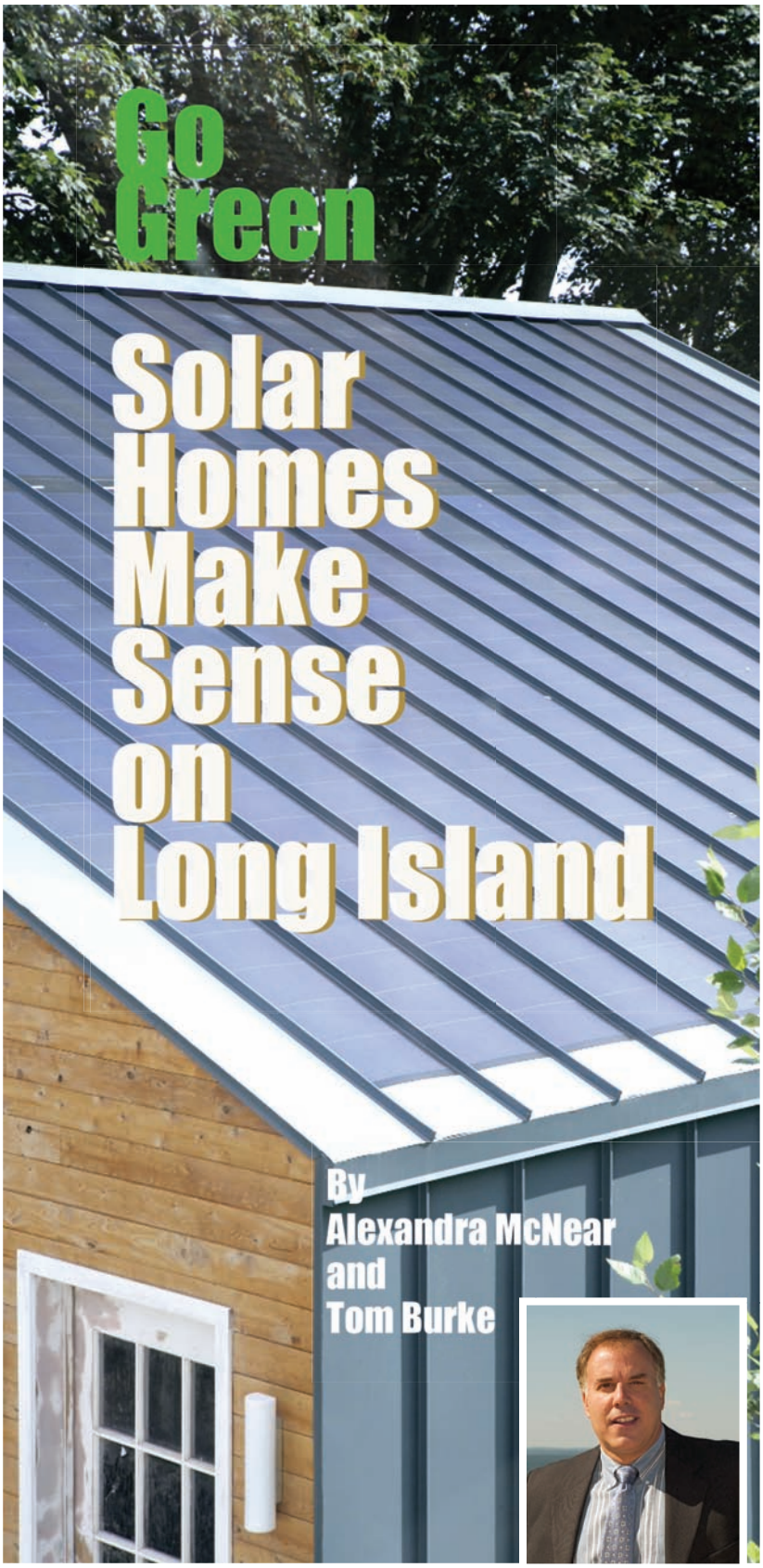

Go Green

Solar Homes Make Sense on Long Island

By Alexandra McNear and Tom Burke

There are a number of factors that make Long Island a perfect place for solar: high utility rates, a generous rebate from LIPA, state and federal tax credits, soaring gas and oil prices, and lots of sunlight. Add to that the reduction in your carbon footprint and you simply can't lose by installing solar panels. Whether you own a beachfront home in Montauk or a ranch house in Babylon, the benefits are long term and the return on your investment gets better and better each year.

Four Long Island homeowners, Dr. Gregory Letica of Northport, Liliana Nealon of Southold, Peter Sabbeth of Sagaponack, and David and Heather Saskas of North Haven, explain why they installed solar panels and how it both helps the environment and makes financial sense.

Rebates: The Financial Incentives

We've always known that solar is good for the environment, but the recent improvements in technology coupled with rebates and tax credits and high electricity costs now make solar viable for those who previously thought it was out of range.

The Long Island Power Authority (LIPA) is offering a $3.50 per watt rebate for residential and commercial installations, and $4.50 per watt rebates for non-profit l installations. LIPA's Solar Pioneer program offers rebates for solar systems up to 10 kilowatts (10,000 watts), which translates to $35,000 -$45,000! Although LIPA's rebate was at $6 a watt in 2001, it has steadily declined over the years, and is slated to continue to decrease gradually down to zero. For now, the current rebate block of $3.50 is holding steady, but homeowners interested in solar should consider doing it now while the rebate is still $3.50 a watt. Either way, the LIPA rebate makes installing a solar system affordable.

Dr. Gregory Letica and his wife Linda installed a 3.173 kW system on their house in Northport in June 2007. The installation, which included 19 Sharp 167 watt panels, cost $25,000 before the incentives. "Because of LIPA rebates and tax credits, the cost reduced our outlay, and our return per year made sense," Dr. Letica said. The 3.173 system cost him closer to $7,500 after the LIPA rebate and federal and state tax credits were subtracted from the cost.

Long Island's high utility costs are part of what drove him to install solar. "If our electricity bills weren't 20 cents per kilowatt hour, it wouldn't make sense to install solar," he said. But the cost of electricity on Long Island is high and certain to keep going up. Since the installation of the solar system the Leticas' electric bill now averages only around $25 a month. In fact, Dr. Letica said that the after-tax return on his investment was over 10 percent – and it's pretty hard to find returns like that today.

Peter Sabbeth, co-founder of Modern Green Homes, a design-oriented development firm in the Hamptons specializing in green building, has installed solar panels on houses he built in

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Sagaponack and North Haven. He said the LIPA rebate was a huge incentive and made the price of installing solar systems on both houses more affordable.

Heather and David Saskas, who recently installed solar laminates on their new house in North Haven, also agreed that the rebate was important. "I don't think we would have done it if there wasn't a big rebate," Heather said. "The cost would have been just too much."

But it's not only the rebate that puts money back in your pocket – if your residential solar system produces more energy than you can use, you "bank" the excess electricity and your meter will run backward. Then when you use more than you produce, you can tap into your energy "bank." This is called net metering. And if you produce more energy than you consume over a full year, LIPA will even pay you 8-10 cents a kilowatt hour for the excess and will issue you a check at the end of the year.

When Liliana Nealon received a $97 check from LIPA this year, she said she was "thrilled." How often does that happen? She installed a 6.012 kW solar system on her house in Southold in May 2007 and has been banking solar credit ever since. Because Heather and David Saskas installed their solar system many months ago and are just finishing construction on their house with a plan to move in this month, they have been producing more electricity than they need and have been banking solar credits.

Although the LIPA rebate is the biggest incentive to many homeowners, some towns on Long Island – like Southampton – offer their own solar rebate, adding to the already lowered cost. Mike Benincasa, chief building inspector in Southampton, explained that the town started offering $2,500 rebates in 2006. Since then they've paid out 28 rebates to homeowners in the Town of Southampton who have installed solar systems. "We'll do whatever we can to promote energy conservation," he said.

Tax Credits and Exemptions

As part of the Federal Energy Bill, the federal government offers tax incentives for the purchase of a photovoltaic system, making the purchase of a solar system even easier. Residential customers can receive up to 30 percent tax credits, with a cap of $2,000. Commercial customers who install solar systems can receive up to 30 percent tax credit with no cap. Unfortunately, the federal tax credit will expire at the end of this year (politicians in Washington have not yet agreed on whether to extend the credit). New York State offers a 25 percent tax credit toward the total cost of a photovoltaic system, with a maximum credit of $5,000. These credits are dollar-for-dollar reductions in the amount of tax you owe, and if you can't use the full credit in a given year, any credit in excess of the tax due can be carried over for up to five years.

New York State also has a 15-year property tax exemption for people who install solar systems. What this means for the homeowner is that the increased value to your home from installing a solar system is exempted from a property tax increase for 15 years.

Increase Your Property Value

Many people interested in installing solar wonder how it will affect their property value. Well, solar increases property value for the obvious reason that it significantly reduces the operating cost of the home. A home's value increases $20,000 for every $1,000 reduction in annual operating costs from energy efficiency, according to a 1998 *Appraisal Journal* article by Rick Nevin and Gregory Watson. The rationale is that money from the reduction in operating costs will be spent on a larger mortgage with no net change in monthly cost of ownership. A typical solar system on Long Island will save $1,500/year, resulting in an increase in value of $30,000 which is far in excess of the post-incentive cost of the system.

Solar systems will appreciate over time rather than depreciate as they age. The appreciation comes from the increasing annual savings the system generates. What home improvement or remodeling investment pays you back faster as it ages? Solar equipment carries a 20-25 year warranty from the manufacturer, which include such well-known names as Sharp, SunPower and Sanyo. So the savings will continue for a long, long time, while the cost of traditional energy is likely to continue increasing steadily.

Liliana Nealon believes that her solar system definitely increased the resale value of her home. "If I wanted to put it on the market now it would probably sell quickly," she said. Her utility bills come out to $5 a month, and that alone adds tremendously to the resale value of her house. Going green is a big selling point, according to Peter Sabbeth. Dr. Letica is convinced that his solar panels have increased his property value more than the $7,500 he invested. "I think it makes your

house worth more because you are spending less on bills."

Soaring Oil and Gas Prices, and a Zero Carbon Footprint

Soaring oil and gas prices on Long Island is another reason why now is a good time to go solar. LIPA rates have gone up an average of 7 percent per year for the last six years to meet increasing fuel costs. With LIPA rates going up, everyone's electric costs will rise.

Some people mistakenly think that solar panels will bring down heating costs. Solar reduces your electric bill, not your heating-related costs, unless your home heating system is electric. In addition, the more things in your house you convert to electric, the bigger impact your solar system will have on your utility bill.

Determined to cut costs and save the world at the same time, Liliana Nealon started out by converting all the energy uses in her house—heating, air conditioning, hot water – to electric. Then she installed solar. She now has a zero energy and zero carbon footprint house.

"I went against conventional wisdom and changed everything to electric," she said. She took "one piece of the puzzle" at a time and tackled each energy cost in her house. Each room is individually heated with electric heaters (Energy Star rated) and "mini-split" air conditioning systems, a wall-mounted air conditioning unit more common in Europe than in America. She also has a wood-burning stove and changed her oil water heater to an electric one. All her appliances are energy efficient.

"Solar has been amazing," she said. Before she installed the solar, she thought the payback for the installation would take six to eight years. But after the solar and all her energy-saving efforts, her payback will be more like two to three years. "The upfront costs were well worth it," she said, especially considering the price of oil, the continued rebate from LIPA and federal and state tax credits.

The Environment: Save the World One House at a Time

The consensus in the scientific community is that climate change

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is caused by human activity, specifically carbon released into the atmosphere from cars, houses, factories etc. Solar is just one of the many ways you can contribute to reducing your carbon footprint.

Some people install solar panels not just for the financial savings and increased marketability, but because they feel a kind of moral responsibility to the environment. Peter Sabbeth is one of those people. He recently finished building an entirely "green" house in Sagaponack. The house, once the home of the author James Jones, had fallen into disrepair and was slated for demolition. Peter stepped in with the idea of restoring the original house, adding a more contemporary addition to the back, and making the whole house green.

"Green is the only way to go," he said. "There simply isn't another option. What could be more important than the quality of your home and the quality of your environment?" So he used solar for the house, geothermal for heating and cooling, more sustainable materials (such as concrete floors) in some parts of the house, purchased local woods or lumber from managed forests, and used the highest density insulation. He even has a table in the backyard made from a solar panel!

Peter chose to install solar laminates, which are manufactured in long strips and can be installed on standing seam metal roofs and flat roofs that have a rubber (EPDM) roof surface. In fact, solar laminate strips sit between the seams of a metal roof and can simply blend into the roof in a way that actual panels are less likely to. He wanted the largest possible solar system and ended up with 9.092 kilowatts.

Not long after Peter bought the property, *Hampton's Cottage and Gardens* magazine approached him about making the house the 2008 Idea House. (Each summer *HC&G* highlights a recently built residence in the Hamptons.) The house, which is open to viewing by the public, has welcomed hundreds of visitors. Peter said the many people who comment on how they like the way the solar laminates look surprised him. His solar design demonstrates how attractive solar has become.

David and Heather Saskas also installed solar laminates on their house in North Haven. Originally they looked into solar "on a whim," Heather said. But once they found out more about it and understood the incentives, they signed on. "Now, we feel 'Thank God we did it.' It would have been irresponsible not to," she said.

Although the Saskases have a 9.750 kilowatt solar system on their roof, you would never know it. The laminates blend in so seamlessly with the metal roof that you hardly see them. "That's one of the things I love most," Heather said. Originally she and David were concerned with how the laminates would look; most people are surprised when Heather tells them there are solar laminates on the roof.

Solar contractors know that the number of people requesting solar installations on Long Island has skyrocketed for many reasons. As Liliana Nealon said, going solar is a "no-brainer. It's worth its weight in gold. I would highly recommend it."●

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