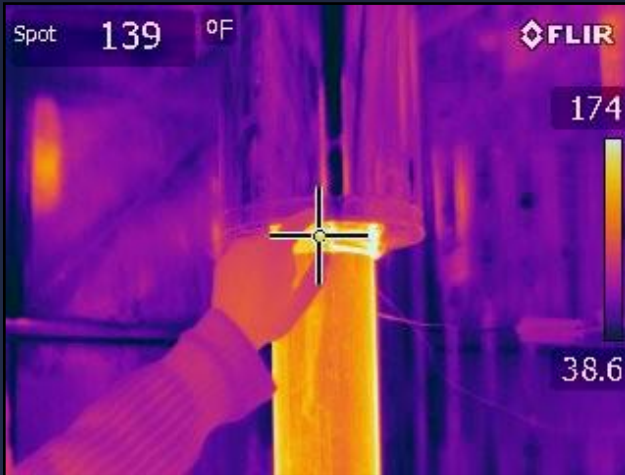




# Emerging Energy Technology Fund



*Testing Safe and Efficient Exhaust Thimble*



# Emerging Energy Technology Fund

“...make grants to eligible applicants for demonstration projects of technologies that have a reasonable expectation to be commercially viable within five years that are designed to:

- test emerging energy technologies or methods of conserving energy;
- improve an existing energy technology; or
- deploy an existing technology that has not previously been demonstrated in Alaska. “



*Arctic Field Testing of Eocycle Wind Turbine*



*Wind-Diesel Battery Hybrid for Kwigillingok*

# Emerging Energy Technology Fund

Energy Technology includes renewables, energy conservation and efficiency, hydrocarbons, enabling technologies and integrated systems.

- (2010) Program Legislation: AS 42.45.375
- Program Regulations: 3 AAC 107.700-799

# EETF: Process

- Two-step review process
  - Project abstracts and full applications
- Project abstracts reviewed by AEA staff and a seven-member advisory committee
  - Evaluated on technical merit
- Priority given to:
  - Alaska entities
  - Projects demonstrating post-secondary partnerships
  - Matching funds or in-kind commitments
  - Demonstration of potential for widespread deployment
- Top-ranking projects invited to submit detailed project applications and deliver presentations to AEA staff and the advisory committee

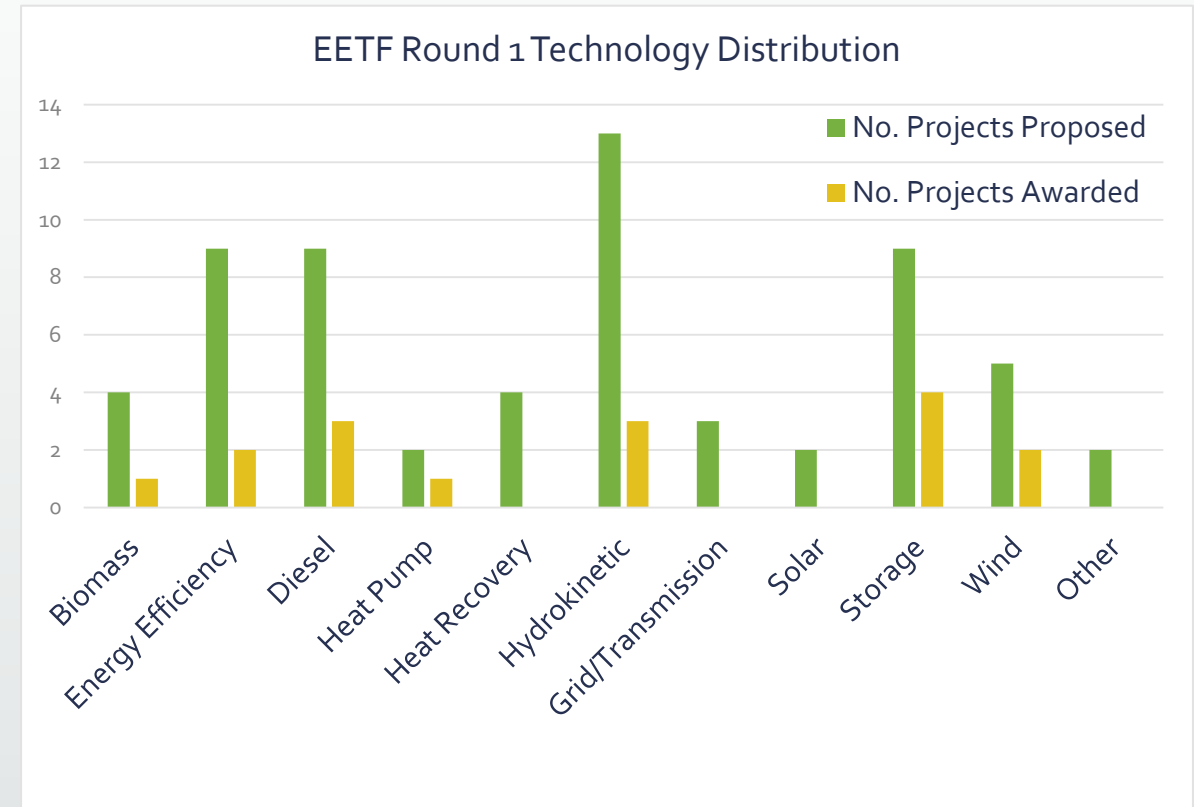
# EETF: Project Awards

## 2012: First round of projects selected and funded

- Funds available: \$8.9 million (through Denali Commission matching grant)
- Projects selected: 16 (15 awarded funding)
- Juneau, Fairbanks, Kodiak, Delta Junction, Nenana, Nikiski, Igiugig, Tuntutuliak, Kwiglingok and Kotzebue

## 2014: Second round of projects selected

- Funds available \$2.4 million
- Projects recommended: six, pending funding
- Expecting award announcement within the month







*Modified '97 Eagle Talon EV Test bed*



*Modified 15 kW Genset*

# EETF: Project Highlight

## Ultra-Efficient Generators and Diesel Electric Propulsion (Kodiak)

- Technology aims to provide more efficient diesel power generation
- Can be used in marine propulsion and stationary powerhouses
- Power dense motor and inverter/controller invented by operators of a machining and fabricating shop in Kodiak
- Commercial availability anticipated at project's end



*Installation of Slinky Loop*



*Installed 6-ton Heat Pump*

# EETF: Project Highlight

## Cold Climate Heat Pump Demonstration (Fairbanks)

- Cold Climate Housing Research Center demonstrating the potential for ground source heat pumps as an efficient and economic heat source in colder climates
- Different ground surface treatments are applied to compare effects on the loop field
- Next phase is data collection

# AKEnergyAuthority.org

