

# Energy Audit

Adapted from: The Water Planet Challenge  
"You Have the Power" Action Guide



# Home Power Audit: Be Efficient - You Have the Power

*A Message from Philippe Cousteau,  
Co-founder xO EarthEcho International*



**ENERGY EFFICIENCY** simply put is using less energy and still receiving the same or improved level of energy service.

Traditional energy production creates enormous amounts of carbon emissions as a byproduct. Where do those emissions end up? In our atmosphere and oceans. Oceans have long been a carbon sink collecting and absorbing half the carbon we have put in the atmosphere since the Industrial Revolution began in the 18th century. Is this a problem? Yes. Here's one example of why: When oceans become more acidic, animals that create shells to survive such as krill, corals and oysters, and shrimp can no longer produce them. What might happen if the bottom of our food chain is dramatically disturbed or even gone? Imagine a world without krill that feed giant whales, or coral reefs, our natural nurseries for many fish species. Ocean ecosystems would collapse and billions of people who rely on seafood would require alternatives or starve causing mass migrations of people, conflict and create further stress on our world's resources.

On land, we live with the mindset that energy is plentiful and unlimited. We need to understand the chain of events and the energy consumption required to manufacture and transport goods or people when we take actions such as turn on a thermostat, buy food and clothes, or take a bus to see a movie. The products and conveniences we often take for granted come with an energy cost: they are not free. Knowledge prepares you to make informed choices. Knowledge is power; and in this case, knowledge is energy.

You have tremendous influence on how you, your parents, and your school use (or conserve) energy in the world. Youth-driven initiatives help us achieve efficiency and save money. This makes our lives better right away. If you implement the ideas from this Action Guide at home and end up saving \$50 a month for your family, that's big. Saving energy for your school could result in excess funds for more sports equipment or computers. And who knows what might happen if 100,000 youth get involved. WOW!

So use your resounding voice. What you do and say influences adults around you. In fact, many surveys show that youth are one of the main reasons that business leaders adapt their behaviors—their kids are bugging them to change. Remember that you drive consumer behavior. In other words, you can influence your community for this planet's well being. If we harness all this youth energy to save energy and money for your school and family and then use it for a purpose that YOU choose, that change adds up.

We need your participation in energy efficiency and in developing sustainable solutions—ideas that move us toward protecting our planet for generations to come. As I meet young people around the world and hear about their commitments to a healthy collective environment, I remain optimistic and energized!

Ocean acidification results from increasing CO<sub>2</sub> levels in our environment that changes the ocean's chemistry. As the ocean is forced to absorb increasing amounts of carbon, the ocean's pH level—a measurement of water acidity—decreases and the water becomes more and more acidic.

***Check out EarthEcho Expedition: Shell Shocked to learn more about ocean acidification!***



# Home Energy Audit Heat/Cool Loss

An audit is when you review or survey to gather data. In this case you will complete an audit of the energy usage in your home in order to reduce your energy footprint and your impact on our ocean. Collect data and develop recommendations to improve energy efficiency in your family's home and life. After you implement your ideas conduct a follow-up audit to evaluate your recommendations. Compare your findings and use these to make a compelling case for energy efficiency!

## Heat/Cool Loss

Thermostat

 No

Yes, setting \_\_\_\_\_

### Outside Doors - Well-sealed doors keep the HVAC system working more efficiently.

Location:

 Sealed Not Sealed

Location:

 Sealed Not Sealed

Location:

 Sealed Not Sealed

Recommendations:

### Outside Windows - Well-sealed windows keeps outside weather where it belongs.

Location:

 Sealed Not Sealed

Location:

 Sealed Not Sealed

Location:

 Sealed Not Sealed

Location:

 Sealed Not Sealed

Recommendations:

# Home Energy Audit Lights



## LIGHTS

**Outside Lights** - Keep these on only when necessary and avoid unintended waste.

# of Lights:                      Bulb Type:                      Hours On:

Use of Motion Detectors:

Recommendation:

**Lights** - The kinds of bulbs we use have varying levels of efficiency.

Common Home Light Bulb Types: Incandescent, Compact Fluorescent, Fluorescent, Halogen, LED

Room	Natural Lighting? Y/N	# of Light Bulbs	Type	# of Hours Used/Day	Off when not in use?

Recommendation:

