

## Mission Statement

Our mission is to provide our neighbors with objective and sound information on the energy performance of their buildings and to put reliable solar energy systems to work to reduce our impact on our climate and our nation's dependence on imported fossil fuels.

## About the Company

Home-Efficiency Resources is committed to improving the efficiency and value of local homes and businesses. By reducing energy waste and putting the sun to work producing energy, local citizens and communities benefit from reduced energy costs and a reduction of greenhouse gas emissions.

Home-Efficiency Resources utilizes the most reliable and cost effective products to insure state-of-the art performance for our pre-engineered systems. Our Solar Solutions are customized to your individual needs, budget and circumstances.

We continually attend courses and maintain memberships in trade associations to keep abreast of the latest information and tools to insure our services and products are optimized for you.

## Benefits of Working With Home-Efficiency Resources:

- Improve the comfort, durability, and value of your home or business.
- Increase your energy efficiency to save money based on an objective, independent analysis.
- Reduce your carbon footprint, the amount of greenhouse gases from your conventional energy usage.
- Increase your energy independence by producing your own power.
- Help reduce our nation's dependence on imported fossil fuels.
- Save money now – Solar systems are more affordable due to federal tax credits.
- Attract customers for your business – your solar system is real green marketing.

You can rely on our experience, expertise and integrity to provide objective information and reliable solar systems.



John Kondos, president of Home-Efficiency Resources, began his career in the solar energy industry and has been active in energy issues and energy efficiency for 30 years. He has sold and installed solar water heaters in New Hampshire and Massachusetts, and photovoltaic (PV) systems on three continents. His home and business in New Hampshire incorporate passive solar gain, a solar water heater and a PV solar electric system, plus many energy efficiency enhancements. This SDHW system he installed 30 years ago is still making hot water.



Energy Efficiency & Solar Specialists

Home-Efficiency Resources, LLC.

218 Old Swanzev Road

PO Box 584

Spofford, New Hampshire 03462-0584

603-363-4505

[www.home-efficiency.com](http://www.home-efficiency.com)



## Providing Homes and Small Businesses with:

- Energy performance assessments and audits
- Solar water heating systems
- Solar electric (PV) systems

## Energy Efficiency Assessments and Audits

Home-Efficiency Resources will perform a thorough energy evaluation of your home. Utilizing advanced diagnostic techniques the building efficiency will be assessed including air infiltration, appliances, lighting, heating and building components.

### What is included in an assessment?

- Thorough investigation of the house to determine cost-effective improvements
- Blower Door test that enables the inspector to identify leaks and sources of heat loss
- Building components and structure evaluation — includes doors, windows, insulation, attic and basement
- System assessments including heating, hot water, lighting and appliances



Blower Door tests help diagnose and detect air leakage problems and estimate efficiency losses because of the leakage. The Digital Gauge, pictured above, measures and displays building pressure.



Based on the evaluation, a report is generated that determines the most cost effective improvements, taking the guess work out and avoiding costly projects with little impact on comfort and energy savings. We will provide you with specific, and objective, recommendations for improvements and their relative payback in dollars and CO<sub>2</sub> reduction.

Alternatively, a more detailed and comprehensive Energy Audit can be provided for Energy Star and other certifications as well as Energy Efficient mortgages.

## Solar Energy...

Free fuel deliveries daily, from the fuel that lasts forever.



### Solar Domestic Hot Water Systems

An independent, pollution-free solar domestic hot water (SDHW) system adds value to your home or business and as conventional energy costs continue to rise, the value of your SDHW system will increase.

SDHW systems are durable and will last for decades, and they are reliable — even on overcast days, a SDHW system will preheat your water, saving you money. Plus SDHW systems are environmentally benign compared to water heated by conventional systems using fossil fuels or nuclear energy sources.

The system consists of collectors, insulated boxes resembling skylights mounted on the roof. The collectors are connected to a water storage tank by a closed pipe loop that contains non-toxic antifreeze. The heated antifreeze is automatically circulated to provide the heat to the domestic water. We use high efficiency collectors from a manufacturer with systems that have been operating since the 1970s.

## Solar Photovoltaic (PV) Systems

Both durable and reliable, PV systems have no moving parts and are capable of producing electricity for over twenty years. PV systems have been used for decades in space, on mountaintops, in deserts and on buoys at sea.

PV modules come in a range of sizes. The module's output is based on the number and efficiency of the solar cells it contains. These solar cells convert sunlight directly into electricity.



### PV System Options — Be your own utility

- **Day-Use Systems** directly power a direct current (DC) appliance with no storage. Examples could include a direct connection to a water pump, an attic fan or the circulator on a SDHW system.
- **Battery Charging Systems** store the solar energy for use at any time. The PV modules are connected to a charge controller, then to a battery bank that can power DC loads directly. If alternating current (AC) is required, an inverter is used.
- **Utility Grid Interconnected Systems** allow you to “sell back” excess electricity to the utility. PV modules are connected to a grid-tie inverter which connects to the utility grid. These systems incorporate safety switches that shut off the power to the grid if there is a power failure. Another option is to incorporate a battery bank to provide power during a blackout.
- **Hybrid Independent Power Systems** are typically used for sites where the cost of extending a utility power line is excessive.