

Ask EcoGirl

By Patricia Dines

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Reclaiming the Sun as Our Ally

Dear EcoGirl: I'm concerned about the evidence that climate change is increasing. How can I meet my energy needs in eco-friendly ways? *Signed, Earth Lover*

Dear Earth Lover: Thank you for your question. Yes, our culture's use of fossil fuels to generate energy is causing extensive health and environmental harm, which we see in everything from escalating weather calamities to increasing illnesses to ongoing wars. Japan's recent crisis also reminds us that nuclear power brings unacceptably high and uncontrollable threats to all life on earth.

However, there's also great news on this front, with many earth-respecting approaches being implemented worldwide. This demonstrates that we don't need to harm ourselves and our planet to meet our energy needs. In fact, our survival requires that we *stop* harming the earth's life-support mechanisms! OK, so how can we help do that?

Here Comes the Sun!

I think a key solution is for us to reclaim as an elemental ally that fiery magic energy source in the sky called the sun. In our modern world, we can easily forget to appreciate the key role that it plays in making all life possible. **We've even come to see the sun as an enemy,** as we slather on sunscreen chemicals and hide from its scorching rays. But it's not really the sun that's increasingly harming us; it's the sun's energy being trapped by our pollution.

But we can flip this dynamic and use the sun's rays to our advantage. Too often in these debates, we forget just how much energy the earth receives from the sun each year — estimated to be 20,000 times what we currently use! (www.ecoworld.com/energy-fuels/how-much-solar-energy-hits-earth.html)

So we have plenty of energy, and many ways to capture it. We don't have to take huge risks or wait for magical solutions. We just need to better use what we already have.

Key Solar Options for You to Consider

1) Solar photovoltaic (PV) systems. This common approach to solar energy offers us clean power, energy independence, and often cost savings. To assess if this is right for you, see "Can I Afford Solar?" (www.patriciadines.info/EcoGirl1f.html). Be sure to trim your energy usage first!

2) Solar thermal. Fewer people know about this option, which directly captures the sun's warmth in water and air. For instance, it's used to heat water for homes and swimming pools, and air for buildings. Yes, you can install a solar water heater! These solutions are often simpler, more focused, and cheaper than PV. (See www.energysavers.gov/your_home/water_heating/index.cfm/mytopic=12850 and www.en.wikipedia.org/wiki/Solar_thermal_energy.)

3) Other direct uses. We can also use the sun's energy directly in other ways, for instance to dry laundry on a clothesline or grow plants in a greenhouse. I saw someone heat a swimming pool by covering it with a high clear plastic "roof," thus trapping in the sun's warmth.

Solar ovens are another application of this principle. These simple devices (which you can buy or make) cook food by gathering the sun's heat and light in a reflective container. (See www.solarcooking.org/plans.) They're also being used in developing countries, as a cost-effective replacement for eco-harmful wood gathering. (www.solarcooking.org)

4) Targeted solar. Small PV cells can also be helpful in a wide range of remote locations and useful house-

hold devices. Check out what's available at Hopland's Real Goods store or look online. For example, www.earthtechproducts.com offers solar flashlights and radios (for camping and emergencies), solar chargers including backpacks (for mobile phone recharging), outdoor solar lighting (for security and decoration), solar generators (for emergency power), and an auto vent fan (to cool your car). They also have solar cookers, fountain pumps, lighted stepping stones, Bluetooth speakers, transformer-like toys, Christmas lights, and house numbers. Oh, and small wind turbines. Cool!

5) Smart home design. You can also lower your energy use (and increase your comfort) by adjusting how much sun enters your home and when. Do this using shades, drapes, awnings, landscaping, windows, skylights, and more. For lots of great ideas on this and other aspects of passive solar design, see *Natural Remodeling for the Not-So-Green House*, by Carol Venolia and Kelly Lerner.

This is just a sample of what's possible when we work with the sun to meet our energy needs. I hope it inspires you to explore your own creative solutions!

Ask EcoGirl is written by Patricia Dines, Author of [The Organic Guides](#), and Editor and Lead Writer for [The Next STEP](#) newsletter. Email your questions about going green to EcoGirl@AskEcoGirl.info for possible inclusion in future columns. Also see "Ask EcoGirl" on Facebook! And contact EcoGirl for information about carrying this syndicated column in your periodical.

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