



# Energy Use in Manufactured Homes

Owners of manufactured homes face unique challenges in saving energy. Homes that were manufactured before 1994 HUD\* required standards usually have higher energy cost when compared to same-sized site-built homes. With proper site installation, today's ENERGY STAR® qualified manufactured homes demonstrate a high level of energy efficiency.

Your Electric Power Association offers the following checklist of tips and projects for lowering monthly energy usage. Efforts that target heating and cooling offer the most opportunity for savings.

## EXISTING MANUFACTURED (MOBILE) HOMES

### Energy Checklist for Manufactured Home Living

**Information Sources:**

- *Your Mobile Home: Energy and Repair Guide for Manufactured Housing*; by John Krigger, Saturn Resource Management, Helena, MT Phone: 800-735-0577; Website: <http://www.residential-energy.com>
- *Manufactured Homes Saving Money by Saving Energy*; [http://www.huduser.org/publications/pdf/SaveEnergy\\_SaveMoney.pdf](http://www.huduser.org/publications/pdf/SaveEnergy_SaveMoney.pdf)
- Information regarding new ENERGY STAR® manufactured homes: [http://www.energystar.gov/index.cfm?c=new\\_homes.hm\\_earn\\_star](http://www.energystar.gov/index.cfm?c=new_homes.hm_earn_star)

**Energy Assistance:**

*Weatherization Assistance Program (WAP): Funds are used to improve home energy efficiency for low income, elderly and disabled individuals. Mississippi Department of Human Services; Division of Community Services; Home Energy Assistance Program (LIHEAP): Funds provide financial assistance to help pay the cost of home energy bills and related services. Mississippi Department of Human Services; Division of Community Services;*

\*HUD – US Department of Housing and Urban Development

## Energy Checklist for Manufactured Home Living...

# Action for Savings



## Duct Sealing/Duct Insulation = Greatest Savings

If you complete only one energy-saving project per year, consider sealing duct joints with mastic. Leakage through duct joints/connections is the most common cause of high energy usage in manufactured homes. Disconnection of the flexible mid-section crossover duct from the ducting "boxes" happens frequently. Also, unconditioned air can mistakenly be pulled into the return air from the "belly" space or attic. It is most common for 30% or more of heating and cooling energy to be wasted through duct leakage.

### Causes of Duct Leakage

- Animals seeking warmth in winter.
- Disconnection of ducts during transit.
- Improper home set-up or installation.

### Signs of Duct Leakage

- One room that is uncomfortable.
- Central system runs all the time.
- Warmth inside the "belly" (bottom) of home
- Cool air inside the attic (attic ducts)

### Who should tackle the job of duct sealing?

Here's a word of caution to "do-it-yourselfers." Duct sealing requires knowledge and skill, although local weatherization programs may provide assistance. Attic duct systems may be inaccessible except at supply air registers and at the unit. A qualified heating/cooling contractor may be the best bet, especially for sealing ducts connected to gas systems. Products used during the duct sealing process include non-toxic fibrous mastic, mastic tape, and replacement insulation for the exterior of ducts. Outdoor ducting entering the home from package units should be protected from moisture as well as being sealed and heavily insulated. Look for ENERGY STAR® qualified products. See "Information Sources."

### Window Shading

Shading windows from summer sunlight can save cooling dollars.

In winter, remove shading on south-facing windows to enjoy needed warmth. Summer shading options include:

- Exterior awnings
- Sun screens
- Interior shades
- Trees and shrubs

### Reflective Roof Coatings

White elastomeric coatings reflect 75% of the sunlight striking the roof. These coatings also seal roof leaks. Be sure to purchase an ENERGY STAR® qualified coating that is specified for application on the existing roof material. (recommended only for warm climates)

### Air Leakage Control

Places to seal with caulk, foam, mastic, weather-stripping and other materials:

- Floor opening around the bathtub piping or other piping openings.
- Unintended openings from closets or cabinets into walls, attics, or crawl space.
- Openings around vent pipes and exhaust fans.
- Torn "belly" (bottom) fabric or board.
- "Marriage Line" (the continuous joint between two sections of a double-wide home).
- Wall outlet cover plates (special seals).

### Windows and Doors

- Install low-cost interior storm window kits on leaky windows. (Avoid non-rigid plastic film for child safety.)
- Repair or replace broken windows and doors.
- Weather-strip and caulk around windows and doors.

### Water Heating

- Replace an old worn-out water heater with a new ENERGY STAR® qualified model.
- Install an insulation jacket on existing electric water heaters only.
- Insulate hot water pipes from the tank.
- Lower the temperature on your water heater.
- Install low-flow showerheads and faucet aerators.
- Check for leaks in hot water pipes.
- Remove sediment from bottom of an electric water heater once a year. (Drain a few gallons of water through the spigot at the bottom of the water heater. First turn off heater circuit breaker and use hot water to bathe or do laundry.)

### Insulation

- Add blown insulation to an older home by working through holes cut in the "belly" board or rim joist. Seal the holes with a durable patch.
- Add ceiling insulation to an older home by blowing through cut holes in the ceiling, roof, or raised roof edge.

### Other Energy Tips

- Clean or replace the air filter in heating/cooling system at least once per month.
- Make sure that the dryer vent discharges air to the outside and not into the crawl space or attic.
- Replace incandescent light bulbs with ENERGY STAR® compact fluorescents according to package directions.
- Plant evergreen trees far enough from the home's south side, to shield from the wind without shading the winter sun from the home.
- Control outdoor lighting with photocells, timers, or motion detectors.
- Hire a professional to perform annual maintenance on central heating/cooling systems