# Connelly Lake Hydroelectric Project

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| **Grantees** | Alaska Power Company (Utility-Private) |
| **Technology Type** | HYDRO |
| **Region** | Southeast |
| **AEDG Project Code** | 10202 |

**REF Grants Received**

| Round | App | Grant Title | Grant # | AEA Project # | Phase | Start Date | End Date | Status |
|---|---|---|---|---|---|---|---|---|
| 4 | 627 | Connelly Lake Hydroelectric Project Feasibility Study | 7040066 | 407079 | Feasibility | 7/1/11 | 6/30/14 | Active |

**Grant 7040066: Connelly Lake Hydroelectric Project Feasibility Study**

**Project Scope**: The Connelly Lake Hydroelectric Project is a proposed storage hydro located near the community of Haines in the Upper Lynn Canal transmission system of Southeast Alaska. The project would have a capacity of 8 MW and generate 43.2 GWh of energy annually from the project works consisting of a 75' high dam to create a 10,160 acre-feet storage reservoir, a 10,000' long tunnel and penstock arrangement conveying 57 cfs, and pelton turbines operating under 1965' of static head. Total estimated capital cost for the project is 87 million in 2014.

The scope of work under this grant is to analyze and document the feasibility of the project. Work included stream gauging, LIDAR topographic surveying, geotechnical investigations, FERC Scoping, fish, wildlife, botanical, wetlands, and heritage surveys, and preparing conceptual designs culminating in a feasibility-level report titled "Feasibility Report Connelly Lake Hydroelectric Project" by Alaska Power and Telephone dated August 2014.

**Project Status**: The study found that the project is not economical due to the limited demand and the high cost of the project. It was found that the Project is likely to be technologically feasible using well-known and reliable construction methods. However, the remote location of the lake and the need to develop storage makes the cost of the Project very expensive.

The report recommended the project should not be considered further for development as long as loads in the ULC system trend along the reference load case of the SEIRP. Should loads increase significantly more than the reference load forecast, or if the Palmer mine and/or Yukon Energy interconnection appear imminent, then development of Connelly Lake should be reconsidered.

| As of Nov. 30, 2013 | Budget | Expenditures |
|---|---|---|
| Renewable Energy Funding | $468,000.00 | $468,000.00 |
| Other State Funding | $0.00 | $0.00 |
| **Total State** | **$468,000.00** | **$468,000.00** |
| Required Local Match | $117,000.00 | $117,000.00 |
| Federal Grant Funding | $0.00 | $0.00 |
| **Total Project Costs** | **$585,000.00** | **$585,000.00** |