

# PREPARE your home for solar energy

## Conserve first to save later

Reducing your energy use will keep a lid on the cost of your future solar energy system. A smaller load requires a smaller system.



Courtesy Photos.com

Compact fluorescent lamps (CFLs) are four times more efficient and last at least seven times longer than incandescent bulbs.

## Doing simple things can cut your energy load.

- Install** the most energy efficient appliances.
- Replace** your regular incandescent bulbs with compact fluorescent lamps (CFLs).
- Eliminate** your phantom loads (hidden electricity users).
- Use** cold water to wash your clothes.
- Insulate** your walls and attic.

## Efficiency pays off

Refrigerators and freezers use more electricity per year than almost all other appliances. Your solar electric system would cost over \$2000 less if you use energy efficient models.

	Average Appliance	Efficient Appliance
<b>Refrigerator</b>		
<b>Freezer</b>		

= 120-watt solar electric panel



### Fun Fact

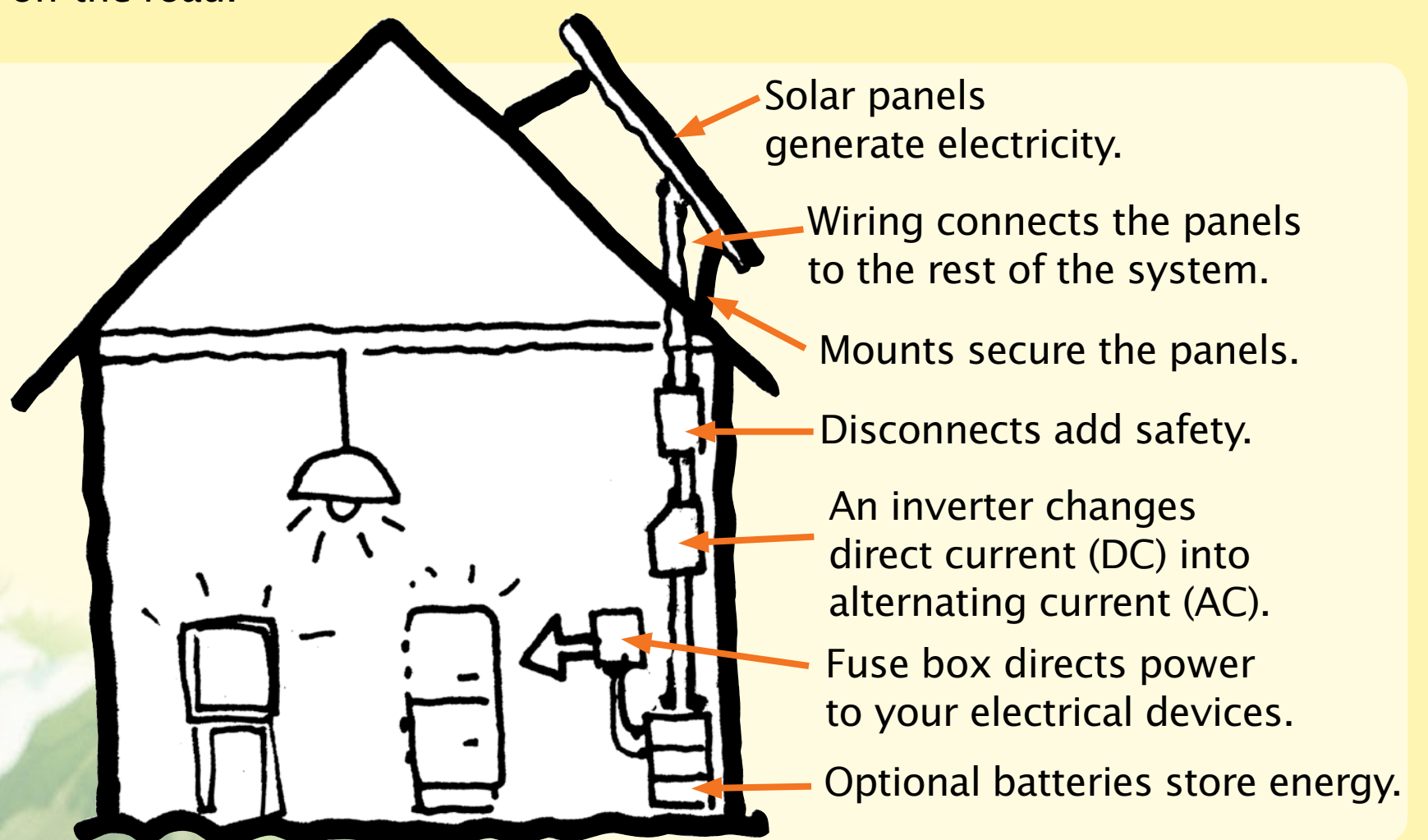
If every household replaced just one frequently used incandescent bulb with a compact fluorescent lamp (CFL), the reduction in pollution would be the same as taking one million cars off the road.

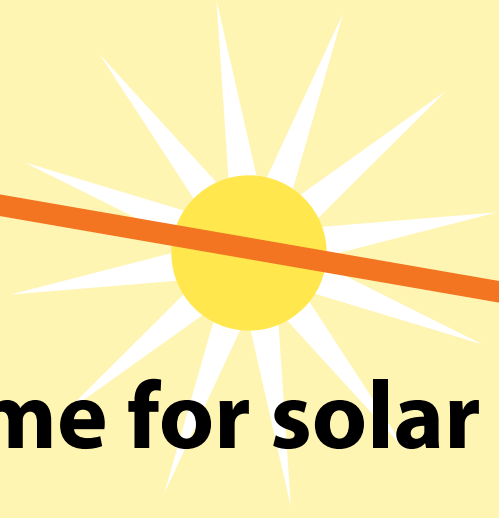
## What is a "system?"

A solar energy system includes all the parts needed to produce and use solar energy.

Minnesota Renewable Energy Society (MRES)  
[www.mnrenewables.org](http://www.mnrenewables.org)

Courtesy Science Museum of Minnesota





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## Eliminate phantom loads

Some appliances draw power even when you think they're turned off. Invisible phantom loads waste energy and cost you money. The solution is easy.

### Track down energy tricksters

How do you know if an appliance has a "phantom load" lurking inside? If you answer yes to one or more of these questions about an electrical gadget, it's hiding a phantom.

#### Does it have a wall wart?

Those little cubes attached to the electrical prongs hold a transformer that draws power when plugged in, even if the rest of the appliance is not plugged in.



Courtesy David Boyce

#### Does it use a remote control?

Like a homing device, an appliance is constantly on the lookout for a signal from its remote controller.



Courtesy David Boyce

#### Is it a TV?

Almost all TVs have a quick start feature that uses energy constantly.

## Block thieves at the door

You can eliminate phantom loads with a simple tool and a new habit.

**Plug** phantom-carriers into an accessible power strip.



Courtesy Chris Burda

**Use** a 2-step shutdown process.

1. Turn off the device.
2. Turn off the power strip (or unplug the device) to turn off the phantom.

#### Does it have a visible clock?

An electric clock is always keeping time.



Courtesy David Boyce

#### Can you set it to do something later?

The internal clock keeps time so it knows when to record a TV show or brew a pot of coffee.

## Be a ghost-buster!



A simple and inexpensive Kill-a-Watt Meter can tell you how much electricity an appliance is using when off or on. Just plug the meter into an outlet and plug the appliance into the meter. Then visit the MRES website for links to appliance ratings to compare how yours stack up.

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