

Energy Efficiency Now *It Just makes Cents*

Robert Venables
Energy Coordinator
Southeast Conference



Photo Credit: Tim Leach

Leveraging Assets and Expertise to work together



Energy Audits of Alaska



Collaborating with local utilities, Chambers of Commerce, Industry Trade Groups, Municipalities, Tribes and businesses



Conservation—
Using Less

VS



Efficiency – “Doing
More with Less”

Energy Efficiency Barriers



\$ for energy
upgrades

Program gaps

Small business'
capacity

Lack of efficiency
knowledge



Owner/Payer
disconnect

Energy audit cost



No energy
tracking

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 

Hoonah's Energy Champions

- Water Treatment Plant
- Hoonah Pool
- Hoonah Gym
- City Hall
- Harbor
- City Shop
- Youth Center



“This pic is of the first LED conversion being completed at City Hall! We have 40 fixtures with 120 bulbs that we are changing out to ring in the new year.”

Dennis Gray
City Administrator
City of Hoonah

150 bulbs

22 watt savings / bulb

1,560 hours used / year

\$0.22 / kwh

\$1,133 saved / year (estimate)



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: \$1,031,871

Estimated Annual Savings: \$163,157

Simple Payback: 6.3 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

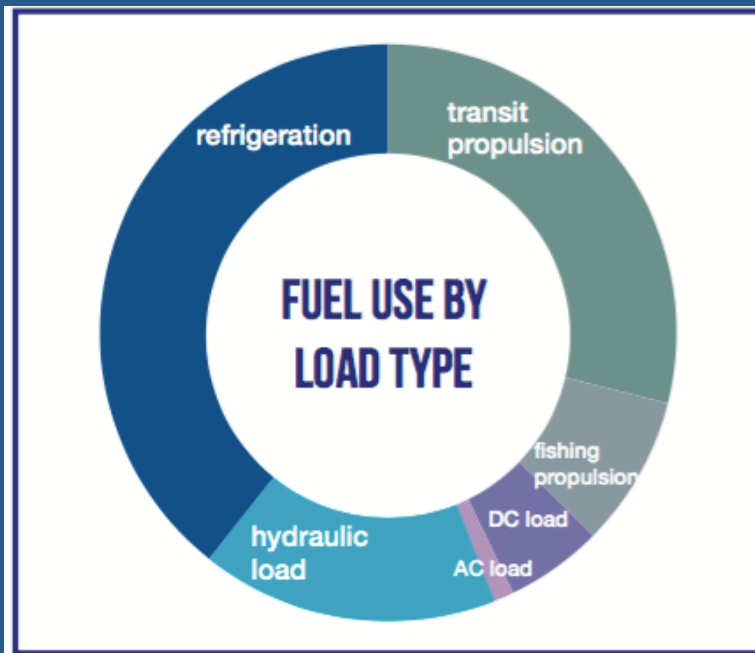


Energy Audits of Alaska

Save Energy Expand Business

New this year – focus on fuel efficiency in fishing vessels!

**Vessel Energy Analysis Tool Available*



a fisherman's guide to FUEL EFFICIENCY

Improving fuel efficiency can help fishermen to save money and reduce their carbon footprint.
HERE'S HOW:

In 2013, the Alaska Fisheries Development Foundation, the Alaska Longline Fishermen's Association, and the Alaska Sea Grant Marine Advisory Program collaborated on a project to conduct energy audits on small Alaska fishing vessels. The energy audits collected baseline data on how much energy various systems on a fishing vessel use and provide context for energy conservation measures.

The information below is based on the Alaska Sea Grant publication "Saving Money with Fishing Vessel Energy Audits", a result of this collaborative project.

GENERAL OPERATION

Adjust your autopilot
Ensure autopilot is tuned to minimize yaw and steer the straightest possible course

Reduce drag
Keep the hull clean by removing marine growth regularly. Minimize underwater appendages such as rolling chocks, transducers, stabilizers, and mounts

Use shore power
When dockside, using shore power is more cost effective than running an onboard diesel generator

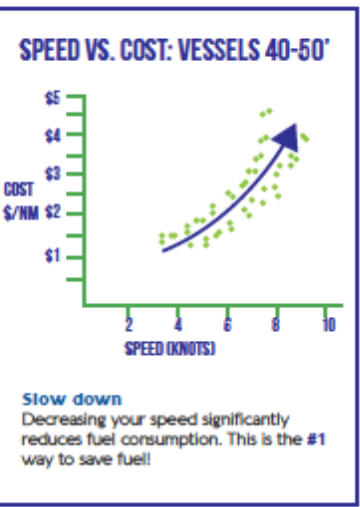
Plan route
Take advantage of tides, currents, and predicted winds to save fuel

ENGINE EFFICIENCY

Check exhaust
Exhaust from a well-maintained diesel engine is almost invisible

Check propulsion
A typical propeller converts only about 50% of horsepower into thrust. Improper sizing or marine growth can make propellers even less efficient

Slow down
Decreasing your speed significantly reduces fuel consumption. This is the #1 way to save fuel!



Use diesel engines fully loaded
Diesel engines are most efficient when providing about 40%-80% of their rated horsepower. At light loads, diesel engines use more fuel/HP

Videos coming soon on www.afdf.org
and www.alfa.org

Practical Ways to Save Fuel

Energy Audit Project 2010-2016

In collaboration with:



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Robert Venables
energy@seconference.org



Thank You!