



U.S. EPA's Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing

Office of Pollution Prevention and Toxics (OPPT)
Environmentally Preferable Purchasing Program

SPLC Deep Dive Workshop ~ September 2021





Large Federal Footprint = Opportunity for Feds to Lead by Example and Influence the Sustainable Products Market

The U.S. Federal government:

Is the single largest purchaser in the world spending **~\$650 billion annually** on goods and services

Procurements represent roughly **2.5% of USGDP** and influence much more

Manages over **350,000 buildings, 600,000 vehicles**, and nearly **1 of every 5 acres** in the U.S.

Spends **~\$90 billion annually** on IT equipment and services

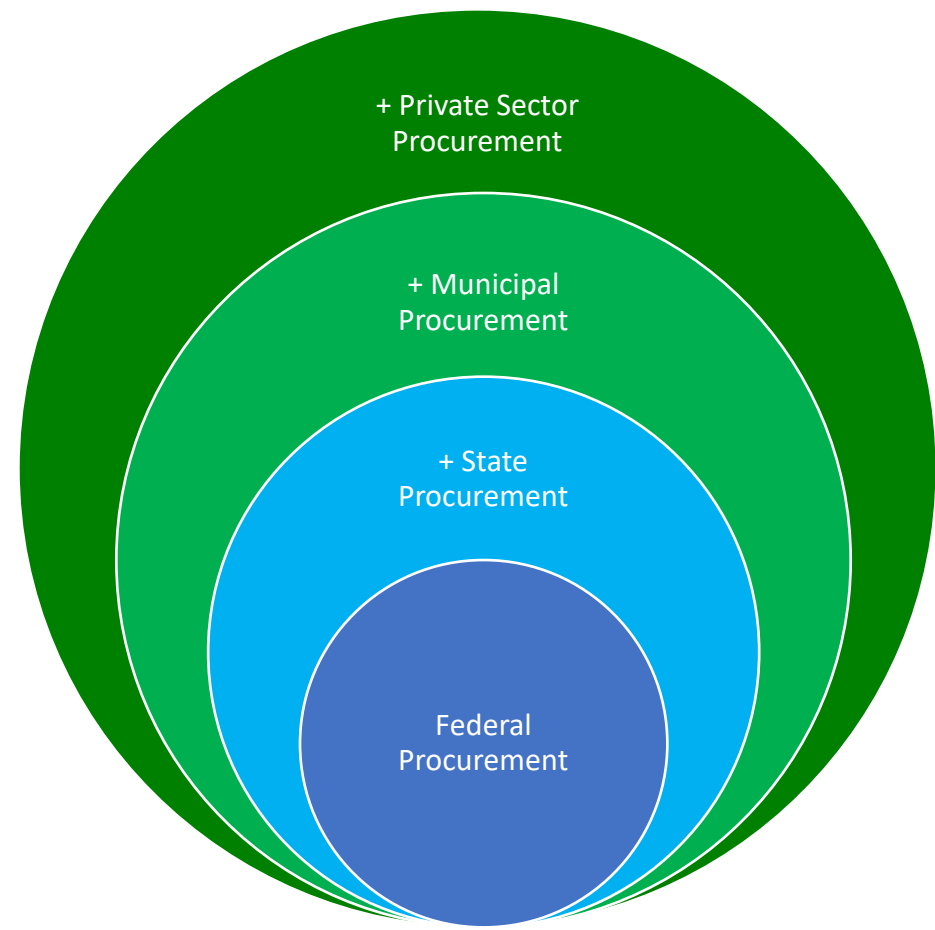
Is the largest energy consumer in the nation, spending **~\$18.3 billion annually**

Uses **renewable energy** to power 8.6% of its facility electric energy needs





Sustainable Federal Procurement as a Force Multiplier





Federal Sustainable Purchasing is an integral tool for meeting several Biden-Harris Administration priorities: *Climate, Environmental Justice, and Green Jobs*

2021 Climate Related Executive Orders include

January 20	E.O. 13990	<i>Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis</i>
January 27	E.O. 14008	<i>Tackling the Climate Crisis at Home and Abroad</i>
May 20	E.O. 14030	<i>Climate Related Financial Risks</i>



Environmentally Preferable Purchasing (EPP) Program

epa.gov/greenerproducts



Take a lifecycle, multi-attribute approach to defining “environmentally preferable”



Engage in the development/update of key private sector product & service sustainability standards & ecolabels



Assess & recommend specifications, standards, and ecolabels for federal purchasers



Assist feds (and others) in buying environmentally preferable products and services



Assist small businesses in selling their greener products and services to the federal government



Measure the benefits of buying green



Benefits of using environmental performance standards/ecolabels:



- Available now.
- Bring a multi-attribute, lifecycle perspective to defining what is “greener.”
- Developed via multi-stakeholder collaborative process to ensure everyone’s voices are heard (government, NGO, industry, academia, etc.).
- Your institution can influence content.
- Establish a clear path of progress & aspirational goals for industry.
- They’re a vehicle to gather more data, access technical expertise outside your institution.
- Simplify complex environmental issues for purchasers.



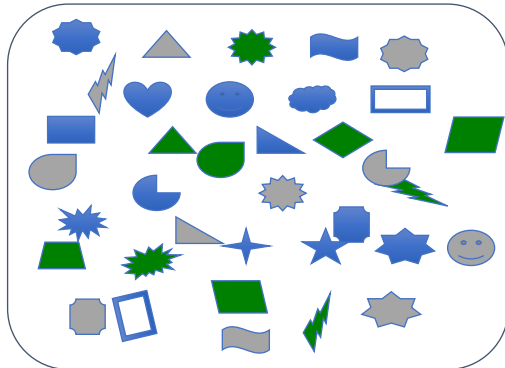
Ecolabels
Found in the
Global
Marketplace
Today (460+)



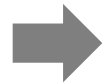
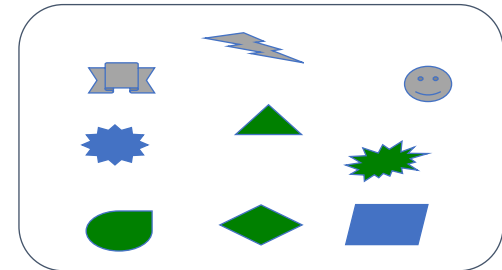
The Recommendations of Specifications, Standards, and Ecolabels

Leveling the Playing Field & Bringing Clarity to the Marketplace

Global Marketplace
460+



Recommendations of
Standards & Ecolabels



1) Based on review and use by
another federal agency

OR

2) Based on an assessment
against the multi-stakeholder
developed Framework for
Environmental Performance
Standards and Ecolabels





Framework for Assessing Environmental Performance Standards & Ecolabels

Section I	Standards development process
Section II	Effectiveness in addressing human and environmental health
Section III	Conformity assessment procedures
Section IV	Ecolabel program management



EPA's Framework Section I: Process for Developing Standards

The standard is a voluntary consensus standard (VCS) as defined by OMB A-119 Section 4. If a standard is an ANSI approved American National Standard (ANS) AND achieved balance in the consensus body, then the standard is considered a VCS.

OR

An alternative approach to confirming that a standard is a VCS is provided. Specifically, should address the following, among other criteria:

- Conflicts of interest
- Transparency of participation procedures
- Public announcements at key stages of the standards creation, revision, reaffirmation or withdrawal
- Selection of membership of decision-making body(ies)
- Balance of interest in decision-making body(ies)
- Lack of dominance in decision-making body(ies)
- Policies for patented technology
- Reasonable effort to achieve consensus
- Procedural appeals mechanism
- Publicly available criteria



EPA's Framework Section II: Environmental Effectiveness

- Transparency of weighting methodologies
- Address all significant hotspots/lifecycle stage impacts, or be transparent about hotspots not addressed



EPA's Framework Section III: Conformity Assessment

Demonstrate conformance to relevant standards within the ISO/IEC 17000 series, e.g., ISO/IEC 17065 (for the ecolabeling certification program scope in accordance with (ISO 17020)); 17025 (testing); 17024 (personnel); 17020 (inspection). Accreditation body must be a member of the International Laboratory Accreditation Cooperation (ILAC; or regional counterpart) or International Accreditation Forum (IAF).

OR, an alternative approach to confirming that a conformity assessment program is competent is provided. Specifically, should address the following, among other criteria:

- Transparent information on fees
- Independence; Impartiality; Conflict of interest policy
- Sufficient personnel; Role separation
- Adequate facilities & equipment
- Quality objectives/Quality management system
- Records management; documented procedures (inc. traceability & dispute resolution)
- Periodic evaluations of marked products; suitable actions for misuse



EPA's Framework Section IV: Ecolabel Program Management

- Transparency of information on fees
- Free from undue pressures
- Quality objectives/Quality management system
- Disclosure of program governance
- Procedures for granting the use of the mark
- Up-to-date directory of conformant products
- Periodic evaluation of marked products
- Suitable action for misuse
- Dispute resolution procedures



The Recommendations

- Currently recommend **48** private sector standards/ecolabels
- 3 specifications
- Cover **25** product categories





Product Categories in the Recommendations

*Pilot Category Assessed Against Framework

Cafeteria

- Take-out Service: Containers, Cutlery, Dishware
- Commercial Dishwasher Detergent

Construction

- Adhesives
- **Carpet***
- Ceiling Tiles-Acoustical
- Fiberboard, Gypsum Panels, and Wallboard
- **Flooring***
- Insulation
- **Interior Latex Paint***

Office/Furniture

- Copy Paper
- **Furniture***

Custodial

- Cleaners: Carpet, Glass, Multipurpose
- Floor Care
- Hand Soap
- Toilet Tissue
- Towels – paper
- Wastebasket Liners (24" x 33" or smaller)

Machine Shop Operations

- Parts Wash Solution

Electronics

- Computers
- Imaging Equipment
- Mobile Phones
- TVs
- Recycling Services
- Servers

Grounds/Landscaping

- Deicer



Evaluation Criteria for Selecting New Purchase Categories for the EPA Recommendations

- Can a Recommendation in the category address a High priority of current Administration?
- Does the category have significant volume of purchases by the Federal Government?
- Are there well-established, significant climate and/or other environmental/human health impacts that can be addressed through procurement?
- Are there existing private sector standards/ecolabels in the market?
- Is there adequate product availability meeting the spec/standard/ecolabel(s)?
- Is the EPA EPP Program the best venue to take the lead on providing Recommendations in the category? Or is there legislation or another federal agency program better positioned to establish a government-wide procurement mandate for the issue/category?
- Other considerations:
 - Is it already being used or recommended by another federal agency?
 - Is it already being used or recommended by another country, state or local government?
 - Is the issue/category/ecolabel of high interest to federal sustainable procurement leaders?
 - Does the private sector standard/ecolabel cover multiple product or service categories (i.e. Cross-category)?
 - Are we already recommending the standard/ecolabel and can adopt it in additional product categories?



Useful tools to help measure success

- **Robust Product Registries**
 - Can support pre- market research on product availability
 - Can help support data input for calculating results
- **Calculators**
 - Helps to quantify environmental and public health benefits



Wide Variation Among Product Registries

Structure

- Some just pdfs on website, others are online databases

Ease of Use

- Some have advanced search functions or filters
- Some offer a unified database listing all certified products by the different certifying bodies, while others require user to go to each of the certifiers' websites to find products

Maintenance Frequency

- Some have robust monitoring systems for ensuring accuracy, regularly updating product listings, others do not

Ability to Integrate into Retailer Systems

- Some are machine readable, offer live data feeds, others aren't/don't



Electronics Environmental Benefits Calculators

Purpose: To assist organizations in demonstrating the impact of their sustainable purchasing decisions in the electronics categories.

- Originally developed and funded by EPA in 2009
- Code for calculators was released on EPA website in 2019
- Calculators are now being maintained and new ones being built by the Global Electronics Council (GEC)
 - Categories covered: computers & displays, mobile phones, servers, imaging equipment, and TVs.
 - Impacts calculated: energy use reductions, greenhouse gas reductions, water consumption and cost savings.



Example Calculations: Mobile Phones

<https://globalelectronicscouncil.org/benefits-calculators/>

Bronze

Silver

Gold

Region of use

RESET

GET RESULTS

Results

+ Data Entered

Benefits of Purchasing EPEAT Products ?

- Show all ?
- Energy savings in MJ ?
- Energy savings in kWh eq ?
- Greenhouse gas emissions ?
- Non-hazardous solid waste ?
- Water consumption ?
- Acidification potential ?
- Smog formation potential ?
- Eutrophication potential ?
- Toxic substances in the product ?
- Material conservation ?
- Cost savings for non-hazardous solid waste disposal ?
- Cost savings for energy use ?

Reduction in Environmental Impacts and Costs Resulting from Purchasing EPEAT

	Energy savings in megajoules (MJ)	Energy savings in kilowatt hour equivalents (kWh eq)	Greenhouse gas emissions reduction, expressed as global warming potential (kg CO2 eq)	Non-hazardous solid waste reduction (kg)	Water consumption savings (liters H2O)	Acidification potential savings (kg SO2 eq)	Smog formation potential savings (kg O3 eq)	Eutrophication potential savings (kg N eq)	Toxic substances avoided in the product (kg)	Material conservation (kg)	Cost savings for non-hazardous solid waste disposal (US\$)	Cost savings for energy use (Dollars)
Purchasing EPEAT Products	12,913.01	3,586.95	744.38	69.09	3,239.25	3.43	62.86	0.36	0.58	20.99	3.85	41.17
Optional Extended Life, Reuse, Recycling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	12,913.01	3,586.95	744.38	69.09	3,239.25	3.43	62.86	0.36	0.58	20.99	3.85	41.17

Show me more details

Reduction in Environmental Impacts and Costs:

- By Product Category:
- By Product Type:
- By Product Lifecycle Phase (All Products):
- Mobile Phones by Lifecycle Phase:
- Servers by Lifecycle Phase:
- Computers and Displays by Lifecycle Phase:

Excel Download



Example Calculations: Mobile Phones

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RESET

GET RESULTS

Equivalencies

Metric	Equivalencies (based on the total benefits displayed in the main table)
Energy Savings	Electricity to power 0.30 US household(s) for a year
Greenhouse Gas Emissions Reduction	Equivalent to removing 0.16 passenger car(s) from the road per year
Non-hazardous Solid Waste Reduction	Solid waste generated by 0.04 US household(s) in a year
Water Consumption Savings	Water to fill <0.01 olympic-sized swimming pool(s)
Toxic Substances Avoided	The weight of 0.25 brick(s)
Material Conservation	The weight of <0.01 18-wheeler (tractor-trailers)

Excel Download



The Impact of the Recommendations

Example: Benefits of recommending the EPEAT ecolabel in the electronic product categories: TVs, Mobile Phones, Imaging Equipment, Computers/Displays, Servers

Total lifetime impact reductions and cost savings over the lifetime of EPEAT registered products purchased in 2018

- # of EPEAT registered products purchased by the U.S. Federal Government: ~7 million
- # of EPEAT registered products purchased worldwide = ~181 million

Environmental Impact Reductions	U.S. Federal Government	Worldwide
Energy (MWh)	1,798,476	38,083,488
Primary Materials (MT)	632,700	8,359,992
GHG Emissions (MT of CE)	1,160,208	19,474,658
Air Emissions (MT)	1,232,600	16,717,930
Water Emissions (MT)	2,428	44,496
Municipal Solid Waste (MT)	12,616	385,186
Hazardous Waste (MT)	4,394	68,413
Cost Savings (dollars)	~183 million	~3 billion



Conclusions

- Having a pre-vetted list of standards or ecolabels to be used in procurement can result in an array of economic benefits to purchasers, manufacturers, vendors, etc.
- Consider adopting EPA's Recommendations for your own organization.
- When you need to assess standards/ecolabels, consider aligning with the criteria in EPA's Framework.
- Robust product registries make it quick and easy for purchasers to identify the environmentally preferable products that meet their needs.
 - Can also help keep track of environmental or human health data associated with each product you buy
- Having product category specific calculators are extremely useful for estimating costs and environmental benefits from buying environmentally preferable products.



For More Information...

- EPA's Sustainable Marketplace: Greener Products & Services -

www.epa.gov/greenerproducts

- U.S. policy and information resources on standards - standards.gov
- The Office of the Federal Chief Sustainability Officer - www.sustainability.gov
- Alison Kinn Bennett – kinn.alison@epa.gov