



## Public Housing Energy Conservation Clearinghouse News

### August 2006

This monthly e-mail update is brought to you by HUD's Public Housing Energy Conservation Clearinghouse (PHECC). It features news and resources to help public housing authorities manage energy and water costs. To see past issues of this newsletter, and to access more information and tools for public housing authorities, visit the Public Housing Energy Conservation Clearinghouse Website at <http://www.hud.gov/offices/pih/programs/ph/phecc/>.

To contact the Public Housing Energy Conservation Clearinghouse email [pheccinfo@drintl.com](mailto:pheccinfo@drintl.com) or call 1-800-955-2232.

### News:

- A Tool for Tribes and TDHES: Use ENERGY STAR to Boost Energy Efficiency
- Energy Audits Can Identify Inefficiency in American Indian/Alaska Native Housing Stock

### Events:

- Indian Energy Solutions 2006. *August 7-9, 2006. Mt. Pleasant, MI.*
- Wind Energy Applications and Training Symposium (WEATS). *August 8-11, 2006. Boulder, CO.*
- Southwest Region Mold and Moisture Training. *September 12-13, 2006. Reno, NV.*

### Success Stories:

- Hopi Nation Demonstrates Feasibility of Straw Bale Home

### Energy Watch:

- Drought and Heat Test Electrical Power Systems

### Websites Worth a Click:

- Tribal LIHEAP Manual
- Wind Development in American Indian and Alaska Native Communities

## A Tool for Tribes and TDHEs: Use ENERGY STAR to Boost Energy Efficiency

Tribally Designated Housing Entities (TDHEs) and tribes can incorporate [ENERGY STAR](#) qualified products and practices when undertaking rehabilitation, repair, and replacement projects. ENERGY STAR qualified products and practices will lower utility bills, improve comfort for residents, increase project value, and help the environment.

Tax credits for energy-efficient products and whole-house efficiency are available because of the [Energy Policy Act of 2005](#). [New homes](#) that reduce heating and cooling energy use by 50 percent over the national model code are eligible for a \$2,000 tax credit. [Existing homes](#) are eligible for credits of 10 percent of the cost of approved energy efficiency improvements. Many ENERGY STAR products qualify for these credits.

To incorporate energy savings into rehab, repair, and replacement projects, specify ENERGY STAR qualified products when negotiating for materials. ENERGY STAR product categories include:

- [Heating and cooling](#)
- [Lighting](#)
- [Appliances](#)
- [Roof products](#)
- [Windows and doors](#)
- [Home sealing](#)



Use ENERGY STAR's [procurement resources](#) and new [online bulk purchasing tool](#) to guarantee the most efficient use of your available funds. And be sure to check if the products you need are eligible for [rebates](#) or [tax breaks](#).

## Energy Audits Can Identify Inefficiency in American Indian/Alaska Native Housing Stock

High energy costs often result from poor construction, poor insulation, and high occupancy. In most cases, detailed energy audits, energy bills, and discussions with residents will reveal important information that will help you prioritize the retrofit measures you need to improve efficiency, comfort, and safety. Check HUD's [Energy Efficiency Rehab Advisor](#) to easily find out what it takes – and how fast it pays back – to incorporate energy efficiency into any rehab or remodeling project.



Small holes in ductwork make HVAC systems work harder.

Photo: AffordableComfort.org

## Air Sealing

Seal air leaks to reduce infiltration of exterior air and moisture and the escape of conditioned air to the exterior. Repairing or replacing non-working fans and fireplace dampers will also correct significant leaks. An infrared sensor will help reveal leaks and indicate where more insulation is needed.

## Insulation

Adding [insulation](#) to under-insulated attics improves comfort throughout the home in both summer and winter and usually has a rapid payback. Be sure to insulate to a [level](#) appropriate for your climate.

### Fighting Mold and Moisture

When present in large numbers, mold spores can cause allergic reactions, asthma episodes, infections, and other respiratory problems. Download HUD's new Webcast, [Mold in Native American Housing](#), and learn how residents and professionals can combat this growing problem.

See EVENTS for additional training opportunities.

### Ventilation

Older gas-fired furnaces and ovens can produce unhealthy levels of carbon monoxide. Test and repair them if needed. To prevent the build-up of excess moisture indoors and to maintain healthy indoor air, kitchen fans should be vented to the outside, have functional dampers, and be quiet enough that residents will use them when cooking.

## Lighting

Replacing incandescent light bulbs with compact florescent lights (CFLs) saves a substantial amount of [electricity—and money](#)—over the life span of the bulbs. CFLs typically last 10-15 times longer than traditional incandescent bulbs, use one-third the energy per unit of light produced, and have good color properties without hum.

Advanced building [techniques](#) and [technologies](#) give Native populations the ability to embrace building-sector best practices that suit their communities while creating genuine sustainable structures. For more information on over 180 residential technologies that improve a home's efficiency, durability, and affordability, visit [toolbase.org](#).

## EVENTS

### Indian Energy Solutions 2006

August 7-9, 2006

*Mt. Pleasant, MI*

[The Council of Energy Resource Tribes \(CERT\)](#) and The Saginaw Chippewa Indian Tribe of Michigan are co-sponsoring this conference to explore partnerships with government and industry in order to implement the provisions of the 2005 Energy Policy Act. Learn more about the [event](#) by calling CERT at (303) 282-7576.

### Wind Energy Applications and Training Symposium (WEATS)

August 8-11, 2006

*Boulder, CO*

Participants in the WEATS workshop on wind energy will observe large and small wind systems in operation in the field and meet with leaders in the U.S. wind energy industry and Native American tribal

members. Click [here](#) or contact [Tony Jimenez](#) at (303) 384-7027 for more information.

## Southwest Region Mold and Moisture Training

September 12-13, 2006

**Reno, NV**

HUD's Office of Native American Programs is sponsoring its mold and moisture training for the Southwest Region. Sessions will cover site analysis, indoor ventilation and insulation, new construction, and mold assessment and remediation. Register online at [www.firstpic.org](http://www.firstpic.org) at the conferences/trainings icon. Contact Rebecca Ryan-Smith, Conference Coordinator, at (301) 261-3633 or at [rryan@firstpic.org](mailto:rryan@firstpic.org) for further information.

### SUCCESS STORIES

## Hopi Nation Demonstrates Feasibility of Straw Bale Home

### [The Red Feather Development Group](#)

recently constructed a 2-bedroom, single-family [straw bale](#) home on the Hopi Reservation in Hotevilla, Arizona. The home not only provides high-quality housing to one family, but also served as an educational tool for many community members, who learned about its superior energy efficiency.



Local Hopi tribe members work to construct the demonstration house.

"People get excited about straw bale construction when they learn that their utility bills can go from \$400 a month to \$70," says Red Feather's founder and Executive Director, Robert Young. Red Feather is a tribal nonprofit whose mission is to educate and empower American Indian nations to create sustainable housing solutions.

In addition to straw bale construction, the Hotevilla house also features a [frost-protected shallow foundation](#), a compact design that can accommodate disabled residents and the elderly, radiant floor heating, [solar panels](#), ENERGY STAR qualified compact fluorescent lighting and an ENERGY STAR qualified refrigerator.

Red Feather is now introducing straw bale homes to more tribal members through community meetings in the Arizona cities of Bacavi and Hotevilla. These meetings educate communities about energy efficiency issues and straw bale construction while ensuring that homes will work in harmony with local customs and traditions.



The energy-efficient straw bale home provides a healthy environment for its new owners.

"We typically have over a year of meetings with local Indian Housing Authorities and communities to make sure we have the community's input," Young says.

Learn more about this project by calling Red Feather at (406) 585-7188 or by visiting [Homes Across America](#). Penn State's [American Indian Housing Initiative](#) also has technical specifications for straw bale construction.

For a detailed guide on other green building practices, funding opportunities, and energy efficiency basics, download California's guide to [Building and Buying Green in Indian Country](#) (pdf, 8.7MB).

## ENERGY WATCH

### Drought and Heat Test Electrical Power Systems

The first 6 months of 2006 have been the [warmest on record](#) for the United States. The record heat taxes electrical power systems, while continued [drought](#) depletes hydropower resources. This June, 72 percent of the contiguous United States experienced moderate to-severe drought conditions. In Indian Country droughts have already had a large effect on water-intensive activities, such as [ranching in South Dakota](#).



Utilities are trying to keep the electricity flowing despite record heat and water shortages.

Photo: Bureau of Land Management

"With the drought and the energy prices I can't find a more desperate situation than these ranchers are going through right now," says Herman Schumaker of Herreid, South Dakota, one of the hardest hit counties.

Utilities are currently struggling to meet the electricity challenge without power disruptions, but supplies are strained and new electrical demand records are being set from coast to coast. In addition, recent thunderstorms and aging equipment unaccustomed to running at high demand over a prolonged period have plunged areas like St. Louis, MO, and Queens, NY, into darkness. Hoping to combat more heat-related power outages, many utilities are calling on their customers to conserve energy. Share these six simple ways to conserve energy with your residents:

- Turn off lights, TVs, and other appliances when they are not in use.
- Use programmable thermostats or put air conditioners on timers, and raise the temperature setting before you leave home for long periods.

- If possible, set air conditioners at 78 degrees or higher.
- Use fans to circulate cool air, which will help cut air conditioner use.
- Set refrigerators between 36 and 40 degrees F and freezers to 0 degrees F.
- Run appliances such as clothes washers, dryers and dishwashers in the early morning or late evening to avoid the peak afternoon demand hours.

For more information on energy conservation measures that can reduce demand and utility costs, visit the [Alliance to Save Energy](#).

## WEBSITES WORTH A CLICK

### [Tribal LIHEAP Manual](#)

How do tribes control energy use and energy costs? Tribal Low Income Home Energy Assistance Program (LIHEAP) staff provide ideas and examples of how their utility efficiency programs are run in the Tribal LIHEAP Manual.

### [Wind Development in American Indian and Alaska Native Communities](#)

Resources are available on the Department of Energy's Wind Power Website to help tribes and Native villages develop wind power by providing anemometers, conducting workshops, providing technical assistance, and supporting pilot projects.

#### Save the Dates

Free On-line [Housing Inspection Training](#)

October 5 and 18, 2006

[The National American Indian Housing Council](#) (NAIHC) is offering this training to identify needed maintenance procedures in Indian housing. Additional [free training courses](#) are available from NAIHC throughout the year.