

Green-e® Marketplace

An Introduction to Purchasing Options for Buyers



Looking to Purchase Renewable Energy?



Video: "What is a Renewable Energy Certificate?"
youtu.be/opJMrzNauFQ

Understanding the basics of renewable energy purchasing can be overwhelming when you are new to the market. While many people may be familiar with the types of renewable energy such as wind, solar, and hydroelectric power, purchasing options for these resources are less familiar. Purchasing options include **unbundled RECs**, **utility retail options**, **community choice aggregation**, **PPAs**, **VPPAs**, and **self-generation**. This document summarizes each option and outlines some of their benefits so that you can find the renewable energy option which works best for your organization.

Unbundled RECs

Unbundled renewable energy certificates, or RECs, are bought separately from the physical electricity that is produced by a renewable energy source. One REC represents one MW of renewable energy, and holds all of the rights to the environmental attributes of the clean energy.



Benefits:

- ◇ Allows for buyers to consume grid mix electricity and match it with RECs in order to claim the environmental attributes that are associated with renewable energy.
- ◇ Unbundled RECs do not need to come from local generation, so they are a great option for buyers located in areas of low renewable electricity generation.



Utility Retail Options

Utility retail involves purchasing green power directly from one's electricity provider. This is an optional service wherein the utility bundles electricity and RECs together, providing it to customers who wish to consume renewable energy. This can be done in a couple of ways:

- ◇ **Utility Green Pricing Programs:** Utility customers can pay a premium price to enroll in a program that supplies a portion or all of their electricity from renewable resources. These programs are generally charged in cents per kWh, and can be sold as a block or percentage of customers use.

Benefits:

- ◇ **Green Pricing Programs:** Simple sign-up process for existing utility customers; renewables provided are generated locally within state or ISO region.
- ◇ **Green Tariffs:** Allows corporate buyers to meet demand at large scale; Can attract corporations to a utility's service territory; Renewable energy is cost-competitive and a hedge against market volatility



- ◇ **Green Tariffs:** A green tariff involves a longer term contract between a utility and a customer. Green tariffs are generally utilized by larger corporations, allowing them to meet their demand over a long period of time at a price that protects against market volatility.

Questions? Visit www.resource-solutions.org for more information.

Community Choice Aggregation

A Community Choice Aggregation, (or CCA), is a system in which local governments aggregate their jurisdiction's demand and contract with a utility provider to meet it. CCAs have to be created in line with state policy, and thus are only available in some states. They are currently authorized in CA, OH, IL, MA, NJ, NY, and RI.

Benefits:

- ◇ Expands consumer choice; shifts control of electricity generation to local governments which can provide local benefits such as green jobs.



Power Purchase Agreements (PPAs)



Power purchase agreements, (or PPAs), are a form of direct energy purchase where a consumer buys renewable energy directly from a third party generator. Generally, PPAs are long term contracts wherein the purchaser agrees to buy a certain amount of energy at a set price. PPAs involve the physical delivery of the generated electricity as well as the RECs, and therefore require the buyer and the seller to be in the same power market.

- Benefits:**
- ◇ Allows customers to lock in a fixed price of RECs over a longer period of time; often appealing to large corporations who want to influence development of new generation.

Virtual Power Purchase Agreements (VPPAs)

Virtual PPAs, which are also called financial PPAs, are another type of direct energy purchase. VPPAs differ from PPAs in that the seller provides the energy to the wholesale market while the buyer only receives the associated RECs. This allows the consumer to purchase renewable energy from a different power market.



- Benefits:**
- ◇ Similar to that of PPAs, with the additional benefit of being entirely virtual so no changes need to be made to the organization's electricity structure.

Self-Generation



Businesses and homeowners can generate their own electricity by installing renewable energy technology directly on-site where it is being consumed, or by owning an off-site facility which supplies power directly to the place of use. The organization consuming the energy must maintain ownership of the RECs in order to claim the environmental benefits of the energy.

- Benefits:**
- ◇ Potential cost savings in long term; avoidance of transmission and distribution losses; often appealing to businesses wanting to enhance sustainability image by visibly developing and utilizing renewable energy.