Chapter 1

Mother Nature's Green-Eyed View of Gadgets

In This Chapter

- Spelling out the meaning of green gadgets
- Understanding the effect of the three Rs — plus one — on the environment
- Discovering what makes the "greenest" gadgets green
- Getting acquainted with green gadget standards and ratings
- Calculating your gadgets' carbon footprints and taking steps to reduce them
- Keeping up on green gadget news

This is Chapter 1, so I start the chapter from the green beginning, as it were, and describe exactly what green gadgets are. A *green gadget* is one that's ecofriendlier, or greener, than products that have a greater negative impact on the environment in Mother Nature's eyes. You might already know about the three Rs of the environment — reduce, reuse, recycle — but you might not know about a fourth R: rethink. I tell you how all four Rs relate to gadgets and their relationship with the planet.

I take you on a tour of the greenest notebook available (at the time I wrote this book), to illustrate exactly how green gadget factors look and feel in terms of a product you can hold in your hands. I also show you a couple of other notably greener gadgets, explain the role that your existing gadgets play in the big-planet picture, and show you how you can calculate your gadgets' energy consumption to figure out — and reduce — their contribution to the carbon footprint you generate by using them.

Finally, I introduce you to the terms and green labels you should look for when shopping for new greener gadgets, and I explain what each one means.

A disclaimer

You know that voice that talks *really* fast at the end of a drug commercial? It's the one that says "talk to your doctor first" or "your mileage may vary." Herewith, my own speedy disclaimer of sorts (read as quickly as possible to simulate the full end-of-the-commercial effect):

> "All mobile phones, PDAs, desktop computers, notebooks, TVs, and other gadgets described in this chapter and throughout this book were chosen to illustrate unique, greener-computing innovations and advances and are not meant to represent your only green choices, nor does their inclusion here represent an endorsement of one particular brand or model over others that aren't covered in these pages."

Hey, Joe, Where You Goin' with That Green Gadget in Your Hand?

Green gadget? What green gadget?

Do you mean the silver aluminum notebook I'm typing this chapter on, which Apple calls its "greenest MacBook ever?"

Or, do you mean the black, solar-powered Iqua SUN Bluetooth headset, stuck in my ear, that charged itself in the morning sunlight as I walked my dog, Nick, on the beach and answered a call from my mom?

Maybe you're referring to The Energy Detective (TED) sitting on my kitchen counter. It displays in real-time exactly how much electricity my house is consuming in kilowatts — and in dollars and cents. Is *that* the green gadget you're talking about? (I probably should mention that The Energy Detective is housed in white plastic.)

Ohhh, now I get you. You mean *that* green gadget — the big, round, pulsating ecobutton, sitting next to my Eee PC 1000HE, that with a single touch can instantly make the mini-notebook go to sleep by switching it to ecofriendlier Suspend mode. And yes, although the photo of the gadget in Figure 1-1 is in black and white, I can attest to the fact that the ecobutton's base is green and the pulsating lights inside are absolutely, positively, 100 percent green-green-green or my name isn't Joe.

Figure 1-1: A snooze button to put your computer to sleep.

But my name would be Pinocchio if I told you that the ecobutton is, in spite of its green color and light, a green gadget.

It's not.

Neither is the MacBook, a solar Bluetooth headset, or a home energy monitor.

But all four represent considerably ecofriendlier, or *greener,* gadgets (what I refer to simply as green gadgets throughout the book) than products that are less sensitive to the planet.

So what *is* a green gadget?

Nothing. Because there's no such thing.

Wait! Before you double-check this book's cover to make sure that you're reading the book you thought you were reading (assuming that you didn't fling it across the room), let me explain what I mean.

Before I do, however, I want to take a bigger-picture view of how the gadgets and electronics in your life affect the planet in a number of ways, as calculated by the article "How to Go Green: Home Electronics" at The Discovery Channel Planet Green site (`http://planetgreen.discovery.com/go-green/home-electronics`):

- **15 percent:** The percentage of money spent on powering computers worldwide; the rest of the $250 billion is spent on energy wasted from idling.
- **70 percent:** The percentage of all hazardous waste that's composed of discarded electronics.
- **529 pounds:** The amount of fossil fuels needed to manufacture a 53-pound computer system (including the monitor), along with 49 pounds of chemicals and 1.5 tons of water.
- **15 billion:** The number of batteries produced annually worldwide.
- **40 percent:** The percentage of energy used for electronics in your home while the devices are turned off.
- **1 billion:** The number of kilowatt hours of power each year that can be saved by using energy-efficient battery chargers in the United States. This in turn would save more than $100 million each year and prevent the release of more than a million tons of greenhouse gases.

Assessing "green" companies

Just because a company says that it and its products are green doesn't necessarily make them so, as I explain further in Chapter 9, the chapter that dispels the myths of greenwash hype. In a 2008 Consumer Electronics Association (CEA) survey, 74 percent of consumers polled said that companies should do more to protect the environment. Yet only 17 percent of consumers said they felt familiar with the policies and reputations of companies that manufacture consumer electronics. What's more, more than half of the people polled said they felt that companies overstate the environmental friendliness of their products in order to sell more of them.

To quote the environmental organization Greenpeace (`http://greenpeace.org/electronics`) about the findings of its 2008 Green Electronics Survey, it found "no products that could claim the title of a truly green product."

However, both Greenpeace and the CEA report that companies manufacturing gadgets are increasingly eliminating toxic chemicals from their products while making them more energy-efficient and easier to recycle.

Here are some of the choice nuggets uncovered by the 2008 Greenpeace survey:

- **Manufacturers continue to phase out the use of hazardous chemicals, and more products are PVC-free than in the previous year's findings.** Notebooks that use LED-type LCD displays that draw less power and are free of mercury are becoming more popular.

- **Larger consumer electronics, such as TVs and computer monitors, are being manufactured with significant amounts of postconsumer recycled plastic.** Most mobile phones and desktop and notebook computers, however, are lagging in this regard.
- **Manufacturers have adapted quickly to new Energy Star requirements.** Even so, a small number of products that Greenpeace evaluated don't yet meet the most recent Energy Star specifications.
- **More manufacturers track the amount of energy used to produce their electronic products.** Without an international standard (none currently exists) for comparing how the products stack up against each other, this information means little to consumers.
- **Computer manufacturers are more forthcoming with in-use power consumption data and comparisons for their products.** Monitor and TV manufacturers are lagging behind in this area.
- **Many companies have special "green" sections on their Web sites.** These sections are meant to help consumers learn about a company's ecofriendly features and benefits. That's a good thing, but most of these green sections weren't prominently advertised to promote greener electronic products as major purchasing decisions.

The survey assessed more than 50 consumer electronics products, scoring each on a number of factors. With a maximum of 100 attainable points, the total points for each product in the survey was adjusted to a possible top score of 10. (See Chapter 9 for more about the survey results.)

Of all products that were evaluated (desktop computers, notebook computers, mobile phones, smartphones, PDAs, televisions, and computer monitors), the highest-ranking product was the Lenovo L2440 wide display, shown in Figure 1-2, which scored 6.90 points.

The Acer TravelMate 6293 notebook landed at the bottom of the scale with a score of 3.44, and topping the category was the Toshiba Portégé R600. I introduce you to the Portégé in the later section "Following a Green Gadget's Carbon Footprint."

Although you can see that no single absolutely, positively, 100 percent supergreen gadget exists, increasingly *greener* mobile phones, notebook computers, wireless network routers, Blu-ray DVD players, high-definition TVs (HDTVs), and other consumer electronics products do exist. That's what I talk about in this book.

Figure 1-2: Displaying the highest level of gadget greenness.

Defining gadgets

You may want to ask, "Since when, Mr. *Green Gadgets For Dummies,* is something that's too big to fit in my pocket — such as a humongous high-def TV — considered a gadget, green or otherwise?"

Well, it's not.

Okay, an HDTV isn't a gadget per se, but it incorporates many elements that gadgets such as mobile phones and MP3 players have — for example, integrated circuits, speakers, and liquid crystal displays (LCD), albeit on a gigantically bigger, and wider scale.

At the annual Greener Gadgets Conference (`http://greenergadgets.com`), see Figure 1-3, people gather to learn about and discuss the environmental impact of manufacturing, distributing, efficiently using, reusing, and properly recycling consumer electronics. It's fair to say that in this book, the term *green gadgets* is all-encompassing. Besides, doesn't this book's title have a nicer ring than *Green Consumer Electronics For Dummies*?

Figure 1-3: They don't call it the Greener *Consumer Electronics* Conference.

Defining green gadgets

Just to be sure that we're on the same page, let me say that *green gadgets* are consumer electronic products that strive to be ecofriendlier. They have a few or all of these characteristics:

- They contain little or no toxic chemicals or materials.
- They are manufactured as efficiently as possible, using the fewest materials possible, by companies that practice environmentally friendlier policies and processes.
- They are built with highly recyclable materials, such as aluminum, arsenic-free glass, or recycled plastic bottles, for as many parts as possible.
- They draw as little power as possible — and uses that energy as efficiently as possible.
- They can power down to Standby mode or shut off (and shut off other gadgets that are plugged into them) if they detect that you aren't using them or after a certain amount of time has passed.
- They use a rechargeable battery pack, or batteries, rather than disposable ones.

- They can be recharged (or can recharge other gadgets) from sources other than electricity, such as by absorbing sunlight with solar panels or by winding a crank to generate power.
- They can help you save gas and produce fewer carbon emissions by plotting the most efficient route to your destination or by monitoring and analyzing your driving style and then offering tips to help you drive more efficiently.
- They are packaged as efficiently as possible in packaging made of partially to 100 percent recycled materials.
- They can be easily recycled — ideally through hassle-free take-back or trade-in programs offered by the manufacturer.

Relating the Four Rs to Green Gadgets

Most people are probably familiar with the eco-aware mantra known as the three Rs of green gadgets: Reduce, reuse, recycle. I now introduce you to what the Consumer Electronics Association Web site at MyGreenElectronics.org refers to as the fourth R — rethink — to help you make green gadget purchases. I discuss the four Rs in detail in Chapter 2, but this list sums them up:

- **Reduce:** Less is more. Using less energy by turning off gadgets and devices when you aren't using them, as well as adjusting their power settings to run more efficiently when they're on, can provide more savings in both kilowatts and in the amount of money you pay for them.
- **Reuse:** If it ain't broke, don't nix it. Refilling your printer's inkjet or laser toner cartridges, donating to charity an older but still usable mobile phone, or upgrading an older PC with faster components rather than buying a new computer are all examples of applying the second R to the gadgets in your life.
- **Recycle:** This R can make more of a difference to the planet than any of the others. Every year, hundreds of thousands of old or broken computers and cellphones wind up in landfills or incinerators. Tossing unwanted or broken electronics into town or city municipal trash collection streams is ignorant, irresponsible, lazy, and offensive. It can even be potentially life threatening if the discarded digital items wind up in an incinerator, where they eventually reach the air we breathe, or in a landfill, where they break down and seep into the ground and contaminate the water we drink.

Adding to the problem are the thousands more discarded electronics that wind up as electronic waste, or e-waste, that are often illegally exported to Asia from the U.S. and other industrialized countries. The e-waste wind up in scrap yards that expose workers to toxic chemicals and poisons.

- **Rethink:** To help minimize the disastrous long-term effects of e-waste, picture the life cycles of future purchases all the way to the recycling bin. Consider this: In a 2008 survey conducted by the CEA, nearly 90 percent of consumers said energy efficiency will be a determining factor in choosing and purchasing their next televisions. Yet less than half of the people polled said that they understand the ecofriendlier attributes associated with consumer electronics and gadgets.

How do some or all of these factors tie together cleaner-living, cleaner-breathing green gadgets in the real world? Let me show you.

Following a Green Gadget's Carbon Footprint

Visualizing how a gadget's carbon footprint affects the environment is easier to understand by taking a closer look at how a real product that you can hold in your hand relates to the four Rs as it moves from the stage of raw materials and components to being

- Manufactured and packaged in a factory
- Shipped to resellers or directly to you, the consumer
- Used by the consumer
- Given away or repurposed by the consumer
- Discarded by you or someone you gave it to
- Recycled

So that you can follow a gadget's carbon footprint, I take you on a guided tour of the Toshiba Portégé R600 ultralight notebook computer, shown in Figure 1-4. This notebook earned the coveted title of Greenest Notebook in the 2008 Greenpeace Green Electronics Survey.

Figure 1-4: The Toshiba Portégé R600.

Toshiba's "green procurement" initiative in all aspects of the Portégé series development means that the company works in collaboration with component and parts suppliers to help it achieve its targeted carbon footprint — a term I define in the following sidebar, "Sticking your carbon footprint in your mouth," in case you're not exactly sure what it stands for.

What's more, the factory in which the Portégé series is manufactured recovers and recycles waste generated during the manufacturing process, including silver, copper, and tin.

To quote Greenpeace, "Toshiba is ahead of everyone else when it comes to the elimination of toxic chemicals."

To browse a fuller menu of unappetizing hazardous chemical substances and find out why they're so upsetting to the planet's stomach (and ours), check out the Chapter 16 sidebar "An e-waste recipe for disaster."

Thoughtful manufacturing

Beginning with the raw materials that go into giving "birth" to the notebook, Toshiba lessens the carbon footprint of the Portégé R600 during the manufacturing process by eliminating hazardous substances — including cadmium, mercury, and lead from batteries and other components. The elimination of those substances directly affects the notebook's carbon footprint and impact on the planet when the notebook "dies" and is recycled at the end of its lifecycle.

Choices like the ones in the following list reduce a gadget's carbon footprint before it reaches your hands and you then use it:

- **The R600 LED-type LCD display helps eliminate additional mercury.** More and more computer makers are offering this type of mercury-free display in their products. Less mercury means less potential harm to the environment when the display reaches its end of life and is broken down and disposed of or recycled.
- **The notebook is packaged in the smallest (yet still protective) box.** Smaller packaging means that more boxes can be packed into fewer shipping containers.
- **The entire unit is packed in antishock cushioning made from partially or completely recycled materials.** Using recycled materials in the packaging translates to fewer new resources taken from the planet to box the computer. It also means that the packaging can be more easily broken down and recycled, either after receiving the computer or by someone you later give the computer to.

In addition to the Greenpeace assessment, the R600 ranks high in other green terms, including its

- Energy Star 4.0 compliance
- Number-one ranking in the Electronic Product Environmental Assessment Tool (EPEAT) Gold category (at the time this book was written)
- Compliance with the Restriction of Hazardous Substances Directive (RoHS)

These kudos translate to better energy efficiency when you use a notebook like the R600, which means a further reduction of its carbon footprint's impact on the environment throughout its usable lifecycle.

In the later section "Understanding Energy Star and EPEAT Green Gadget Labels," I explain these and other assessment standards or ratings to look for when considering new gadget purchases.

Ecofriendly features

The following list describes some of the other green features that help lessen the carbon footprint of the R600 and its impact on the environment:

- **Thin, lightweight (2.4 lb) design:** This translates to less stress when lugging it in your shoulder bag and less resources taken from the planet.
- **Rechargeable battery:** The battery can last more than 7 1/2 hours. Finally, you can leave the charger at home!

- **Transreflective display:** You can see and use the display outdoors with the backlight turned off. Who says that a park bench isn't a truly greener home office?
- **Solid-state drive (SSD) option:** Say goodbye to moving parts and typical hard drive crashes. Think of it as the same kind of memory that's in your mobile phone.

The R600 also boasts James Bond-like features, such as a fingerprint scanner for securing your identity and passwords, as shown in Figure 1-5, and a built-in webcam with face recognition for added protection. Okay, these features aren't exactly green, but they sure are cool — say "Cheese!"

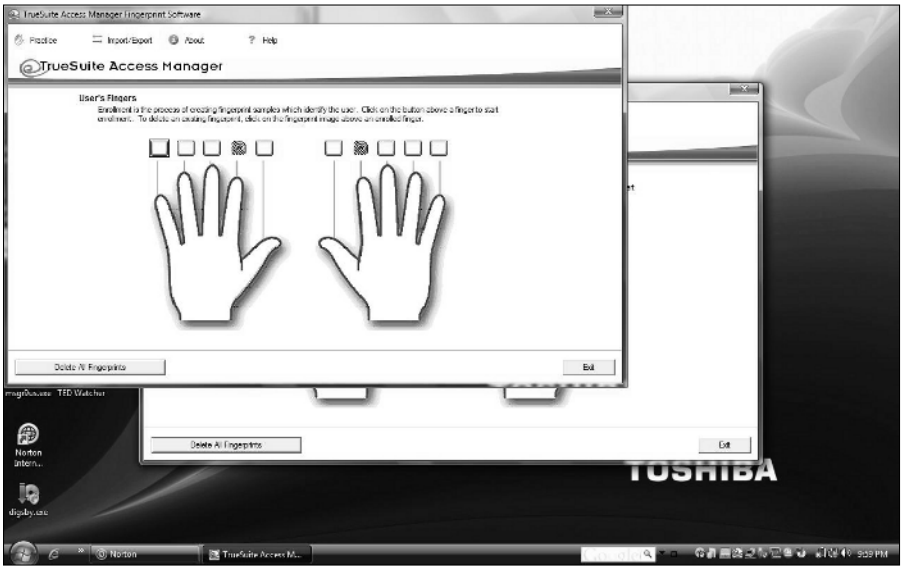

Figure 1-5: Personal security that's uniquely you.

Other green electronics

The following list describes three more green consumer electronics products that illustrate what Greenpeace calls "the race to the top to produce truly green products":

- **Samsung solar-powered Blue Earth mobile phone:** Designed to look like a flat, well-rounded, shiny pebble, it's the world's first solar-powered touch-screen phone. A solar panel on the back of the phone can generate enough power to make calls and charge the battery.

Sticking your carbon footprint in your mouth

It's a term that rolls off tongues whenever there's talk about the environment and being green, as pervasively present in print, radio, and TV advertisements as fleas on a junkyard dog (for which I don't blame the dog, mind you). It's a phrase that I personally bandy about in every chapter of this book: *carbon footprint.*

Knowing what the term *carbon footprint* means can help you gain a better appreciation of why it matters so much to Mother Nature and the planet she oversees, and on which she must wish we would responsibly dwell. Simply put, a *carbon footprint* is the total amount of carbon dioxide (CO_2) — or *greenhouse gases* — produced by humans as we live our lives. For instance, when you drive to the store to pick up some ecofriendly dish soap, your car's engine burns gasoline, which in turn produces CO_2 emissions from the muffler and into the air. More efficient cars produce fewer emissions than gas guzzlers, whereas walking or riding your bike instead produces none. And, although your bicycle or walking shoes don't contribute to your carbon footprint when you're using them, the mining and harvesting of materials for manufacturing, and the manufacturing process itself, play a part in increasing the world's greenhouse gases.

Manufacturing, packaging, shipping, shelving, buying, using, maintaining, and eventually disposing of gadgets all contribute to the total carbon footprint over the life of the product. Adding each of your gadget's individual carbon footprints to the others in your life that you generate — when you drive, fly to on an airplane, ride the roller coaster at an amusement park, flush the toilet, make coffee, pray in church or a nondenominational meeting hall, and rest your head on a pillow and curl up with a paperback thriller at the end of the day — total the personal carbon footprint, which doesn't stop growing until the day you die.

Come to think of it, your carbon footprint doesn't quite come to a complete halt when you die, because firing up a crematorium or digging your grave and conducting your funeral service — not to mention all the travel and energy expended by those who attend — all contribute to your grand-total carbon footprint after all is said and done (so to speak).

The gadget is made from recycled plastic extracted from water bottles, and both the phone and its charger — which draws fewer than 0.03 watts after it charges the phone — are free from toxic substances, including brominated flame retardants (BFRs), beryllium, and phthalates.

The Eco mode feature adjusts the brightness, backlight duration, and Bluetooth energy efficiency settings — they're a single touch away. The Eco Walk function counts your steps with a built-in pedometer and calculates how much CO_2 emissions have been reduced by hoofing it rather than driving.

- **HYmini wind-powered charger:** Cranking or winding rechargers turns your energy into power you can use to charge your gadgets. Relying on the wind, rather than on you, is how the HYMini wind-powered charger (at `www.hymini.com`) generates power to juice up your MP3 player, digital camera, mobile phone, and other gadgets.

What, no wind today? No worries. Connect the HYMini to your bicycle's handlebars or strap it to your upper arm with optional accessories and start peddling or running to make a little wind as you go about your merry, ecofriendlier way.

- **Sony Bravia VE5:** Sensing when you're no longer in the room and watching, the Sony Bravia VE5 Series (`www.sonystyle.com`) can turn itself off to save energy. Come back in, and the HDTV turns itself on again. Sony says that the set draws 40 percent less power than other LCD models — and almost zero watts when it's powered off in Standby mode. What's more, a light sensor can automatically adjust the picture brightness to match the room's "mood," drawing even less energy when the lights go down and it's time to start the show.

Understanding Energy Star and EPEAT Green Gadget Labels

Energy Star defines energy efficiency standards for a variety of products and services and qualifies specific products that meet those standards. The EPEAT system helps buyers evaluate, compare, and select desktop computers, laptops, and monitors based on their environmental attributes. All EPEAT-registered products are automatically Energy Star qualified. You can find more information by visiting these Web sites:

- **Energy Star:** Consumers can use the Energy Star standards to shop for products and services that meet those standards. See `www.energystar.gov`. For instance, computers bearing the Energy Star logo must, at a minimum, offer three distinct operating modes — Standby, Active, and Sleep — to ensure energy savings when computers are being used, as well as when they're in Standby or Sleep mode. Energy Star-approved computers must also use more efficient internal power supplies.
- **EPEAT:** This system, at `http://epeat.net`, helps purchasers evaluate, compare, and select desktop computers, laptops, and monitors based on their environmental attributes. As I describe earlier in "Following a Green Gadget's Carbon Footprint," Toshiba's Portégé R600 was ranked the "Greenest Notebook" by Greenpeace because of EPEAT criteria it met, such as these:
    - Is made from green materials
    - Is highly recyclable
    - Is energy efficient
    - Is packaged using a minimum of recycled (and recyclable) materials

- **Restriction of Hazardous Substances (RoHS):** This European directive restricts the use of six hazardous materials in the manufacturing of electronics. Banned from the EU market are new electrical and electronic equipment containing more than agreed-upon levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants. Check out `www.rohs.gov.uk`.

Initially, computers and monitors (the worst offenders) were the first products to wear the Energy Star logo. Since partnering with the Department of Energy in 1996 for additional product categories, the label can now be found on everything from major appliances and office equipment to DVD players and set-top cable TV boxes.

Earning one of the three EPEAT ratings is sort of like winning an Olympic medal — which is exactly how the three levels of accomplishment are named:

- **Bronze:** Products meet all required criteria.
- **Silver:** Products meet all required criteria plus 50 percent of optional criteria.
- **Gold:** Products meet all required criteria plus 75 percent of optional criteria.

Here are a few fun facts provided by the CEA about the badges of green gadget ecoconsciousness awarded by Energy Star and EPEAT:

- Sales of Energy Star televisions, monitors, audio, and video products in the U.S. reached nearly 35 million units in 2006.

- Seven million of those products were sold by Best Buy, which, according to EPA calculations:
  - Saved consumers $100 million dollars on their utility bills
  - Eliminated 1.4 billion pounds of carbon emissions — or the equivalent of removing 128,000 cars from the road
- The savings gained from purchases of EPEAT-certified products in 2007 equaled
  - 75.5 million metric tons of primary materials — equivalent to the weight of more than 585 million refrigerators
  - 3,220 metric tons of toxic materials, which equal a stack of 1.6 million bricks
  - 42.2 billion kilowatt-hours, which is enough energy to power 3.7 million U.S. homes for an entire year

Implementing Green Living Habits with Gadgets You Already Own

Thinking about past purchases that may not have been labeled as greener when you bought them plays just as important a role in Mother Nature's view of gadgets as choosing and using new greener gadgets in your future.

Getting into a greener gadget lifestyle can be as simple as making a few changes to the electronics in your life or as complex as installing a home control system that can monitor and remotely or automatically operate every powered item in your house, from automatically turning lights on and off to regulating the climate to save energy when you aren't home.

Taking a bite out of "energy vampires"

Forty percent of the energy used for electronics in your home is consumed while devices known as *energy vampires* are turned off. They suck power the way the eponymous mythical creatures suck blood. But energy vampires are no myth. You don't need garlic or a stake to fight energy vampires, though, because these simple actions can be your weapons:

- Unplug your mobile phone's charger.
- Turn off your computer monitor or set it to shut off itself and the computer after you haven't used it for a few minutes.

- Program your thermostat to turn up the heat or cool things down only when you're in the house.

You can do all these tasks immediately to reduce energy consumption and extend the life of your gadgets. Cutting off several energy vampire gadgets can be a heck of lot easier when you plug them into a *smart* power strip, one that cuts the power when your devices are turned off.

My favorite is the Belkin Conserve because its remote control lets you instantly shut off eight of its outlets all at one time while leaving two on all the time. I can use the Conserve to reduce the amount of energy being wasted by my Xbox 360, HDTV, Vudu movie box, notebook computer, mobile phone and PlayStation Portable rechargers, and laser printer. Plugging devices that are on all the time, such as my Wi-Fi router and cable broadband modem, into the pair of always-on outlets means that I can surf the Web and take care of my e-mail on the sofa. To further reduce my gadgets' total carbon footprint, I can plug the Conserve power strip into a wall outlet timer that cuts the juice at bedtime every night and then turns it back on just before my usual waking time of 6:30 a.m.

Calculating your gadgets' carbon footprints

You can gauge your gadgets' individual power consumption by plugging them into products that feed useful information back to you. The Kill A Watt energy monitor monitors individual gadgets, or you can monitor your entire home's energy consumption with a product such as The Energy Detective (TED), shown in Figure 1-6. Using one of these products can help you better understand — and reduce — your gadgets' carbon footprints.

Figure 1-6: Home energy: The complete picture.

Calculating the estimated carbon footprint of your household or individual gadgets by using one of these Web-based calculators can also help you minimize their negative effect on the planet:

- **MyGreenElectronics.org:** `http://mygreenelectronics.org/EnergyCalculator.aspx`
- **Home Energy Saver:** `http://hes.lbl.gov`
- **Energy Star HomeCalc and Home Energy Yardstick:** `www.energystar.gov/index.cfm?c=bulk_purchasing.bus_purchasing`
- **Carbon Footprint:** `www.carbonfootprint.com/calculator.aspx`
- **UC Berkeley carbon footprint:** `http://coolclimate.berkeley.edu`
- **WattzOn:** From `www.wattzon.com`, shown in Figure 1-7

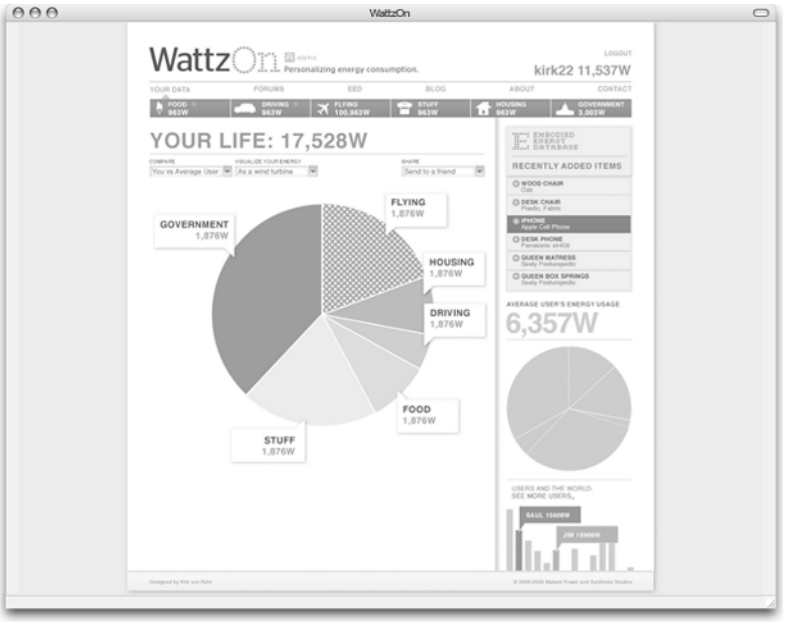

Figure 1-7: Visualizing your carbon footprint.

Taking other simple green gadget steps

Here are some actions you can take with your existing gadgets to help you live a greener life with your electronics right away:

- Replace single-use disposable batteries in your gadgets with rechargeable ones that you can reuse again and again. Check out Chapter 3 for the lowdown on all things battery-related.
- Adjust your mobile phone's autolock and display timeout settings to lock or black out the screen after several seconds of inactivity. Chapter 4 has the details.
- Adjust your computer's power-saving settings to turn off the monitor when you're away for more than a few minutes, and then switch the PC to either Standby or Hibernate mode if you haven't returned a little while later. Part III covers just about anything you can do to reduce your computer's carbon footprint.

Staying Informed about Green Gadget Developments

No single source can tell you everything there is to know about green gadgets — not even this book!

By visiting Web sites and blogs that cover the topic of green gadgets, or that have sections that cover them, you can

- Find out about the latest ecofriendly efforts and products being made by consumer electronics companies.
- Read reviews and features of those products so that you can make more informed purchase decisions.
- Find out how to get the most from the gadgets and gear you already own.
- Communicate with other people who are also interested in living a green gadget lifestyle.

I include, on the Cheat Sheet in the front of this book, ten useful Web sites focused on green gadgets and environmentally friendly technologies. Don't forget that you can always get the latest green gadget words of wisdom, brought to you by yours truly, at these fine worldwide Web locations:

- **NYTimes.com Green Inc:** `http://greeninc.blogs.nytimes.com`
- **My own blogs:** gGadget.org and JoeyGadget.com, as shown in Figure 1-8

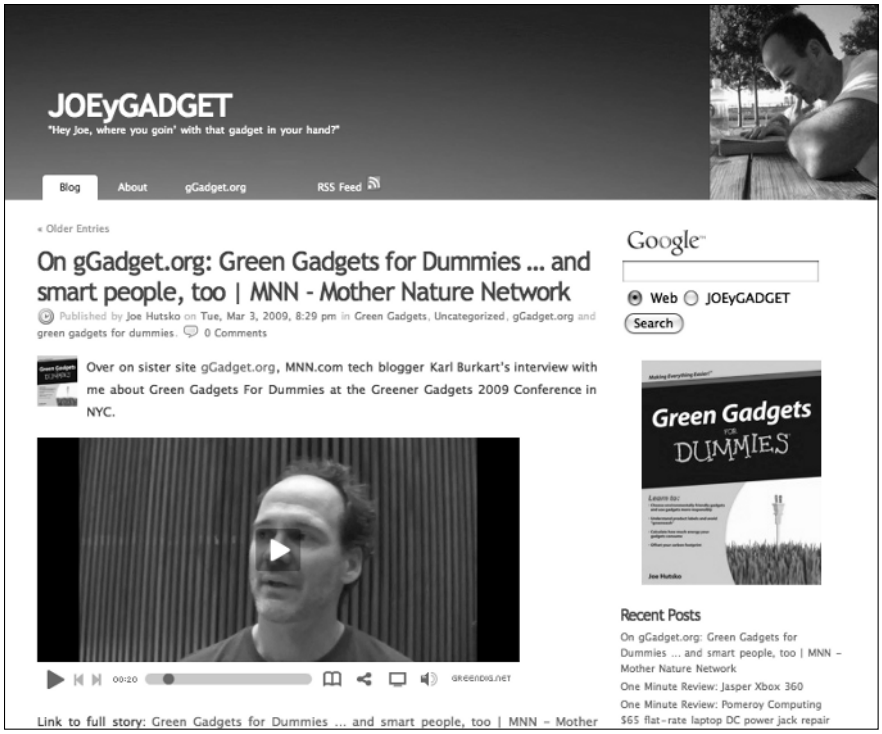

Figure 1-8: Hey, Joe, *now* where you goin' with that green gadget in your hand?