

# ALASKA WIND-DIESEL WORKSHOP

JUNE 24-25, 2019

ALASKA PACIFIC UNIVERSITY

4101 University Drive  
Anchorage, Alaska

Hosted by  
the Alaska Wind Working Group

Organized by  
Renewable Energy Alaska Project  
and Alaska Energy Authority

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**MONDAY • JUNE 24, 2019**

**DAY 1: WHERE ARE WE GOING & WHY**

Alaska Pacific University E.R. Brown Auditorium  
4101 University Avenue • Anchorage, Alaska

**12:00PM**

**REGISTRATION**

**1:00-1:30PM**

**INTRODUCTIONS & WELCOME SPEAKER**

**Curtis Thayer, Alaska Energy Authority (AEA)**

**PLENARY #1  
1:30-2:45PM**

**THE LONG VIEW: BENEFICIAL ELECTRIFICATION**

*Where are energy systems headed? How can we reduce overall liquid fuel imports into communities by 50%? This panel will look at ongoing efforts to supplant fuel use not just for electricity, but also for transportation and heat. What are some of the pathways that people are exploring and what opportunities and challenges have they encountered.*

**MODERATOR: Chris Rose, Renewable Energy Alaska Project (REAP)**

**PANELISTS:**

**Mark Glick, Hawaii Natural Energy Institute (HNEI)**

**Alec Mesdag, Alaska Electric Light & Power (AEL&P)**

**Matt Bergan, Kotzebue Electric Association (KEA)**

**PLENARY #2  
2:50-4:05PM**

**THE HERE & NOW: TECHNICAL HURDLES**

*Optimizing hybrid electric generation systems requires overcoming a range of technical hurdles while still delivering seamless power to consumers. This panel will examine current work to improve systems in a range of communities in both Alaska and Canada.*

**MODERATOR: Ian Baring-Gould, National Renewable Energy Laboratory (NREL)**

**PANELISTS:**

**Stephanie Ewing, Solas Energy Consulting Inc.**

**Bill Thomson, Alaska Village Electric Cooperative (AVEC)**

**Monty Worthington, Ocean Renewable Power Company (ORPC)**

**4:05-4:15PM**

**BREAK**

**PLENARY #3  
4:15-5:30PM**

**RESEARCH UPDATES**

*This panel will take a closer look at some of the latest research, from developments in energy storage to the use of wind forecasting that optimizes battery dispatch. The discussion will also highlight other current initiatives focused on improving microgrid systems.*

**MODERATOR: Daisy Huang, Alaska Center for Energy & Power (ACEP)**

**PANELISTS:**

**Tyler McCandless, National Center for Atmospheric Research, (NCAR)**

**Ian Baring-Gould, National Renewable Energy Laboratory (NREL)**

**Lynn Trahey, Argonne National Lab / JCESR**

**5:30-7:00PM**

**HOSTED RECEPTION (cash bar)**

Alaska Pacific University E.R. Brown Auditorium  
4101 University Avenue, Anchorage, Alaska

**TUESDAY • JUNE 25, 2019**

**DAY 2: TECHNICAL DISCUSSIONS**

Alaska Pacific University E.R. Brown Auditorium  
4101 University Avenue • Anchorage, Alaska

**7:30-8:10AM**

**REGISTRATION & HOSTED BREAKFAST**

**PANEL #1  
8:15-9:30AM**

**THE DIESEL SIDE**

*Running diesels off or on low-load can cause a variety of issues for plant operators. This panel will look at techniques for managing diesels to maximize use of renewables without compromising diesel efficiency, power plant operation or grid support. Group discussion to follow short presentations.*

**MODERATOR: Josh Craft, Alaska Energy Authority (AEA)**

**PANELISTS:**

**John Cameron, Cameron & Associates  
David Lockard, Alaska Energy Authority (AEA)  
Aimie Chase, Alaska Village Electric Cooperative (AVEC)**

**PANEL #2  
9:35-10:50AM**

**CYBERSECURITY**

*As grids become ever more connected, cybersecurity is an important consideration for operators to ensure a reliable and resilient grid. Smart grid communications, remote access and automated control equipment all enable more cost-effective, efficient options to manage systems, but also come with risk. This panel will look at how utilities are approaching cybersecurity and the resources available to utilities to make their systems safer. Group discussion to follow short presentations.*

**MODERATOR: Bob Pickett, Regulatory Commission of Alaska (RCA)**

**PANELISTS:**

**Scott Sanner, Alaska Village Electric Cooperative (AVEC)  
Kate Marks, U.S. Department of Energy, Office of Cybersecurity, Energy Security,  
and Emergency Response (CESER) (\*remote participation)**

**10:50-11:15AM**

**NETWORKING BREAK**

**PANEL #3  
11:15-12:30PM**

**SYSTEM INTEGRATION: FREQUENCY, VOLTAGE & CONTROLLERS**

*Adding renewables to the grid can create stability issues. This panel will discuss a range of options to address frequency and voltage variability, including energy storage and advanced controls. Group discussion to follow short presentations.*

**MODERATOR: Mariko Shirazi, Alaska Center for Energy & Power (ACEP)**

**PANELISTS:**

**Dennis Meiners, Intelligent Energy Systems (IES)  
Rob Wills, Intergrid LLC**

**12:30-1:30PM**

**HOSTED LUNCH**

**PANEL #4  
1:30-2:45PM**

**ALTERNATIVES TO ENERGY STORAGE**

*Adding chemical or mechanical energy storage can be expensive. This panel will examine viable alternatives for keeping the grid balanced, including secondary loads and synthetic inertia. Group discussion to follow short presentations.*

**MODERATOR: Bill Thomson, Alaska Village Electric Cooperative (AVEC)**

**PANELISTS:**

**Travis Hammond, TDX Power  
Ross Guttromson, Sandia National Laboratories**

<p><b>2:45–3:15PM</b></p>	<p><b>NETWORKING BREAK</b></p>
<p><b>PANEL #5</b> <b>3:15–4:45PM</b></p>	<p><b>GOING 100% RENEWABLE</b>  <i>What would be the components and challenges of operating systems with 100% renewables, and how are utilities overcoming issues that arise as they increase the amount of renewables on their grid? This panel will highlight different technologies and strategies that operators are currently using in a variety of locations and how those are working. The panelists will also discuss how best to tackle these challenges as utilities move toward 100% renewable electricity.</i></p> <p><b>MODERATOR: Brian Hirsch, Deerstone Consulting</b></p> <p><b>PANELISTS:</b>  <b>Ray Massie, Hydro Tasmania (*remote participation)</b>  <b>Richard Rocheleau, Hawaii Natural Energy Institute (HNEI)</b>  <b>Ian Baring-Gould, National Renewable Energy Laboratory (NREL)</b></p>
<p><b>WRAP UP</b> <b>4:45–5:15PM</b></p>	<p><i>A final discussion on conference take-aways and various opportunities for the wind-diesel community to collaborate and stay in-touch.</i></p>

## An Alaska Wind Working Group Event

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