



# renewable energy Long Island

October 2011 e-News

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See all upcoming events on reLI's Calendar of Events at <http://www.renewableenergylongisland.org/calendar.cfm>

## 2011 Solar Tour Another Great Success. Long Island now boasts close to 4,500 solar electric systems!

Did you ever wonder what solar panels look like and whether they are worth the investment? If you went on our annual Solar Tour and Green Buildings Open House this year, you got all the answers you were looking for. For those that could not make it, we provide a summary here and also offer a [virtual eTour](#) of some locations online.

What a great year it was for the 2011 Solar Tour. Thanks to the American Solar Energy Society which organizes the Tour nationwide, local organizers like reLI, and thousands of homeowners who volunteer their time and open their homes, Americans are discovering their individual power-potential in protecting the future of our planet. The October 1st 2011 Tour featured 5,500 buildings to be visited by 160,000 participants across the country. Visitors could see how renewable sources of energy function on a small scale and how homeowners have greatly reduced their monthly utility bills.

On Long Island, devoted home and business owners shared their time and stories to keep this clean energy education machine in motion. These Tour hosts were eager to share their experience and show proof that Long Island with its high electric rates, plenty of sunshine, and attractive rebates and tax credits is the perfect place for energy efficiency and solar

energy.

This year reLI featured 29 locations all over the island. We estimated a total of 1,000 individuals to have visited these homes and businesses, as we issued over 500 free passes to both families and individuals. With a list of locations in hand, visitors travelled around on a self-guided basis and homeowners were available to explain the details that make their homes unique. The best

part of this tour is realizing that there are viable options for any homeowner; whether you live in the woods with little sunlight or have limited funds, there many ways to lower monthly energy costs. The tour has inspired many families, architects, and businesses to develop their own low-energy projects.

Chris Jeffrey, an architect, and proponent of smart design and "personal energy independence" went on the

### Home Improvement

Tour hosts Mark Bartosik and Swati Srivastava live in Bayshore in a 1963 home retrofitted with a conglomeration of energy systems. Their close-to net zero energy home is equipped with Photo Voltaic (PV) tiles, laminates, and panels, a geothermal heating/cooling system, reflective roofing, and all kinds of meticulous additions that keep this home air-tight, temperature stable, and electrically undemanding. They even drive a Chevy Volt with a purely electric engine that can be recharged at home.



Mark started researching PV tiles, a more aesthetically pleasing option, in June of 2006 and found a company that had only just produced a prototype. The home became the first in the US where these electricity producing tiles were installed onto an already existing roof; they were more commonly installed on new buildings during construction and especially on the West Coast.

Mark and Swati found the financial commitment to be worthwhile, saying that their "regular solar panel system will pay back in about 10 years, but for the roof integrated system the payback is longer." Though the payback isn't instant, they have invested in durable products that will outlast conventional ones, namely using impact-rated glass for the tiles. Imagine having your own roof-mounted power plant and looking forward to opening your utility bills. "It certainly is good to not have to bother about how much the electricity, oil or gas bill is going to be," says Swati.

### The Beauty of Smart Design

Jessica James was eager to use a mix of creative solutions to build her Montauk home. She used unconventional forms of insulation, including recycled denim, and embellished her home with salvaged doors, flooring, and windows. It's no surprise that Jessica enjoyed making her home the perfect energy-efficient nest, she herself is a small-scale beekeeper and has been for 40 years. "I wanted to make sure that my house represented my ideals in terms of aesthetics as well as efficiency," she explained to Tour visitors.



Jessica learned about living sustainably early on in England where she produced organic food for her family, managed an orchard and kitchen garden, and bred endangered breeds of sheep and chickens. These experiences allowed her to make smart decisions regarding her home and lifestyle. "Living close to the land has informed my interest in building and living sustainably," making this building project her "life for a long time," she explains. Jessica attended home and garden shows, read relevant magazines, and used internet sources, before getting free, detailed estimates to have a PV system installed. She was pleased with how simple a process it was between the estimate and having the system finally installed.

"It's easy to become a sustainability junky," says Jessica, "I just love the fact that as an individual, I have some power over reducing my personal reliance on fossil fuels."



### Building from Scratch

Don Matheson, a seasoned builder, and his wife Victoria built their East Hampton home from the ground up, or rather up out of the ground, with the environment in mind. One of the most interesting and perhaps obvious insulators is the very dirt we stand on. "The temperature underground is quite stable after you go down a few feet," explains Don, "so instead of trying to fight 20 degree or colder temperatures in winter on the outside of the wall, the temperature is only about 55 degrees." This also keeps the house cool during hot summer months and prevents air leakage, which lowers heating costs by about 30%. This earth sheltered home has most of the first floor underground but 3.5 feet tall windows on the south side let in a lot of daylight. Waterproof concrete in the foundation acts as a barrier between the lower level and the dirt, and also tempers the space by soaking up heat in the daytime and slowly releasing it throughout the night.

Aside from large solar arrays on the roof, solar space heating, and the use of recycled building materials, the Matheson family had an Energy Star audit of their home through the Home Energy Rating (HERS) program, which provides a pre-construction analysis of a home as well as on-site inspection to gauge the overall leakiness of a home and its ducts. They were rewarded for their good design and construction practices with a HERS rating of 97 out of 100!



For Don, combating global warming was an obvious incentive, but in his case, so were finances. Here's how he *saved money*:

- Extra and high-rated insulation allowed for a smaller HVAC system
- Using concrete instead of conventional framing for the first floor saved \$\$\$
- The PV system was entirely paid for through LIPA rebates, tax credits, and Energy Star incentives
- The PV system replaces what would have been an estimated \$7,500/yr on fuel and electricity .
- The same system powers his Chevy Volt, saving him about \$4,000/year in gas!

### Continued from Pg. 1...

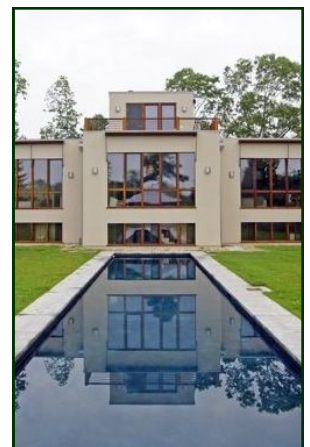
Tour because he is currently designing a private residence in Hampton Bays that he says will "create the energy we need on our property, keep our money in our pockets, and reduce our reliance on the global energy market." He used reLI's solar calculator to get an idea of solar array sizes and find contractors most appropriate for the jobs he works on. Mr. Jeffrey who believes that "millions of smaller solutions can have a greater effect than singular larger ones," is taking a stand with each home he designs by incorporating ecological design principles.

Thanks to the Solar Tour, Long Island residents are inspired to explore the endless possibilities of energy independence. Today there are close to 4,500 solar roofs on Long Island, a staggering figure when compared to a meager two systems installed in the year 2000, when LIPA first



launched their rebate program. "The house tour is democracy at work," says Mr. Jeffrey, and it's "an exciting time to be able to create a new building future."

If you want to be a part of that future, mark your calendar for the next Solar Tour on Saturday, October 6, 2012. In the meantime you can watch some inspirational videos on our e-tour [www.renewableenergylongisland.org/media.cfm](http://www.renewableenergylongisland.org/media.cfm). Now if you're really eager, use our free solar calculator and contractor finder at [www.sunshineisfree.org/](http://www.sunshineisfree.org/) and get started!



# Hot off the Press, This Year's Long Island Green Guide !

## 100% Renewable: Imagine

Gordian Raacke helps us understand the great potential we have on Long Island to become 100% energy independent with building upgrades, on and offshore wind turbines, and solar arrays.

## Water Resources: When It Rains...

Instead of treating run-off after a heavy rain in an inefficient sewage treatment plant, why not divert it into 'enhanced tree pits' where native plants can absorb it and filter it instead?

## Water Resources: Your Water Footprint

The GRACE Foundation challenges us to become more aware of our "virtual water" consumption through the food we eat, products we buy, and energy we use. Check out the GRACE Water Footprint Calculator at <http://www.h2oconserve.org> and learn how to reduce your water footprint.

## Offshore Energy: An Ocean of Energy

With great improvement in turbine technology, off-shore wind farms have the potential to produce thousands of megawatts while being virtually invisible from the coast. Read about proposed projects here!

## Solar Energy: Everything Under the Sun

From "power lots" in Brentwood to solar farms at Brookhaven National Laboratory in Upton, Long Island is becoming a leader in Solar Energy production.

## Delivering a Climate Message to Congress- By Bicycle

Join Ashley Hunt-Martorano on her 300-mile bike-ride to Washington D.C. to raise money and awareness on climate change.

## Home Green Home: Do Try This at Home

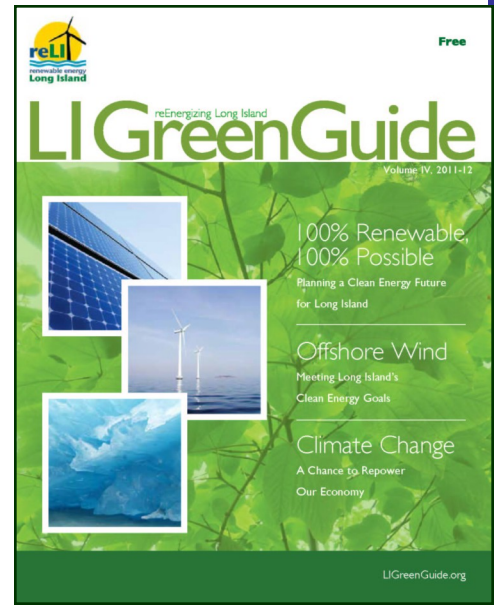
Familiarize yourself with ways to keep your home cool, reduce your energy bill, use appliances properly, and invest in renewable technology, all with little strain on your bank account; everything from weather-stripping, to dishwasher practices, to \$3,000 solar hot water heaters.

## Climate Change: Crisis and Opportunity

by Gordian Raacke  
Learn about affects of the thick layer of greenhouse gasses in our atmosphere. Glacial melting, weakened coast-lines, threatened fresh-water, sea-level rising, and mass-extinctions are all happening due to a lack of political will. The silver lining is that we have the power to get our planet back into equilibrium.

## Solar FAQs

Get some answers to those looming questions regarding the cost, installation, and maintenance of photovoltaic (PV) systems.



## Pick Up a Free Copy Here:

- Whole Foods in Jericho & Lake Grove
- Greener Country in Bohemia
- Wild By Nature in Huntington
- Huntington Cinema Arts Centre
- Green Logic in Southampton
- SUNation in Southampton & Oakdale
- EmPower Solar in Island Park

## Long Island Green Homes Free Home Energy Audit

**Cut Your Energy Bills, it's Easy and Affordable!**

**75% of Long Islanders have already invested in better insulation for their homes!**

The LIGH is extending a helping hand with a comprehensive guide on how to take advantage of energy programs on Long Island. Fill out an application to the program that suits you and find out about getting a free or reduced price home energy audit from highly trained contractors.

Find more information at <http://longislandgreenhomes.org/>



## Mark Your Calendars: Climate Reality & What We Can Do

Gordian Raacke, Executive Director of reLI, will give the updated Inconvenient Truth presentation created by Al Gore. Learn how we can no longer deny that climate change is caused by humans and what we can do to reduce greenhouse gas emissions while creating jobs and saving money.

**Wednesday, November 2nd at 1pm at Stony Brook University. Please RSVP at:**  
<http://www.renewableenergylongisland.org/calendar.cfm?calendarID=575&month=11>



## Upcoming Event: Long Island Wind Power Educational Forum. Gordian Raacke will present as one of the panelists.

Join reLI for our free forum on Wind Power.

This forum will bring together clean energy advocates, businesses, and researchers to provide accurate information and separate myths from fact regarding wind power. The discussion will include the environmental benefits of wind power, offshore options for Long Island, backyard wind turbines, rebates, permitting, and more.



**October 27th, 1pm at the Melville Marriott.**

**Be sure to register at:**

<http://www.renewableenergylongisland.org/calendar.cfm?calendarID=574&month=10>

## Resources

### reLI's Online Solar PV Calculator:

[SunshinelsFree.org](http://SunshinelsFree.org)

### reLI's LIGreenGuide:

[LIGreenGuide.org](http://LIGreenGuide.org)

### reLI on Facebook:

[Facebook.com/RenewableEnergyLongIsland](http://Facebook.com/RenewableEnergyLongIsland)

### reLI Professional Membership:

[renewableenergylongisland.org/membershipinfo.cfm](http://renewableenergylongisland.org/membershipinfo.cfm)

### Events Calendar:

[RenewableEnergyLongIsland.org/calendar.cfm](http://RenewableEnergyLongIsland.org/calendar.cfm)

### Shop for reLI products online at:

[CafePress.com/RenewableEnergyLongIsland](http://CafePress.com/RenewableEnergyLongIsland)

### LIPA's Solar Hot Water Rebate

[lipower.org/residential/efficiency/renewables/solar-hotwater.html](http://lipower.org/residential/efficiency/renewables/solar-hotwater.html)

### Find A Solar Contractor (pre-screened by reLI):

[SunshinelsFree.org/contractorselector.php](http://SunshinelsFree.org/contractorselector.php)

### Become a reLI Member:

[RenewableEnergyLongIsland.org/join.cfm](http://RenewableEnergyLongIsland.org/join.cfm)

### Long Island Green Homes:

<http://longislandgreenhomes.org/>



Find reLI on Facebook at [Facebook.com/RenewableEnergyLongIsland](http://Facebook.com/RenewableEnergyLongIsland) and follow our Twitter feed @LIGreenGuide.



Clean Energy - Safe Environment - Healthy Planet

**renewable energy  
Long Island**

62 Newtown Lane, Suite 103  
East Hampton, NY 11937

[info@RenewableEnergyLongIsland.org](mailto:info@RenewableEnergyLongIsland.org)  
[www.RenewableEnergyLongIsland.org](http://www.RenewableEnergyLongIsland.org)