

Alaska Energy Authority

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Rural Energy Conference
Emerging Energy Technology Fund's Findings and Next Steps
April 28, 2016

ACEP hydrokinetic test facility



Emerging Energy Technology Fund Mission

Demonstrate energy technologies that have a reasonable expectation of commercial viability within five years.

Emerging Energy Technology Fund Eligibility

- Test emerging energy technologies or methods of conserving energy
- Improve an existing technology
- Deploy an existing technology that has not previously been demonstrated in the state



Arctic Shutters and Doors Project

AEA Site Visit Photo

Emerging Energy Technology Fund Highlights



Hatch Flywheel Project

AEA Site Visit Photo

Project	Project Lead
Air Source Heat Pump Potential in Alaska	Cold Climate Housing Research Center
Application of Composite Flywheels	Hatch
Arctic Field Testing the Eocycle 25/12 Wind Turbine	Northwest Arctic Borough
Arctic Thermal Shutters & Doors	Arctic Sun, LLC
Biomass Reforestation for Boreal Forests	Alaska Division of Forestry
BRI Cyclo-Turbine Hydrokinetic Demonstration	Boschma Research, Inc.
Cold Climate Heat Pump Demonstration	Cold Climate Housing Research Center
Enhanced Condensation for Organic Rankine Cycle	UAF – Inst. of Northern Engineering
High Capacity Airborne Wind Turbine	Altaeros Energies, Inc.
High Efficiency Diesel Electric Generator Set	Marsh Creek
Multi-Stage Energy Storage System	Chugach Electric Association
Oceana In-Stream Hydrokinetic Demonstration	Oceana Energy Company
RivGen Power System Hydrokinetic Demonstration	Ocean Renewable Power Company
Safe and Efficient Exhaust Thimble	UAF – Inst. of Northern Engineering
Small Community Self-Regulating Grid	Intelligent Energy Systems
St Paul Flywheel Demonstration	TDX Power
Trans-Critical CO ₂ Heat Pump System	Alaska SeaLife Center
Ultra-Efficient Generators and Diesel-Electric Propulsion	Genesis Machining & Fabrication
Wind-Diesel Battery Hybrid for Kwigillingok	Intelligent Energy Systems

Emerging Energy Technology Round 3

- RFA tentatively scheduled for July 1, 2016
- Approximately \$1 Million available
- Includes a Department of Energy contribution of \$250,000
- Intent to prioritize Microgrid and Microgrid Enabling Technologies



TDX St. Paul Flywheel Project

AEA Site Visit Photo

Q&A



The Bullet Points

- EETF demonstrates developing energy projects
- Over \$15 Million invested in the Program
- 19 projects awarded funding with 8 completed
- EETF Round 3 RFA tentatively scheduled for July 1, 2016

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