Wind Fact Sheet #1:
The Cost of Green Power

Noble Environmental Power, LLC

What is "green power"?

Green power is another term for renewable energy. Renewable energy is electricity that is generated by renewable sources such as the sun, wind, water, biomass, and geothermal heat.

Why is green power important?

Increasing concerns about global warming, air pollution, electricity prices and energy security mean that renewable energy is more important now than ever. Our energy needs are increasing every year, and we have to find new sources of electrical generation. We can't meet all of our electricity needs with renewable energy, but by developing our renewable energy resources to their full potential we can help our environment, stabilize electricity prices, and diversify our generation portfolio.

Is green power more expensive? And if so, why?

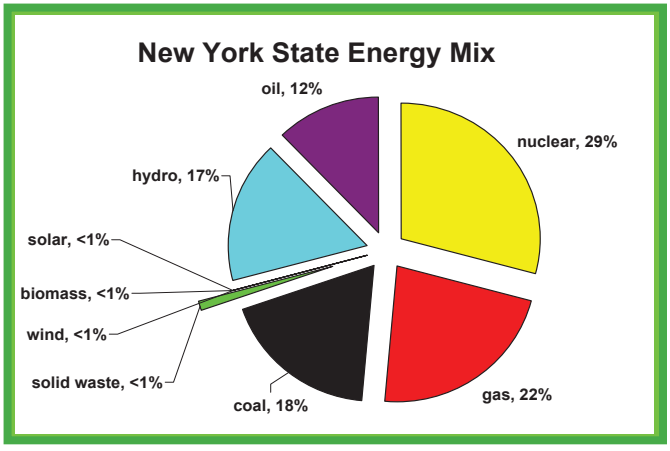
It depends on the type of renewable energy, but in the case of wind, the answer is *no*. In terms of new generation capacity, wind is the least expensive alternative available. When talking about energy prices, it's very important to "compare apples to apples." If you compare the price of electricity from a new windpark to the price of electricity from a 40 year old coal plant, there's no contest – the electricity from the coal plant is cheaper, because after 40 years, the facility has been paid for. But if you compare a new windpark to a new coal plant, the reverse is true – the windpark produces electricity for less cost.

But my utility keeps sending me bill inserts trying to get me to pay more for green energy!

Many electricity providers in New York offer their customers the option to sign up for "green power programs." Typically, customers can sign up for pre-determined quantities of renewable energy, or they can choose to get 50% or 100% green power. The important thing to understand is that this is an OPTIONAL purchase to get EXTRA renewable energy, above and beyond what is already "in the mix."

How much is in the mix? And why would anyone want to pay extra to get more?

In New York, approximately 19% of the total electricity sold comes from renewable sources (most of this is "large" hydro, such as Niagara Falls). As a society, we recognize that renewable energy offers many benefits. There are several state and federal policies in place to stimulate the development of our renewable energy resources (see below). But individual consumers can also use their buying power to get more renewable energy on line. Simply put, buying green power supports the development of renewable energy, because as more and more people sign up for green power programs, it sends signals to the markets.



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So if I sign up for green power, how do I know it's getting delivered to my house?

Signing up for green power doesn't change anything about what gets delivered to your home or business. But it does result in the addition of more green power to the electricity grid. The New York State Public Service Commission carefully tracks the amount of green energy sold to customers, and ensures that the same amount of green power is delivered to New York State's electrical grid. As the demand for green power grows, more supply must be created – which means more renewable energy facilities get built.

One way to think about it is to imagine the electrical grid as a large body of water. There are many sources that flow into it, and they mix together before individuals consumers draw on it for their needs. The more clean sources are tapped for supply, the cleaner the mix is for all of us!

I've noticed that there is a charge on my bill for New York State's Renewable Energy Program… what's that about?

As noted above, there are several federal and state-level programs to promote the development of renewable energy. One type of program that is used in many states is called a Renewable Portfolio Standard, or RPS. RPS programs vary, but the basic idea is that the RPS sets requirements for the amount of renewable energy in an energy supplier's portfolio, and then gradually increases the requirement over time. This sends signals to the energy markets to build new renewable energy facilities.

The goal of New York's program is to increase the amount of renewable energy supplied from 19% to 25%. To fund this program – which will yield significant environmental, economic and energy benefits for all New York ratepayers – a small surcharge is collected.

I've heard that polluting power plants can buy "renewable energy credits" so they can pollute more…is this true?

Absolutely not! It is true that there are federal and state air pollution reduction programs that allow fossil fuel-based power producers to trade "emission allowances", which are sometimes called "pollution credits". However, these are completely different from renewable energy credits, or "RECs."

A renewable energy credit represents all the benefits associated with a specified unit of renewable energy, usually a megawatt-hour. RECs are basically an accounting mechanism that is used to track where renewable energy goes and who can claim the benefits (remember, all electricity gets mixed together once it's on the grid). As noted above, individuals and businesses can purchase RECs to stimulate the demand for green power, which means more renewable energy gets built.

Helpful Sites/Additional Reading:

AWEA - Comparative Costs of Wind Energy and Other Energy Sources - http://www.awea.org/pubs/factsheets/Cost2001.pdf

AWEA - The Economics of Wind - http://www.awea.org/pubs/factsheets/EconomicsOfWind-Feb2005.pdf

NYPIGR's Consumer Guide: Buying Clean and Green Electricity for you Home http://nypirg.org/energy/green_electricity/green.html