



Solar Power Purchase Agreements

U.S. EPA's Green Power Partnership

James Critchfield, U.S. EPA



Green Power Partnership Webinar

July 28, 2009

1:00 – 2:30 p.m. EST

Today's Agenda

- Introduction & Webinar Logistics
 - James Critchfield, U.S. EPA
- Solar Power Purchase Agreements: Market and Trends
 - Mark Culpepper, Chief Technology Officer, SunEdison
- Solar Power Purchase Agreements: Staples' Experience
 - Mark Buckley, Vice President of Environmental Affairs, Staples
- Question & Answers



Webinar Logistics

- Attendees will be muted throughout this webinar to minimize background noise.
- Submit questions and comments in writing via the online control panel. To minimize or maximize the control panel, click on the >> button at the top left of the tool bar.
- Presentations from today's session will be made available for download at:
www.epa.gov/greenpower/events/july28_webinar.htm
- Post-webinar survey.



EPA's Green Power Partnership

- The Green Power Partnership is a voluntary program that supports the organizational procurement of green power to reduce the environmental impacts associated with conventional electricity use.
 - Credible Benchmarks
 - Metric for “How much green power is enough?”
 - Definition of eligible renewables
 - Planning & Implementation Resources
 - Green power locator
 - Purchasing guidance
 - Marketing and communications support
 - Environmental impact information
 - Recognition
 - Top Partner lists
 - Green Power Leadership Awards
 - Promotional opportunities
 - Use of the Partnership logo



What is Green Power?

- Green power is produced from renewable resources and technologies that provide the highest environmental benefit.
 - solar
 - wind
 - geothermal
 - biomass
 - biogas
 - low-impact small hydro



Buying Green Power – Product Options

- Renewable Energy Certificates (REC)
 - The environmental “attributes” of electricity generated from renewable resources (1 REC = 1 MWh)
 - Does not include the underlying electrons – “unbundled”
 - Purchased from REC Marketers
- Green Power Electricity Products
 - Green power offered by utility suppliers that is all, or partially, generated from renewable sources
 - Is often a “bundled” product that includes both the RECs as well as the underlying electrons
- On-site Generation
 - Install a renewable energy system on-site (e.g. solar panels, wind turbine)

s both electricity and RECs from the on-site source



On-site: Solar Power Purchase Agreements

- A Solar Power Purchase Agreement (SPPA) is a financial arrangement in which a third-party developer owns, operates, and maintains the photovoltaic (PV) system, and a host customer agrees to site the system on its roof or elsewhere on its property and purchases the system's electric output from the solar services provider for a predetermined period
- Addresses many of the traditional barriers to adoption for organizations looking to install solar systems:
 - high up-front capital costs
 - system performance risk
 - complex design and permitting processes
- Learn more on EPA's new Solar Power Purchase Agreement Web page at: <http://www.epa.gov/greenpower/buygp/solarpower.htm>



New Top 20 On-site Partner List



- See the complete Top 20 list on EPA's Web site
- Updated quarterly



| Annual On-site Green Power Usage (kWh) | On-site % of Total Electricity Use* | On-site Resources | Additional Purchased Green Power (kWh) |
|--|-------------------------------------|----------------------------|--|
| 1. Kimberly-Clark Corporation | | | |
| 192,730,000 | 7% | Biomass | 0 |
| 2. Los Angeles County Sanitation Districts | | | |
| 171,144,000 | 54% | Biogas | 0 |
| 3. City of San Diego, CA | | | |
| 69,043,000 | 27% | Biogas, Small-hydro, Solar | 0 |
| 4. San Jose/Santa Clara Water Pollution Control Plant | | | |
| 52,769,440 | 56% | Biogas | 0 |
| 5. CalPortland | | | |
| 50,000,000 | 11% | Wind | 0 |
| 6. Nassau County, NY | | | |
| 29,121,457 | 15% | Biogas | 0 |
| 7. BMW Manufacturing Co. / Greer, SC Facilities | | | |
| 27,831,000 | 19% | Biogas | 0 |
| 8. City of San Francisco, CA | | | |
| 25,033,977 | 3% | Biogas, Solar | 0 |
| 9. Kohl's Department Stores | | | |
| 19,126,000 | 2% | Solar | 581,864,000 |
| 10. Wal-Mart Stores, Inc. / California and Texas Facilities | | | |
| 17,000,000 | 1% | Solar | 226,328,000 |

Want to Know More?

- Basic Information

- An overview of Green Power Partnership is available at: www.epa.gov/greenpower
- EPA's Solar Power Purchase Agreement Web page is at: www.epa.gov/greenpower/buygp/solarpower.htm
- EPA's Top Partner Lists can be found at: www.epa.gov/greenpower/toplists/index.htm

- More Questions?

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