

3/24/11

Overview: RurAL
CAP's Energy
Wise Program to
Reduce Energy
Costs

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Energy Wise Program to Reduce Energy
Costs</SUBJECT><COMM>HENE27</COMM></TARGET>

Rural Alaska Community Action Program, Inc.'s

Energy **W** **ise** Program



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Rural Alaska Community Action Program, Inc.'s

Energy **W**ise Program

Energy Wise is a comprehensive residential energy efficiency and conservation education program.

- RurAL CAP works in partnership with local communities to reduce the burden of high energy costs.



Rural Alaska Community Action Program, Inc.'s

Energy Wise Program

- **Reduces** energy consumption, **saves** money
 - Household assessment of energy use
 - Identification of best savings options
 - Low-cost home upgrades
 - **Saves PCE**
 - **Creates jobs** for rural Alaskans
 - Hire and train locally
 - Professional development and certification
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PROVEN RESULTS

- **99% of households participate**
 - **80%+ report maintaining changes, lower bills, warmer homes**
 - Residents save:
 - \$20/month in electricity = \$240/year
 - State saves - PCE reduction:
 - \$39/month = \$468/year
 - Project cost is \$2,000/home:
 - Annual savings = \$708/year
 - Return on Investment = less than 3 years in electrical savings alone
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REDUCING THE ENERGY BURDEN

CAPSIS request for \$20M for conducting Energy Wise across Alaska

- Energy Wise is a tested and proven initiative with immediate and long-term results
 - Energy Wise can provide immediate relief to communities outside the Railbelt with few other options
 - RurAL CAP is committed to reducing the energy burden for Alaskans while creating healthy economies and sustainable communities
 - Regional and local requests for expansion
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OPERATIONAL PLAN FOR \$20M

- 5 year plan, \$4M per year
 - \$2,000 per home, 2,000 homes per year
 - 150 rural Alaskans employed per year
 - Competitive selection process will evaluate
 - Energy burden and resources
 - Economic stress
 - Efficiency considerations: population size and geographic dispersion
 - Community and regional organization buy-in, commitment of available resources, and support
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COLLABORATIVE EFFORT WITH STATE ENERGY PARTNERS

Designed and implemented in partnership with:

- Alaska Housing Finance Corporation
 - Alaska Energy Authority
 - Weatherization Service Providers
 - Housing Authorities
 - Department of Energy
 - Denali Commission
 - Department of Labor
 - Regional and community organizations
 - Utilities
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COMPLEMENTS WEATHERIZATION

- Prioritizes communities not recently served or scheduled to be served by Weatherization
- Focuses on immediate improvements for energy savings and education
- Residents are involved in assessing energy use and making changes in their homes
- Engages the entire community, all homes eligible



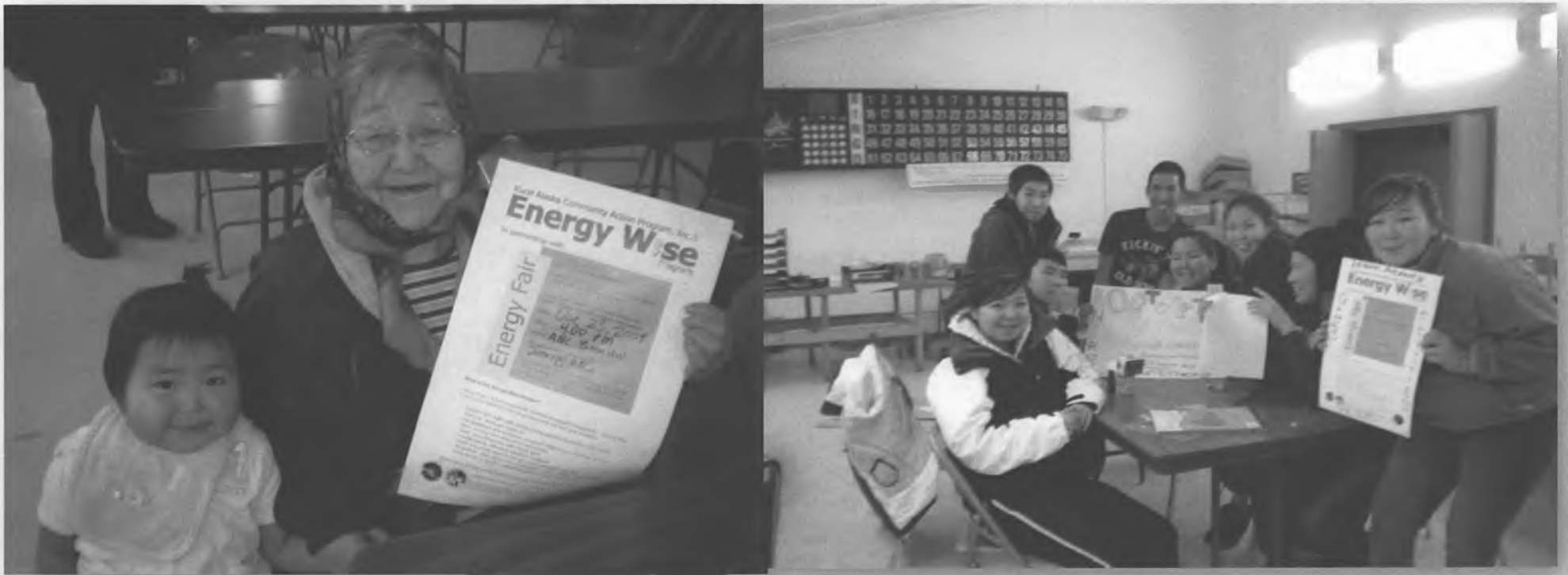
EFFECTIVE PROGRAM DESIGN

- Community Partnership
- Message Delivered by Local Crews
 - 4- 10 hired per community, 6-12 weeks
 - Professional training and certification



EFFECTIVE PROGRAM DESIGN

- Energy Fair
 - Engages entire community
 - Residents sign-up for home assessment



EFFECTIVE PROGRAM DESIGN

- Home Visits - Energy Assessments
 - 2 crew members, 1 full day (8 hours) per home
 - Residential survey
 - Residents participate in finding where energy is used and how to save
 - Review energy bills and potential savings
 - \$300 of energy efficiency supplies installed



HOME VISIT



Crews Show Residents How to Save Energy and Money

\$300 IN ENERGY EFFICIENCY SUPPLIES



- ❑ Window insulation film
- ❑ Compact fluorescent lights
- ❑ Silicone and foam spray
- ❑ Weather stripping
- ❑ Jamb-up door kit and door sweep
- ❑ Foam tape and mounting tape
- ❑ Pipe insulation
- ❑ Faucet aerators, soap-up valve and low-flow shower heads
- ❑ Power strips with surge protectors
- ❑ Hygrometers
- ❑ Refrigerator thermometer and coil cleaners
- ❑ Outlet and light switch insulators, plug protectors
- ❑ Water heater blanket
- ❑ Fire alarm, extinguisher, and carbon monoxide detector

ENERGY HOME VISITS



Insulating outlets and switches

Installing
water heater
blankets and
teaching
maintenance



Applying
window
film



Installing
door sweep
and
weather-
stripping



EFFECTIVE PROGRAM DESIGN

- Follow-Up Education and Survey
 - 3 to 6 months after home assessment



2010 ENERGY WISE RESULTS

- 120 rural Alaskans trained and employed
- 90% retention of crews
- 1,000 homes served
- 7,500 educated
- \$\$\$ energy and money saved



2010 OUTCOMES – SUSTAINED CHANGE

Based on 700 follow-up home surveys:

- 86% reported they were still practicing energy efficiency and conservation measures
- 82% reported decreased home heating costs
- 80% reported decreased electric bills



KASIGLUK CASE STUDY

2010 AVERAGE MONTHLY ELECTRICAL SAVINGS

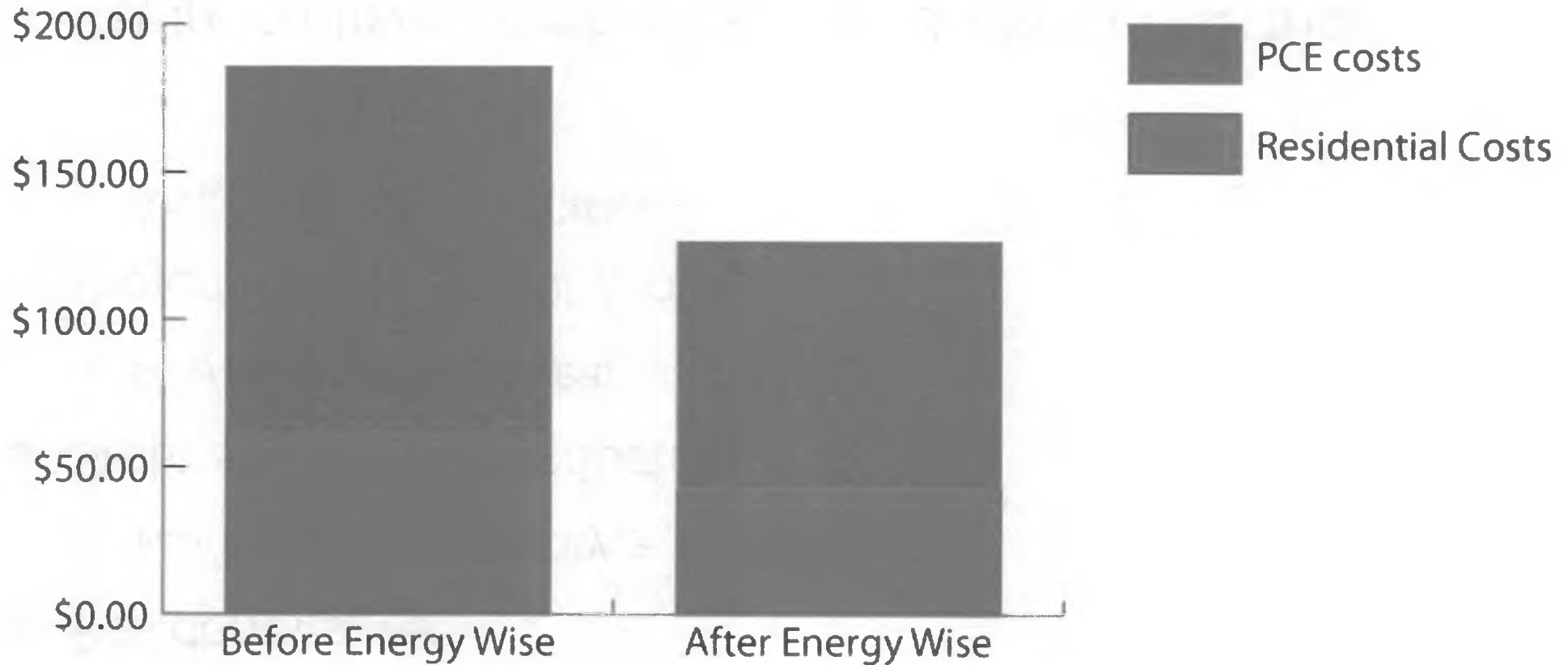
- Before Energy Wise:
 - \$186 = 287 kWh/month
 - \$63 paid by resident
 - \$123 covered by PCE
- After Energy Wise:
 - \$127 = 197 kWh/month
 - \$43 by resident = **\$20 savings**
 - \$84 by PCE = **\$39 savings**

After Energy Wise:

- **90 kWh/month reduction**
 - **\$59 savings in resident and PCE electricity costs**
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KASIGLUK

2010 AVERAGE MONTHLY ELECTRICAL SAVINGS*



*Evaluation compiled by independent evaluator with AVEC data for Kasigluk 2009-2010; Energy Wise data reviewed by ISER

RETURN ON INVESTMENT BASED ON KASIGLUK STUDY

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ENERGY WISE BUDGET BREAKDOWN

\$2,000/HOME

Energy Wise Budget Breakdown



Communities Receive:

- Up to 10 locally hired crew members employed for 8-12 weeks, receiving Weatherization Tech I certification
- On site 'Launch Week' for hiring and training local crews
- Energy Fair engaging residents, schools and organizations
- Homes receive:
 - Full day home visit from a trained, locally hired crew
 - Household energy/kilowatt consumption and cost assessment conducted with the resident
 - Education on energy cost-saving strategies
 - Home energy efficiency supplies installed (\$300 value)
 - Follow-up visit and survey about project results by crew member 2-3 months after initial home visit

NANA - ENERGY WISE 2011-12 PARTNERS

- NANA Regional Corporation
 - Community Partners
 - Northwest Arctic Borough
 - Northwest Inupiat Housing Authority
 - Denali Commission/Department of Labor
 - U.S. Department of Energy, NREL
 - Alaska Works Partnership
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NANA - ENERGY WISE

2011-12 Outcomes

- 6 communities served: Ambler, Buckland, Kivalina, Noatak, Noorvik, and Shungnak
 - 42 crew members received professional certification
 - 50 crew members trained in energy efficiency and conservation techniques and community education
 - 530 home visits; 99% participation rate
 - Over 2,000 people received energy efficiency and conservation education and resources
 - Energy bill savings
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2011-12 OUTCOMES – SUSTAINED CHANGE

Results in NANA communities:

- Average electric bill the month before Energy Wise was \$312
- Average savings on electrical bill after the Energy Wise visit was \$35
- 82% reported that their homes felt warmer





Rural Alaska Community Action Program, Inc.'s
Energy Wise 
Program

Healthy People, Sustainable Communities, Vibrant Cultures

For more information, contact:

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