Provision of Technical Assistance to Enhance Vanuatu's Market for Energy Efficient Appliances

Design and Delivery of Training on Enhancement of Monitoring, Verification, and Enforcement (MV&E)

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Acronyms and Abbreviations

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<th>Acronym</th>
<th>Full Form</th>
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<tr>
<td>AS/NZS</td>
<td>Australian/New Zealand Standards</td>
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<td>CTCN</td>
<td>Climate Technology Centre and Network</td>
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<td>DoE</td>
<td>Department of Energy</td>
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<td>GCF</td>
<td>Green Climate Fund</td>
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<td>GEMS</td>
<td>Greenhouse and Energy Minimum Standards</td>
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<td>HS code</td>
<td>Harmonized Commodity Description and Coding System</td>
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<td>MEPS</td>
<td>Minimum energy performance standard</td>
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<td>MEPSL</td>
<td>Minimum energy performance standard and labelling</td>
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<tr>
<td>MV&amp;E</td>
<td>monitoring, verification, and enforcement</td>
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<td>PAD</td>
<td>Pacific Appliance Database</td>
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<td>PALS</td>
<td>Pacific Appliance Labeling and Standards</td>
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<td>PRS</td>
<td>product registration system</td>
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<td>SOP</td>
<td>Standard Operating Procedures</td>
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<td>SPC</td>
<td>Secretariat of the Pacific Community</td>
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<td>VeSW</td>
<td>Vanuatu Electronic Single Window</td>
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<td>WCO</td>
<td>World Customs Organization</td>
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## 1 Introduction

This Design and Delivery of Training on Enhancement of Monitoring, Verification, and Enforcement (MV&E) report was prepared for the Department of Energy (DoE) within the Ministry of Climate Change Adaptation, Meteorology, Geo-hazards, Energy, Environment and National Disaster Management Office under the “Enhance Vanuatu's Market for Energy Efficient Appliances” project, funded by the Green Climate Fund (GCF) through the Climate Technology Centre and Network (CTCN). The project objective is to support accelerating the transition to energy-efficient appliances through 1) improvement of the recently introduced standards and labelling programme; 2) enhancement of MV&E activities and a product registration system; and 3) introduction of financial mechanisms.

Implementation of the project is carried out through the following 5 tasks.

- Task 1 - Development of implementation planning and communication documents
- Task 2 - Comprehensive market and policy analysis for higher efficiency refrigerators, freezers, air conditioners, and lighting products
- Task 3 - Assessment and upgrade of the existing Vanuatu Electronic Single Window (VeSW) registration system and development of an MV&E plan
- Task 4 - Development of financing mechanisms for the incentivization towards the purchase of energy-efficient appliances
- Task 5 – Project closure

This report was prepared to provide a summary of the design of the training curriculum for the enhancement of Monitoring, Verification, and Enforcement (MV&E) within the Minimum Energy Performance Standards and Energy Labelling (MEPSL) programme, as well as the delivery of training sessions on November 9-10, 2022, at the Department of Energy (DoE) Office in Port Vila, Vanuatu.

### 1.1 Objectives and Methodology of Design of Training on Enhancement of Monitoring, Verification, and Enforcement (MV&E)

The main objectives of the design of MV&E training curriculum are to ensure an effective locally-led operation and progressive enhancement of MV&E and product registration under the MEPSL programme.

To design the training curriculum on the enhancement of MV&E activities and a product registration system for the MEPSL programme, a training needs assessment was conducted to identify and analyse what key capacities already exist and what additional capacities may be needed to reach the objectives and strengthen DoE and Customs officials. The assessment activities primarily included online and face-to-face meetings with the DoE and Customs officials and a review of the current practices in the inspection of imported MEPS-regulated goods by the DoE and the Customs department.

The face-to-face meeting with the DoE and Customs officials aimed to understand the current activities (i.e., registration, import processing, and general MV&E) in relation to control of the regulated products entering Vanuatu as well as the current constraints in the registration and certification process of the existing MEPSL programme in Vanuatu. The discussions also focused on (a) what DoE and Customs officials desire in terms of knowledge gaps and (b) the project team’s
thoughts on possible training topics that would be beneficial to DoE and the Customs department. The review of the inspection practices was conducted to ensure the relevance and practicality of the training sessions in day-to-day operations.

Based on the assessment, two training sessions were designed to cover product registration & certification processes under the MEPSL programme and import matters. Participants of these training sessions were set to include all relevant DoE officers responsible for the MEPSL programme and customs officials responsible for controlled products (See Annex II and III for training materials in sessions 1 and 2).

Outlines of the training sessions are shown in the table below.

<table>
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<th>Training Session 1</th>
<th>Training Session 2</th>
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<tr>
<td><strong>Participants:</strong> DoE officials</td>
<td><strong>Participants:</strong> DoE and Customs officials</td>
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<tr>
<td>• MV&amp;E review and recommendations</td>
<td>• Overview of Current Product Certification Process (from SOP)</td>
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<tr>
<td>• Introduction and importance of Harmonized System (HS) Codes</td>
<td>• Identifying restricted products - EE appliances</td>
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<tr>
<td>• Principles of registration data needs for MV&amp;E activities</td>
<td>• What products are in effect under the Act?</td>
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<tr>
<td>• Authentication and interpretation of laboratory test reports</td>
<td>• Physical Checks on restricted products</td>
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<td>• Data verification processes for product registration</td>
<td>• What is deemed to comply and NOT deemed to comply for lighting?</td>
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<td>• Maintenance of all databases (product registration expiries, import certificate validity, etc.)</td>
<td>• What is NOT regulated in lighting?</td>
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<td>• Market surveillance activities and “chain of custody”</td>
<td>• Using HS Codes</td>
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<tr>
<td>• Accessing and applying verification results from AS &amp; NZ standards</td>
<td>• Surveillance: Other Activities</td>
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<tr>
<td>• Analysis of import data as part of MV&amp;E and policy review processes</td>
<td>• Inspection Guide for Lighting &amp; Appliances</td>
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<tr>
<td>• Field activity - Inspections at stores</td>
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The above two training sessions were organized as part of a two-day training programme held on November 9th -10th, 2022 at the DoE office in Port Vila. A total of nine participants (8 males, 1 female), comprising DoE staff members and Customs representatives, attended the training programme (see Annex I for a list of participants).

In addition to the classroom presentations, the project team, along with DoE staff, conducted an observation of the on-site inspection of imported MEPS-regulated goods performed by Customs officials as well as the inspection of the imported used/second-hand household refrigerators (see Annex IV for the corresponding photos).
2 DELIVERY OF TRAINING

2.1 Training Sessions

On Day 1 of the training, the formal initiation was conducted by Mr. Sommai Phon-amnuaisuk, the Project Focal Point, who provided an update on the project’s work plan and progress. Mr. Misel Sisi, the Manager of the Department of Energy (DoE), delivered the welcome note and introduced the DoE participants. Subsequently, Mr. Steve Coyne and Ms. Gillian Isoardi presented the training objectives and delivered the training to DoE officials, covering five main sections: MV&E Framework, MV&E Compliance, Building Capacity for MV&E, Verification, and Market Surveillance Strategies.

Day 2 commenced with an introduction to the Customs officials, followed by an explanation of the training objectives and expected outcomes. This session primarily focused on the monitoring of controlled products under the MEPSL programme. Additionally, a detailed briefing was provided on the review and inspection processes for products, including the determination of which products are covered and deemed compliant, specifically for lighting products. The use of National statistical codes, part of the World Customs Organization (WCO)’s HS Code system, was emphasized as a means to define a product’s scope.

The following topics were highlighted in the training sessions:

Harmonisation of regulatory regimes and the importance of Harmonized System (HS) codes
- The Energy Efficient Lighting and Appliances Regulation and product certification processes have been in operation since 2019. Ensuring that the "Regulation" is aligned with established international performance requirements, such as those in Australia, Fiji, and New Zealand, or with trading economies, including other SPC countries, will contribute to improved efficiency in the implementation of Monitoring, Verification, and Enforcement (MV&E). This alignment will also reduce costs for manufacturers seeking lighting and appliance approvals, as well as manage the demand on laboratories for product approval testing.
- The implementation of a 4-digit National Component of HS code (Tariff or Statistical Code) for electrical appliances and lighting products will aid in the classification of products under the MEPSL program. This categorization will help differentiate between in-scope, out-of-scope, and banned product types, providing clarity and facilitating effective implementation.

MV&E framework: Supporting policies and programs
- A range of recommendations of supporting policies and programs to promote high energy efficient appliances and lighting products were explained, such as collaborating with retailers to educate and provide them with training packages as well as informing consumers about different lighting technologies, enabling them to make well-informed decisions considering the health and environmental impacts of alternative technologies.
- Promotional materials such as a lamp selection guide for point of sale, a lamp section phone app, and fact sheets on health issues can be utilized to raise awareness and indirectly promote the MEPSL program. These materials will assist in educating consumers and contribute to the overall success of the program.

MV&E compliance
• Building a compliance culture is crucial to mitigate the risks of non-compliance. It is important to ensure that relevant rules and obligations are widely known and accepted by stakeholders, making compliance everyone's responsibility.
• Encouraging transparency and honesty is also essential. Creating an environment where MV&E activities are visible serves as a deterrent and enables any non-compliance to be questioned at any level.
• The application of penalties for non-compliant products is necessary. It is important to have appropriate sanctions in place upon detection, ensuring that penalties are proportional to the extent and intent of the transgression. These penalties should be sufficient to effectively deter non-compliance.
• Enforcement strategy for addressing non-compliance includes
  1. *Creating a credible threat of discovering non-compliance in the marketplace*: It is essential to establish a robust system that effectively detects instances of non-compliance. This will serve as a deterrent and encourage adherence to the regulations, and
  2. *Implementing a public enforcement policy*: A clear and transparent enforcement policy should be established to outline the consequences of non-compliance for suppliers and retailers. For instance, retailers should be made aware of their responsibility for faults or incorrect labels. Given that retailers have fixed locations, they are more accessible than overseas suppliers. It is important to ensure that retailers are obligated to display products with the appropriate labels. This helps prevent suppliers from claiming that labels were removed without their knowledge or involvement.

**Product registration database**

- It is crucial to maintain records and information in compliance with the relevant requirements. These records should include essential details such as importer information, broker details (including contact information), number of units, product identifiers and descriptions (including unique registration numbers), technical product performance information, and dates related to registration, expiry, cancellation, and grandfathering.
- It is important to keep a record of the compliance histories for each product registration. This record should include any flagged suspect activities, helping to identify and address potential non-compliance issues.
- Monitoring and tracking changes in product registration/performance must be conducted to ensure compliance obligations. The following practices are recommended:
  - Regularly checking the registration period to remove obsolete products that are no longer available in the market
  - Checking partner databases for any changes in product status, such as cancellations, suspensions, or grandfathering
- It is important to establish and maintain a contact network of compliance staff in partner countries such as Australia, Fiji, and New Zealand. This network facilitates communication, collaboration, and the exchange of information related to compliance matters.
- Sharing information among compliance staff and trading partner nations is crucial. By fostering information sharing, valuable insights and updates can be exchanged, leading to enhanced coordination and enforcement efforts.
Verification

- Desktop verification should be performed for reviews and authenticity of test reports for category B products.
- For category A products, the desktop verification procedure should involve regular reviews of AS/NZ compliance check testing, publicly released at:
- In the case of category A products failing compliance, the following actions should be taken:
  1. Rectification of packaging information, if required, should be checked in-store to ensure compliance with the specified requirements
  2. Import certificates should be cancelled for products that have been deregistered in AS/NZ, aligning with the applicable regulations and standards
- The desktop verification procedure, as described above, should be properly documented and incorporated into the Standard Operating Procedures (SOP). The documentation should include details such as who conducts the review, the frequency of the review, and a step-by-step procedure for conducting the verification process.
- It is recommended to develop a regional agreement on verification testing to ensure the effectiveness of the compliance program. Periodic verification testing should be conducted after products have entered the market, thereby strengthening the monitoring and enforcement of compliance.

Market surveillance strategies

- Annual in-store inspections should be conducted to monitor various aspects, including the presence of product registrations, proper labeling, and identification of any banned products being sold.
- When selecting retail stores for sampling, the following criteria should be considered:
  1. High-volume stores: Stores with significant import data can provide valuable insights into the market and product compliance (import data can be used);
  2. Response to consumer complaints: Stores that have received consumer complaints may warrant closer inspection to ensure compliance with regulations;
  3. Unusual activity or registrations: Stores exhibiting unusual patterns of activity or registrations should be prioritized for sampling, as these may indicate potential non-compliance;
  4. New retailers: Recently established retailers should be included in the sampling process to ensure compliance from the early stages of their operations; and
  5. Regional area coverage: Sampling should cover a range of retail stores in different regions to ensure comprehensive monitoring of compliance across the country

2.2 Summary of Discussions

Discussion with DoE staff highlighted some general issues with the current database access and processes that require priority consideration. In particular:

Improvement of MV&E procedures
• Separation of the product registration procedure from the import certificate application process and clearly communicating realistic time frames for approval processes to applicants.
• Developing verification procedures and acting on any findings of non-compliance, e.g., establishing desktop verification and scheduling based on AS/NZ compliance check testing publicly released and canceling import certificates for affected products. This procedure must be documented in the DoE’s Standard Operating Procedures (SOP).
• Addressing issues related to "deemed-to-comply" exceptions, particularly in the case of lighting products, to eliminate loopholes that allow for non-compliant products. This will also help resolve challenges encountered in customs processing, especially for banned products.
• Adopting and implementing market surveillance strategies and approaches, such as conducting in-store inspections. This includes:
  o Describing the methods used for store identification and selection
  o Revising tools for the structured method of in-store inspections, e.g., forms (shown in SOP, required minor amendment) and government-registered tablets with cameras can be effective tools.
  o Providing guidance on gathering evidence of the sale of products under investigation

Adjustment of the product registration system
• Enhancing registration data integrity
  o Adding technical data (e.g., energy performance value and product lifetime) for Category B product registrations
  o Adding broker and importer contact details to facilitate communication/verification
• Maintaining data governance (ownership) of product registrations and having access to data management and maintenance - Currently, staff does not have the access required to delete duplicate registrations or modify existing registrations to reflect changes or corrections.
• Consider the benefits of transitioning to the Pacific Appliance Database (PAD).
• Implementing feature flags/toggles to control, release and specify users (product registrations) that might be useful for monitoring processes.

Creation of HS code instructions for Customs
• Consider modifying the HS Code by adding a 4-digit National Component to the existing 6 digits for improved monitoring of in-scope, out-of-scope, and banned product types.
3 CONCLUSION & RECOMMENDATIONS

The two-day training programme was deemed successful, given the majority of the participants were open to an inquiry-based discussion and exchanging their opinions about difficulties and challenges on MV&E under the MEPSL programme. This allowed the project team to provide clarifications, feedback, and suggestions during the workshops. The implemented training garnered positive feedback from the participating officers.

Recommendations include the modification of the product registration system, improvement of MV&E procedures, and the creation of instructions for the Customs department to consider including statistical code into the HS Code (creating new 4 digit National codes) in order to effectively monitor the imports for in-scope, out-of-scope, and banned product types within the MV&E system of the MEPSL programme.
## 4 Annex I – List of Participants

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# Technical Assistance to Enhance Vanuatu’s Market for Energy Efficient Appliances

Enhance Vanuatu's Market for Energy Efficient Appliances  
Monitoring, Verification, and Enforcement (MV&E) for MEPSL Programme  
10 November 2022  
Port Vila, Vanuatu

**LIST OF PARTICIPANTS**

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Technical Assistance to Enhance Vanuatu's Market for Energy Efficient Appliances

Enhance Vanuatu's Market for Energy Efficient Appliances
Monitoring, Verification, and Enforcement (MV&E) for MEPSL Programme
10 November 2022
Port Vila, Vanuatu

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5 ANNEX II – TRAINING MATERIALS – 9 NOVEMBER 2022

Current MVE context

- Energy Efficient Lighting and Appliances Regulation has been in operation since 2019 (~3 years)
- Product registration and import certificate creation are routine processes
- Some evidence (anecdotal, reported) of non-compliance in terms of:
  - Labelling
  - Banned products
  - Imports misrepresented
  - Expired/Withdrawn registrations
- Timely to review MVE processes to address issues
Harmonisation

- For economies with an existing Energy Efficient Lighting and Appliance Strategy, the most effective and efficient process is to consider regulation which facilitates harmonisation with established international lamp performance requirements (as with AU, FJ, NZ) or with trading economies (possibly other SPC countries).
- This assists with:
  - The speed of implementation
  - Keeping costs low for manufacturers’ lighting and appliance approvals.
  - Managing the demand on laboratories for product approval testing.

MVE Framework
Minimum Energy Performance Standards

Aim is to set criteria to:

- Remove inefficient technologies
- Maintain performance of regulated products
- Regularly updating to keep up with product development/improvement

Supporting policies and programs - labelling

- Labelling of products
- Comparative labels - allows comparison of performance between products
- (currently no energy labelling for lighting products)
Standards and Labels

Voluntary programs
- High Efficiency Performance Standards (HEPS)
- Endorsement Labels

Mandatory requirements
- Minimum Energy Performance Standards (MEPS)
- Comparative Labels

Supporting policies and programs – informing consumers

- Consumer Information – e.g. supporting technology transformation (CFL, LED)
- Lamp selection guide for point of sale
- Lamp selection phone App
- Fact Sheets on health issues
- UV
- Flicker
- Mercury
Supporting policies and programs – working with retail

- Retailer training packages
- With examples of house lighting designs
- Appliances - Energy Rating Calculator

MVE - Compliance
Compliance with Energy Efficient Regulation – Who Benefits?

- Consumer
- Government
- Industry
- Manufacturer/supplier

Who Complies - Typical situation

- It has been said of compliance at the national level that, “20 percent of the regulated population will automatically comply with any regulation, 5 percent will attempt to evade it, and the remaining 75 percent will comply as long as they think that the 5 percent will be caught and punished.”

(Zaelke, 2005)
Key elements of compliance regimes

Effective compliance regimes include:

- Mechanism to facilitate compliance
- Market surveillance
- Verification testing
- Enforcement
- Communication, reporting, feedback
- Legal and administrative framework
- Budget and resource allocation
- Evaluation processes

Building a compliance culture

- Make it easy to comply
  - Ensure all stakeholders know their obligations
- MVE activities need to be visible to deter others
- There must be a credible likelihood of detecting violations
  - Increase the risk that instances of non-compliance will be discovered
- Swift, certain, and appropriate sanctions upon detection
  - Take corrective action quickly to minimise damage (to all)
  - Make penalties proportional to the extent of transgression but sufficient to be an effective deterrent
Motivation for Compliance

Market participants will be motivated to comply when non-compliance brings

- **Cost Benefit**: Potential costs (financial and/or reputational) are greater than the benefits to be gained
  - **Low**

- **Risk of Capture**: Chance of capture for non-compliance is relatively high
  - **High**

- **Enforcement Response**: Action is prompt
  - **Imminent**

Enforcement Strategy

An enforcement strategy is a set of responses to incidents of non-compliance depending on the:

- Severity of the non-compliance
- Range of sanctions that are available
- Type of programme (i.e. mandatory or voluntary)
- Quality of evidence supporting the claim of non-compliance
- Responsiveness of party responsible for the non-compliance
- Potential to rectify non-compliance
Enforcement Strategy

• Pose a credible threat, enforcement needs to be seen
• A few well-publicised actions have a large impact!
• Make it clear what the range of enforcement options are
• Have a public enforcement policy that explains the ramifications of non-compliance to suppliers and retailers

Retailers are a critical link in the supply chain

• Remove any ambiguities on the role of retailers
• Remove any loopholes to enforcement
  • e.g. responsibility for faults or incorrect labels
• Retailers are the interface with consumers
  • They are often easier to deal with than overseas suppliers
Why are retailers important?

- Changes in retailer purchasing decisions have immediate impact on suppliers
- Retailers have fixed locations – often easier for regulators to reach than overseas suppliers
- If retailers are not obliged to display products with labels in place, suppliers can claim they were removed
  - Regulators have to trace who is at fault!
- How to ensure retailers are included.........

Building Capacity for MVE
Identifying needs to build MVE Capacity

Based on team discussion on 7 November, key areas are:

- Improvements to registration data integrity
  - Adding technical data for Category B product registrations
  - Maintaining currency of product registrations (access for data maintenance)
  - Broker contact details to facilitate communication/verification
  - Consider benefits of converting to Pacific Appliance Database (PAD)
- Separation of product registration procedure from import certificate application → *highlight (to applicants) realistic time frames for approval processes*

Separation of product registration procedure from import certificate application

I would like to import a product...

- Do you have a current Import certificate for this product? Yes → Use Customs Import Declaration Form
  No → Is the product registered in Vanuatu? (does it have a VRN)?
    Yes → Use Import Certificate Application
    No → Use Product Registration Form to register product, and obtain VRN.

   With a designated processing period of 2 weeks
Identifying needs to build MVE Capacity (continued)

Based on team discussion on 7 November, key areas are:

1. Resolve issues arising from ‘deemed-to-comply’ exceptions (in lighting)
   • Close loophole for non-compliant products
   • Highlight challenges found in customs processing (for banned products)
2. Develop desktop verification procedures and scheduling (& write these into SOP), based on AU/NZ compliance check testing, publicly released:
   • Act on any findings of non-compliance (e.g. cancelling import certificates for affected products)

Identifying needs to build MVE Capacity (continued)

Based on team discussion on 7 November, key areas are:

1. Activate market surveillance strategies (instore inspections)
   • Describe store identification and selection methods
   • Revise tools for structured method of instore inspections (forms require minor amendment, gov’t registered tablets with cameras can be an effective tool)
   • Provide guidance on evidence of sale of products under investigation
### MVE processes & their documentation

- Must have clear procedures
- Use SOP to define for all MVE system operatives:
  - Procedures
  - Tasks and responsibilities
- All staff & contractors should know what are the rules and what their role is:
  - Avoids ambiguities, time wasting, unresolved issues
  - In this case – common language and terms are important – this may require adding a list of definitions to the SOP (e.g. customs and DOE)

---

### MVE – components to consider

- Registration database for all regulated products
- Ongoing maintenance of database registrations
- Monitoring of outcomes from AU/NZ verification testing
- Market surveillance conducted regularly including:
  - Products on sale are registered
  - Existence of labels
  - Identification of banned products
- Application of penalties for non-compliant products
Registration database

- Record all essential information
  - Importer details
  - Broker details (including contact info)
  - Product identifiers and description (including unique registration number)
  - Technical product performance information
  - Dates (registration, expiry, cancellation, grandfathering)

- Monitor and track changes in product registration/performance
  - Fixed registration period to remove obsolete products no longer on the market
  - Check partner databases for changes in product status (cancellation, suspension, grandfathering)

- Record compliance histories – including flagging suspect activities
- Share information amongst compliance staff and trading partner nations

Verification
The importance of product testing

Example: Australian LED Performance– Claim Vs. Test

Variance between rated and tested efficacy of LED lamps purchased in Australia between 2009 and 2014 (Claimed incandescent equivalent wattage ranges as per IEC-61 558 2012 shown)
Verification: recommended desktop option

Category B - Authenticating laboratory test results

- Traceability of calibration
- Accreditation of labs to perform test procedures
International Accreditation System

- International recognition of lighting testing and reports from laboratories within a country is achieved by having the national accreditation body accrediting these labs meet the requirements of a global, mutual recognition arrangement framework.
- The International Laboratory Accreditation Cooperation (ILAC)
- Asia Pacific Accreditation Cooperation (APAC) is a regional accreditation body (www.apac.org). APAC is recognized by the Asia Pacific Economic Cooperation (APEC) as one of five Specialist Regional Bodies (SRBs) that support the work of the APEC Sub-Committee on Standards and Conformance (AC) heads this arrangement framework (www.ilac.org).
Technical Assistance to Enhance Vanuatu’s Market for Energy Efficient Appliances

Authenticity of Test Reports

- Confirm accreditation status
- If in doubt contact AB
- Check scope of lab

[Image of NVLAP Certificate of Accreditation]

Cree® Xlamp® LED IES LM-80-2008 Testing Results

[Image of Cree Xlamp LED Testing Results]

https://ilac.org/signatory-search/
Category A - desktop verification procedure

- Desktop verification procedure should include regular (suggest 6 monthly) review of AU/NZ compliance check testing, publicly released at:
- Who conducts this review, how often, and a detailed procedure should be inserted into SOP
- Where Category A products are found to have failed compliance – action should be taken:
  - Rectification of packaging information where required – check in-store
  - Cancelling import certificates for products that are deregistered in AU/NZ

Category A - examples

- Compliance Activity Reports
  - Australia
  - New Zealand
Market Surveillance Strategies

Current SOP guidance on instore inspections

- Prepare and carry Letter of Authorisation (and photo ID)
- Be familiar with Act, including powers of entry, power to take evidence
- Carry out duties politely and cooperatively
- Systematically make records & gather evidence (to support prosecution if necessary) using Forms W (Refrigerators & Freezers), X (Air-conditioners) and Y (Lighting) from SOP.
Preparations for instore inspections

- **When to conduct inspection**
  - Schedule → works best if observed to occur regularly (suggest annual)

- **How to select a store**
  - High volume stores → import data can be used for this
  - Response to complaints from consumers
  - Unusual activity or registrations (or other red flag)
  - New retailers
  - Selected stores should cover regional areas

- **Who should undertake the inspections**
  - Staff with high degree of familiarity with registration process
  - Work in pairs is ideal (from an evidentiary perspective)

Instore processes – making records

- Take a photo of the store front prior to entry (ensure this and all other photos are time stamped, *and geo stamped if possible*)

- Record store name, date, time, and name of vendor representative/onsite manager (*this name is not currently on forms – but should be added*)

- Do a visual observation of products on entry - identify potential targets & issues:
  - Are products registered? → *determined in the field using public database access where possible*
  - Are there standard energy labels affixed in correct location? (for Category A)
  - Do the labels match the products? (for Category A)
  - Are the label authentic?
  - Are there any non-standard labels?
Instore processes – making records

- Record product details on appropriate form (W/X/Y), also record number of units visible for sale (this is not currently on forms – but should be added)
- Photograph product (time stamped):
  - On all sides
  - Label (if present)
  - As offered for sale (in position on shelf/floor)
  - Showing number of units on shelf/floor (if possible)
- Collect any written information, advertising or publicly available material associated with the product (if relevant). Photograph location of this material instore.
- Take copies of any documents provided during the inspection

Documentation: surveillance action report

- See example
Enforcement elevation

Strategy includes a range of elevating enforcement responses that can be implemented, in this context:

- Notification of non-registered product (L1)
- Penalty notice – no payment required (L6)
- Penalty notice – payment required (L5)
- First Notice – Intention to Seize (L7)
- Final Notice – Intention to Seize (L8)

Some notes on current penalty notices

- Penalty – payment required (L5), and
- Penalty – no payment required (L6) letters:
  - Both should include requirement for recipient to provide statutory document saying they have resolved (rectified) the issue related to the offence
  - Currently, once the letter has been received (L6), or the payment made (L5), there is no stated requirement to fix the problem.
  - In fact, once you have paid the penalty related to the notice (L5), “there will be no further legal action in relation to this matter” *(this suggests they do not have to rectify issue)*
From SOP

Investigation Officer Procedures – Vanuatu

- Does product have a standard label?
  - Yes
    - Add to list of banning imports
    - Start registration process
  - No
    - Next step:【Diagram】

- Does it have a pass-standard label?
  - Yes
    - Move to next step
  - No
    - Next step:【Diagram】

- Does label match compliance details?
  - Yes
    - Next step:【Diagram】
  - No
    - Next step:【Diagram】

- Suspect product does not meet MEPS?
  - Yes
    - Next step:【Diagram】
  - No
    - Next step:【Diagram】

Surveillance: Other activities

- Monitoring imports by HS Codes for in-scope, out-of-scope and banned product types
  - Comtrade
    - https://comtrade.un.org/data/
  - ITC Trademap
    - https://www.trademap.org/index
  - Example → lamps →

Figure 3: Graph of Vanuatu lamp import data by HS code from 1994 - 2003 (Data from trademap.org)
6 Annex III – Training Materials – 10 November 2022

Enhance Vanuatu’s Market for Energy Efficient Appliances

Customs Workshop

Steve Coyne and Gillian Isoardi
10 November 2022

Current process (from SOP)

1. Identifying restricted products
2. TV/washing machine → not yet
3. Physical check list
4. What is deemed-to-comply for lighting?

11/11/2022
1. Identifying restricted products - EE appliances

- HS codes trigger an alert → then require further visual check to see if restricted or exempt

2. What products are in effect under the Act?

- Currently in effect (from 2019)
  - Air conditioners
  - Refrigerators
  - Freezers
  - Lighting products
- In effect from February 2023 (implemented August 2022, with grace period of 6 months)
  - Televisions
  - Washing machines
3. Physical Checks on restricted products

- Brand and model number match certificate
- Energy label – is it standard and matches product?

- If no label, request DoE check if registration is category A or B
  - If Cat B – no label is accepted (discussion)
  - If Cat A – must have standard label
- Are there any other (non-standard) labels? Should be removed

Air conditioner standard energy label

[Image showing old and new energy labels with highlighted name and model]
Refrigerator, Freezer (& TV, washing machine) standard energy label

2 types
- Normal 6-star label (left)
- 10-star label for appliances rated as 7 stars or above (right)

Non-standard energy labels
4. What is deemed-to-comply for lighting?

- Regulated, registered AND deemed-to-comply

<table>
<thead>
<tr>
<th>Incandescent Lamps</th>
<th>Compact Fluorescent Lamps</th>
<th>Linear or Circular Fluorescent</th>
</tr>
</thead>
<tbody>
<tr>
<td>MV Halogen</td>
<td>Decorative Filament</td>
<td>Fancy candle</td>
</tr>
<tr>
<td><img src="image1" alt="Incandescent Lamp" /></td>
<td><img src="image2" alt="Decorative Filament" /></td>
<td><img src="image3" alt="Fancy candle" /></td>
</tr>
<tr>
<td>T5: tube diameter 16mm</td>
<td>T8: tube diameter 24mm</td>
<td></td>
</tr>
</tbody>
</table>

4. What is NOT deemed-to-comply for lighting?

- Regulated, registered and NOT deemed-to-comply

<table>
<thead>
<tr>
<th>Linear or Circular Fluorescent</th>
</tr>
</thead>
<tbody>
<tr>
<td>T12 Lamps</td>
</tr>
<tr>
<td><img src="image9" alt="T12 Lamps" /></td>
</tr>
<tr>
<td>T12: tube diameter 38mm</td>
</tr>
</tbody>
</table>
4. What is NOT regulated in lighting?

- Not regulated (and therefore not requiring to be registered)

<table>
<thead>
<tr>
<th>Incandescent Lamps</th>
<th>Compact Fluorescent Lamps</th>
<th>LED Lamps and Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>MV Tungsten Filament Reflector</td>
<td>Halogen Reflector</td>
<td>Externally Ballasted (CF/In)</td>
</tr>
</tbody>
</table>

4. What is NOT deemed-to-comply for lighting?

- Incandescent Lamps – tungsten filament
- HS 853922
- How to identify:
  - Glass bulb (clear/frosted)
  - Common wattages >25W
  - 40/60/75/100W
  - No “halogen” on package
  - No capsule inside bulb
1 SCOPE AND GENERAL

1.1 Scope

1.1.1 General

This Standard specifies requirements for Minimum Energy Performance Standards (MEPS), maximum wattage and other requirements for incandescent lamps, both tungsten filament and tungsten halogen.

This Standard covers lamps as defined below that are supplied as individual lamps or as part of a luminaire.

Other lamps not listed in the Scope are excluded from the Standard and are not required to meet the Energy Performance Requirements.

AS 4934.2 - HS code 8539.22

1.1.2 GLS tungsten filament

These lamps have the following attributes:

(a) Shapes: A50-A65, PS50-PS65, M50-M65, T50-T65 (as generally outlined in IEC 60630) or E50-E65.
(b) Caps: E14, E26, E27, B15 or B22d.
(c) Nominal voltage ≥220 V.
(d) Nominal wattage <150 W.
(e) Not including coloured lamps, reflector lamps, crown-reflector lamps or lamps with a halogen gas fill.

1.1.4 Candle tungsten filament

These lamps have the following attributes:

(a) Shapes: candle or B (as generally outlined in IEC 60630) including twisted and bent-tip candle.
(b) Caps: E14, E26, E27, B15 or B22d.
(c) Nominal voltage >220 V.
(d) Not including coloured lamps, reflector lamps, crown-reflector lamps or lamps with a halogen gas fill.
AS 4934.2 - HS code 8539.22

1.1.5 Fancy round tungsten filament
These lamps have the following attributes:
(a) Shapes: round, P (as generally outlined in IEC 60630), G or globe.
(b) Caps: E14, E26, E27, B15 or B22d.
(c) Nominal voltage >220 V.
(d) Not including coloured lamps, reflector lamps, crown-reflector lamps or lamps with a halogen gas fill.

1.1.6 Decorative lamps tungsten filament
These lamps have the following attributes:
(a) Shapes: decorative shapes.
(b) Caps: E14, E26, E27, B15 or B22d.
(c) Nominal voltage >220 V.
(d) Not including coloured lamps, reflector lamps, crown-reflector lamps, pilot lamps, lamps with a halogen gas fill or lamps with shapes as defined in Clauses 1.1.2 to 1.1.5.

AS 4934.2 - HS code 8539.21

1.1.3 ELM halogen non-reflector
These lamps have the following attributes:
(a) Tungsten halogen lamp burner.
(b) Shapes: single-ended capsule, non-reflector.
(c) Caps: bi-pin.
(d) Nominal voltage 5–14 V inclusive.
(e) Not including coloured lamps, reflector lamps or crown-reflector lamps.

1.1.8 ELM halogen reflector
These lamps have the following attributes:
(a) Tungsten halogen lamp burner, reflector.
(b) Shapes: MR 11-16.
(c) Caps: Bi-pin.
(d) Nominal voltage 5–24 V (inclusive).
(e) Not including coloured lamps.
AS 4934.2 - HS code 8539.21

1.1.9 Mains voltage reflector (including halogen)
These lamps have the following attributes:
(a) Tungsten filament or tungsten halogen lamp burner, with reflector.
(b) Shapes: PAR, ER, R, RE, XR, YR, ZR or MR 11-16.
(c) Caps: E14, E26, E27, B15, B22d or GU10.
(d) Nominal voltage >220 V.
(e) Not including coloured lamps.

AS/NZS 4847.2 – HS code 8539.31

1 SCOPE AND GENERAL
1.1 Scope
This Standard specifies Minimum Energy Performance Standards (MEPS) requirements and related attributes for self ballasted compact fluorescent lamps (CFLs) with integrated means for controlling starting and stable operation that are intended for domestic and similar general lighting purposes.

This Standard applies to self ballasted lamps of all voltages and wattages irrespective of the type of lamp cap.

This Standard covers lamps that are supplied as individual lamps or part of a luminaire.

This Standard is to be read in conjunction with AS/NZS 4847.1.

1.2 Exclusion
This Standard does not cover safety requirements. These are covered separately in AS/NZS 60068. AS/NZS 60069 contains other performance requirements.

This Standard does not apply to coloured CFLs. CFLs intended primarily for production of UV radiation or CFLs intended as insect repellent lamps, cold-cathode CFLs or self ballasted mixed mercury vapour lamps. Requirements for cold cathode CFLs are under consideration.

CFL reflector lamps are currently excluded but will be included as of October 2011.
AS/NZS 4782.2 – HS code 8539.31

1.1 SCOPE
This Standard specifies Minimum Energy Performance standard (MEPS) requirements for double-capped (FD and FDH) tubular fluorescent lamps with a nominal length of 550 mm to 1500 mm and having nominal lamp wattage of 16 watts or more, that are within the scope of AS/NZS 4782.1.

1.2 EXCLUSIONS
This Standard does not apply to lamps that are clearly not intended for general illumination, specifically—
(a) lamps with a dominant colour or with an output that is predominantly outside the visible spectrum;
(b) lamps for colour matching and that have a colour rendering index greater than 90 and a colour appearance approximating to a point on the black body locus;
(c) lamps that are specifically for use in an industrial or agricultural process;
(d) lamps for medical applications; or
(e) lamps that have been given written exemption by the relevant regulatory authority on the grounds that they are for a specific purpose other than general illumination and are clearly distinguishable from lamps for general illumination.

Air-conditioner - exclusions

• ≤ 65 KW
What types of air conditioners are not required to carry an energy rating label?

The following air conditioners are not currently required to carry an energy rating label:
• evaporative air conditioners,
• ducted air conditioners (these may carry the label on a voluntary basis),
• three phase air conditioners (these may carry a label on a voluntary basis but are unusual for the residential sector),
• multi-split air conditioners (units with several separate indoor units each with a separate control),
• air conditioners intended purely for commercial applications.
**Air-conditioner - exclusions**

- > 65 kW

Which products are excluded?

These products are excluded from the above 65kW Determination:

- Close control air conditioners
- Liquid-chilling packages
- Cooling systems that do not use a vapour compression cycle (e.g., evaporative coolers)
- Water-to-air air conditioners
- Dehumidifiers
- Mains-powered air conditioners specifically designed for installation in mobile applications (e.g., caravans, mobile homes, camper vans, boats and rail cars)
- Mains-powered air conditioners specifically designed for installation in specialised high temperature industrial applications (e.g., crane cabins used over blast furnaces)
- Air conditioners that do not condition air sourced from the conditioned space.

11/11/2022

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**Refrigerators and Freezers - inclusions**

Which refrigerators and freezers are covered?

Ten groups of refrigerators and freezers are covered under the requirements of the 2012 Determination. Please refer to the standard AS/NZS 4444:2007 for more detailed information:

- Group 1: Refrigerator without a low temperature compartment, automatic defrost
- Group 2: Refrigerator with or without an ice-making compartment, manual defrost
- Group 3: Refrigerator with a short or long term frozen food compartment, manual defrost
- Group 4: Refrigerator-frezer. Fresh food compartment is automatic defrost, freezer manual defrost ("partial automatic defrost")
- Group 5B: Refrigerator-freezer, both compartments automatic defrost (frost free), bottom mounted freezer
- Group 5T: Refrigerator-freezer, both compartments automatic defrost (frost free), not side by side configuration or bottom mounted freezer (i.e. top mounted freezer)
- Group 5S: Refrigerator-freezer, both compartments automatic defrost (frost free), side by side configuration
- Group 6U: Separate vertical freezer, manual defrost
- Group 6C: Separate chest freezer, all defrost types
- Group 7: Separate vertical freezer, automatic defrost (frost free)

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For these group descriptions, a ‘compartment’ means a compartment with a separate external door or an internal sub-compartment.
Using HS codes

• Using National Component of HS code (Tariff or Statistical Code) can separate, in-scope products from out-of-scope products:

Statistical codes

• Provide opportunity to separate in-scope and out-of-scope products
Technical Assistance to Enhance Vanuatu’s Market for Energy Efficient Appliances

Product: 3405 Air conditioning machines comprising a motor-driven fan and elements for changing the temperature and humidity, incl. those machines in which the humidity cannot be separately regulated; parts thereof
Surveillance: Other activities

- Monitoring imports by HS Codes for in-scope, out-of-scope and banned product types
  - Comtrade
    - https://comtrade.un.org/data/
  - ITC Trademap
    - https://www.trademap.org/Index
  - Example ➔ lamps ➔

Figure 3: Graph of Vanuatu lamp import data by HS code from 2014 - 2021 (Data from trademap.org)

Inspection Guide for Lighting & Appliances

- Example

Minimum Energy Performance Standards

<table>
<thead>
<tr>
<th>Lamps &amp; Control Gear Handbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions</td>
</tr>
<tr>
<td>1. Lumen output or Luminous flux (lumens)</td>
</tr>
<tr>
<td>The lumen is a unit of luminous flux, a measure of the total amount of visible light emitted by a lamp. It is equal to power in an electric heater, but the quantity is weighted to reflect varying sensitivity of the human eye to different wavelengths of light.</td>
</tr>
<tr>
<td>2. Efficacy (Lumen/Watt)</td>
</tr>
<tr>
<td>Efficacy is a unit that is used to measure the efficiency of a lighting system. It indicates the amount of energy that is converted into light energy.</td>
</tr>
<tr>
<td>3. Intensity (candela)</td>
</tr>
<tr>
<td>Intensity is the amount of light emitted in a given direction. The candela is the unit of measurement for intensity.</td>
</tr>
<tr>
<td>4. Illuminance (Lux)</td>
</tr>
<tr>
<td>Illuminance is the amount of light that falls on a surface. It is expressed in lux.</td>
</tr>
</tbody>
</table>

Store Survey 2013

11/11/2022
7 ANNEX IV – TRAINING PHOTOS

Mr. Misel Sisi, Manager, Department of Energy, Delivered Welcoming Remarks on MV&E Training Workshop for the "Enhance Vanuatu’s Market for Energy Efficient Appliances" Project and Discussed with the Project Team on Progress and Challenges

DoE Participants Engaged in Training Activity
Mr. Tony, Controller Enforcement Manager, Vanuatu Customs and Inland Revenue Department, Discussing Needs on Training and Sharing Current Practices on Inspection Procedures and Import Application Processing of Regulated Products under MEPSL Programme

Mr. Eyal Tendler, Director, Computer World (Electrical Appliance Retail Store), Exchanging Opinions about MEPSL Programme with DoE Officers and the Project Team
Project Team and DoE Officers Visited and Inspected MEPSL Regulated Products at Computer World (Retail Store)

Inspected MEPSL Regulated Products at Computer World (Retail Store)
Inspected MEPSL Regulated Products at Wilco (Retail Store)
Inspected MEPSL Regulated Products at Rapid Electrical (Retail Store)

Project Team Discussed with Sales Manager on Appliance Financing at Rapid Electrical (Retail Store)
DoE Participants Engaged in Training Activity

Project Team Deliver a Training Session 1 on MV&E to DoE Officers
Training Session 2 – DoE and Customs Officials, held on November 10, 2022, at the Department of Energy, Port Vila, Vanuatu

DoE and Customs Officials Engaged in Training Activity
Project Team Observed Physical Inspection of Imported MEPS-Regulated Goods with the Customs Department Officers

Project Team Discussed with Custom Official on Inspection of Imported MEPS-Regulated Goods
Technical Assistance to Enhance Vanuatu’s Market for Energy Efficient Appliances

Project Team with DoE Officials Inspected the Imported Used Household Refrigerator

DoE Officials Inspected Imported Refrigerator