

## Waterfall Creek Hydroelectric Project

<b>Grantees</b>	City of King Cove (Local Government)
<b>Technology Type</b>	HYDRO
<b>Region</b>	Aleutians
<b>AEDG Project Code</b>	10379

### REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
5	887	Waterfall Creek Hydroelectric Project	7050887	407090	Final Design	7/1/12	9/30/15	Active
6	929	Waterfall Creek Hydroelectric Project 2	7060929	407090	Construction	7/1/13	12/31/15	Active

### Grant 7050887: Waterfall Creek Hydroelectric Project

**Project Scope:** The project is to complete preconstruction activities, including permitting and final design, for the 375 kW Waterfall Creek Hydroelectric Project. Waterfall Creek is located approximately 5 miles north of the City of King Cove and is within one half mile of the existing Delta Creek Hydroelectric Project. Because of its close proximity to Delta Creek, the new project will share space in an expansion of the existing Delta Creek powerhouse and existing transmission line. Significant new project features include a concrete diversion/intake structure, 4500 feet of HDPE penstock, and 5000 feet of access road.

**Project Status:** The grant agreement was signed. Awaiting completion of final design and permitting.

Final reimbursement request received Jul 2015 indicated that all grant funds have been expended. Project is ready for construction although AEA provided review comments that questioned some aspects of the proposed plans. The final reimbursement report indicates Canyon is proceeding with turbine construction and the general construction contract with Sunland is awaiting award by the City. It is not known whether all deliverables under this grant have been received.

In 2015 Sunland began construction. The access road and preliminary foundation work for the powerhouse were completed before winter shutdown. Completion is expected in 2016.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	\$200,000.00	\$200,000.00
Other State Funding	\$0.00	\$0.00
<b>Total State</b>	<b>\$200,000.00</b>	<b>\$200,000.00</b>
Required Local Match	\$200,000.00	\$200,000.00
Federal Grant Funding	\$0.00	\$0.00
<b>Total Project Costs</b>	<b>\$400,000.00</b>	<b>\$400,000.00</b>

### Grant 7060929: Waterfall Creek Hydroelectric Project 2

**Project Scope:** The City of King Cove will use up to \$2,600,000 from a Round VI Renewable Energy Fund grant and will provide \$1,300,000 of cash match funds for construction of the 375 kW run-of-river Waterfall Creek Hydroelectric Project. The project is located five miles north of the City of King Cove and will annually generate between 1,000 and 1,200 MWh. Sales from this new renewable energy source will help displace diesel generation of electricity by the City and also be sold as dispatchable energy to Peter Pan Seafoods, Inc. to displace some of their diesel generation.

Waterfall Creek will be the second hydroelectric project for the City. The first, the 800 kW Delta Creek Hydroelectric Project, was constructed in 1995. Because the two hydro sites are relatively close to one another, the powerhouse for the Waterfall Creek project will co-locate in an expansion to the existing Delta Creek powerhouse and utilize the existing transmission line to King Cove. This will serve to reduce construction costs and facilitate integration of the new hydropower source into the existing power system.

The City received \$200,000 in Round V renewable grant funding from the Authority to complete permitting and final design for this hydroelectric project, which it matched by a like amount of cash. The project is outside the jurisdiction of the Federal Energy Regulatory Commission and permits are being sought from state and federal resource agencies under that grant. Permitting and final design are underway at this time. The City is in extended discussions with ADF&G regarding the terms of the Fish Habitat

Permit. All tasks listed in the Round V grant will have to be completed and the associated deliverables provided to AEA for review and acceptance before construction can move forward under the new grant.

The entire project is located on lands owned by the King Cove Village Corporation. The City expects to purchase 20 acres of land from the corporation for this project. The purchase price is anticipated to be \$100,000.

The Waterfall Creek Hydroelectric Project will consist of a small diversion dam and intake, a 4,500 HDPE penstock, a 16x40 powerhouse expansion, a Pelton Impulse Turbine and 5,000 feet of access roads. The dam will be a rockfill dam with concrete core wall. It will additionally have a concrete intake section with a forebay and a multi-tiered spillway section.

**Project Status:** The grant agreement has been executed. It is currently being amended to reflect project changes.

As of Sep 2015 no funds have been expended from the grant. The scope of the grant is for construction.

In 2015 Sunland began construction. The access road and preliminary foundation work for the powerhouse were completed before winter shutdown. Completion is expected in 2016.

<b>As of Nov. 30, 2013</b>	<b>Budget</b>	<b>Expenditures</b>
Renewable Energy Funding	\$2,600,000.00	\$0.00
Other State Funding	\$0.00	\$0.00
<b>Total State</b>	<b>\$2,600,000.00</b>	<b>\$0.00</b>
Required Local Match	\$1,300,000.00	\$447,012.00
Federal Grant Funding	\$0.00	\$0.00
<b>Total Project Costs</b>	<b>\$3,900,000.00</b>	<b>\$447,012.00</b>