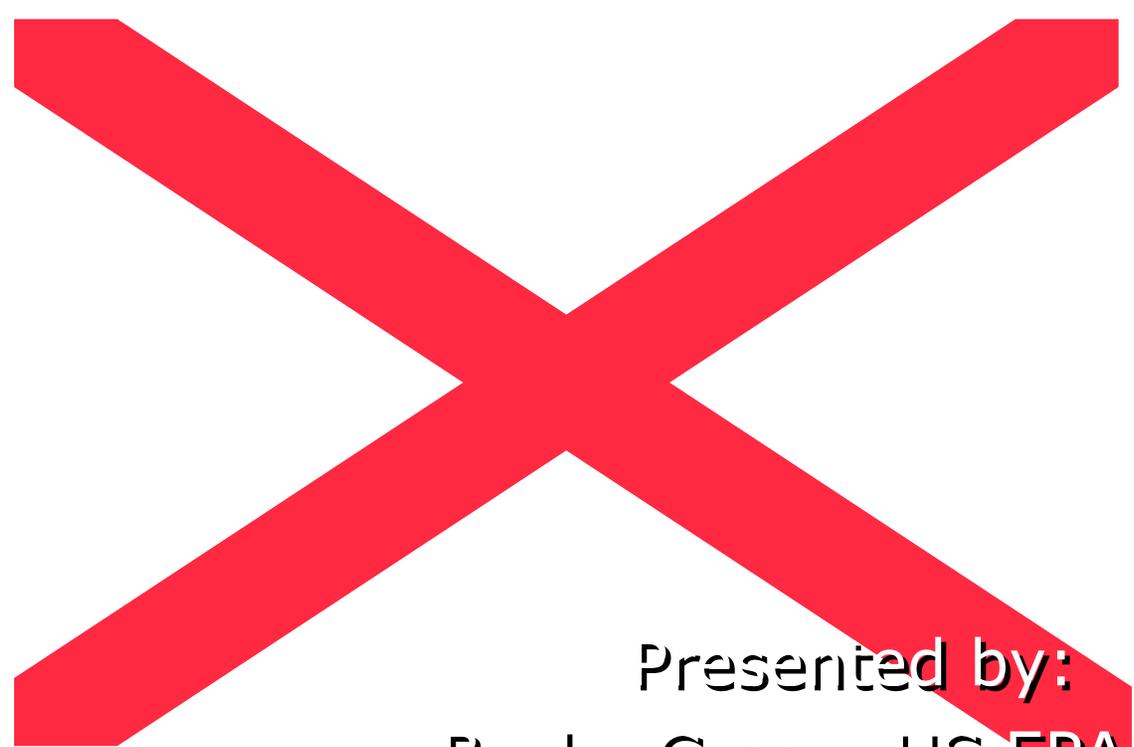

EPA Green Power Purchasing Program



Presented by:
Bucky Green, US EPA and
Justin A. Spenillo, US EPA

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Announcement

- On June 2, 2006, the Defense Energy Support Center signed a contract that will bring EPA to 100% green power beginning September 1, 2006 and running through September 30, 2007
- Brought EPA from 88% green power to 100% green power
- EPA uses approximately 300 million kilowatt hours of electricity each year in its laboratory and offices
- Justin Spenillo, EPA Sustainable Facilities Practices Branch, DESC, GSA, FEMP, NREL, WAPA, and a host of others deserve credit



What Does This Mean?

Equal to:

- Taking 54,000 cars off the road
- Planting 83,000 acres of trees
- Conserving 650,000 barrels of oil
- Electricity for 27,970 homes for one year
 - 5,230,000 = number of homes powered by green power if all federal agencies purchased 100% green power
- Avoiding 616,279,179 pounds of CO₂ emissions



Overview

- Why buy green power?
- Getting started
- Procurement and award
- Contract maintenance
- EPA green power purchasing highlights



Why Buy Green Power?

- Environment: Reduce emissions/reduce environmental impact from conventional energy sources
- Economics: Potential to save money through on-site generation or reduced volatility in energy market
- Outreach: Public relations that increasingly appeals to the masses
- Security: Diversify energy portfolio, increase energy independence, increased reliability and supply redundancy, less stress on transmission grid
- Executive Order 13123 and Energy Policy Act of 2005



What Are You Buying?

- Form?
- Location?
- “Newness”?
- Types?



Green Power Variety

Forms

- RECs
 - Pros: Simple procurement, least expensive
 - Cons: Intangible product, no net savings in energy costs, hard to explain
- Delivered
 - Pros: More tangible product, stronger development of local green power markets, can lead to energy price stabilization
 - Cons: More expensive due to various charges including transmission and distribution, more involved procurement
- Installed Generation
 - Pros: Most tangible, local environmental and health benefits, increased energy reliability and independence, price stability
 - Cons: Expensive first costs, typically can not provide 100% of electricity needs

Why Location?

- Locational requirements promote the development of renewable resources close to the site of use
- This provides for:
 - Minimal/efficient transmission
 - Global and ***local*** environmental benefits and reduced health problems
 - Development of local jobs and economic benefit
 - Visual connection (people can see where their energy is generated)



Why New?

- Why purchase new green power?
Environmental benefits
- Purchasing old credits subsidizes existing, viable companies/projects with no incremental environmental benefit
- Requiring the purchase of new RECs promotes the development of new production capacity while existing renewable capacity can assimilate into the existing utility power mix
- Vintage: Requiring purchased RECs to be generated within the same time frame as electricity consumption



Types of Green Power

- Wind
- Geothermal
- Solar
- Biomass
- Ocean/tidal

- Facility/location: RECs always make sense, but certain areas are more suited to delivered and/or installed green power
- Money: Where are the funds coming from, and for how long?
- How many kWh? Utilize utility bills to estimate electricity consumption
- Length of contract: Single year or multiyear contract, depending on facility commitment and available funds.
- Verification and certification: “Insurance policy” for RECs



Federal Procurement of RECs

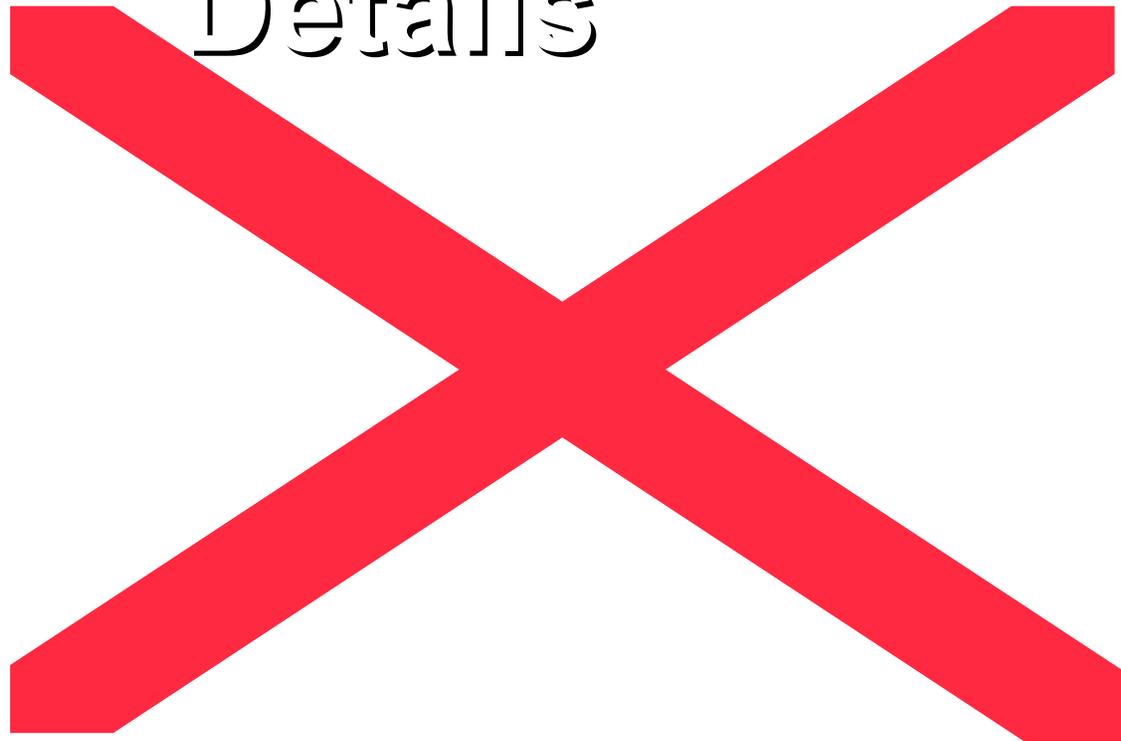
- Do it yourself *or* **work with another agency**
- EPA procurement partners
 - Defense Energy Support Center
 - Western Area Power Administration
 - General Service Administration
- Develop RFP using predetermined criteria and preferences
- Use EO 13123 guidance and FEMP Green Power Procurement guidance to support procurement preferences
- Use Regulated Utility Programs near your facility



Post-Award/Tell the World

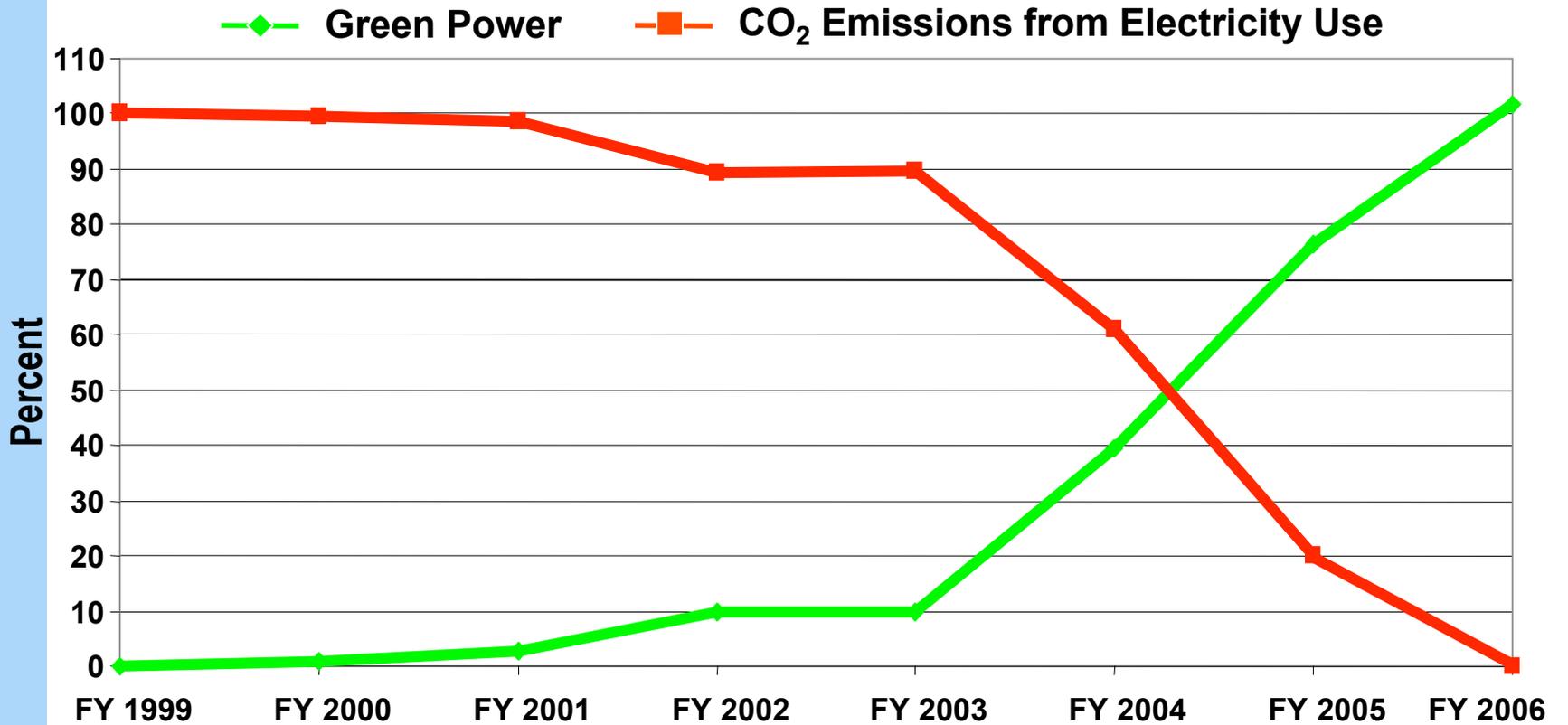
- Award contract
- Maintenance: track invoices and attestation forms
- Press/Information release
- Onsite promotion through posters, window decals/clings, all employee email, internal newsletter
- Join EPA's Green Power Partnership (GPP)
 - GPP Goals
 - Increase demand for green power products & expand overall market
 - Lower air pollution and greenhouse gases associated with electricity consumption
 - www.epa.gov/greenpower

EPA Green Power
Purchasing Program
Details



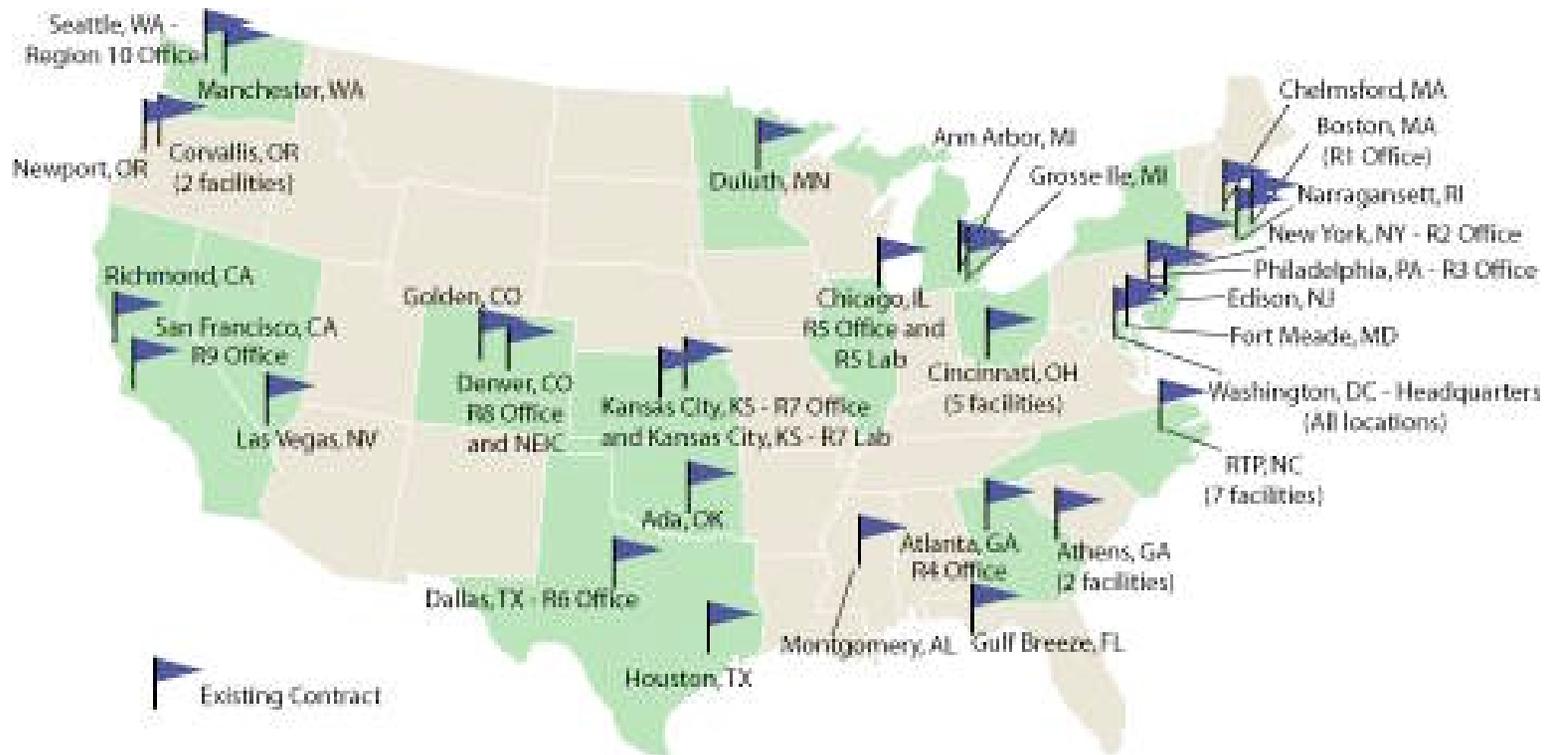


EPA Green Power/Emission Reductions



- 100% Green Power by FY 2006
- 100% CO₂ Emissions Reduction by FY 2006
- EPA's Green Power/Emission Reductions Program does not apply to EPA's own facilities
- EPA's Green Power/Emission Reductions Program does not apply to EPA's own facilities complete procurement for renewable rate
- Richmond, California, first federal facility with 100% green electric power

EPA's Major Green Power Facilities

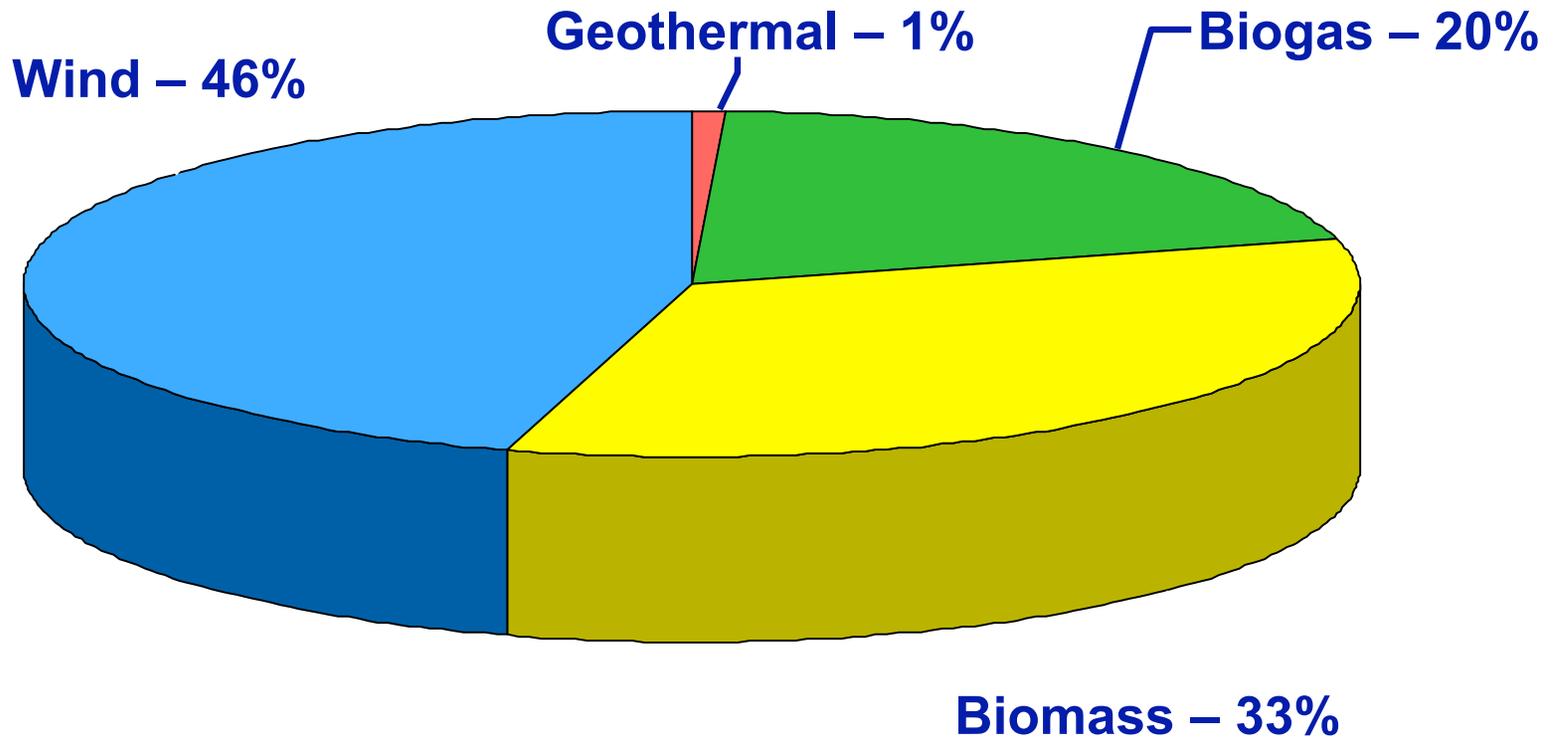




The Numbers

- EPA purchases approximately 300 million kWh of green power annually
 - Accounts for 100 percent of EPA's annual electricity consumption

Green Power Types





A Tale of Two Labs

Ada, Oklahoma, Laboratory

- EPA's first "carbon neutral" facility
 - 100 percent of estimated annual electricity offset by wind RECs
 - Use of natural gas eliminated by ground source heat pump
- Required new RECs from facilities opened after 1999

Narragansett, Rhode Island, Laboratory

- Funded by an "internal ESPC"
 - Energy/costs savings from a chiller optimization project were utilized to fund a three year green power contract
- Contract procured 100% RECs from a new wind farm



In the Future....

- EPA will enter into longer term contracts that will add energy price stability as a benefit to our program
- EPA will work with others to form a Green Gas REC market
- EPA will complete work on a study of the comparative environmental benefits of various types of green power



For More Information:

On EPA's Green Power Program:

www.epa.gov/greeningepa/greenpower

On How to Purchase Green Power:

EPA's Green Power Partnership

www.epa.gov/greenpower