Tribal Housing Weatherization Initiative Pilot Project
Building Design

“Whole Buildings” Strategy:
Existing R&D programs, building technologies, and components tied together by Systems Integration and Computerized Design Tools.

Passive Solar Strategies
Siting and orientation, glazing size and location, and shading strategies contribute to a passive solar, or “climate-responsive,” building.

Advanced Technologies
Energy-saving appliances, advanced energy controls and thermostats, efficient heating and cooling systems, photovoltaics, and solar water heating systems.

Energy-Efficient Materials
Superior building materials, including high-efficiency windows, insulation, brick, concrete masonry, and interior finish products.

Cross Section of House Facing South
Typical Residential Energy Use Profile

- Lighting: 6%
- Refrigerator: 9%
- Cooking: 4%
- Space Heating: 30%
- Space Cooling: 9%
- Water Heating: 15%

~45-50% of home energy consumption is typically:
- Natural Gas
- Propane
- Heating Oil

Other appliance and receptacle loads including TV, dryers, washers, and small appliances: 27%
7 Generations Span The Age of Oil

Our Grand Parents

Our Parents

Our Generation

Our Children

Our Grand Children

Our Great Grand Children

Our Great-Great Grand Children

Peak Oil Graph from: ASPO.com - Colin Campbell 2004
U.S. Energy Consumption
by source - 1850-2000

Council of Energy Resource Tribes

- Cooperative Agreement
- CERT Energy Audits
- 7 Tribes 5 climates
- Tribal buildings, facilities, industry, homes
- Professional Wx experts

www.CERTRedEarth.com
General Findings

- Not built with EE in mind
- Fixes may not require $$$
- Energy waste provides a large opportunity to save
- Start Tribal building codes
Inadequate Insulation
Controls
Energy Efficiency Options

**Energy Star Appliances**

- **Refrigerators** – Half as much energy
- **Clothes Washers** – Save up to $110 per year
- **Oil & Gas Boilers** – Save up to 10%
- **Programmable Thermostats** – Save up to $100 per year

**Efficient Lighting**

If every American changed out 5 lights, we’d save $6 billion/year and the equivalent of 21 power plants.
Opportunity

Build Tribal Capacity

Create Savings

Enhance Tribal Sovereignty

Improve Comfort Health & Safety
Federal Programs Overview

- US Dept. of Housing and Urban Development
  - Office of Native American Programs (ONAP)
- US Dept. of Interior - Bureau of Indian Affairs
  - Home Improvement Program
- US Dept. of Energy
  - Weatherization Assistance Program
- US Dept. of Health and Human Services
  - Low Income Home Energy Assistance Program (LIHEAP)
- US Dept. of Agriculture
  - USDA Rural Development Section 9006
HUD - Office of Native American Programs (ONAP) (a.k.a. NAHASDA)

- Ensure safe, decent and affordable & energy efficient housing to Native American families
- Create economic opportunities for Tribes and Indian housing residents
- Assist Tribes in the formulation of plans and strategies for community development
- Assure fiscal integrity in the operation of programs.
Energy Policy Act (EPAct) of 2005

Title V – Indian Energy
- Other Authorities
  - Energy Efficiency in Federally Assisted Housing (Section 506)
    (a) In General – The Secretary of Housing and Urban Development **shall**
    promote energy conservation in housing that is located on
    **Indian land** and assisted with Federal resources through –
    (1) **The use of energy-efficiency technologies and innovations**
        (including the procurement of energy-efficient refrigerators
        and other appliances)
    (2) **The promotion of shared savings contracts**; and
    (3) The use and implementation of such similar technologies and
        innovations the Secretary of Housing and Urban Development
        considers appropriate
    
    (b) **AMENDMENT** – Section 202(2) of the Native American Housing and
        **Self-Determination Act of 1996 (25 U.S.C. 4132(2)) is amended by**
        inserting “improvement to achieve greater energy efficiency,”
        after “planning”.


US Dept of Housing and Urban Development (HUD)

Office of Native American Programs (ONAP) with 6 Regional Offices

Discretionary Competitive Block Grants

Formula Block Grants
HUD ONAP

• **Discretionary Funds - SuperNOFA**
  Indian Community Development Block Grant (ICDBG) Program
  – FY 2006 funding: $8 M to Northern Plains
  – FY 2006 cycle ended May 31

• **Key Phrases:**
  – 70% of $$ go directly to “low and moderate income” persons
  – Leveraged resources
  – Measurable outcomes and outputs
  – Economic development including microenterprises (≤5 people) (ESCO startup?)
  – Public facilities
  – Housing rehabilitation per-unit limit of $50K in NP region
  – Assistance to Community Based Development Organizations
  – Energy conservation
  – Comprehensive planning
  – Energy efficiency
HUD ONAP

• Formula Grants – Indian Housing Block Grants (IHBG)
  – $ go to Tribally Designated Housing Entity (TDHE)
  – Annual Indian Housing Plan (IHP)
  – Annual Performance Report (APR)

• Key Phrases
  – Five Year Housing Plan
  – One Year Housing Plan
BIA Housing Improvement Program

- **Objective:** to provide safe, decent and sanitary housing to **very low income families** with an emphasis on elderly and disabled families who have no other resource.

**Types of Assistance:**
- Provide Housing Assistance that **improves energy efficiency** in renovation projects.
- Provide Housing Assistance that replaces dilapidated dwellings.
- Provides Housing Assistance for new construction.
BIA Housing Improvement Program

Dept of Interior – Bureau of Indian Affairs

Office of Tribal Services

BIA Regional Offices (12)
Great Plains & Rocky Mountain

Renovation of houses to “standard condition”
New house building
BIA - HIP

Funding based on annual appropriation
2006 -- $22.2 Million

Application and Funding Sequence

1. Eligible Applicant data due to Regional Office (RO) -- August 1

2. RO Summary due to Central Housing Office -- September 1

3. Central Office Notice to RO of Funds available 15 days following appropriation

4. RO Notice to Central Office of Tribal Distribution Amounts in Region - within 30 days of funds available for Distribution within Region

5. Central Office -- Tribal Services provides notice to Budget Office of amounts to be distributed to ROs Office of Self-Governance -- within 15 days of notice of distribution amounts from RO
DOE
Weatherization Assistance Program

• Goal: “To reduce energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring their health and safety”

• Eligibility includes: “Elderly, people with disabilities, families with children, and those with high energy burden, in all types of housing—single family, mobile homes, and multi-family buildings; owners and renters.”
DOE – Weatherization

DOE Headquarters

Project Management Office
Golden, CO; Pittsburgh, PA; Morgantown, VA

50 State Offices, DC, Navajo & ITCA

~920 Local Agencies (sub-grantees)

Low Income Residents
Weatherization Assistance Program

Contacts

DOE - Golden Field Office
1617 Cole Boulevard
Golden, CO 80401

DOE Weatherization Project Managers

Carole Gates
303-275-4848

Rob DeSoto
303-275-4843
Low Income Home Energy Assistance Program

- Federally-funded program that helps low-income households with their home energy bills.

- 3 Assistance Types based on income:
  - Bill payment assistance.
  - Energy crisis assistance.
  - Weatherization and energy-related home repairs.
HHS - LIHEAP

HHS – Administration for Children & Families

Office of Community Services, Division of Energy Assistance

States

State LIHEAP Administering Agency

Tribes

Tribal Organization Serving the Individuals

20 of 35 ONAP-NP Tribes have a LIHEAP Administrator
LIHEAP Funding Formula

• Formula grant based on number of low-income households in State or Tribe
• “Low Income” established by Social Security Act statutes, US Code Title 38 Veterans’ Benefits, or up to 150% of State poverty level.
LIHEAP Weatherization Provisions

- **Up to 5% of funds to provide services** that encourage and enable households to reduce their home energy needs, and thereby the need for energy assistance, including needs assessments (audits), counseling, and assistance with vendors.

- **Up to 15% of funds for residential weatherization** or other energy-related home repair.

- **Up to 25% of funds** for weatherization or energy-related home repair, with a one-year HHS waiver.
USDA – Rural Development
Eligibility Requirements

• **Rural** -- Any area without an urbanized area (>50,000 inhabitants) nearby.

• **Small business** - Must be either:
  • A *private entity* including a sole proprietorship, partnership, corporation, cooperative, or
  • An *electric utility* including a Tribal or Governmental Electric Utility that provides service to rural consumers on a cost-of-service basis without support from public funds or subsidy from the Government authority establishing the district. *These entities must operate independent of direct Government control.*

• **Demonstrated financial need** -- if applying for a grant, the applicant must demonstrate that it is unable to finance the project from its own and commercially available resources without grant assistance, or that the project proposed by the applicant cannot achieve the income and cash-flows to sustain it financially over the long term without grant assistance.
USDA – Rural Development
Farm Bill – Section 9006

- Applicants may qualify for a grant, a guaranteed loan, or a combination of both.
- Grant request must not exceed 25 percent of the eligible project costs. Energy efficiency grants can range from $1,500 to $250,000.
- Projects under $200,000 total project costs qualify for a simplified application process.
- Loan guarantees can be for up to 50% of total eligible project costs. Guarantees can range from $5,000 to $10,000,000 per project.
- Projects can qualify for combined grant and loan guarantee, but the grant portion is still subject to the above limits and combined funding assistance cannot exceed 50% of total eligible project costs.
# Section 9006 Funding Activity FY 03 thru 05

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Figure B
When you go home, build some internal bridges with your Housing Department

Encourage development of a Tribe-wide strategic energy plan

Put Tribal energy security on the radar screen at the Tribal Council

Add food security into the discussions
The Community Energy Development Challenge

General Council

Tribal Council

Legal
- Sovereignty, Codes & Standards, Contracts, Legal Authority

Environment
- Earth, Air, Water, Parks, Open Space, Wildlife & Plants

Financing
- Local Resources, Federal Grants, "Green Tag" Sales, Partnerships

You Are Here

Community Energy Use & Growth
- Residential, Commercial, Industrial Loads

Technology
- Energy Resources, Technology Options

Power Markets
- On-Site Energy Displacement, Merchant Power Sales, "Green Tag" Sales

Strategic Plan
- Projects

You Are Here