

U.S. EPA Activities to Support Green Power Purchasing

Interagency Sustainability Working Group
September 17, 2015



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U.S. EPA Green Power Partnership
& Center for Corporate Climate Leadership

Green Power Partnership & Center for Corporate Climate Leadership

EPA leads two voluntary renewable energy programs

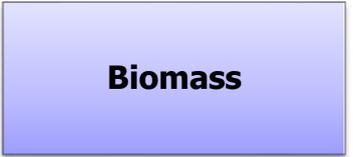
- Green Power Partnership
 - Encourages the identification of renewable energy projects and power purchase.
- Center for Corporate Climate Leadership
 - Encourages organizational greenhouse gas measurement and management.



What is Green Power?



Biogas



Biomass



Wind



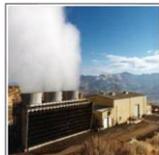
Solar



Low-Impact Small Hydro



Geothermal



- 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 geothermal.
- Must be from “new” facilities placed into service within last 15 years.
- Must be from the “voluntary” market.

Green Power Partnership Overview

Summary

- Voluntary program that encourages organizations to use green power as a way to reduce the environmental impacts associated with conventional electricity use.

Objectives

- Reduce U.S. greenhouse gas emissions.
- Expand the voluntary green power market.
- Standardize green power procurement as part of best practice environmental management.
- Provide recognition platform for organizations using green power in the hope that others follow their lead.

Current Status

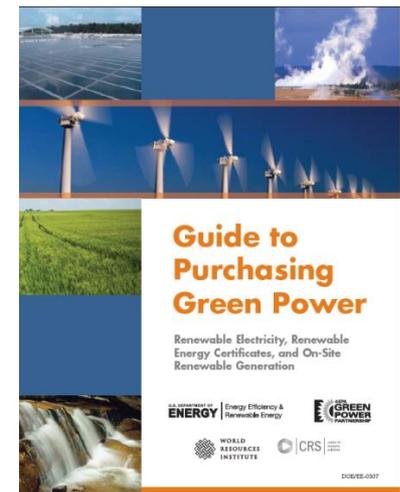
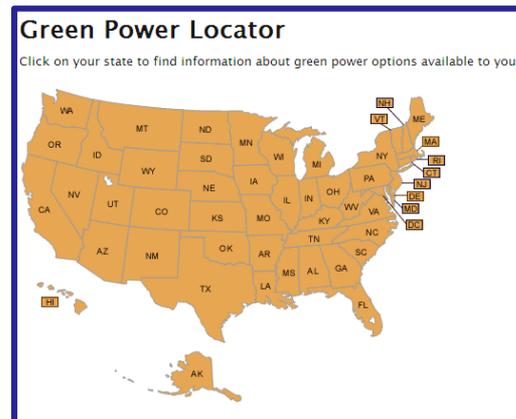
- 1,300 Partners using 28 billion kWh of green power annually, equivalent to the annual carbon dioxide emissions from electricity use of more than three million U.S. homes.



Program Resources for Procuring Green Power

The Partnership Offers:

- Green Power Locator Tool
- Green Power Equivalency Calculator
- Guide to Purchasing Green Power
- Resource Library featuring example contracts and solicitations
- Webinars showcasing best practices
- Issue whitepapers



EPA's Green Power Partnership

Helping You Leverage Your Green Power Use

Credible Benchmarks & GHG Quantification

- Metrics for “How much green power is enough?”
- Carbon footprint guidance and calculations

Planning & Implementation Resources

- Purchasing strategy and locator guidance
- Marketing and communications support

Recognition

- Top Partner Lists
- Use of the Partner mark
- Green Power Leadership Awards

Best Practices & Innovation

- Collaborative solar procurement
- New contract mechanisms
- Project matching initiative



Value Proposition

Environmental

- Addresses indirect GHG emissions (Scope 2 emissions)

Potential Electricity Cost Savings and/or Stability

- Reduce exposure to fossil fuel price volatility

Economic Development

- Job creation
- Local/regional economic growth

Demonstrate Leadership

- Enhance image
- Differentiate products/services
- Improve employee morale/attract and retain talent

Capture Favorable Media Attention

“Purchasing green power helps our organization become more sustainable while also sending a message to others that supporting clean sources of electricity is a sound business decision and an important choice to help fight climate change.”
- Jodi Shapiro, VP, Environment, Health and Safety, Motorola.



Leadership Partners Doing Even More...

On-site project development

- Green Power Partnership has launched the On-site Renewables Challenge, with a goal to double the use of on-site green power by the end of the decade.



Employee and community outreach

- Internal incentives and recognition for environmental performance.
- Communication with customers about their environmental goals and what customers can do for the environment.
- Collaboration and information sharing with their community and more broadly with universities, government, corporate peers.
- Project financing through innovative mechanisms.



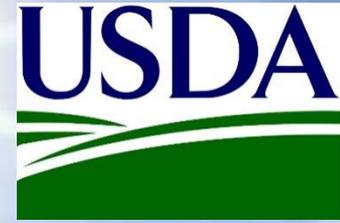
Green Power Partnership Federal Partners



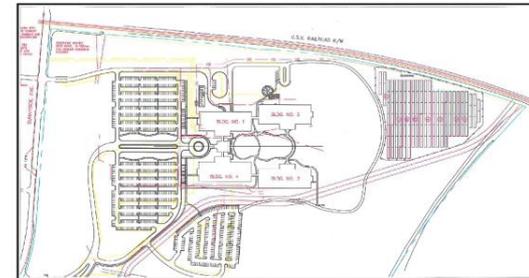
Over 1,300 GPP Partners



A Closer Look: U.S. Department of Agriculture



- Stated renewable energy goals:
 - Increase renewable energy purchases overtime using cost savings from Energy Management Program
 - Source at least 50% from “new” renewable sources (in service after January 1, 1999)
- In 2015, activated USDA's solar array project at the George Washington Carver Center in Beltsville, MD
 - 1.6 MW solar array is largest on federal property in capital region
 - Retained associated RECs to enable claims about solar power use and reducing carbon footprint
 - Generates ~2 million kWh annually, or 20% of the Center’s annual power requirements, and handle most its electrical needs during the day
 - Savings of \$300,000 annually in energy costs
- In FY13, renewable energy usage totaled 42 million kWh or 8.4% of total electricity use



GEORGE WASHINGTON CARVER CENTER SOLAR ARRAY LAYOUT



A Closer Look: U.S. GSA Region 2



- Green Power Partner since 2003
- Since FY2001 has purchased over 1.3 billion kWh of green power
 - Earned several awards including the 2003 White House: Closing the Circle Award, 2008 FEMP Renewable Energy Award, and 2011 Energy New York Award
- Innovative approach to purchasing green power via online reverse energy auctions
 - Competition between suppliers results in low or no cost premiums – leading to more of GSA federal clients integrating green power into their energy portfolios
 - Purchases for own operations and client agencies in New York and New Jersey, including the US Coast Guard and the United Nations
- Currently purchases more than 80 million kWh of green power each year, which covers over 40% of the region's electricity load



When and How You Engage a Project Affects Claims



Timing of Engagement:

- Pre-development

Market Impact:

- Supply push

Claim:

- I use renewable electricity
- I helped develop new renewable energy supply

Procurement Options:

- Own and build a project (retain RECs)
- Direct long-term commitment (i.e., PPA) with new project (retain RECs)



Timing of Engagement:

- Post-development

Market Impact:

- Demand pull

Claim:

- I use renewable electricity

Procurement Options:

- Utility supply
- Unbundled RECs

Renewable Energy Certificates (RECs) – Making Green Power Possible

- A REC is the legal instrument that conveys to its owner the right to claim the associated environmental attributes of a generating resource. (See FTC’s Green Guides and the National Association of Attorneys General Guidance).
- A REC is created for every Megawatt-hour of renewable electricity generated and delivered to the utility grid.
- A REC includes the following information:
 - Type of renewable resource
 - Location of renewable resource
 - Date stamp or vintage of generation
 - Emissions profile of the generating resource
 - Unique identification number
- Electricity from a renewable resource in the absence of owning the associated RECs is considered null or generic power and has the same environmental profile as the residual grid electricity mix – **RECs make it renewable!**
- REC ownership does not represent a direct emissions reduction or an avoided emission claim. RECs are not offsets!

Center for Corporate Climate Leadership Overview

- A resource center for organizations of all sizes looking to expand their work in the area of greenhouse gas (GHG) measurement and management.
- Provides technical tools & guidance, educational resources, opportunities for information sharing (e.g., Webinars) and platform for peer exchange.
- Promote innovative practices that reduce GHG emissions, drawing upon the successes of Climate Leadership Award recipients and innovations by organizations.
- Support the implementation of E.O. 13693.



Center for Corporate Climate Leadership

The Center's website provides **tools and guidance** to support organizations at all points of entry in the GHG management process—from initial GHG inventories and goal setting through supply chain initiatives:

- Methodological guidance on developing a company-wide GHG inventory
- Tools that help calculate a company's carbon footprint, identify GHG reduction sources, and track progress
- A GHG benchmarking tool to help organizations evaluate and establish existing or new GHG goals that go beyond “business as usual”
- Links to EPA's climate partnership programs



Climate Leadership Awards

- National awards program recognizes and incentivizes exemplary corporate, organizational, and individual leadership in response to climate change.
 - Identify and highlight best practices for climate action – including GHG mitigation and climate adaptation – in internal operations and throughout the supply chain.
- Center lead with NGO partners: Center for Climate and Energy Solutions (C2ES) & The Climate Registry.
- EPA is also the headline sponsor for the **Climate Leadership Conference**.



CLIMATE
LEADERSHIP
AWARDS

Climate Leadership Awards

Six Categories:

- Organizational Leadership Award
- Individual Leadership Award
- Supply Chain Leadership Award
- Excellence in Greenhouse Gas Management (Goal Setting Certificate)
- Excellence in Greenhouse Gas Management (Goal Achievement Award)
- Innovative Partnerships Certificate

September 25, 2015: 2016 Award application period closes

March 8-10, 2016: Awards dinner takes place during 5th annual Climate Leadership Conference, Seattle, WA

epa.gov/climateleadership/awards



Climate Leadership Awards

- CLA program criteria emphasize the elements of climate leadership upon which applicants are reviewed:
 - Transparency and disclosure of climate risks and opportunities
 - Engaging, educating, and training internal and external stakeholders
 - Innovation and thought leadership in developing new management and operational strategies
 - Strong governance structures and strategic integration of climate action in enterprise strategies, management structures, etc.
 - Quality partnerships that aggregate interests and create a sum that is greater than the efforts of the individual parts
- The CLA winners highlight what are current and future best practices.



CLIMATE
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AWARDS

Want to Know More?

Basic Information

- Green Power Partnership
epa.gov/greenpower
- Center for Corporate Climate Leadership
epa.gov/climateleadership

Questions?

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