Humpback Creek Hydroelectric Project Rehabilitation

Grantees	Cordova Electric Cooperative (Utility-Cooperative)
Technology Type	HYDRO
Region	Copper River/Chugach
AEDG Project Code	10024

REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
1	21	Humpback Creek Hydroelectric Construction	2195386	407037	Construction	8/20/08	6/30/11	Closed
3	407	Humpback Creek Hydroelectric Project Rehabilitation	7030009	407066	Construction	7/1/10	6/30/13	Closed

Grant 2195386: Humpback Creek Hydroelectric Construction

Project Scope: The project is to implement construction of a state-of-the-art hydroelectric renewable energy facility on Humpback Creek that would generate up to 4 million kWh per year, meeting 16% of Cordova's annual power demand with a renewable energy resource. This amount is well below the annual amount that must presently be provided from Cordova Electric Cooperative's (CEC) diesel generators, assuring full utilization of the resource. Project partners include Cordova Electric Cooperative, the Federal Emergency Management Agency (FEMA), the Eyak Corporation, and the City of Cordova.

The total cost for the Project is $11,240,238. Out of this amount, $3,840,000 occurred prior to the eligibility date of August 20, 2008, and, therefore, is not reflected in the financial reports.

The current estimate for Humpback tasks from August 20, 2008 to completion is $7,400,238. FEMA is estimated to contribute $2,970,000 for activities commencing after August 20, 2008. The Alaska Energy Authority grant totals $4,000,000. Cordova Electric Cooperative is committed to approximately $430,238. Note that contingency was excluded from the estimate for tasks from August 20, 2008 through completion, and Cordova Electric Cooperative will bear the risk of the additional cost of change orders, contingencies in labor and/or materials, etc.

The grant funds will be used to construct the access road, tunnel, penstock, power and communications, intake structure, and dam with an estimated cost of $7,400,238 as noted above. This work commences on August 20, 2008 through completion on January 13, 2010.

Project Status: This project is complete and the grant is closed.

Cordova Electric Cooperative's Humpback Creek Project went into revenue service on July 13, 2011. The project has operated reliably with no downtime since being placed in operation in July 2011. Commissioning was more labor and cost intensive than anticipated in part to the plant being idle for five years. Once the plant was placed in normal operation, the operations and maintenance expenses decreased considerably. The operations costs have been approximately 25% of the fuel savings to date. Annual production is anticipated to exceed 4,000,000 kWh per year.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	$4,000,000.00	$4,000,000.00
Other State Funding	$0.00	$0.00
Total State	**$4,000,000.00**	**$4,000,000.00**
Required Local Match	$3,400,238.00	$3,402,483.00
Federal Grant Funding	$0.00	$0.00
Total Project Costs	**$7,400,238.00**	**$7,402,483.00**

Grant 7030009: Humpback Creek Hydroelectric Project Rehabilitation

Project Scope: Cordova Electric Cooperative (CEC) is requesting $4 million to implement a construction-ready, state-of-the-art hydroelectric facility on Humpback Creek that would generate up to 4 million kWh per year, meeting 16% of Cordova's annual energy needs with a renewable energy source. CEC operates an isolated electric system and therefore is solely responsible for serving its 1,560 customers. Cordova's high electricity costs have been cited in several formal and informal community planning