

# 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  
Alaska Energy Authority and  
Renewable Energy Alaska Project

Sponsored by  
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**MONDAY • JUNE 24, 2019**  
**DAY 1: WHERE ARE WE GOING & WHY?**

Alaska Pacific University  
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 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**

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

**THE HERE & NOW: TECHNICAL HURDLES**

*Optimizing hybrid electric generation systems requires overcoming a range of technical hurdles. This panel will examine some of the ongoing work to improve systems.*

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

**PANELISTS:**

**Monty Worthington, Ocean Renewable Power Company (ORPC)**  
**Bill Thomson, Alaska Village Electric Cooperative (AVEC)**  
**Stephanie Ewing, Solas Energy Consulting Inc.**

**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 and initiatives on energy storage and microgrid systems.*

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

**PANELISTS:**

**Lynn Trahey, Argonne National Lab / JCESR**  
**Ian Baring-Gould, National Renewable Energy Laboratory (NREL)**

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

**HOSTED RECEPTION (cash bar)**

Alaska Pacific University  
4101 University Avenue, Anchorage, Alaska

**TUESDAY • JUNE 25, 2019**  
**DAY 2: TECHNICAL DISCUSSIONS**

Alaska Pacific University  
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.*

**PANELISTS:**

**Tim Sandstrom, 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, Infrastructure Security & Energy Restoration (ISER) Division (remote participation)**

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

**NETWORKING BREAK**

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

**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, demand response and thermal storage. Group discussion to follow short presentations.*

**PANELISTS:**

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

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

**HOSTED LUNCH**

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

**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**

<p><b>2:45–3:15PM</b></p>	<p><b>NETWORKING BREAK</b></p>
<p><b>PANEL #5</b> <b>3:15–4:30PM</b></p>	<p><b>GOING 100% RENEWABLE</b> <i>What are the components and challenges of operating systems with 100% renewables? Which diesels-off strategies are working and how are utilities overcoming issues that arise when operating with increased levels of renewables? This panel will look at a variety of options for tackling these issues.</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></p>
<p><b>WRAP UP</b> <b>4:30–5:00PM</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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