



United Nations Environment Programme en.lighten Initiative

Monitoring, Verification and Enforcement (MVE): Some Practical Considerations

My Ton
CLASP



PHILIPS



nLTC National Lighting Test Centre
China

Monitoring, Verification and Enforcement: Summary

- Low-quality lamps in market undermine policy objectives.
- MEPS must be stringently supported with a robust MV&E regime.
- Labels also require MV&E support.
- Optimal success requires strong, long-term, integrated MV&E commitment.



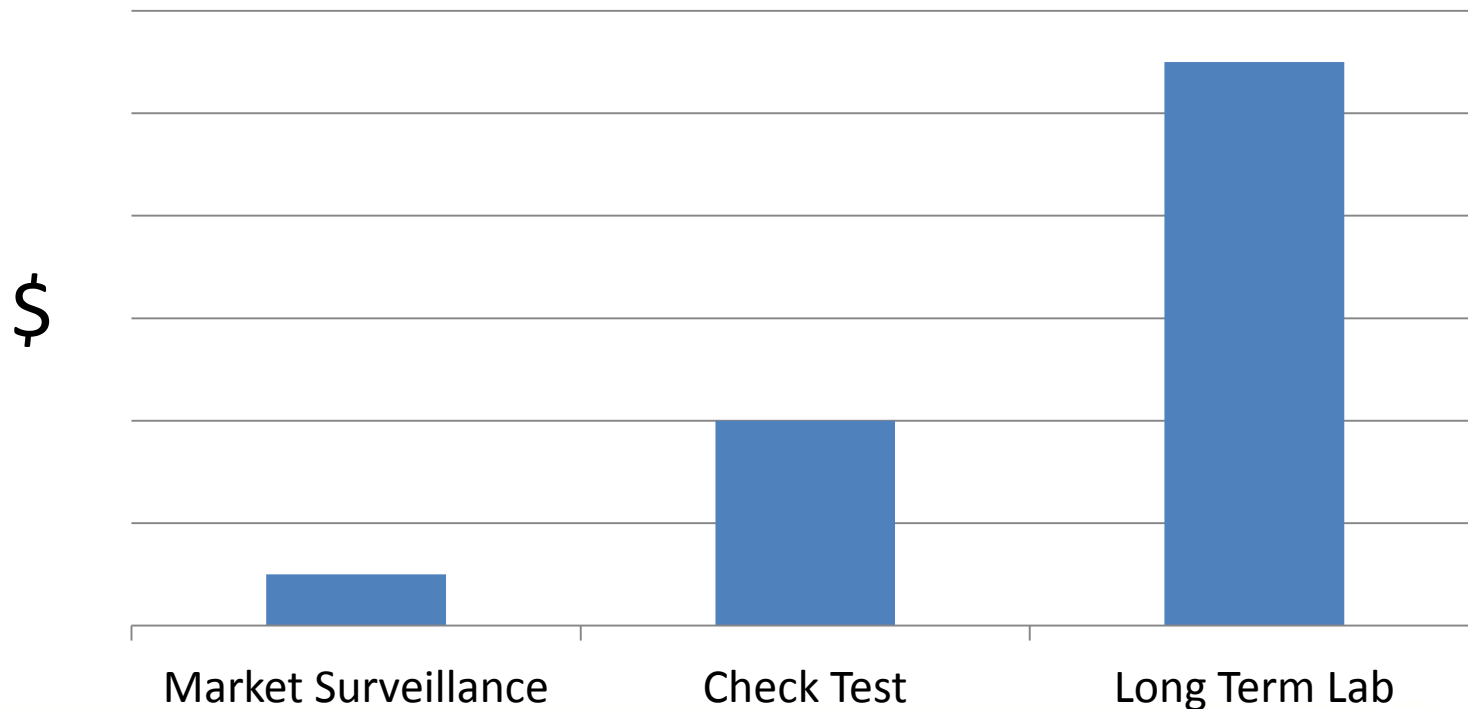
Monitoring, Verification and Enforcement: Key Areas for Consideration

- Resources
 - Personnel
 - Training
- Market surveillance and testing
- Enforcement infrastructure and process



Monitoring, Verification and Enforcement: Key Areas for Consideration

MVE Program Complexity vs. Costs (for illustrative purpose only)



Monitoring, Verification and Enforcement: Resources & Requirements Considerations

Initial MV&E investment needed depends on:

- Entry conditions:
 - No testing
 - Proof of compliance testing
 - Actual testing
- Market surveillance approaches:
 - Verification of labelling requirements
 - Compliance with performance requirements



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Monitoring, Verification and Enforcement: Resources & Requirements Considerations

- Choices of testing and surveillance method influence costs, but also personnel needs and training.
- There are other low cost options for considerations – e.g. retailer education, clarity of rules, publicity, surveys, etc.
- All need to be planned and organized - Staff as important as money.



Monitoring, Verification and Enforcement: Resources & Requirements Considerations

- There is no substitute for market surveillance and testing
- Based on Deterrence theory:
 - There must be a credible likelihood of detecting violations
 - Swift, certain, and appropriate sanctions upon detection
 - A perception among the regulated firms that these detection and sanction elements are present



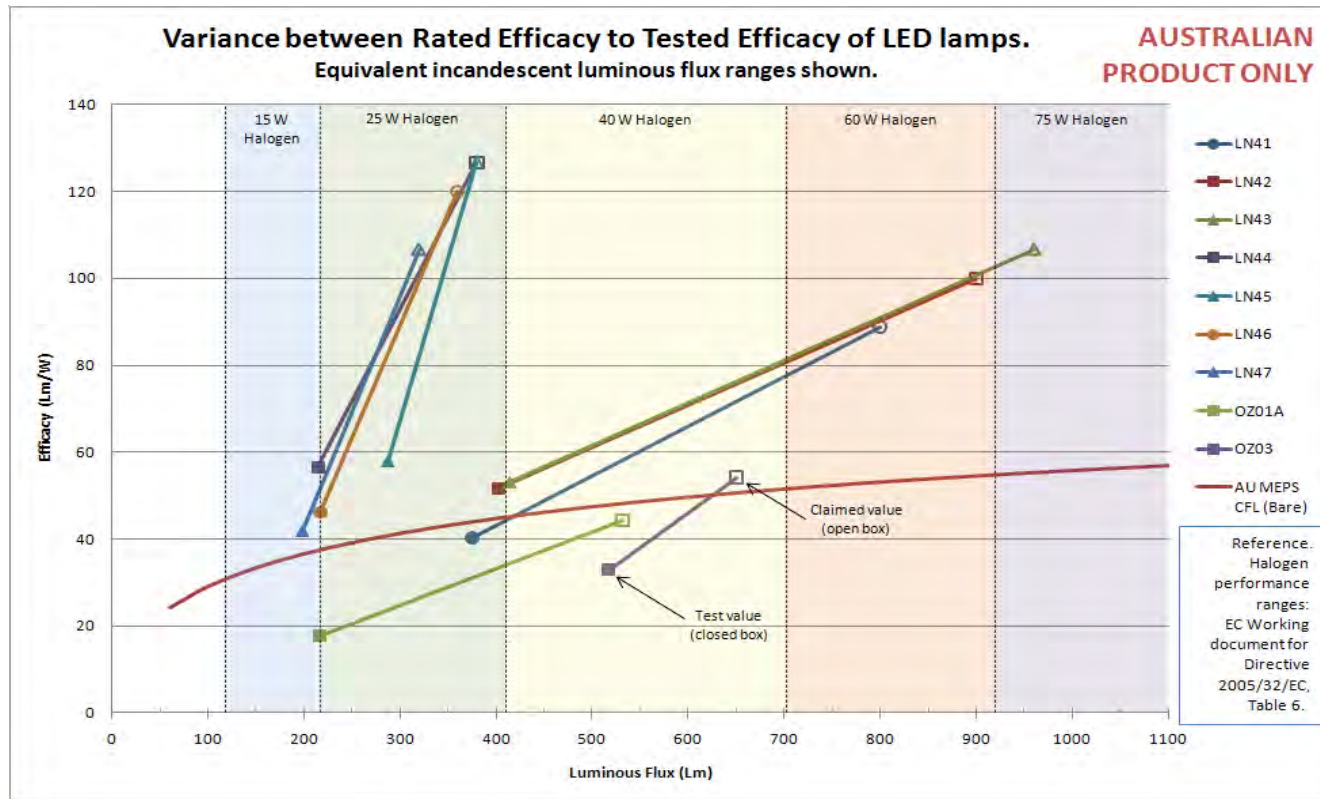
Monitoring, Verification and Enforcement: Resources & Requirements Considerations

- Choices of monitoring & verification method also influence costs.
- There are few no/low cost options for M&V: market survey & product testing costs money.
- However, there are some ways to keep costs low.



MV&E: A Monitoring and Verification Example

Actual LEDs Performance vs. Manufacturers' Claims in Australia

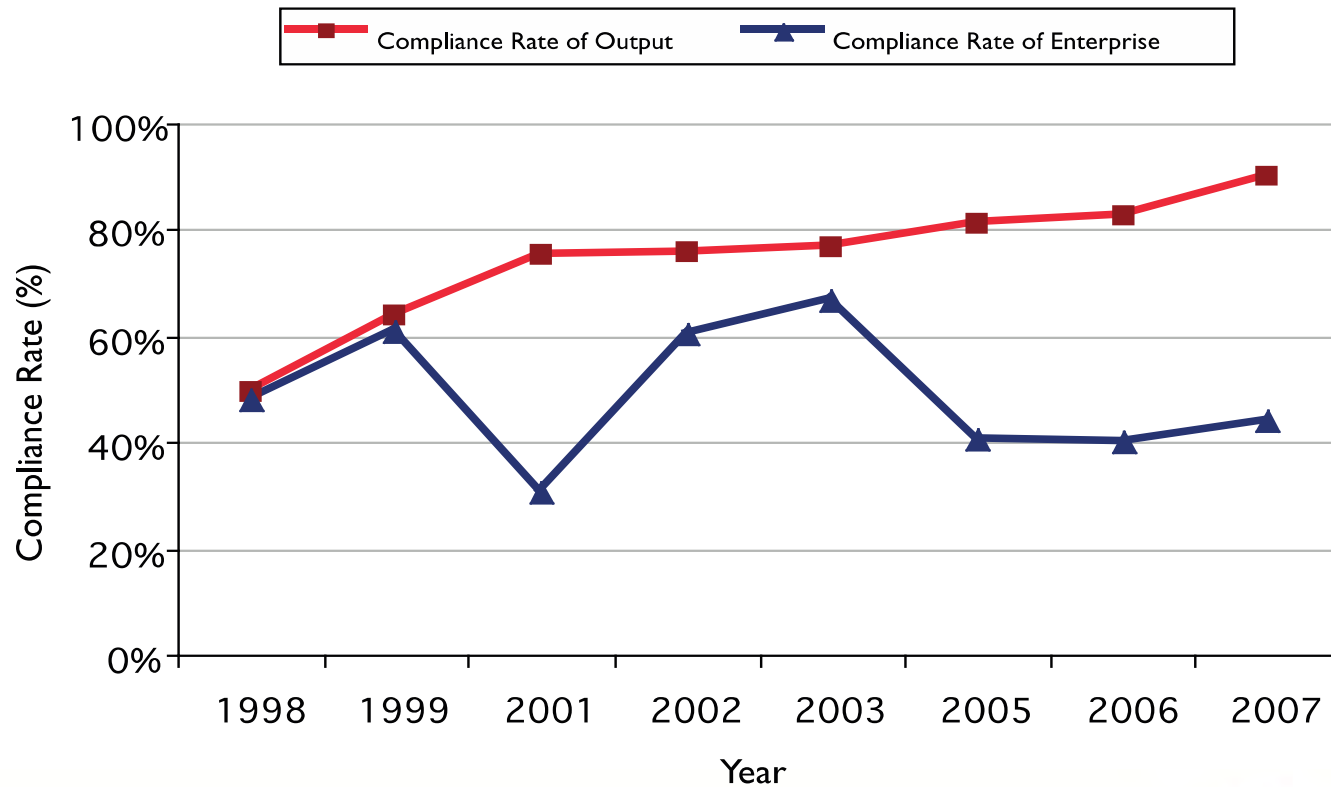


Source: DCCEE



MV&E: Another Monitoring and Verification Example

CFL Market Surveillance in China



Source: NLTC



Monitoring, Verification and Enforcement: Monitoring & Verification Considerations

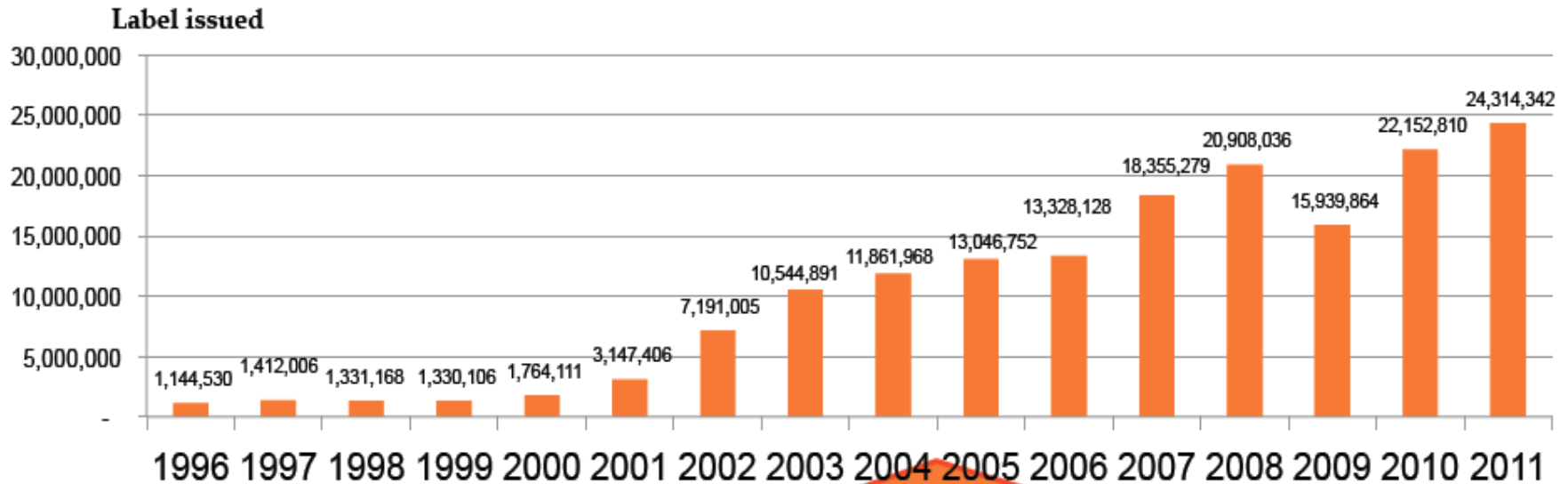
For market surveillance, a good sampling methodology is essential in order to:

- Obtain the right sample size and market coverage
- Avoid the “golden sample.”
- Mindful of variabilities/tolerances.
- Obtain support and credibility for both the sampling method and for the MV&E program.
- Manage costs.



Monitoring, Verification and Enforcement: Monitoring & Verification Considerations

Testing costs and supervision needs will likely to increase with program success



Around 10% of models with label issuing have been tested for criteria compliance every year

Source: EGAT, 2012



Monitoring, Verification and Enforcement: Enforcement Considerations

- Framework for most effective program is defined by a combination of legislation, regulations, and program “rules.”
- Rules and administrative guidelines are more flexible than laws.
- Shared responsibilities for enforcement between ministries/agencies can lead to confusion and lost opportunities.
- Transparency of operational rules is important for compliance, but they are not often accessible or published.

Sources: CLASP MV&E Guidebook & APEC 2011 Survey.



Monitoring, Verification and Enforcement: Enforcement Considerations



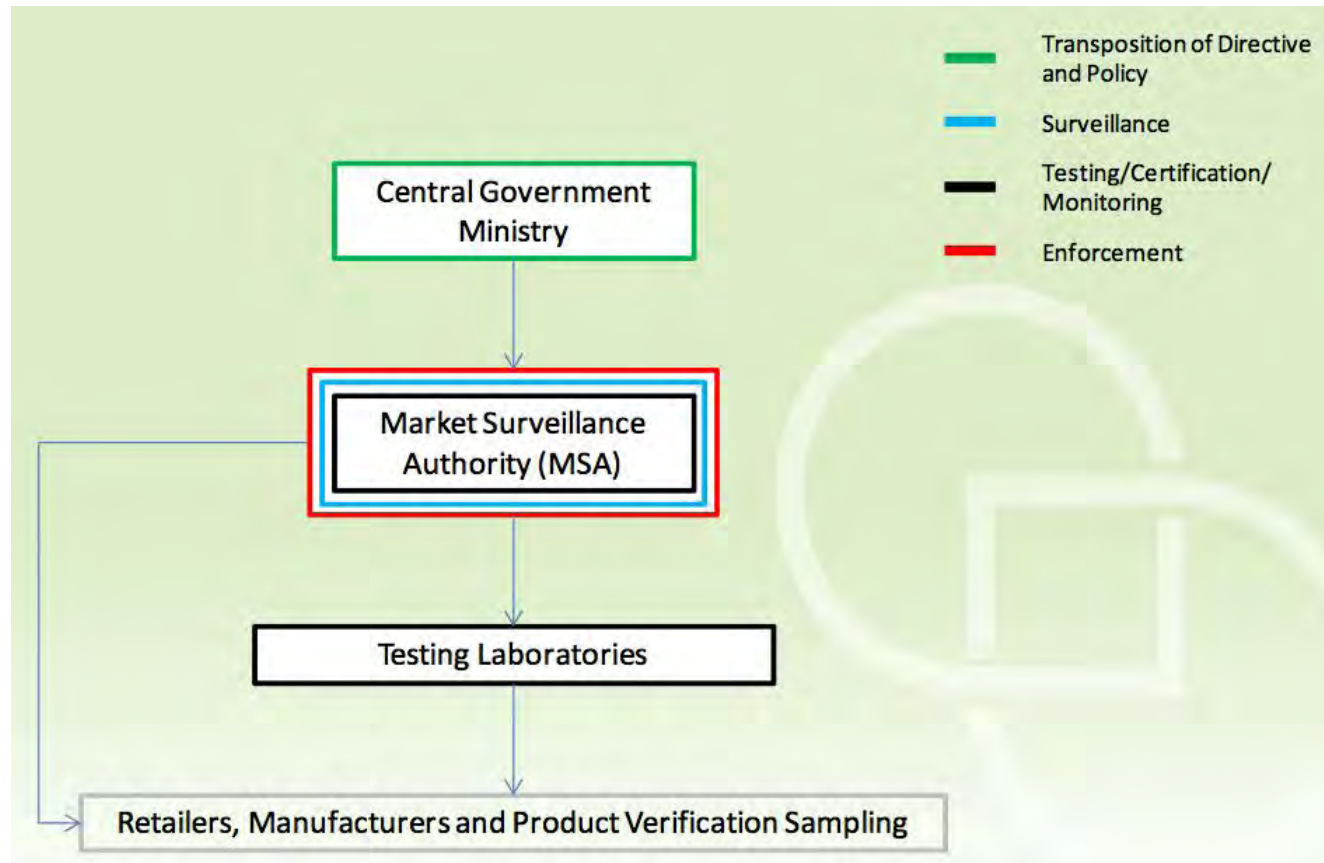
Source: MEA, 2012



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Monitoring, Verification and Enforcement: Infrastructure Example



Source: ECEEE, 2011



Monitoring, Verification and Enforcement: Parting Thoughts

Look widely for ways to manage MV&E implementation costs:

- Consider having MRAs in place for your region or with trade partners
- Invest in laboratory accreditation process
- Insure data access or implement data sharing mechanisms.
- Even informal MV&E networks can be useful.



Monitoring, Verification and Enforcement: Other MV&E Resources

Coming Soon..... MV&E online resources!



Making appliance energy efficiency the new global standard.

Who We Are | **What We Do** | **Where We Work** | **Resources** | **Tools** | **RFPs & Partnerships**

RESOURCES

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- S&L Guidebook
- S&L Headlines

MV&E RESOURCES

- MV&E Publication Library
- MV&E Economy Access

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Browse MV&E resources by date of publication, or use the dropdown menus below to narrow your search to an economy and/or topic.

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[Monitoring, Verification and Enforcement - Improving compliance within equipment energy efficiency programmes](#)

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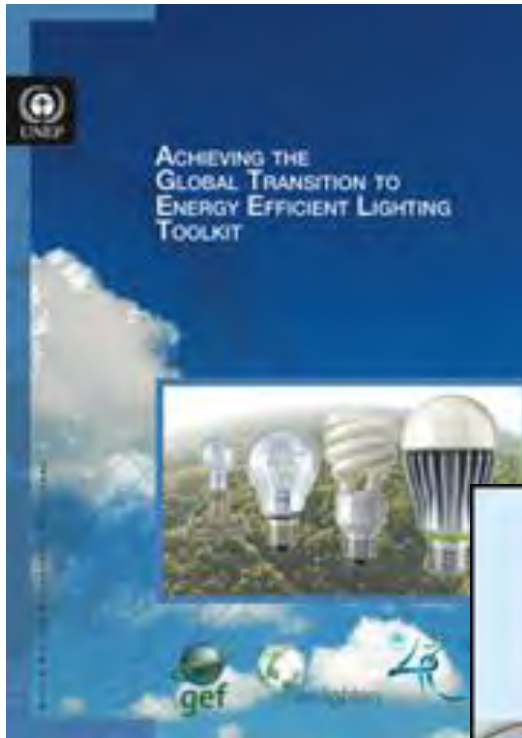
SOURCE: INTERNATIONAL ENERGY AGENCY

The Policy Pathway series is designed to guide policy makers on the essential steps in

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Questions?



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

www.enlighten-initiative.org

Find more resources about MV&E on the CLASP Website:

www.clasponline.org

