

**AP/AL:** Appropriation      **Project Type:** Energy  
**Category:** Development  
**Location:** Statewide      **House District:** Statewide (HD 1-40)  
**Impact House District:** Statewide (HD 1-40)      **Contact:** Michael Lamb  
**Estimated Project Dates:** 07/01/2017 - 06/30/2022      **Contact Phone:** (907)771-3000

**Brief Summary and Statement of Need:**

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 protections. Due to high costs and limited economies of scale, most local communities cannot make the capital investments needed to meet accepted utility standards.

<b>Funding:</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>Total</b>
1002 Fed Rcpts	\$10,466,000	\$10,466,000	\$10,466,000	\$10,466,000	\$10,466,000	\$10,466,000	\$62,796,000
1004 Gen Fund	\$3,830,000	\$3,830,000	\$3,830,000	\$3,830,000	\$3,830,000	\$3,830,000	\$22,980,000
<b>Total:</b>	<b>\$14,296,000</b>	<b>\$14,296,000</b>	<b>\$14,296,000</b>	<b>\$14,296,000</b>	<b>\$14,296,000</b>	<b>\$14,296,000</b>	<b>\$85,776,000</b>

<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	0
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Prior Funding History / Additional Information:**

Sec1 Ch2 SLA2016 P2 L20 SB138 \$1,446,142  
 Sec18 Ch2 SLA2016 P35 L28 SB138 \$1,053,858  
 Sec1 Ch18 SLA2014 P6 L9 SB119 \$5,120,000  
 Sec1 Ch16 SLA2013 P4 L18 SB18 \$10,800,000  
 Sec1 Ch17 SLA2012 P6 L13 SB160 \$13,000,000  
 Sec4 Ch5 SLA2011 P127 L21 SB46 \$10,000,000  
 Sec7 Ch43 SLA2010 P20 L29 SB230 \$9,000,000

**Project Description/Justification:**

**Alaska Energy Authority - Rural Power Systems Upgrades**      **FY2018 Request: \$14,296,000**  
**Reference No: 52498**

The project includes federal receipt authority and matching state funds for four rural power house upgrade systems (\$10,466,000 federal and \$3,830,000 state). The Alaska Energy Authority is working in conjunction with the Denali Commission to fund four projects in the following communities:

Twin Hills, Port Alsworth, Cheforanak, and Adak.

This project also includes \$286,000 in federal receipt authority for the Diesel Emissions Reductions Act (DERA) Community Engine Replacement projects. Funding is from the Environmental Protection Agency (EPA). State matching funds of \$310,000 are needed to match the federal EPA funds.

This program concentrates on power production and delivery, including diesel powerhouse, heat recovery, and electrical distribution. Efficiency, reliability, safety and sustainability are primary drivers throughout the conceptual design, final design and construction process. It is not uncommon to see a 30-40 percent increase in fuel savings after a new powerhouse project is completed.

After completion of the project, the rural utility is required to employ a qualified operator to ensure that the system is properly operated and maintained. Alaska Energy Authority (AEA) provides training and technical assistance to assist the community with proper operation of the new facility.

This program began in 1997 and has expanded since FY1999 with federal funding from the Denali Commission. Federal funding for rural power systems upgrades have been in decline since FY2011 and any available federal funds for construction projects now require a 20% - 50% match, depending on whether the community is considered distressed.

AEA will use state general funds as match for available federal funds.

RPSU	Project	Existing Funding	Federal Match	State Match	Total Project Cost
DERA	Community Engine Replacement		\$ 286,000	\$ 310,000	\$ 596,000
1 Twin Hills	Electrical Distribution Tie-line to Togiak	\$ 460,000	\$ 3,200,000	\$ 800,000	\$ 4,460,000
2 Port Alsworth	New Powerhouse Module	\$ 215,000	\$ 1,300,000	\$ 1,300,000	\$ 2,815,000
3 Cheforanak	Electrical Distribution System		\$ 1,920,000	\$ 480,000	\$ 2,400,000
4 Adak	New Powerhouse	\$ -	\$ 3,760,000	\$ 940,000	\$ 4,700,000
		\$ 675,000	\$ 10,466,000	\$ 3,830,000	\$ 14,971,000
<b>FY2018 Funding Authorization</b>				<b>\$ 14,296,000</b>	