

# Alaska Energy Policy Task Force

*Created by the 23<sup>rd</sup> Alaska Legislature*

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**Approved Minutes of the January 28, 2004  
Meeting of the  
Alaska Energy Policy Task Force (EPTF)  
AIDEA/AEA Board Room  
Anchorage**

**Call to Order:** Vice Chair Boucher called the meeting to order at 9:00 a.m. Chair Mike Barry took the Chair at 9:35 a.m.

**Roll Call:** Members present - Red Boucher, Wayne Carmony, Robert Wilkinson, Dave Carlson, Meera Kohler, and Steve Haagenon, with Tom Boutin, on teleconference. **Staff:** Bernie Smith (EPTF.)

**Others attending:** Chris Rose of Alaska Conservation Foundation (ACF), Jerry Burton and Jim Strandberg of the Regulatory Commission of Alaska (RCA), Bob Chaney of SAIC, Tuckerman Babcock of MEA, Bob Pawlowski of St. George Chadux Corp., Larry Flowers DOE NREL, Bob Charles of Calista Corp.

**Approval of minutes of January 13 meeting:** Minutes were tabled.

**Discuss the Presentation to the Legislative hearing on Feb.3:**

The Task Force Report presentation to the Legislative hearing will be made by the Chairman on Feb. 3. The hearing on Feb.5 will be open to public and to the Utilities to make comments and their presentations. The Task Force members would like to see Chair Barry's presentation before the hearing. Chair Barry stated that he would make a statement or how the report made that the report was reached by consensus.

**Presentations:**

Larry Flowers of U.S. Department of Energy/National Renewable Energy Laboratory

Presentation of Wind Energy; Applications, Markets, Economics and Perspectives. The State as Wind Power for utilities: Kotzebue, Sand Point, Wales and Selawik. Kotzebue is a showcase for Village Wind Power

NREL/DOE is working with AEA and AVEC to identify new sites for wind projects. They are working to provide a Wind Resource Map for the State of Alaska.

The different wind generation range from 10 kW (small) homes, farms and etc.; 500kW (intermediate) Village power and Distributed Power; 6MK (large) Wind Farms and Large Distributed Power. The average wind turbine is 1.5 MW, and 98% of new wind turbines that are operating.

Wind energy capacity Worldwide is 45000 MW. The U.S. total is 6375 MW.

The operating cost in the lower 48 States is \$0.03/kW. The cost of Wind Power vs. Diesel/or Natural Gas is now competitive.

#### Alaska Power Association by Eric Yould

APA (ARECA) has been in business for 53 years. Their members are Cooperatives and Municipals Electric Utilities. Their member provides 90% of generation for the State. AEA provides the insurance policies for most of their members. They have \$20 million in assets. AEA has 11 staff.

Some of the Resolutions for 2004 supported by AEA

Resolutions regarding Small Hydropower Licensing re the transfer from FERC to Alaska DNR instead to the RCA:

- Resolution regarding appropriation for Energy Projects: Cordova Electric Corp. \$12 million, Four Dam Pool, \$20 million, Copper Valley Electric Assoc. \$10 million, Kodiak Electric Assoc. \$6 million, Metcakatla \$2.8 million.
- Resolution supporting the Southeast Alaska Intertie System.
- Resolution supporting the Anchorage-Kenai Transmission System Upgrade
- Resolution supporting the authorization of a JAA for the State Electric Infrastructures.

#### Alaska Village Electrical Coop. by Meera Kohler

AVEC has 51 villages in their Coop. with a population of 22,000, the smallest is Anvik with 104 and the largest Hooper Bay with 1,014. AVEC is 92% Alaska Native.

AVEC has 47 power plants with 166 diesel generators and burned 5 million gallons diesel fuel.

AVEC services 7011 residential and commercial customers with 61 million kWh sales.

They have \$23.8 million in revenues at an average of \$0.39 total revenue/kWh.

The residential revenue/kWh is \$0.43 and PCE is 26% of the residential revenue.

Some of the Challenges for AVEC are the geographic remoteness, subsistence economies, low per capita income, high cost of living and poor infrastructure.

AVEC services include billing and collections, accounting and administration, engineering and design for 51 villages, operation and maintenance and logistics and warehousing.

Each of the 51 villages elect a delegate and they elect a 7 board members.

#### Alaska Energy Authority by Mike Harper, Lenny Landis and Chris Mello

The Alaska Energy Authority was created by the Alaska State Legislature to operate and maintain state-owned power systems. The overall goal is to achieve the lowest reasonable consumer power costs and assist in the development of safe, reliable and effective energy systems throughout Alaska that are financially viable and environmentally sound.

The Alaska Energy Authority is responsible for projects that provide better energy solutions for consumers all over the state. Within the Alaska Energy Authority, a cluster of programs can be found under the Rural Energy Group, which is dedicated to finding the best and most cost-efficient methods for providing power to rural Alaska. The Rural Energy Group works in partnership with the Denali Commission specifically to improve rural area power systems, bulk fuel storage and other alternative means of producing power. They also ensure all communities receiving upgrades have a business plan before new infrastructure projects are funded.

#### **Rural Energy Group**

Alaska has more than 118 stand-alone utilities serving a population of approximately 600,000 people. The Rural Energy Group oversees the following programs: Bulk Fuel (Storage)

Upgrades, Rural Power System Upgrades; Alternative Energy and Energy Efficiency; Power Cost Equalization; Training; and Circuit Rider and Emergency Response.

### **Bulk Fuel (Storage) Upgrades**

Rural Alaska communities typically require bulk fuel tank farms with sufficient storage capacity to meet their need for an entire year. Many existing rural fuel facilities are not in compliance with current codes and pose a significant threat to public safety and the environment. This program provides the financial support, engineering design and project management needed to construct consolidated, code-compliant bulk fuel tank farms. The Alaska Energy Authority has assessed bulk fuel facilities in 171 communities and placed them on a priority list according to need. Using this as a basis for funding and scheduling purposes, the Alaska Energy Authority has completed 56 bulk fuel projects of which three were in cooperation with AVEC. In 2003, 12 Bulk Fuel Upgrade projects were completed in White Mountain, Nikolai, Lime Village, Kokhanok, Igiugig, Golovin, Egegik, Chenega Bay, Buckland, Aleknagik, Alatna and Akhiok.

### **Rural Power System Upgrades (RPSU)**

This program provides for the upgrades of existing worn out diesel generator units, old and hazardous distribution systems and construction of new power generation systems. There have been 182 communities assessed and placed on a priority list for funding purposes. The Alaska Energy Authority is responsible for 116 Rural Power System Upgrade sites of which 6 powerhouses were completed. In 2003, 5 projects were completed, including distribution systems in White Mountain, Golovin and Koyukuk, and powerhouses in Tuluksak and Kotlik. Ten (10) other Rural Power System Upgrade projects were in Phase III of funding/construction, including powerhouse projects in Koyukuk, Golovin, Manokotak, Buckland, Hughes, Arctic Village, Kwigillingok, Kongianak, and Stevens Vilages, and a distribution project in Atmautluak. Additionally, the Allakaket powerhouse is being moved outside the floodplain.

### **Alternative Energy and Energy Efficiency**

The Alternative Energy and Energy Efficiency Program supports projects that increase efficiency of existing diesel power production and provide alternatives to diesel-based energy technology. Currently the program includes forty projects in the areas of energy conservation, biomass fuels, energy storage, fuel cells, geothermal, hydroelectric, wind, interties, and diesel engine heat recovery. Project partners include the Denali Commission, U.S. Department of Energy, national energy laboratories, and local utilities and communities. Accomplishments for 2003 include launching an anemometer loan program for rural wind energy development; performing efficiency audits or retrofits in 14 facilities and 2 communities; and mapping and assessing the state's geothermal resources. Alaska Energy Authority's Alternative Energy and Energy Efficiency section currently manages 42 projects in the areas of hydroelectric, wind, biomass, transmission and distribution, geothermal, solar, and diesel generation and end use efficiency. The primary program objective is to lower the cost of power and heat to communities while maintaining system safety and reliability. Projects seek to increase efficiency of existing diesel power production and end use as well to develop alternatives to diesel-based energy technology.

### **Power Cost Equalization**

The goal of the Power Cost Equalization program is to equalize the cost of power between rural and urban Alaska. However, despite the efforts of the Power Cost Equalization program, rural electric costs continue to be 2-3 times higher than urban energy costs. An endowment fund established in 2002 with the Four Dam Pool sale proceeds and a \$100 million state appropriation

provides long term funding for the Power Cost Equalization program. In fiscal year 2003, 88 utilities serving 184 communities with a population of 79,943 participated in the Power Cost Equalization program.

### **Training Program**

Administered by the Authority and funded by the Denali Commission through the Department of Labor, the program provides training in partnership with Alaska Vocational Training Center in Seward for bulk fuel operators, powerhouse operators and advanced powerhouse operator program. The Authority also offers centralized or regional-based training in collaboration with the Regulatory Commission of Alaska on completing the Power Cost Equalization reports for rural utility clerks. The Authority has also initiated hydroelectric training and assisted Sheldon Jackson College with the advanced course of the Village Management Institute geared toward rural leaders. Additional training is being developed in the areas of bulk fuel management, standardization of utility accounts with the Regulatory Commission of Alaska, and construction skills training on energy projects prior to construction. For fiscal year 2003, 6 individuals participated in the Advanced Powerplant Operator training; 14 in Bulk Fuel Operator Training; 8 in Hydroelectric Plant Operator training; 9 individuals were trained under the Itinerant Bulk Fuel Operator Training, with 4 communities receiving site visits; 13 individuals in the Powerplant Operator training and 19 in Utility Clerk training.

### **Circuit Rider and Emergency Response**

The program assists rural electric utilities in preventive maintenance, on-site operator training, and consultation and emergency response. Normally, the Alaska Energy Authority contracts with private firms to provide such services. Additionally, Alaska Energy Authority is a participating partner in assisting Alaska Department of Emergency Services in emergency or disaster situations. In fiscal year 2003, the Alaska Energy Authority used its appropriation of \$378,337 to respond to 18 community emergencies. Additionally, the Circuit Rider program expended \$100,700 to service 45 communities.

**Set meeting schedules:** February 10 & 11, 2004, Tuesday and Wednesday, 9:30 a.m. – 4 p.m., at the AIDEA/AEA Third Floor, Board Room, 813 W. Northern Lights

**Public comments:** Bob Charles of Calista Corp. asked if he could make a presentation on Calista's Long Term Study at the next meeting.

**Meeting adjourned at 1:20 p.m.**