

**Scammon Bay Community Facilities Heat Recovery**

**FY2016 Request:**

**\$756,335**

**Reference No:**

**60791**

**AP/AL:** Allocation

**Project Type:** Energy

**Category:** Development

**Location:** Scammon Bay

**House District:** Bering Straits/Yukon Delta (HD 39)

**Impact House District:** Bering Straits/Yukon Delta (HD 39)

**Contact:** Sara Fisher-Goad

**Estimated Project Dates:** 07/01/2015 - 06/30/2020 **Contact Phone:** (907)771-3000

**Appropriation:** Alaska Energy Authority - Round VIII Renewable Energy Project Grants (AS 42.45.045)

**Brief Summary and Statement of Need:**

The Alaska Native Tribal Health Consortium proposes to take waste heat from the existing Alaska Village Electric Cooperative (AVEC) power plant in Scammon Bay and use it to heat three community buildings and the city's water system via heating connection into the adjacent water distribution loop main. The heat recovery system is projected to save 10,933 of the estimated 11,578 gallons of heating oil used per year. The City Office and Old Clinic are both hydronically heated and had been served by a heat recovery system that is no longer in use. The planned Community Hall will also be hydronically heated; all buildings would be served by a heat recovery loop approximately 400 feet in length.

| <b>Funding:</b> | <u>FY2016</u> | <u>FY2017</u> | <u>FY2018</u> | <u>FY2019</u> | <u>FY2020</u> | <u>FY2021</u> | <u>Total</u> |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| Renew Ener      | \$756,335     |               |               |               |               |               | \$756,335    |
| <b>Total:</b>   | \$756,335     | \$0           | \$0           | \$0           | \$0           | \$0           | \$756,335    |

|   |  |                                       |   |                                   |
|---|--|---------------------------------------|---|-----------------------------------|
| <input type="checkbox"/> State Match Required | <input checked="" type="checkbox"/> One-Time Project | <input type="checkbox"/> Phased - new | <input type="checkbox"/> Phased - underway  | <input type="checkbox"/> On-Going |
| 0% = Minimum State Match % Required           |  | <input type="checkbox"/> Amendment    | <input type="checkbox"/> Mental Health Bill |                                   |

**Operating & Maintenance Costs:**

|                      | <u>Amount</u> | <u>Staff</u> |
|----------------------|---------------|--------------|
| Project Development: | 0             | 0            |
| Ongoing Operating:   | 0             | 0            |
| One-Time Startup:    | 0             | 0            |
| <b>Totals:</b>       | <b>0</b>      | <b>0</b>     |

**Prior Funding History / Additional Information:**

The existing water distribution loop is located 300 feet from the powerhouse; heat recovered from the power plant and injected into the circulating distribution loop can also be conveyed to the more distant community water storage tank. The proposed connecting heat recovery pipe will be buried 2-in PEX carrier pipe insulated with 3-in polyurethane insulation. The application is based on a 2014 feasibility study completed by ANTHC.