

# Small Hydro and Technical Workshop

## August 21-22 – Bend, Oregon

---

Thank you to our Sponsors and Partners



Location: Riverhouse on the Deschutes- Convention Center

Wednesday August 21- Technical Workshop

7:00-8:00 AM – Breakfast

8:00 AM – NWA Welcome, Introductions, Housekeeping, Safety

8:10-9:00-AM – Hydro Safety and Security

- Electrical Safety Awareness including Arc Flash Hazards - Waylon Bowers, OS Engineering
- NERC CIP Compliance and Security - Collin Miller, Structured Communications

9:05-10:20 AM – Remote Operation

- Less Staff = More Remote Operations = More Automation. What New Technology is Helping –Cliff Malm, Malm Phoenix Hydro
- Grid Stability, Responding to Events on the Grid, Frequency Control, What you Need to Know – Rich Hydzik, Avista Corp.
- SCADA Systems for Remote Plant Operations – Glen Harrison, ABB

10:20-10:35 AM – Coffee Break

10:35-11:50 AM – Dam Safety

- Prioritization of State Water Project Spillway Inspections – David Sarkisian, DWR

- Low Level Outlets, Valves for Water In, Out and Under Control - Jonathan Meier, Unico Mechanical
- Pre-flood Checklist Discussions – Dennis Schwartz, GHD

11:55-12:20 PM – Hydro Operations Part 1

- Dispatching – Kevin Cardoza, Eugene Water and Electric Board

12:20-1:30 PM – Lunch

1:30-1:45 PM – Hydro Operations Part 2

- Governor Health Monitoring Supplants Periodic Maintenance–Roger Clarke-Johnson, American Governor

1:45-3:00 PM – Hydro Technical

- Current Affairs: Maintaining Your Generator Investment – Jason Kapelina, WEG
- To Rewind or Repair: Options for Dealing with Less-Expected Outages – Fred Dawson, National Electric Coil
- Protecting Power Plant Assets with Coatings –John Reiser, Sherwin Williams

3:00-3:30 PM – Break

3:30-4:20 PM – Hydro Case Studies

- Defining and Integrating Hydraulic Turbine-Generator Operating Ranges at Mossy Rock – Ozan Ferrin, Tacoma Power
- Undocumented Processes + Time = A Dangerous Combination – Darren Wager, Gilkes

4:20 – 4:55 PM – Ask the Experts Round Table

- Ask the Experts Round Table – Presenters available for questions, discussing hot topics

4:55-5:00 PM – Conclusion of business

5:30-7:00 PM – Reception Hosted by OS Engineering and Greenberry Industrial, 63035 Plateau Drive, Bend, OR 97701

## Thursday August 22 – Small Hydro Workshop

7:15-8:15 AM – Registration and Breakfast

8:15 AM – NWA Welcome, Introductions, Housekeeping, Safety

8:30-9:15 AM – Orientation to Smart and Sustainable Hydropower- Dennis Cakert, National Hydropower Association

- Learn about the history of waterpower
- Differentiation on the types of hydropower
- Examples of modern hydropower projects in Oregon

9:15-10:00 AM – Hydropower Technologies – Julie O’Shea - Farmers Conservation Alliance, Scott Deneale - Oak Ridge National Lab, Abe Schneider - Natel Energy

- Fish passage
- Turbine technologies
- Novel powerplant arrangements

10:00-10:15 AM – Coffee / Networking Break

10:15 – 11:00 AM – Hydro's Market Value – Zach DeHart- Farmers Irrigation District, Shannon Ames - Low Impact Hydro Institute, Chip Wood - Community Resource Solutions, Gary Marcus - Falls Creek Hydro Project, Gregg Carrington - Chelan County PUD

- What is the economic value that hydropower provides for the project owner?
- What is the value to the local communities?
- What value does hydropower play to the electric grid?
- What is the value of hydropower to a buyer?

11:00 AM-12:30 PM- How to Buy and Sell Hydro – Matt Swindle- NLine Energy, Erik Anderson - PacifiCorp, Teddy Sorenson - Sorenson Engineering, Rob Aldridge - 3 Phases Renewables

- Buyer and Seller's Checklist and Process
- Methods to Procure Hydropower (Existing IOU / Co-Op Offerings, PURPA-Compliant Tariffs, Direct Access, Virtual Power Purchase Agreements, Community Choice Aggregation)
- How to Connect with Buyers and Sellers of Small Hydro

12:30-12:45 PM – Brown-Bag Lunch and Load Buses

12:45-5:00 PM – Project Tours to Three Sisters and Central Oregon Irrigation Districts

5:00-7:00 PM- NHA Networking Reception for Buyers and Sellers at the Riverhouse's Cascade Patio- All Workshop Attendees Welcome!