Standby Power:

where are we?
and where are we going?

Mark Ellis

Energy Efficiency and Environment Division

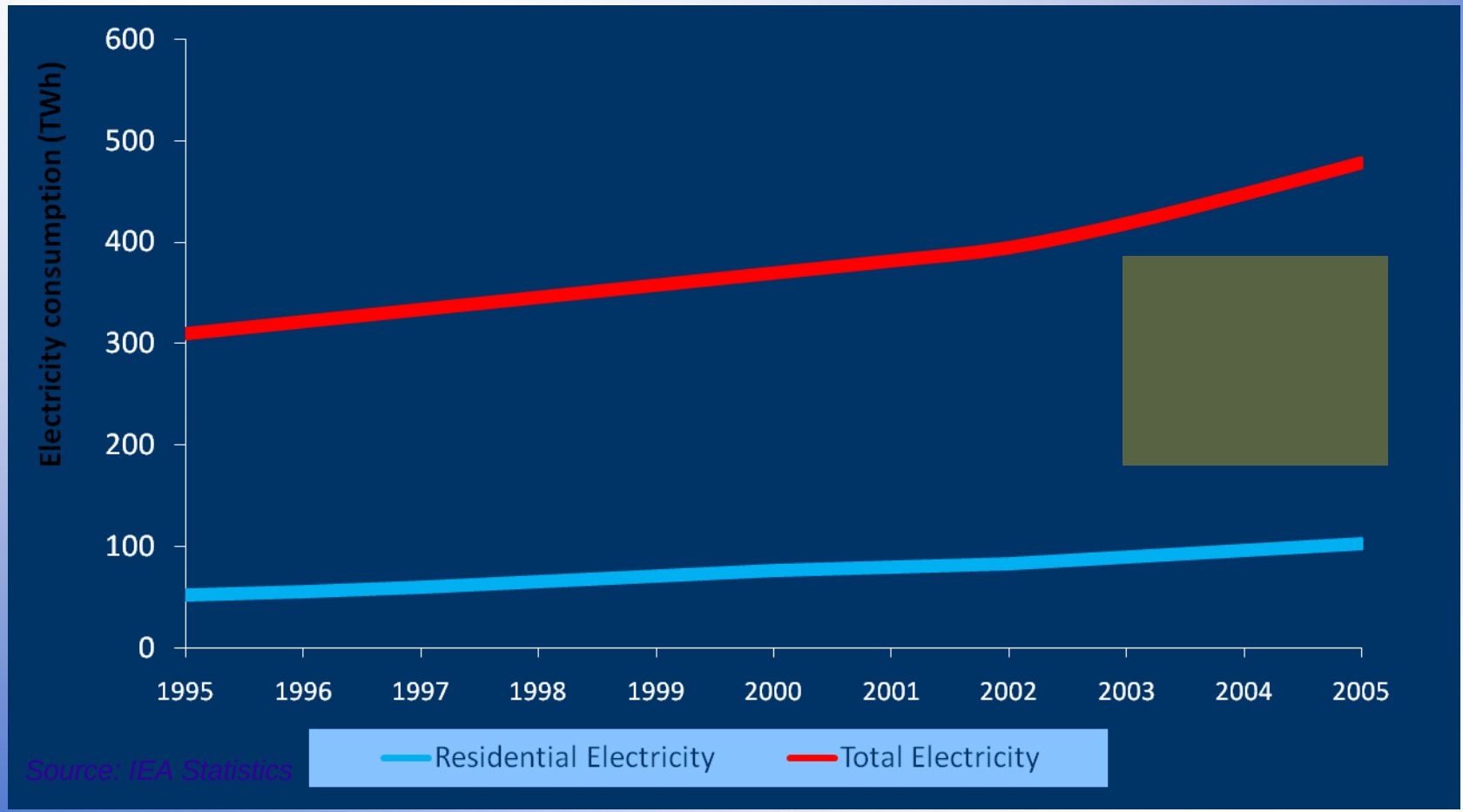
International Energy Agency

New Delhi, April 2008

Summary

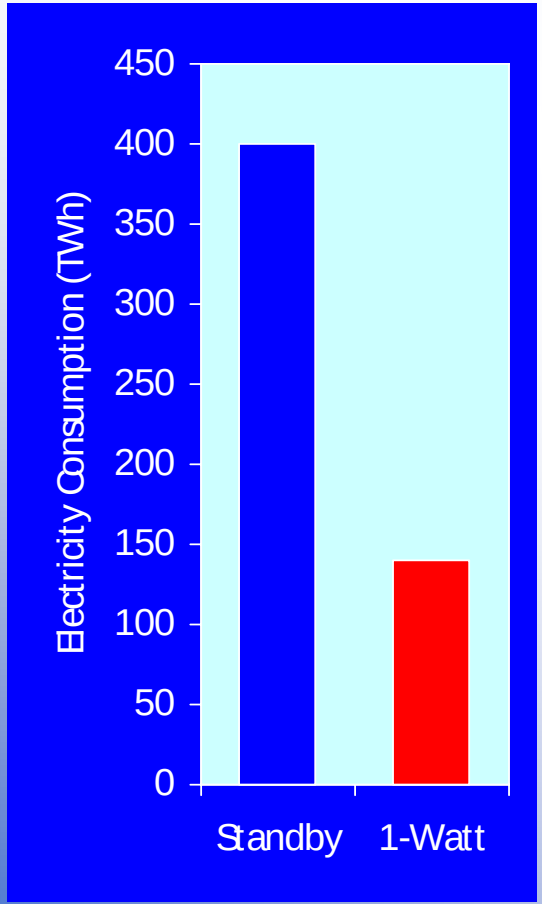
- Why do we need policy measures?
- Where are we?
- Where are we going?
- How are we going to get there?

Electricity consumption in India

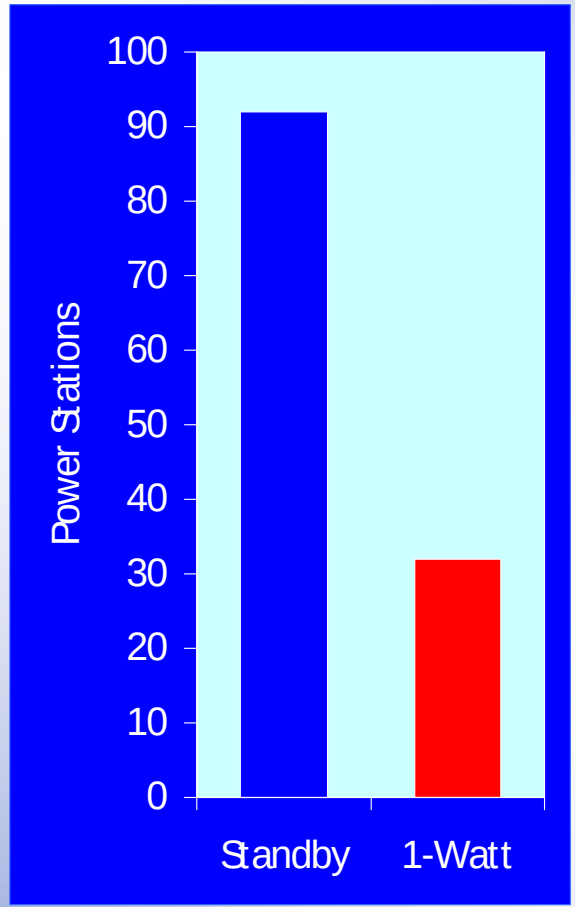


Tackling Standby Power

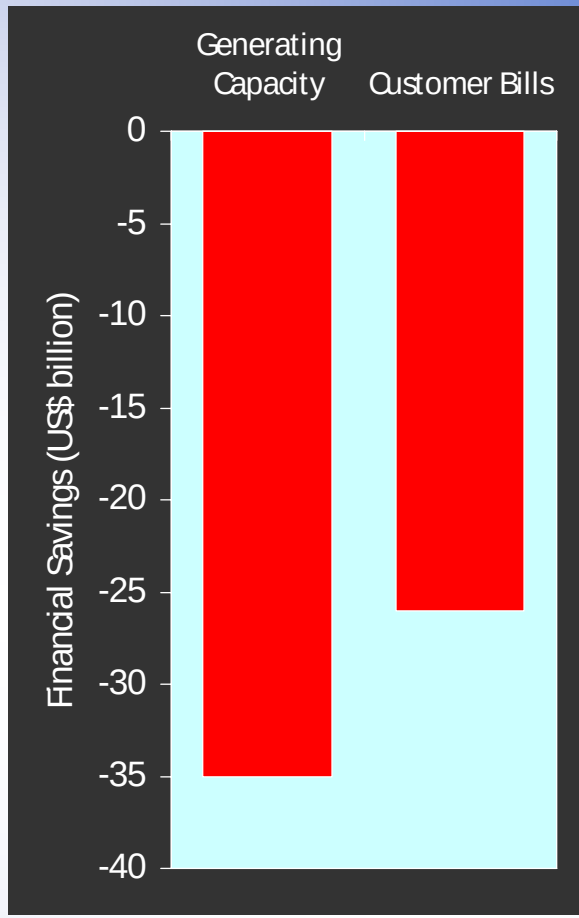
Lower Energy



Fewer Power Station



Less Costs



Source: IEA estimates

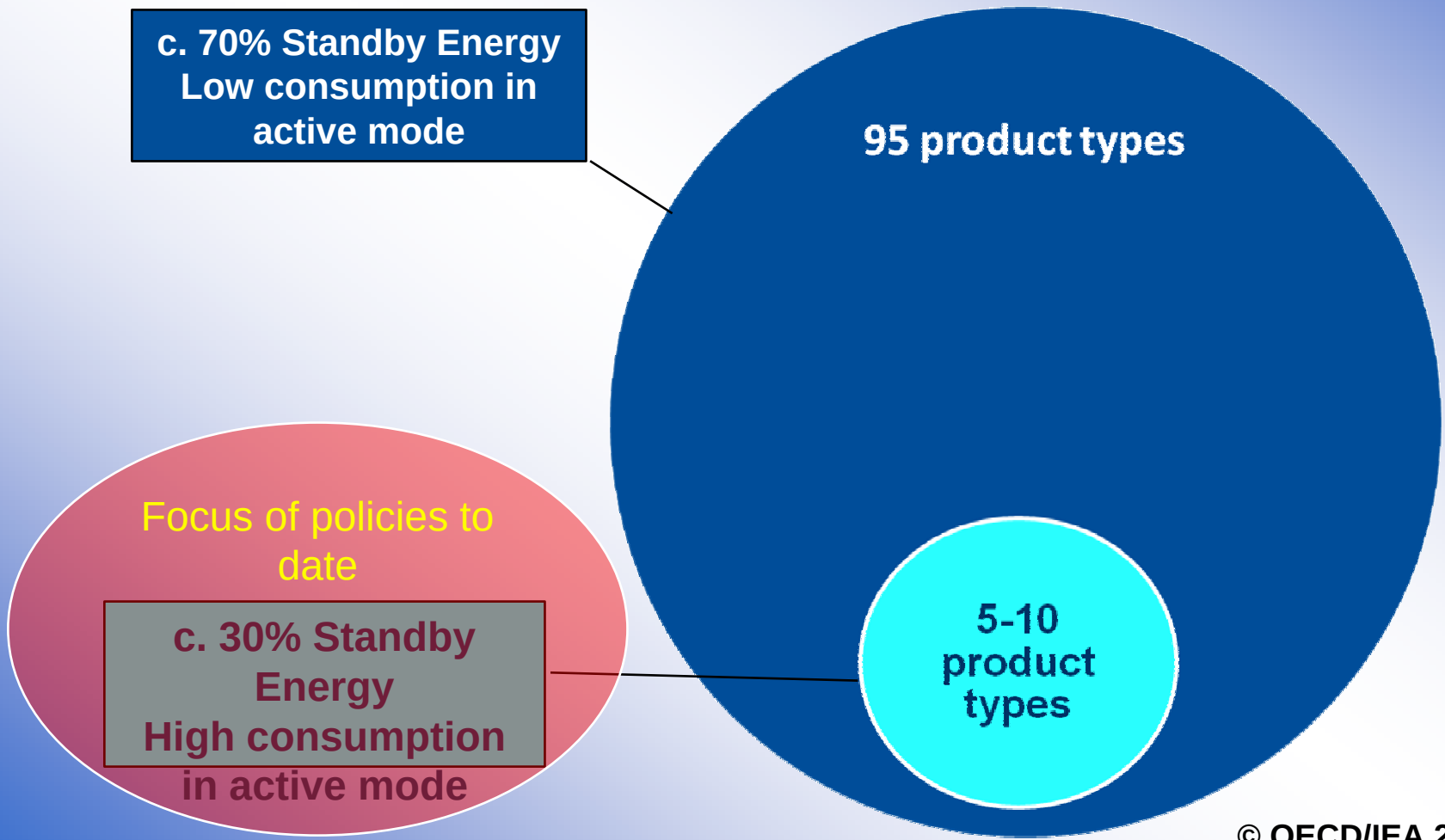
Why do we need policy?

- Standby – not performing primary function
- Products may be waiting for something to happen – often for long periods of time
- Technology is capable of providing solutions usually at least life cycle cost
- *But, we still see high standby power in some products – WHY?*

Significant barriers to overcome

- **Consumers**
  - Lack of readily accessible consumer information across range of products
  - Energy saving potential spread across many individual products
- **Designers/Suppliers**
  - Consumer demand not obvious
  - Energy efficiency not as appealing as other features
  - More design = delays to market entry
  - Potential for customer complaints to deal with

Products with standby power



Priority products

- Use significant energy in all modes
- Policies generally target all modes
- “vertical” policies

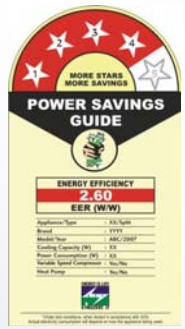






Policies for different barriers & different products

- **Information**
  - Voluntary labels
  - Mandatory labels
  - Websites
  - Brochures
- **Voluntary agreements**
- **Minimum energy performance standards**



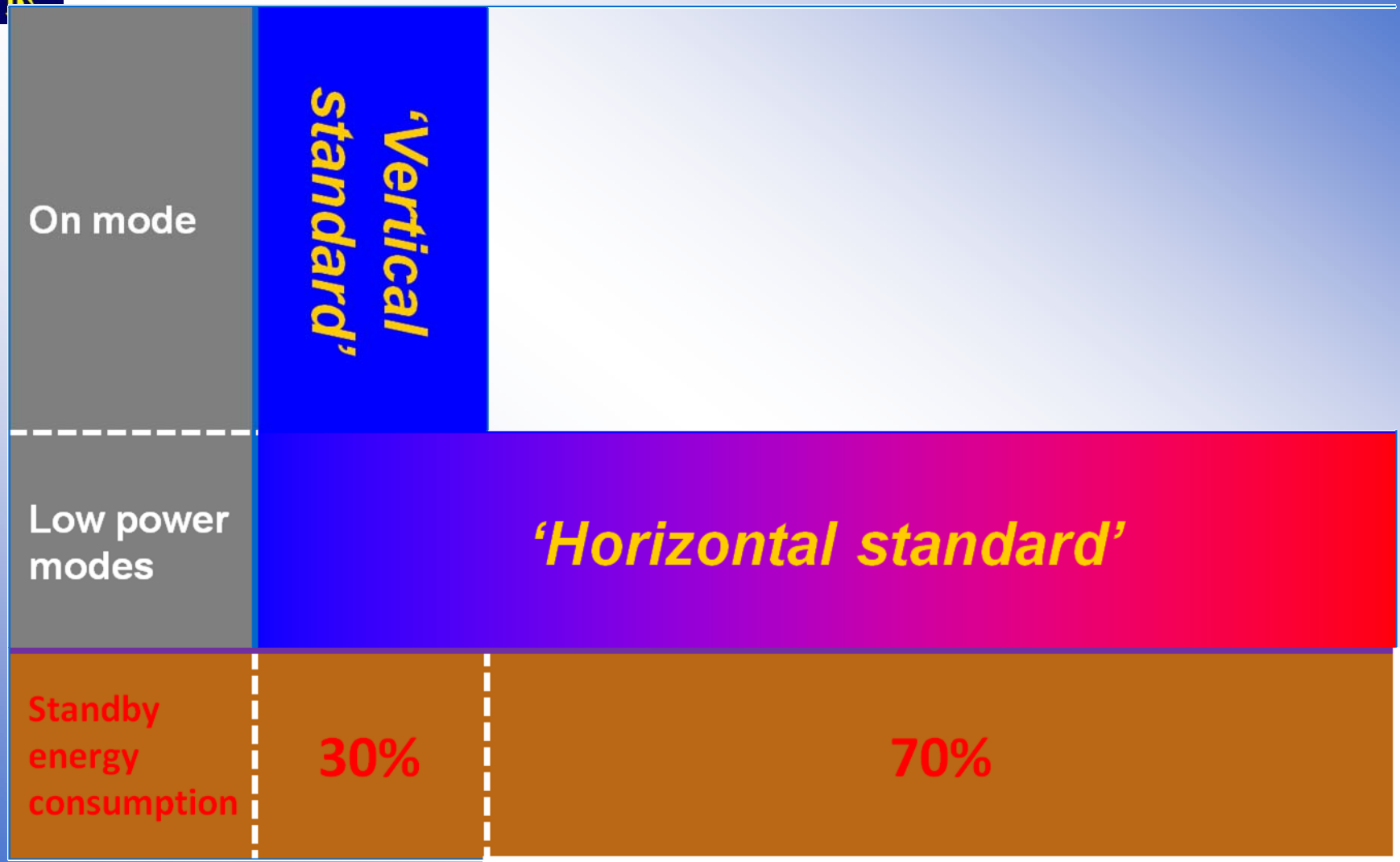
Policy summary

- Most major economies have policies for the 5-10 major appliances with standby
- Policies covering all modes keep standby in perspective
  - Avoids confusing consumers
- ***BUT, what about all the other 40+ products accounting for >70% of standby?***

Horizontal approach

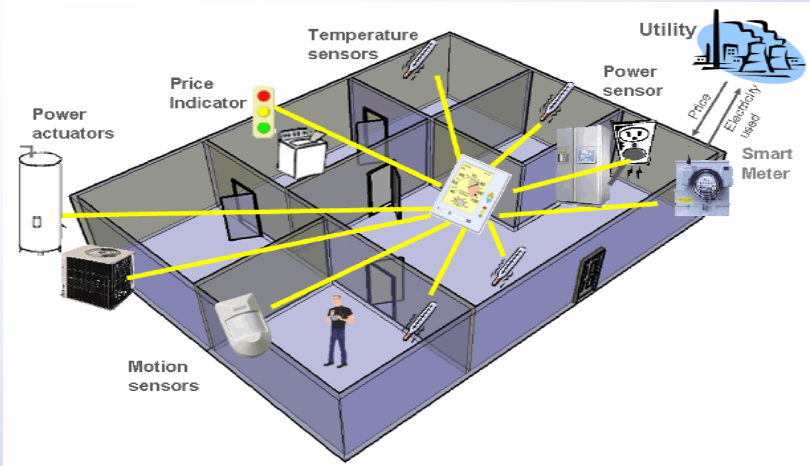
- Covers all products, except those covered by other (vertical) specifications
- Not product specific
- Allows products to change, innovate, enter the market
- Provides certainty to designers/suppliers
- 1 Watt in 2010 and automatic power down proposed by the IEA
- *Endorsed by G8 leaders in 2005*

Dual Approach Co-exists



Issues with 1 Watt

- **Does one-size fit all?**
  - Some products can go lower, some may need higher allowance (for a limited period)
  - What about other low power modes?
  - No relationship to functionality (networked products)



Simple guiding principle

All devices should have the ability to automatically move to the lowest power needed for required functionality

IEA G8 Recommendation 2007

"Horizontal functionality approach"

- Power budget *per function* not product
  - Eg. Remote control
  - Maintaining a connection to a network
  - Clock display
- Product budget = sum of functional budgets
- Power budget *per function and mode*
  - Captures all low power modes
- Could identify 'minimum levels' and 'best levels' for different policy measures
- *BUT, we need to know more before we can proceed*

EXAMPLE	Power budget for a Specific Function	
Mode	Minimum	Best
Standby 1	1.0 W	0.5 W
Standby 2	2.0 W	1.0 W
Standby 3	3.0 W	2.0 W

Traded products

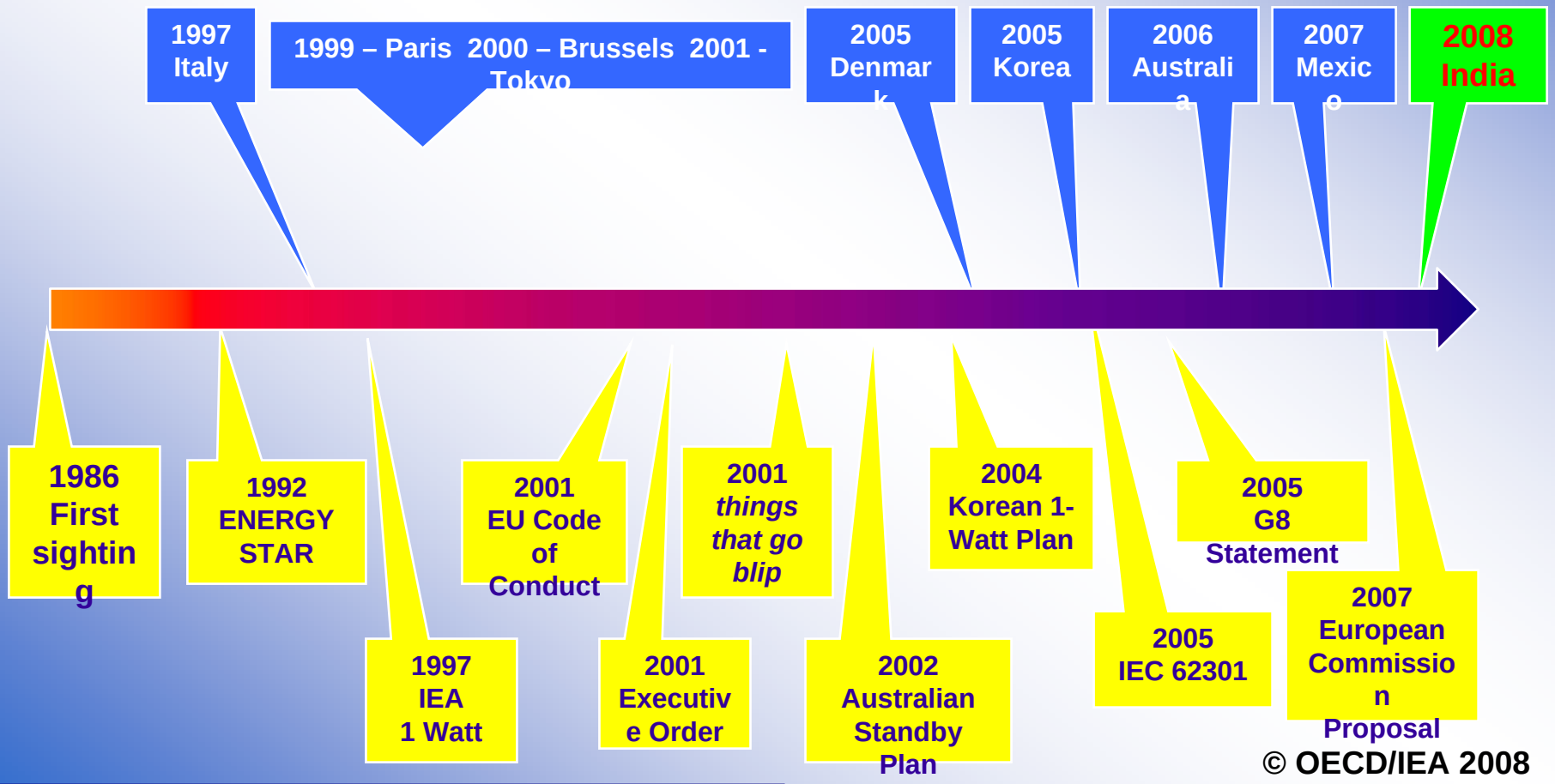
- Products with standby are made in various countries and traded internationally
- Lots of differing requirements make life difficult for everyone!
- Countries must make their own decisions – but we can co-operate (and do)
  - International test standard
  - Many countries are aligning performance requirements
  - Aiming for 1 Watt

A global strategy to tackle standby

1. **Integrate standby into vertical policies for major energy using equipment**
2. **Set target of 1 Watt by 2010-2012 for most appliances with limited exceptions (interim)**
3. **Work together to make horizontal functional approach work by 2012**

Standby Annex of IEA Implementing Agreement provides a forum to co-ordinate this work

Standby chronology



Thank you

Mark Ellis

Energy Efficiency & Environment Division

International Energy Agency

Mark.ellis@iea.org