

FEMP 27

Renewable Energy Technology Applications Hydropower and Ocean Energy Technologies

Hydropower and ocean energy technologies can help Federal sites meet agency goals and legislative mandates, improve energy security, and reduce environmental impact while efficiently providing electricity, heating, cooling, and other applications.

The course covers sourcing and selecting cost-effective hydropower and ocean energy technologies and common implementation considerations.

By taking this course, learners will be able to:

- Understand geographic/climate considerations hydropower and ocean energy technology capabilities and constraints, and evaluation of various technology options.
- Understand hydropower micro-applications, wave power conversion technologies, tidal/marine current technologies, ocean thermal energy conversion (OTEC) technologies.
- Assess factors to integrate hydropower and ocean energy into larger energy systems.

Instructor

The instructor for this series is Andy Walker, PhD, Principal Engineer at the National Renewable Energy Laboratory. At NREL, Dr. Walker conducts engineering and economic analysis of renewable energy projects for FEMP and other non-governmental clients. Dr. Walker is an instructor and has authored more than 28 book chapters, journal articles, and papers. He holds a bachelor's of science degree, a master's of science degree, and a doctorate degree in mechanical engineering from Colorado State University and is a registered Professional Engineer in the State of Colorado.