

**Agency: Commerce, Community and Economic Development**  
**Grants to Unincorporated Communities (AS 37.05.317)**

**Grant Recipient: Beaver**

**Federal Tax ID: 92-007304**

**Project Title:**

**Project Type: Equipment and Materials**

## Beaver - Smart Electrical Metering Project

**State Funding Requested: \$80,000**  
 One-Time Need

**House District: 6 / C**

### Brief Project Description:

Install "smart" metering throughout the village to promote consumer electricity efficiency consumption behavior and increased revenue collections.

### Funding Plan:

|                               |                   |
|-------------------------------|-------------------|
| Total Project Cost:           | \$80,000          |
| Funding Already Secured:      | (\$0)             |
| FY2013 State Funding Request: | <u>(\$80,000)</u> |
| Project Deficit:              | \$0               |

#### *Funding Details:*

*No other funding is being sought.*

### Detailed Project Description and Justification:

Beaver Traditional Council has obtained a quote from Marsh Creek Energy Systems of Anchorage, a company that specializes in smart metering at a cost of \$80,000 to conduct a "smart" metering program throughout Beaver. This price includes:

- 90 Electronic Amp 5211 meters and Display/Smart Card Readers
- Office system that includes computer, back-up hard drive, software, Smart Cards and reader/encoder, etc.
- Hands-on, on-site, 5-day training for three local technicians to install and monitor meters
- One-year warranty w/ 6 months free tech support

Each meter consists of two basic parts--the regular meter that attaches to an outside wall of the home and an indoor display that shows:

- total kW consumed
- present kW demand
- credit balance
- date of last credit purchased
- etc.

Each customer receives a Smart Card that is coded to the meter in their home. The customer buys power credits direct from the utility, which are added to the card. The customer then swipes the card on the meter inside their home. This is a method

of paying your electric bill in advance. The display inside the home shows customers the amount of credit remaining and an estimated time (in days or hours) until the credit is used up, giving them enough notice to purchase additional credits. The utility can structure the system so that a customer's power is not necessarily cut off immediately (i.e., if it's 50 below outside) and that an audible alarm of some kind warns when credits are nearing a pre-set minimum.

Consumer benefits of pre-paid meters include:

- no monthly bills
- incentive to conserve power
- user-friendly display that makes budgeting for electric costs easy
- real-time data on power usage (as opposed to the old meters which do not provide breakdown on an hourly basis)

Utility benefits include:

- no need for billing or collections
- positive cash flow
- easy to install/maintain

Data from around the country show the use of pre-paid meters can result in a reduction in electric usage by up to 20%. The user-friendly display allows customers to see just how much their power costs on a daily or even hourly basis and encourages conservation. They empower the consumer to be energy wise and allow the utility to manage its power generation based on recorded usage patterns. There are currently 21 communities in Alaska that use pre-paid meters. In one survey, 100% of customers said the meters caused them to be more conscious of energy use and resulted in conservation measures to some degree.

According to the Alaska Energy Authority, Beaver's diesel fuel consumption for power generation in 2007 was approximately 20,000 gallons. The average electric load was 37 kW, while the peak load was 74 kW. The use of pre-paid meters would likely result in reduced demand--especially in terms of the maximum load--and would conceivably "level out" the peaks and valleys of the usage load throughout the day. This would improve the efficiency of the diesel gen-sets, thereby reducing fuel consumption and lowering costs.

### Project Timeline:

If this CIP is approved, this project will be carried out by fall, 2012.

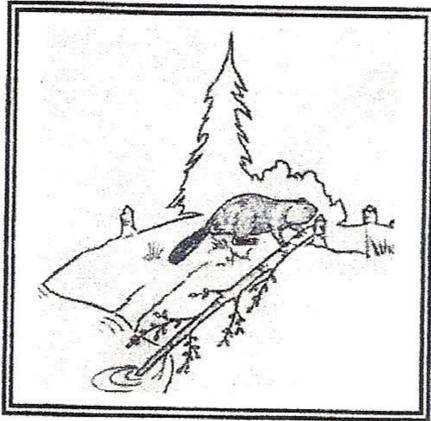
### Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Beaver Traditional Council owns the electrical utility and is responsible for O&M expenses.

### Grant Recipient Contact Information:

Name: Rhonda Pitka  
 Title: Tribal Administrator  
 Address: P.O. Box 24029  
 Beaver, Alaska 99724  
 Phone Number: 907-24  
 Email: beavercouncil@hotmail.com

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



# BEAVER VILLAGE COUNCIL

P.O. Box 24029  
Beaver, Alaska 99724

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## RESOLUTION NUMBER 2012 - 01

### A RESOLUTION SUPPORTING FY2013 CIP FUNDING FOR THE BEAVER SMART METERING PROJECT PROJECT – NUMBER ONE COMMUNITY PRIORITY

**WHEREAS**, it is the Beaver Village Council's mission, purpose and vision to improve the health and welfare of the residents of Beaver, and

**WHEREAS**, the Beaver Village Council operates and maintains the electrical utility, and

**WHEREAS**, Beaver's electrical utility has problems collecting payments from some of its customers, making it difficult to maintain our utility, and

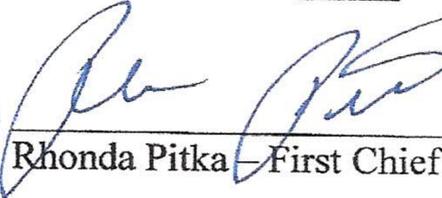
**WHEREAS**, the Beaver Village Council desires to install a "smart" metering system and a pre-paid collection component, and

**NOW THEREFORE BE IT RESOLVED**, that the Beaver Village Council hereby certifies that it has received and considered citizen comments and hereby declares that the planned Beaver Smart Metering Project is a village development priority, and

**BE IT FURTHER RESOLVED**, that the Beaver Village Council hereby respectfully requests a Legislative CIP appropriation in the amount of \$80,000 for the purpose of implementing the Beaver Smart Metering Project during 2012.

This resolution was duly adopted by the Beaver Village Council at a meeting held at the Village Council's office in Beaver, Alaska on the 25<sup>th</sup> day of January, 2012 by the following vote: Ayes 7, Nays 0, Abstain 0.

ATTEST:

  
Rhonda Pitka - First Chief

  
Rebecca Fisher, Secretary/Treasurer

Rhonda Pitka, Chief  
Arlene Pitka, 2<sup>nd</sup> Chief  
Rebecca Fisher, Secretary  
Charlie Yatlin, Shay Pitka, Kim Andon, Maryann Juneby