

Global**Renewable**Hub

Green Certificates



RenewableBuyersGuide: Green Certificates

There are different ways for companies to source cleaner forms of energy. Here we look at what Green Certificates offer companies sourcing renewable power.

How do they work?

Unless you are generating your own power onsite, it has historically been very difficult to ensure that the electricity you buy is truly green. Until recently, this was not an issue for most companies – they just wanted a power supply that was secure and reliable. Where it came from was not relevant.

But as the drive towards a decarbonized economy continues, and more businesses look to procure clean energy, being able to identify the source of the electricity you use has become more important. This is where Green Certificates come in.

Green Certificates, or Renewable Energy Certificates (RECs) are important for both Power Purchase Agreements (PPAs) and Green Tariffs because they provide end-to-end evidence that renewable electricity has been generated. They are normally issued for every MWh of power produced and include information such as the type of energy used to produce power, the location of the project, its capacity, when it was built and its unique ID. This allows the electricity to be tracked on its journey from the generator to the consumer.



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“Because the physical electricity we receive through the utility grid says nothing of its origin or how it was generated, RECs play an important role in accounting, tracking, and assigning ownership to renewable electricity generation and use,” says the U.S. Environmental Protection Agency.

As the accepted legal instrument for substantiating renewable energy generation and use claims in markets such as the U.S., RECs are issued when governments require utilities to source a certain percentage of power from renewable sources. The certificates allow governments to incentivize certain technologies and control the amount of clean energy capacity that is built.

Green Certificates



1. A corporate buyer (buyer) agrees a contract with a renewable power generator (seller) to buy Green Certificates matched to renewable power generation. Certificates can be produced and sold alongside physical power; they can also be unbundled from physical power generator and sold separately.

2. The electricity produced by the seller is sold on the wholesale market.

Note: There may be differences to the structure outlined above, depending on the location and market.

What are the benefits of Green Certificates?

With Green Certificates, governments can set exact targets for the level of renewable production in a country, while the market finds the most efficient way to meet these targets.

They increase renewable power capacity in a cost-effective manner because they incentivise the cheapest forms of production.

A key feature of Green Certificates is that they can be sold separately to the power that they certify. They are a tradable asset that the generator can sell to customers or to utilities. This means that clean power producers benefit from an extra source of revenue, helping them to build more projects. The certificates can be sold alongside the power they certify, as part of a PPA, or on a stand-alone basis.

This creates flexibility in the market, enabling customers to buy renewable power from a particular project, or to generate their own renewable power, and supplement it with green certificates as their requirements dictate. Or they can buy power from the wholesale market and buy Green Certificates to offset their consumption.

Green Certificates can be a good option for less energy-intensive companies that do not use enough power to use a PPA agreement, but want to decarbonize their power supply.

Green Certificates: key considerations

Understanding what Green Certificates can or can't offer will help identify whether this is the right fit for your business:

- **They provide verification that a company has paid for the production of renewable power.**
- **They are an alternative to policy mechanisms such as subsidies on renewable investment or production, fiscal benefits and feed-in tariffs.**
- **A good option for less energy-intensive companies that do not use enough power to use a PPA, but want to decarbonize their power supply. Green Certificates can also be used in regulated markets where PPAs are not available.**
- **If a certificate is not accompanied by a PPA, it does not provide a guarantee that the power the company is buying is renewable. A standalone certificate shows only that sustainable power is being sold into the wholesale market where it mixes with power generated by other sources such as coal, gas and nuclear.**
- **Certificates help support the renewable energy market by offering producers an additional source of revenue.**
- **They provide a way to increase renewable capacity, but only if a long-term contract is in place and the money from the certificates funds new projects.**