

# Need for Global Energy Efficiency Harmonization

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# Agenda

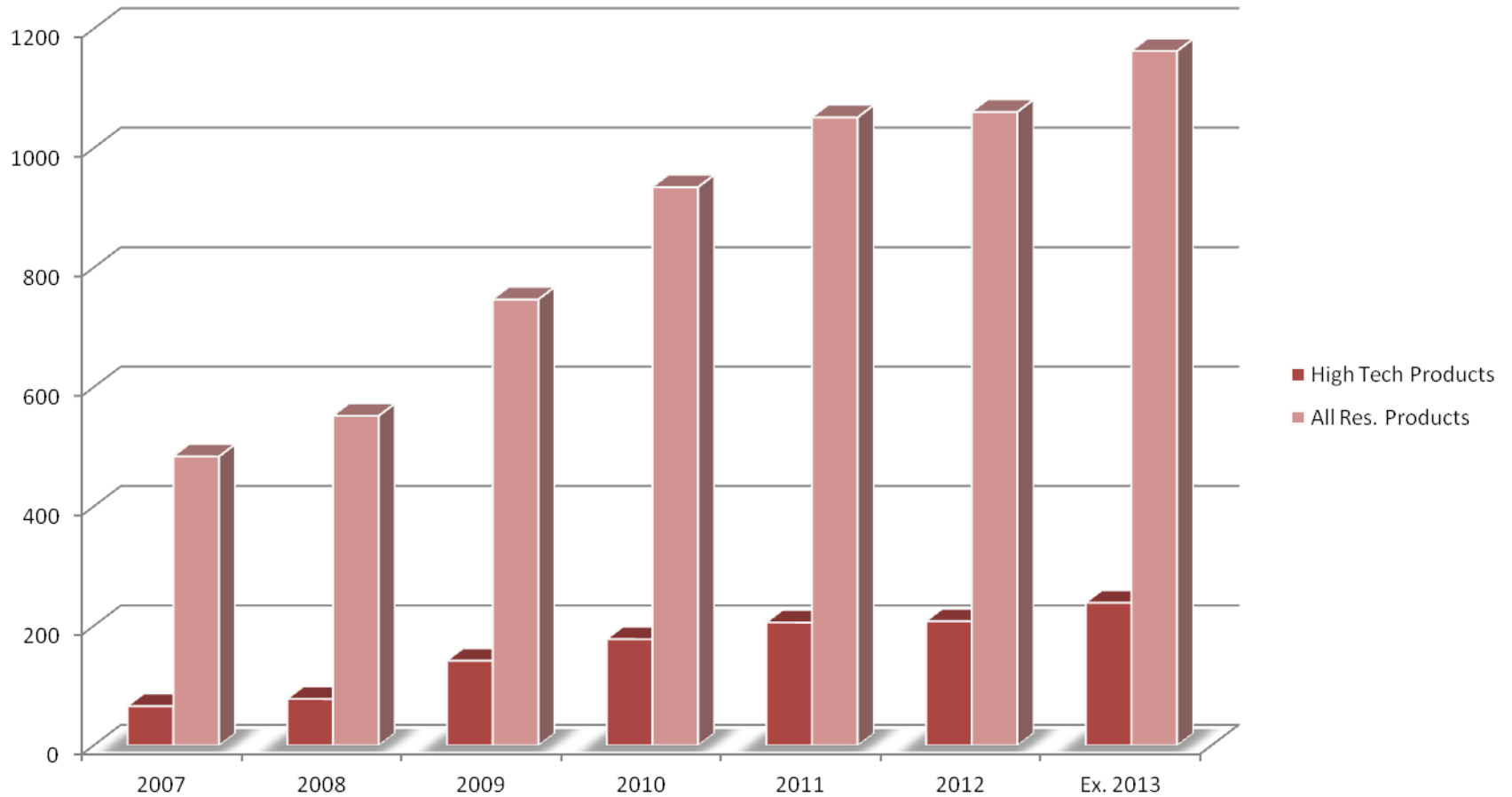
- Energy Efficiency Drivers
- The need for Harmonization – Different countries, different programs
- Challenges to Manufacturers
- Evolving Government Programs/Policies
- How can UL & WEF work together?



# Why are Nations Pursuing Energy Efficiency?

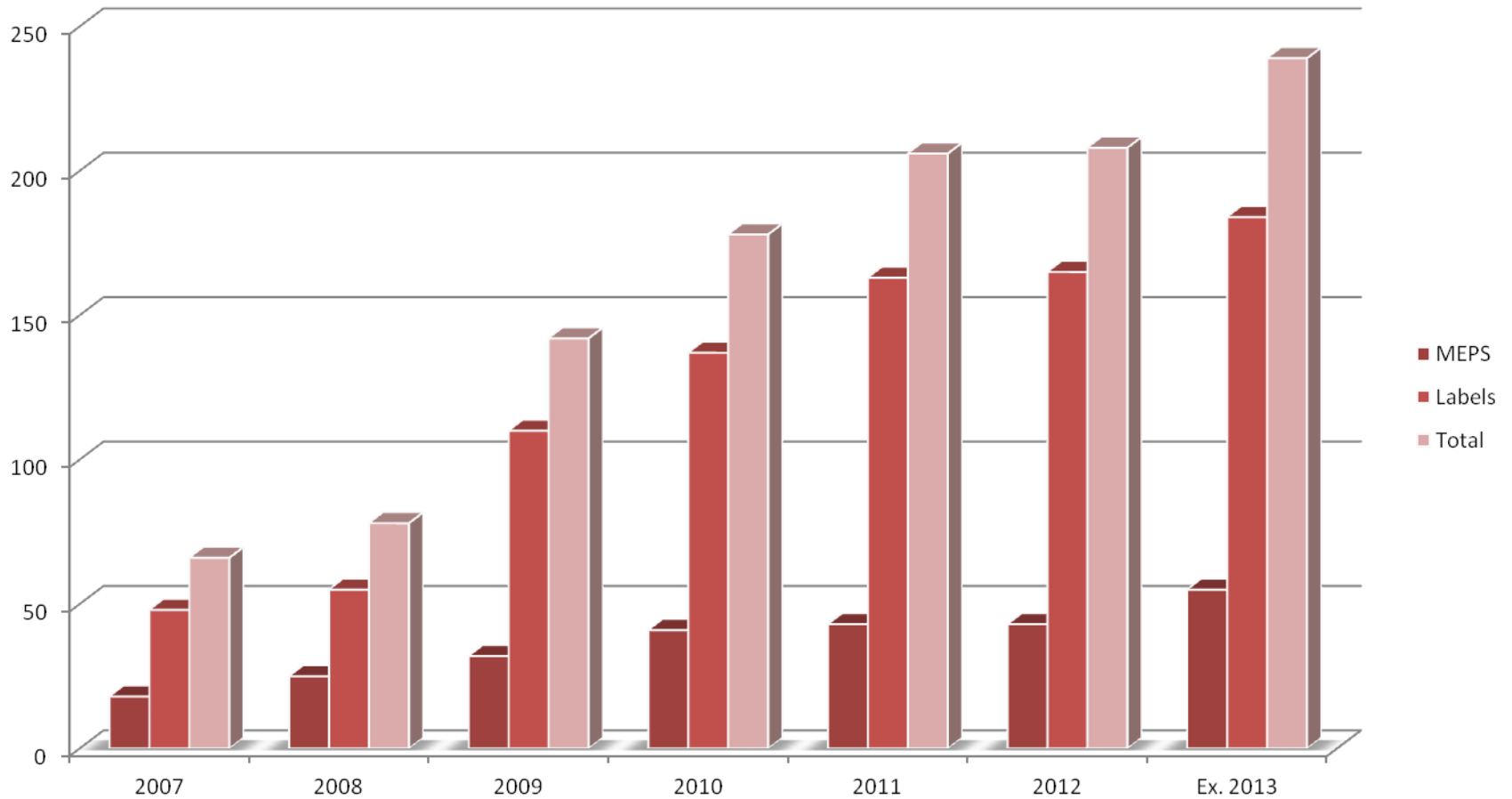
- Energy efficiency policy offers:
  - Deferred infrastructure costs
  - Energy security
  - Job creation
  - Lower consumer energy bills/stimulate economy
  - Improve air quality
  - Reduce greenhouse gases
- Governments at all levels, consumers and industry have a stake in pushing energy efficiency.

# Growth of Energy Efficiency Requirements



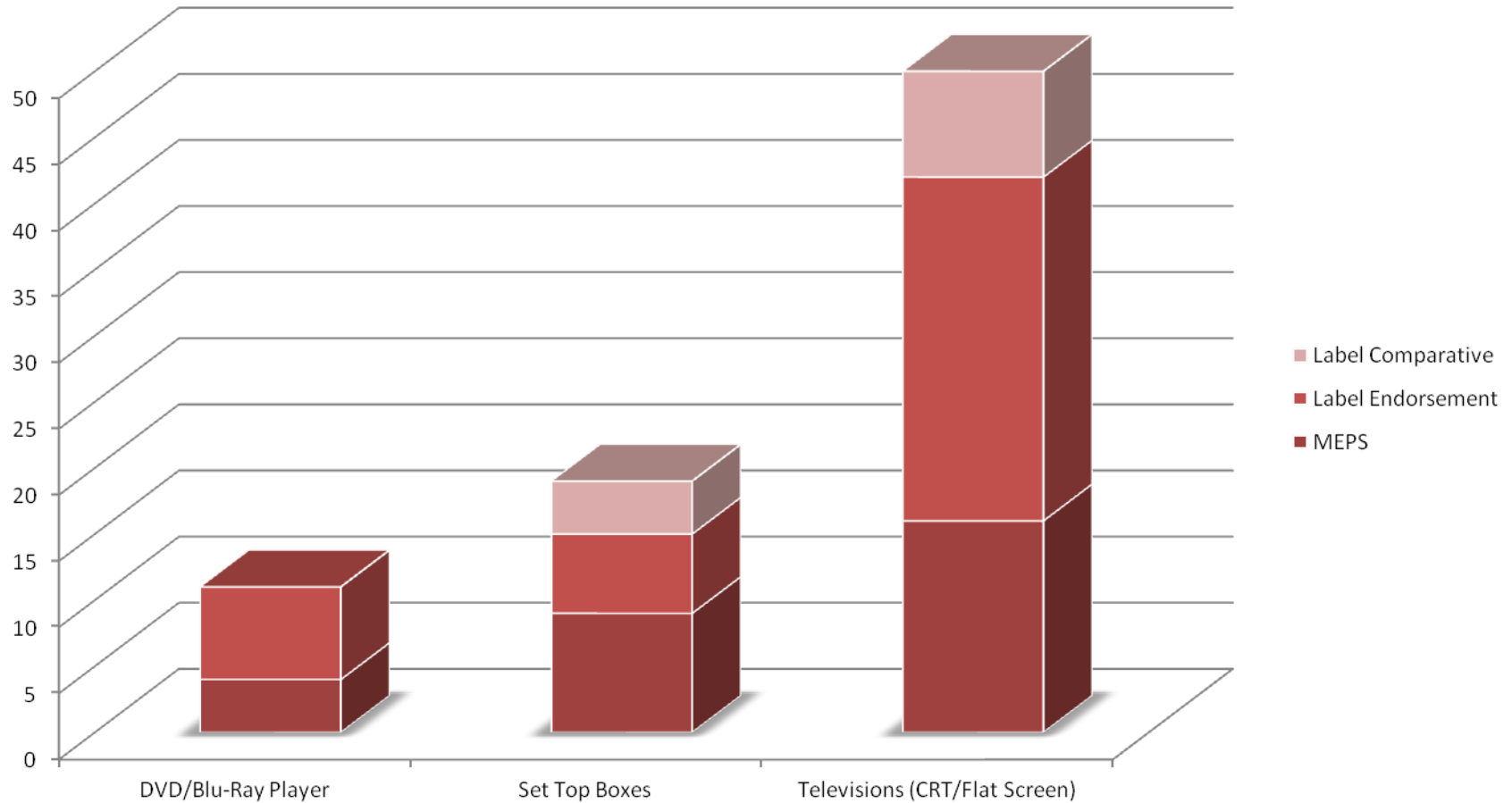
Source: CLASP S&L Database – March 25, 2012

# Global EE Programs in the Electronics Industry



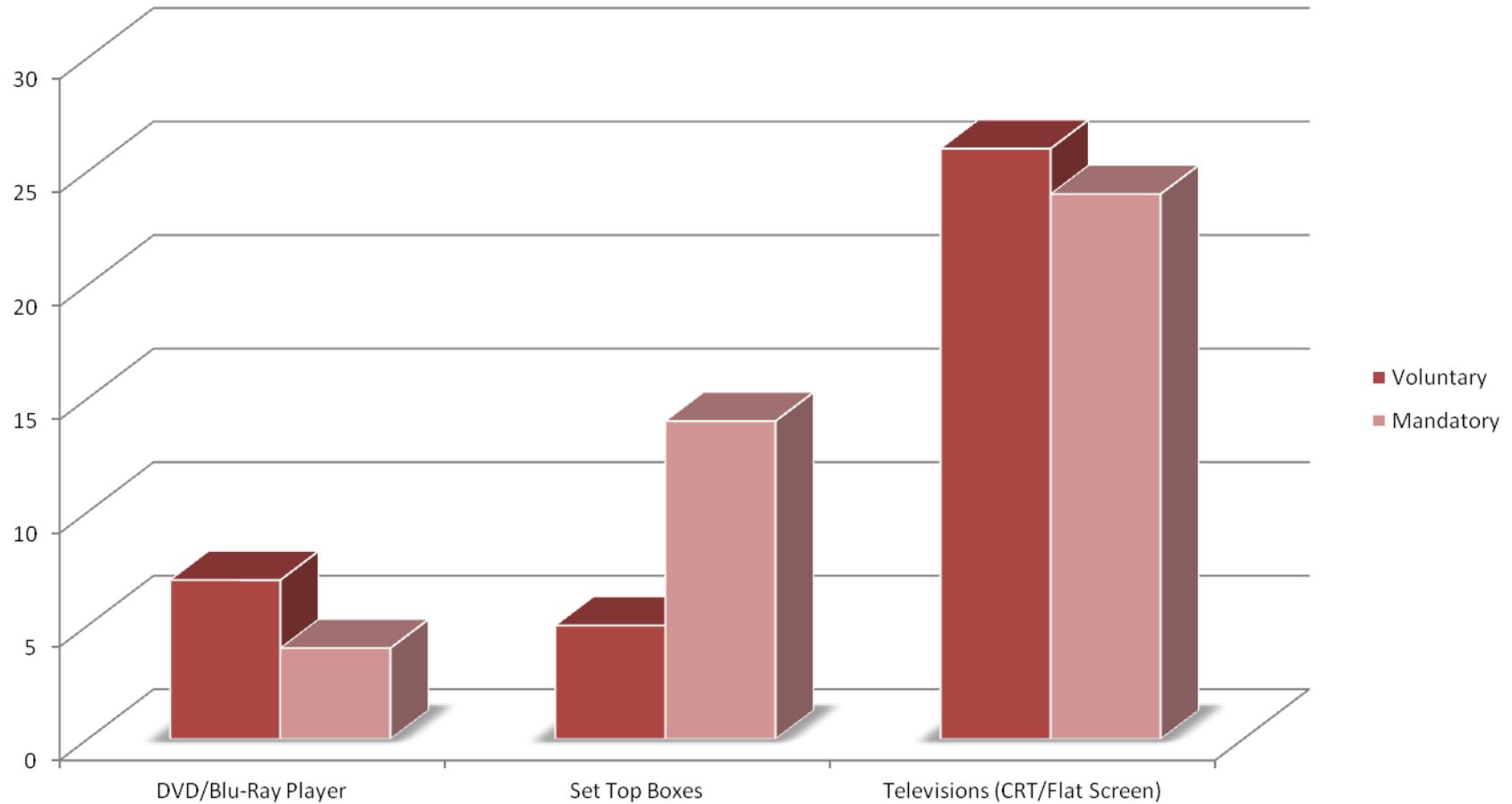
Source: CLASP S&L Database – March 25, 2012

# Global EE Programs: A closer look



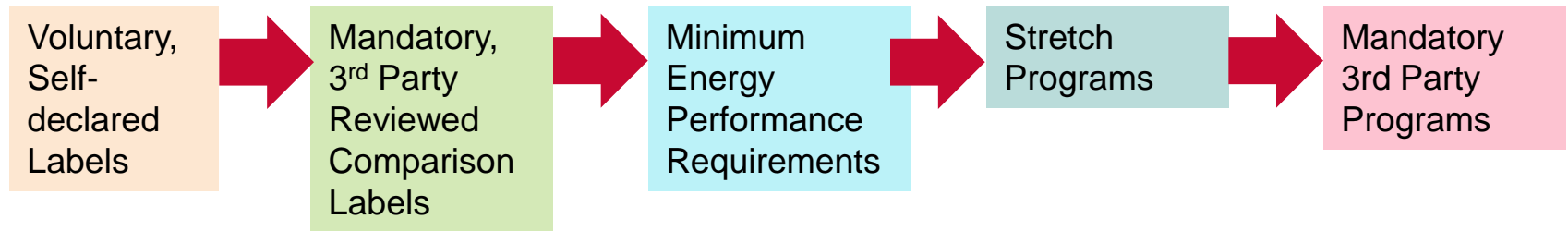
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# Global EE Programs: Voluntary vs. Mandatory



# Maturation of Energy Efficiency Program Design

- Energy performance programs tend to progress in terms of increasing rigor:

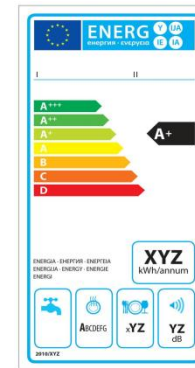


- This is an effort to maintain program integrity while raising the bar and maintaining a level playing field.
- This evolution of requirements forces manufacturers to react to ever changing landscape.



# Challenges for Manufacturers

- Test Programs/Standards/methods/procedures differ from country to country.
- Multiple models required. Some must be less energy efficient to meet market demands.
- Higher production cost as manufacturer are forced to make additional models specifically to meet MEPS.
- Limited incentive for competition in small markets provide consumers fewer choices and higher prices.
- Speed of changes, proliferation of new requirements.



# Policy Comparison Summary

	US	EU	China	India
MEPS	↑	↑	↑	↑
Stretch Programs	↑	↑	↑	=
Rigor of Program	↑	=	↑	↑

# Underwriters Laboratories Role

- Encourage and support harmonization.
  - Active participation in ASEAN, APEC, CANENA, and ISO harmonization efforts to provide the testing perspective
- Partner with industry to provide input to government agencies driving Energy Efficiency policy in numerous markets.
- Working with technical committees to eliminate interpretations thus reducing deviations and test bias.
- Providing feedback to industry on Energy Efficiency policy trends and assisting industry meet program changes.



# World Electronics Forum Role

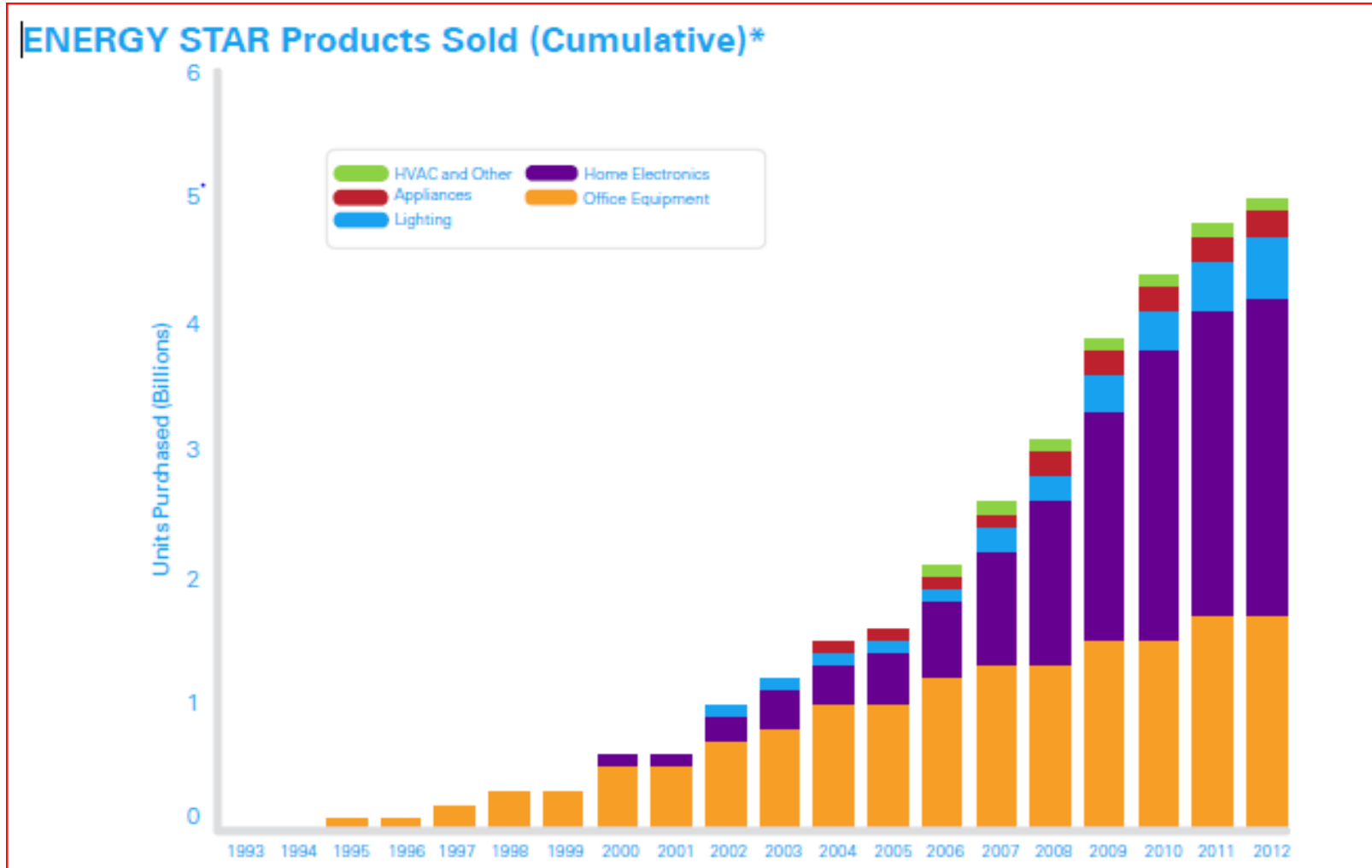
- **Facilitating proactive dialogue, increased information sharing, and transparent engagement on Energy Efficiency standards and conformance programs amongst manufacturers to understand priorities and industry-wide issues.**
- **Identifying priority efforts, including how standards, testing requirements, and certification/labeling programs will be implemented and cooperatively developed.**
- **Organizing platforms to provide technical assistance and training with stakeholders and manufacturers to understand evolving standards and conformance regimes for Energy Efficiency in various markets.**
- **Aggregating and prioritizing private sector input for government-level dialogues (APEC, IPEEC and SEAD, CEM, IEA, etc.) to position global Energy Efficiency efforts for streamlined market access.**



# Appendix



# Success of ENERGY STAR in the United States



# United States Direction

- 3-Part Strategy to achieve Secure Energy Future
  - Develop & secure US energy supplies
  - **Encourage consumer adoption of efficient technologies**
  - Spur innovation in Clean Energy

So far, the US government has:

- Made profound changes to the ENERGY STAR Program from voluntary self-declared to voluntary third-party.
- Started enforcement testing for DOE Standards and ENERGY STAR Programs.
  - Enforcement actions taken on: lighting, HVAC, Refrigerators, and shower head manufacturers.
- Invested heavily in Smart Grid (EE enabler).



# European Union Direction

- Energy efficiency is at the heart of the EU's Europe 2020 Strategy includes saving 20% of primary energy consumption.
  - Smart, sustainable, inclusive growth.
  - one of the most cost effective ways to enhance security of energy supply, and to reduce emissions of greenhouse gases and other pollutants.
  - The greatest energy saving potential lies in buildings through renovation and to improve the energy performance of appliances.
- Increasing MEPS.
- Adding additional Lots (product categories).
- Some nations are pushing for still higher MEPS and more coverage.
- Maintain Self-Declared Program





# China Direction

- China's 12th Five-Year Plan (FYP) started in 2011 and requiring a reduction in energy consumption per unit of gross domestic product (GDP) by 16 per cent from 2010 levels by 2015 while increasing energy efficiency technologies.
- Building energy consumption currently accounts for 25% of the total primary energy use in China compared to 40% of the total primary energy use in the United States.