



YES! RESOURCE KITS AVAILABLE FOR LOAN FOR NORTHEAST TEAMS

The Northeast region has a wide variety of resources available to assist your team in educating the community, completing projects, and tabling at events. All items are loaned out on a “first come, first serve” basis. Items will be delivered or mailed depending on need and timing and are available for a 2 week lending time. Contact Jim DeVries today if you are interested in checking an item out!

WIND ENERGY

CUT AWAY WIND TURBINE



An actual working model that has the housing cut away to allow full viewing of the interior components. Comes with stand for mounting on table top and owners' manual.

1 AVAILABLE

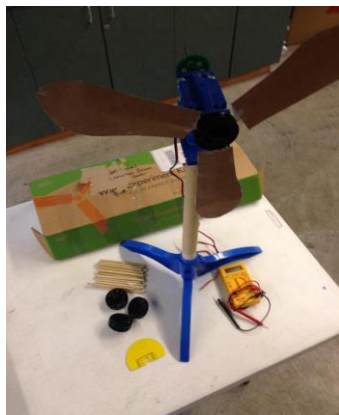
ANEMOMETERS



Four different models of anemometer that can be used to test wind speed at your school

1 AVAILABLE

KIDWIND TURBINE DESIGN KIT



Kidwind is one of the leading educational resources for teaching about wind turbines. The Kidwind Turbine design kit will allow students to build turbine blades and test them out on electric production or the ability to do work. There are also options to add a gear box to see how output changes with the mechanical advantage.

1 AVAILABLE



SOLAR THERMAL

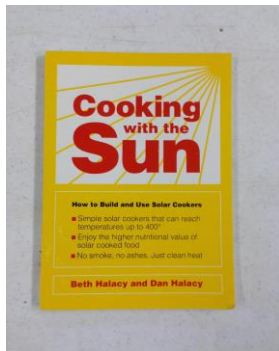
SUPER SOLAR SHOWER



Use the hot water bag to run experiments on how fast the sun heats a gallon of water. Does placement of the bag make a difference on how well it works. Many options for learning about solar gain.

1 AVAILABLE

SUN SPOT SOLAR OVEN



The Sun Spot Solar Oven is a commercially available oven powered only by the sun. Use it to bake brownies, make s'mores or just run experiments. Comes with a book entitled *Cooking with the Sun* by Beth and Dan Halacy

1 AVAILABLE

SOLAR RADIATION KIT



This team sized kit is a great way to explore the effects of color in heating with the sun.

1 AVAILABLE



PHOTOVOLTAIC

UNI-SOLAR FLEXIBLE MODULES (MAX POWER 10.3 W)



Two 5kW flexible solar modules that can be used as demonstration of how the sun can be transformed into electrical energy to be used in our daily lives. These modules were originally designed to charge satellite phones for the military.

1 AVAILABLE

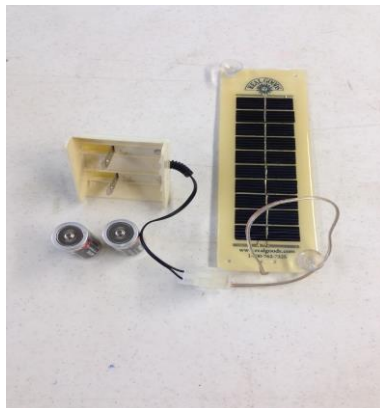
SOLAR POWERED FLASHLIGHT/RADIO



A fun way to explore PV with the option of a hand crank to compare the energy output.

1 AVAILABLE

SOLAR BATTERY CHARGER



Use the power of the sun to charge your batteries. This reduces the carbon footprint of your flashlight.

1 AVAILABLE



GENERAL ENERGY

KILL-A-WATT METER



Have you ever wondered how much energy your lap top uses? Is a fan more energy efficient than an air conditioner? The Kill A Watt meter is a device that can help to answer these questions. Simply plug your appliance into the meter and plug the meter into the outlet. It will automatically record the amount of electricity used by the appliance. The electrical usage can also be converted to dollar value per day.

2 AVAILABLE

LIGHT BULB COMPARISON KIT



People often wonder if a compact florescent light bulb will produce the same amount of light as the old incandescent bulbs. This test will help to show the amount of light that actually is emitted. You can also use the meter to test other styles of bulbs in your school and make an energy / light comparison.

1 AVAILABLE

LEAD ACID BATTERY MODEL



Students often wonder what a lead acid battery looks like inside. This model has a clear case so all the components are visible. There is no acid loaded in the battery, so it will not hold a charge.

1 AVAILABLE



350 W AC INVERTER



Most alternative energy systems create electricity in a Direct Current (DC) mode, but our appliances run on Alternating Current (AC). The use of an inverter will change the energy into a more useful form. The inverter can be used in conjunction with the PV panels or the Wind Turbine to assess how much energy these tools can actually produce.

1 AVAILABLE

FUEL CELL CAR AND EXPERIMENT KIT BY THAMES & KOSMOS

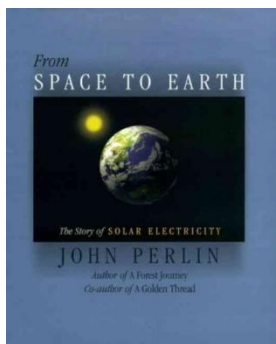


Fuel Cells are often thought of the cutting edge of alternative energy. With this model students can explore how a fuel cell turns water into electrical energy to power a small car. The kit also comes with several additional experiments to understand fuel cells better.

1 AVAILABLE

BOOKS

FROM SPACE TO EARTH: THE STORY OF SOLAR ELECTRICITY BY JOHN PERLIN, 1999

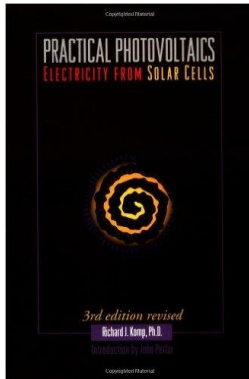


From Space to Earth tracks the evolution of photovoltaics from its shaky nineteenth century beginnings mired in scientific controversy, to its high-visibility success in the space program, to its current position as an indispensable and versatile power source that is improving our daily lives.

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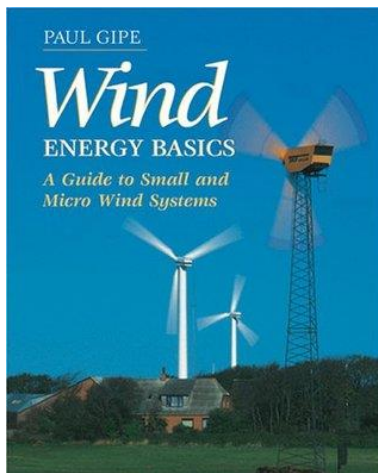
PRACTICAL PHOTOVOLTAICS: ELECTRICITY FROM SOLAR CELLS BY RICHARD J. KOMP, PH.D., 2001



Practical Photovoltaics, the now-classic reference on solar electricity, offer a unique combination of technical discussion and practical advice. Written by physicist, lecturer, and solar home dweller Richard Komp, the book is both a comprehensive guide to the theory, manufacture, present status and future of photovoltaics and a detailed installation and maintenance manual. Included are well illustrated, step-by-step instructions for constructing your own solar module, creative approach to demystifying the technology.

1 AVAILABLE

WIND ENERGY BASICS: A GUIDE TO SMALL AND MICRO WIND SYSTEMS BY PAUL GIPE, 1999

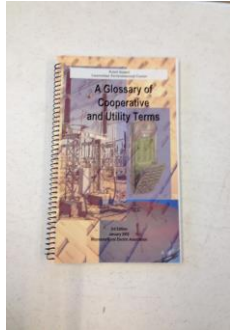


Paul Gipe, one of the world's leading experts on wind power and author of Chelsea Green's encyclopedic Wind Power for Home & Business, has now created an introductory guide to wind energy systems. This book gives an overview of the burgeoning use of wind energy around the globe, describing and analyzing the most affordable small wind generator, including the new generation of highly practical micro turbines.

1 AVAILABLE



A GLOSSARY OF COOPERATIVE AND UTILITY TERMS
BY MINNESOTA RURAL ELECTRIC ASSOCIATION,
2002



The words to describe electric cooperatives and the electric industry are bewildering.... What's this about “megawatts,” and “net metering?” Why should I care about the FERC and are the PMA's important? That's why the Minnesota Rural Electric Association (MREA) developed this glossary of terms. This booklet explains new terms, spells out acronyms and makes sense of utility jargon.
