

Energy Efficiency in Southeast



Mid-Session Summit
February 13, 2018

Photo Credit: Tim Leach

Energy Audit Traveling Team Phase I

Public and Private Buildings Audited

Hoonah: 11

Haines: 9

Klawock: 6

Craig: 8

Total: Over 230,000ft²

Implementation Cost of Recommended EEMs: \$382,701

Estimated Annual Savings: \$173,782

Simple Payback: 2.2 years!



Energy Audits of Alaska 

Energy Audit Program Phase II

Businesses & Fishing Vessels (floating businesses)

Funded through U.S. Department of Agriculture,
Alaska Housing Finance Corporation, and the
Sustainable Southeast Partnership – **75% discount**

Implementation Cost of Recommended EEMs: \$1,747,563

Estimated Annual Savings: \$399,887

Simple Payback: 4.4 years



Southeast Energy Audit Application

PART I - FACILITIES INFORMATION

Facility Owner	Building Usage (Purpose)	Building Square Footage
Building Name		Year Built
Team Name		Building Address
		Building City, Zip

PART II - CONTACT INFORMATION

Primary Name	Primary Email	Primary Phone
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PART III - REASONS FOR PARTICIPATION

Please state why you are interested in this energy audit.

PART IV - PLEASE SUBMIT two years of heating (gallo wood) and electric (kWh) use by month. Please also sul

PART V - FUEL DATA RELEASE

This Release of Information expires one year from the s

Hereby signing, I, _____, authorize the Renewable Energy Alaska Project to obtain record of m;

Electric Provider: _____

Electric Member-Account Number(s): _____

Primary Heat (Fuel) Provider: _____

Heat Member-Account Number(s): _____

Secondary (Fuel) Provider: _____

Secondary Member-Account Number(s): _____

Building Size	Cost of Level I Energy Audit	Cost to Building Owner (25%)
Up to 3,000 ft ²	\$600	\$150
Up to 6,000 ft ²	\$900	\$225
Up to 10,000 ft ²	\$1,200	\$300
Up to 20,000 ft ²	\$1,600	\$400
Up to 30,000 ft ²	\$2,100	\$525



Energy Audits of Alaska

Save Energy Expand Business

NEW! Energy Efficiency Leadership Training Program

- Increase Community Capacity – Home Energy Leader is Trained and Paid per Home
- Reduce Residential Energy Costs
- LED Bulk Purchase
- Focus on High Energy Cost Communities with a Goal of 10% of homes

– Hoonah, Yakutat and Metlakatla

Training in Angoon, Kake next?

Contact:

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Next Steps for Energy Efficiency

- Capacity Building through H.E.L.P.
- Partnering with REAP, AHFC, USDA, AEA

Yearly Heat Pump Costs

Calculator only for estimation of heating load capacity and approximate simple payback period.

Givens

Electricity Cost : <input type="text" value="\$0.101"/> per kWh	Fuel Type : <input type="text" value="Oil"/>	
Local Electricity Cost : <input type="text" value="\$ 0.101"/> per kWh	Fuel Cost : <input type="text" value="\$2.67"/> per gal	
Indoor Temperature : <input type="text" value="70"/> °F	Local Fuel Ave: <input type="text" value="\$ 2.67"/> per gal	
Location : <input type="text" value="Ketchikan"/>	Efficiency : <input type="text" value="80%"/>	
Savings Over How Many Years? : <input type="text" value="10"/> Years	Fuel Usage : <input type="text" value="850"/> gal	
Est Install cost: <input type="text" value="\$3,500"/>	Local Fuel Ave: <input type="text" value="850"/> gal	

Estimates

Supplemental Heat Recommended at Ten : <input type="text" value="30"/> °F	Fuel Cost Prior to Heat Pump Install : <input type="text" value="\$2,269.51"/>	
Electricity Usage : <input type="text" value="8300"/> kWh	Electricity Cost : <input type="text" value="\$835.01"/>	
Fuel Usage : <input type="text" value="74.5"/> gal	Fuel Cost : <input type="text" value="\$199.03"/>	
Average COP : <input type="text" value="3.07"/>	\$ Savings per Year : <input type="text" value="\$1,235.47"/>	
CO ₂ Reduction : <input type="text" value="14,220"/> lbs	Payback (in years) : <input type="text" value="2.8"/>	
% CO ₂ Reduction : <input type="text" value="74.58%"/>	10 Years Profit : <input type="text" value="\$8,854.67"/>	
% heating load displacement potential: <input type="text" value="91%"/> Approx. seasonal equivalent: <input type="text" value="\$1.08"/> per gal		

- Final USDA Energy Audits for businesses
- USDA REDA grant application – deploy renewable resources.
- Regional Workshops (hydro, wind, solar in southeast, Anchorage, Fairbanks)
- Air Source Heat Pumps (EE and utilization of surplus hydro).



Thank You!
