

# Ending the Oil Addiction

By Maurice E. Libson

**S**o you want to get off the oil addiction. Even T. Boone Pickens, the oil magnate, wants to get off the habit by going "green." For T. Boone it means creating the largest turbine farm in the world for making clean energy. For us it might mean to go solar. Solar panels are used to produce domestic hot water for the house or photovoltaic (PV) panels to create electricity.

Let's start with solar panels for hot water. Your boiler or any other utility device using gas, oil, or electricity is working year round just to create domestic hot water for dishwashing, showering, etc. If we could cut the cost in half by using clean energy, it would be a tremendous saving not only in dollars, but also with cleaner air.

To go solar you should have good southern exposure and your roof or yard should not be shaded by adjacent trees. The roof of the house, used most preferably, should be in good condition before the application of solar panels.

There are several types of solar water heating systems and the one that is selected is determined by your solar contractor and you.

## CLEAN ENERGY TASK FORCE

One system I have found is called the Heliodyne Solar Hot Water System. It is a closed-loop system, which means that the fluid in the system is only used as the heating medium. This fluid leaves the panel at a very high temperature and flows down to a heat exchanger in the storage tank where your domestic hot water is heated and stored, waiting to be used for dishwashing, showering, etc. The heating medium, a food-grade glycol and water mixture, continues to flow back to the solar panel to be reheated by the sun to start a new cycle completing the loop.

The average cost of a solar hot water system for a small house with a family of four runs about \$8,000 dollars. A survey should be made and an estimate prepared by a qualified installer. Federal tax credits are available to help reduce the cost.

The other route is to go solar electric and that means providing PV panels on the roof of a free-standing unit in the yard.

The advantages of a PV

system are many: no moving parts, no chemical reactions, no pollution to the air, non-corroding parts, simple controls, very low maintenance, long life, and long-term economic payback.

How a PV cell works is so complex I will not attempt to explain it. But when you have sunlight and PV panels on your roof, electricity is produced. If you are away and the system is not being used, the electricity flows to the meter, turning it backwards, exiting the house, and entering the grid system. That means when billing time comes, you will be credited for the amount of electricity you provided to grid.

Your PV system is a great selling point when you get ready to sell your house and obviously you would be compensated for the addition.

There are rebates provided by the Connecticut Clean Energy Fund that will pay part of the installation cost. There also is a federal tax credit of 30 percent or a max of \$2,000 dollars.

A complete list of eligible installers is available at [www.ctcleanenergy.com/solar](http://www.ctcleanenergy.com/solar). For more information about the North Haven Clean Energy Task Force, call 203-589-1512.