

State of Alaska FY2002 Governor's Operating Budget

Department of Community & Economic Development
Energy Operations
Component

Component: Energy Operations

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Component Mission

The mission of the Rural Energy Programs - Energy Operations component is to reduce the cost and increase the reliability of rural energy systems.

Component Services Provided

This component provides personnel resources and administrative support needed to implement Alaska Energy Authority's (AEA) rural energy programs, including 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, the Bulk Fuel Revolving Loan Fund program, and the Power Project Fund loan program:

- o Bulk fuel storage upgrades - AEA manages the design and construction of tank farm consolidation projects in rural communities. As described in our capital budget request, recent funding has been provided primarily by the Denali Commission, supplemented by additional federal funds from agencies such as EPA and HUD and by State capital appropriations.
- o Rural power system upgrades - AEA manages the design and construction of upgrades and replacements to diesel powerplants and electrical distribution systems in rural communities. Again, our capital budget request describes this in greater detail. Recent funding has been provided primarily by the Denali Commission, supplemented by State and other federal funds.
- o Power cost equalization (PCE) - Program administration is divided between the Regulatory Commission for Alaska (RCA) and AEA. RCA determines the amount of PCE per kilowatt hour to be paid in each community to each eligible customer. AEA's main task is to review the monthly reports on eligible usage of electricity from the participating utilities and to issue the monthly PCE payments based on the amount of eligible usage and the approved PCE rate.
- o Energy conservation and alternative energy development - AEA manages the federally-funded Rebuild America program, which provides "energy audits" and energy conservation recommendations for institutional buildings (such as schools) in rural communities. As described in our capital budget request, AEA also manages the federally-funded biomass energy program, participates in wind energy development, and works with the U.S. Department of Energy and rural utilities on a wide range of alternative energy initiatives.
- o Circuit rider maintenance and emergency response - AEA contracts with private firms to provide preventive maintenance, on-site utility operator training, and emergency response for rural electric utilities. AEA personnel provide contract supervision and supplemental services in the field as needed.
- o Utility operator training - AEA manages a program that sends rural electric utility operators to the Alaska Vocational Technical Center (AVTEC) in Seward for extended training in diesel power plant operations.
- o Bulk Fuel Revolving Loan Fund - AEA evaluates loan applications for purchase of bulk fuel supplies, issues loans, collects payments, and works with purchasers and fuel distributors as necessary to finance bulk fuel purchases.
- o Power Project Fund - AEA evaluates loan applications, issues loans, collects payments, and works with eligible borrowers as necessary to finance eligible projects.

Component Goals and Strategies

For both bulk fuel storage consolidation 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.

Continue to issue accurate and timely PCE payments to eligible utilities.

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

By providing preventive maintenance, emergency response and utility system upgrades, eliminate safety hazards and prevent or resolve electrical emergencies in rural communities.

Provide efficient and effective management of capital projects.

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

Key Component Issues for FY2001 – 2002

Increased funding from the Denali Commission offers a rare opportunity to upgrade both fuel storage facilities and electric utility systems in rural Alaska on a broad scale. A key issue for AEA is to provide sufficient management resources and accelerate the pace of project development so that rural communities can realize as much benefit as possible from this opportunity.

The need to reduce energy costs in rural Alaska has become more urgent due to the sharp increase in fuel prices that has occurred during the past year. Strategies to reduce these costs through energy production efficiencies, energy production alternatives, and energy conservation need to be clearly identified, developed, and aggressively implemented.

Demand for loans from the Bulk Fuel Revolving Loan Fund has continued to grow and to outstrip the available funds. A key issue will be to develop policies to prioritize loan requests in line with this continuing shortfall or to identify supplemental financing for bulk fuel purchases.

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. Appropriate training is necessary not only at the time of project completion but will also be needed periodically in the future given the expected turnover of facility operators.

A continuing issue is to reduce the number of power system emergencies due to failures in electrical generation and transmission systems, and to reduce the number of fuel supply emergencies due to inadequate bulk fuel storage facilities.

Major Component Accomplishments for FY2000

Completed bulk fuel storage consolidations and upgrades in 11 communities totaling \$8.7 million.

Completed preliminary or final design work on 21 additional bulk fuel storage projects, with total estimated construction costs of \$46.2 million.

Completed rural power system upgrades in 6 communities totaling \$2.3 million.

Responded to electrical emergencies in 14 communities, including diesel engine failures in 6 communities and distribution system failures due to avalanche or winter storms in 8 communities.

Statutory and Regulatory Authority

AS 42.45
19 AAC 96
19 AAC 97

Key Performance Measures for FY2002

Measure: 10 bulk fuel storage consolidation and upgrade projects are projected to be completed in FY02.
(Added by Legislature in FY2000 version.)

Current Status:

11 projects were completed during FY00.

Benchmark:

AEA's bulk fuel storage data base and priority list includes information on tank farms in 161 rural communities.

Background and Strategies:

There are approximately 1100 above-ground tank farms in 161 remote villages in rural Alaska. 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 underway to bring them into regulatory compliance.

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. Most of these projects seek to consolidate several tank farms into a single facility so that the potential for adverse impacts is no longer spread among several tank farm sites around the community. Consolidation also helps to avoid the inconsistent maintenance and operations practices that can result from multiple projects operated by multiple owners.

Measure: Six electric utility upgrade projects are projected to be completed in FY02.
(Added by Legislature in FY2000 version.)

Current Status:

Six electric utility upgrades were completed in FY00. Grants to Matanuska Electric Association and Golden Valley Electric Association were administered for 5 line extension projects.

Benchmark:

AEA is presently developing a data base that will include approximately 170 rural electric utility systems, and will allow those systems to be ranked in the order of their physical condition.

Background and Strategies:

In rural Alaska, 193 communities are served by 99 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 efficiencies created by using economies of scale in upgrades in similar systems.
(Added by Legislature in FY2001 version.)

Current Status:

Further consultation needed to determine the intent of this measure.

Benchmark:

None

Background and Strategies:

None

Status of FY2001 Performance Measures

	<i>Achieved</i>	<i>On track</i>	<i>Too soon to tell</i>	<i>Not likely to achieve</i>	<i>Needs modification</i>
<ul style="list-style-type: none"> In FY01, complete construction of 10 bulk fuel consolidation or project upgrades, complete design and begin construction of 8 consolidation projects or upgrades, and begin design of 17 BF projects. The efficiencies created by using economies of scale in upgrades in similar systems. 			X		X

Energy Operations

Component Financial Summary

All dollars in thousands

	FY2000 Actuals	FY2001 Authorized	FY2002 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	1,552.9	1,585.9	0.0
72000 Travel	202.8	125.6	125.6
73000 Contractual	365.5	416.8	2,016.0
74000 Supplies	45.6	18.0	18.0
75000 Equipment	15.7	5.0	5.0
76000 Land/Buildings	0.0	0.0	0.0
77000 Grants, Claims	157.7	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	2,340.2	2,151.3	2,164.6
Funding Sources:			
1002 Federal Receipts	71.4	65.6	66.0
1004 General Fund Receipts	287.9	287.9	289.7
1007 Inter-Agency Receipts	354.6	236.0	237.4
1061 Capital Improvement Project Receipts	774.8	710.3	714.7
1062 Power Project Loan Fund	802.5	802.5	807.5
1074 Bulk Fuel Revolving Loan Fund	49.0	49.0	49.3
Funding Totals	2,340.2	2,151.3	2,164.6

Estimated Revenue Collections

Description	Master Revenue Account	FY2000 Actuals	FY2001 Authorized	FY2001 Cash Estimate	FY2002 Governor	FY2003 Forecast
Unrestricted Revenues						
None.		0.0	0.0	0.0	0.0	0.0
Unrestricted Total		0.0	0.0	0.0	0.0	0.0
Restricted Revenues						
Federal Receipts	51010	71.4	65.6	65.6	66.0	66.0
Interagency Receipts	51015	354.6	236.0	236.0	237.4	237.4
Capital Improvement Project Receipts	51200	774.8	710.3	710.3	714.7	714.7
Bulk Fuel Revolving Loan Fund	51270	49.0	49.0	49.0	49.3	49.3
Power Project Loan Fund	51350	802.5	802.5	802.5	807.5	807.5
Restricted Total		2,052.3	1,863.4	1,863.4	1,874.9	1,874.9
Total Estimated Revenues		2,052.3	1,863.4	1,863.4	1,874.9	1,874.9

Energy Operations

Proposed Changes in Levels of Service for FY2002

None.

Summary of Component Budget Changes From FY2001 Authorized to FY2002 Governor

All dollars in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2001 Authorized	287.9	65.6	1,797.8	2,151.3
Proposed budget increases:				
-Increase RSA to AIDEA	1.8	0.4	11.1	13.3
FY2002 Governor	289.7	66.0	1,808.9	2,164.6