Acep's Microgrid Boot Camp was designed to prepare students for a summer internship with urban and rural utilities and as an introductory course to microgrids for utility engineers and staff. It's a fast-track 5-day training class that teaches basic concepts and designs of microgrids and introduces economic, regulatory and social challenges in planning and operating those grids.

Agenda

**Day 1:** Energy Landscape & Regional Challenges in Alaska: “Railbelt vs. Remote; Alaska Energy Policies & Regulations; Social & Behavioral Science to Modify Energy Behaviors

Run and test microgrid simulator

**Day 2:** Motivations for Microgrids, How do Microgrids and Minigrids work?

Electrical and thermal load estimation exercise

Electrical/thermal energy hands-on exercise

**Day 3:** Design of a microgrid with XENDEE: Introduction, data entry, interpreting results

Group exercise on Alaska Energy Issue: Electric Vehicles

**Day 4:** Design of a microgrid with XENDEE: village model design using load data from Alaskan villages

Power Systems Integration lab tour and real-time lab demonstration exercise

**Day 5:** Virtual tour of an energy facility/power plant

Professionalism and Skills for Workplace Success

For more information contact Heike Merkel <hmerkel@alaska.edu>