Alaska Energy Authority - Denali Commission Rural Power System Upgrades	Match for	FY2010 Request: Reference No:	\$10,000,000 47877
AP/AL: Appropriation	Project Type: Energy		
Category: Development			
Location: Statewide	Contact: Ar	manda Ryder	
House District: Statewide (HD 1-40)	Contact Ph	one: (907)465-2506	
Estimated Project Dates: 07/01/2009 - 06/30/20	14		

Brief Summary and Statement of Need:

The power plant and distribution systems in some rural communities do 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 the accepted utility standards.

This project contributes to the Department's mission of promoting a healthy economy and strong communities by providing economic growth to the communities it serves.

Funding:	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	Total
AK Cap Inc	\$10,000,000						\$10,000,000
Total:	\$10,000,000	\$0	\$0	\$0	\$0	\$0	\$10,000,000
State Match	n Required 🛛 🗹 C	ne-Time Project	Phased -	new	Phased - under	way 📙 Or	n-Going
0% = Minimur	n State Match % F	Required	Amendm	ent 🔽	Mental Health	Bill	

Operating & Maintenance Costs:	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Additional Information / Prior Funding History:

Federal funding for rural power system upgrades from the Denali Commission has been, and is being appropriated through Alaska Energy Authority Energy Projects.

Project Description/Justification:

The Denali Commission has worked with Alaska Energy Authority (AEA) to provide funding for Rural Power System Upgrades (RPSU). The background for this project is as follows:

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 the 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 State of Alaska Capital Project Summary PY2010 Governor Amended Reference No: 47877 Page 1

deficiencies. This process and the below criteria have been developed over time with the Denali Commission. 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 at least a thirty-year useful asset life, the rural utility is required to employ a qualified operator to ensure that the system is properly operated and maintained.

The estimated need to complete the RPSU for the remaining 50 communities identified on the RPSU deficiency list is \$100 million. Upgraded powerhouses provide rural communities with efficient systems that reduce diesel fuel use. More systems are in need of upgrades than the available federal funds will allow. This state appropriation provides AEA the funds to upgrade deficient rural power house systems that would not otherwise be upgraded.