

Alaska Energy Authority - Energy Projects**FY2012 Request: \$16,000,000****Reference No: 38950****AP/AL:** Appropriation**Project Type:** Energy**Category:** Development**Location:** Statewide**Contact:** Sara Fisher-Goad**House District:** Statewide (HD 1-40)**Contact Phone:** (907)771-3000**Estimated Project Dates:** 07/01/2011 - 06/30/2016**Brief Summary and Statement of Need:**

This request addresses multiple federally funded energy programs, including Bulk Fuel Upgrades, Rural Power Systems Upgrades, and the state funded energy planning project. This program contributes to the Department's mission of promoting a healthy economy and strong communities by providing economic growth in the communities it serves.

Funding:	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total
AIDEA Div	\$10,000,000						\$10,000,000
AK Cap Inc		\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000		\$40,000,000
Fed Rcpts	\$6,000,000	\$20,000,000	\$20,000,000	\$20,000,000	\$20,000,000		\$86,000,000
I/A Rcpts		\$500,000	\$500,000	\$500,000	\$500,000		\$2,000,000
Stat Desig		\$500,000	\$500,000	\$500,000	\$500,000		\$2,000,000
Total:	\$16,000,000	\$31,000,000	\$31,000,000	\$31,000,000	\$31,000,000	\$0	\$140,000,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" 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	
Totals:	0	0

Additional Information / Prior Funding History:

Refer to the funding matrix in the detailed description.

Project Description/Justification:

This request addresses the long-standing federally funded energy programs of Bulk Fuel Upgrades and Rural Power System Upgrades (RPSU), and the state funded energy plan implementation. The specifics are:

(1) Bulk Fuel Upgrades: When Alaska Energy Authority (AEA) began upgrading bulk fuel tank farms, there were approximately 1100 above-ground tank farms in 171 remote villages in rural Alaska. Most of these tank farms had serious deficiencies that typically included:

- Inadequate dikes to contain fuel spills
- Inadequate foundations, which could cause gradual tank movement and fuel leakage
- Improper piping systems and joints - the most common source of fuel leaks
- Improper siting near wells, beaches, and buildings, or within a flood plain

- Tanks that are rusted or damaged beyond repair
- Electrical code violations
- Inadequate security

This program's mission is to replace these tank farms with new or refurbished facilities that meet all applicable safety and environmental codes. \$20 million is the estimated need to complete the bulk fuel upgrades for the remaining nine communities identified on the Bulk Fuel Deficiency list.

This program began in approximately 1997 and has expanded since fiscal year 1999 with federal funding from the Denali Commission. In fiscal year 2012 AEA anticipates \$2 million in federal funds. AEA anticipates using approximately \$3 million in state funds for Bulk Fuel Upgrades.

(2) Rural Power System Upgrades (RPSU): The electric utility systems are part of the basic infrastructure of rural communities. The power plant and distribution systems in rural communities may not meet accepted utility standards for safety, reliability, and environmental protection. Due to high costs and limited economies of scale, most local communities cannot make the capital investments needed to meet accepted utility standards.

AEA gives priority to electric utility systems that have the highest need. AEA has built a detailed database of electric utility conditions and characteristics. Deficiencies of each utility have been scored with respect to generating equipment, distribution systems, powerhouse structures, and other major physical components. Rural systems are then ranked according to the level of these deficiencies. Additional criteria that are applied to the project selection process include:

- Imminent threat to health and safety
- Imminent threat of system failure during winter conditions
- Financial need based on the level of existing rates, average income, availability of other financing, and project cost compared with utility revenue
- The utility's ability to operate and maintain the facility without future state assistance or the community's willingness to join an established qualified regional utility
- Projects needed in order to meet efficiency guidelines under the Power Cost Equalization Program

Once upgraded, to ensure a thirty-year plus useful asset life, the rural utility is required to employ a qualified operator to ensure that the system is properly operated and maintained.

\$112 million is the estimated need to complete the Rural Power System Upgrades for the remaining 47 communities identified on the deficiency list. This is a long standing energy program that has expanded since fiscal year 1999 with federal funding from the Denali Commission. In fiscal year 2012 AEA anticipates \$4 million in federal funds. AEA anticipates using approximately \$6 million in state funds for RPSU projects.

(3) Alaska Energy Plan Implementation:

The objective is to develop a statewide Alaska energy plan. An estimated \$1 million of general funds is required for the continued development of the energy plan, in particular AEA will work with regional organizations to further refine regional resource assessments and project development plans. The completion of the following activities and work tasks are required:

- 1) determination of fuel usage by community for electricity, space heating and transportation
- 2) determination of locally available energy sources
- 3) evaluation of existing technology
- 4) evaluation of energy delivery systems
- 5) evaluation and rank of energy sources
- 6) deployment to the private sector by providing business plan to existing or new enterprises, and
- 7) organization of public workshops to assist in the communication of the plan by gathering feedback and providing periodic updates.

Summary of Anticipated Funding:

AGENCY	FEDERAL	GENERAL FUNDS	TOTAL
Denali Comm	\$ 6,000,000	\$ 9,000,000	\$ 15,000,000
Energy Plan		\$ 1,000,000	\$ 1,000,000
Total	\$ 6,000,000	\$ 10,000,000	\$ 16,000,000

Funding History (includes both State and Federal funding)

YEAR	AMOUNT	LEGISLATION
FY11	\$24,500,000	SLA 10, Ch 43, Sec 7, Pg 20, Ln 22
FY10	\$25,500,000	SLA 09, Ch 15, Sec 1, Pg 2, Ln 30
FY09	\$41,000,000	SLA 08, Ch 29, Pg 87, Ln 18
FY08	\$31,700,000	SLA 07, Ch 30, Pg 84, Ln 22
FY07	\$15,200,000	SLA 06, Ch 82, Pg 2, Ln 29
FY06	\$23,220,000	FSSLA 05, Ch 3, Pg 3, Ln 26
FY05	\$35,750,000	SLA 04, Ch, 159, Pg 3, Ln 7
FY04	\$35,100,000	SLA 03, Ch 82, Pg 3, Ln 10, 13
FY03	\$31,600,000	SSLA 02, Ch 1, Pg 3, Ln 15, 32
FY02	\$20,437,000	SLA 01, Ch 61, Pg 3, Ln 13, 15, 177
FY01	\$32,050,000	SLA 00, Ch 135, Pg 3, Ln 6, 9
FY00	\$ 1,600,000	SSLA 99, Ch 2, Pg 84, Ln 27
FY99	\$31,600,000	SLA 98, Ch 139, Pg 40, Ln 14, 21
FY98	\$12,200,000	SLA 97, Ch 100, Pg 42, Ln 20, 21, and 27
FY97	\$ 22,00,000	SLA 96, Ch 123, Pg 45, Ln 25, 31 and 37