

# Fishing Vessel Energy Audits

*“Follow the money.  
That’s energy  
management.”*

## Vessels Needed In 2016

### Contacts:

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*During Phase I of AFDF’s Fishing Vessel Energy Efficiency Project, 12 energy audits were completed on Alaska fishing vessels. Similar to home energy audits, the vessel audits collected information regarding energy use on all systems of each vessel. The results of those audits were used to create a model which can be used by other vessel owners to analyze the cost savings of making improvements onboard. The beta-version of this model is called the **Energy Analysis Tool (v1.0)**.*

*In collaboration with the groups listed below, Alaska Fisheries Development Foundation (AFDF) has received a NOAA SK grant to move into Phase II of its Fishing Vessel Energy Efficiency Project to expand the vessel data library. In 2016, additional energy audits will be conducted on commercial fishing vessels, with a particular target of 50-70 foot vessels and seiners.*

**Vessel owners interested in having an energy audit completed during this project should contact AFDF or ALFA (see left).**



*In collaboration with:*



Alaska Fisheries Development Foundation, Inc.



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# Fishing Vessel Energy Audits

A vessel energy audit consists of collecting data on the energy (HP) required to operate various systems onboard the vessel. A trained marine engineer will conduct the audit using fuel flow meters and equipment provided by AFDF. The audit takes about 1 day to complete and participating vessels owners will be asked to install fuel flow meters and turn various equipment on and off at the dock to measure loads. The audit will also include a short sea trial near town to measure the HP required to move the vessel at various hull speeds. Finally, vessel owners may be asked to carry energy measuring equipment on 1-3 fishing trips to measure energy loads under fishing conditions.

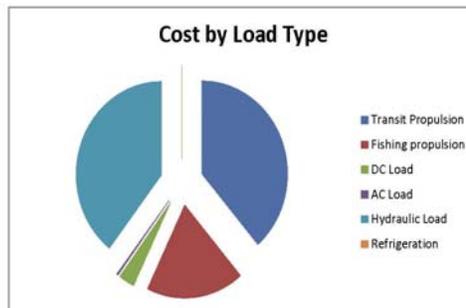
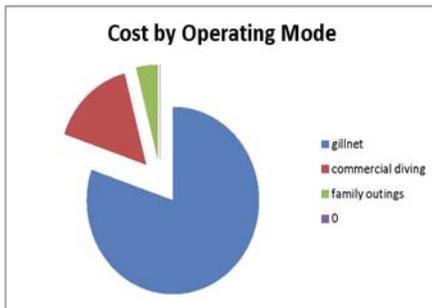
| (Hours)            | 1352       | 147        | 50             | 0     |            |
|--------------------|------------|------------|----------------|-------|------------|
| Total Cost         | gillnet    | commercial | family outings | 0     | Totals     |
| Transit Propulsion | \$3,904.0  | \$2,342.4  | \$585.6        | \$0.0 | \$6,832.0  |
| Fishing propulsion | \$3,112.7  | \$85.7     | \$65.0         | \$0.0 | \$3,263.4  |
| DC Load            | \$365.3    | \$148.5    | \$17.6         | \$0.0 | \$531.3    |
| AC Load            | \$1.8      | \$45.0     | \$3.6          | \$0.0 | \$50.4     |
| Hydraulic Load     | \$6,789.4  | \$153.9    | \$36.5         | \$0.0 | \$6,979.8  |
| Refrigeration      | \$0.0      | \$0.0      | \$0.0          | \$0.0 | \$0.0      |
| Total              | \$14,173.2 | \$2,775.4  | \$708.3        | \$0.0 | \$17,656.9 |

Fuel prices are rising. See how much fuel will cost you in the future by returning to the Vessel Profile tab from the link below and entering a higher fuel cost (\$/gal) in the dark green box.

[Return to Vessel Profile](#)

Participating vessel owners will be presented with a base line profile of how their vessel uses energy and tips on energy saving measures. Vessel owners may also qualify for a \$500 to \$1,000 stipend from AFDF.

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Alaska Longline  
FISHERMEN'S ASSOCIATION