

BBNA Tribal Energy Efficiency & Conservation Block Grant Program

Administered by Alaska Building Science Network

Levelock Final Report



Community Summary

Two (2) community buildings owned by the Levelock Village Council received energy efficient weatherization upgrades:

Council Office
Rainbow Hall

Retrofits Completed: August 2012

Village-Wide Energy Efficient Weatherization Retrofit Summary:

Total Building Savings All Measures:

• Projected Annual Electrical Savings (kWh):	187
• Projected Annual Electrical Cost Savings:	\$60 ¹
• Projected Annual Fuel Savings (gallons):	1,174
• Projected Annual Heating Fuel Cost Savings:	\$7,396 ²
• Total Projected Annual Energy Cost Savings:	\$7,456
• Total village wide In-kind contribution:	\$1,386
• Total project cost including In-kind contributions:	\$34,713
• Simple Payback (including In-kind contributions):	4.66 years

¹ kWh Rate [used to calculate electrical cost savings] for Weatherization & Heating Measures (AkWarm Library): \$0.32

² #2 Heating Fuel Rate [used to calculate heating fuel savings] (AkWarm Library): \$6.30/gal

Council Office

Weatherization Retrofit Summary:



Materials Installed

Caulk, air seal and insulate with spray foam to reduce air leakage

Replaced 2 existing man doors with standard pre-hung U-0.16 insulated doors

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|---|--------------------------------|
| • Pre-retrofit energy use: | 1,896 gallons / 635 kWh |
| • Post-retrofit energy use: | 1,336 gallons / 448 kWh |
| • Annual energy savings projection: | 560 gallons / 187 kWh |
| • Pre-retrofit to post retrofit energy reduction: | 42% (Fuel) / 29% (Electricity) |
| • Estimated Annual Electrical Cost Savings: | \$60.00 |
| • Estimated Annual Heating Fuel Cost Savings: | \$3,528.00 |

Rainbow Hall

Weatherization Retrofit Summary:



Materials Installed

Caulk and seal to reduce air leakage

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|---|----------------|
| • Pre-retrofit energy use: | 2,641 gallons |
| • Post-retrofit energy use: | 2,027 gallons |
| • Annual energy savings projection: | 614 gallons |
| • Pre-retrofit to post retrofit energy reduction: | 23 percent |
| • Estimated Annual Heating Fuel Cost Savings: | \$3,868 |