Allison Lake Hydro

Grantees	Copper Valley Electric Association (Utility-Cooperative)
Technology Type	HYDRO
Region	Copper River/Chugach
AEDG Project Code	10030

REF Grants Received

Round	App	Grant Title	Grant #	AEA Project #	Phase	Start Date	End Date	Status
1	27	Allison Lake Hydro Feasibility Study	2195390	407038	Feasibility	8/20/08	12/31/13	Closed
6	930	Allison Creek Project	7060930	407038	Construction	7/1/13	12/31/15	Active
7	1015	Allison Creek Hydroelectric Project Construction	7071015	407038	Construction	7/1/14	12/31/15	Active

Grant 2195390: Allison Lake Hydro Feasibility Study

Project Scope: This project is to fund Licensing and Feasibility and Final Design portions of the project.

The project is located adjacent to the Prince William Sound, immediately south of Valdez. Allison Lake is estimated to provide approximately 35% of Copper Valley Electric Association's (CVEA) generation needs. When Allison Lake is added to the existing hydropower generated at Solomon Gulch, only 5% of CVEA power will be generated from fossil fuels. This allows CVEA to displace approximately 3,125,000 gallons of fuel per year, which equates to approximately $9,885,000 per year.

CVEA entered into a Professional Services Contract with Hatch Acres Corporation to provide consulting services for a pre-feasibility study, which was completed in February of 2008. The preliminary permit to secure and maintain priority to study the power potential of Allison Lake was awarded on September 4, 2008. At the conclusion of the 3-year permit, CVEA expects to file a license application for the project development.

Project Status: This grant is closed. The grantee's design team has completed 100% design. The license application was filed with FERC in August 2011, and the FERC Original License was issued August 2013. CVEA received a $10M legislative grant in 2012 to add to their construction budget (grant #7910012).

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	$2,288,000.00	$2,288,000.00
Other State Funding	$0.00	$0.00
Total State	**$2,288,000.00**	**$2,288,000.00**
Required Local Match	$572,000.00	$573,134.00
Federal Grant Funding	$0.00	$0.00
Total Project Costs	**$2,860,000.00**	**$2,861,134.00**

Grant 7060930: Allison Creek Project

Project Scope: The Allison Creek Hydro project is funded through multiple grants and fund sources and the estimated final price of the project is $49 Million. A cap of 50% State funding has been applied to this project. This grant consists of $2,085,509 from Round VI of the Renewable Energy Fund and $2,085,509 in cash matching funds for construction of the Allison Creek Hydroelectric Project and Copper Valley Electric Association is the grantee. A Round VII Renewable Energy Fund grant contributes $5,914,500 with an addition $5,914,500 in cash matching funds for construction of the Allison Creek Hydroelectric Project. A Legislative appropriation contributed an addition $10,000,000 to the project. Copper Valley Electric Association will finance the balance of the project.

The project is run-of-river and will consist of the following primary features: a 130-foot-wide, 16-foot-high diversion structure on Allison Creek; a Coanda screened intake at the spillway conveying flows to the powerhouse; a 42 to 36-inch-diameter, 6,900-foot-long buried steel penstock including a 700-foot-long tunnel section; a powerhouse containing one horizontal Pelton turbine/generator unit with a total installed capacity of 6.5 megawatts; a 70.5-foot-long tailrace extending from the north side of the powerhouse to Allison Creek via a concrete channel and the existing creek bed; a 550-foot-long permanent access road to the powerhouse; and a 3.8-mile-long, 25 kilovolt transmission line connecting to an existing substation. The project is estimated to

provide 15,057 MWh during an average year, and up to 23,300 MWh when fully subscribed. Final design drawings have been reviewed by FERC and all construction permits have been obtained.

Project Status: The grant was executed on August 19,2014. During the 2014 construction season the road work was completed, the power plant structure was constructed, and work on the transmission line, penstock, generator units was performed. Construction activities restarted in April 2015 after shutting down for the winter in October 2014. Damage to the tunnel walls believed to be caused from water seapage freezing in the rock walls has been repaired. The temporary coffer dam has been completed. The turbine installation at the power plant is underway.

As of the end of 2015 construction of the access road is complete and the penstock installation was underway. The remaining penstock and the diversion construction are expected to be complete by September 2016 with the project producing power shortly thereafter.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	$2,085,509.00	$2,085,509.00
Other State Funding	$0.00	$0.00
Total State	**$2,085,509.00**	**$2,085,509.00**
Required Local Match	$2,085,509.00	$2,085,509.00
Federal Grant Funding	$0.00	$0.00
Total Project Costs	**$4,171,018.00**	**$4,171,018.00**

Grant 7071015: Allison Creek Hydroelectric Project Construction

Project Scope: The Allison Creek Hydro project is funded through multiple grants and fund sources and the estimated final price of the project is $49 Million. A cap of 50% State funding has been applied to this project. This grant consists of $5,914,500 from Round VII of the Renewable Energy Fund and $5,914,500 in cash matching funds for construction of the Allison Creek Hydroelectric Project and Copper Valley Electric Association is the grantee. A Round VI Renewable Energy Fund grant contributes $2,085,509 with an addition $2,085,509 in cash matching funds for construction of the Allison Creek Hydroelectric Project. A Legislative appropriation contributed an addition $10,000,000 to the project. Copper Valley Electric Association will finance the balance of the project.

The project is run-of-river and will consist of the following primary features: a 130-foot-wide, 16-foot-high diversion structure on Allison Creek; a Coanda screened intake at the spillway conveying flows to the powerhouse; a 42 to 36-inch-diameter, 6,900-foot-long buried steel penstock including a 700-foot-long tunnel section; a powerhouse containing one horizontal Pelton turbine/generator unit with a total installed capacity of 6.5 megawatts; a 70.5-foot-long tailrace extending from the north side of the powerhouse to Allison Creek via a concrete channel and the existing creek bed; a 550-foot-long permanent access road to the powerhouse; and a 3.8-mile-long, 25 kilovolt transmission line connecting to an existing substation. The project is estimated to provide 15,057 MWh during an average year, and up to 23,300 MWh when fully subscribed. Final design drawings have been reviewed by FERC and all construction permits have been obtained.

Project Status: The grant was executed on August 19,2014. During the 2014 construction season the road work was completed, the power plant structure was constructed, and work on the transmission line, penstock, generator units was performed. Construction activities restarted in April 2015 after shutting down for the winter in October 2014. Damage to the tunnel walls believed to be caused from water seapage freezing in the rock walls has been repaired. The temporary coffer dam has been completed. The turbine installation at the power plant is underway.

As of the end of 2015 construction of the access road is complete and the penstock installation was underway. The remaining penstock and the diversion construction are expected to be complete by September 2016 with the project producing power shortly thereafter.

As of Nov. 30, 2013	Budget	Expenditures
Renewable Energy Funding	$5,914,500.00	$5,914,500.00
Other State Funding	$0.00	$0.00
Total State	**$5,914,500.00**	**$5,914,500.00**
Required Local Match	$5,914,500.00	$5,914,500.00
Federal Grant Funding	$0.00	$0.00
Total Project Costs	**$11,829,000.00**	**$11,829,000.00**