



## Public Housing Energy Conservation Clearinghouse News

### August 2005

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 call 1-800-955-2232.

## AMERICAN INDIAN *PHECC Newsletter Special Edition*

This special edition of PHECC highlights energy conservation issues affecting tribally designated public housing.

The American Indian population numbers 4.3 million, slightly more than 1.5% of the U.S. total population. Of the 562 federally recognized Indian tribes, 227 are located in Alaska.

Altogether, Indian tribes own and administer 56 million acres of land on reservations in 34 states, which amounts to about 5% of the total U.S. land area. The smallest reservations are situated on a few acres. The largest reservation - the Navajo - covers 25,516 square miles in Arizona, New Mexico, and Utah\*.

\* Source: Inter Tribal Council of Arizona

### News:

- Energy Bill Calls for Energy Conservation and Efficiency in Indian Public Housing
- DOE Makes \$2.5 Million Available for Tribes to Develop Renewable Energy Resources
- CERT Tribal Energy Audits Yield Results Significant Across Indian Country

### Events:

- The House as a System. August 16-17, September 20-21, October 11-12, and November 15-16. *Learn about building sustainable and healthy tribal homes.*
- 2005 National Indian Housing Summit and Trade Show. September 19-22. *Learn about solutions for green building in Indian Country.*

### Success Stories:

- Arizona Tribes Leverage Funding with Weatherization
- Yakama Nation Housing Authority Invests in Energy Conservation

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### NEWS

## Energy Bill Calls for Energy Conservation and Efficiency in Indian Public Housing

After years of deadlock in Congress, President Bush signed the "Energy Bill" on August 8<sup>th</sup>. The Energy Policy Act of 2005 is the first comprehensive energy bill since 1992.

The Act states that the Secretary of HUD shall promote energy conservation in tribally designated public housing through the use of energy-efficient technologies and innovations (including the procurement of energy-efficient refrigerators and other appliances), the promotion of shared savings contracts, and the use of other similar technologies and innovations.

The Act also contains stipulations on an Indian tribal energy resource development program and tribal energy resource regulation. Refer to page 521 of [http://energy.senate.gov/public/\\_files/ConferenceReport0.pdf](http://energy.senate.gov/public/_files/ConferenceReport0.pdf) [PDF] to read the full section on Indian Energy.

## DOE Makes \$2.5 Million Available for Tribes to Develop Renewable Energy Resources

On June 14, the Department of Energy (DOE) announced that it is making nearly \$2.5 million available to 18 Native American tribes to advance the use of renewable energy and energy efficient technologies on tribal lands.

"DOE is committed to helping Native American tribes develop their energy resources," said Secretary of Energy Samuel W. Bodman. "Renewable energy and energy efficiency technologies can play a significant role in encouraging tribal self-sufficiency, creating jobs, and improving environmental quality."



[Photo Credit:  
Robert Gough]

The Citizen Potawatomi Nation will use DOE funds to tap the resources of Fire Lake on their reservation in Central Oklahoma. The tribe will use geothermal (ground source) heat pumps to provide electricity to community buildings and a grocery store.

The Red Lake Band of the Chippewa Indians in Minnesota plans to train tribal members to conduct energy audits, to implement energy efficiency improvements in existing tribal homes and to build more energy-efficient housing.

The Grand Traverse Band of Michigan will conduct a feasibility study to determine the cost effectiveness and benefits produced through energy conservation and expanding the diversity of energy sources to be used at the tribe's facilities. Conservation, along with wind, solar and biomass resources, could save the tribe tens of millions of dollars over the next 20 years.

For a complete list of projects, visit the press release at [http://energy.gov/engine/content.do?PUBLIC\\_ID=18063&BT\\_CODE=PR\\_PRESSRELEASES&TT\\_CODE=PRESSRELEASE](http://energy.gov/engine/content.do?PUBLIC_ID=18063&BT_CODE=PR_PRESSRELEASES&TT_CODE=PRESSRELEASE).

## **CERT Tribal Energy Audits Yield Results Significant Across Indian Country**

The Council of Energy Resource Tribes (CERT), a 57-member national inter-tribal organization, has conducted energy audits for the Pueblo of Laguna and the Confederated Tribes of the Umatilla Indian Reservation. The tribal governance, facilities, and climate zones associated with these two tribes represent both the diversity and consistency of a great deal of Indian Country. Tribes from all across Indian Country will be able to apply some of the recommended practices and energy saving retrofits to their respective communities.

CERT participates in a Cooperative Agreement with DOE's Office of Energy Efficiency and Renewable Energy. To see the results of these energy audits, go to <http://www.certreearth.com> and click on Resources. The CERT Website also has links to other Websites with energy information useful to tribes.

### **EVENTS**

#### **The House as a System**

August 16-17, *Billings, Montana*

September 20-21, *Rapid City, South Dakota*

October 11-12, *Myrtle Beach, South Carolina*

November 15-16, *Oklahoma City, Oklahoma*

This free session will provide information on how to create and maintain healthy livable homes in tribal communities. It will examine how outdoor site planning, house construction, indoor environment, and occupant practices impact the safety and comfort of homes. The session includes lessons on green building and sustainable design.

For registration, reservation deadlines, and other information, contact NAIHC Field Services at 800-284-9165. You may also register online at <http://www.naihc.net> under Training & Related Services, then Regional Training: House as a System Info.

## **2005 National Indian Housing Summit and Trade Show**

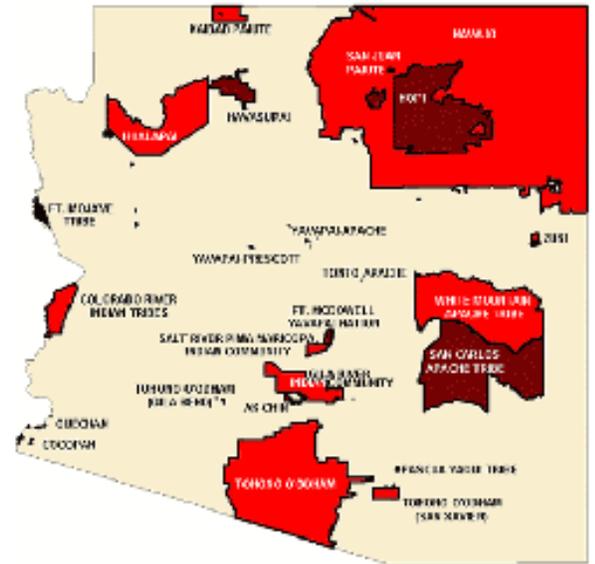
September 19-22, *Reno, Nevada*

This HUD Summit will include presentations of best practices and successful programs, innovative approaches to housing, green building, and designing and building healthy communities. The Summit provides an opportunity for partnering and networking with other programs, organizations, and agencies. Learn more at <http://www.indianhousingsummit.org/>.

### Arizona Tribes Leverage Funding with Weatherization

In Arizona, Indian tribes have banded together behind a regional organization - the Inter Tribal Council of Arizona (ITCA) - to coordinate weatherization work on reservations. ITCA coordinates training and technical assistance and is responsible for monitoring program implementation as well as administrative reporting requirements for the DOE's Weatherization Assistance Program (WAP).

One of the great benefits of WAP lies in its flexibility to combine funds from other sources. ITCA has involved the HUD Indian Community Development Block Grant in weatherization on Indian lands. The next goal for ITCA is to augment its DOE funding with utility funds and other low-income assistance programs. Through this program, DOE has directed \$80,000 per year to tribes in Arizona.



Arizona Indian tribes occupy 27% of the land in Arizona and vary greatly in size and resources. [Image Credit: Inter Tribal Council of Arizona]

Now in its fourth year, the ITCA project has weatherized more than 100 homes on Arizona reservations. Additionally, ITCA has developed partnerships with weatherization agencies that work in non-Indian communities. These agencies have provided advice and support, recommended procedures, and hands-on training for administrators and crews who work on reservations. For more information about WAP and its potential for Indian tribes, visit [http://www.eere.energy.gov/state\\_energy\\_program/update/printer\\_friendly.cfm?volume=71](http://www.eere.energy.gov/state_energy_program/update/printer_friendly.cfm?volume=71).

### Yakama Nation Housing Authority Invests in Energy Conservation

Building America's Consortium for Advanced Residential Buildings (CARB) has embarked on a landmark partnership with the Yakama Nation Housing Authority (YNHA) to improve the quality of housing on the reservation. Major rehab will be conducted on 25 rental homes in the Adams View development. The homes, built in the 1980s, need major renovation after many years of overcrowding and wear and tear.



The Yakama Nation is the largest Native American tribe in the Pacific Northwest. The 1573-square-mile reservation in south central Washington State is home to over 13,000 people. [Photo Credit: Don Clem]

This is the first Yakama project to use tax credit financing. YNHA employees will manage the project and implement the rehab measures. CARB will provide recommendations for design criteria, equipment (such as high performance HVAC equipment), and material specifications (higher levels of insulation and better sealing techniques).

Based on CARB's recommendations, YNHA recently opted to purchase its own equipment for insulating homes with sprayed cellulose. Using recycled cardboard cellulose insulation should greatly improve the efficiency of many existing buildings on the reservation, limiting air infiltration and - most importantly - lowering energy bills for low-income residents. To learn more about how and where to insulate, visit <http://rehabadvisor.pathnet.org/sp.asp?id=9478>.

To learn more about this project, contact Don Clem, Senior Architect, Steven Winter Associates, Inc., at 203-857-0200 x218 or [donclem@swinter.com](mailto:donclem@swinter.com).

## TECHNOLOGY TIP

### Conduct "Earth Friendly" Housing Rehabilitation

HUD's Energy Efficient Rehab Advisor provides a list of "earth friendly" measures that save energy or water, and are environmentally benign. The list includes advanced framing techniques, which can reduce wood waste by up to 35 percent during construction or renovation, and geothermal heat pumps, which use the relatively constant temperature of the ground or water several feet below the earth's surface as a source of heating and cooling. Learn more about these techniques and other earth friendly measures at <http://rehabadvisor.pathnet.org/sp.asp?id=10289>.

The Rehab Advisor describes HUD's guidelines for conducting energy efficient housing rehabilitation.

## ENERGY STAR® IN FOCUS

### ENERGY STAR for New Homes Reduces Energy Bills for Catawba Tribe

Through the "Green Earth" project, the Catawba Tribe of York County, SC has provided 120 energy-efficient, affordable housing units for tribal members. The single-family homes and multifamily apartment buildings were built to ENERGY STAR specifications.



ENERGY STAR qualified homes are at least 30% more energy efficient than homes built to the 1993 national Model Energy Code or 15% more efficient than the current governing energy code, whichever is more rigorous. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of building envelope (walls, roofs, and foundation) upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems, and upgraded water-heating equipment.



[Photo Credit: ISWA Development Corporation]

The "Green Earth" units also include ENERGY STAR qualified appliances. Richard Rice, Executive Director of ISWA Development Corporation, notes that installation of energy-efficient compact fluorescent light bulbs (CFLs) has cut the energy bills for lighting in half. ENERGY STAR qualified CFLs use 66% less energy than a standard incandescent bulb and last up to 10 times longer. Learn more about CFLs at [http://www.energystar.gov/index.cfm?c=cfls.pr\\_cfls](http://www.energystar.gov/index.cfm?c=cfls.pr_cfls).

Additionally, the homes were designed for optimum sun exposure. "There has been substantial savings for the residents of these naturally heated homes," says Rice. Learn more about passive solar design from the Southface Institute's Solar Roadmap at <http://www.southface.org/solar/>. See the solar concepts overview.

To learn more about ENERGY STAR for New Homes, visit [http://www.energystar.gov/index.cfm?c=new\\_homes.hm\\_index](http://www.energystar.gov/index.cfm?c=new_homes.hm_index). Questions about the Catawba "Green Earth" project can be directed to Richard Rice

## ENERGY WATCH

### Temperatures Are High, Keep Cooling Costs Low

Last month the National Climatic Data Center found that the average global temperature for the first six months of the year ranks 2005 as the third warmest year on record. When temperatures rise, so does air conditioner use. When demand for electricity increases so does the price. However, a little effort to find price breaks and to maintain equipment can alleviate spiking energy bills.

To manage load, some utilities offer "time-of-use" rates, which are lower during off-peak times. Some utilities allow you to average your annual bill over 12 months. Check with your local utility to find out about the programs they offer. In addition, some states allow consumers to select their electric company, so you can shop around for the lowest prices. To learn more about residential electricity prices, visit <http://www.eia.doe.gov/neic/brochure/electricity/electricity.html>.

You can also cut costs with proper air conditioner maintenance. Air filters for central systems or for window units should be checked monthly during the summer and cleaned and replaced as necessary. Find more "Do It Yourself" maintenance tips for cooling systems at <http://rehabadvisor.pathnet.org/sp.asp?id=9706>. Having a professional tune up your air conditioner at least once every two years will also save you money and improve comfort.

Help residents keep cool and save money by circulating a flyer with summer energy saving tips from <http://www.hud.gov/offices/pih/programs/ph/phecc/noteworthy.cfm>.

## WEBSITES WORTH A CLICK

### DOE's Tribal Energy Program

The Tribal Energy Program, <http://www.eere.energy.gov/tribalenergy/>, offers financial and technical assistance to tribes for feasibility studies and shares the cost of implementing renewable energy installations on tribal lands.

The Website provides information about Indian renewable energy and energy efficiency projects that have been funded by DOE. It also includes valuable information such as: business opportunities, including the latest tribal energy solicitation; case studies on renewable energy projects on tribal lands; reports and resources; and links to other relevant sites.

### Guide to Building Energy Efficient Homes in the Southwest

The second guide in the Building America Best Practices series, "Volume 2: Hot-Dry, Mixed-Dry" addresses the challenge of maximizing energy efficiency while preserving the comfort of homes in these climates. The guide provides instructions for building high-quality, energy-efficient homes that can save 30 percent in space conditioning and water heating each year in hot-dry and mixed-dry climates. Volume 1 of the Best Practices series, focusing on hot-humid construction, was published earlier this year. To download this free guide, visit the Building America Website at [http://www.eere.energy.gov/buildings/building\\_america/bp\\_hot-dry\\_mixed-dry.html](http://www.eere.energy.gov/buildings/building_america/bp_hot-dry_mixed-dry.html).

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