

# Great American Wood Stove Changeout



## EPA's Past, Present and Future Efforts

U.S. EPA Office of Air Quality Planning and  
Standards

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<http://www.epa.gov/woodstoves>

# Past Efforts

- 1988: Issued Wood Heater/Stove New Source Performance Standard (NSPS)
  - Stoves sold after 1992 need to be “EPA-certified”
- 1992: Issued Best Available Control Measures Document for Residential Wood Combustion

# Recent Past

2001: Great Lakes Wood Stove  
Changeout Initiative with HBPA

- Focus on Benzo(a)pyrene deposition

2004: Created Partnership with HPBA

- Goal: changeout old wood stoves
  - “Great American Wood Stove Changeout”
  - Focus has been on fine particles ( $PM_{2.5}$ )
  - Indoor air playing a bigger role now

# What is The Great American Wood Stove Changeout?



A voluntary effort to encourage people to replace or “changeout” their inefficient wood stoves with cleaner-burning technologies.



# Great American Wood Stove Changeout – Kick Off



- June 2005, Libby, MT
  - Whole town changeout, before and after studies
  
- September, 2005 SW Pennsylvania
  - Focused on Low-income households

# Libby, Montana Changeout



- Goal: replace all old wood stoves
- 82% of PM<sub>2.5</sub> emissions from wood stoves
- \$1M donated by Industry
- \$100K from EPA
- \$1M from Congress
- Monitor air quality and health impacts before and after changeout

# Past EPA Efforts



- Wood Stove Changeout “How To” Guide
  - Example brochures, posters, fact sheets, video footage available, case studies & website
- Strong Partnerships (e.g., hearth industry, American Lung Association)
- Options for securing funds, (e.g., grants, industry rebates, SEPs, DOE weatherization)
- Training/Technical assistance/Focus Groups
  - Sponsoring Workshops, State/local benefits modeling
- Wood Stove Changeout Guidance
  - State Implementation Plan (SIP)
  - Supplemental Environmental Projects (SEP)

# EPA Wood Stove Changeout Grants



- **FY 2005**
  - Libby, MT - \$100K
  - SW PA Air Quality Partnership - \$100K
- **FY 2006**
  - Stephens and Ferry Co., Washington - \$52K
  - Cached Valley, ID - \$60K
  - Pinehurst, ID - \$60K
  - Nez Perce Tribe - \$105K, (Indoor Air Quality Study)
  - Oakridge, OR - \$125K
  - Vermont - \$100K
  - Klamath Falls, OR - \$100K
  - Spokane, WA - \$100K
- **FY 2007**
  - Klamath Fall, OR, State of MT and MI, each at \$100K

# Past Success: Supplemental Environmental Projects (SEPs)



\$700,000 of Funds Negotiated for Clean Stoves

- 2 in Ohio: Dayton \$75K, Washington Co., \$245K
- 3 in Washington State: 2 in Bellingham, 1 in Spokane \$250K
- 1 in NM: Questa \$100K
- 1 in VA: Christiansburg \$45K

# Past Success: Tribal Woodstove Changeouts



- Swinomish Tribal Indian Community (WA)
  - Changing out all old stoves
- Nez Perce Tribe (Idaho)
  - Before and after indoor air quality study
- Oneida Indian Nation (Wisconsin)
  - Used EPA indoor air grant funds to changeout stoves

# Progress To Date, 2005-07



- 25 communities have implemented or are implementing woodstove changeouts
- \$6 million invested nationally, EPA has contributed \$800K, 7 SEPs supporting woodstove changeouts
- Over 3000 stoves and/or fireplaces changed out
- More than 125 tons of PM reduced/year from changeouts

# Wood stove changeouts are happening: 2005-2008



CA - Sacramento  
CA - Yolo-Solano  
CA - Butte County  
CA - Shasta County  
CO - Delta County  
ID - Pinehurst  
ID - Cache Valley  
ID - Nez Perce Tribe  
MI - entire state  
MT - Libby  
MT - Ravalli Co.  
NM - Questa  
NV - Washoe Co.  
OH - Dayton area  
OH - Marietta  
OR - Oakridge

OR - Klamath Falls  
PA - Southwest counties  
VA - Christiansburg  
VT - Rutland  
WA - Darrington  
WA - Ferry County  
WA - Yakima  
WA - Bellingham  
WA - Spokane  
WA - Stevens County  
WA - Swinomish Tribe  
WI - Oneida Nation  
WV - Parkersburg

# Wood Stove Changeouts

## Future: What is next?



- Wood Stove Changeout Innovative Financing
- Pursuing Partnership with Big Box Stores to Promote Changeouts
- Public-Private Marketing and Outreach Effort with Hearth Industry Leaders and others
- East coast wood stove/outdoor boiler changeout pilot
- Wood burning and green house gases emissions

# Summary/Questions



We believe this voluntary effort:

- Is a very effective tool for addressing PM and toxics, indoors and out;
- Tools are available, but financial incentives are a challenge;
- We have willing partners;
- Questions?

# Clean Burning Woodstoves and Fireplaces

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[EPA Home](#) > [Air & Radiation](#) > Clean Burning Woodstoves and Fireplaces

A woodstove or fireplace adds warmth and ambiance to your home. This site offers information to help you choose an [EPA certified stove](#) (PDF, 67 pp, 1142 KB) or another cleaner burning hearth appliance (e.g., gas or pellet stove) and use it efficiently and safely. Air quality program officials will find information to help them support and develop programs for addressing residential wood smoke.

[Basic Information](#) - What you need to know to select a cleaner burning hearth product for your home, including retailers and installers in your area.

[Wood Burning Efficiency and Safety](#) - Tips on proper stove installation, good wood burning practices, and how you can ensure safer heating of your home. Also, see our [Clean Burn Fact Sheet](#) (PDF, 1 pp, 391 KB)

[Healthier Home, Cleaner Environment](#) - Learn the impacts of wood smoke on your health and the environment, as well as the quality of the air where you live.

[Technical Information](#) - Learn why newer woodstoves burn cleaner and safer and review test data on stove emissions.

[Partners & Useful Links](#) - Links to non-EPA partners assisting us with our woodstove changeout campaigns, and other information related to woodstoves and air quality.

[Cleaner Burning Fireplaces](#) - If you have a fireplace, learn more about the clean burning, safer, more efficient fireplace options available.

## New! Woodstove Changeout Program

- [Yolo-Salano, CA](#)
- [Sacramento County, CA](#)
- [Dayton, OH](#)

You will need Adobe Acrobat Reader, available for free download, to view some of the files on this page. See [EPA's PDF page](#) to learn more about PDF files and how to link to the free Acrobat Reader.



[Basic Information](#) - Learn why newer woodstoves burn cleaner and safer and review test data on stove emissions.



[Wood burning efficiency and safety](#): Efficient heating and effective heating with less smoke.



[Healthier home and cleaner environment](#) with woodstoves.

YOUR OLD WOOD STOVE'S

DIRTY

LITTLE SECRETS

Come Clean By Replacing It!



[www.epa.gov/woodstoves](http://www.epa.gov/woodstoves) :: [www.woodstovechangeout.org](http://www.woodstovechangeout.org)

YOUR OLD  
WOOD STOVE'S

**DIRTY**

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# BURN CLEAN

HOT TIPS FOR A BETTER FIRE

**D**id you know that by changing the way you burn wood in your woodstove, you can save money, reduce air pollution and protect your health.

Here are a few simple tips to make your fire burn hotter, keep your wallet fatter and keep your local air cleaner and healthier to breathe when using your woodstove:

**Upgrade to an EPA-certified woodstove or other clean burning technology.** All new stoves are EPA-certified and burn cleaner and more efficiently. A clean-burning stove emits far less particle pollution – 70 percent less, on average – than an older, less-efficient stove (or a fireplace insert). They also use approximately 30 percent less wood.

**Choose the right firewood.** Hardwoods are the best. Regardless, never burn trash or treated wood which can emit toxic air pollutants.

**Season all firewood.** All firewood should be split, securely covered or stored, and aged for at least six months. Seasoned wood burns hotter, cuts fuel consumption and reduces the amount of smoke your woodstove produces.

**Choose the right size stove.** A stove that is too large for a room will need to be dampered down so it doesn't overheat the space. This can waste wood, which in turn wastes your money.

**Clean ashes from the stove.** Excess ashes can clog stove's air intake vents, reducing its efficiency. Discard after they are completely extinguished. Do not leave the metal ash container near the house or near any flammable material. This could start a fire!

**Begin with a quick hot start.** Open the woodstove draft to maximum, and start the fire with a manufactured firestarter or crumpled paper and kindling. As the kindling burns, add smaller pieces of firewood followed by larger pieces until the fire is bright and hot.

**Always burn small hot fires.** These fires provide the maximum in heat, while cutting fuel consumption and reducing pollution.

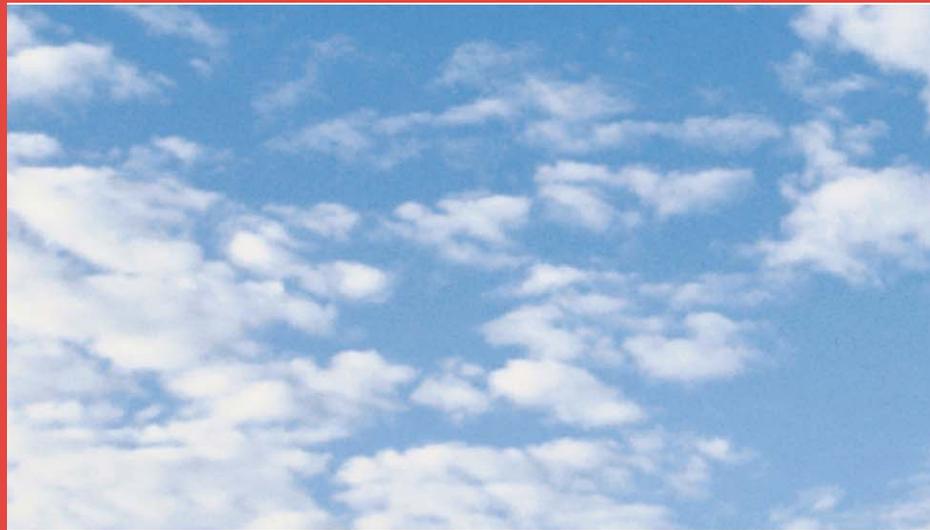
**Don't let the fire smolder.** Many people think they should let a fire smolder overnight. But reducing the stove's air supply does little for heating and can increase air pollution.

**Keep your chimney clean** to provide good draft for your stove and to reduce risk of a chimney fire. Have a certified chimney sweep inspect your chimney once a year or after every three cords of wood. For safety, never leave a fire unattended.



For more information about burning clean, go to [www.epa.gov/woodstoves](http://www.epa.gov/woodstoves)





## Your old woodstove can earn you free money this Summer!

**V**isit a Dayton area retailer and learn how replacing your woodstove through The Great American Woodstove Changeout can save you significant money!

If you live in Clark, Darke, Greene, Miami, Montgomery or Preble County, you can save money by trading in your old woodstove for a new stove – whether wood, gas, pellet or electric. Old woodstoves are inefficient and waste money. They can also impact air quality action days by creating too much woodsmoke, which can also hurt you and your neighbors' health.

Participating retailer:

Details at [www.woodstovechangeout.org](http://www.woodstovechangeout.org)





Changeout Now!

# BURN CLEAN!

[www.woodstovechangeout.org](http://www.woodstovechangeout.org)



Neither EPA nor the U.S. Government endorses, nor should this be construed as endorsement of, any trade association or any commercial product.

Certificate of Destruction  
for [Insert Name of  
Agency/Partnership]  
Wood Stove Change-out



Stop Waiting. Start Saving.

**Instructions for Dealers:**

1. **If this Certificate and voucher do not accompany a request for voucher reimbursement, payment to the Dealer will not be made.**
2. Ensure that this Certificate is complete, including all signatures; otherwise it is invalid.
3. Dealer must completely clean out (including fire brick and ash) and remove the door of all stoves turned in for recycling, or the Certificate will not be endorsed by the recycler. Unendorsed certificates are invalid.
4. Delivery of old wood stove to a recycling facility is the Dealer's responsibility. Recycle at:  
**[Insert names of recycling facilities and their phone numbers in the boxes below. Remove/add boxes as necessary.]**

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**Homeowner/Buyer Information:**

Name: \_\_\_\_\_ Phone no.: \_\_\_\_\_

Address: \_\_\_\_\_

Make and model # of stove removed: \_\_\_\_\_

Location/room from which stove was removed: \_\_\_\_\_

Replacement unit:    Certified Wood    Pellet    Propane    Oil    Electric

Homeowner signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Certification of Destruction (both Dealer and Recycler must sign):**

**Dealer:** I hereby certify that the stove identified above was rendered inoperable and was surrendered to the recycler listed below.

**Name of Dealer** who installed new heater: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Recycler:** I hereby certify that the stove identified above will be destroyed, useable only as scrap



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## Residential Woodsmoke Reduction CD



Thanks for using this CD from EPA's Office of Air Quality Planning and Standards's ([OAQPS](#)) Woodstove Program! This CD is designed primarily for state and local air agencies and will help you: (1) determine if a woodstove changeout program is right for you, (2) locate products and tools to help get your changeout program started and educate the public, and (3) easily find contacts for many of these products and services.



Click on one of the following nine topic areas for examples of a few products we've developed that can help even improve your quality of life.



[Woodstove Changeout Overview](#)



[Is a Woodstove Changeout Right for You?](#)



[Health Effects of Smoke](#)



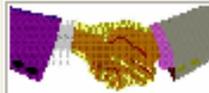
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## Residential Woodsmoke Reduction CD

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### Tools for a Changeout Program

Congratulations on deciding to implement a changeout program in your area! We've provided a number of links and documents to help you get started, ranging from how-to guides to funding information, how to get the media on your side to promote the program, and how to measure your success. We have provided contact information if you need more information or have questions.

#### View a Video



Video about tools to help a woodstove changeout program

### How to Implement a Changeout Campaign

- [How-To Guide for Implementing a Woodstove Changeout Campaign](#) →
- [E-Library for How-To Guide for Implementing a Woodstove Changeout Campaign](#) →

### Funding for a Changeout Campaign

- [List of Grantmaking Organizations \(for seeking funding for changeout campaigns\)](#) (PDF)
- [Overview of Potential Funding Options for Woodstove Changeouts](#) (PDF)
- [Potential Funding Options to Consider for Woodstove Changeout Programs](#) (PDF)

### Media Tools for a Changeout Campaign

- [The Great American Woodstove Changeout: Radio Script Concepts](#) (pdf, 12 KB)
- [Brochure - Cleaner Air, Cheaper Heat, Safer Home: Replace Your Old Woodstove and Save!](#) (PDF, 2 pp, 2.7 MB)
- [Poster - Cleaner Air, Cheaper Heat, Safer Home: Replace Your Old Woodstove and Save!](#) (PDF, 1 pg, 562 KB)
- [Example Draft Quick Print Brochure](#)(PDF, 1.146MB)

### Quantifying the Success of a Changeout Campaign

- ["Guidance for Quantifying and Using Emission Reductions from Voluntary Woodstove Changeout Programs in State Implementation Plans"](#) U.S. EPA. This document was written to help States, Tribes, and local governments quantify

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