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EcoConsumer

If you're going to burn wood, burn it cleanly

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Special to The Seattle Times



MICHELLE KUMATA / THE SEATTLE TIMES

When it comes to the environment, firewood has a split personality.

From an air-quality standpoint, it's hard to defend wood heat. Wood smoke contains a slew of harmful or carcinogenic substances, including carbon monoxide, nitrogen oxides, volatile organic compounds, dioxin and particulate matter, according to the Environmental Protection Agency (EPA).

The American Lung Association of Washington (ALAW) says fireplaces and wood stoves account for 10 percent of the outdoor air pollution in Washington state. Burning wood also can release dangerous particles inside the home. For those reasons, the ALAW urges residents not to burn wood.

But wood heat also has environmental advantages. Wood is a biomass fuel, not a fossil fuel like oil, gas or coal. Fossil fuels contribute to global warming much more than wood burning does. When you burn wood, it releases about the same amount of carbon dioxide as if the tree had died and rotted in the forest, according to Natural Resources Canada, a national government agency.

You even could argue that burning wood for warmth *reduces* global warming by replacing fossil fuels. Advocates also point out that wood is a renewable resource, and that burning wood makes our nation more energy-independent.

Wood can be cheaper than other types of heat. You might pay \$150 to \$300 a cord, but free firewood can sometimes be found in classified ads. Many people scrounge their own firewood.

Burning wood for fuel has become much more attractive recently, due to the spike in energy costs. Nationwide, sales of wood stoves, fireplace inserts and pellet stoves have soared.

But burning wood as an alternative fuel already has a following here. According to the federal government's 2004 American Housing Survey, 7,000 King County households — 1.6 percent — use wood as their main heating fuel. In Snohomish County, 14,600 homes do, or 5.6 percent.

If you burn wood, you owe it to your neighbors to minimize emissions.

Make sure you have a wood stove certified by the EPA that also meets Washington state standards. (Check the list at www.orcaa.org/woodstovecert.html.) Uncertified stoves (sold before 1992) and fireplaces may release 40 to 60 grams of smoke per hour, compared with 2 to 5 grams per hour from a newer EPA-certified stove. If you're getting rid of an old, uncertified wood stove, take it to a scrap-metal recycler; it's illegal to sell it or give it away.

When the Puget Sound Clean Air Agency (www.pscleanair.org) calls a burn ban because of stagnant air, it's illegal to use a fireplace or uncertified wood stove unless it's your only adequate heat source. The agency called 17 burn-ban days in 2005 — the highest number since 1989.

Pellet stoves, which burn compressed sawdust or other biomass wastes, are the cleanest of all wood-burning stoves — so clean, the EPA does not regulate them, and they are exempt from Puget Sound-area Stage 1 burn bans.

Most wood-burning fireplaces in existing homes are extremely inefficient and more decorative than anything else.

The Wood Heat Organization (www.woodheat.org), a Canadian nonprofit supported in part by wood-stove makers, whittled down responsible wood heating to one sentence: "Burn sustainably harvested, properly processed and seasoned fuel in an advanced combustion stove or fireplace that is vented through a chimney that runs straight up through the building."

Use wood that has been seasoned (dried correctly) for at least six months. Never burn green wood, garbage, plastic, foil, treated or painted wood, ocean driftwood (because of the salt content), particleboard or plywood.

If your wood is not dry enough or your wood stove works improperly, you'll see thick smoke coming out of your chimney. Dry wood and a properly working stove produce almost no smoke at all — mostly just a wisp of nearly-transparent steam.

Unless you can keep your emissions that clean, you shouldn't heat with wood. The landslide vote in November to pass Washington's new smoking restrictions — the toughest in the nation — sent a clear message: Lots of us care about air quality.

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