



## QUICK FACTS

**50:** total hydro projects in Alaska

**476 MW:** total capacity of all projects

**1,833 GWh:** total average annual energy generation of all projects

## FOR MORE INFO CONTACT:

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# ENERGY TECHNOLOGIES: HYDROELECTRIC

## CURRENT STATUS

Alaska Energy Authority is currently administering 17 hydro projects funded through the Renewable Energy Fund (REF) grant program and other State grants.

AEA has provided hydro related technical assistance such as pre-feasibility project evaluation to several communities and continues to monitor the construction of the Hiilangaay Hydroelectric Project. Recently, AEA was able to assist a project owner in finding a document that saves the owner significant time & money.

## PROGRAM OVERVIEW

As Alaska's largest source of renewable energy, hydropower supplies over 20 percent of the state's electrical energy in an average water year. There are nearly 50 operating utility-scale hydroelectric projects in Alaska. The majority of Alaska's existing hydro projects are located in the southeast and southcentral regions of Alaska.

AEA is a statewide resource for hydroelectric technical assistance by:

- Maintaining an existing potential hydroelectric site database for communities to use
- Collecting active hydroelectric project data
- Provide a Working Group forum for owners and developers
- Technically review and provide feedback on engineering reports
- Assist in identifying project financing opportunities
- Answer community questions on hydroelectric project development

In addition to facilitating development and construction of small hydro projects throughout Alaska, AEA is an active participant in large hydro infrastructure. AEA owns the Bradley Lake Hydroelectric project which is the largest hydroelectric project in Alaska (see Bradley Hydro Fact Sheet).

## BACKGROUND

Hydroelectric plant configurations include conventional dam reservoir projects which regulate flows through the drawing down of reservoir levels, and smaller capacity run-of-the-river projects which rely upon the rate and fall of natural streamflow to produce power. Though time consuming to permit and expensive to construct, hydropower is a mature technology with the capability of locking in power rates for 50 to 100 plus years.