

CL&P Clean Energy Program

When an individual or group becomes interested in buying clean power the first, and most obvious, solution is to purchase the power directly. This involves finding someone producing clean power who sells that power to the same 'grid' that you belong to and arranging to purchase that power from them. This is what is known as a 'delivered product.'

However, for many states, Connecticut included, it is very hard to find cost-effective 'delivered products.' According to Green-e.org, Connecticut, for example, does not have any wind farms, solar installations, or geothermal plants.

Renewable Energy Credits

This is where Renewable Energy Credits (RECs) step in. To explain what they are it is best to use an example:

Example 1

Traditional fossil fuel energy costs .07 cents per kilowatt hour

Clean energy costs .08 cents per kilowatt hour

In this imaginary market, like most U.S. markets, clean energy costs more to produce than fossil fuel energy. However, to remain competitive, the clean energy producers still have to sell their energy to the grid at the same price, taking a 1 cent loss. All energy is the same once it hits the grid, so consumers in this fictional market do not see any reason to pay more when coal energy turns on the lights the same way that wind energy does.

Clean energy operators in the past had two choices: they could either refuse to sell electricity to the grid at anything below their operating costs (and end up with most consumers buying the cheaper fossil fuel power) or they can sell their electricity at a loss. Both of these scenarios stunt the growth of clean energy - why would you invest in an industry that does not make money?

There are two solutions that have been implemented to open the market to renewable technologies. The first is a regulatory solution - states mandate that a certain percentage of the electricity sold within their jurisdiction must come from renewable sources called a 'renewable portfolio.' Connecticut has such a program but it is separate from the voluntary CL&P plan.

The second is the Renewable Energy Credit (RECs). This is a private industry solution to the problem. RECs are certificates issued by clean power producers and certified by independent auditing bodies such as the [Center for Resource Solution's](#) in their [Green-e](#) program.

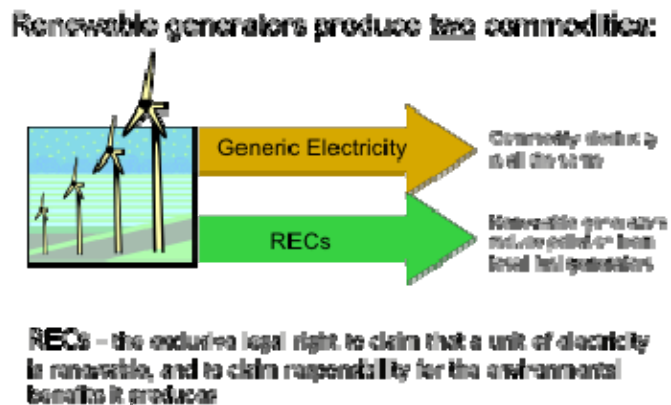
RECs represent units of power such as kilowatt hours or Megawatt hours. They are priced based on the difference between the market rate (.07 cents in our example) and their production rate (.08 cents in our example). So, a 100 kilowatt hour REC in our fictional market would cost 1 dollar.

By purchasing a REC you are paying the difference between market rate and the production rate, allowing clean power producers to enter the competitive marketplace without operating at a loss.

So, by purchasing RECs to cover your energy consumption, you are allowing clean energy to enter the market at a competitive price. You are purchasing all legal rights to the benefits clean energy creates - namely the pollution avoided (carbon dioxide, nitrogen oxides, sulfur dioxide, mercury, and particulate matter) and the economic benefit to rural communities that are often the homes to these technologies. While these may not be benefits that we can physically claim ownership to, the social impact is huge. By purchasing RECs you help generate a market for clean, renewable technologies that are looking more and more attractive as prices continue to rise across Connecticut.

Example 2

For every kilowatt hour of electricity a renewable generator generates, it also generates a one-kilowatt hour renewable energy credit. The generator can sell both commodities together as "renewable electricity" or sell the electricity as "generic" electricity to one buyer and the RECs to other buyers.



Here's a simple way to think about it. CL&P has offered you the opportunity to pay a little more each month for wind power, and you did. From that point on, the electricity feeding your meter would be exactly the same as it was before you started buying wind power. That's because all electricity is the same, and you can't tell particular electrons to go to a particular house on the grid. So what do you get when you buy wind power from your utility? You get electricity from the mix of all sources feeding the grid, and "credit" for having had the electricity you use

replaced with wind power. That "credit" is the core of RECs. When you buy wind power from your utility, you're really just buying ordinary electricity and RECs in the same transaction from the same supplier. In fact, your utility may or may not buy wind power on your behalf - they may simply buy wind RECs for you. Either way it's the same. Because all electricity is the same, ownership of RECs and an equal amount of ANY electricity is legally deemed to be ownership of renewable electricity. As an alternative, you can continue buying the electricity you're going to get anyway from your utility, and use that "little more each month" to buy RECs from any of several REC suppliers.

Frequently Asked Questions about RECs

Why are RECs sold separately from the power?

Renewable energy projects are often located in regions where there are not enough people nearby who are willing to pay the premium price that the project needs - the price that reflects the environmental value of its power. In addition, transmitting its power a longer distance to markets where people are willing to pay that premium adds even more cost (and in fact, it wouldn't even get there - if you transmit power from one grid to another, the power that actually moves is the power that happens to be closest to the "bridge" at the time). Splitting the project's output into two separate commodities - the power itself, and the environmental attributes of that power (the RECs) - enables the project to sell its power locally at market rates as "regular" or "generic" power, and recover its premium cost by selling the RECs to buyers in other markets or regions who are willing to pay the premium to support renewable energy.

This system adds flexibility and efficiency to the renewable energy market. In addition, it simply recognizes that because all electricity is physically identical, it doesn't matter which electricity is credited or claimed as renewable, as long as you only claim as renewable the amount that actually is from a renewable source. Ownership of RECs gives you the right to "call" a certain amount of electricity (that you use) is renewable (however many kilowatt hours of RECs you bought).

Alternatively, if the renewable generator meets additionality criteria, you can claim the CO₂ reductions associated with your RECs as offsetting your non-electric carbon footprint, from flying or driving, for example.

If I'm buying the RECs, who gets the power?

The power is sold or used locally. For example, a wind turbine project is sells the power to a local utility. Some projects sell the power to their retail customers. A farm methane project may

build use some of the power on the farm, and sell the rest to the grid. What's important is that the generator is required to treat the power, whether it sells it or uses it itself, as "generic" power, and to make no claims regarding its environmental attributes that would conflict with their customers' rights to use the RECs to treat their own power as renewable or to offset their CO₂ footprint.

REC Suppliers

The two REC suppliers who are part of the CL&P program are Community Energy, Inc. and Sterling Planet. These are for profit companies whose businesses are similar to stock brokers. They locate generators or other traders who have REC's to sell and resell them to consumers at a spread which represents their commission.

Accounting for RECs

Each REC has a separate number and in the Northeast is recorded and track by NEPOOL Generation Information System (NEPOOL GIS). When an unused certificate is transferred it is recorded in the NEPOOL system and there are rules to determine when they are used or expired. There is a process for transferring credits from different regions of the country.

CL&P Solar Panel Program

I don't have enough information to describe this program.