Financing Energy Projects in Rural Alaska

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AEA’s mission is to reduce the cost of energy in Alaska
AEA takes a community-centered approach with:

- Technical assistance
- Energy planning
- Resource assessment
- Project identification
- Funding
- Training
- O&M

Perryville, AK
Assistance with project development, financing, and long-term management of energy infrastructure

- Diesel powerhouses
- Heat Recovery
- Bulk Fuel
- Power Cost Equalization
- RE (wind, bio, hydro, solar)
- End-use efficiency
Alaska Energy Authority invests in rural Alaska

$257 million in Renewable Energy Fund since 2008

$11 million in Emerging Energy Technology Fund since 2010

Kodiak, AK
Alaska Energy Authority invests in rural Alaska

$350 million in Bulk Fuel Upgrades since 2000

$250 million in Rural Powerhouse Upgrades since 2000
Alaska: by the numbers

740,000 People
660,000 Sq. Miles
200 Remote Microgrids
Railbelt
72% of Pop
76% of Energy
(Natural Gas)

Southeast
10% of Pop
13% of Energy

Rest of AK
18% of Pop
11% of Energy
Rural AK pays a high cost of energy

NOTICE
New Fuel Prices
Gas= $7.50 per gallon
2 Cycle Oil= $7.50
Motor Oil= $6.75
Deisel= $8.50 per gallon
Propane= $300 per tank

Venetie, AK (energy prices from 1/5/17)
Rural infrastructure
Rural infrastructure
Diesel is primary power in 90% of rural Alaska

Shaktoolik, AK
Integrating renewables
What works elsewhere doesn’t necessarily work here

Sand Point, AK
The future points to dynamic project funding

Need remains constant

Yet availability of public funding to help meet that need is decreasing
AEA’s Project Development & Finance Team

• First point of contact for accessing the full breadth of AEA’s technology, project management and financing expertise
• Identifying good projects, building on planning and technical assistance
• Assisting communities in navigating complex systems, e.g. federal funding requirements, regulatory, permitting, etc.
• Identifying and accessing funding options for utilities and communities
Technical Assistance – Identifying Good Projects

Critical Technology Areas
- End-use Efficiency
- Hydro
- Biomass
- Wind
- Heat Recovery
- Diesel generation/integration

Evaluating Options
- Resource assessment
- Comparing technologies
- Energy planning and coordination
- Utility/customers/community impacts
- Project implementation management
Technical Assistance – Accessing Funding

External to Utility Funds
- Research grant opportunities
- Assist with grant application development
- Research loan opportunities
- Assist with loan application development
- Administer PPF program

Internal to Utility Funds
- Reporting to optimize PCE
- Rate setting to cover all costs
- Evaluation of project financial impacts
- Utility business practice to improve financial health
The Power Project Fund Loan Program

- Flexible loan program
- Covers all aspects of supply side system
- Available for all project dev. phases
- Technical, economic and finance viability
- Increased interest and activity recently
- Anticipate activity will continue to grow
What we know about rural community financing needs:

1. Alaska’s small, isolated communities bring many challenges to project development
2. Access to financing is not the primary barrier for projects, though it is a significant one
3. Communities need more than just “green” energy projects
4. Alaska’s regulatory environment offers few requirements or incentives to spur private investments
5. There is no effective financing model to capitalize on the significant opportunity for cost reduction through efficiency improvements
Alaska Affordable Energy Strategy Recommendation:

Community Energy Fund for Alaska (CEFA)

- Focus initially on community-scale financing needs
- Use existing resources to create “Energy Investment Partnerships”
  - State: Power Project Loan Fund, Alaska Housing Finance Corporation, PCE, other loans/grants
  - Denali Commission and other granting entities
  - Other financial institutions: CDFIs, banks, credit unions, USDA
- One-stop-shop: The state would take on administrative responsibility, some credit risk, and provide incentives, e.g. loan guarantees and loan-loss reserves from state or non-state sources
- Use grants as incentives and to mitigate rate shock
- Reduces, but does not eliminate, long-term subsidy and capital grants
CEFA Phase 1: Set up loan & agreements
CEFA Phase 2: Initial payback of loan
CEFA Phase 3: Recapitalize loan fund

Financial Institution

Granting entity

State (PPF)

Guarantee

Enhanced interest rate

Sell part of loan
Benefits of central mixed financing

- Reduce need for state grants
- Leverage non-state funds more effectively
- Create direct and indirect incentives for improving infrastructure maintenance
- Ensure minimal impact on rates
- Potential to expand into other markets
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AEA’s mission: Reduce the cost of energy in Alaska.