

# Where to start

# Planning energy efficiency programmes

Session 1

Emily McQualter and Kevin Lane - Paris, 21 May 2019



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# Agenda



Tuesday 21 May				
0	Introduction and roundtable	V		
1	Planning energy efficiency programmes			
2	Selecting products for MEPS and Labelling programmes			
3	Assessing efficiency performance and setting MEPS			
4	Industry transformation			
5	The relationship between product efficiency and price			
Wednesday 22 May				
6	Stakeholder involvement and communication			
7	Insights into energy labels			
	Site Visit.			
Thursday 23 May				
8	Modernising energy efficiency through digitalisation			
9	Monitoring, verification and enforcement			
10	Monitoring and evaluating policies and programmes			
11	Roundtable discussion, review and report back			



The government wants a range of options for interventions to rapidly increase residential energy efficiency for appliances and equipment.

How do you identify, prioritise and quantify options for interventions?



Activity



# List all the different kinds of activities (policy measures) your government is undertaking on energy efficiency





- MEPS/Labels
  - MEPS
  - Comparative labels
  - Endorsements labels
- Mandatory obligations on utilities
  - Green certificates
  - White certificates
- Financial incentives
  - To consumers/retailers/suppliers/third parties (architects, plumbers, etc)
  - Grants and subsidies
  - Loans
  - Tax relief
  - Taxes
  - Procurement by institutions/government

# Policy Measures [page 2/2]



- Awareness raising campaigns
- Information
  - Appliances labels
  - Retail and/or trade staff training
  - Advice Centres, hotlines, publications, etc.
- Education
  - School programmes
  - Professional training and qualification/accreditation
- RD&D
  - Research
  - Demonstration
  - Commercialisation



- **MEPS** specify the **minimum** level of **energy performance** that appliances, lighting and electrical equipment (products) must meet or exceed before they can be offered for sale or used for commercial purposes
- MEPS are an effective way to increase the energy efficiency of products
- Inefficient products are prevented from entering the marketplace, and manufacturers are given appropriate signals to increase product efficiency
- For consumers, MEPS mean that products available in the market use less energy and have lower running costs over their lifetime



## **Consumer Information**

- When people buy appliances they buy an energy service in two parts:
  - They can see the appliance, and its cost
  - They cannot see the energy consumed, or its running costs
- Labels helps consumers understand which products have the lowest total cost during the purchase process
- Comparative labels may be voluntary, but mandatory is more common
- Comparative labels usually communicates in two ways:
  - quick visual rating
  - Some data e.g. actual kilowatt-hours (kWh), running costs, capacity/size
- Endorsement labels, using recognisable logos, are usually voluntary, and may consider issues beyond energy efficiency





Labels





		_
HEE 1 2 3 HEX		Rade Wei Wei
生产者名称: 规格型号:	名称 AAA-000	
能源消耗指标	tim Yau Ref	
其他性能指标		Thi
依据国家标准:(	dap.	





#### Summary of policy measures, by measure type for selected countries, 2013





Source: Harrington, L., J. Brown, and M. Caithness, Energy standards and labelling programs throughout the world in 2013, 2014, Energy Efficient Strategies

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#### https://www.youtube.com/watch?v=ma9d8z20CHw

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# What do you think is the most effective policy measure?

# What do you need to consider?



## What to consider when ranking these different options?



- Do they best help meet our programme objectives?
- How effective are they likely to be?
- Do they act on a small or large part of the relevant market?
- How certain are the outcomes?
- What resources will each require costs, time, people, admin support, other?
- How fast acting are they?
- Are the outcomes sustainable in the long term?
- How difficult are each to organise? What partners could help?

## Market Transformation: impact of different policies





Market mechanisms increase incentives for higher energy efficiency across the whole distribution



- MEPS and labelling often work closely together
  - Lowest rank of comparative label begin at MEPS level
  - Endorsement labels align with higher ranks
- EESL programmes operate in >80 countries, covering >50 different types of equipment in all sectors
- Provide the <u>foundation</u> for many other programme types:
  - Financial incentives
  - Procurement
  - Utility programmes



- The energy efficiency of major appliances have increased at more than 3x the underlying rate of technology improvement in countries with EESL programmes.
- One-off improvements of more than 30% have been observed.
- The most mature national EESL programs covering a broad range of products are estimated to save between <u>10% and 25%</u> of national or relevant sectoral energy consumption.
- In all programmes reviewed, the national benefits outweighed the additional costs by a ratio of at least <u>3 to 1</u>.



- Often more than one policy is required to create market transformation
- Some policies work well together
  - MEPS removes worst products; Labels incentivise the best products
  - Procurement and financial incentives used to support highest labelled appliances

#### Receive a PG&E rebate with qualifying smart thermostats

Save on your home's heating and cooling costs by replacing your manual or programmable thermostat with a new smart thermostat. Purchase a qualifying ENERGY STAR® smart thermostat to receive a \$50 rebate from PG&E.

Am I eligible for the rebate?

All ENERGY STAR smart thermostat rebate applications must be received within 60 days from date of purchase.



#### You will need to know about the attributes of different programme types:

- Industry /consumers often ask why government is doing more or focusing elsewhere
- Many regulatory impact processes require analysis of other policy options

#### An analytical approach is used throughout S&L programme planning

- Need to assess what level of information is sufficient
- How to deal with a lack of information
- Be aware of a range of concerns and particular sensitivities



IEA 4E Energy Standards and Labeling Programs Throughout - IEA 4E https://www.iea-4e.org/.../energy-standards-labelling-programs-throughout-the-world-in...

U4E <u>https://united4efficiency.org/resources/publications/?fwp\_resource\_type=guidance-documents</u>







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