

# ENERGY STAR Purchasing



# What is ENERGY STAR® Purchasing?



- ENERGY STAR® Purchasing helps organizations identify, specify, and purchase ENERGY STAR® qualified products as part of an overall energy management strategy.

# The ENERGY STAR® Label



- A trusted symbol that identifies products with superior energy performance
- Voluntary labeling program jointly managed by EPA and DOE
- Over 40 product categories and 14,000 product models

# Benefits of Purchasing ENERGY STAR® Qualified Products



- Equivalent or better quality
- Consume less energy
- Lower utility bills (products +A/C costs)
- Publicly demonstrate commitment to environment

# Benefits of Purchasing ENERGY STAR® Qualified Products

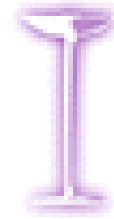


- Primary
  - Annual and life cycle cost savings
- Secondary
  - Add'l. funds for programmatic uses (FTE)
  - Reduced kWh – reduced CO2 emissions
  - Reduced kWh – less heat – reduced A/C expenses

# ENERGY STAR® Qualified Product Categories



- Lighting
- Appliances
- Consumer Electronics
- Office Equipment
- Food Service Equipment
- Heating & Cooling
- Windows & Roofing
- Transformers
- Traffic Lights



# ENERGY STAR® Purchasing Tools



- Product listings (brand, model number, features)
- Product specifications
- Drop-in procurement language
- Savings calculators/LCC

Access: [www.energystar.gov/purchasing](http://www.energystar.gov/purchasing)

# Procurement Language & Specifications - Exit Signs



- Drag and drop procurement language

## **The Vendor Must:**

Provide exit signs that meet the ENERGY STAR guidelines for energy efficiency. For ENERGY STAR qualified exit sign guidelines, see table:

Input power	$\leq 5$ watts
Luminance contrast	$> 0.8$
Average luminance (measured at 0° and 45° viewing angles)	$> 15$ cd/m <sup>2</sup>
Product lifetime	10 years



# Savings Calculator - Exit Sign Purchasing Assumptions



- Number of exit signs: 100
- Purchase price
  - ENERGY STAR: \$57
  - Non- ENERGY STAR : \$0
- Lamp Replacement Costs
  - ENERGY STAR : \$0 each year
  - Non- ENERGY STAR : \$16 total each year
- Electricity cost: \$0.0912/kWh

# Product Calculator – Replacing 100 Exit signs



	<b>ENERGY STAR</b>	<b>Non-ENERGY STAR</b>
<i><b>Annual</b></i>		
<b>Energy cost</b>	\$400	\$2,900
<b>Maintenance cost</b>	\$0	\$2,300
<b>kWh</b>	4,400	31,600
<i><b>Life cycle</b></i>		
<b>Energy cost</b>	\$3,200	\$23,400
<b>Maintenance cost</b>	\$0	\$18,400
<b>Purchase price</b>	\$5,700	\$0
<b>Total</b>	\$8,900	\$41,800
<b>kWh</b>	43,800	316,200

# Product Calculator – 300 Computers



	<b>ENERGY STAR</b>	<b>Non-ENERGY STAR</b>
<i><b>Annual</b></i>		
<b>Energy cost</b>	\$2,400	\$15,100
<b>kWh</b>	25,500	162,700
<i><b>Life cycle</b></i>		
<b>Energy cost</b>	\$8,600	\$54,900
<b>kWh</b>	101,900	650,600
<b>Purchase price</b>	\$270,000	\$270,000

# Product Calculator – 300 Monitors



	<b>ENERGY STAR</b>	<b>Non-ENERGY STAR</b>
<i>Annual</i>		
<b>Energy cost</b>	\$1,000	\$12,500
<b>kWh</b>	10,800	138,600
<i>Life cycle</i>		
<b>Energy cost</b>	\$3,500	\$45,500
<b>kWh</b>	43,100	554,300
<b>Purchase price</b>	\$89,700	\$44,700

# Product Calculator – 100 Vending Machines



	<b>ENERGY STAR</b>	<b>Non-ENERGY STAR</b>
<i>Annual</i>		
<b>Energy cost</b>	\$7,100	\$15,100
<b>kWh</b>	72,700	155,700
<i>Life cycle</i>		
<b>Energy cost</b>	\$74,500	\$159,600
<b>kWh</b>	1,017,800	2,179,100

# Calculation Summary



	<b>Number</b>	<b>Annual Savings (\$)</b>	<b>Annual CO2 savings (tons)</b>
<b>Computers</b>	300	\$12,800	105
<b>Monitors</b>	300	\$11,600	98
<b>Vending machines</b>	50	\$8,000	64
<b>Exit signs</b>	100	\$5,200	21
<b>Totals</b>		<b>\$37,600</b>	<b>288</b>

# Procurement Language - Electric Steam Cookers



- Drag and drop procurement language

## **The Vendor Must:**

Provide electric steam cookers that meet the ENERGY STAR guidelines for energy efficiency.

- 3- through 6-pan units shall have a cooking energy efficiency of 50% or more
- The idle energy rate shall be  $\leq$  :
  - 3-pan - 400 W
  - 4-pan - 530 W
  - 5-pan - 670 W
  - 6-pan - 800 W

# Savings Calculator – Electric Steam Cookers



- **Purchasing Assumptions**
  - 1 steam cooker (electric, 3-pan)
  - \$ 10,000 – ENERGY STAR
  - \$ 10,000 – Conventional
  - 10 year product life
  - Electricity: \$ 0.0912/kWh



# Savings Calculator – Electric Steam Cookers



	<u>ENERGY STAR</u>	<u>Non- ENERGY STAR</u>
<i>Annual Operating Cost</i>		
Energy cost	\$376	\$ 718
Water cost	\$ 6	\$ 776
<b>Total:</b>	<b>\$382</b>	<b>\$1,493</b>
 <i>Life Cycle Cost</i>		
Lifetime operating cost	\$ 3,101	\$12,113
Purchase price	\$10,000	\$10,000
<b>Total:</b>	<b>\$13,101</b>	<b>\$22,113</b>

# ENERGY STAR®

## Additional Resources



- Communications
  - Fact sheets & case studies
  - PowerPoint presentations
  - Articles
- Internet Presentations
- Quantity Quotes

# ENERGY STAR Quantity Quotes



Connecting large-quantity buyers with suppliers of energy-efficient products

- Light bulbs (CFLs)
- Light fixtures
- Clothes washers
- Dehumidifiers
- Dishwashers
- Refrigerators
- Room AC

Register at [energystar.gov/quantityquotes](https://energystar.gov/quantityquotes)

# ENERGY STAR Quantity Quotes



## **Here's how it works:**

1. Purchaser submits a purchase request to suppliers through the Web site
2. Interested suppliers respond to the purchaser through the Web site
3. Purchaser follows up with suppliers and chooses one to negotiate with

**Register at [energystar.gov/quantityquotes](http://energystar.gov/quantityquotes)**



## Benefits of ENERGY STAR Quantity Quotes:

- **Save time.** Stop searching for suppliers of ENERGY STAR qualified products. Let them come to you.
- **Save money.** Suppliers compete against one another for your business.
- **Get the right product.** Our customized forms guide you through formulating your purchase request.
- **Keep your contact information private.** Communicate anonymously with suppliers and choose when and to whom to reveal your identity.

# Enabling Energy-Efficient Purchasing – State level



- Indiana

“Current procurement guidelines shall be revised for the purchase of computers, fax machines, . . . that have the ENERGY STAR efficiency label.”

Implements Executive Order 99-07

# Enabling Energy-Efficient Purchasing – State level



- Maryland

“The State shall purchase ENERGY STAR products when purchasing energy-using products . . . or shall purchase products in the top 25% in energy efficiency . . .”

Executive Order 01.01.2001.02

# Enabling Energy-Efficient Purchasing – State level



- Hawaii

Agencies shall select, where life-cycle cost-effective, ENERGY STAR and other energy efficient products when acquiring energy-using products.

Session 2002, SB 2179



# 5 Steps for Procuring ENERGY STAR® Qualified Products



- 1 **Review** purchasing policies and identify product categories where savings exist
- 2 **Visit** [www.energystar.gov/purchasing](http://www.energystar.gov/purchasing) for product listings, and access Savings Calculators to determine savings opportunities
- 3 **Inform** appropriate offices within organization of intent to purchase ENERGY STAR qualified products
- 4 **Include** ENERGY STAR requirement and specification in RFP
- 5 **Track and communicate** success

# Summary of Web Resources



- ENERGY STAR
  - Product calculators
  - Downloadable procurement language
  - Lists of ENERGY STAR qualified products
  - Case studies
  - Customized Webcasts
- Federal Energy Management Program (FEMP)
  - ENERGY STAR qualified products (in FEMP)
  - Quantifies benefits of energy-efficient products not handled by ENERGY STAR
- Quantity Quotes

# For more information:



- Toll Free Hotline
  - 1-888-STAR-YES (782-7937)
- Online
  - [www.energystar.gov/purchasing](http://www.energystar.gov/purchasing)
  - [www.eere.energy.gov/femp/procurement/](http://www.eere.energy.gov/femp/procurement/)

# For More Information:



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