

**Agency: Commerce, Community and Economic Development****Grant Recipient: Copper Valley Electric Association, Inc.****Federal Tax ID: 92-0023631****Project Title:****Project Type: New Construction and Land Acquisition**

# AEA - Copper Valley Electric Association Allison Creek Hydroelectric Project

**State Funding Requested: \$17,500,000**  
One-Time Need

**House District: 12 / F****Brief Project Description:**

The Allison Creek run of the river (ROR) hydroelectric project involves construction of a diversion structure on Allison Creek at elevation 1,300 feet.

**Funding Plan:**

|                               |                       |
|-------------------------------|-----------------------|
| Total Project Cost:           | \$35,000,000          |
| Funding Already Secured:      | (\$0)                 |
| FY2012 State Funding Request: | <u>(\$17,500,000)</u> |
| Project Deficit:              | \$17,500,000          |

*Funding Details:*

*In FY 2009 CVEA received a \$1,000,000 capital budget appropriation from the State of Alaska. CVEA also received \$2,288,000 from round I of the renewable energy fund to submit a FERC license application which will occur in fall 2011. CVEA is moving forward with a plan of finance for the construction of the project. CVEA is requesting \$17,500,000, the remaining \$17,500,000 will be funded by CVEA.*

**Detailed Project Description and Justification:**

Allison Lake, with approximately 243 surface acres is located at elevation 1345 MSL on the south side of Port Valdez, near Alyeska Marine Terminal for the Trans-Alaska Pipeline. The Allison Lake watershed includes approximately 5.7 square miles. The natural outlet of Allison Lake drains to Allison Creek. Allison Creek empties into Port Valdez.

Since 2007, CVEA has been studying the hydroelectric potential of the Allison Lake Basin. Five project alternatives were reviewed; each had many challenges. This outcome caused a review of the Allison Lake watershed potential which identified a run of the river (ROR) option that was selected as the preferred development alternative in October 2010.

The ROR alternative involves construction of a diversion structure on Allison Creek at elevation 1,300 feet. Water will be diverted from the creek into a 42 inch surface/buried penstock to a 6.5 MW powerhouse near tidewater. The project will produce a maximum of 23.3 million kilowatt hours of energy during the high flow months of May through October and has the potential to displace 1.6 million gallons of diesel fuel. The cost of Allison Creek power is estimated to be 21 cents/kwh, which is equivalent to \$80/bbl oil. The ROR alternative reduces construction risk associated with the site, lessens avalanche and access risks, and has significantly fewer environmental impacts. The project is estimated to cost \$35 million and to begin producing power in mid-2016.

The Allison Creek Hydroelectric Project is justified in many ways.

1. Eliminates burning 1.6 million gallons of fossil fuel annually at a savings of \$4.8 million (1.6 million x \$3/gallon).
2. Improves air quality by reduced emissions associated with burning 1.6 million gallons of fuel.
3. Reduces green house gas emissions through elimination of 1.6 million gallons of fossil fuel generation.
4. Creates up to 75 construction jobs and 2-3 full time permanent jobs.
5. Saves CVEA members money and reduces the volatility on electric rates caused by fluctuating oil prices.
6. Development of renewable energy is consistent with national goals of reducing green house gas and promoting a cleaner and healthier planet.

**Project Timeline:**

A FERC license application will be submitted in fall 2011. Once the license application is approved construction will begin. The Allison Creek Project is expected to begin producing power in mid-2016.

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

Copper Valley Electric Association, Inc.

**Grant Recipient Contact Information:**

Name: Robert A. Wilkinson  
Title: CEO  
Address: PO Box 45  
Glennallen, Alaska 99588  
Phone Number: (907)822-3171  
Email: wilkinson@cvea.org

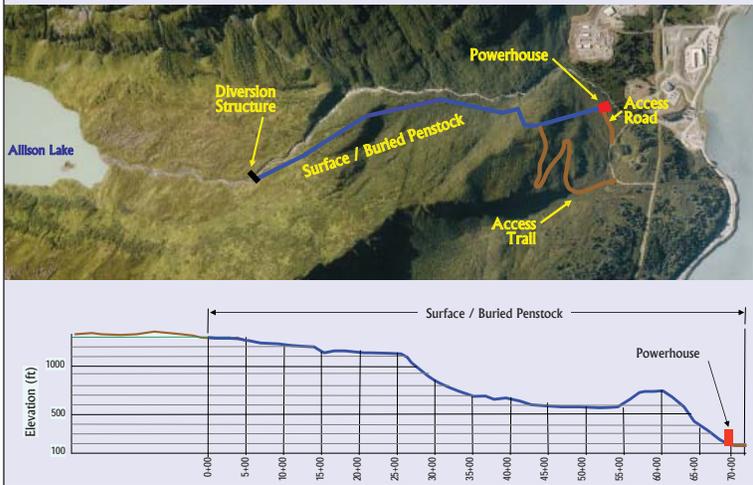
Has this project been through a public review process at the local level and is it a community priority?  Yes  No

# Copper Valley Electric Association



## ALLISON CREEK HYDROELECTRIC PROJECT - Holds potential for providing members of the Cooperative long-term, sustainable, environmentally clean energy

### Alternative 4 – Plan & Profile



### Allison Lake Developmental Efforts

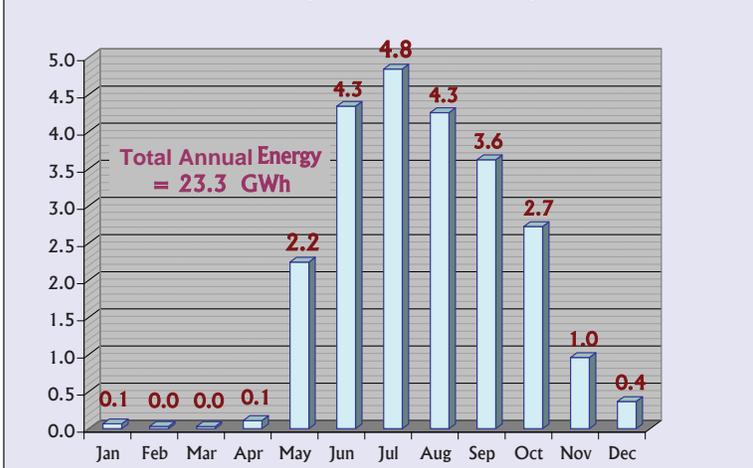
Since 2007, CVEA has been studying the hydroelectric potential of the Allison Lake Basin. In 2010 CVEA completed a review of five project alternatives including construction of an earth filled dam at elevation 1,345 feet and a 9,000 foot penstock to a powerhouse near tidewater.

The project, which was deemed technically feasible, has significant geotechnical, access and avalanche challenges that drove project economics to an unacceptable level.

This outcome caused a review of the Allison Lake watershed potential that identified a run of the river option which was selected as the preferred development alternative in October 2010.



### Monthly Energy: Unrestricted Load w/ 6.5 MW Allison (Run-of-River)



### Run of the River Alternative

The run of the river (ROR) alternative involves construction of a diversion structure on Allison Creek at elevation 1,300 feet. Water will be diverted from the creek into a 42 inch surface/buried penstock to a 6.5 megawatt powerhouse near tidewater.

The project will produce a maximum of 23.3 million kilowatt hours of energy during the high flow months of May through October and has the potential to displace 1.6 million gallons of diesel fuel.

The cost of Allison Creek power is estimated to be 21 cents per kwh, which is equivalent to \$80/bbl oil.

The ROR alternative reduces construction risk associated with the site, lessens avalanche and access risks and has significantly fewer environmental impacts.

The project is estimated to cost \$32 million (2010 \$) and to begin producing power in mid 2016. CVEA is developing a plan of finance in 2011.



January 31, 2011

Mr. Travis Million, President  
Copper Valley Electric Association, Inc.  
PO Box 45  
Glennallen, Alaska 99588

**SUBJECT: Support for Allison Creek Hydro Project**

Dear President Million:

This letter is in support of the Allison Creek Hydro Project and your continuing efforts to lower the cost of electricity in the Copper Valley Electric Association service area.

Ahtna, Incorporated supports these efforts and further supports federal investment which could serve to lower the delivered cost of energy to this depressed area of the state.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Martin", is written over a horizontal line.

Kathryn Martin  
VP Land and Resources  
Ahtna, Inc.



February 1, 2011

Mr. Travis Million, President  
Copper Valley Electric Association, Inc.  
PO Box 45  
Glennallen, Alaska 99588

SUBJECT: Support for Allison Creek Hydro Project

Dear President Million:

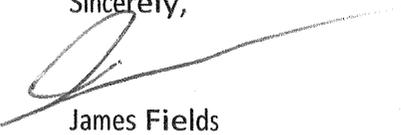
You have asked for our support for developing the Allison Creek Hydro Project to benefit the members of Copper Valley Electric Association.

American Village of Alaska, Inc. supports renewable energy in general, and hydropower specifically, and we strongly support all efforts to reduce the high cost of electricity in this region of the state. It is critical for sustaining the Copper River Basin area as a community that we find ways to lower our energy costs.

We are hopeful that through the participation of the CVEA membership and the state and federal governments that this project can be successfully developed with the end result of lowering the cost of delivered energy for area residents and businesses.

Please let us know if there is anything else we may be able to assist you with.

Sincerely,



James Fields  
General Manager  
Email: james@avak.biz



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PRINCE · WILLIAM · SOUND · COMMUNITY · COLLEGE

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*Office of the President*

February 1, 2011

Mr. Travis Million, President  
Copper Valley Electric Association, Inc.  
PO Box 45  
Glennallen, Alaska 99588

SUBJECT: Support for Allison Creek Hydro Project

Dear President Million: *Travis*

You have asked for our support for developing the Allison Creek Hydro Project to benefit the members of Copper Valley Electric Association.

Prince William Sound Community College supports renewable energy in general, and hydropower specifically, and we strongly support all efforts to reduce the high cost of electricity in this region of the state.

We are hopeful that through the participation of the CVEA membership and the state and federal governments that this project can be successfully developed with the end result of lowering the cost of delivered energy for area resident and businesses.

Sincerely,

Douglas A. Desorcie  
PWSCC President

# HOMESTEAD SUPPLY

February 1, 2011

Mr. Travis Million, President  
Copper Valley Electric Association, Inc.  
PO Box 45  
Glennallen, Alaska 99588

SUBJECT: Support for Allison Creek Hydro Project

Dear President Million:

You have asked for our support for developing the Allison Creek Hydro Project to benefit the members of Copper Valley Electric Association.

American Village of Alaska, Inc. supports renewable energy in general, and hydropower specifically, and we strongly support all efforts to reduce the high cost of electricity in this region of the state. It is critical for sustaining the Copper River Basin area as a community that we find ways to lower our energy costs.

We are hopeful that through the participation of the CVEA membership and the state and federal governments that this project can be successfully developed with the end result of lowering the cost of delivered energy for area residents and businesses.

Please let us know if there is anything else we may be able to assist you with.

Sincerely,



James Fields  
Secretary / Treasurer  
Email: james@avak.biz



info@caribouhotel.com ♦ www.caribouhotel.com

PO Box 329 ♦ Glennallen, AK ♦ 99588

voice 907.822.3302 ♦ fax 907.822.3711

February 1, 2011

Mr. Travis Million, President  
Copper Valley Electric Association, Inc.  
PO Box 45  
Glennallen, Alaska 99588

SUBJECT: Support for Allison Creek Hydro Project

Dear President Million:

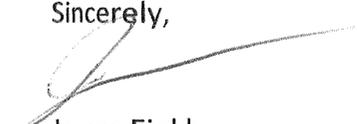
You have asked for our support for developing the Allison Creek Hydro Project to benefit the members of Copper Valley Electric Association.

American Village of Alaska, Inc. supports renewable energy in general, and hydropower specifically, and we strongly support all efforts to reduce the high cost of electricity in this region of the state. It is critical for sustaining the Copper River Basin area as a community that we find ways to lower our energy costs.

We are hopeful that through the participation of the CVEA membership and the state and federal governments that this project can be successfully developed with the end result of lowering the cost of delivered energy for area residents and businesses.

Please let us know if there is anything else we may be able to assist you with.

Sincerely,



James Fields  
General Manager  
Email: james@avak.biz

**Providence Valdez Medical Center**  
911 Meals Avenue  
PO Box 550  
Valdez, Alaska 99686  
t: (907) 835 2249  
f: (907) 834 1890  
www.providence.org/alaska



February 4, 2011

**Mr. Travis Million, President  
Copper Valley Electric Association, Inc.  
PO Box 45  
Glennallen, Alaska 99588**

**SUBJECT: Support for Allison Creek Hydro Project**

**Dear President Million:**

**This letter is in support of the Allison Creek Hydro Project and your continuing efforts to lower the cost of electricity in the Copper Valley Electric Association service area.**

**Providence Valdez Medical Center supports these efforts and further supports federal investment which could serve to lower the delivered cost of energy to an area of the state where energy is extremely expensive.**

**Best wishes in your endeavors to move forward with the Allison Creek Project.**

**Sincerely,**

A handwritten signature in black ink, appearing to read "Sean McCallister", written over a horizontal line.

**Sean McCallister  
Administrator  
Providence Valdez Medical Center**



Office of the Superintendent • PO Box 108 • Glennallen, AK 99588  
(907) 822-3234 ext. 223 • fax (907) 822-3949

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February 4, 2011

Mr. Travis Million, President  
Copper Valley Electric Association, Inc.  
PO Box 45  
Glennallen, Alaska 99588

SUBJECT: Support for Allison Creek Hydro Project

Dear President Million:

This letter is in support of the Allison Creek Hydro Project and your continuing efforts to lower the cost of electricity in the Copper Valley Electric Association service area. The Copper River School District strongly supports these efforts and further supports federal investment which could serve to lower the delivered cost of energy to this depressed area of the state.

The cost of energy in rural Alaska prevents families from moving to our area and hinders small businesses from forming or expanding. This lack of investment in our community results in school enrollments far below capacity.

The Copper River School District supports the Copper Valley Electric Association's effort to bring clean renewable energy to our area. It will allow us to serve our students more efficiently while providing our youth with examples of effective energy stewardship.

Please share with us how the Copper River School District can best serve our students by supporting clean renewable energy projects such as the Allison Creek Project.

Sincerely,

Michael Johnson  
Superintendent

