

Agency: Commerce, Community and Economic Development**Grants to Named Recipients (AS 37.05.316)****Grant Recipient: Copper Valley Electric Association****Federal Tax ID: 92-0023631****Project Title:****Project Type: Maintenance and Repairs**

Copper Valley Electric Association, Inc. - Electrical Transmission Avalanche Mitigation

State Funding Requested: \$500,000**House District: 12 / F**

One-Time Need

Brief Project Description:

Design and permit a viable solution to avalanche problems for electrical transmission through Thompson Pass

Funding Plan:**Total Cost of Project: \$500,000***There is no other funding needed***Detailed Project Description and Justification:**

The CVEA transmission line through the Thompson Pass/Ptarmigan Creek section of the line was destroyed in avalanche on December 2, 2009. The transmission line has suffered extensive avalanche damage six times since 1988 and four times since 2000. It is time for a solution.

The transmission line was constructed in 1981 by CVEA as part of Solomon Gulch Hydroelectric Project. Solomon Gulch, including the transmission line, was sold to the State of Alaska in 1985, and in 2002 sold by the State to the Four Dam Pool Power Agency.

Under State and Four Dam Pool ownership, the policy in place to address avalanche risk on Thompson Pass was to do nothing. That point of view assumes the least expensive way to address the problem is to wait for avalanche damage to occur and repair the line when it happens. This approach ignores the operational and system reliability impacts to the people and customers in the Copper Valley and Valdez.

In February 2009, CVEA acquired Solomon Gulch and the transmission line from the Four Dam Pool. An important consideration in acquiring the project was to evaluate and quantify the risk associated with the avalanche problem.

In 2003, the Four Dam Pool prepared a reconnaissance level avalanche analysis of the transmission line in Thompson Pass. The report identified 15 options to address risk, ranging in life cycle costs of anywhere from \$1.5 million up to \$11 million. Of the 15 options reviewed, the study team identified six mitigation options worthy of further consideration, including

- do nothing and set aside money for future repairs
- relocate the line west of the Richardson Highway
- install avalanche deflection structures adjacent to existing towers
- transfer existing structures to a new high reveal foundation

- perform daily avalanche forecasting and control measures
- a combination of the above

As part of the transfer of ownership from the Four Dam Pool, CVEA recieved \$5 million to help address avalanche issues.

The funding for this request would be for CVEA to update the 2003 avalanche mitigation study, to identify the preferred alternative to address the risk, to perform preliminary engineering and design of the preferred alternative, to develop a cost estimate for the preferred alternative and to identify the permitting requirements of the preferred alternative. The cost of these activities are estimated at \$1,000,000, 50% to be funded by CVEA. The cost of this project is anticipated to exceed the funding that was provided as a result of acquiring the project from the Four Dam Pool.

Project Timeline:

Initial design and permitting will occur in 2010

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Copper Valley Electric Association

Grant Recipient Contact Information:

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Has this project been through a public review process at the local level and is it a community priority? Yes No