

ToolkitDid it work? Monitoring and evaluating

Session 10 (Part a)

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Overview of the appliance and equipment training sessions



#	Session	
0	Introduction and roundtable	\checkmark
1	Planning energy efficiency programmes	\checkmark
2	Selecting products for MEPS and Labelling programmes	\checkmark
3	Assessing efficiency performance and setting MEPS	\checkmark
4	Industry transformation	\checkmark
5	Stakeholder involvement and communication	\checkmark
6	The relationship between product efficiency and price	\checkmark
7	Modernising energy efficiency through digitalisation	\checkmark
8	Insights into energy labels	\checkmark
9	Monitoring, verification and enforcement	\checkmark
10	Monitoring and evaluating policies and programmes	
11	Roundtable discussion, review and report back	



Evaluation is an **objective** process of understanding **how** a

policy or programme was implemented, what effects it had,

for whom and why.

Leads to more effective policies and programmes



• What we have achieved



• How we can improve









- Are appliances and lighting using less energy?
 - In total?
 - Than they would have done without the policy?
- Is it because of the standards and labelling policy?
 - How and in what circumstances is the policy making a difference?
- Could more energy be saved?
- What are the distributional effects?
 - Who pays and who benefits?

Change isn't just caused by the policy





How much less energy will be used?



• Need to include other impacts (some known, some unintended





Data	Source
Ownership levels	Household survey
Historic sales	Manufacturers
Current sales	Registration system/market survey
Replacement rate	Household survey/international experience
Annual hours of use	Household survey
Average energy consumption before policy	Market survey
Energy consumption of efficient products	Registration system
Compliance levels	Market survey/enforcement action
Household size/growth forecasts	National statistics



- MEPS remove inefficient products from the market
 - Some increase in efficiency regardless of policy
 - Some non-compliant products are not removed from the market
- Results of enforcement allow an estimate of the extent of non-compliant products



- Labels difference:
 - Extra energy that is saved by consumers buying products that are more efficient than MEPS **because of the label**
 - Need to identify how many of those would have bought a more efficient product anyway?
 - Brand
 - Other features
 - Advertising
- Two options:
 - Experiment
 - Theory based

Estimating the effect of energy labels – randomised control trial $\log \phi$



Example – randomised control trial

- Test the inclusion of costs on energy label + staff training
- UK Government + John Lewis department store
- Trial group of stores compared to control group
- Small difference for washer dryers, no difference for other prod







• Strengths

- "Prove" effect of policy
- In the circumstances of the test (when, where)
- For the indicator being measured

Weaknesses

- Doesn't tell you why the policy worked/doesn't work
- Doesn't tell you if the policy will work in other circumstances
- Challenging to design and implement





- In theory, labels reduce energy consumption because:
 - Consumers have a reliable way of choosing energy efficient products
 - Manufacturers are motivated to produce more energy efficient products
- Theory based evaluation tests:
 - Whether the policy was implemented as intended
 - Whether there is evidence to support the theory
 - What else might explain what has happened
- Contribution analysis assesses the contribution to the change made by:
 - The policy
 - Alternative explanations
- Assess plausibility with a diverse range of stakeholders





- Vietnam Energy Efficiency Labels
 - Implemented for a range of products in 2014
 - Survey of manufacturers found that labels had a:
 - Significant influence on manufacturers of air conditioning and refrigerators
 - Moderate influence on manufacturers of fans, rice cookers and lighting
 - No influence on manufacturers of washing machines and televisions
 - Survey of consumers found that labels influenced 85% of purchases to some extent





• But in some cases policy not implemented as intended:



Example of theory based evaluation

100% 90% 80%

70% 60% 50% 40% 30% 20% 10% 0%

% Correctly Labelled Products



• And there isn't full compliance with the policy







Could more energy be saved?



• Can MEPS or label grades be raised?



Who pays and who benefits?

- Wealthier consumers benefit most from product policy
 - Buy more products
 - Use them more
 - Spend more on energy
- Who pays for subsidies/incentives/scheme costs
 - Manufacturers?
 - Consumers e.g. levy on bills?
 - General taxation?
- Are your policies fair?





- Model baseline energy consumption without policy
- Model actual energy consumption with policy
- Research and analysis to attribute overall savings between:
 - MEPS
 - Labels
 - Other effects
- Consider:
 - Could your policies save more energy?
 - Are your policies fair?









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