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

MV&E Framework and Plan for Appliances and Lighting Products in Vanuatu

Assessment & Recommendations for Monitoring, Verification, and Enforcement

INTERNATIONAL INSTITUTE FOR ENERGY CONSERVATION - ASIA
1168/27 Unit B, 15th Floor, Lumpini Tower, Rama IV Road
Thungmahamek, Sathorn, Bangkok 10120, THAILAND

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Acronyms and Abbreviations

AS/NZS	Australian/New Zealand Standards
CTCN	Climate Technology Centre and Network
DoE	Department of Energy
GCF	Green Climate Fund
GEMS	Greenhouse and Energy Minimum Standards
HS code	Harmonized Commodity Description and Coding System
MEPS	Minimum energy performance standard
MEPSL	Minimum energy performance standard and labelling
MV&E	monitoring, verification, and enforcement
PAD	Pacific Appliance Database
PALS	Pacific Appliance Labeling and Standards
PICs	Pacific Island Countries
PRS	product registration system
SOP	Standard Operating Procedures
SPC	Secretariat of the Pacific Community
VeSW	Vanuatu Electronic Single Window

1 EXECUTIVE SUMMARY

This report reviews current practice in the Monitoring, Verification and Enforcement (MV&E) activities undertaken as part of the implementation of MEPS for energy efficient appliances in Vanuatu. The review and assessment were conducted based on desk research, stakeholder consultations, and DoE's demonstration of the existing product registration system as well as a review of the *Standard Operating Procedures (SOP) for Officers of the Department of Energy Enforcing Regulations on Minimum Energy Performance Standards and Energy Labelling for Appliances & Lighting*, (January 2018 version).

The report considers areas of: administration of product registration, customs assessment, market surveillance and documentation; and gives recommendations on improved practice in these areas. A summary of the recommendations made in this report is as follows:

Status of MEPS Regulations in Vanuatu and Recognised Countries

It is recommended to resolve any inconsistencies in minimum performance standards and test methods with recognised countries' MEPS programs by (a) updating the Vanuatu regulation to harmonise with any revised Australia, New Zealand standards or (b) developing detailed standard operating procedures for administrators to manage situations where standards are not harmonised.

Administration of Import Certificates, Product Registration and the VeSW

Product Registration Database Operation

It is strongly recommended that DoE staff be provided direct access to maintain the Vanuatu product registration database. Additionally, some further data input fields are required for Category A and Category B products registered on this database. This recommendation may be implemented through changes to the current product registration database, or by adoption of the Pacific Appliance Database (PAD).

Vanuatu appliance registration data and the SPC Registration System

With regards to the current status of Vanuatu appliance data on the Pacific Appliance Database (PAD), it is recommended to either update links between the VeSW and PAD databases and harmonise the registration numbers for products, or otherwise remove Vanuatu data from SPC PAD system entirely.

Currency of Import Certificates

A process needs to be implemented for updating the Vanuatu register to include information regarding:

1. Category A products with expired registration in other countries
2. Category B and C products with performance levels (to assess against any updated MEPS)

In some circumstances this will require changes to the product registration forms to allow for the collection of product performance data.

The importers holding current Import Certificates for any products that are identified through this process will need to be notified of the change in status of the product and issued with a notice of cancellation of the Import Certificate.

To ensure the registration data checkpoint process is consistent, we suggest some revisions to the Standard Operating Procedure (SOP) document to make it a simpler reference tool for each of the different, individual users.

Import Certificate Expiry

The current wording of SOP (section 4, page 20) with regards to certificate expiry, suggests that the expiry could be longer than 3 years for products previously registered in Australia or New Zealand. It should be clarified and articulated in documentation as to whether an import certificate expiry can be longer than 3 years.

Deemed-to-comply exceptions

It is recommended that the Deemed-to-Comply provision is removed from the Manual of Standard Operating Procedures and from practice, consistent with harmonisation updates to Vanuatu regulation.

Modifications to product registration and import certificate application processes

It is recommended to separate the capture of product data (product registration) from the application for import certificates (certificate application) into two separate processes. This offers the opportunity to simplify the processing of information and support traceability of product registration and import certificate creation.

If product registration and import certification processes are separated, it is recommended that reasonable and realistic timeframes are implemented for the completion of each process (in consultation with DoE staff). Furthermore, any changes to product registration and import certification application should be communicated through targeted training for import brokers (and other key stakeholders)

Review of Vanuatu Lamp Imports

There appears to be a significant number of tungsten filament lamps (HS code 853922) still being imported into Vanuatu. Also, since the introduction of the MEPS (in 2017) there has been a significant increase in the import of “other discharge lamps”, (HS code 853939) peaking at approximately USD200,000 in value. It is recommended that both matters warrant further investigation.

Statistical HS Codes for Appliances in Vanuatu

It is recommended that national-level, statistical codes within HS2022 commodity classification system are considered for easy identification of regulated, unregulated and banned appliances.

Any changes to the HS codes for lighting products and appliances should be communicated through targeted stakeholder training (including import broker training).

Market Surveillance Practices

Verification Activities

It is recommended that Vanuatu rely on the compliance programs of Australia and New Zealand for verification (check) testing activities. Six monthly updates are generally published by Australia and annually by New Zealand on their testing activities. A timely review of these publicly released findings by the program administrators will be an effective way to monitor any impact on the Vanuatu's market.

Review of Standard Operating Procedures document

With regards to the SOP, it is recommended to separate the SOP document into modules, so that each specific user can quickly and easily access the content they need, e.g.:

- Approving product registrations or import certificates for administrative staff
- Applying customs processes
- Conducting field assessments
- Verification review procedures
- Digitizing and/or making interactive data visualization on the DoE's website

Furthermore, the SOP modules should be revised to reflect any agreed procedural changes arising from recommendations in this report.

2 INTRODUCTION

This *MV&E Framework and Plan for Appliances and Lighting products in Vanuatu (Review & Recommendations)* 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) introduction of the monitoring, verification, and enforcement (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 addresses the current constraints in the registration and certification process of the existing Minimum Energy Performance Standard and Labelling (MEPSL) program and support capacity reinforcement of management for MV&E in Vanuatu.

2.1 Objectives and Methodologies of Monitoring, Verification, and Enforcement (MV&E) Assessment

The main objectives of the MV&E assessment of the Vanuatu regulation are to review and understand the following identified MV&E activities:

- Registration of products in Vanuatu
- Application for an import certificate
- Deemed-to-comply status
- Customs clearance
- Market Surveillance (registration and labelling)
- Verification testing

This report outlines current practice within these MV&E activities and makes recommendations for improvements of the above mentioned MV&E activities.

To assist with the review of MV&E elements within the Vanuatu regulation on MEPSL program for electrical appliances, equipment and lighting, it is important to

- Understand the current status of energy efficient appliance regulations (including test methods and performance requirements) in Vanuatu; and

- Understand the current MV&E practices adopted by involved stakeholders in Vanuatu (e.g., DoE and Customs department).

The review and assessment of the above mentioned aspects were conducted based on desk research, stakeholder consultations, review of DoE's Standard Operating Procedures (SOP) on enforcing regulations of MEPSL programme and DoE's demonstration of the existing product registration system to gather information on the use of the product registration system in issuing Import Certificates for Energy Efficient Appliances and Lighting.

3 STATUS OF MEPS REGULATIONS IN VANUATU

The Energy Efficiency of Electrical Appliances, Equipment and Lighting Products Act No. 24 came into force on the 29th of March 2017 and was followed by Electrical Appliance, Equipment and Lighting Products (Importation Control) Regulation Order No. 126 of 2017 on 29th of September 2017. Both documents refer to Australian and New Zealand Standards for both Test Methods and Minimum Performance requirements.

As part of the registration of products for importation, those products within the scope of the Vanuatu MEPS regulations that are already registered (and currently valid) in mirror regulatory programs in Australia, New Zealand and Fiji are deemed compliant with Vanuatu MEPS requirements and can be registered in Vanuatu without providing further evidence in the form of test reports. This streamlined mechanism relies upon consistency of Vanuatu's MEPS requirements with the recognised countries.

The registration databases in these countries only display details of products currently compliant with that country's (local) MEPS requirements; therefore, any changes to test method standards (revised editions) could create issues in relation to not being able to provide the stipulated test reports without additional testing of the product (to the older version of the test method).

Since 2017, multiple revisions have been made to test method standards and MEPS for some of the product classes (i.e., appliances, equipment and lighting products) in Australia and New Zealand. However, these revisions have not yet been reflected in the current MEPS and labelling regulation in Vanuatu. Details in Table 3-1 to Table 3-6 below are provided for each product class, with recent changes highlighted by red text ("All countries" refers to Vanuatu, Fiji, Australia and New Zealand).

Table 3-1: MEPS and Test Method for Refrigerating Appliances

Country	*Minimum Energy Performance & Labelling Standard*	*Test Method Standard*
2017		
All countries	AS/NZS 4474.2: 2009	AS/NZS 4474.1: 2007
2022		
Vanuatu	AS/NZS 4474.2: 2009	AS/NZS 4474.1: 2007
Fiji	AS/NZS 4474.2: 2009	AS/NZS 4474.1: 2007
Australia	AS/NZS 4474: 2018 Amd 1: 2019	AS/NZS IEC 62552-3: 2018
New Zealand	AS/NZS 4474: 2018 Amd 1: 2019	AS/NZS IEC 62552-3: 2018

Table 3-2: MEPS and Test Method for Air Conditioners

Country	*Minimum Energy Performance & Labelling Standard*	*Test Method Standard*
2017		
All countries	AS/NZS 3823.2: 2013	AS/NZS 3823.1.1: 2012 AS/NZS 3823.1.2: 2012 AS/NZS 3823.1.4: 2012
2022		
All countries	AS/NZS 3823.2: 2013	AS/NZS 3823.1.1: 2012 AS/NZS 3823.1.2: 2012 AS/NZS 3823.1.4: 2012

Australia & New Zealand	Greenhouse and Energy Minimum Standards (Air Conditioners above 65kW) Determination) 2022 (NZ has same scope and technical specification as Australia)	AS/NZS 3823.1.1: 2012 AS/NZS 3823.1.2: 2012 AS/NZS 3823.1.4: 2012

Table 3-3: MEPS and Test Method for Incandescent Lamps

Country	*Minimum Energy Performance Standard*	*Test Method Standard*
2017		
All countries (except NZ)	AS 4934.2: 2011	AS/NZS 4934.1: 2014
2022		
Vanuatu	AS 4934.2: 2011	AS/NZS 4934.1: 2014
Fiji	AS 4934.2: 2011	AS/NZS 4934.1: 2014
Australia	AS 4934.2: 2019	AS/NZS 4934.1: 2014
New Zealand	nil	Not required

Table 3-4: MEPS and Test Method for Linear Fluorescent Lamps

Country	*Minimum Energy Performance Standard*	*Test Method Standard*
2017		
All countries	AS/NZS 4782.2: 2004	AS/NZS 4782.1: 2004 AS/NZS 4782.3(Int): 2006
2022		
Vanuatu	AS/NZS 4782.2: 2004	AS/NZS 4782.1: 2004 AS/NZS 4782.3(Int): 2006
Fiji	AS/NZS 4782.2: 2004	AS/NZS 4782.1: 2004 AS/NZS 4782.3(Int): 2006
Australia	AS 4782.2: 2019	AS/NZS 4782.1: 2020 AS/NZS 4782.3: 2014
New Zealand	AS/NZS 4782.2: 2004 Amd 1: 2006 Amd 2: 2006	AS/NZS 4782.1: 2020 AS/NZS 4782.3(Int): 2006

Table 3-5: MEPS and Test Method for Compact Fluorescent Lamps

Country	*Minimum Energy Performance Standard*	*Test Method Standard*
2017		
All countries	AS/NZS 4847.2: 2010	AS/NZS 4847.1: 2010 AS/NZS 4782.3(Int): 2006
2022		
Vanuatu	AS/NZS 4847.2: 2010	AS/NZS 4847.1: 2010 AS/NZS 4782.3(Int): 2006
Fiji	AS/NZS 4847.2: 2010	AS/NZS 4847.1: 2010 AS/NZS 4782.3(Int): 2006
Australia	AS/NZS 4847.2: 2019	AS/NZS 4847.1: 2010 IEC 62321-4

		IEC 62554
New Zealand	AS/NZS 4847.2: 2010 Amd 1: 2011	AS/NZS 4847.1: 2010 AS/NZS 4782.3(Int): 2006

Table 3-6: MEPS and Test Method for Fluorescent Lamp Ballasts

Country	*Minimum Energy Performance Standard*	*Test Method Standard*
2017		
All countries	AS/NZS 4783.2: 2002	AS/NZS 4783.1: 2001
2022		
All countries	AS/NZS 4783.2: 2002	AS/NZS 4783.1: 2001

The revision of MEPS results in an increase in the performance requirements, which some currently registered products will no longer be able to comply with. In this situation, these products will no longer be able to be imported into the country from the date at which the revised performance standard comes into force. This date is referred to as the "grandfather date" for these soon-to-be non-compliant products and effectively becomes a proxy expiry date for the product's registration. Any units of such a product that are already in the country prior to the grandfather date are still able to be sold.

Without the harmonisation of test method standards and MEPS between countries, these matters will require detailed consideration on how to logically administer all scenarios. The least burdensome solution for suppliers and administrators may be to maintain harmonisation between countries.

Recommendation:

It is recommended to resolve any inconsistencies in minimum energy performance standards (MEPS) and test methods with recognised countries' MEPS programs by (a) updating the Vanuatu regulation to harmonise with any revised Australia, New Zealand test method standards and MEPS or (b) develop detailed standard operating procedures for administrators to manage these situations.

4 ADMINISTRATION OF PRODUCT REGISTRATION AND IMPORT CERTIFICATE APPROVAL

As described in the Energy Efficiency of Electrical Appliances, Equipment, and Lighting Products Act No. 24 of 2016, regulated products must meet MEPS requirements of Australia, New Zealand, or identical, as set out in Column 2 of Schedule 1 and labelling of the regulated products must meet the energy labelling requirements under Column 2 of Schedule 2 under the Act. Before the importation of those regulated products, importers must also register them in **the Vanuatu Electronic Single Window (VeSW)** database and obtain a valid registration certificate from DoE.

The VeSW system for registration and issuance of an import certificate under the MEPSL programme, was officially launched in April 2021. The real-time data of registered appliances are linked directly from the VeSW database to the DoE's website to assist importers to search if appliances have already been registered in Vanuatu.

4.1 Information transfer between VeSW and External Registers

The VeSW Database contains the details of products approved and registered for sale and use in Vanuatu. Prior to entry on the VeSW Database, products may be registered in Australia, Fiji or New Zealand.

Figure 4-1 shows the information flow in the registration process, the relationship between relevant registration databases (e.g., Pacific Appliance Database - PAD[1]), and the key information to be obtained or recorded within each.

[1] Pacific Appliance Database - PAD (http://pad.spc.int/) is an online tool for registering appliances, developed in 2018 under the *Pacific Appliance Labelling and Standards Programme (PALS)*, with funding and oversight from the Commonwealth of Australia, and regional management from the Pacific Community (SPC).

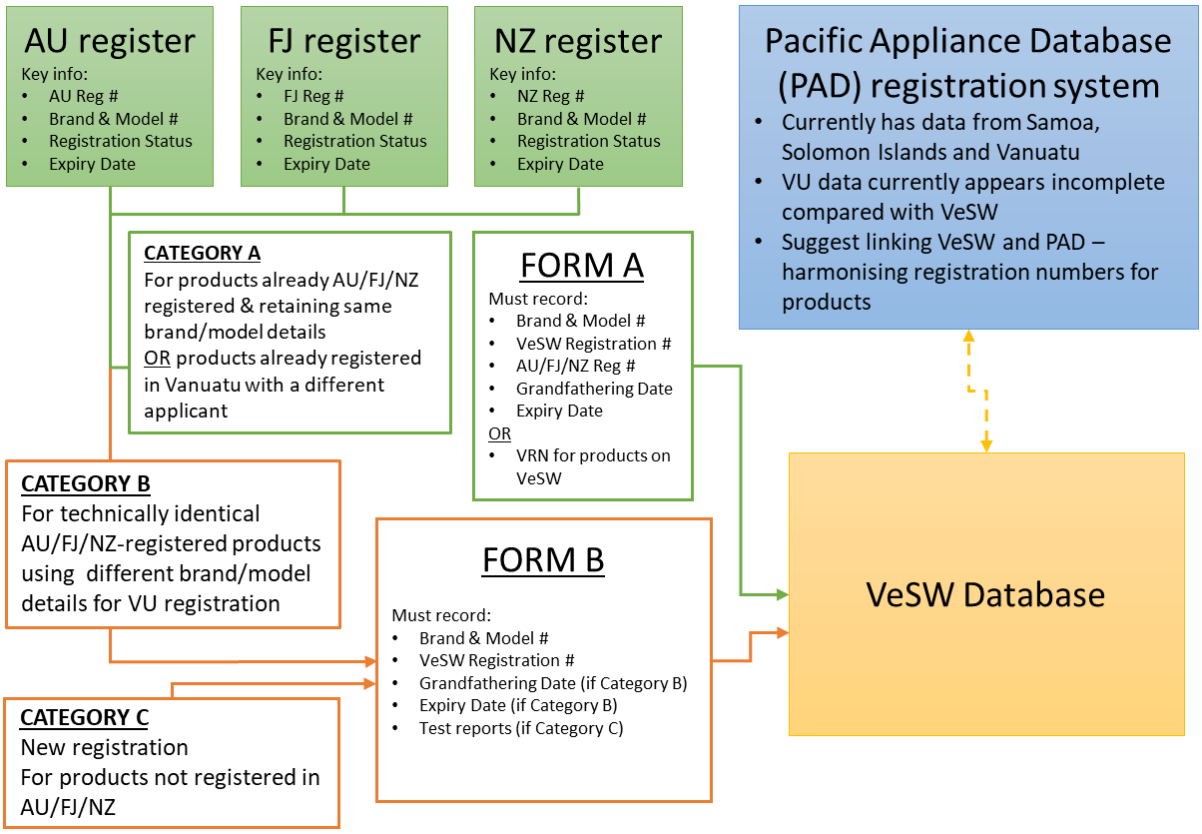

Figure 4-1: Information flow in VeSW registration process

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

- Category B products require additional data input fields to be made available on the database (inputs related to technical detail, such as product efficacy and product lifetime)
- Staff do not have the access required to delete duplicate registrations or modify existing registrations to reflect changes or corrections
- Staff do not have the capacity to flag users, which may be useful for monitoring processes

If Vanuatu government decides to harmonise regulations to the current versions in Australia and New Zealand:

- Category A and B products require the additional data input field of 'grandfather date'

If Vanuatu government decides to maintain current regulations and not to harmonise to the current versions in Australia and New Zealand:

- Require access to registration information on "grandfathered" products in Australia and New Zealand which have been registered under Category A and B products in Vanuatu (Currently these grandfathered products which were registered in Australia are removed from the public pages of the Energy Rating website at the end of the grandfathering period, and therefore cannot be verified beyond this date as previously registered for Vanuatu's purposes.)

Several of these issues stem from a lack of direct access for DoE staff to maintain the data held in the database. The ability for DoE staff to directly manage and maintain product registrations is essential for effective and efficient processing.

Recommendation:

It is strongly recommended that DoE staff be provided direct access to maintain the Vanuatu product registration database. Additionally, some further data input fields are required for Category A and Category B products registered on this database.

N.B. This recommendation may be implemented through changes to the current product registration database, or by adoption of the PAD (see 4.1.1 below).

4.1.1 Linking to the SPC Registration System

The Secretariat of the Pacific Community (SPC) has developed a regional PAD Registration system: https://pad.spc.int/pad-registrations-public. It aims to help the Pacific Island Countries (PICs) with limited resources to administer the registration system and benefit the country by accessing information on the EE of appliances, which could confirm that the product has previously been determined as in compliance with MEPS regulations entering the market. Public users can check the list of models registered in the PICs linked to the PAD.

Currently it has data from Samoa, Solomon Islands and Vanuatu. The Vanuatu data appears to be incomplete (not up to date) when compared to the VeSW system: https://singlewindow.gov.vu/portal/services/swApprovedAppliances/appliances.jsf

In addition to incomplete data, the PAD Registration numbers do not match those of the VeSW.

Recommendation:

It is recommended to resolve this situation by either linking the VeSW and PAD databases and harmonising the Registration numbers for products, or otherwise removing Vanuatu data from SPC PAD system entirely.

4.2 Key Data Checkpoints for Forms A & B

In initial review, hard copy versions of forms A and B were used – these forms are now available in online submission format but remain substantially the same in content. Upon receiving submissions of forms, A and B, where there is information transferred from external registration databases, there are several confirmations that should be made by the DoE administrator.

4.2.1 Application with Form A

- Check the *energyrating.gov.au* product registration system (https://reg.energyrating.gov.au/comparator/product_types/) for confirmation of status as AU/FJ/NZ approved

  - Must not be expired nor superseded.
  - Must not have passed any grandfather date
  - Must have same brand and model submitted for VU registration
- Confirm all details on Form A with AU/FJ/NZ database entry

4.2.2 Application with Form B

- If product is technically identical to registered product in AU/ FJ/NZ product registration system:
  - Check and confirm claimed quantities are the same as for the claimed identical brand/model on the energyrating.gov.au database
  - Must not be expired nor superseded.
  - Must not have passed any grandfather date
- Otherwise,
  - confirm test report states test method is the relevant AS/NZS test method
  - check for existence of the test laboratory by:
    1. searching for the Test laboratory website and checking offered testing services, or
    2. searching on the ILAC website (https://ilac.org/signatory-search/) for relevant national accreditation body link and then searching for the test laboratory entry and checking the listed accredited test methods

4.2.3 Managing Registration Data Checkpoints

Lighting products in Category A are currently manually cross-referenced with the same model on the Energy Rating register at this administrative step in certificate approval. However, there are issues identified with this current process.

As an example, import certificates were issued in 2020 for several Category A products (see Table 4-1) but, at the time of preparing this report, these products cannot be found on the Energy Rating register. Some may have already expired, exceeded a grandfather date when registered in Australia or have been superseded, which is discussed in detail in section 4.3 of this report.

Table 4-1: "Category A" Products that are not Currently Registered in External Registration Databases

PRODUCT TYPE	BRAND	MODEL	CATEGORY
Linear Fluorescent	MAZDA	36W FL	A
Linear Fluorescent	MAZDA	18W FL	A
Compact Fluorescent	LDXBZ	20W FL	A
Linear Fluorescent	MAZDA	18W FL	A
Compact Fluorescent	JTNAIO/MAZDA	20W FL - B	A
Compact Fluorescent	JTNAIO/MAZDA	20W FL - E	A
Linear Fluorescent	Philips	TLS 35W	A
Linear Fluorescent	Philips	TLD 36W	A
Linear Fluorescent	Sylvania	T5 14W	A

To overcome this issue, when an application (via Form A pathway) for registration of a model in Vanuatu is processed for the primary applicant, the administrator must be vigilant in confirming that the brand and model details in the Vanuatu application for product registration are identical to the

Energy Rating register. Also, the administrator should conduct a periodic review of the Energy Rating register for grandfathering dates and superseded model status that have occurred since the original application. This will ensure the traceability of a product's registration credentials and maintain the integrity of MV&E procedures.

Recommendation:

To ensure the registration data checkpoint process is consistent, we suggest some revisions to the Standard Operating Procedure (SOP) document to make it a simpler reference tool for each of the different, individual users.

4.3 Application for, and Validity of, an Import Certificate

4.3.1 Application for an Import Certificate

An import certificate is issued upon validation of registration of the product (identified by its brand/model) in Vanuatu (i.e., it has a VRN). The date of expiry on the certificate for the model is to be 3 years from the issue date of the certificate (Regulation Order No 126, subclause 5(3)). Although the date of expiry could be less than 3 years due to the following: "If the registration of a model relies on its prior registration in Australia, New Zealand of Fiji, the date of expiry of registration in Vanuatu is to be the date of expiry of the registration in the relevant country" (Regulation Order No 126, subclause 5(4)).

Recommendation:

Note that the current wording of these subclauses suggest that the expiry could also be longer than 3 years. Registration in Australia is for 5 years, while registration in New Zealand does not expire! This should be clarified and articulated in documentation as to whether an import certificate expiry can be longer than 3 years.

4.3.2 Validity of an Import Certificate

An import certificate for a product contains the expiry date for registration of the model. The termination of a model's registration can occur through four mechanisms:

- The registration expiry date has passed
- The grandfather date has passed
- The product has been superseded (initiated by the supplier)
- The regulator has terminated the registration.

Grandfathering occurs where a revision of the MEPS causes a product to no longer be compliant (due to an increased performance requirement). The "Grandfather date" for a model is then the date after which it can be sold in the country (i.e., Vanuatu), if already present, but can no longer be manufactured or **imported**. Situations may arise where prior to the date of expiry of an import certificate for a model, a subsequent review of the MEPS renders the model no longer compliant, and

a grandfather date is set which is earlier than the expiry date on the certificate. In these situations, the holder of the certificate should be notified, and the import certificate revoked (cancelled) if the grandfather date has passed or a revised certificate with a new expiry date aligning with the impending grandfather date.

A review of recent import certificate applications has identified several situations where either the grandfather date has not been identified by the administrator as preceding the registration expiry date (if one exists) or has come into effect after the certificate may have been issued.

As can be seen below from Import Certificate applications from 2021 and 2022 (Table 4-2 and Table 4-3, respectively) there are several refrigerator and/or freezer products which have received import approval but have surpassed the "Grandfather date" on the Energy Rating database.

N.B. Those models highlighted in orange require further investigation into whether the import approval date was prior to 15/08/2021. Even so the import certificate should now be cancelled.

Table 4-2: 2021 Import Applications

PRODUCT TYPE	BRAND	MODEL	CATEGORY	Importer	Expiry Date	Grandfather date
Freezer	Fisher & Paykel	C270	A		No expiry	31/03/2010
Refrigerator/Freezer	Fisher & Paykel	P120	A	Ruby/RSE	No expiry	31/03/2010
Refrigerator/Freezer	Fisher & Paykel	C190	A	Rita/RSE	No expiry	31/03/2010
Refrigerator/Freezer	HELLER	HFF459W	A	Port Vila Hardware	Oct-2024	15/08/2021
Refrigerator/Freezer	Hitachi	R-V445PT8	A	Fung Kuei	Oct-2024	15/08/2021
Refrigerator/Freezer	Samsung	SRS656MBFH4	A		Apr-2025	15/08/2021
Refrigerator/Freezer	Samsung	SRS692NMB	A		Jan-2024	15/08/2021
Refrigerator/Freezer	Samsung	SRF671BFH2	A	Paul Phelan	Jul-2026	15/08/2021

Table 4-3: 2022 Import Applications

PRODUCT TYPE	BRAND	MODEL	CATEGORY	IMPORTER	Expiry date	Grandfather date
Refrigerator/Freezer	Euromaid	ETM512BKS	A	Church of Christ	Aug-2025	15/08/2021
Refrigerator/Freezer	Fisher & Paykel	E402B	A	Mariana Moore	No expiry	15/08/2021
Refrigerator	Fisher & Paykel	HS160	A	Samson/RSE	No expiry	15/08/2021
Refrigerator/Freezer	Heller	BFH129	A	Church of Christ	Apr-2024	15/08/2021

Part of the identified problem is that the Applicant (and the DoE administrator) may not have been aware that these products were not eligible for an import certificate application as the only information required to be provided on Forms A and B (Application for Certificate of Registration) in relation to the currency of a product's registration is the expiry date. As can be seen in the tables there is either no expiry date (NZ registration) or it is yet to be reached (AU registration).

A search of the Energy Rating register also identifies some Category A products registered in Vanuatu which are no longer on the Energy Rating register (presumed either expired or removed for non-compliance or superseded). An example is shown in Table 4-4 of one model of refrigerator/freezer (E3 registration No: ARF1082) for which Import Certificates were issued in 2019, 2020, and 2021.

Table 4-4: Example of Category A refrigerator/freezer, no longer on Energy Star register

PRODUCT TYPE	BRAND	MODEL	CATEGORY	Importer	Expiry Date	Grandfather date
Refrigerator/Freezer	Living & Co	LCH145W	A	ALVEA/RSE	no longer of register	no longer of register

To be able to identify which Category A products are listed on current Import Certificates that may have expired or been removed from other countries' registers will require the collection of additional product information at the registration phase and periodic register checks. In particular, additional product performance information will be required of category B and C products in order to search the Vanuatu database for registered products that no longer meet performance criteria (MEPS) in Vanuatu.

No longer being registered in Australia, New Zealand or Fiji any future importing of the product would require classification as a Category C product and registration using Form B. This is on the basis that the product is no longer legally required to be compliant in another country (as it is no longer registered) so Vanuatu regulators should possess test reports verifying the product compliance.

Recommendation:

A process needs to be implemented for updating the Vanuatu register to include information with regard for:

1. Category A products with expired registration in other countries

2. Category B and C products with performance levels (to assess against any updated MEPS)

In some circumstances this will require **changes to the product registration forms** to allow for the collection of product performance data.

The importers holding current Import Certificates for any products that are identified through this process will need to be notified of the change in status of the product and issued with a notice of cancellation of the Import Certificate.

4.4 Deemed to Comply

Section 4 "The Regulation", Clause "Application – Deemed to Comply" of the Standard Operating Procedures (SOP) discusses a "Deemed to Comply" provision which it states is referenced from Regulation No 126, Clause 2, Application. The SOP, Chapter 4 (page 20) states "deemed-to-comply" status applies to:

1. Tungsten halogen lamps
2. Linear fluorescent lamps with diameter ≤ 26 mm
3. Compact fluorescent lamps registered on the Energy Rating website (as compliant with AS/NZS 4847)
4. Electronic ballasts for fluorescent lamps

Table 4 in Form B (Application for Certificate of Registration) also contains a note stating "Registration of lighting products is optional, if products meet 'deemed-to-comply' criteria in the Regulation".

Offering a deemed-to-comply provision for certain product categories can have negative outcomes for the implementation and outcomes of the MEPS. These include:

- Backsliding: This suggests that it is possible that deemed-to-comply products which are **actually non-compliant** with the MEPS could be entering the Vanuatu market. There are known brand/models within these products classes that have previously failed verification (check) testing in Australia and New Zealand in the past.
    - Linear fluorescent lamp
        - 2014: 2 models
    - Tungsten halogen lamp
        - 2015: 5 models
        - 2016: 4 models
        - 2020: 12 models
- Market surveillance difficulties: Deemed-to-comply products are not registered – so when they are found in the marketplace, surveillance officers have to determine if the non-registered product is deemed-to-comply or a non-compliant product. This takes time and resources which could be better utilised where determination of registration status is simple.

Harmonising regulation (with recent updates in Australia and New Zealand, as recommended at the conclusion of section 3 of this report) will facilitate the **removal of the deemed-to-comply category**. The following lists how all lamps would be treated, with the removal of this category:

- ✓ Removal of the deemed-to-comply provision for all fluorescent products (compact, linear, circular – T5, T8 and T12 and other shapes/sizes) would mean that all fluorescent lamps (HS code 853931) would now need to meet MEPS. This is essential to ensure that no halophosphor products or products determined as having failed compliance testing in Australia or New Zealand are entering the market.
- ✓ Remove of the deemed-to-comply provision for regulated halogen lamps would mean that allowed halogen lamps (HS code 853921) would now need to meet MEPS – *noting that halogen is expected to be banned in AU/NZ in 2024 or soon after*. Recent check testing in AU found several halogen lamps to fail MEPS. Also, tungsten filament lamps could easily be misrepresented as halogen lamps (HS853921 deliberately or accidentally recorded instead of 853922 – allowing banned products to enter VU). Both situations are reasons to remove deemed-to-comply status from halogen lamps.
- ✓ Most Tungsten Filament lamps (HS code 853922) are BANNED, and therefore should require inspection to determine if exempt from the MEPS.
- ✓ All other lamps, particularly LED (HS code 853952) will remain unregulated – until any regulation is introduced in Australia or New Zealand.

Recommendation:

It is recommended that the Deemed-to-Comply provision is removed from the MSOP and from practice, consistent with harmonisation updates to Vanuatu regulation.

4.5 Modifications to Registration System and Import Application & Declaration Forms

Recommendation:

Separating the capture of product data (product registration) from the application for import certificates (certificate application) into two separate processes, offers the opportunity to simplify the processing of information and support traceability of product registration and import certificate creation. This option should be reviewed by local stakeholders for possible implementation.

These two separate processes would be:

- **Product Registration** – an approval step emphasising product information and cross-checking data with other registration databases for AU, FJ, NZ.
    - As highlighted above, current product registration forms require revision to allow for the collection of product performance data, which will enable proper maintenance of the registry for outdated Category A, B and C products
- **Import Certificate Application** – this step connects the applicant, whether primary or secondary to a product already registered in Vanuatu suitable for import

With this recommended modification, the administrative process flowchart for a potential importer (who is already a registered user of the VeSW) would be as follows:

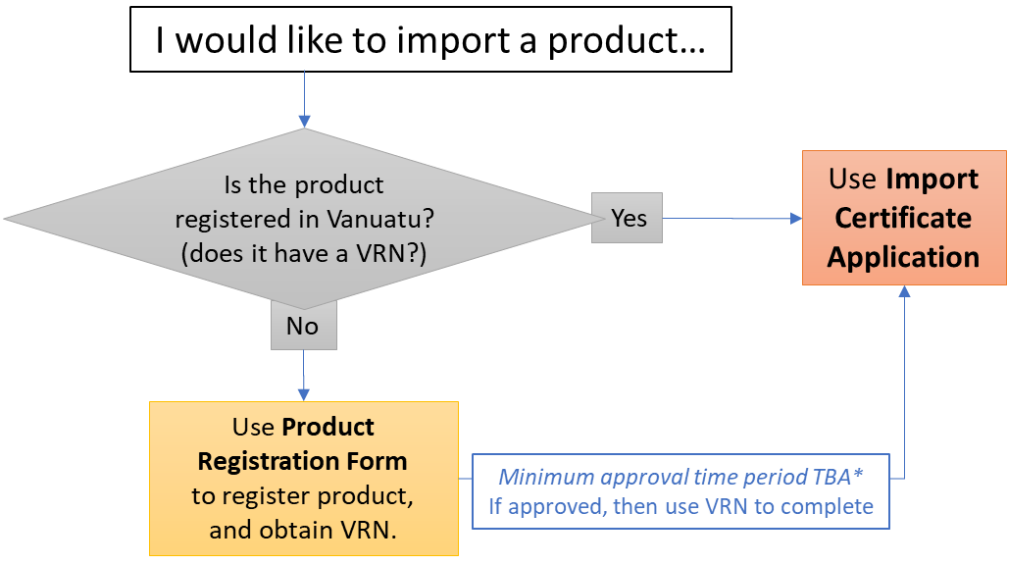

Figure 4-2: Recommended process flowchart for the import of appliances and lighting products in Vanuatu. *The minimum processing time required for product registration approval is to be advised by DoE staff.

This modification offers benefits from an administrative perspective. Feedback from DoE staff indicates that in the current, single-application process, product registrants and import brokers do not submit applications with sufficient lead times for product registration approval. Separating these two processes provides the opportunity to structure processing timeframes clearly for all users. Specifically, a 14-day (or similar) processing period for product registration can be put in place so that it must be undertaken and approved before an import application can be lodged. This would also avoid

the current situation where it is possible to generate multiple VRN's for the same appliance brand/model. This is due to VRNs being generated by the single window (VeSW) at the stage where an application is received for a product registration jointly with an import certificate rather than after it is approved for registration.

This change, (along with any other changes to the product registration process adopted as recommended in this report) should be advertised to stakeholders, particularly import brokers. Import broker training is recommended as part of this process.

Recommendation:

If product registration and import certification processes are separated, it is recommended that reasonable and realistic timeframes are implemented for the completion of each process (in consultation with DoE staff).

Any changes to product registration and import certification application should be communicated through targeted import broker (and other key stakeholder) training.

5 Customs Assessment for Importing Regulated Products

It is apparent that customs agents have immediate online access to data on product registrations and import certificates via the VeSW. This is important as it allows authentication checks to be conducted by officials at the port of entry.

There is an opportunity for other information and documentation that is provided to support the physical checks conducted by customs officials on imported products, both in confirming the product conforms with labelling and that it is consistent with the HS code provided. Review of the Vanuatu lamp imports based on HS codes (data from trademap.org) provides some insight into import activity. These data are summarised in Figure 5-1.

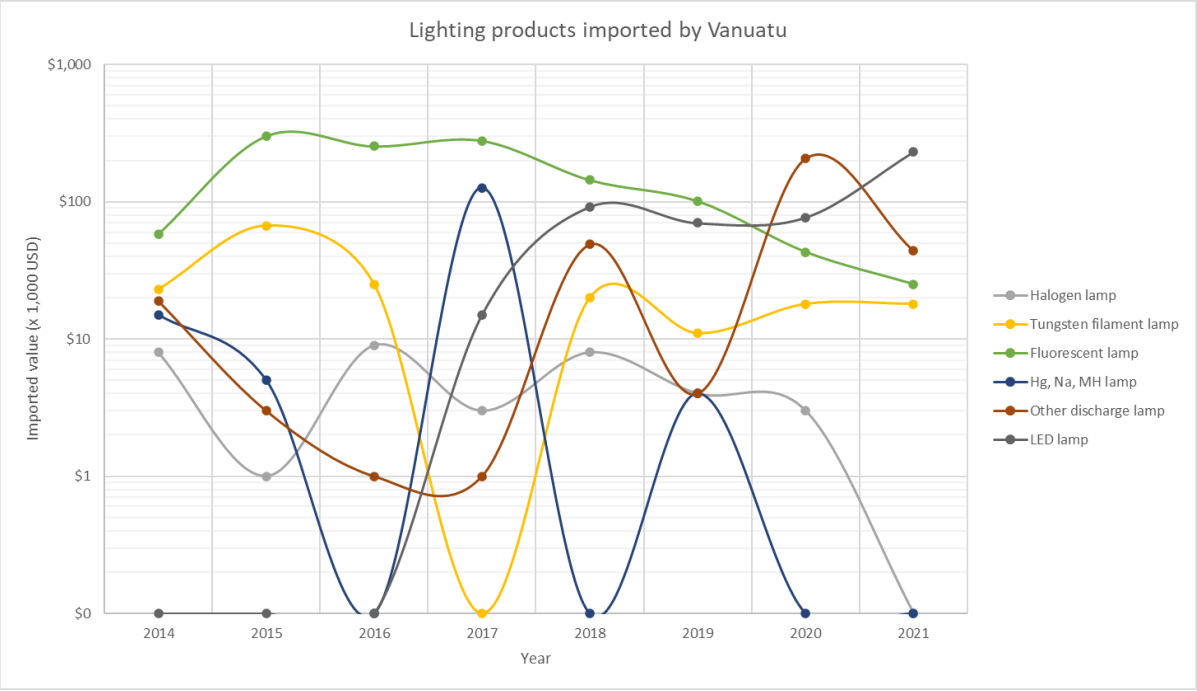

Figure 5-1: Graph of Vanuatu lamp import data by HS code from 2014 - 2021 (Data from trademap.org)

Recommendation:

There appears to be a significant number of tungsten filament lamps (HS code 853922) still being imported into Vanuatu. Also, since the introduction of the MEPS (in 2017) there has been a significant increase in the import of "other discharge lamps", (HS code 853939) peaking at approximately USD200,000 in value. **It is recommended that both matters warrant further investigation.**

Currently there are no national level (statistical or tariff) codes used in the HS codes for MEPS regulated lighting products and appliances in Vanuatu. It is recommended that a simple statistical code structure is adopted for MEPS related lighting products and appliances to assist with distinguishing regulated from unregulated (and banned) products by Customs officers. Preliminary conversations with Customs and DoE staff suggest this is achievable and would require discussion and collaboration between these stakeholders.

A set of proposed Statistical Codes for the regulated lighting, air-conditioner and refrigerator/freezer products are provided below for consideration.

Lighting Products:

6-digit HS Code	Description		Regulated by current MEPS
853921	**Tungsten halogen filament lamps (excluding sealed beam lamp units)**		
	Statistical code	**Description**	
	10	.Rated Power less than 10 W	no
	20	.Aeronautical ground and aircraft lamps	no
	30	.High temperature (oven) lamps	no
	40	.Infrared heat lamps	no
	90	.Other	yes
853922	**Filament lamps of a power <= 200 W and for a voltage > 100 V (excluding tungsten halogen filament lamps and ultraviolet or infra-red lamps)**		
	Statistical code	**Description**	
	10	.Rated Power less than 10 W	no
	20	.Aeronautical ground and aircraft lamps	no
	30	.High temperature (oven) lamps	no
	40	.Infrared heat lamps	no
	90	.Other	yes
853931	**Discharge lamps, fluorescent, hot cathode**		
	Statistical code	**Description**	
	1	*.Compact fluorescent lamp*	
	11	..Self-ballasted	yes
	19	..Other	no
	3	*.Double-capped Linear fluorescent tube*	
	31	..Nominal length not less than 550 mm and no greater than 1500 mm	yes
	39	..Other	no
	90	.Other	no
850410	**Ballasts for discharge lamps or tubes**		
	Statistical code	**Description**	
	10	.Ballasts for fluorescent lamps rated not less than 10 W and no greater than 70 W	yes
	90	.Other	no

Air-conditioner Products:

6-digit HS Code	Description		Regulated by current MEPS
841510	**Window or wall air conditioning machines, self-contained or "split-system"**		
	Statistical code	**Description**	
	10	Close control unit	no
	50	Up to 65 kW cooling capacity	yes
	60	Over 65 kW cooling or heating capacity	no
841581	**Air conditioning machines incorporating a refrigerating unit and a valve for reversal of the cooling-heat cycle "reversible heat pumps" (excluding of a kind used for persons in motor vehicles and self-contained or "split-system" window or wall air conditioning machines)**		
	Statistical code	**Description**	
	10	Close control unit	no
	50	Up to 65 kW cooling capacity	yes
	60	Over 65 kW cooling or heating capacity	no
841582	**Air conditioning machines incorporating a refrigerating unit but without a valve for reversal of the cooling-heat cycle (excluding of a kind used for persons in motor vehicles, and self-contained or "split-system" window or wall air conditioning machines)**		
	Statistical code	**Description**	
	10	Close control unit	no
	50	Up to 65 kW cooling capacity	yes
	60	Over 65 kW cooling or heating capacity	no

Refrigerator/freezer products:

6-digit HS Code	Description		Regulated by current MEPS
841810	**Combined refrigerator-freezers, with separate external doors or drawers, or combinations thereof**		
	Statistical code	**Description**	
	10	Single phase power supply	yes
	20	3-phase power supply	no
	90	Other	no
841821	**Household refrigerators, compression-type**		
	Statistical code	**Description**	
	10	Single phase power supply	yes
	20	3-phase power supply	no
	90	Other	no

Any creation of Vanuatu statistical codes for these products should be firstly be discussed between DoE and Customs officials to confirm that the proposed commodity segregation at Statistical code level meets desired needs of the DoE regulatory team.

Once finalised the new Statistical codes should be communicated through targeted training for import brokers and other system users and staff.

Recommendation:

It is recommended that national-level, statistical HS codes are considered for easy identification of regulated, unregulated and banned appliances.

Any changes to HS codes for lighting products and appliances should be communicated through targeted stakeholder training (including import broker training).

6 MARKET SURVEILLANCE PRACTICES

A combination of a robust registration assessment process and a structured market surveillance at point-of-sale is likely to form the most cost effective and resource efficient monitoring and verification framework for Vanuatu.

6.1 Verification Activities

Verification testing is an expensive process. Without the availability of suitable accredited test facilities locally, verification testing activities would require acquisition of selected models for testing from the Vanuatu market and then shipping to another country for the verification testing at an accredited test facility. The additional costs and extensive transit times to ship the test items are not recommended as the best use of resources allocated to the Vanuatu MV&E program.

Recommendation:

It is therefore recommended that Vanuatu rely on the compliance programs of Australia and New Zealand for verification (check) testing activities. Six monthly updates are generally published by Australia and annually by New Zealand on their testing activities. A timely review of these publicly released findings by the program administrators will be an effective way to monitor any impact on the Vanuatu's market.

The reports from Australia and New Zealand are located at the following links:

- Australia: https://www.energyrating.gov.au/suppliers/compliance/check-testing
- New Zealand: https://www.eeca.govt.nz/insights/eeca-insights/product-testing-results/

Where a model in Australia or New Zealand has been determined as non-compliant with the MEPS and is reported as having its registration cancelled on the Energy Rating register a check needs to be undertaken to ascertain if the model has been registered in Vanuatu. If so, the regulator should:

- Cancel the model's Vanuatu registration
- Notify the primary and secondary registrants of the cancellation
- Issue a cancellation of any current import certificates for the model and update the import certificate list.

6.2 Market Surveillance – Product Labelling

A clear set of Standard Operating Procedures is required for point-of-sale surveillance activities. Effective market surveillance requires remote access to registration database information while on-site. Given the ability to access the VeSW remotely (using a smart device) then surveillance of product labelling comprises:

- Checking retail appliances and products for approved labels
- Checking that each product brand/model has a current VRN
- Checking that the claimed rated information displayed on the retail appliance or product is consistent with information provided to the VN register

6.3 Market Surveillance – Product Registration

A recent market surveillance activity conducted in Vanuatu provided an opportunity to investigate the status of the product registration the recorded lighting products. The products were identified by brand/model, (wattage and other identifying performance details that are sometimes included in the model "text") and then the Vanuatu database was searched for a matching registration.

The following tables present the findings for what appears to be *non-registered* or *banned* lighting products. These findings highlight the need for market surveillance processes, and their potential effectiveness in this subsection of the market.

Note that some of these products may have been assigned as "deemed to comply" (raised as an issue in section 4.4).

Rapid Electric (pictures continue over page)

Photo No	Brand	Model or Description	Lamp type	Status
1	Crompton	40W Plain pearl candle B22	Tungsten filament	Banned
2	OSRAM	60W Classic Pearl fancy round B15d	Tungsten filament	Banned
3	Crompton	60W Pearl fancy round B22	Tungsten filament	Banned
4	Unknown	SFM-T4-18-WW	Linear fluorescent	Not registered
5	Unknown	Unknown	Linear fluorescent	Check if registered
6	Unknown	GSSFT4-DL8 8W	Linear fluorescent	Not registered
7	ExcTcity	T45 9W B22 2700K	Compact fluorescent	Not registered
8	Roylite	9W E/saver ELM twin tube E27	Compact fluorescent	Not registered
8	Roylite	11W E/saver 3U Series WW E27	Compact fluorescent	Not registered
9	OSRAM	DSTAR 14W/827 E27 DuluxS	Compact fluorescent	Not registered
10	OKES	MK-16 R80	Compact fluorescent	Not registered

Photo 1	Photo 2	Photo 3
		

Rapid Electric - Photo 4	**Photo 5**	**Photo 6**
		

Photo 7	Photo 8	Photo 9
		

Photo 10		
		

Vate Electrics

Photo No	Brand	Model or Description	Lamp type	Status
1	Coles	Clear BC 60W	Tungsten filament	Banned
2 & 3	Sylvania	100W BC	Tungsten filament	Banned
4	Black & Gold	Clear 40W	Tungsten filament	Banned
4	Black & Gold	Clear 60W	Tungsten filament	Banned
4	Black & Gold	Clear 75W	Tungsten filament	Banned
5	Sylvania	40W BC	Tungsten filament	Banned
6	Global	N3005-27 20W	Compact fluorescent	Not registered

Photo 1	Photo 2	Photo 3
		
Photo 4	Photo 5	Photo 6
		

Wilco

Photo No	Brand	Model or Description	Lamp type	Status
1 & 2	GE	Tiny spiral cool white B22 12W	Compact fluorescent	Not registered

Photo 1	Photo 2
	

Leon Hardware

Photo No	Brand	Model or Description	Lamp type	Status
1	Philips	Classic Halogen A55 42W E27	Tungsten halogen	Not registered
2	Liper	The Energy Saver T8 36W G13	Linear fluorescent	Not registered

Photo 1	Photo 2
	

7 REVIEW OF STANDARD OPERATING PROCEDURES DOCUMENT

A copy of the Standard Operating Procedures (SOP) or manual for Officers of The Department of Energy Enforcing Regulations on Minimum Energy Performance Standards and Energy Labelling for Appliances & Lighting, (January 2018 version) was provided as part of this review.

The SOP is a substantive document with good operational information for conducting many of the administrative activities. However, the sheer size of the document may present as a daunting challenge (even if unfounded) for any person seeking guidance on a specific activity within their administrative role, firstly having to find the section particular to their role and secondly information on the specific activity.

There are some additions and modifications that have been identified within the SOP, specifically:

- Penalty notices (L5 & L6) require amendment if they are applied to market surveillance action, i.e., directing the recipient to supply a statement that the issue has been rectified
- Adding more specific detail on instore inspections, for example, sampling criteria to consider when selecting a retail store as per training session 9 November 2022[2]
- Adding a procedure for post-instore inspection reporting using an ACTION REPORT template
- Consider adding a list of terms (or glossary) for key words relevant to stakeholders – to be discussed between DoE and Customs staff
- Adding more specific detail on key features in reading test reports for verification of Category B product applications
- Adding detail and procedure on desktop verification procedure for Categories A and B products – reviews of AS/NZ compliance check testing for category A products and authenticity of test reports for category B products as per training session 9 November 2022
- Recommending a firm 14-day processing period for product registration, to be implemented and advertised (to brokers/importers)
- Directions on how to publish surveillance and enforcement actions and outcomes
- Updating SOP for important links

Recommendation:

It is therefore recommended to:

• Separate the SOP document into modules, so that each specific user can quickly and easily access the content they need, e.g.:

◦ Approving product registrations or import certificates for administrative staff

◦ Applying customs processes

◦ Conducting field assessments

◦ Verification review procedures

[2] For more details, please refer to the *Training on Monitoring, Verification, and Enforcement (MV&E)* report, November 2022

• Revise the SOP modules to reflect any agreed procedural changes arising from recommendations in this report.

• Extract necessary and structured data from the SOP document, digitize, and/or make interactive data visualization on the DoE's website

8 PROPOSED MV&E PLAN

This review of MV&E framework provides recommendations for steps and actions to address non-compliant energy efficient lighting products and appliances. A timeline for the implementation of these activities is provided below.

Table 8-1: Proposed MV&E Plan

ACTIVITY	TIMELINE
POLICY AND ADMINISTRATIVE PROCESSES	
Harmonise performance standards and test methods with recognised countries' programs	Agreement by January 2023 Regulation by June 2023
Review and update registration forms to include necessary product performance information	April/May 2023
Update or remove linked Vanuatu data on PAD database	June 2023
Review SOP document for modifications to procedures and to separate content into modules by user group	Begin January 2023, complete with updated and revised procedures by August 2023.
VeSW UPGRADE	
Review the VeSW system for improvement of product registration function and registration data integrity	June 2023
VERIFICATION TESTING PROCEDURES	
Implement verification procedure based on monitoring compliance programs in AU and NZ and/or using shared test results from neighbouring countries or other entities	August 2023
Develop procedures for targeted verification testing where required and test laboratory selection (outsourcing lab testing) to verify the EE of selected products	2024
Implement a pilot verification testing program and evaluate the results for full application deployment	Starting 2024 Full operation on annual basis by 2025
MARKET SURVEILLANCE PROGRAMS	
Investigate relevant EE product imports to identify assignment of HS codes and any improper use.	End of 2023 (to discuss)
Develop statistical HS codes for appliances in Vanuatu to identify regulated, unregulated and banned appliances.	June 2023
Establish a methodology for identification of products selected and purchase for verification processes, allocate staff for verification (Market Surveillance) and implementation	Draft by August 2023 Full operation on annual basis by 2024
Train responsible officers in charge of market surveillance	September 2023
Implement a pilot market surveillance program and evaluate the results for a full application deployment	Starting September 2023 Full operation on annual basis by 2024
COMMUNICATION PROGRAM TO PROMOTE COMPLIANCE ACTIVITIES	
Update DOE's website (enabling consumers to compare the energy efficiency class and other data about different household products)	July 2023 onwards

ACTIVITY	TIMELINE
(*After VeSW UPGRADE and new or updated data is entered into application entry form*)	
Develop and publish annual reports to maintain market transparency and declare non-compliance cases	End of 2023
Design communication plan and develop information materials for all the main stakeholders involved *(e.g., importers/ custom officials – harmonisation updates to Vanuatu regulation; consumers including women and students [high potential for participation that could influence consumers choices] – educating how to compare the energy efficiency class and other data about different household products)*	2023 and on an annual basis for the following years
MV&E PROGRAM REVIEW	
Plan and **implement the evaluation program on MEPS registration and certification process, compliance and impact** (*Must ensure a balance of gender representation in the survey data collection and/or evaluation on gender differentials and perspective for access to, and purchase of high energy efficient appliances etc.*)	2025 and on an annual basis for the following years