

### Developing an Integrated Renewable Energy Strategy

US EPA Climate Leaders
Partners Meeting

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#### Staples

- Invented office superstore concept 1986,
   Brighton, MA
- \$13.2 billion reseller of office products and services
- Serving consumer and businesses of all sizes from home based businesses to Fortune 500 Companies
- Largest operator of office superstores in world, over 1600 stores
- Business channels serviced through mail order, e-commerce, contract and retail

### 4 "Cornerstones" of Staples Environmental Commitment

- Purchase and promotion of products containing post consumer recycled materials
- Recycling initiatives
- Energy conservation and renewable power procurement
- Environmental education for associates an customers

### Why is Staples motivated in these areas?

- Supports Staples environmental commitments and CSR goals
- Reduces corporate GHG footprint and impact on climate change
- Reduces operating expenses associated with purchased power
- Competitive advantage

## Staples Energy Programs have been focused on these areas:

- Retrofits
- Energy Management Systems
- Green building design
- Direct renewable power purchases from utilities
- REC's purchases from wind, landfill gas, biomass
- Distributed power purchase via "Solar Services" model

#### Retrofits:

Lighting: T-8s, T-5s, LEDs

HVAC: High efficiency roof top units

EMS: Conveyer controls, motion sensors, photo sensors

#### **Energy Management Systems:**

- 1300+ location US managed from Home Office, Framingham, MA
- Lighting, HVAC loads

#### Green Building Design

- 100-150 sites/year
- Prototypical Review
- Building envelop
- Lighting
- HVAC
- Skylighting
- Controls
- Energy Star Equipment

#### **Direct Renewable Purchases**

Prior to 2003 <2% of Staples total US. Energy portfolio of energy was from renewables

Set 5% goal for 2003

## Staples Traditional Renewable Power Purchase

#### Goal

Increase use of renewables from <2% to 5% in 2003 at an affordable cost to the business

#### **Challenges**

- 200± utilities/ESCOs
- Administrative complexities
- High transaction costs
- Lack of options and competition in many markets
- Inability to aggregate total load and leverage our purchase

### **RECs as an Alternative Option?**

 Do RECs create real environmental benefits if not sourced locally?

Do RECs stimulate growth in green power markets?

### What Is A Renewable **Energy Certificate (REC)?**

**Renewable Power** Generation

**Commodity Electricity** 

**Environmental** And **Other Attributes** 

Energy Certificates

Renewable

Type of Generation

- Avoided Emissions
- Date of Generation

Green **Power** 

#### **Staples REC Purchase**

- 46,000 MWh/year
- 10% Wind
- 90% Biomass and landfill gas
- 3 year contract
- Reinvestment of energy conservation savings into expanded renewable purchasing and achieving a higher GHG reduction
- Renewable power now accounts for 10% of Staples total U.S. power requirements doubling our 2003 goal

## **Benefits Staples Derived from REC Purchase**

- Lower cost leveraged pricing through aggregated loads and more open competition
- Greater variety of renewable options
- Simplified Transactions (1) contract (1) bill no change in utility provider vs. 200± different contracts, bills and renewal dates
- Exceed corporate GHG Targets

# Staples historic view of solar energy (ownership model)

- High initial cost
- Poor return on investment
- Other technologies and strategies generate similar GHG benefits and better rates of return

### **Energy Conservation and Renewable** Power Procurement

### What is the "services model"?

Host (Staples)

Receives solar power from on-site system under long-term PPA

- Provides space & access but does not own array

- No capital required

warranties On-site solar PV system sales and Project developer O&M revenue (Sun Edison) financing 10-20 year PPA Receives income from

equipment, installation.

electricity sales

- Arranges financing, design & construction

Manufacturer/ installer (e.g., BP Solar)

- Receives revenue from sale of panels, inverters, O&M, etc.
- Provides warranties (equipment & performance)

Investor (e.g., SRI Fund)

- Receives low-risk ROI from electricity sales and from state & federal incentives
- Provides capital & owns system for 5+ years

#### Staples Solar Services Challenges

- New concept
- Most facilities leased
- Length of agreement
- Roof warranties

#### **Staples Proposed Sites**

- (1) Staples Retail DC Rialto, CA 280kW System
- (1) Staples Contract FC Ontario, CA 280kW System
- (1) Staples Contract and Commercial Office Edgewood, NJ 125 kW System

# Benefits of "solar services" model to Staples

- No Capital Investment
- No Maintenance expense
- Hedge against fuel price increases
- Load Shedding
- GHG reductions
- REC ownership
- Cost KWh at or below cost of power off of the grid
- Opportunity to integrate solar into our overall renewable strategy at an affordable cost

#### **Economic/Environmental Benefits**

- Energy Conservation/Green Building Design
- 12.3% reduction in consumption/sq ft of RE since 2001
- 46,000,000 Kwh saved in 2001-2002 19,000,000 Kwh saved in 2002-2003
- \$6.5 million savings @ .10 Kwh
- 50,000,000+ Kwh in renewable energy purchases 2003
- Significant GHG reductions by developing an integrated approach
- Strategically position Staples to more effectively operate in a "carbon constrained" environment

# **Staples and Our Customers** "Partners in Sustainability"

- Embracing sustainability as a core cultural value is good, smart business
- Staples is committed to building a business strategy around sustainability and environmental stewardship
- Educate and inform those customers who are not currently activated in these areas
- Provide an offering of products and services to customers who <u>are</u> activated and continue to add "richness" and value to our Staples brand
- "Staples... make it easy to make a difference"