

UAA Professional Development Seminar Series

Is it Time for an Energy Transition in the Alaska Fishing Fleet?

Presented by Chandler Kemp, Owner, Kempy Energetics

Fishing is a multibillion-dollar industry in Alaska consuming tens of millions of gallons of diesel fuel every year. Recent advances in battery technology and control

systems have made hybrid diesel-electric propulsion systems feasible in some fisheries. Coupled with extensive investment in renewable energy production in coastal communities in the past decade, the new energy storage technologies make partial electrification of the fishing fleet a tantalizing possibility. Over the past five years a coalition of organizations led by the Alaska Longline Fishermen's Association and the Alaska Fisheries Development Foundation measured energy loads in troll, longline, gillnet, seine, tender and trawl operations. The results of that measurement campaign allows us to characterize fishing vessel energy loads and define the requirements of alternative energy systems. Kemp will present the methods and results of those measurement campaigns and explore the potential—and limitations—of alternative power systems in the Alaska fishing fleet.

Chandler Kemp is the owner of Kempy Energetics, a small business providing energy efficiency consulting services in Alaska. After graduating from Haines High School in 2008, Kemp completed a Bachelor of Arts degree in physics magna cum laude at Cornell University, worked as a research associate at the Alaska Center for Energy and Power and completed a Master of Science degree in energy resource engineering at Stanford University. While at Stanford, Kemp created the Fugitive Emissions Abatement Simulation Toolkit (FEAST)—a software program developed to reduce methane emissions from natural gas infrastructure. FEAST has since been used by industry, regulators, and technology developers to quantify the efficacy of leak detection and repair programs. Kemp founded Kempy Energetics in 2015 and worked with the Alaska Longline Fishermen's Association, Navis Energy Management Solutions and Energy Audits of Alaska to develop fishing vessel energy audit practices. Vessel energy audits support research in alternative energy systems and provide access to federal funding sources like the Rural Energy for America Program. Kemp is a Certified Energy Auditor with the Association of Energy Engineers and has provided energy audits to commercial and residential buildings in Alaska and Yukon in addition to his work with fishing vessels.

Friday, March 19, 2021 11:45 am-12:45 pm Online Via <u>YouTube Live</u>