

## Going Solar in Owego

**By Liz Rowland**

In October 2006, Tioga Peace and Justice showed Al Gore's movie "An Inconvenient Truth" at the Ti-Ahwaga Players Theater. Over 100 people came to these screenings, and everyone that I talked to thought it was extremely well presented and convincing. The movie will be released as a video on November 20<sup>th</sup>, so if you've not yet seen it, you can rent it yourself.

Many people believe global warming is the biggest threat we face. If we act NOW we'll be able to reduce the level of greenhouse gases (mainly carbon dioxide from burning fossil fuels) in our atmosphere within the next few decades, so that we won't suffer too much from global warming. However, if we don't act within the next few years, the effects of climate change could be catastrophic. We will all be affected, even here in Tioga County. For instance, floods like the one we had this April will be more frequent, we'll also have more frequent droughts, food will be more expensive, we'll encounter new diseases, and we're likely to lose our maple trees. Each one of us can do lots to help to prevent this scenario.

One way my husband and I chose to help was to install solar panels to generate electricity for our household needs. We installed our system 4 years ago. It comprises 18 Sharp 165 watt panels giving a total rated potential generating power of 2.97 kilowatts (kW). A Sunny Boy 2500 inverter converts the solar generated DC into grid-compatible AC. Since we installed the system, it has generated 14, 152 kW of electricity, which is an average of 294 kW per month; enough for 70% of our household needs. We're linked to the grid (NYSEG) and are 'net-metered', meaning that whenever we use electricity it is drawn first from our panels if they are generating power at the time. If this is insufficient for our needs, the extra comes from the main NYSEG line. If our panels are generating more electricity than we need, the excess goes into NYSEG's grid, and NYSEG buys it from us at the same price as they charge us if we use NYSEG's power (12.2 c/kWh). Our system consists of ground-mounted arrays that can be seasonally adjusted to increase efficiency. Fortuitously, during winter, the panels are at their steepest so that snow doesn't tend to accumulate on them, and when it does, it can be swept off while standing on the ground. This offers an advantage over a rooftop system where the panels are flatter during winter and so may accumulate snow.

When we installed them, New York State allowed one to claim a tax credit of 25% of one's costs, up to a maximum of \$3,750, and the panel manufacturer offered a hefty rebate. This brought the price down from \$22,000 to \$11,000. The value of our annual electricity production is about \$430.00 or about 3.9% return on our actual investment after deducting rebates and tax credits. We think that the cost of our system has increased the value of our home, so the system expense will be recaptured if we sell the property. While 3.9% is not an exciting return, we would be willing to bet that relatively low electricity rates of today will rise over the lifetime of our system (at least 25 years). If you don't have the capital to buy the panels, NYSERDA offers a loan system.

Our main motivation for installing solar panels was to produce clean energy. However, we believe our solar panels have also been a sound investment too. They provide a steady return that is likely to increase, and they have increased the value of our property. People should consider a freestanding system and mount the panels so that the angle can be adjusted. Also, one should make full use of the solar tax credit and aim to maximize the amount of generating capacity per dollar invested. Solar power can be viewed as a solid long-term investment and one that will pay its way financially and environmentally for years to come. Let's go solar! To find out about tax credits, loans and rebates, call NYSERDA on 518 862 1090 (Email: [infor@nyserda.org](mailto:infor@nyserda.org)), or ask one of the companies like ETM that installs solar panels. If you'd like more information on our panels, Email us at [beek6@juno.com](mailto:beek6@juno.com).