



International
Energy Agency

Policy Pathways: the way to energy efficiency implementation now

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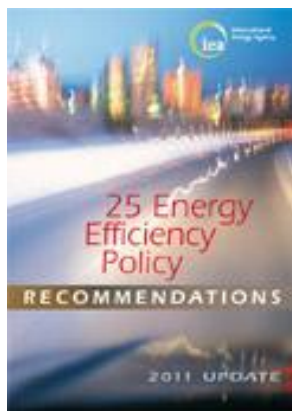
IEA- Energy Efficiency and Environment Division

IEA Workshop on Building technologies and Policies

17th November 2011

25

Energy Efficiency Recommendations across 7 Sectors



Worldwide Implementation Now

Cross-sectoral



Buildings



Appliances and
equipment



Lighting



Transport



Industry



Energy utilities



IEA 25 Energy Efficiency Policy Recommendations

1. Across sectors

- 1.1 Energy efficiency data collection and indicators;
- 1.2 Strategies and action plans;
- 1.3 Competitive energy markets, with appropriate regulation;
- 1.4 Private investment in energy efficiency;
- 1.5 Monitoring, enforcement and evaluation of policies and measures.

2. Buildings

- 2.1 Mandatory building energy codes and minimum energy performance requirements
- 2.2 Aiming for net zero energy consumption buildings
- 2.3 Improving energy efficiency of existing buildings
- 2.4 Building energy labels and certificates
- 2.5 Energy performance of buildings components and systems.

3. Appliances

- 3.1 Mandatory energy performance standards and labels for appliances and equipment;
- 3.2 Test standards and measurement protocols for appliances and equipment;
- 3.3 Market transformation policies for appliances and equipment.

4. Lighting

- 4.1 Phase-out of inefficient lighting products and systems;
- 4.2 Energy-efficient lighting systems.

5. Transport

- 5.1 Mandatory vehicle fuel efficiency standards;
- 5.2 Measures to improve vehicle fuel efficiency;
- 5.3 fuel-efficient non-engine components;
- 5.4 Improving operational efficiency through eco-driving and other measures;
- 5.5 Improve transport system efficiency.

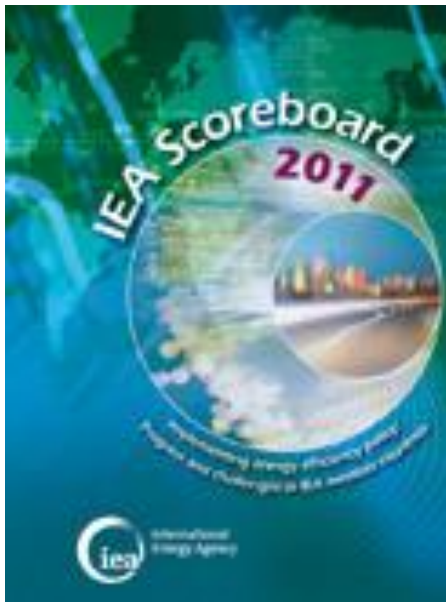
6. Industry

- 6.1 Energy management in industry;
- 6.2 High-efficiency industrial equipment and systems;
- 6.3 Energy efficiency services for small and medium-sized enterprises;
- 6.4 Complementary policies to support industrial energy efficiency.

7. Energy utilities

- 7.1 Energy utilities and end-use energy efficiency.

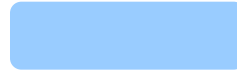
The IEA is tracking progress with implementing the recommendations



Fully implemented



Substantial implementation



Implementation underway



Plan to implement



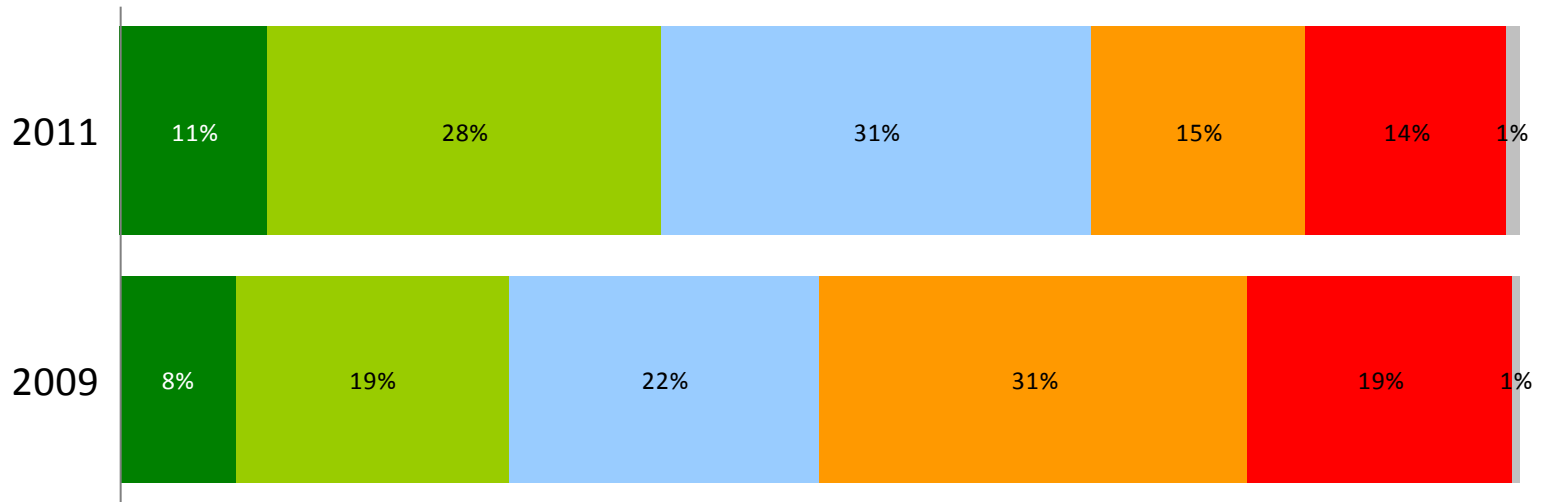
Not implemented



Not applicable

- Each member country evaluated on progress with implementing energy efficiency policies.
- Used the 25 recommendations as a common benchmark.
- Initial evaluation in 2009; second evaluation in 2011.

Policy developments since 2009



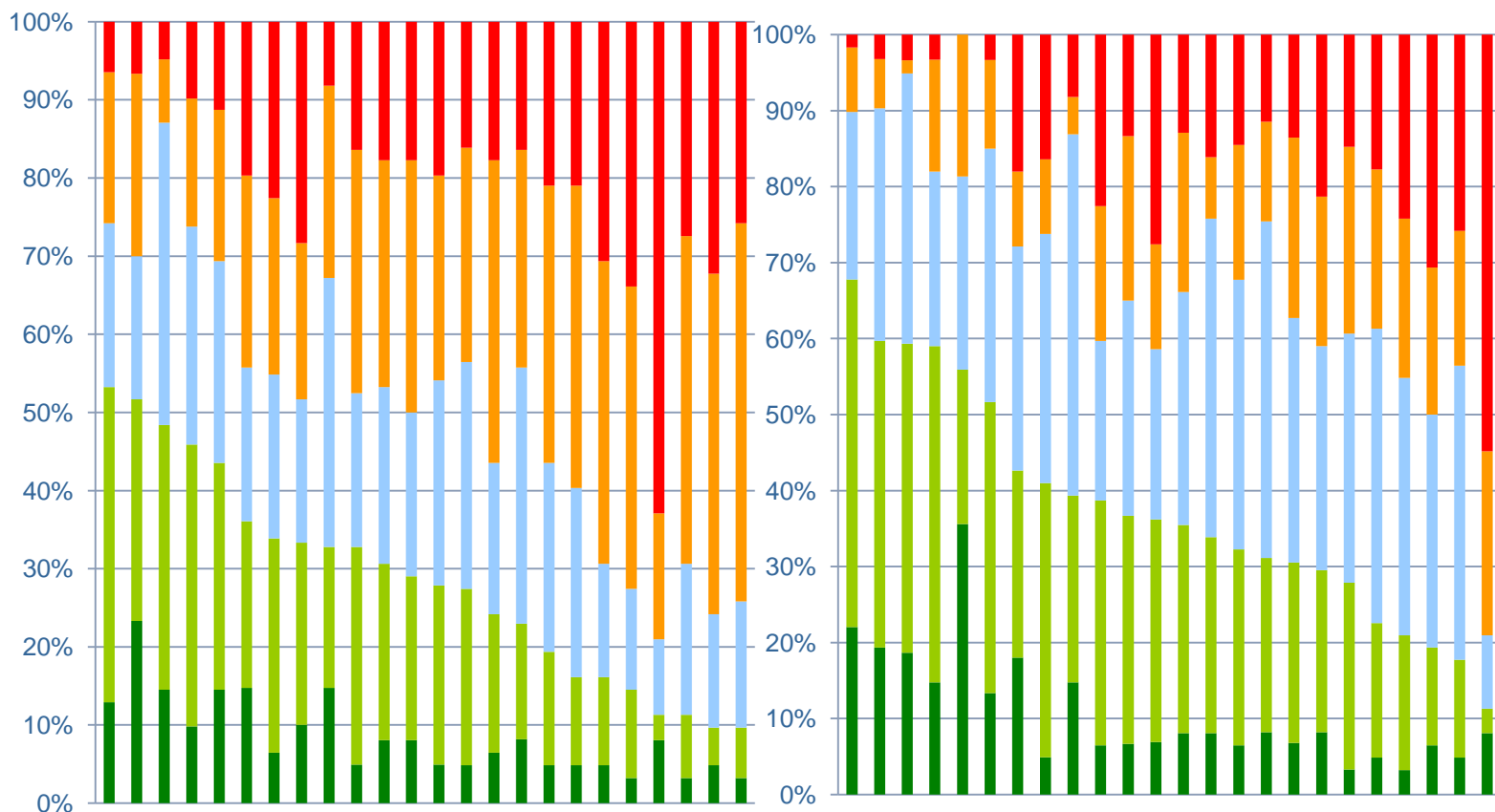
Key messages

- All countries have developed and implemented new energy efficiency policies.
- Energy savings opportunities still exist.
- Policy implementation experience is a valuable resource to member and non-member countries alike.

Policy implementation has improved

2009

2011





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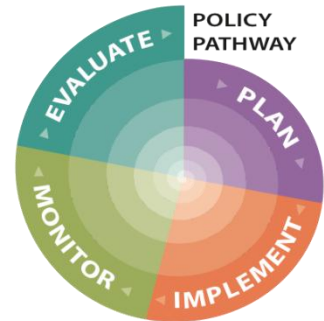
Policy Pathways: the way to energy efficiency implementation now

Aims & objectives



- Aim is to assist governments to implement energy efficiency policy effectively
- Objective is to identify, analyse and communicate to all governments innovative policy pathways (steps and milestones) for implementing energy efficiency

Policy Pathway series: Introduction



- Each policy pathway is based on one of the 25 IEA energy efficiency recommendations
- Policy pathways highlight existing best experience in implementing such policies
- Policy Pathways help countries both to implement new measures and to improve efficiency of existing systems
- The first policy pathway on monitoring and verification of compliance for appliance was launched in Paris, October 2010



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Energy Performance Certification of Buildings

*A policy tool to improve
energy efficiency*

*Policy
Pathway*

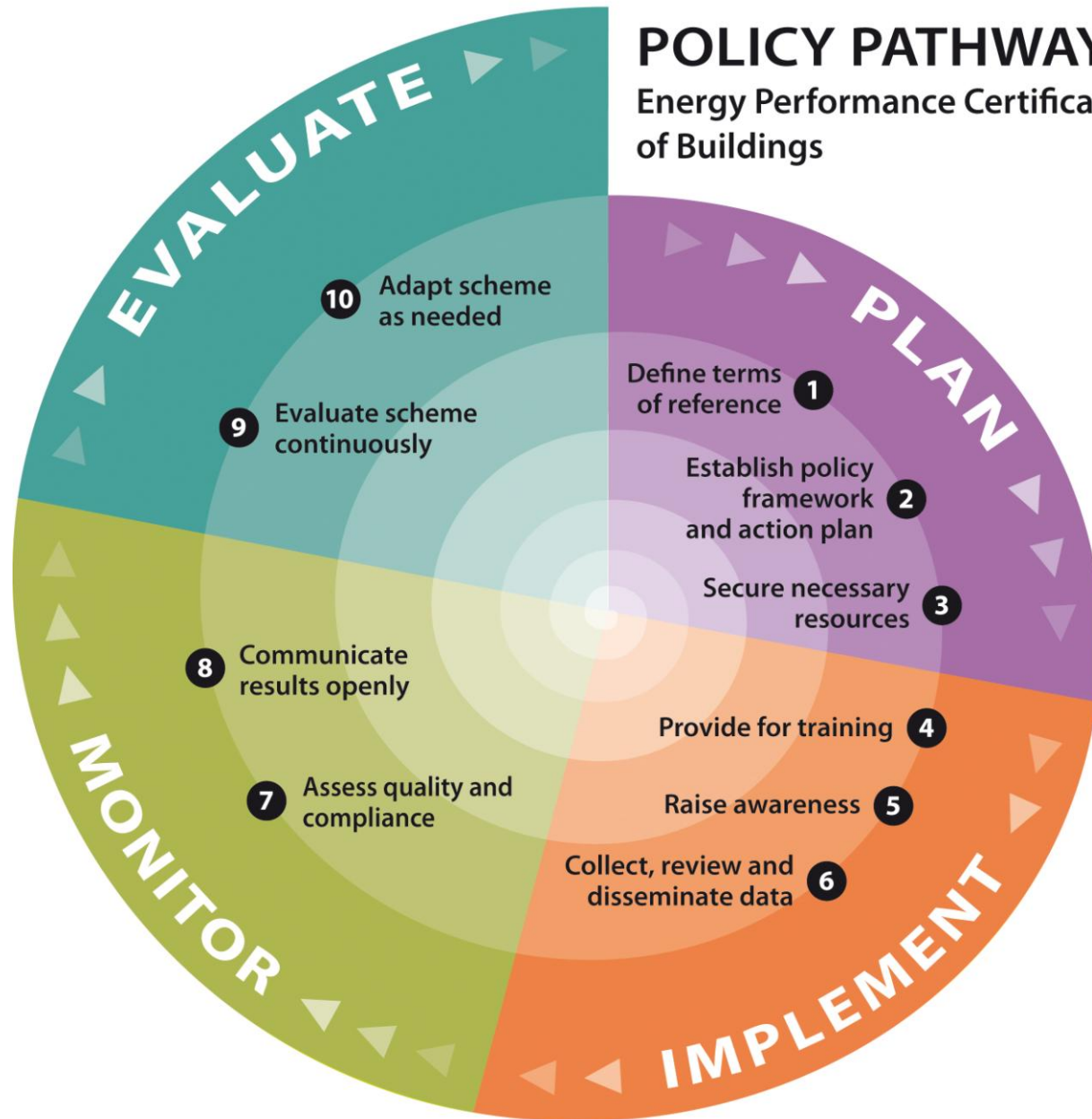
Buildings policy pathway: Key steps to implementation



- Lessons learned in these four phases of ten critical elements are broken into 38 steps or recommendations for countries implementing such a policy
- Key points:
 - Solve the many questions very early in the process
 - Communicate results openly in all stages
 - Involve the main stakeholders in planning
 - Plan training of assessors carefully and early in the process
 - Leave sufficient time for key processes such as training
 - Most impact if certification is combined with other policies
- Clear process to set up schemes - Plan, Implement, Monitor, Evaluate and Improve!

POLICY PATHWAY

Energy Performance Certification
of Buildings



*Policy
Pathway*

Policy Pathway



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Monitoring, Verification and Enforcement











*Improving compliance
within equipment
energy efficiency programmes*

*Policy
Pathway*



Equipment energy efficiency programmes



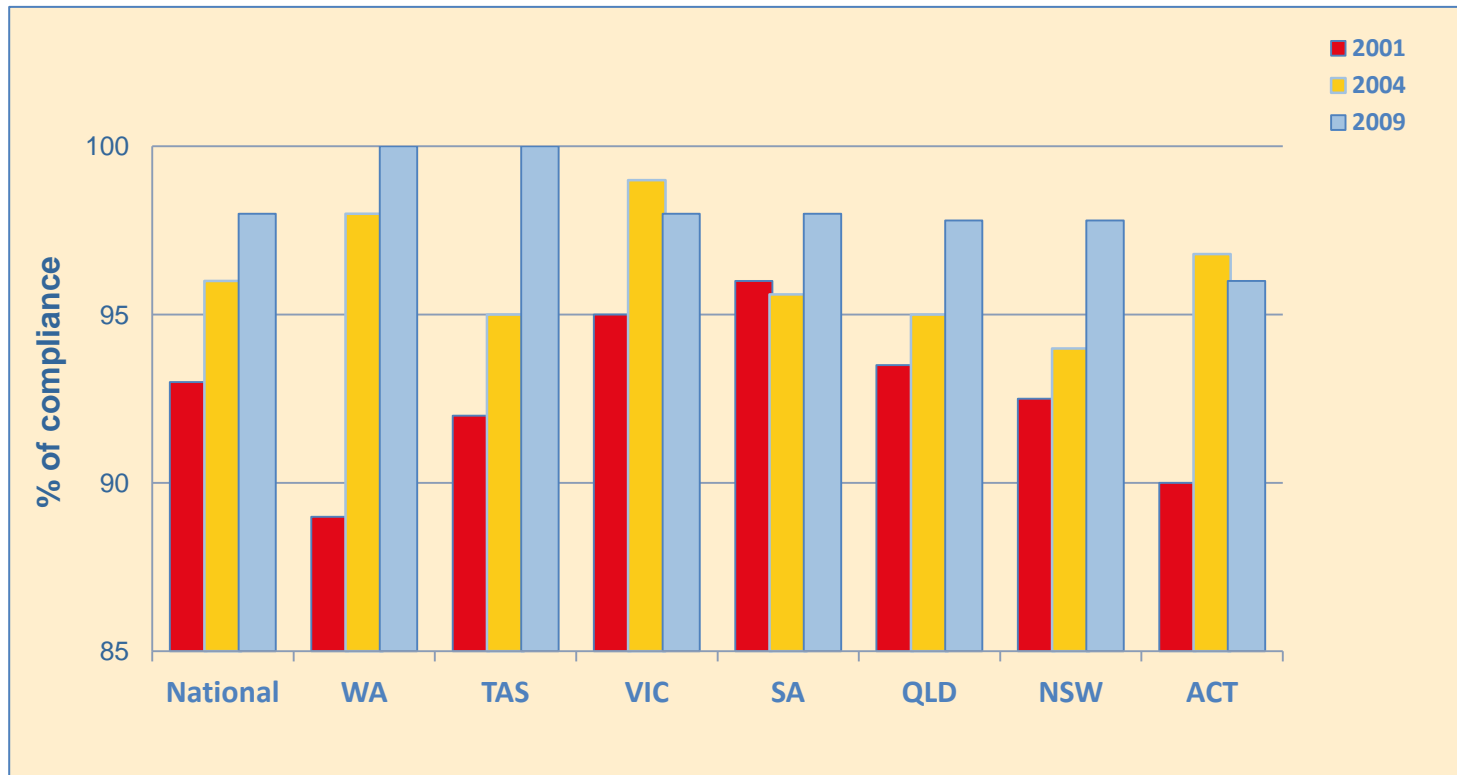
Energy		Fridge-Freezer
Manufacturer Model		
More efficient		
		
		
		
		
		
		
		
Less efficient		
Energy consumption kWh/year (Based on standard test results for 24h)		325
Actual consumption will depend on how the appliance is used and where it is located		
Fresh food volume l		190
Frozen food volume l		126
		
Noise (dB(A) re 1 pW)		
Further information is contained in product brochures		
Norm EN 153 May 1995 Refrigerator Label Directive 94/15/EC		

Standards & labels (S&L) programmes are a common policy tool for promoting energy efficiency in equipment

"... having a compliance regime is not only about good governance, but also happens to be one of the most cost-effective ways to cut greenhouse gas emissions."

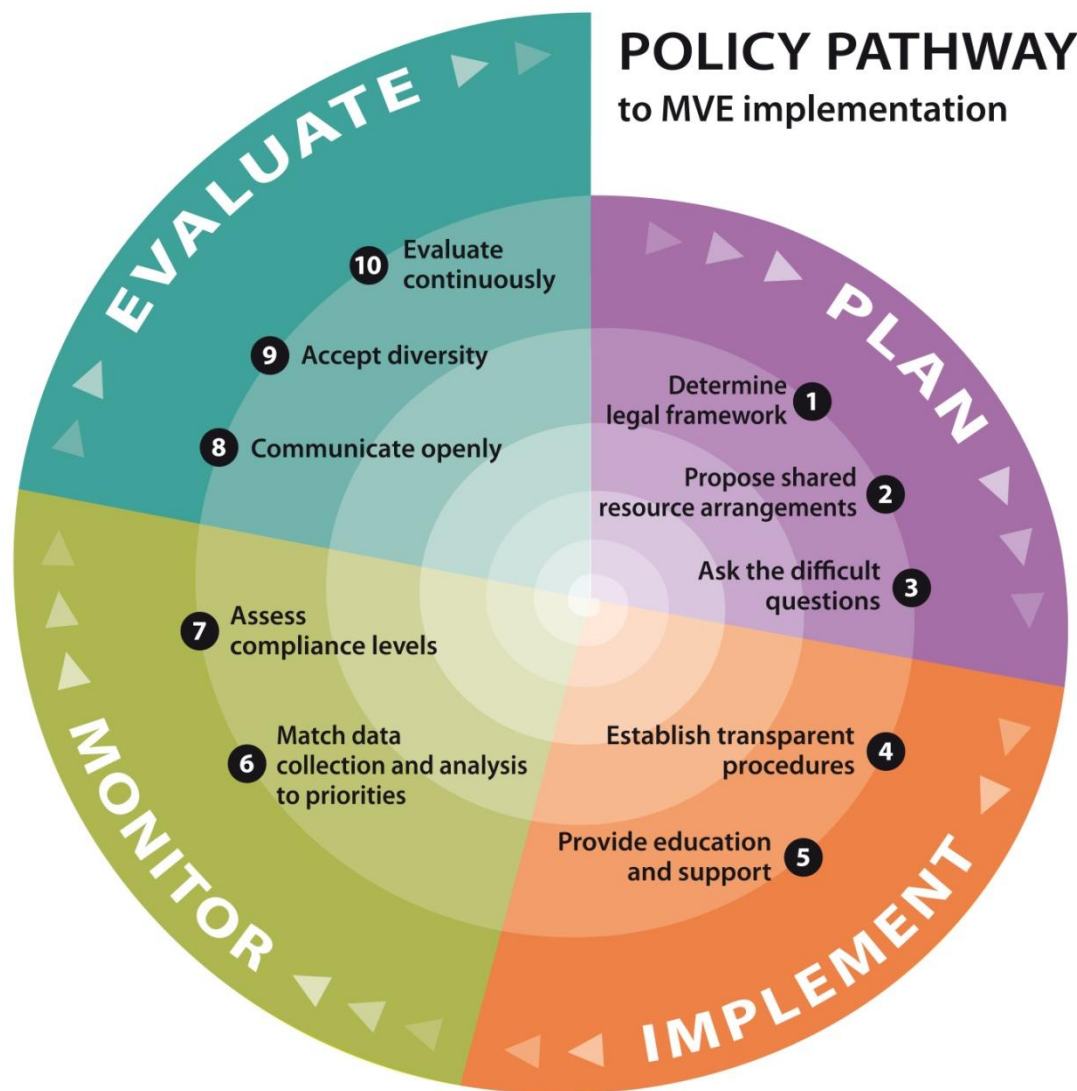
Mark Ellis, quoted in *Bright Spark, Efficient Electrical End-use Equipment Implementing Agreement*

What is monitoring, verification and enforcement?



MVE activities ensure the integrity of S&L programmes by minimising non-compliance.

The equipment MVE Policy Pathway



Monitoring,
Verification &
Enforcement

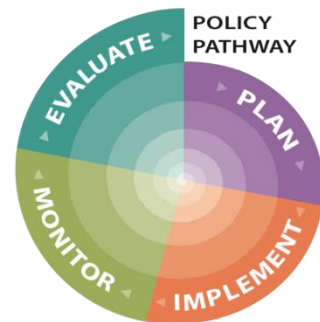
Improving
compliance
within
equipment
energy efficiency
programmes

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Insights so far....

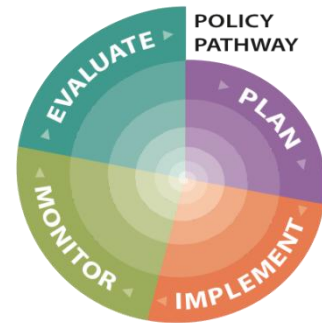
- Many countries have experiences (30 years) with energy efficiency policies and available to provide advice
- Sharing experiences helps leapfrog potential policy pitfalls for countries embarking on process
- Implementation important to achieve energy savings – different ways to get results
- Country feedback positive – Russian translation
- Use lessons learned by others. Don't reinvent the wheel!

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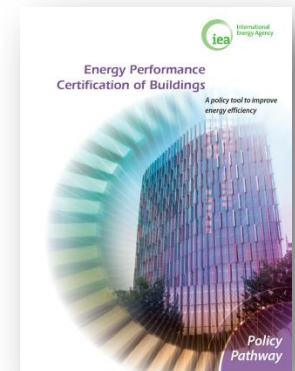
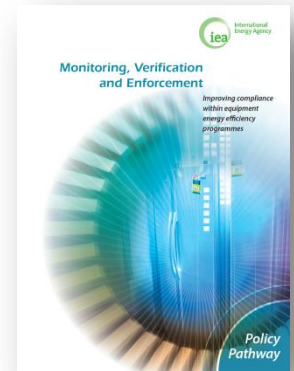


Schedule of work relating to buildings 2010-2012



Policy Pathway	When?
MVE of end-use equipment	October 2010
Buildings energy performance certification	November 2010
Public-private partnership for energy efficiency finance	November 2011
Building Energy Codes	Spring 2012

*Policy
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Questions for Buildings Policy Pathway discussion

- Which policies should a Policy Pathway on low energy buildings cover?
- Can a Policy Pathway cover the range of policies needed, i.e. regulation, information, financial incentives?
- Possible structure of a low energy buildings policy pathway for discussion:
 - What policies needed for low energy buildings?
 - Why are policies needed?
 - How to put these policies in place, i.e. steps to deliver?



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*Policy
Pathway*