



# CUB's Guide to: Renewable Energy Certificates (RECs)

## Background

When you turn on the television, charge your cell phone, or crank on the air conditioner, there's no easy way to determine if the electricity you're consuming is coming from a nuclear plant, wind turbine or any particular power generator. We do know that the electrons are flowing from the power grid, which is constantly being fed by thousands of sources, from the dirtiest coal plant to a home's rooftop solar panel.

### What is renewable energy?

According to the Environmental Protection Agency (EPA), "renewable electricity is produced from resources that do not deplete when their energy is harnessed," like sunlight, wind, waves, water flow, and geothermal energy.

So, how can green-minded consumers ensure that renewable energy is produced to meet their electricity demands? For some, the answer is "renewable energy certificates," commonly referred to as RECs.

## What are RECs?

In the late 1990's, as consumers, businesses and governments increased demand for renewable energy, and a number of states (including Illinois) adopted Renewable Portfolio Standards requiring electric utilities to acquire a percentage of their energy from renewable resources, a system for tracking that "clean" energy was needed. RECs were created.

For every one megawatt of electricity produced by a renewable energy generator, like a wind turbine or a solar panel, one REC is also created to quantify the positive environmental attributes of that energy.

## How do RECs work?

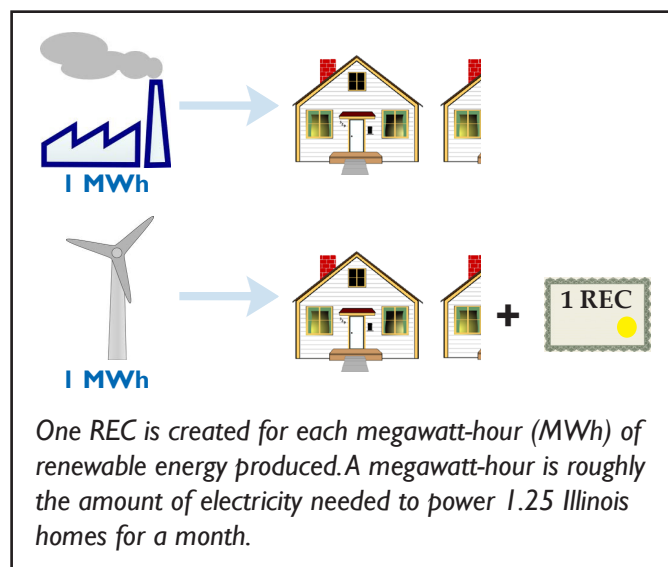
When a wind farm adds 1 megawatt-hour (MWh) of electricity to the power grid, for example, a buyer can purchase both the electricity generated and a REC representing the positive environmental attributes of that clean electricity. The buyer can also choose to purchase the electricity only, and the REC can be sold to another buyer at market value by the wind farm.

In short, someone who purchases and claims a REC is ensuring that—even if the power they consume isn't coming from a renewable resource—renewable energy is being added somewhere on the electric grid.

## How much does a REC cost?

According to the U.S. Department of Energy, RECs for varying types of clean energy are currently priced between 0.2 cents to 5.6 cents per kWh.

Just like the price of soy beans or the stock value of a corporation, the price and value of RECs fluctuate. A REC's value depends on a number of factors, including the technology used to generate the electricity (solar, wind, etc.), the vintage (the year the power was generated), the region where the power was generated, and the amount purchased.



## How do I know my money is actually funding renewable energy?

There are seven major regional tracking systems set up to create, manage and retire RECs. The tracking systems also allow states and other entities to demonstrate that they've complied with any renewable energy standards and environmental policies they might be bound by.

The PJM-Generation Attribute Tracking System (PJM-GATS) and Midwest Renewable Energy Tracking System (M-RETS) manage and track RECs in Illinois.

## What are “green energy” options from alternative suppliers?

Several alternative retail electric suppliers (ARES) marketing plans in Illinois offer “green power” options—giving consumers the option to offset up to 100 percent of the energy they consume with RECs. Again, even if you purchase “green energy” from an alternative power supplier, it doesn't mean the actual electricity you consume is from a renewable energy source—it just means that clean energy was added somewhere to the power grid.

For example, if a consumer enrolls in an alternative supplier's “50 percent green” plan and consumes 1,000 kWh (1 MWh) of electricity in a month, that customer would purchase 0.5 RECs under the plan and claim the environmental benefits of adding 500 kWh of “green” electricity somewhere on the power grid.

Likewise, if that same customer was on a “100 percent green” plan, that person would purchase 1 REC to offset their entire electricity demand for that month.

Consumers often pay a premium for these plans, which can cost more than the utility's price to compare. As always, be sure to read the fine print before signing up for any offer. CUB tracks alternative electric supplier plans in Illinois.

## Does the state of Illinois buy RECs?

Illinois' Renewable Portfolio Standard requires the Illinois Power Agency, which purchases power on behalf of ComEd and Ameren customers, to obtain at least 6 percent of customers' power demand from renewable resources in 2012, with that amount increasing by 1 to 1.5 percent annually until it reaches 25 percent by 2025. RECs can, and are, purchased to help the state comply with that law. Alternative power suppliers are also bound by the Renewable Portfolio Standard, but municipal and cooperative utilities are not.

## Does CUB support buying RECs?

CUB supports a consumer's right to buy a REC to offset their electricity demand and help fund renewable energy projects. However, RECs shouldn't distract from the best way to help the environment and cut your electric bill: Reducing your electricity consumption, or moving your electricity demand to off-peak hours.

## Moving Demand

Programs like ComEd's Hourly Pricing and Ameren's Power Smart Pricing allow consumers to pay the hourly market price of electricity—rather than the utility's fixed rate, which changes only with the season (summer and non-summer). By reducing power usage during peak hours when prices are at their highest (usually hot summer afternoons), consumers have been able to save an average of 15 percent on their power bills, and lessen the need to run expensive, high-polluting power plants.