

## A Tale of Two Cities: Planning for a Wind Turbine on Moon Island in Boston Harbor

There's a new turbine coming to town! The cities of Boston and Quincy have announced collaboration on building a wind turbine sited at Moon Island in Boston Harbor. The island is owned by Boston but it's within the city limits of Quincy and subject to Quincy's wind power zoning ordinance. A feasibility study recommended the installation of four hundred foot wind turbine that would generate about 4 million kilowatt hours per year, enough for about 600 homes. The site is a good one because of the wind resource and the fact that it is one mile away from the nearest home. The state has already made a grant of \$400,000 towards the project. Mass Energy is working closely with the cities and hopes to include Moon Island wind in the *New England GreenStart* portfolio. On May 24th, the the first community meeting to discuss the project went very well. For more information, visit [www.massenergy.org/moon](http://www.massenergy.org/moon). ■



*Photo Simulation of Wind Turbine on Moon Island*

## Massachusetts Solar Incentives Have Changed – Has Effect on *New England GreenStart*

Incentives available to install solar panels on homes and businesses in Massachusetts have changed in order to make them more sustainable. The shift, effective on January 1, 2010, transitions incentives from a rebate based model to a model based mostly on the value of the 'Renewable Energy



*Local electricity generation is ideal*

Certificates' generated by new solar installations. There will be a special "carve out" in the Renewable Portfolio Standard (RPS) that requires electricity suppliers to buy an increasing number of Renewable Energy Credits (RECs) from new solar installations sited in Massachusetts. This special market will drive the price of the Solar Renewable Energy Credits (SREC) s up significantly, way beyond what we can afford to include in our *New England GreenStart* portfolio. Whatever we pay in RECs, we have to pass on to our members. This market shift could be great news for the the solar industry, but as a result, we will focus more on purchasing RECs from wind turbines to keep the cost of green power affordable for our members. In this way, both the wind and solar industries in Massachusetts win from the incentive transition. For the time being, we will continue to purchase RECs from solar projects that were built before the new carve-out rules came into effect. ■

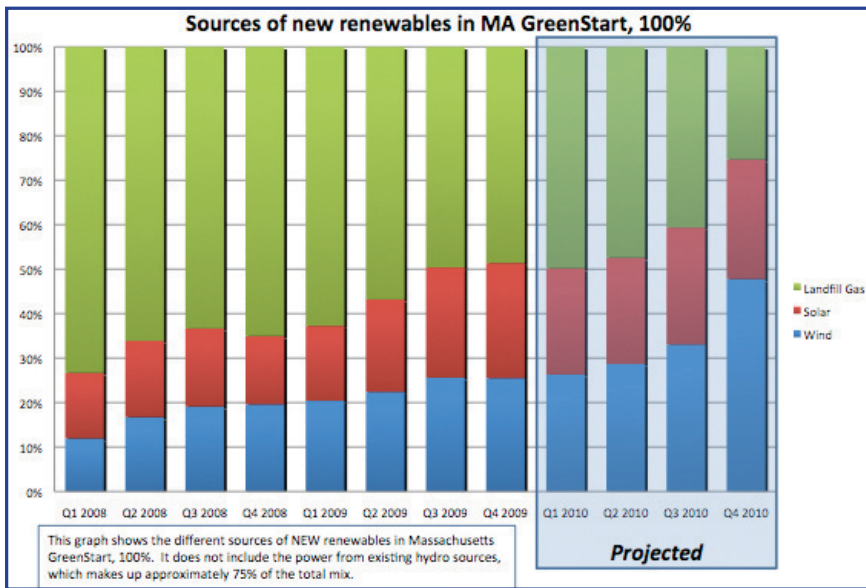
## Windier and Windier

While we at Mass Energy have heard the phrase “too much of a good thing,” we’re pretty sure it doesn’t apply to wind energy in Massachusetts. In fact, because of the support of our members, we are currently purchasing power from one third of the wind projects in the state that are 600 kW or larger! We are on track to almost double the percentage of wind in the mix

of green energy that we purchase for *New England GreenStart* customers in MA by the end of 2010. As the wind industry continues to gain momentum, we will continue to work hard to ensure that Massachusetts sees its fair share of these projects.

We have had a lot of landfill gas in our portfolio—which was great for getting started until wind projects came long. Landfill gas power plants use the methane created from decomposition of organic waste in landfills, which would otherwise be flared with no emission controls or lost to the atmosphere, where it is a more potent greenhouse gas than carbon dioxide. Certainly, while landfills exist, this is a green solution to the methane problem. But over time, we are adding more community-scale wind into the portfolio right now because it is the best deal and one of the lowest impact renewables.

When you, our *New England GreenStart* members, pay for green power through your utility bill, you can be sure you are getting what you pay for because of the Disclosure Label in every issue of *Currents* on p.3. ■



Change in source over time of the GreenStart mix

## Cutting Computer Costs

Saving money and reducing your computer’s energy usage is simple with a few minor changes. The EPA recommends that the most important change you can make is to make sure your desktop computer is set to go to sleep or, better yet, hibernate after 30 minutes of inactivity. The economizing settings can save as much as \$75 per computer annually.

Although screen-savers give the impression that you are saving energy, they save very little. It is very important to turn off your computer when it is not in use. Contrary to popular belief, a computer is not worn out by restarting it a few times a day and it does not take more energy to start a computer than to just keep it running. When turning it off, remember

to also turn off the monitor and printer. A good idea is to use a power strip. When deciding which type of computer to buy, consider that laptops use significantly less energy than desktop computers, and Macs use much less energy than PCs. ■



It is easy to save energy on computer use

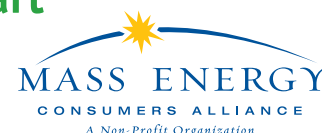
## New Facebook, Twitter and LinkedIn pages.....

Mass Energy has ramped up our presence in social media by making dedicated Facebook, twitter, and LinkedIn pages. Find us online. We are called “Mass Energy” on all pages.



# New England GreenStart Disclosure Label

Summer 2010



Electric Power Suppliers are required by the Department of Public Utilities to provide customers with a disclosure label. The label enables consumers to look at the energy sources, air emissions and information about the supplier in order to make a more informed choice of a power supplier. Consumers can compare energy labels to make the best choice based on their energy needs.

## Generation Price: (cents per kWh)

Prices do not include regulated charges for customer service and delivery.

Customer Type	Basic Service Fixed Pricing Option
Residential	October: 9.714, Nov & Dec: 8.639
Sm. Commercial, General Services	October: 9.734, Nov & Dec: 8.575

*New England GreenStart* 100% is an extra 2.4 cents per kWh for all customer types.

*New England GreenStart* 50% is an extra 1.25 cents per kWh for all customer types.

\*Check your electric bill for your customer type and to see if you are listed for *New England GreenStart* 100% or 50%.

**Contract:** You may opt out of *New England GreenStart* with no fee at any time by calling: Mass Energy Consumers Alliance at 1-800-287-3950.

**Power Sources:** Demand for this electricity product in the period 10/1/2008-9/30/2009 was assigned generation from the following sources:

Power Source	Standard Mix	Greenstart 50%	Greenstart 100%
Biomass	3%	10.1%	12.2%
Coal	11%	5.5%	0%
Hydro (Large)	2%	01%	0%
Hydro (Small)	0%	35.0%	74.9%
Imported Power	10%	5%	0%
Municipal Trash	2%	1%	0%
Natural Gas	34%	17%	0%
Nuclear	30%	15%	0%
Oil	6%	3%	0%
Other Renewables	0%	0%	0%
Solar	0%	3.3%	6.5%
Wind	2%	4.2%	6.4%
Air emissions as % of NEPOOL mix			
Carbon Dioxide		50%	0%
Carbon Monoxide		73%	42%
Mercury		50%	0%
Nitrogen Oxides		62%	22%
Particulates		52%	4%
Fine Particulates		54%	7%
Sulfur Dioxides		50%	1%
Organic Compounds		62%	22%

## Labor Information

Less than 1% of *New England GreenStart* resources come from generators with known union contracts with their employees.

NOTES: 1. Electricity customers in New England are served by an integrated power grid, not particular generating units. However you can choose the types of electricity generating sources that will be associated with the electricity you use by selecting a GreenUp supplier. The above information is based on information from contracted renewable energy generators.

DEFINITIONS: 1. Generation price and contract: *New England GreenStart* 100% costs \$0.024 per kWh in addition to regular generation, service, and supply charges of National Grid, which may vary over time according to usage. *New England GreenStart* 50% costs an extra \$0.0125 per kWh.

2. Power Sources: The electricity you consume comes from the New England Power Grid, which receives power from a variety of power plants and transmits the power throughout the region as needed to meet the requirements of all customers in New England. Mass Energy is responsible for purchasing power attributes in an amount equivalent to your electricity use. Standard Mix is based on National Grid's Standard Offer Service. Biomass refers to power plants that are fueled by wood, other plant matter or landfill gas. Hydro resources of greater than 30 megawatts in size are deemed "large hydro." Solar refers to photovoltaic panels and wind refers to wind turbines. Other Renewables include fuel cells utilizing renewable fuel sources, and ocean thermal.

3. Emissions: Emissions for each of the following pollutants are presented as a percent of the regional average emission rate. Carbon Dioxide (CO<sub>2</sub>): is released when fossil fuels are burned. Carbon dioxide, a greenhouse gas, is a major contributor to global warming. Biomass and landfill gas generators release CO<sub>2</sub>, but do not contribute to a net increase in atmospheric greenhouse gases. Nitrogen Oxides

(NO<sub>x</sub>) form when fossil fuels and biomass are burned at high temperatures. They contribute to acid rain and ground-level ozone (or smog), and may cause respiratory illness in children with frequent high level exposure. NO<sub>x</sub> also contribute to oxygen deprivation of lakes and coastal waters which is destructive to fish and other animal life. Sulfur Dioxide (SO<sub>2</sub>) is formed when fuels containing sulfur are burned, primarily coal and oil. Major health effects associated with SO<sub>2</sub> include asthma, respiratory illness and aggravation of existing cardiovascular disease. SO<sub>2</sub> combines with water and oxygen in the atmosphere to form acid rain, which raises the acid level of lakes and streams, and accelerates the decay of buildings and monuments. 4. Labor Information: the information on this label regarding whether generators of suppliers operate under collective bargaining agreements is provided to inform you about whether the energy was produced in plants where employee wages and working conditions are mutually determined by employees and management, and protected by union contracts.

## FOR MORE INFORMATION:

Mass Energy Customer Service: 1-800-287-3950 National Grid Customer Service: 1-800-322-3223	Division of Energy Resources 1-800-531-0077 Website: <a href="http://www.state.ma.us/thepower">http://www.state.ma.us/thepower</a>	Department of Public Utilities Consumer Division: 1-800-392-6066 Website: <a href="http://www.magnet.state.ma.us/dpu/">http://www.magnet.state.ma.us/dpu/</a>
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## Wind Turbine Visits: Have You Ever Seen a World Changing Piece of Machinery Up Close?

We love to share the gift of wind with our members! This past May we celebrated the one year anniversary of the Town of Portsmouth's wind turbine. Our supporters and friends heard about the turbine's exceptional results to date and enjoyed participating in a number of fun activities from designing their own peace and wind flags to field games.

All the fun and the learning did not stop at Portsmouth. On June 17 we glided across the Boston Harbor over to the Hull

turbine. We did not only get to see the Hull turbine up close and hear from local experts about how it works, but we also had the opportunity of looking inside the turbine itself!

There will be many more opportunities to witness the fruits of your contributions! In late August we're planning to visit the Princeton wind turbine, stay tuned for details! ■



*People had a chance to enter the base of the Hull wind turbine and learn about what is inside*



*Activities at the Wind Turbine Fest at Portsmouth High School ranged from talks about the turbine to sports to wind-focused art*



*Wind supporters on the boat cruise to the Hull I Wind Turbine*



*A gathering of people who support the development of wind turbines at the Hull Wind Turbine*