opportunities for good rural jobs, new business opportunities and challenges for this fast-growing sector. Discover how new policies and funding will help accelerate future growth in the renewable sector and expand education and training options across the region.

Moderator: Alan Hardcastle, Sr. Research Associate, WSU Extension Energy program

Presenters:

- Jack Baker, Vice President, Energy Northwest
- Don Guillot, Business Manager, IBEW Local 77
- Mindy Stevens, Vice President for Workforce Education, Walla Walla Community College
- Dave Ryan, National Center for Appropriate Technology, Butte, MT

- *Energy Innovation in Food Processing* – **Energy Innovation in Food Processing: Case Studies**

These Northwest food processors are leaders in industrial energy efficiency. Hear what the leaders are doing to reduce their energy intensities, save energy costs, and become more sustainable.

Presenters:

- Don Sturtevant, Energy/Natural Resources Manager, J.R. Simplot Company – Energy Efficiency: The Simplot Way
- Mike Henderson, Energy Engineering Manager, ConAgra Foods-Lamb Weston – “Know Thyself”: Our Continuing Journey

- *Public Power Clean Energy Leaders* -- **Case Studies and Innovative Financing Approaches**

How can public utilities best structure clean energy projects to maximize benefits for their members and to drive investment in the community? This session will explore case studies and financing tools including utility-owned clean energy development, Clean Renewable Energy Bonds (CREBs), public-private partnerships, Energy Northwest joint ownership models and renewable energy tax credits.

Moderator: Jeb Spengler, Seattle-Northwest Securities

Presenters:

- Pat Ashby, General Manager, Tillamook People’s Utility District
- Aaron Jones, Founder, Last Mile Electric Co-op and President/General Manager, Golden State Power Co-op
- Nancy Neraas, Attorney, Foster Pepper
- Rich Bresnahan, Energy Northwest

- *Bio-Economy and Northwest Feedstocks* – **Digesters as Biorefineries: Generating Multiple Revenue Streams**

Digester technologies are improving, allowing for a wider variety of feedstocks, and the region is gaining more examples of successful digester business models. But making digester projects pencil out remains challenging. What are the most promising strategies for developing profitable digester projects that capture revenue from energy sales along with other strategic co-products?

Moderator: Chad Kruger, WSU Center for Sustaining Ag and Natural Resources

Presenters:

- Kevin Maas, Farm Power Northwest
 - Craig Frear, Dept of Biological Systems Engineering, Washington State University
 - Kelly Ogilvie, Blue Marble Energy - Covering unusual bioproducts from digesters
- *Energy Opportunities for Rural Landowners and How to Finance Them* – **The Future of Solar Technologies in the Rural Northwest**

Innovative solar powered development is on the rise in the Northwest. Listen to experts who are working to advance novel solar technologies while utilizing alternative finance structures to bring clean energy production to rural communities.

Moderator: Karl Unterschuetz, Northwest Environmental Business Council

Presenters:

- Gary Nystedt, City of Ellensburg
- J.D. Sitton, Infinia Corporation
- Alan Hickenbottom, Tanner Creek Energy

10:30am – 11:00am NETWORKING BREAK

11:00am – 12:30pm GET IN-DEPTH TRACKS – Round 4

- *Clean Energy for Good Rural Jobs* – **Unplugged: The Latest Trends for the Northwest Energy Efficiency Workforce**
- The Northwest Energy Efficiency Taskforce Report states that energy efficiency must be the region’s top priority to meet the growing demand for energy at a time that the skilled workforce is shrinking, new technologies are emerging and systems to build and sustain energy efficiency talent are challenged. Learn from the region’s industry leaders how “best practices” models are addressing these multi faceted challenges.
- Moderator:**
- Barbara Hins-Turner, Executive Director, Washington State Center of Excellence for Energy Technology, Centralia College
- Presenters:**
- David Allen, Executive Vice President, McKinstry
 - Stan Price, Executive Director, Northwest Energy Efficiency Council
 - Michael Wehling, Energy Efficiency Services, Puget Sound Energy
 - Debi Watson, Manager Member & Community Services, Umatilla Electric
- *Energy Opportunities for Rural Landowners and How to Finance Them* – **Successful Finance Strategies for Alternative Energy Projects**
- Listen to three experienced professionals who understand how to utilize and successfully compete for grants, loan guarantees, tax credits and other equity sources in order to develop rural clean energy projects.

Moderator: Jae Easterbrooks, ShoreBank Pacific

Presenters:

- Chris Cassidy, National Business Renewable Energy Advisor, USDA Rural Development, Wash DC
- Daniel Malarkey, Deputy Director, Washington State Department of Commerce
- Alex Schay, Carbon Solutions Northwest

- *Energy Development for Tribal Economies*

Northwest tribes have unique economic opportunities in clean energy development, as well as unique challenges. This session will explore the advantages and disadvantages of various methods and structures for developing Tribal renewable projects. Choosing the right development partners is key; we will also discuss what Tribes should look for in a development partner.

Moderator: David Fife, Senior VP, Energy Finance Group, Seattle-Northwest Securities Corp.

Presenters:

- Jim Manion, General Manager, Warm Springs Power and Water
- Bob Gough, Intertribal Council on Utility Policy
- J.D. Williams, Attorney at Law
- John Williams, Tribal Energy Attorney, Conner & Winters, LLP

- *Bio-Economy and Northwest Feedstocks – Biofuels and Beyond: Innovative Technologies and Co-Products*

First-generation biofuels – ethanol and biodiesel from corn and soy – grew explosively in recent years. But these crops are not staples of Northwest agriculture. Meanwhile, behind the scenes very different processing technologies for producing biofuels from other feedstocks have been developing – including pyrolysis, fermentation and gasification. This session provides a window into the future of biofuels for the Northwest.

Moderator: Rick Orth/John Holladay, Pacific Northwest National Laboratory

Presenters:

- Tom Miles, TR Miles, Inc. – Pyrolysis
- Chris Zygarlicke, University of North Dakota, Energy and Environmental Research Center – Fermentation
- Don Stevens, Pacific NW National Laboratory – Gasification
- Mike Wolcott, Washington State University - Products

12:30pm – 1:30pm BOXED LUNCHES AVAILABLE

1:30pm – 3:30pm SPECIAL WORKSHOPS:

- **Politics and Your Project**

This workshop promises to deliver experienced professionals who understand how to work with and through the political process to deliver project funding and/or change restrictive rules or laws in order to develop clean energy projects.

Moderator: Peter Cancelmo, Garvey Schubert Barer

Speakers:

- Kevin Maas, Entrepreneur, Farm Power Northwest
- Jeffrey Bell, Partner, Gallatin Public Affairs
- Tylynn Gordon, SVP-Federal Relations, Strategies 360

- **The Promise of Biochar:** Generate Energy, Improve Soils, Store Carbon (*2nd session*)

This workshop introduces a promising new technology for rural economies -- biochar -- and then examines its potential use to generate energy, enhance soil productivity, and sequester carbon. This session will focus on commercialization experiences, baseline economics, and the potential for carbon offsets.

Moderator: Jim Amonette, Pacific NW National Laboratory

Speakers:

- Jeff Schahczenski, National Center for Appropriate Technology
- John Miedema, Thompson Timber Company
- Eric Twombly, Biochar Products, Halfway, OR
- Peter Weisberg, The Climate Trust

- **Plugging-In:** Electric Trucks, Tractors, ATVs, and Orchard Platforms

Major automakers and new companies are gearing up to mass-produce electric vehicles, beginning in 2010. This workshop will reveal how technologies driving vehicle electrification are being applied to existing and new agricultural equipment to: lower operating costs; reduce farm labor health risks; and contribute to energy independence.

OR

1:30pm – 5:30pm CLEAN ENERGY TOURS (seating limited – register early to get seat)

Infinia

Never heard of a Stirling engine? Well you are probably not alone. Come learn about these remarkable engines and see how Infinia is using them to change the way we use solar technology.

Bioproducts, Sciences, and Engineering Laboratory at WSU/PNNL

Come see Washington's leading research laboratory working on converting biomass into bioproducts and biofuels. Talk to scientists about how their work is making a difference and changing the way we use energy.

Badger Mountain Vineyard/Powers Winery

If you are a connoisseur of fine wines or just beginning to learn about wines, this is the place for you. Not only can you sip wine, but you can see how Badger Mountain is using renewable resources and innovative agricultural practices.

WEDNESDAY, FEBRUARY 10, 2010

ALLIED EVENT! -- USDA Rural Development Special Workshop