



Overview of the Green Power Partnership

Christopher Kent

Office of Air – Climate Protection Partnership Division





Green Power Partnership Overview

- Summary
 - The U.S. EPA's Green Power Partnership is a voluntary program that encourages organizations to use green power
- Objectives
 - Educate stakeholders on voluntary procurement options within the U.S. renewable energy market
 - Motivate stakeholders to use renewable electricity and expand the voluntary green power market
 - Standardize green power procurement as part of best practice environmental management
 - Recognize leadership in green power procurement
- Program Activities
 - Provide technical assistance and tools on procuring green power
 - Provide recognition platform for organizations using green power in the hope that others follow their lead
- 1,600+ Partners procure more than 50 billion kWh annually, equivalent to the annual electric use of more than 4.6 million American homes.

New Partnership Resources!

- **NEW Green Power Supply Options webpages** providing concise definitions of the various options in the renewable energy marketplace, including financial PPAs and utility green tariffs.
- **NEW Green Power Equivalency Calculator** helps you to better communicate your green power use to stakeholders by translating it from kilowatt-hours (kWh) into more understandable terms and concrete examples.
- **NEW Guide to Making Claims About Your Solar Power Use** describes best practices for appropriately explaining and characterizing solar power activities and the fundamental importance of renewable energy certificates (RECs) for solar power use claims.
- **NEW Renewable Energy Certificate (REC) Arbitrage** guidance document describes procurement strategy used by consumers installing self-financed renewable electricity projects or consumers who purchase renewables electricity directly from a project, such as through a power purchase agreement (PPA).
- **NEW: Renewable Energy Certificate (REC) vs Offsets** guidance document that describes the difference with these two instruments, why organizations might use one or both and common misconceptions about them.



What is Green Power?

- Subset of renewable energy – representative of resources and technologies that offer the highest environmental benefit.
- Electricity generated from natural resources that replenish themselves over short periods of time, including the sun, wind, moving water, organic plant and waste material (biomass), and the Earth's heat (geothermal).
- Must be from "new" facilities placed into service within last 15 years.
- Must be from the "voluntary" market.

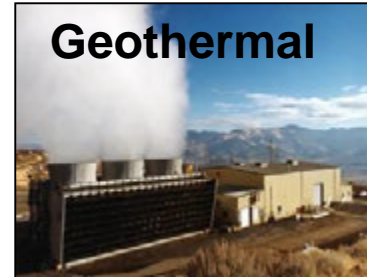
Biogas



Biomass



Geothermal



Small-Hydro



Solar



Wind



Renewable Energy Certificates

- What is a REC?
 - Tradeable, market-based instrument that represents the legal property rights to the “renewable-ness”—or non-power (i.e., environmental) attributes—of renewable electricity generation.
 - 1 REC is created for every MWh of electricity generated and delivered to the grid from a renewable energy resource.
 - Electricity cannot be considered renewable without a REC to substantiate its renewable-ness.
 - All Green Power Supply Categories include RECs
- RECs: Making Green Power Possible Video
 - <https://www.youtube.com/watch?v=12VYXms6-c>

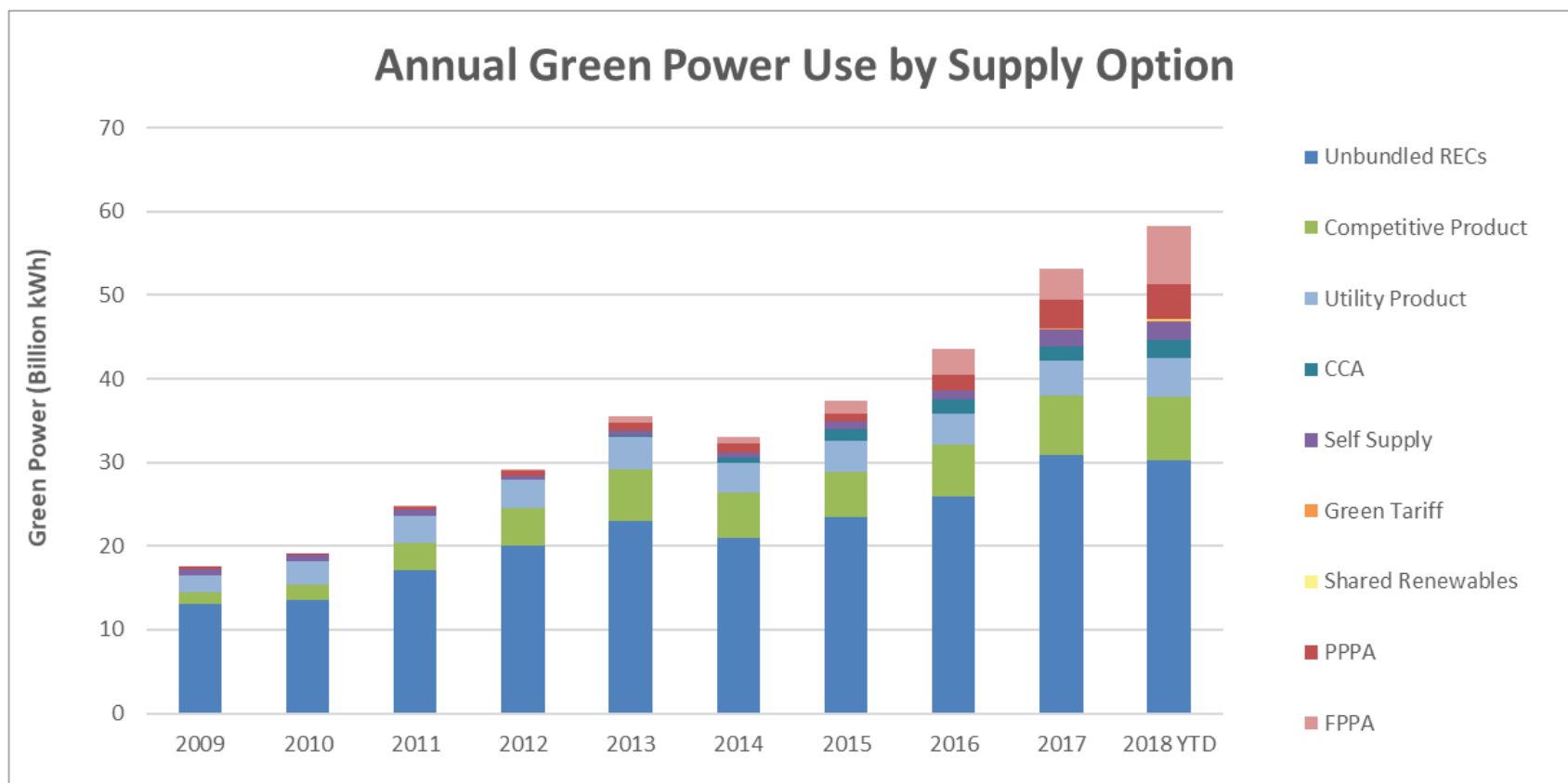




Categories of Green Power Supply

Category	Green Power Supply Option
<p>Retail Supply Options:</p> <ul style="list-style-type: none"> Standardized products (e.g. resource mix, price, 3rd-party certification status) for sale to consumers from retail suppliers, such as utilities, competitive electricity suppliers, and REC marketers. Generally involve short-term commitments by the consumer to purchase a pre-determined volume or a volume tied to their electricity consumption. The renewable energy project(s) used to supply the product may be periodically changed by the supplier during the duration of the contract. 	Unbundled Renewable Energy Certificates (RECs)
	Competitive Green Power Product
	Utility Green Power Product
	Community Choice Aggregation
<p>Project-Specific Supply Options:</p> <ul style="list-style-type: none"> Generally customized products negotiated between the consumer and supplier. Involve long-term commitments by consumers to purchase a volume tied to the output of a pre-determined generation capacity. The renewable energy project used to supply the product is constant throughout the term of the contract or commitment. 	Self Supply
	Utility Green Tariff
	Shared Renewables
	Physical Power Purchase Agreement
	Financial Power Purchase Agreement

Partner Green Power Use by Supply Option



Green Tariffs by GPP Partners

Account Name	Provider	Total Contract kWh	Solar (%)	Wind (%)
Switch	NV Energy	442,449,000	100	
Google Inc.	Duke Energy	141,424,000	100	
General Motors, LLC	Consumers Energy	100,000,000		100
Switch	NV Energy	55,710,000	100	
City of Las Vegas, NV	NV Energy	43,200,000	100	
Cisco Systems, Inc.	Duke Energy	19,346,000	100	
University of Minnesota	Xcel Energy	17,800,000	33	67
Switch	Consumers Energy	12,569,219		100
State of Minnesota	Xcel Energy	11,950,300	7	93
Switch	NextEra Energy Resources	11,617,000	100	
Apple Inc.	Duke Energy	9,167,000	100	
Apple Inc.	Duke Energy	9,053,000	100	
Apple Inc.	Duke Energy	9,017,000	100	
Apple Inc.	Duke Energy	7,121,000	100	
Apple Inc.	Duke Energy	2,817,000	100	
Carleton College	Xcel Energy	1,875,000		100
City of St. Louis Park, MN	Xcel Energy	1,373,172	100	
GoMacro, LLC	Upper Midwest Municipal Energy Group	172,000		100