



Greening Your Electricity: How **you** can choose clean energy

March 2nd, 2015





Greening Your Electricity Supply

Maybe you're not be a candidate for solar panels
You've already done a lot to increase your home's
energy efficiency

Three options to increase the amount of renewable
energy being used to generate the electricity you
use at home

- Buying Green Power
- Support efforts to increase renewable energy in Mass
- Community Solar



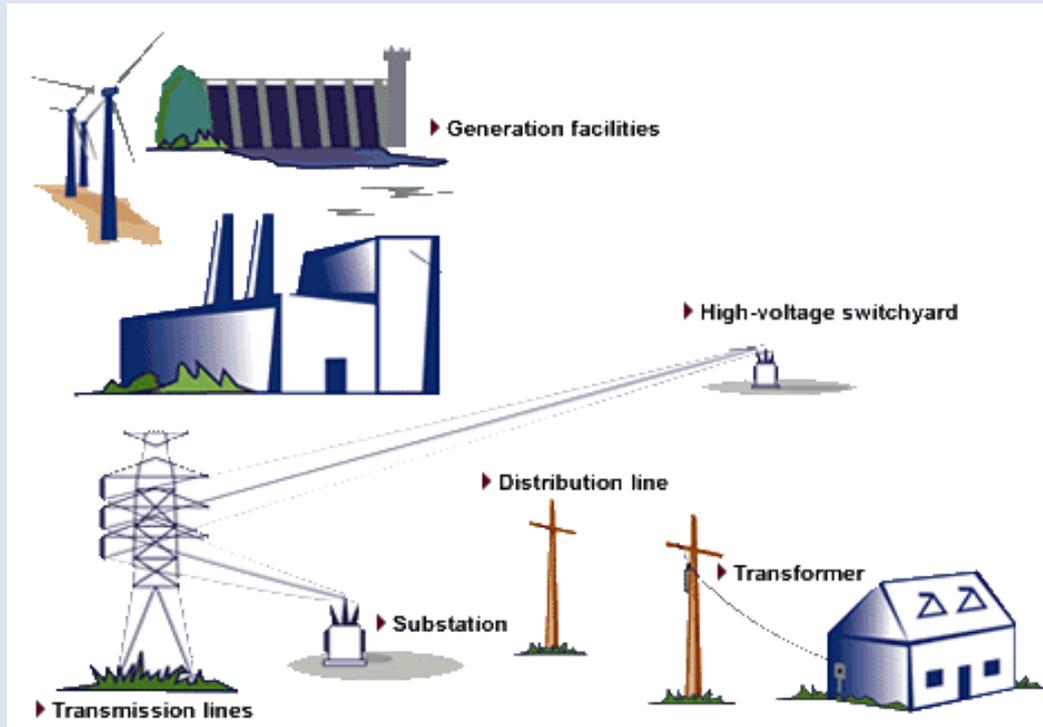
Electricity 101: The “Electric Grid”

“The grid” is a system that:

Produces (generates) electric power

Transmits power to localities where and when it is needed (transmission lines & control rooms)

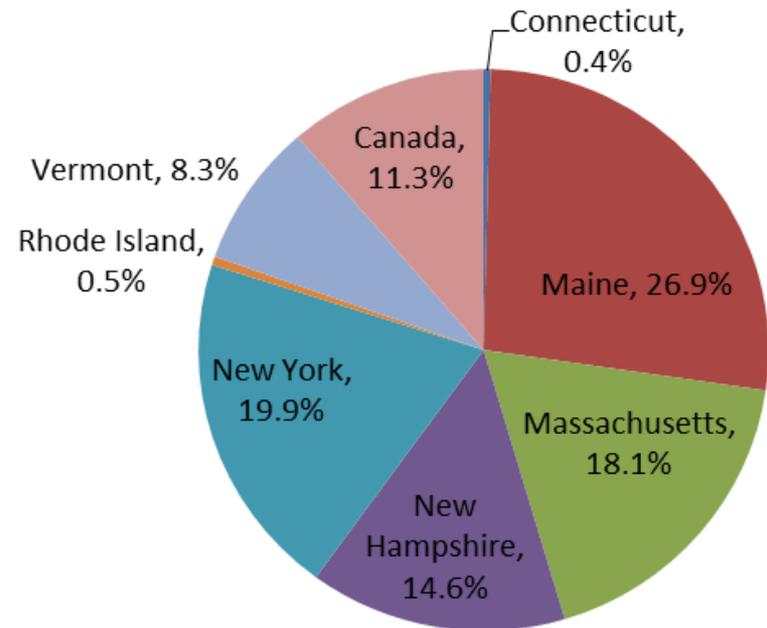
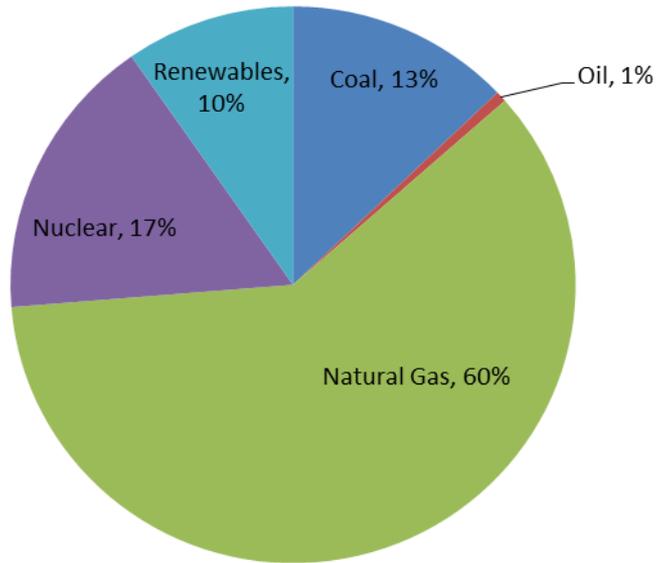
Distributes the power to homes and businesses within each community (the utility company)





Where Are the Power Plants?

What Fuels Generate our Electricity ?





Power Generators

Many different power generators feed electricity into the grid.

- Different fuels – natural gas, oil, wood, nuclear, wind, solar, hydroelectric, etc.
- High voltage lines form a network for bringing power from generators to customers
- We are served an integrated electricity transmission network called ISO-New England
- "Green" electricity from renewable sources is fed into the grid and becomes part of the mix. It can't be directed to a particular house or customer.



Power Transmission

Suppliers buy generators' power and arrange for transmission to their customers.

Because of deregulation, we can choose other power suppliers like Viridian, Dominion and Constellation. If we don't make a choice, Eversource remains our supplier.

Under State Law, all electricity supplied to Mass customers must be at least 10% renewable.

- Mass has very strict rules about what counts towards this 10%



Local Power Distribution

Eversource is our power distributor in Needham and is responsible for:

- delivering power to your home.
- owning & maintaining the local network of wires, poles and transformers.
- Ensuring that you always have electricity
- Make repairs and do billing.
- **They are always the one to call if you have a problem with your electricity.**

This is true whether we keep Eversource as our supplier or choose a different supplier to buy electricity for us



Your electric bill

Delivery charge
from Eversource

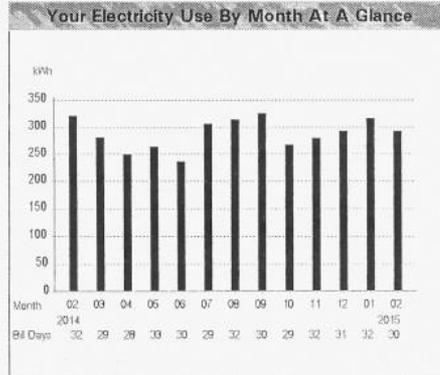


Service Provided to

Electric Bill Summary

Electric Bill Comparison			
	Current Month	Last Month	Last Year
Electric Charges	\$61.74	\$66.46	\$63.63
Total Electricity Use (kWh)	293	316	320
Delivery Charges (per kWh) <i>Cost to deliver electricity to your home.</i>	10.4¢	10.4¢	10.5¢
Delivery Charges Total	\$30.71	\$33.00	\$33.76
Generation Charges (per kWh) <i>Cost to purchase electricity from VIRIDIAN</i>	10.5¢	10.5¢	9.3¢
Generation Total	\$31.03	\$33.46	\$29.87

Bill Analysis			
Billing Days	30	32	32
Avg. Daily Electric Use (kWh)	9.7	9.8	10.0
Avg. Daily Temp (degrees)	25	37	30



Account Number	2342 919
Please Pay By	Please Pay Amount
February 23, 2015	\$61.74
Current Bill Date	Next Meter Read Date
February 5, 2015	March 5, 2015
Highlights From This Month's Billing Period	
<i>January 5, 2015 to February 4, 2015</i>	
Amount of Your Last Bill	\$33.00
Payment - Thank You	-\$33.00
Previous Balance	\$0.00
Adjustments	\$0.00
Delivery Charges Total	\$30.71
Generation - Supplier Total	\$31.03
Total Charges for Electricity	\$61.74
Please Pay Amount	\$61.74

NSTAR is now Eversource.

Over the next few months you'll be hearing more about our commitment to reliable energy and superior customer service.

Be sure to visit our new web site - Eversource.com - to pay your bill, get information about your account, report outages, learn about ways to save energy and more. For E-Bill customers, the same username and password will continue to work.

And if you need to reach us via phone you can continue to call 800-592-2000.

www.eversource.com

800-592-2000



Your electric bill

Delivery charge
from Eversource

Supply charge
from Supplier
or Eversource

Service Provided to

Electric Bill Summary

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Your Electricity Use By Month At A Glance

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www.eversource.com
800-592-2000



Green Power Basics

Generators of Renewable Energy have two sources of revenue:

- 1) selling the electricity they generate
- 2) selling "Renewable Energy Certificates" or RECs

Renewable power generators can sell one REC for each 1000 kilowatt-hours of electricity produced.

Since renewable energy costs more to produce, especially in New England, the extra income from selling RECs is the key to making renewable energy financially viable.

Massachusetts has **very specific** requirements for the renewable energy needed to meet the 10% rule (remember that?)

- These requirements do not necessarily apply to renewable power for the other 90% of your power needs.



Green Power

What are your options to help increase the amount of renewable energy being used to generate electricity here at home?

- Mass Energy Green Power
- Third-Party Green Power Suppliers
- Community Solar



Mass Energy Green Power

- Mass Energy is a non-profit that will match your monthly electricity use (in kWh) with local green power. They are NOT a supplier.
- Mass Energy charges a few extra cents per kilowatt hour and uses the money to support New England clean energy by entering into long term contracts to buy RECs from carefully chosen local renewable energy projects.
- Because they are not supplying your power, Eversource ,(or a 3rd party supplier), will still supply your electricity. Your bill from Eversource will be the same as always.
- You can opt out at any time. Mass Energy is non-profit, so payments are tax-deductible.



Mass Energy Green Power

Information you need:

Visit www.massenergy.org to learn about their programs:

- Each program has a different charge per kilowatt-hour
- Know your monthly electricity usage, since costs are based on your usage

Look at their FAQs

Their website lists the projects they support



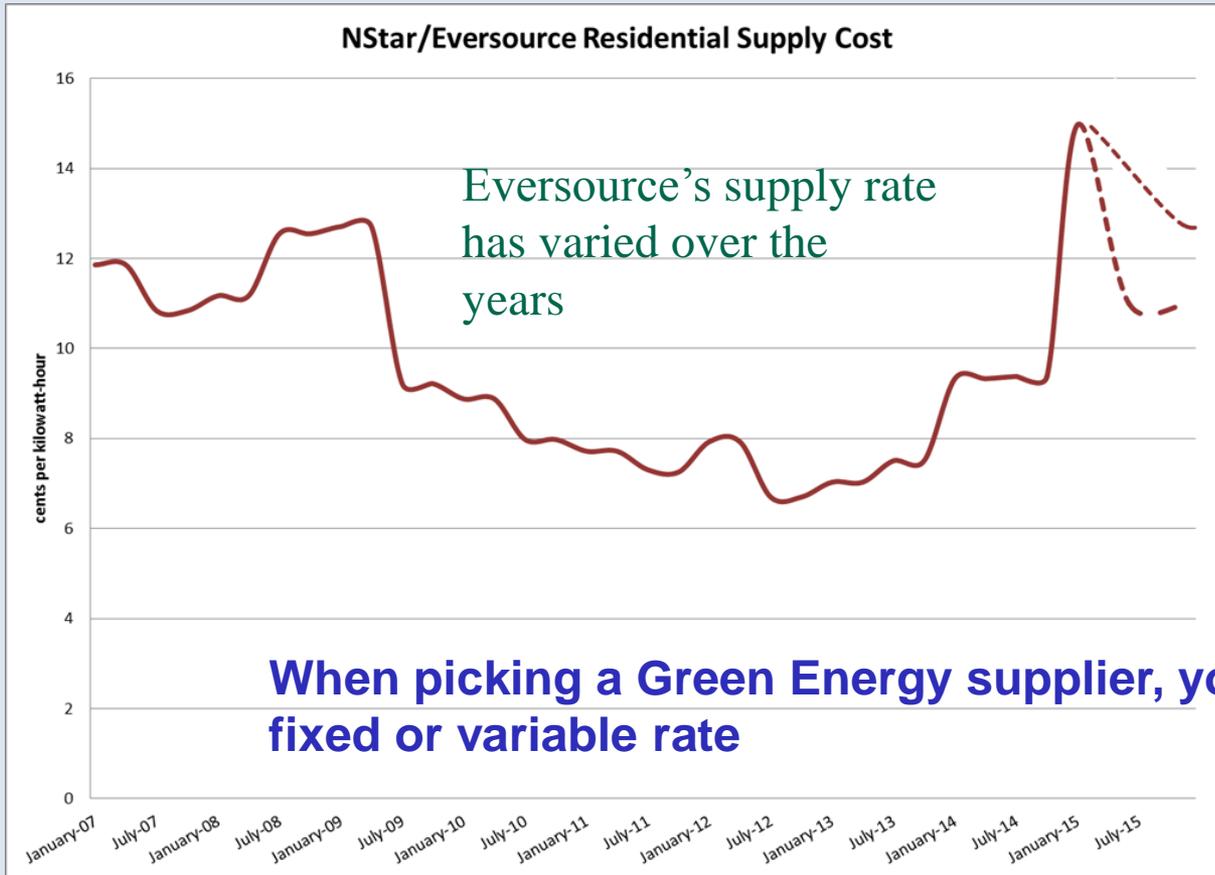
Green Power Suppliers

- Suppliers such as Viridian, Spark Energy, Clearview Energy and others offer to supply "green energy," which means that they buy Renewable Energy Certificates (not necessarily from New England) on your behalf.
- The rate quoted just covers the "supply" charge, not the total cost per kilowatt hour. You still have to pay the utility for distribution and other fees.
- Third-party suppliers offer a variety of plans. Make sure you know what you're getting: Is the rate variable or fixed?
- The Eversource website lists suppliers. Sites such as ChooseEnergy.com and CurrentChoice.com lists some of the companies that offer green energy.



Green Power Suppliers

Electricity prices are volatile



Eversource's supply rate has varied over the years

Eversource supply prices will change in June, and probably go down

When picking a Green Energy supplier, you can opt for a fixed or variable rate



Green Power Suppliers

Information you need:

- **Price** – Is the price a short-term “teaser” rate? If it’s a fixed price, for how long? If it’s a variable rate, is there advance notice before the rate changes?
- **Fees** - Are there additional monthly fees in addition to the per kilowatt hour charge?
- **Contract** - Is there an automatic contract renewal? Will you be notified and have a chance to cancel?
- **Shades of Green** - When a company advertises green or renewable energy, what exactly are they delivering?



Community Solar

- It's a bit like having your own solar panels, except they're on someone else's property.
- Customers usually make no capital investment and have no maintenance responsibilities.
- Since participants purchase the credits at a special discounted rate, there's a savings on utility bills. The more people who sign up, the more solar facilities will be built.
- Companies taking signups in our area for possible projects include Next Step Living, www.nextstepliving.com (866) 867-8729 ; Clean Energy Collective, masscommunitysolar.com 844-CEC-SALE
- This approach involves a long term contract and commitment.



Community Solar

Information you need:

- Are there specific plans for the solar farm in our area?
When?
- Is there a deposit required for signing up? What happens to the deposit if the solar project doesn't go through?
- How long is the contract?
- How much will you save?
- What happens if you move during the term of the contract?



Sorting Things Through

Choosing a Green Power Option is Complicated

- How much renewable energy do you want?
- Is promoting Local Renewable Power a priority?
- Is saving money a major driver?
- What does the fine print say?
 - Choices involve contracts and commitments



General questions?

Thank You?

www.GreenNeedham.org

