State of Alaska
FY2003 Governor's Operating Budget

Department of Community & Economic Development
Alaska Energy Authority
Budget Request Unit Budget Summary

Alaska Energy Authority Budget Request Unit

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BRU Mission

The mission of the Alaska Energy Authority (AEA) BRU is to assist in the development of safe reliable, and efficient energy systems throughout Alaska, which are financial viable and environmentally sound.

BRU Services Provided

Maintain and administer AEA owned facilities; maximizing services and revenues and minimizing unscheduled outages.

The AEA BRU includes the administration of and/or funds for, the following programs:

- Bulk fuel storage upgrades.
- Rural power system upgrades.
- Power Cost Equalization.
- Energy conservation and alternative energy development.
- Circuit rider maintenance and emergency response.
- Utility operator training.
- Bulk fuel revolving loan fund.
- Power Project loan fund.
- Maintenance of AEA owned facilities
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Recent capital project funding for bulk fuel storage upgrades and rural power system upgrades has come primarily from the Denali Commission, supplemented by other federal grants from agencies such as EPA and HUD and by State capital appropriations.

Power Cost Equalization (PCE) pays a portion of the electric bills of rural consumers. Significant legislation enacted in 1999 reduced the scope of the program and the size of PCE payments, while legislation enacted in 2000 created an endowment to provide PCE funding over the long term.

BRU Goals and Strategies

Continue to maintain the technical integrity of AEA projects.

Continue to maximize local control of AEA projects, to the extent feasible, by contracting with the operating utilities to provide operating and maintenance services.

Continue to work with the operating utilities to lower operating costs and improve efficiencies at the AEA owned hydroelectric projects.

For both bulk fuel storage and rural power system upgrades, accelerate project development to take full advantage of the recent and expected increases in Denali Commission funding of these projects.

Through training and technical assistance, improve local capabilities to properly manage, operate, and maintain electric utility and bulk fuel storage systems.

Continue to issue timely and accurate PCE payments to 95 electric utilities serving 192 eligible communities.

Develop and implement alternative energy technologies and assess their potential to reduce energy costs in rural Alaska.

Key BRU Issues for FY2002 – 2003

Work with the Four Dam Pool communities and utilities to finalize the sale and transfer of the projects to the local utilities.

AEA must accelerate project development to keep pace with the availability of funding from the Denali Commission.

Recent fuel price increases accentuate the need for aggressive action to reduce rural energy costs.

Recent growth in the construction of new power supply and bulk fuel storage projects highlights the need for consistent operations, maintenance, and management skills among the local owners of these facilities.

Major BRU Accomplishments in 2001

Performed major maintenance and repairs on AEA owned projects.

Completed bulk fuel storage consolidations and upgrades in 5 communities totaling

$ 13.3 million. An additional 5 bulk fuel consolidations, totaling $14 million, will be completed in the calendar year 2001.

Started preliminary design work on 21 additional bulk fuel storage.

Completed rural power system upgrades in 5 communities totaling $4.1 million.

Issued PCE payments in the amount of $17.0 million.

Provided circuit rider maintenance and on-site operator training in about 80 rural communities.

Responded to electrical emergencies in 8 communities, including diesel power plant failures and/or distribution system failures.

Key Performance Measures for FY2003

Measure:
The change in the number of unscheduled outages of hydroelectric projects owned by the Authority.
Sec 30(b)(1) Ch 90 SLA 2001(HB 250)

Alaska's Target & Progress:
AEA works closely in an administrative role with the operating utilities to minimize the number of unscheduled outages at the hydroelectric projects owned by the Authority and to insure the projects are operated effectively and efficiently through regular maintenance and budget oversight. The utilities are tasked with providing the necessary service to get the projects back on line when there is an unscheduled outage and provide backup generation when outages occur.

AEA's primary role is to efficiently oversee the operations and maintenance of approximately $1 billion in electrical generation and transmission facilities in Alaska. AEA is the owner of the facilities with oversight of the project budgets. The utilities operate and maintain the facilities. Prior to 1993, AEA had a staff of seventeen to monitor the operations of the projects, providing detailed reports on operations, including unscheduled outages. AIDEA currently provides one staff position to provide oversight of the project operations and maintenance.

Due to lack of resources, detailed reporting, including the tracking of power outages has been discontinued by AEA.

Benchmark Comparisons:
Not applicable.

Background and Strategies:
Continue to work with operating utilities to provide the local control of AEA projects for operation and maintenance services.

Measure:
The number of four dam pool project repairs and upgrades completed on time and within budget (this measurement will be used until the transfer of ownership of the four dam pool projects has been completed).
Sec 30(b)(2) Ch 90 SLA 2001(HB 250)

Alaska's Target & Progress:

AEA initiates regular maintenance and repair to the four dam pool projects and provides administrative and budget oversight to insure the projects are completed on time and within budget. All scheduled repairs have been completed with the exception of continuing repairs to the Terror Lake tunnel.

As the owner of the four dam pool projects, it is AEA's responsibility to insure the assets are protected and the integrity of the projects is maintained.

Benchmark Comparisons:
Not applicable.

Background and Strategies:
AEA initiates repairs and upgrades as necessary to maintain the AEA-owned projects built over a decade ago. In FY 2002, AEA will work with the operating utilities to complete the following:

- Complete the Terror Lake tunnel.
- Complete the sale of the four dam pool projects to the operating utilities and/or communities.
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Measure:
The change in the amount of revenue created by projects owned by the Authority.
Sec 30(b)(3) Ch 90 SLA 2001(HB 250)

Alaska's Target & Progress:
In FY 2001 the AEA-owned projects generated approximately $25,257,000 in revenues from operating plants and $2,988,000 of investment and other income. Expenses, including depreciation, in excess of revenues offset the income.

The projects owned by AEA were built as infrastructure projects to provide lower-cost energy to Alaskans and were not intended to generate excess revenue. AEA works to maximize the revenues at the projects to cover operating expenses.

Benchmark Comparisons:
Not applicable.

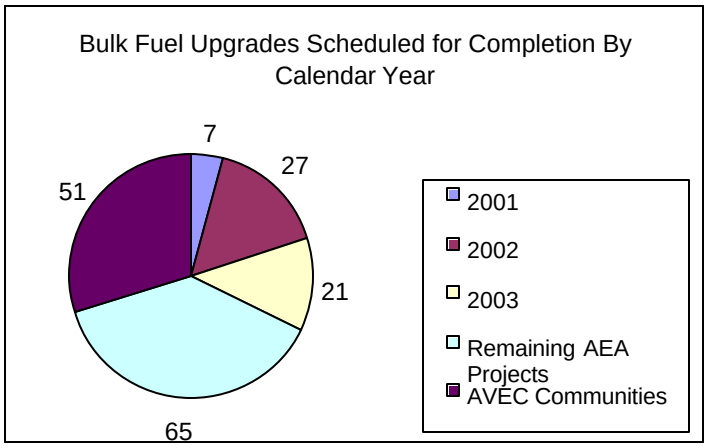
Background and Strategies:
AEA administers the outstanding long-term debt of the AEA-owned projects, which is in excess of $300 million, and administers special trust funds relating to the facilities. To the extent feasible, AEA contracts the direct operating, maintenance and repair responsibilities of the AEA-owned facilities to the operating utilities and works with the operating utilities to lower operating costs and improve efficiencies at the facilities owned by AEA.

Since AEA’s goal is not to generate excess revenue from the operation of the projects, this is not an appropriate measure for the operation of AEA owned facilities.

Measure:
The number of bulk fuel storage upgrade projects on rural energy group priority lists compared to the number completed.
Sec 31(b)(1) Ch 90 SLA 2001(HB 250)

Alaska's Target & Progress:

There are 171 communities listed on the bulk fuel deficiency list. The following chart shows the progress made towards addressing the bulk fuel storage needs in rural Alaska. In FY2001, the Denali Commission provided a financial assistance award to AVEC to address the deficiencies in the communities that they provide service. AVEC has completed one community project. AVEC's progress to address the remaining communities is not tracked by AEA.



Benchmark Comparisons:
Not applicable.

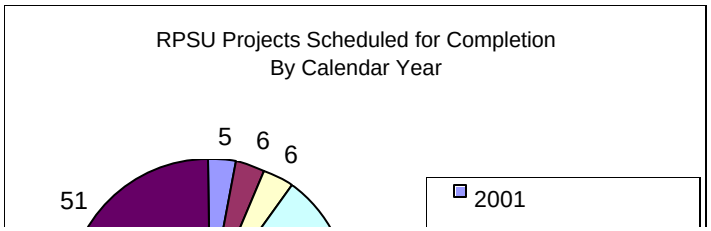
Background and Strategies:
AEA's bulk fuel storage data base and priority list includes information on approximately 1100 tank farms in 171 rural communities. Most of these tank farms have serious deficiencies. The U.S. Coast Guard and the Environmental Protection Agency are continuing to issue citations to owners of many substandard facilities in rural Alaska but have thus far refrained from ordering them closed as long as effective measures are under way to bring them into regulatory compliance.

Consolidation of all tanks into one location is the primary strategy to address the bulk fuel needs of a community. A typical rural village may presently have separate tank farms owned and operated by the city government, the tribal government, the village corporation, the local school, the electric utility, and other public or private entities. Relying primarily on federal funds, the State has conducted a program over the last several years to replace these tank farms with new or refurbished facilities that meet all applicable safety and environmental codes. Consolidation reduces the cost of construction and helps to avoid the inconsistent maintenance and operations practices that can result from multiple projects operated by multiple owners.

There are some communities that are not in need of community-wide consolidations. In FY2002, AEA has reviewed the deficiency list and has determined that there are several communities in which "small scale retrofits" with costs less than $500,000 are appropriate. Currently, 6 communities have been identified in this category, and funding is being requested from the Denali Commission to address these smaller scale projects.

Measure:
The number of electric utility upgrade projects on rural energy group priority lists compared to the number completed. Sec 31(b)(2) Ch 90 SLA 2001(HB 250)

Alaska's Target & Progress:
The following chart illustrates AEA's progress and schedule to complete RPSU projects. In FY2001, the Denali Commission provided a financial assistance award to AVEC to address the deficiencies in the communities that they provide service. AVEC's progress to address the remaining communities is not tracked by AEA.



AEA has a database that includes approximately 170 rural electric utility systems, ranks them in the order of their physical condition. In rural Alaska, 192 communities are served by 95 independent electric utilities. For most of these utilities, the power plant and distribution system do not meet accepted utility standards for safety, reliability, and environmental protection.

Electric utility systems are part of the basic infrastructure of rural communities and are fundamental to the operation of other community facilities, the maintenance of present living standards, and to the prospects for economic development. Due to high costs and limited economies of scale, most local communities cannot make the capital investments needed to meet accepted utility standards for safety, reliability, and operating efficiency.

As funds are available, the State contributes to these capital investments through the Rural Power System Upgrade (RPSU) program. Depending on the condition of existing facilities, these investments can include new generators, new controls, upgrades and modifications to distribution lines, or entirely new power plants and distribution systems.

Measure:
The change in the average power cost for households receiving power cost equalization compared to average statewide costs.
Sec 31(b)(3) Ch 90 SLA 2001(HB 250)

Alaska's Target & Progress:

	Average Rates for Anchorage, Fairbanks, and Juneau	Average Rate for PCE Residential Customers	Average PCE Level at June 30	Average Effective Rate at June 30*
1999	9.9	38.09	14.51**	23.58
2000	9.9	39.21	20.01	19.20
2001	9.9	39.91	15.98**	23.93

*= Average PCE rate less Average PCE Level
** the PCE level in effect on June 30, 1999 was at a reduced level of 73.5%; on June 30, 2001 the level was 74%.

Based on the rates in effect on June 30, 2001:
The statewide weighted average rate was 12.81 cents/kWh
After applying PCE adjustments the weighted average rate was 11.77 cents/kWh

Benchmark Comparisons:
Average rate for residential customers in Anchorage, Fairbanks, and Juneau in 2000: 9.9 cents per kilowatt-hour.

Background and Strategies:
Legislation enacted in 2000 includes the following statement of findings by the Legislature:

1. Adequate and reliable electric service at affordable rates is a necessary ingredient of a modern society and a prosperous developing economy.

2. At the current stage of social and economic development in the state, direct participation by the state is necessary to assist in keeping rates in high-cost service areas to affordable levels.

3. Providing a long-term, stable financing source for power cost equalization will permit and encourage the electric utility industry and its lenders to develop plans, make investments, and take other actions that are necessary or prudent to provide adequate and reliable electric service at affordable rates and to meet the health and safety needs of residents of the state.

There are many factors that affect the cost of power in rural Alaska. For example fuel costs: most rural utilities do not have long-term power sales agreements as compared to the urban utilities. AEA does not have control over such factors.

Measure:
The reduction of power cost in dollars and the percentage of increased reliability and technological advances.
Sec 31(b)(4) Ch 90 SLA 2001(HB 250)

Alaska's Target & Progress:
This measure was added by the Legislature in FY02. AEA has not determined whether this is a measure that can be tracked on a sustained basis. AEA is taking the initial steps described below to access this measure.

Benchmark Comparisons:
Not applicable.

Background and Strategies:
Powerhouse upgrades include the installation of new generators that burn fuel more efficiently. Unfortunately, the generators do not come with energy output/fuel ratings. The small independent utilities that are provided the new generators do not have systems in place to track the reduction of power costs when using new generators. The method to measure the efficiency of the new generators would be to track kWh output compared to the fuel purchased. AEA does not have a system in place to measure this information currently. However, AEA is in the process of upgrading the PCE database which will include a method to track the power cost in dollars compared to the advanced generators used in the power house upgrades.

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BRU Financial Summary by Component

All dollars in thousands

	FY2001 Actuals				FY2002 Authorized				FY2003 Governor			
	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds
Formula Expenditures												
None.												
Non-Formula Expenditures												
AEA Operations and Maintenance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,067.1	1,067.1
AEA Rural Energy Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	295.6	68.3	2,400.2	2,764.1
AEA Circuit Rider	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200.0	100.0	0.0	300.0
AEA Power Cost Equalization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16,960.0	16,960.0
Totals	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**495.6**	**168.3**	**20,427.3**	**21,091.2**

Alaska Energy Authority

Proposed Changes in Levels of Service for FY2003

AEA is occasionally requested to perform contractual services on behalf of private entities. AEA requests authorization to receive statutory designated program receipts to cover these contracts. AEA expects Sandia Labs to request contractual services to be performed in FY03 for the energy storage into distributed resource electricity supply systems.

Due to the increase in Denali Commission funds and projects, AEA requests on increment of $240.0 of CIP receipts as the funding source. A corresponding increment in personal services for three CIP positions is requested in the AIDEA operations component.

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Summary of BRU Budget Changes by Component

From FY2002 Authorized to FY2003 Governor

All dollars in thousands

	General Funds	Federal Funds	Other Funds	Total Funds
FY2002 Authorized	**0.0**	**0.0**	**0.0**	**0.0**
Adjustments which will continue current level of service:				
-AEA Operations and Maintenance	0.0	0.0	1,051.9	1,051.9
-AEA Rural Energy Operations	289.7	66.0	1,895.3	2,251.0
-AEA Circuit Rider	200.0	100.0	0.0	300.0
-AEA Power Cost Equalization	0.0	0.0	15,700.0	15,700.0
Proposed budget increases:				
-AEA Operations and Maintenance	0.0	0.0	15.2	15.2
-AEA Rural Energy Operations	5.9	2.3	504.9	513.1
-AEA Power Cost Equalization	0.0	0.0	1,260.0	1,260.0
FY2003 Governor	**495.6**	**168.3**	**20,427.3**	**21,091.2**