

ALASKA VILLAGE ELECTRIC COOPERATIVE

Energizing Rural Alaska since 1968



THE COST OF DOING NOTHING

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ANCHORAGE, ALASKA

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About AVEC

2

A non-profit member-owned electric cooperative providing electric service to 56 communities

Population of 30,000 – 4th largest community in Alaska
44% of Alaska's village population

Shageluk	76
Hooper Bay	1,134
Bethel	6,278
Average village:	420

Anchorage	301,134
Juneau	33,064
Fairbanks	32,204



System Information

3

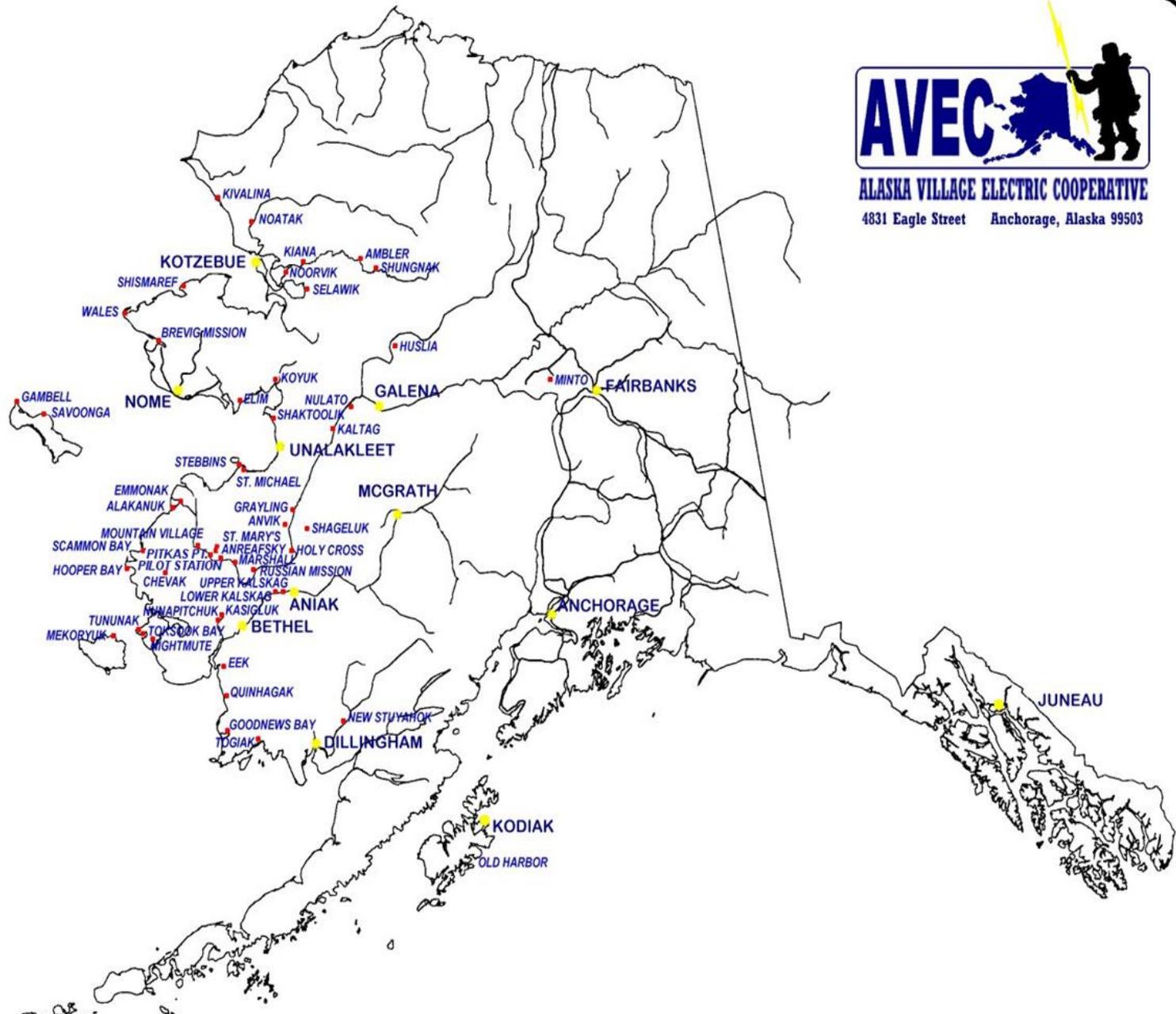
- 90 full time employees
- 95 village plant operators
- 10,800 services
- 49 power plants
- 170+ diesel generators
- 500+ fuel tanks
- 8.5 million gallons of diesel
- 34 wind turbines serving 15 villages
- Two tug and barge sets





ALASKA VILLAGE ELECTRIC COOPERATIVE

4831 Eagle Street Anchorage, Alaska 99503



MAP OF ALASKA VILLAGE ELECTRIC COOPERATIVE VILLAGES

ASSETS

5

Total Utility Plant	144 million
Accumulated Depreciation	80 million
Net Utility Plant	64 million
Other Prop/Investments	7 million
Current Assets	55 million
TOTAL ASSETS	126 million

LIABILITIES

6

Equities	48 million
Long Term Debt	54 million
Current Liabilities	24 million
TOTAL LIABILITIES	126 million

Equities as Percent of Assets 37%

AVEC's 2014 Revenue in millions

7

Total Revenue	53.8
Fuel	31.8
Plant Operations	8.6
Distribution	1.2
Depreciation/Interest	4.0
Customer accounts	1.7
Insurance	1.0
Admin, engineering, etc.	2.8
Margins	3.1

What the Consumer Paid in Cents/kWh

8

Fuel	32.5
Power Production	8.8
Admin and General	3.2
Depreciation	2.9
Consumer Accounts	1.7
Distribution	1.2
Interest	1.1
Taxes	0.5
Margins	3.1
Total	55.0

Our Customer Composition

9

Residential

Customers	7,800
kWh	37,000,000
Fuel	3,150,000 gallons (400/customer)

Commercial

Customers	3,000
kWh	63,000,000
Fuel	5,350,000 gallons (1,800/customer)

Why do we Preach Energy Efficiency?

10

The numbers are staggering!

Weatherization is generally accessible for residential consumers, although it is likely that 30 - 50% are still in need.

The primary unmet need is commercial buildings.

The Estimated Size of the Problem

11

- Community heating fuel ~ 2 – 3 times as much as fuel used for electricity
- Commercial electricity use = 5.35 million gallons
- Heating fuel estimate = 10.7 – 16 million gallons
- 30% EE savings = 3 – 5 million gallons a year

That is only in the 56 AVEC communities
All of rural Alaska = 8 – 13 million gallons
\$48 – 78 million could be saved annually!

What does energy efficiency do?

12

- makes a more comfortable workspace
- extends the life of the building
- creates local employment
- reduces the need for imported diesel fuel
- reduces long term operating costs

Build it right to start with

13

- **Lifecycle cost of a building**
 - Construction is only 30% of its lifecycle cost
 - 20% is repairs and replacements
 - 50% is the cost of operations, primarily heating and cooling
- **Payback from energy efficiency investment**
 - 20% increase in construction cost (6% of life cycle) will yield a 30% decrease in operating costs or a reduction of 15% in life cycle costs
 - Net reduction in life cycle cost = 12%

We can't afford not to do it!

14

We know of the benefits of energy efficiency

But how do we pay for it?

Starting Commercial Energy Audits

15

Awarded \$200,000 USDA Rural Business Enterprise Grant (RBEG) on July 23, 2014

- Covers 42 Commercial Energy Audits
- Available to all 56 communities
- Minimum of 2 per community
- First come, first serve
- 40 grants committed, audits begin Jan. 2015
- If demand >42, will seek more grants

Demand has been disappointing

16

- After five months of promotion, we still have two available slots
- Customers are waiting for free money
- In the meantime they are burning money in excess fuel!

Do it in stages

17

- Invest in a quality energy audit.
- Implement the highest return audit findings
- Reward yourself first then reward the building by going further down the list of recommendations

Just do it!



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