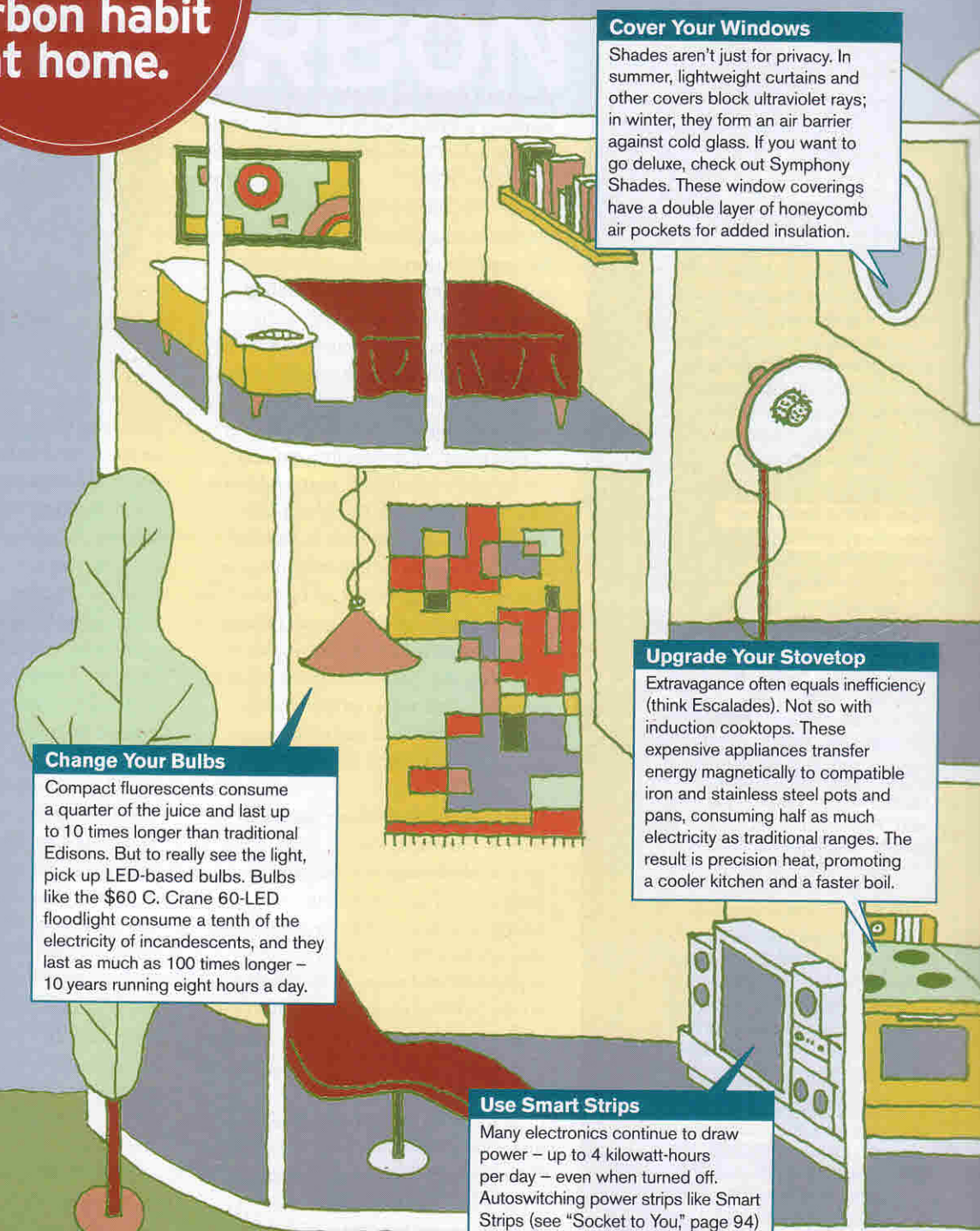


A 12-step program to kick the carbon habit at home.

Your house is your castle. But it also fuels your addiction to CO₂. The problem: Most of the power you use to heat water, cool the living room, and surf the Web comes largely from coal, a serious carbon pollutant. Luckily, it's easy to curb your crib's energy appetite. With a few minor tweaks and some whizzy gear, you can cut kilowatts by up to 60 percent – or maybe even start selling juice back to the grid. – Bob Parks



Change Your Bulbs
Compact fluorescents consume a quarter of the juice and last up to 10 times longer than traditional Edisons. But to really see the light, pick up LED-based bulbs. Bulbs like the \$60 C. Crane 60-LED floodlight consume a tenth of the electricity of incandescents, and they last as much as 100 times longer – 10 years running eight hours a day.

Cover Your Windows
Shades aren't just for privacy. In summer, lightweight curtains and other covers block ultraviolet rays; in winter, they form an air barrier against cold glass. If you want to go deluxe, check out Symphony Shades. These window coverings have a double layer of honeycomb air pockets for added insulation.

Upgrade Your Stovetop
Extravagance often equals inefficiency (think Escalades). Not so with induction cooktops. These expensive appliances transfer energy magnetically to compatible iron and stainless steel pots and pans, consuming half as much electricity as traditional ranges. The result is precision heat, promoting a cooler kitchen and a faster boil.

Use Smart Strips
Many electronics continue to draw power – up to 4 kilowatt-hours per day – even when turned off. Autoswitching power strips like Smart Strips (see "Socket to You," page 94) can help. Plug your PC into the strip's main socket, and accessories into the other outlets. The peripherals shut down completely when the primary appliance is switched off.

- Analyze your energy use
- Save energy
- Generate energy

Go Solar
Solar panels have become more efficient and much better-looking. Standard-size panels from SunPower, for instance, generate up to 102 kilowatt-hours per day (one-third more than regular panels) and come in a clean matte-black finish. An array of 10 can supply 40 percent of your energy needs.

Harvest the Wind
Check out the national wind energy maps at www.nrel.gov/gis to see if you live in an area that might be right for wind power. One of the most popular and reliable systems is the Whisper Link 200. It will set you back over \$7,000 with tower, but in 12-mph winds, it generates a quarter of the average home's monthly power needs.

Find Watt Wasters
Locate and replace items that slurp up more than their fair share of juice with a wattage analyzer like the La Crosse Power Cost Controller. This box sits between a suspect device and a socket, providing current wattage, accumulated kilowatt-hours, and monthly and yearly cost estimates in dollars and cents.

Monitor Light and Heat
Which room is getting too much heat in the middle of the night? Bug your house with Onset's data loggers and find out. Install these sensors in a room for a day or two, then download the collected data to your PC. Included software shows you how heat and light are being used (and wasted).

Check Total Energy Output
Track your pad's overall energy usage with the Energy Detective. You'll need an electrician to hook it up to a circuit breaker panel, but once it's in place you can view your current usage – in kilowatts and dollars – anytime from a small remote countertop display in your kitchen or home office.

Quit Doing It By Hand
Scrubbing elbow-deep in suds may make you look like a mensch, but it's inefficient. Modern dishwashers use half the hot water of handwashing. You don't need to prerinse, and they have sensors that adjust water levels to the amount of dirt on your plates. Get energy test results for dishwashers and other major appliances at www.aceee.org.

Tune Your Water Heater
Turn your water heater down to 120 degrees and insulate the tank and the pipes around it. If you want to save more, consider a heat pump system. Pump heaters, which require about half the juice of traditional electrics, pull thermal energy from the air in a room and direct it into the water tank.

Seal Ducts
You could be losing up to 45 percent of your heat or AC to cracks and holes in your ducts. Schemes to seal air passages range from tree sap to duct tape, but the best option is Aeroseal, a polymer fog that cuts leaks up to 80 percent when injected into your system.