

INTRODUCTION TO GREEN TARIFF OPTIONS

CLEAN ENERGY BUYERS ASSOCIATION

This resource will provide an overview of green tariffs, including key characteristics, types available in the energy market, and examples that have been successfully utilized by energy buyers. The foundational knowledge presented will help you identify what procurement tools to use towards meeting company sustainability goals.



WHAT IS A GREEN TARIFF

A green tariff is an electricity rate or price structure offered by a local utility and approved by a state's public utility commission (PUC) that enables eligible customers to access renewable energy in a specific service territory. Green tariffs allow large energy buyers to purchase both the power and associated renewable energy certificates (RECs) from a renewable energy project for up to 100% of their energy needs. Traditional utilities may offer a renewable energy product through green tariff programs. Green tariffs are particularly attractive when integrated into a buyer's utility bill, which eliminates the need for additional contracting.

The first green tariff program in the U.S. was proposed by NV Energy in 2013. Since the inception, green tariff programs have enabled the addition of multiple gigawatts (GW)of solar and wind projects to the energy grid. CEBA's U.S. Renewable Energy Map: A Guide for Corporate Buyers details proposed and approved green tariff programs. CEBA's Grid Transformation: U.S. Green Tariff Deals details renewable energy projects that have been successfully completed through green tariff programs. While green tariffs are not available in all states, demand from large energy buyers is driving an increase in their development, quality, and implementation.

Green tariffs are typically arranged through long-term contracts from three main models (click on the model to skip forward):

- (1) the sleeved power purchase agreement (PPA) model
- (2) the subscriber model
- (3) the market-based rate model

SLEEVED PPA MODEL

The sleeved PPA model is a tri-party agreement between a developer, energy consumer, and a traditional utility.

The sleeved PPA model is structured to allow the PPA contract to pass through the utility, so that the renewable energy generated and renewable energy credits (RECs) can flow directly to the energy buyer in the form of a tariff. This process replaces the energy buyer's standard electricity rate with the cost of the renewable energy from the PPA, or through a rider, which is an additional line item on the standard electricity rate.

The energy buyer pays a contracted rate to the utility for the energy and RECs, which is passed to the seller. The utility is required to obtain approval from the state-level PUC to offer green tariff programs. Energy buyers are responsible for green tariff transaction costs, including utility services that support the generation source, to avoid cost-shifting to other customers Outline of the transactions involved in the sleeved PPA model



Characteristics of existing sleeved PPA programs

Model Criteria	Range
Range in program size	Minimum of 150 MW-maximum of 1 GW
Contract time commitment	Minimum of 2 years-maximum of 20 years
Type of resource used	Solar and/or wind; new renewable energy resources
Eligible Customers	Load with a minimum demand of 1MW-a maximum of 10MW

SUBSCRIBER MODEL

The subscriber model allows energy buyers to subscribe to a portion of a larger renewable energy project (s) and replace the standard charge for fossil-fueled power with the cost of the underlying renewable energy resource. The utility aggregates customer load across multiple small and large energy customers to improve cost-effectiveness of the project. Outline of the transactions involved in the subscriber model



Characteristics of existing subscriber programs

Model Criteria	Range
Range in program size	Minimum of 50 MW-maximum of 600 MW
Contract time commitment	Minimum of month-to-month with a maximum of 30 years
Type of resource used	Solar and/or wind; most programs use new re-newable energy resources, a few use existing
Eligible Customers	An aggregated maximum demand of at least 1MW-3MW

1. Utility selects & contracts with RE generator for power + RECs



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contracted rate for a portion of the power + associated RECs



MARKET BASED RATE MODEL

The market-based rate model is only available where wholesale markets exist, and involves a large energy buyer, traditional utility, and a renewable energy generator. The process starts with a large energy buyer signing a PPA for energy and RECs from a renewable energy generator. The traditional utility then sells all the renewable energy output from the generator into the wholesale market at the point closest to where it was generated, and credits the large energy buyer at the wholesale market price. Meanwhile, the large energy buyer continues to purchase electricity from their utility as usual, but at the wholesale market electricity rate.



Outline of the transactions involved market-based rate model

Characteristics of existing market-based rate programs

Model Criteria	Range
Range in program size	Maximum 400 MW
Contract time commitment	Minimum of 1 year-maximum of 3+ years
Type of resource used	For some market-based programs the resources used do not have to be renewable energy
Eligible Customers	Peak demand of 5 MW-200MW consistent over several consecutive months.

TARIFF USE

Outline of the characteristics of customer most utilizing each type of tariff model





EVOLUTION OF GREEN TARIFFS

As green tariffs emerged across the country their structures have continued to evolve, with some programs incorporating elements of the three models covered in this resource. For example, there are subscriber model tariffs that incorporate the wholesale market price into the their pricing structure. The subscriber model is increasingly popular with utilities because it enables them to meet the needs of a wide range of large energy customers.

Looking forward, trends in green tariff offerings are encouraging due to changes in program size and eligibility. While most offerings have ranged from 50-400 megawatts (MW) in the past, two programs approved in the last six months have met or exceeded 1 gigawatt (GW). There is also a shift from using green tariffs to target new customers and generate load growth to focus on meeting the needs of existing customers.



If you are a CEBA member and want to learn more about procurement strategies read the <u>CEBA</u> <u>Introduction to Renewable Energy Procurement</u>. CEBA members have the opportunity to gain insights by participating in deep dive <u>Buyers Boot Camps</u>, attending <u>Buyers Calls</u>, or visiting the <u>CEBA Member Portal</u> for additional resources.

If you are not a member and want to learn more about CEBA membership, resources, and engagement, please email membership@cebuyers.org

