



# United Nations Environment Programme en.lighten Initiative

## Monitoring, Verification and Enforcement (MVE) An Element of an Integrated Policy Approach

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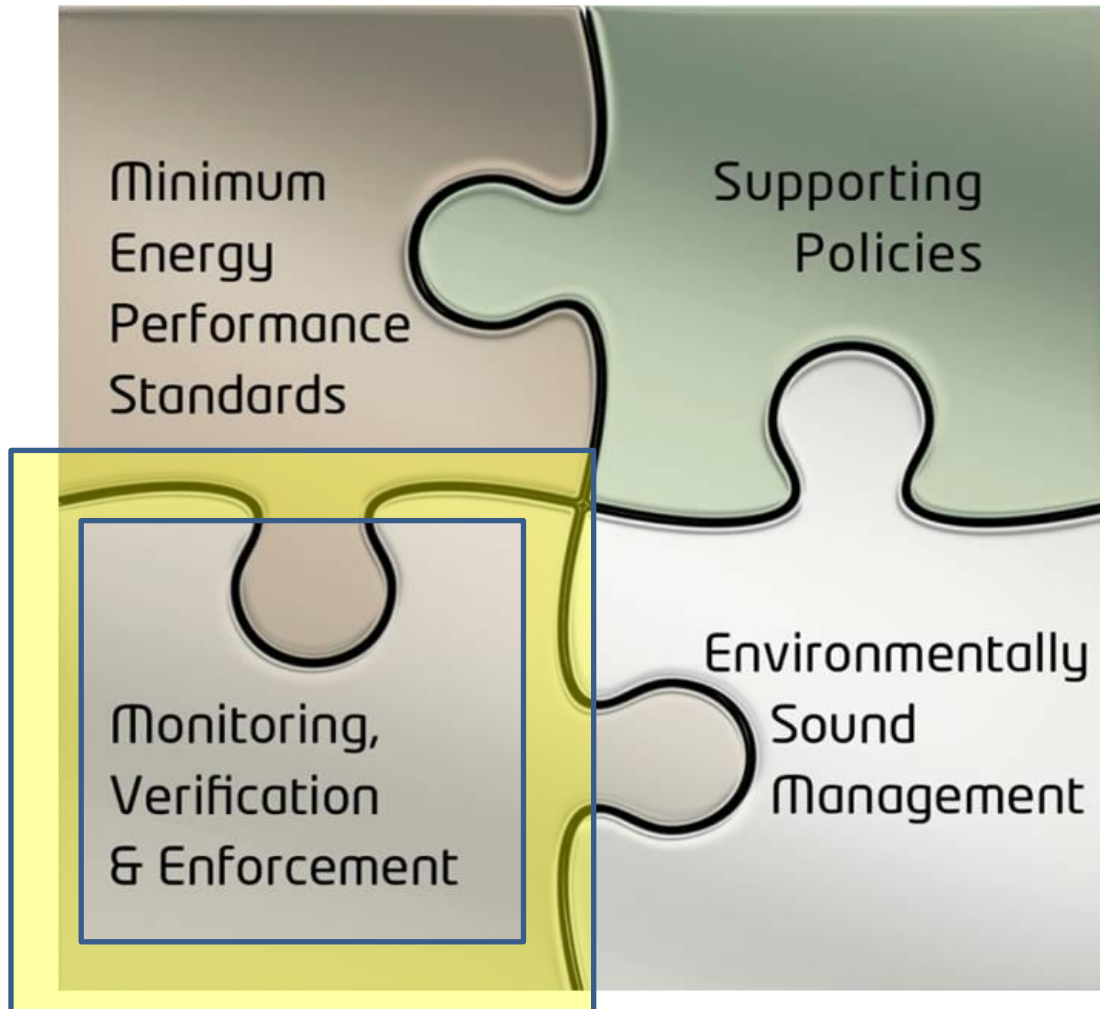


**PHILIPS**



**nLTC** National Lighting Test Centre  
China

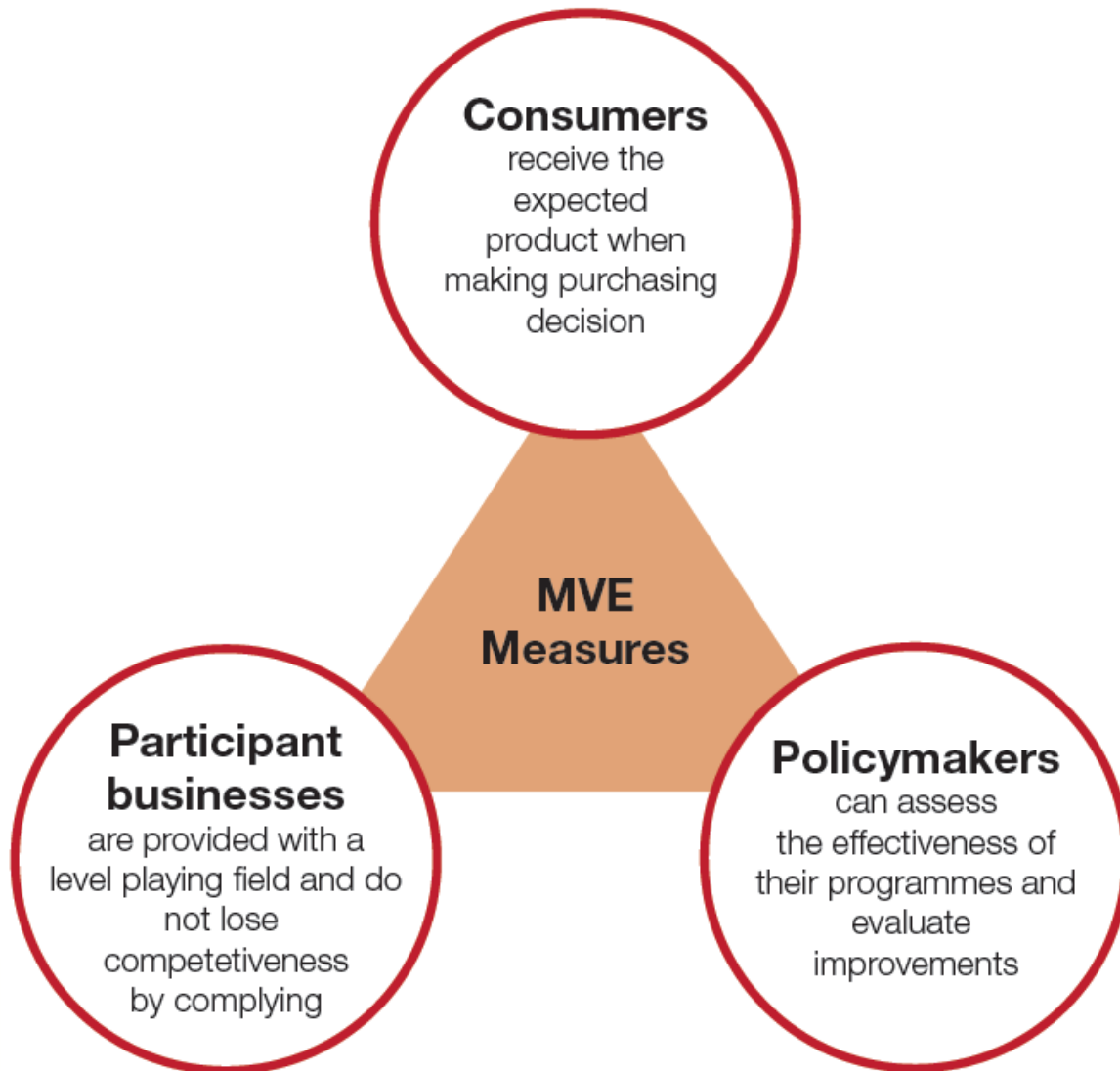
# National Efficient Lighting Strategy: Monitoring, Verification and Enforcement



MVE is an essential element of an integrated policy approach



# Why is MV&E Important?



“Industry calls for effective market surveillance able to check the compliance of products placed on the market to the declared energy efficiency values. Fair competition and fair compliance checking go hand-in-hand to enhance market transparency for the benefit of consumers.”

- Paolo Falcioni,  
Vice Director General, CECED



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# Monitoring, Verification and Enforcement: Objectives

- Demonstrate value of energy efficiency policies
- Compare benefits, costs and effectiveness of program design
- Assess detrimental effects of non-compliant lighting
- Ensure that lamps sold meet MEPS requirements and labels give accurate information
- Eliminate non-compliant products
- Increase consumer confidence, leading to greater participation and faster adoption of efficient lamps
- Tracks market compliance over time, so that savings and other benefits can be accurately estimated



# Monitoring, Verification and Enforcement: Definitions

- **Monitoring**

- Market surveillance: baseline, trends, snapshots
- Consistent, accurate measurement of product performance
- Provides measure of success of energy efficiency programs

- **Verification**

- Confirmation of product performance
- Often conducted by third parties to assure fairness

- **Enforcement**

- Action taken against suppliers of non-compliant products
- Requires rigorous, transparent monitoring and verification
- Investment in enforcement provides high return



# Monitoring, Verification and Enforcement: Policies

- Clear rationale to explain values and objectives
- Designate a legal entity responsible for operations
- Establish program entry conditions
  - which entities must participate and what products are included
- Declare how enforcer will process findings of non-compliant products and impose penalties
- Integrate with standards and labelling programs
- Publish fees, processing and testing costs or other expenses
- Develop and strengthen test laboratories and capacities



# Monitoring, Verification and Enforcement: Program Entry Conditions

- Over 80% of countries have some form of compulsory entry condition
  - Canada requires a verification mark from certified organization
  - Korea requires inspection and testing of factories
  - Australia requires registration of model details prior to sale
- Majority of programs use information provided by suppliers on performance
- Product registry allows for inexpensive verification of products in marketplace





# Monitoring, Verification and Enforcement: Monitoring (Market Surveillance)

- Monitoring ensures compliance once products are in market
- Online retail sales included
- Allows for compliance with legal or program requirements
- Products in market are sampled and tested on a regular basis
- Approaches include:
  - Market surveillance for information accuracy on energy labels
  - Market surveillance for MEPS compliance
  - Complaint-based market surveillance (user or industry)





# Monitoring, Verification and Enforcement: Testing Capacity

- Demands for testing increase with MVE adoption
- Establishing reliable laboratory capacity is very expensive and time consuming
  - Requires professionals specifically trained to conduct photometric tests
- Maintaining national lamp performance test results allows for comparison against international standards
- Countries that test products can contribute data to share with other governments.



# Monitoring, Verification and Enforcement: Testing Activities & Services

- Testing should support manufacturing, provide market access, and ensure market protection
- Regulators should:
  - Adopt internationally-recognized testing protocols— International Electrotechnical Commission (IEC)
  - Encourage adoption of these protocols by local labs
  - Provide input to international testing approaches
  - Coordinate testing and calibration of testing equipment
  - Consider offering support/training to industry
- Product testing and evaluation: government and/or 3<sup>rd</sup> party
- Accreditation for laboratories (regional or national bodies)



# Monitoring, Verification and Enforcement: Enforcement

- Type of response depends on situation
  - Severity of problem & range of sanctions that are available
  - Type of programme (mandatory or voluntary)
  - Quality of evidence supporting the claim of non-compliance
  - Willingness of the party to respond
  - Potential to correct the non-compliance
- Includes civil and criminal sanctions such as:
  - Notification & identifying a correction period
  - Delisting; sanctions; fines; public notices (“name & shame”)
- Enhancing compliance is highly cost effective



# Monitoring, Verification and Enforcement: Summary

- Low-quality lamps in market undermine policy objectives
- MEPS must be stringently supported with MVE
- Optimal success requires strong, long-term commitment
- Training and support for all players in market are required at each implementation level
- Regional collaboration provides numerous benefits:
  - Increased capacity and cost savings
  - Access to laboratory facilities properly accredited and equipped for specific types of tests for lighting equipment
  - Professional training: ongoing for labs and enforcement
  - MVE effectiveness - track to continually improve



## Questions?

See Section 4, “Ensuring Product Availability and Conformance” in the en.lighten Toolkit:

[www.enlighten-initiative.org](http://www.enlighten-initiative.org)

Or contact en.lighten directly for access to our lighting expert network

