

Schedule of Events

2010 Rural Energy Conference

“New Energy for Sustainable Communities”

TUESDAY April 27, 2010

7:00 AM to 9:00 PM INTERNET CAFÉ **Harper Board Room**

7:30 AM Registration **Gold Room Foyer**

7:30 AM Continental Breakfast **West Gold Room**

8:30 AM **Welcome Address** **Gold Room**

(Chair: Julie Estey, Alaska Center for Energy and Power)

Welcome to Fairbanks

Jerry Isaac, President, Tanana Chiefs Conference

The Honorable Luke Hopkins, Mayor of the Fairbanks North Star Borough

8:45 AM **Keynote Address** **Gold Room**

(Chair: Gwen Holdmann, Alaska Center for Energy and Power)

Energy in Alaska at the Federal Level

Althea St. Martin, Special Assistant, Senator Lisa Murkowski

Tom Moyer, Special Assistant, Senator Mark Begich

Lanien Livingston, Special Assistant, Representative Don Young

The Denali Commission’s Role in Alaska

Joel Neimeyer, Federal Co-Chair, Denali Commission

Alaska’s Energy Pathway

Steve Haagenson, Executive Director, Alaska Energy Authority

10:00 AM **BREAK** **West Gold Room**

10:30 AM **Plenary Session** **Gold Room**

(Chair: Mike Harper, Alaska Energy Authority)

Innovation and Change in Energy Use in Rural Alaska. Presenters will discuss how rural Alaska is changing. Demographic shifts, cultural shifts, lifestyle changes, and educational needs all make living and working in the rural areas of the state challenging.

William Iggiagruk Hensley, Author of *Fifty Miles from Tomorrow*

Ike Towarak, General Manager, Unalakleet Valley Electric Cooperative

Jack Hebert, President/CEO, Cold Climate Housing Research

Myron Naneng, President, Sea Lion Native Corporation

TUESDAY APRIL 27, 2010 cont'd

12:00 PM

LUNCH

West Gold Room

Energy Opportunities for Alaska

Gold Room

Alaskans are looking at developing more stable and environmentally sound sources of energy. Find out what is being discussed and planned around the state.

(Chair: Peter Crimp, Alaska Energy Authority)

Chris Rose, Executive Director, Renewable Energy Alaska Project

1:30 – 3:00 PM

Technical Session 1

A – Regional Integrated Planning

Gold Room

(Chair: Jim Strandberg, Alaska Energy Authority)

What are the best long-term energy options different regions of Alaska? This session addresses energy plans under development for Southeast and the Railbelt.

The Evolution of Planning in Southeast Alaska

Robert Venables, Energy Coordinator, Southeast Conference

Integrated Planning For the Alaskan Railbelt

Mark Fouts, Manager of Planning, Chugach Electric Association

Integrated Planning for Hydro-rich Southeast Alaska

Tim McLeod, CEO, Alaska Electric Light and Power

B – Geothermal Update

Rampart Room

(Chair: Neil McMahon, Alaska Energy Authority)

Alaska has a wealth of geothermal potential. This session will focus on resource assessment, project development and technological advances. Geothermal projects around the state will be reviewed.

Innovative Exploration at Pilgrim Hot Springs

Gwen Holdmann, Director, Alaska Center for Energy and Power

Manley Hot Springs Geothermal

Martin Miller, Project Manager, TDX Power

Akutan Geothermal

Ray Mann, President, RMA

Dr. Amanda Kolker, Alaska Geothermal

Reservoir Management at Chena Hot Springs

Bernie Karl, Proprietor, Chena Power

TUESDAY APRIL 27, 2010 cont'd

C – Diesel Efficiency

Minto Room

(Chair: Kris Noonan, Alaska Energy Authority)

Reducing diesel usage is a practical, effective way to deal with today's rising oil prices. The session will look at new design software, selecting the correct engine for the application, remote monitoring to improve efficiencies and ultra low sulfur diesel.

Ultra Low Sulfur Diesel

Steve Stassel, Principal, Alaska Energy and Engineering
Jeff Herzog, Mechanical Engineer, Environmental Protection Agency

Diesel Efficiency

Brian Gray, Engineer, Alaska Energy and Engineering

Remote Monitoring

Alan Fetters, Project Manager, Alaska Energy Authority

D – Renewable Energy Fund and Other Projects

Tanana Room

(Chair: Chris Rose, Renewable Energy Alaska Project)

Which projects have been funded by the Renewable Energy Fund? Which new energy technologies are being developed for Alaska? This session highlights the latest information on projects and funding for the renewable and emerging energy technologies.

Renewable Energy Fund Update

Peter Crimp, Program Manager, Alaska Energy Authority

Emerging Energy Technology Fund Update

Jason Meyer, Program Manager, Alaska Center for Energy and Power

3:00 - 3:30 PM

BREAK

West Gold Room

TUESDAY APRIL 27, 2010 cont'd

3:30 – 5:00 PM Technical Session 2

A – Propane and Natural Gas

Gold Room

(Chair: Brent Sheets, USDOE - NETL Arctic Energy Office)

This session will focus on propane and natural gas resources, distribution, and new use opportunities around the state.

Coal Bed Methane – Wainwright

Pete Stokes, PRA Consultant, Arctic Slope Regional Corporation

The Future of Natural Gas in Alaska

Bob Swenson, Gasline Coordinator, State of Alaska

Propane Demand in Rural Alaska

Cal Kerr, Economist, Northern Economics

North Slope Propane Plant to Serve Rural Alaska

Harold Heinze, CEO, Alaska Natural Gas Development Authority

Mary Ann Pease, Consultant, ANGDA

B – Energy Storage

Rampart Room

(Chair: Dennis Witmer, Energy Efficiency Evaluations)

Many of the new and innovative energy sources being pursued in Alaska are either intermittent, unpredictable, or both. Energy storage is the key to providing reliable power from these sources.

Flywheel

Dennis Meiners, CEO, Intelligent Energy Systems

Premium Power Battery

Brad Reeve, General Manager, Kotzebue Electric

Energy Storage in Wind/Hydro Systems - Kodiak

Rorik Peterson, Professor, University of Alaska Fairbanks

Update on the Toshiba 4S Project in Galena

Marvin Yoder, Former City Manager, Galena

C - Solar

Minto Room

(Chair: Markus Mager, Alaska Center for Energy and Power)

Alaska is known as the land of the midnight sun. How can that sun be harvested to heat and power our daily activities? This session will review solar thermal and photovoltaic projects around the state.

Cold Climate Housing Research Center Solar PV Projects

Ryan Colgan, Chief Project Officer, CCHRC

Ugashik PV System

Brian Hirsch, Senior Project Leader - Alaska, NREL

Remote Power Sources

Greg Egan, Principal, Alaska Renewable Energy

Solar Wall Application in Alaska

Francis Sheridan, Resource Efficiency Manager, Elmendorf AFB

TUESDAY APRIL 27, 2010 cont'd

D – Recent Innovations in Building Technology

Tanana Room

(Chair: Scott Anaya, Alaska Building Science Network)

Alaska is a large state with wide variation on climatic conditions. This session will focus on new building techniques to improve energy efficiency; including long term thoughts on multi-family efficiencies.

Combining Indigenous Knowledge with 21st Century Technology to Create Innovative and Affordable Housing Designs

Jack Hebert, President and CEO, Cold Climate Housing Research Center

Weatherization Techniques

Jim Lee, Project Manager, Interior Weatherization

Zero Net Energy Building

Scott Waterman, Program Manager, Alaska Housing Finance Corporation

Dispatchable Boilers at INNEC

Bob Havemeister, Controls Technician, Alaska Energy Authority

6:00 - 9:00 PM

Reception

Visitor's Center

Welcome to the Doyon Region

Julie Biddle, Vice President of Shareholder Relations, Doyon Limited

Join us at the Morris Thompson Cultural and Visitors Center. Shuttles are available and will be waiting in front of the Westmark. The center is within walking distance as well. The Morris Thompson Cultural and Visitors Center is a gateway to experiencing the grandeur of Interior Alaska. Located on the banks of the Chena River in downtown Fairbanks, this new facility celebrates the land and the people who live here. It will educate residents and visitors about our natural and cultural history, and inspire them to go out and explore all that Fairbanks and the Interior has to offer.

WEDNESDAY April 28, 2010

7:00 AM to 9:00 PM INTERNET CAFÉ **Harper Board Room**
7:30 AM Registration **Gold Room Foyer**

7:30 AM Continental Breakfast **West Gold Room**

7:30 AM **Economic Analysis** **Gold Room**
This is a special session to learn how the economic analysis is performed to determine the cost benefit ratio for Renewable Energy fund projects. Focus on the analysis of biomass, wind, and hydro.
Cal Kerr, Economist, Northern Economics

7:30 AM **Hydrokinetic Conceptual Design** **Minto Room**
(Chair: Neil McMahon, Alaska Energy Authority)
The community of Whitestone has developed their own design for a hydrokinetic device. This session will provide an opportunity for attendees to learn what Whitestone has developed.
Steve Selvaggio, President, Whitestone Community Association

7:30 AM **Hydro Working Group** **Rampart Room**
(Chair: Doug Ott, Alaska Energy Authority)
Working group members will meet from 7:30-8:30. Anyone is welcome.

8:30 - 9:00 AM **Welcome Remarks** **Gold Room**
Brian Rogers, Chancellor, University of Alaska Fairbanks
Cordova Science Club

9:00 - 10:00 AM **Legislative Update** **Gold Room**
(Chair: Steve Haagenson, Alaska Energy Authority)
Alaska's lawmakers know the struggles of the people they represent. Smart energy policy will promote economic growth and development statewide. This session will discuss energy legislation and the vision for the future. Legislators will be able to attend depending on their obligations. There will be plenty of time for question and answers.

Representative Charisse Millett
Representative Bryce Edgmon
Senator Lesil McGuire
Senator Bill Wielechowski
Gene Therriault, Senior Policy Advisor on In-State Energy,
Office of the Governor

WEDNESDAY APRIL 28, 2010 cont'd

10:00 - 10:30 AM

BREAK

West Gold Room

10:30 - 12:00 PM

Technical Session 3

A – PCE Challenges and Opportunities

Gold Room

(Chair: Chris Mello, Alaska Energy Authority)

This session will describe how the Power Cost Equalization (PCE) works in Alaska. Different perspectives presented from AEA who administers the program, to RCA who administers the fund, to the community of Kwethluk that has participated in the program for many years.

Regulating PCE

John White, PCE Program Manager, Regulatory Commission of Alaska

Administering PCE

Jeff Williams, PCE Program Manager, Alaska Energy Authority

PCE in Rural Utilities

George Guy, Business Manager, Kwethluk Inc

B – Alternative Transportation

Rampart Room

(Chair: Richard Weiss, University of Alaska, Fairbanks)

Are electric cars the wave of the future or are they here today? Find out about the latest technology and what Alaskans are working on to bring electric transportation home.

Reducing Costs: Renewable Energy for Electric Vehicles in Rural Alaska

Mike Golub, Graduate Student, University of Alaska, Fairbanks

Alternative Transportation on St. Paul Island

Connie Fredenberg, Community Relations Manager, TDX Power

Mass Transit

Joe Heinzmann, Senior Director Energy Storage Solutions, Altair Nano

C– Biomass Resources and Technology

Minto Room

(Chair: Devany Plentovich, Alaska Energy Authority)

Wood remains an important resource for rural communities around the state. Experts will discuss new projects in Southeast and Interior Alaska as well as new technology development.

Supply Considerations in Project Development

Jeff Hermann, Forester, Department of Natural Resources

Sealaska Biomass Projects: Creating the Demand/Proving the Technology

Nathan Soboleff, Natural Resource Planner, Sealaska Corporation

Technology Development

Thomas Deerfield, Principal, Dalson Energy

Current Biomass Projects in Alaska

Ron Brown, Project Manager, Alaska Energy Authority

WEDNESDAY APRIL 28, 2010 cont'd

D - Energy Planning for Rural Communities

Tanana Room

(Chair: Brian Hirsch, NREL)

Communities grow and change at a rapid pace. Energy needs grow and change with the community. This session will look at planning for your future energy needs.

Energy Planning for Akutan

The Honorable Joe Bereskin, Mayor of the City of Akutan

Chaninik Wind Group

William Igkurak, Utility Director, Kwig Power

Alaska Energy Inventory

Emily Binnian, Project Manager, Alaska Energy Authority

Community Based Planning for Sustainability

Jack Hebert, President and CEO, CCHRC

12:00 - 1:30 PM

LUNCH

West Gold Room

Wind Energy – Where Does the Benefit Go?

Gold Room

Funding for energy leads many discussions including how can limited funds be fairly distributed statewide? What are the economic benefits to the state, the community, and the rate payer? This session will focus on where the benefits of energy investments go.

(Chair Dan White, Institute of Northern Engineering, UAF)

Gwen Holdmann, Director, Alaska Center for Energy and Power

Kat Keith, Wind-Diesel Coordinator, ACEP

Ginny Fay, Professor, Institute of Social and Economic Research

1:30 – 3:00 PM

Technical Session 4

A – Food Security

Gold Room

(Chair: David Lockard, Alaska Energy Authority)

Alaskans import over 90% of their foods. That food supply chain is energy dependent, and highly susceptible to energy price or supply volatility. This session will address the relationship between energy and food in Alaska and present some case studies of communities that are improving their sustainability by reducing their dependence on food from outside Alaska.

Food Security Issues and Concerns in Rural Alaska

Patricia Young, Environmental Director, Tetlin Village Council

Chickens and Greenhouse Development in Igiugig

Sandy Alvarez, Village Council Member, Igiugig

Economic Aspect of Producing Food in Alaska

Markus Mager, Energy Analyst, Alaska Center for Energy and Power

Heat Recovery for Rural Greenhouses

Ross Coen, Rural Energy Specialist, Alaska Center for Energy and Power

WEDNESDAY APRIL 28, 2010 cont'd

B – Transmission and Distribution Efficiencies

Rampart Room

(Chair: David Burlingame, Electric Power Systems)

Line loss can really impact the bottom-line for power generation and distribution. Developing improved ways to transmit and distribute power is paramount for any utility. This session will look at new technologies and techniques for optimizing transmission and distribution.

New Ways to Distribute Power

Louis Mass, Senior Planning Engineer, Chugach Electric Association

Optimum Conductor Selection

Dave Burlingame, Principal, Electric Power Systems

Operation Voltages and Voltage Conversion

Jim Cross, Planning Engineer, Homer Electric Association

C – Wind Lessons Learned

Minto Room

(Chair: Kat Keith, Alaska Center for Energy and Power)

Alaska has abundant wind resources in many parts of the state. This session will provide an opportunity to learn from past experiences through a review of existing wind projects and lessons learned for installation, performance, and economics.

National Wind

Ian Baring Gould, Senior Research Supervisor, NREL

Statewide Wind

James Jensen, Program Manager, Alaska Energy Authority

Small Scale Wind Development

Kirk Garoutte, Owner, Susitna Energy

Banner Peak

Ian Graham, Project Manager, Western Community Energy

Large Turbine Installation

Bob Coats, Manager of Operations and Engineering, Kodiak Electric Association

Northwind 100 Wind Systems

Meera Kohler, General Manager, Alaska Village Electric Cooperative

Current PCE Structure and Renewable Economic Incentives

Ginny Fay, Professor, Institute of Social and Economic Research

WEDNESDAY APRIL 28, 2010 cont'd

D – End Use Efficiency – The Recovery Act Working For You

Tanana Room

(Chair: Rebecca Garrett, Alaska Energy Authority)

This session will review the different programs under the recovery act (ARRA) administered by AEA and AHFC and discuss different entities grouping communities together to add value to projects.

AEA's Recovery Act Projects

Sean Skaling, Program Manager, Alaska Energy Authority

Tribal Block Grants

Jay Hermanson, Manager, Energy and Sustainable Development, WH Pacific

Energy Efficiency in Bristol Bay

Melody Nibeck-Edmond, Tribal Energy Program Manager, Bristol Bay Native Association

AHFC's Recovery Act Projects

Scott Waterman, Program Manager, Alaska Housing Finance Corporation

3:00 - 3:30 PM

BREAK

West Gold Room

3:30 – 5:00 PM

Technical Session 5

A – Railbelt Renewable

Gold Room

(Chair: Henri Dale, Golden Valley Electric Cooperative)

The Railbelt transmission line goes from Fairbanks to the Kenai Peninsula. This session will focus on the large scale renewable options for the Railbelt.

Eva Creek Wind

Mike Wright, Vice President Transmission and Distribution, GVEA

Cook Inlet Tidal

Monty Worthington, Director of Project Development, ORPC - Alaska

Susitna Hydroelectric Project

Bryan Carey, Project Manager, Alaska Energy Authority

Chakachamna Hydropower

Eric Yould, Director of Special Projects, TDX Power

Fire Island Wind

Suzanne Gibson, Senior Director Energy Development, CIRI

B - Advanced Control Systems

Rampart Room

(Chair: David Lockard, Alaska Energy Authority)

The back bone of rural Alaska power generation is the diesel engine. Engines have become more efficient, but with the effective use of advanced control systems, even greater fuel savings can be attained. This session will describe a variety of control systems.

Kotzebue and Cordova Control System Upgrades

Dan Rogers, Principal, Electric Power Systems

Dispatchable Loads for Gustavus Electric's Hydro System

Dick Levitt, Owner, Gustavus Electric

Advanced Controls at Alaska Power and Telephone

Eric Hannon, Manager of Power Operations – Tok Region, AP&T

C – Traditional Hydro Power

Minto Room

(Chair: Doug Ott, Alaska Energy Authority)

Hydropower is a dependable and abundant resource for many Alaskans. This session will look at how hydro power is produced and new or improved traditional projects around the state.

Alaska Power and Telephone Hydro Projects

Bob Grimm, President and CEO, Alaska Power and Telephone

Tazimina Hydropower Project

Brian Gray, Engineer, Alaska Energy and Engineering

Introduction to Hydropower

Audrey Alstrom, Assistant Project Manager, Alaska Energy Authority

D – End Use Efficiency Village Conservation and Best Practices

Tanana Room

(Chair: Sean Skaling, Alaska Energy Authority)

Energy efficiency is the first step of any power project. This session will look at the status of AEA's village energy efficiency program, the "whole village" project performed in Nightmute, opportunities for street light upgrades, and how energy efficiency plays a role in renewable energy project planning.

AEA's Village Energy Efficiency Program and the Nightmute Whole Village Retrofit

Geoff Butler, Project Manager, Alaska Building Science Network

Mike Joe, Former Manager of Chinuruk Inc. and the Nightmute Store
(via teleconference if available)

LED Street Lighting in Rural Alaska

Michael Barber, Lighting Program Manager, Sea Lion International

Economics of Energy Efficiency vs. Renewable Energy

Tom Marsik, Assistant Professor – Sustainable Energy, University of Alaska Bristol Bay Campus

AKEnergyEfficiency.org

Katie Conway, Assistant Program Manager, Alaska Energy Authority

WEDNESDAY APRIL 28, 2010 cont'd

5:30 – 9:30 PM Chena Power Reception Chena Hot Springs Resort

The buses will leave the Westmark at 5:30-6PM. The reception starts at 7:00 PM for those of you who would like to drive yourself to Chena Hot Springs.

Chena Hot Springs resort is the location of Alaska's only geothermal power generator. Have a look at the power system, greenhouses, water ram, hydrogen electrolyzer and solar demonstration. Check out Chena's spectacular Aurora Ice Museum. Heavy hors d'oeuvres will be served and the restaurant is open!

An early shuttle will be available in the morning for folks who want to stay the night at Chena Hot Springs Resort on Wednesday night.

THURSDAY April 29, 2010

7:00 AM to 12:00 PM	INTERNET CAFÉ	Harper Board Room
7:30 AM	Registration	Gold Room Foyer
7:30 AM	Continental Breakfast	West Gold Room

8:30 - 10:00 AM Plenary Session

Private, Public, Co-Op – Different Utility Models for Alaska **Gold Room**

(Chair: Gwen Holdmann, Alaska Center for Energy and Power)

Discussion of the various utility models used in Alaska and their impact on energy solutions.

Ross Coen, Rural Energy Specialist, Alaska Center for Energy and Power
Clay Koplín, General Manager, Cordova Electric Association
John Handeland, Utility Manager, Nome Joint Utility System
Tim McLeod, CEO, Alaska Electric Light and Power

10:00 - 10:30 AM BREAK West Gold Room

10:30 - 12:00 PM Technical Session 6
A - Making Projects Happen **Gold Room**

(Chair: Jason Meyer, Alaska Center for Energy and Power)

Identify resources and steps to make an energy project happen.

Energy Wise

Ellen Kazary, Community Development Manager, RurAL CAP

Sharing Local Knowledge and Developing a Sustainable Energy Future

Ingemar Mathiasson, Energy Coordinator, Northwest Arctic Borough

Making Energy Projects Happen

Chad Stovall, Business and Energy Program Specialist, USDA

Project Essentials

Ryan Colgan, Chief Project Director, CCHRC

Making Projects Happen in Rural Alaska

Bear Ketzler, City Manager, City of Tanana

THURSDAY APRIL 29, 2010 cont'd

B – Smart Grid and Smart Metering

Rampart Room

(Chair: Scott Willis, Alaska Electric Light & Power)

Update on new smart grid and smart metering technology and application. This will be a panel discussion with each presenter speaking to different utility applications around the state.

Mike Wright, Vice President - Transmission and Distribution, GVEA
Bob Coates, Manager of Operation and Engineering, Kodiak Electric
Rob Roys, Automation Expert, Wesco Distribution
Dave Burlingame, Principal, Electric Power Systems

C – Heat Recovery

Minto Room

(Chair: Devany Plentovich, Alaska Energy Authority)

Heat Recovery remains one of the most economic and reliable ways to reduce heating cost and energy use. Join a discussion of current best practices in developing combined heat and power systems.

Overview of Heat Recovery in Alaska

John Dickerson, Engineer, Alaska Energy and Engineering

Organic Rankine Cycles Powered by Heat Recovery

Clay Koplín, General Manager, Cordova Electric Association

Evaluation of Heat Driven Power Systems

Ross Coen, Rural Energy Specialist, University of Alaska Fairbanks
Chuen-Sen Lin, Professor, University of Alaska Fairbanks

D – Oceans and Rivers

Tanana Room

(Chair: Neil McMahon, Alaska Energy Authority)

Alaska has 50% of U.S. wave energy resources and 90% of U.S. tidal energy resources. This session presents results of current projects that are assessing resources and demonstrating new technologies.

Hydroelectric Energy Assessment

Tom Ravens, Faculty, University of Alaska Anchorage

Nenana Hydroelectric Test Center and Site Assessment

Jerry Johnson, Research Professor, University of Alaska Fairbanks

Project Planning (Cook Inlet)

Monty Worthington, Director of Project Development, ORPC - Alaska

Lessons Learned, the Ruby Project

Jim Norman, President, ABS Alaska

THURSDAY APRIL 29, 2010 cont'd

12:00 - 3:00 PM

WORKING LUNCH

Gold Room

(Chair: Mike Harper, Alaska Energy Authority)

Attendees break out by region to discuss common challenges, opportunities, and potential collaboration with regional facilitators in the following groups:

- Arctic Slope Native Association
- Bering Straits Association
- Northwest Alaska Native Association
- Association of Village Council Presidents
- Tanana Chiefs Conference
- Cook Inlet Association
- Bristol Bay Native Association
- Aleut League
- Chugach Native Association
- Tlingit-Haida Central Council
- Kodiak Area Native Association
- Copper River Native Association

3:00 – 3:30 PM

WRAP UP AND ADJOURN

Gold Room

Open mike time! Report back progress from regional breakout sessions and discuss other topics of interest. Where should we go from here? What do you think about the Energy Plan? What areas of research should be pursued? Now is the time; we want to hear from you!