Implementing a Strategic Approach for Energy Efficiency Regulations

WTO Workshop On Nontariff Barriers Affecting Trade In Information Technology Products

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Energy Efficiency Overview

Global alignment on energy efficiency policy is critical

Economies are ramping up mandatory and voluntary policies. The core concepts are much the same, but many variations exist in implementation

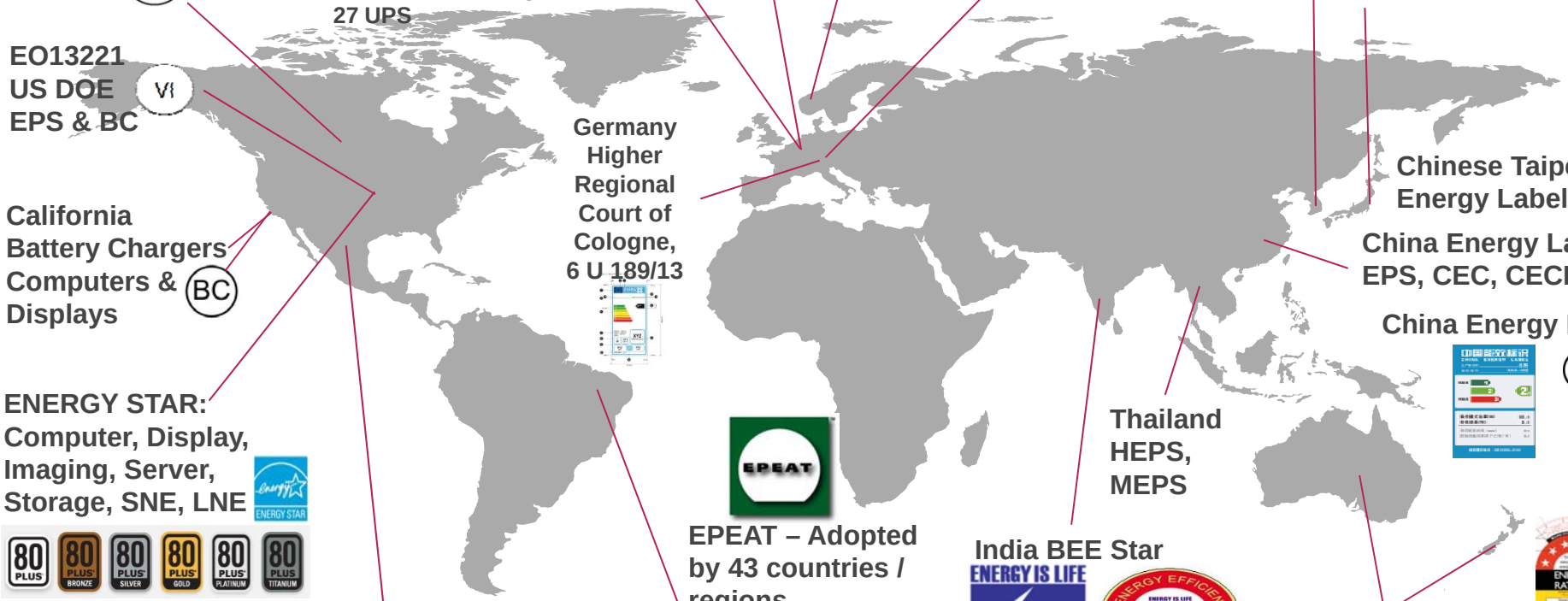
- Common product categories and definitions across policies is critical
- This requires a close working relationship between Regulators, Information Technology & Consumer Electronics Manufacturers, and the Customers
- This relationship must be built upon the following pillars:

✓ **Harmonization**

✓ **Partnership**

✓ **Holistic Approach & Innovation**

Information Technology Products - Energy



ErP Lot:
3 Computers & Servers,
4 Imaging Equipment
5 Televisions & Displays
6/26 Standby & Network Standby
7 External Power Supplies
9 Servers & Storage
27 UPS

EU GPP

TCO, EU Eco Label

Blue Angel

Korea e-Standby, EELP, eco-label,

Japan Energy Law

Canada EPS, BC etc.

EO13221 US DOE EPS & BC

California Battery Chargers Computers & Displays

Germany Higher Regional Court of Cologne, 6 U 189/13

Chinese Taipei Energy Label

China Energy Label, EPS, CEC, CECP

China Energy Law

ENERGY STAR: Computer, Display, Imaging, Server, Storage, SNE, LNE

EPEAT – Adopted by 43 countries / regions

Thailand HEPS, MEPS

India BEE Star

Mexico Energy Law

Brazil INMETRO

AUSTRALIA / NEW ZEALAND MEPS for Computers, Displays, External Power Supplies

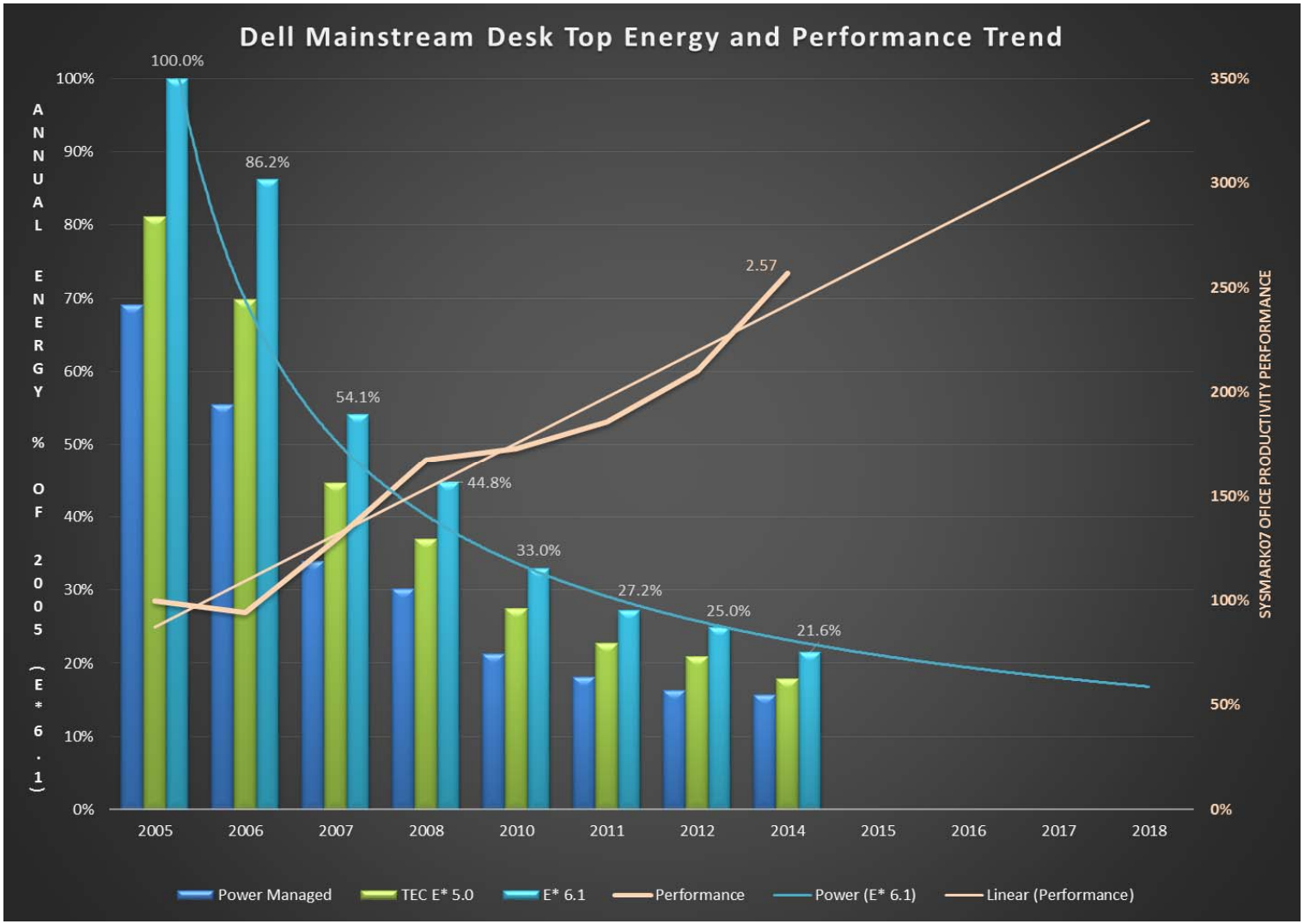
Harmonization

Global harmonization of energy efficiency requirements is good for Government, Customers, Information Technology & Consumer Electronics Manufacturers, and the Environment.

- Numerous countries have recognized the value of harmonization in free trade agreements (e.g., requiring the acceptance of the results of conformity assessment procedures of trading partners, wherever possible)
- It is essential that energy efficiency requirements are aligned and harmonized to best practices worldwide

- Regulators should align on key components and test methods and rely on industry consensus standards (e.g. ECMA 383 / IEC 62623 for computers, etc.)
  - Terms, Definitions, Power Modes, Test conditions…
    http://www.ecma-international.org/publications/standards/Ecma-383.htm
    https://webstore.iec.ch/publication/7271
- Example: IECEE CB SCHEME (used for Safety certification)
  - Worlds first international scheme based on the use of international (IEC) Standards
    http://www.iecee.org/cbscheme/pdf/cbfunct.pdf
  - “Test once, ship everywhere” is the goal

Why Harmonization is Important



- Typical Desk top Energy and performance trends using different Usage Models
- ~80% reduction in Energy Use at 260% of the performance of a 2005 mainstream system

Manufacturer-specific Burden of Misaligned Policies

Increases complexity of compliance, adds to risk of unintended noncompliance

- Product risks
  - Determining design parameters for new platforms is exponentially harder with increasing number of different tests and requirements
  - Potential to have products or configurations of products that will not pass certain tests
    - Results in market specific products or configurations based upon geography
- Different requirements by region or country often adds unnecessary administrative overhead (and GHG) for testing, registration, labeling, etc. with no energy savings realized

Partnership

Information Technology & Consumer Electronics manufacturers and other affected stakeholders should have a meaningful opportunity to engage in the development of the requirements

- Continuous improvement through voluntary industry cooperation and use of standards should be strongly encouraged, with a worldwide focus on harmonized (aligned) industry standards, requirements, and policies

- The impact to the end-user/customer must also be considered in the development of new standards

Voluntary Agreements: New Opportunity for ICT

Voluntary Agreement approaches are becoming an international norm, with models now in Europe, Australia, and the U.S. (e.g., set-top boxes, networking devices, and game consoles)

- Designed to be a complete substitute for local regulatory mandates
- Protect energy savings, innovation, and competition with far more agility than regulatory approaches based on static appliances
- Include accountability to governments by imposing requirements for public reporting and verification
- Better serve consumers and the marketplace by allowing the goals of energy efficiency and customer preference to work together
- Saves both time and money for government and industry

Holistic Approach & Innovation

Although many requirements are based upon a typical duty cycle, regulators continue a prescriptive approach by assigning limits to individual components and various operating modes.

- Industry supports a **holistic approach** (i.e., a single annualized power limit) in the development of energy efficiency requirements
- Current approach of regulating specific operating modes has negative impacts, for example:
  - Loss of end user functionality
    - Resume a PC from keyboard/mouse activity versus physical button
    - Ability to remotely wake and/or ability to sync while user not present
  - End users modify default power profile to achieve required functionality that results in increased power consumption
  - Innovation is stifled
- Energy efficiency requirements **must not inhibit innovation**
  - Economic growth, trade and international competitiveness depends on industry's ability to innovate

Conclusion

- Industry welcomes working with Governments, Industry Partners, Standards Development Organizations and other key stakeholders to develop programs and policies that align with global standards and best practices while protecting innovation, facilitating trade, and supporting economic growth
- The path forward requires a close working relationship built upon the pillars of:

➢ Harmonization

- ✓ Harmonization is the key to ensure energy efficiency goals are aligned and deliver the desired savings
- ✓ Reduces complexity & costs
- ✓ Supports a global marketplace

➢ Partnership

- ✓ Working collaboratively benefits all stakeholders

➢ Holistic Approach & Innovation

- ✓ A holistic approach allows for the advancement of newer technologies that delivers desired savings

The power to do more