



Overview of ENERGY STAR Program and Specification Development Process

For more information:

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Learn more at energystar.gov

What is ENERGY STAR?



- **ENERGY STAR** is a voluntary **government-backed** program dedicated to helping individuals protect the environment through **superior energy efficiency**
- **ENERGY STAR** is the national symbol of energy efficiency, making it easy for consumers and businesses to identify high-quality, energy-efficient products
- **ENERGY STAR** distinguishes what is efficient/better for the environment without sacrificing features or performance
- Products that earn the **ENERGY STAR** meet strict energy performance criteria set by EPA or DOE

ENERGY STAR Objectives



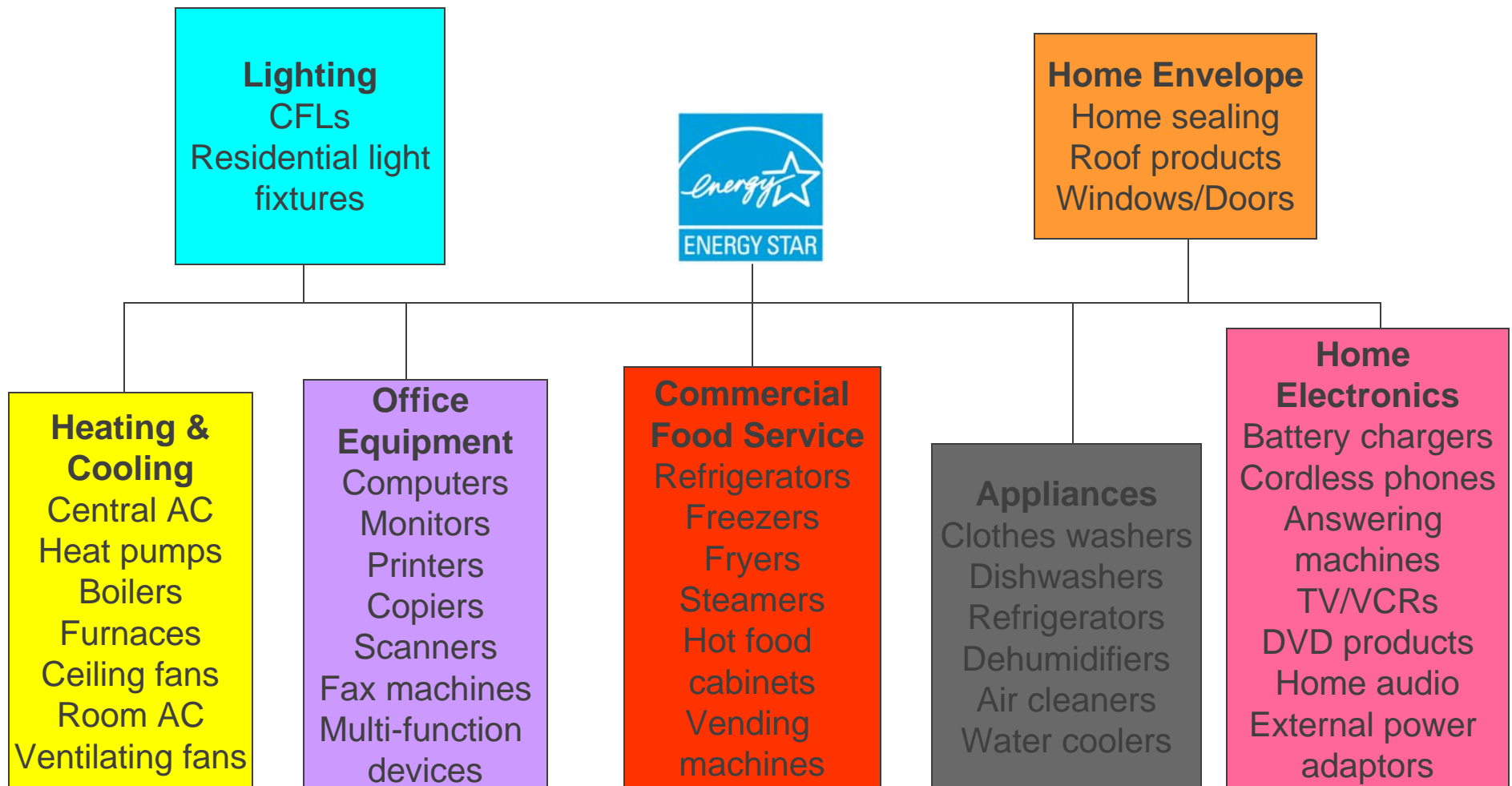
Objectives

- To reduce greenhouse gas emissions, caused by the inefficient use of energy
- To make it easy for businesses and consumers to identify and purchase products with enhanced energy efficiency that offer savings on utility bills while maintaining performance, features, and comfort

ENERGY STAR Homes, Buildings, Products



60+ Product Categories Are Covered by ENERGY STAR in the US

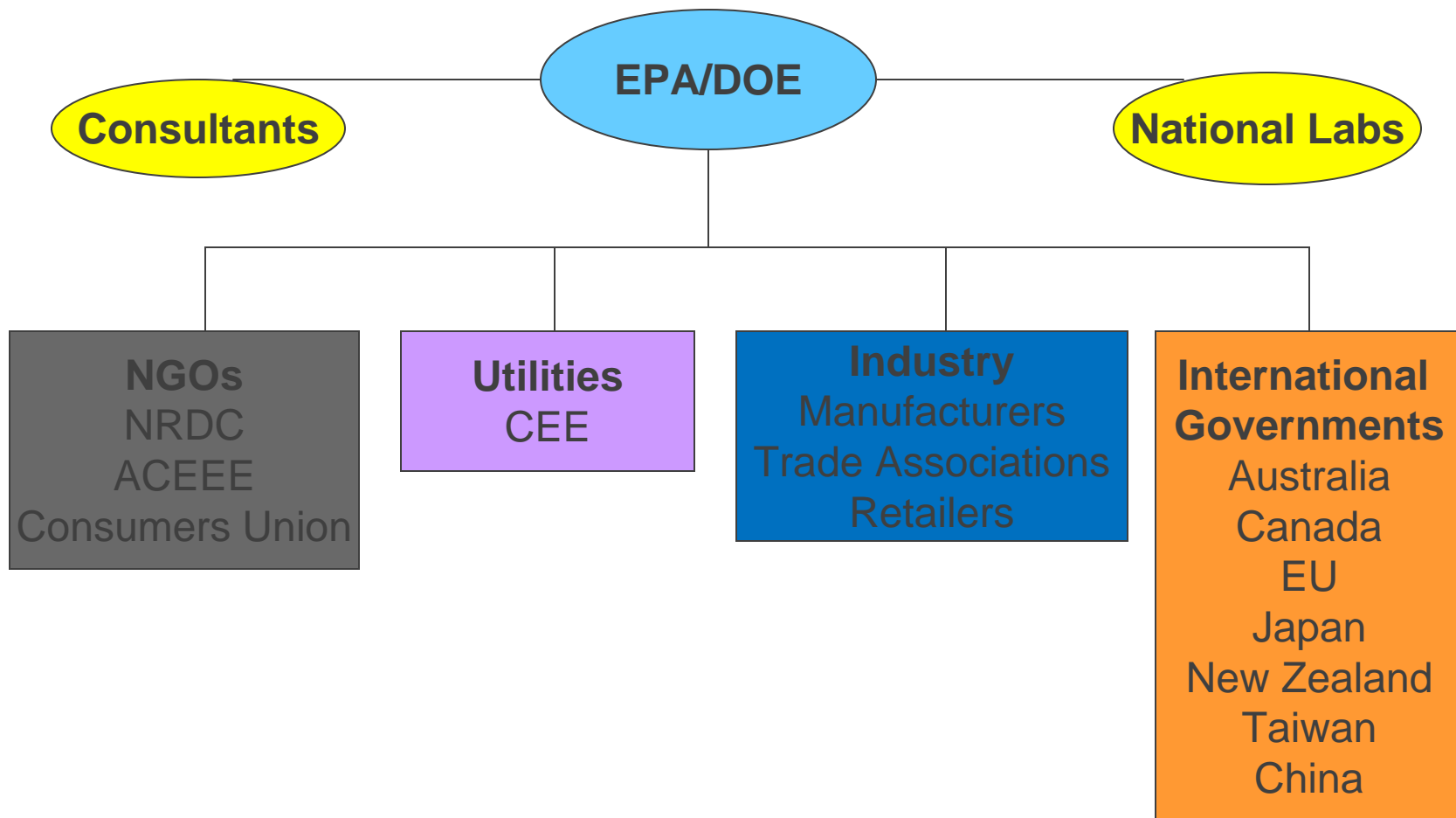


ENERGY STAR Partners in the US



- **ENERGY STAR** works with many stakeholders in reducing greenhouse gas emissions including
 - Manufacturers, retailers, and state and utility partners
- More than 2,000 manufacturers labeling more than 40,000 product models
- Over 1000 retailers in US and Puerto Rico
- More than 550 utilities and other energy efficiency program sponsors promoting **ENERGY STAR**

Stakeholders Engaged in ENERGY STAR Spec Development

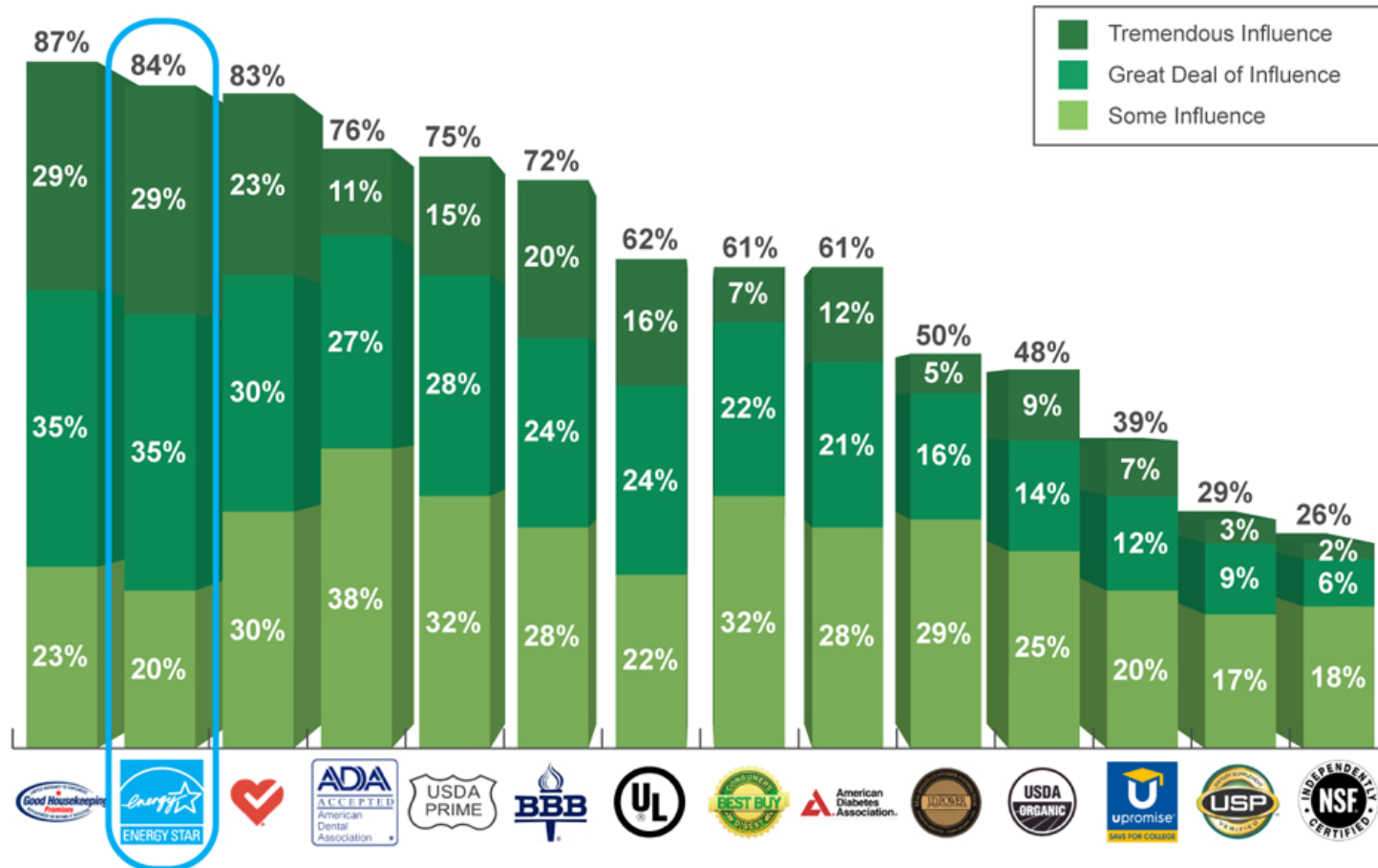


Brand Awareness and Success



- ENERGY STAR awareness now more than 75% of U.S. households
- Of those U.S. households that have purchased an ENERGY STAR product
 - More than 75 percent report the label as influential in their purchasing decision
 - More than 80 percent report they are likely to recommend ENERGY STAR qualified products to friends
- In 2008 alone, Americans, with the help of ENERGY STAR:
 - Saved consumers about \$19 billion on their energy bills
 - Prevented 43 million metric tons of greenhouse gas emissions equivalent to the annual emissions of 29 million vehicles

Consumers Trust ENERGY STAR



Source: Fairfield Research, Summer 2007

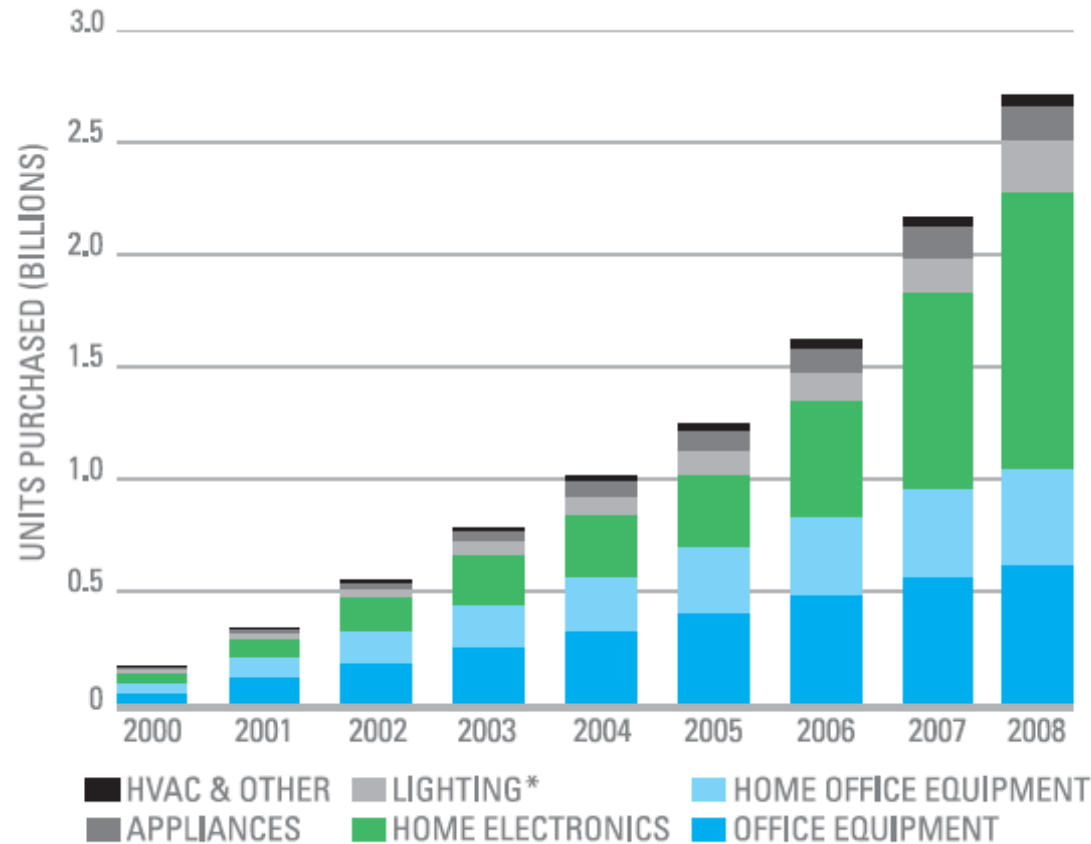
The ENERGY STAR mark ranks among the highest level of influence on product purchase among all consumer emblems, similar in ranking to the *Good Housekeeping Seal*.



ENERGY STAR Purchased Products



More than 2.5 Billion ENERGY STAR qualified products purchased since 1992



*Lighting category does not include purchases of compact fluorescent bulbs.



Guiding Principles of Specification Development



- Cost-effective efficiency
- Performance maintained or enhanced
- Significant energy savings potential
- Efficiency is achievable with non-proprietary technology
- Product differentiation and testing are feasible
- Labeling can be effective in the market

Developing an Effective Specification



- 1 Energy and environmental analysis
- 2 Market research and design analysis
- 3 Specification development (with significant stakeholder involvement)

Specification Development Cycle





Important Process Elements

- Consistency
- Transparency
- Inclusiveness
- Responsiveness
- Clarity

Drivers for New and Revised Specifications



- New Specifications
 - Energy savings potential
 - Tracking studies on energy consumption of devices
 - Variety of partners flag opportunities
 - Now manufacturers request inclusion of their product
- Specification Revisions
 - Market penetration
 - Technology advancement
 - Federal Standards
- Consistently monitor the market looking for new opportunities and striving to ensure existing portfolio is meaningful

Protecting the Integrity of the ENERGY STAR Brand



- Self-certification program, supported by
 - Competitive marketplace
 - Active consumer groups
- Quality Assurance Mechanisms
 - Compliance Audit Program
 - Verification testing
 - QA-4 testing
 - Third party testing review
 - Quality Testing Requirements
 - Annual Market Share Assessment
 - Annual Consumer Payback Review
 - Retail Store Level Assessment
 - Annual ENERGY STAR Products Web/Materials Review
 - Product Labeling Reconciliation and Follow Up

Marketing and Consumer Education



- National viral / grass roots campaign that empowers individuals around cause: Change the World, Start with ENERGY STAR
 - Web-based pledge and education
 - Pledge drivers
 - Local events
 - Local media
- Product and behavioral marketing
 - To drive behavioral change around priority products and practices (including electronics)
 - Consumer and trade media
 - Web education and tools
 - Partner leveraging

2009 Activities



- **Complete New Specs**

- Servers Tier 1
- Commercial Lab-grade Refrigerator/Freezer
- Commercial Griddles
- Commercial Ovens
- Pre-rinse Spray Valve
- Geothermal heat pumps

- **Complete Spec Revisions**

- Audio/Video
- Displays (DPF, professional signage)
- TVs
- Game consoles
- Programmable Thermostats
- LC HVAC
- Commercial Food Grade Refrigerator/Freezer
- Commercial Laboratory Grade Refrigerator/Freezer
- Furnaces

- **Initiate New Specs**

- Enterprise Center Storage
- Small Network Equipment
- Servers Tier 2
- Commercial Fryers
- Ceiling Fans
- Water Coolers
- Boilers

- **Scope New Products**

- Home Energy Controls
- Networking Equip for Data Centers/Telecom
- Uninterruptible Power Supplies for Datacenters
- Point of Sale Devices
- Misc energy use: vacuums, coffee makers
- Delivering greater climate and environmental benefits

Delivering Greater Climate and Other Environmental Benefits



- Engage stakeholders re: addressing additional environmental attributes in near term– build pilot for computers and monitors
- Build capacity to consider life cycle energy
 - Identify/Develop prioritization tool for life cycle energy
 - Participate in Developing/Tailoring Life Cycle Carbon Metrics
 - Participate in WRI product/supply chain protocol development as a building block
 - Work with Carbon Trust, MIT, and interested industry to tailor life cycle energy metric to CE and IT products and supply chain
 - Test Use of Metric in High Priority Product Category
- Evaluate how other attributes are integrated into ENERGY STAR program (e.g., mandatory, extra recognition, consumer information)

ENERGY STAR International Agreements



- U.S. EPA has arrangements with agencies in other countries regarding **ENERGY STAR** for office equipment and consumer electronics
 - Japan
 - Taiwan
 - Australia: also includes home electronics and others
 - New Zealand: also includes home electronics and others
 - Canada: also includes most other product categories
- U.S. Government has a formal agreement with the European Union on **ENERGY STAR** for office equipment
- Exploring paths to renewing agreement with China

International Cooperation



NRCan

- Lighting
- Heat Recovery Vent
- Battery Chargers
- EPS
- Data Servers

EuP – Includes:

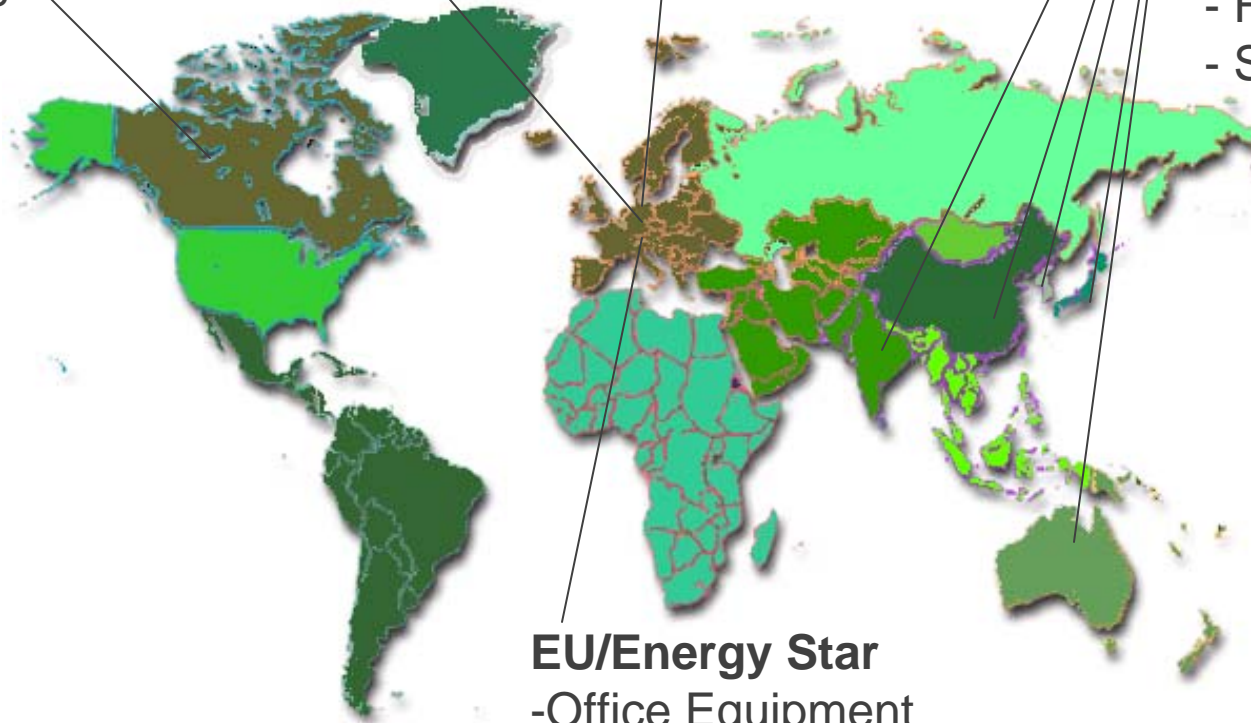
- Computers, Imaging
- TV, Standby, BC, EPS
- AC, Vent, Res appliance

EU CoC

- Data Center
- TV services
- Broadband Devices
- EPS
- UPS

APP/BATF

- Computers
- Monitors
- STB
- TV
- Fridge/Freezer
- Stand by



EU/Energy Star

- Office Equipment
- Monitors / PC/Game Consoles/Imaging





Thank you

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