

# National Policy Roadmap plan: Plan for Uptake of efficient Refrigerators in Botswana.

FEBRUARY 2022

**PARTNERS**



United Nations  Nations Unies



**AUTHORS**

Angellah Wekongo (Associate-CLASP)

<b>Executive Summary .....</b>	<b>6</b>
<b>1. INTRODUCTION .....</b>	<b>9</b>
1.1. Project Background.....	10
1.2. Structure of the Report.....	10
1.3. Methodology and Approach of the policy roadmap plan.....	10
<b>2. National Standards and MEPS. ....</b>	<b>11</b>
2.1. National Standards .....	12
<b>3. Regulations on Labelling .....</b>	<b>14</b>
3.1. Labelling Approach in Botswana. ....	15
3.2. Labelling Regulation. ....	15
<b>4. Communication Plan &amp; Consumer awareness Plan.....</b>	<b>16</b>
4.1. Communication Plan.....	17
4.2. Consumer Awareness plan.....	17
<b>5. MV&amp;E Framework and Measures .....</b>	<b>20</b>
5.1. Objectives and results of the MV&E Framework .....	21
5.2. Institutional Framework .....	21
5.3. MV&E Implementation for Refrigerators .....	23
<b>6. Overall action Plan and Budget.....</b>	<b>30</b>
6.1. Overall, Action Plan .....	31
6.2. Cost and schedule for the Consumer awareness Campaign. ....	33
<b>7. References.....</b>	<b>35</b>

## LIST OF FIGURES

FIGURE 1: PROPOSED BOTSWANA IMPORT & CONFORMITY ASSESSMENT PROCESSES FOR REFRIGERATORS .....	24
FIGURE 2: CHECK TESTING PROCESS FOR REFRIGERATORS.....	28

## LIST OF TABLES

TABLE 1: REFRIGERATOR S&L ACTIVITIES .....	6
TABLE 2: MINIMUM R REQUIREMENTS FOR REFRIGERATING APPLIANCES.....	12
TABLE 2: NATIONAL STANDARD ADOPTION.....	13
TABLE 4: LABELING REQUIREMENTS FOR REFRIGERATING APPLIANCES .....	15
TABLE 5: MEDIA TOOLKIT FOR CONSUMER AWARENESS.....	18
TABLE 6: REFRIGERATOR S&L ACTIVITIES .....	31
TABLE 7: COST ESTIMATES OF VARIOUS MEDIA OPTIONS.....	33

CLASP makes no representations or warranties implied. The work presented in this report represents our best efforts and judgements based on the information available at the time this report was prepared. CLASP is not responsible for the reader's use of, or reliance upon the report, nor any decisions based on this report. Readers of the report are advised that they assume all liabilities incurred by them, or third parties, as a result of their reliance on the report, or the data, information, findings and opinions contained in the report.

#### Abbreviations & Acronyms

AEC	Annual Energy consumption
CoC	Certificate of Conformity
CTCN	Climate Technology Centre and Network
BERA	Botswana Energy Regulator Authority
BOBS	Botswana Bureau of Standard
BURS	Botswana Unified Revenue Service
DOE	Department of Energy
EAC	East African Community
EE	Energy Efficiency
EPRA	Energy and Petroleum Regulatory Authority
EU	European Union
GHG	Green House Gases
GIB	Green Issues Botswana
GWP	Global warming potential
ISO	International Standards Organization
MEPS	Minimum Energy Performance Standards
MVE	Monitoring, verification and enforcement
NEES	National Energy Efficiency Strategy
NRCS	National Regulator for Compulsory Specifications
ODP	Ozone depletion potential
PVoC	Pre-Export Verification of Conformity
PRS	Product Registration System
RSMS	Retail Store Market Surveillance
S&L	Standards and Labelling
SA	South Africa
SADC	Southern African Development Community
TWh	Terrawatt hours
U4E	United for Efficiency
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

## Executive Summary

The main objective of this national roadmap plan is to briefly discuss the testing standards, MEPS, and labelling requirements proposed and how they should be adopted. It also lays out the consumer awareness, monitoring, verification, and enforcement (MV & E), the different agencies that will be the lead in adoption and implementation of the different components, and finally, the approximate funds and how to get the funds to make sure that the different components of the S & L program are well implemented.

This report is based on the Botswana Market Assessment Report, which provides evidence for Botswana to adopt an S & L program for refrigerators; the report on National labelling scheme and consumer awareness plan for refrigerators in Botswana, which reviews the labelling options for refrigerators to inform an appropriate national energy labelling scheme for refrigerators to complement the adoption of MEPS and the design of a consumer awareness campaign for the refrigerator label; the report on the development of MEPS monitoring, verification, and enforcement frameworks for refrigerators and distribution transformers, which provides ways of implementation of the S&L program, including different funding options for the implementation; PWG meetings; stakeholder trainings in Botswana; and any direct discussions with the government stakeholders in Botswana.

The table below summarizes the different activities to be implemented and their respective government lead agencies. It indicates the different action points to be undertaken by the different government agencies to see through the success of the refrigerator S&L program.

TABLE 1: REFRIGERATOR S&L ACTIVITIES

Components	Activities	Lead Agency	Internal Support
The National Standards	Finalizations of the adoption process of the IEC 62552:2015 parts 1, 2 and 3 until it becomes the national standard.	BOBS	BERA and DOE
	Adoption of the regionally harmonized refrigerator MEPS to become Botswana's MEPS.	BOBS	BERA and DOE
Labelling	Presentation of the mock label designs to consumers during focus group discussions of the different segments to test for comprehension and motivation to use the labels and finalization of the design label.	BERA	BOBS and DOE
Communication to the Public	Communication on the effective date of the national test standard, MEPS and Labels (S&L Program). This can be done through channels such as public gazettelement, radio, and public television channels. The government should give a six-month allowance before the mandatory implementation comes into effect to allow the importers to prepare enough to adhere to these new standards and labels.	BOBS, BERA and DOE	BURS
Consumer awareness Campaign.	The consumer awareness campaign which aims at publicizing the refrigerator label, empowering consumers to make informed purchasing decisions and driving them towards high-efficiency products, empowering importers, retailers, government agencies, and any other stakeholder.	BERA	BOBS, DOE, BPC, and other relevant partner stakeholder as described in the consumer awareness report
MV&E Framework	<p><b>Testing</b></p> <ul style="list-style-type: none"> <li>Securing testing services using third-party test laboratories</li> <li>Procuring all refrigerator models selected for verification testing</li> <li>Developing and maintaining test report templates</li> <li>Monitoring test laboratories so as to ensure adherence to prescribed test procedures and established quality assurance or quality control programmes.</li> <li>Approving laboratory test reports</li> </ul>	DOE	BERA and BOBS

	<ul style="list-style-type: none"> <li>Communicating to the importers and manufactures on the selected accredited laboratory and the test report templates.</li> </ul>		
	<p><b>PVOC</b></p> <ul style="list-style-type: none"> <li>Developing Botswana's Pre-Export Verification of Conformity (PVoC) Programme,</li> </ul>	BOBS	BERA, DOE and BURS
	<p><b>Certification</b></p> <ul style="list-style-type: none"> <li>Approving laboratory test reports.</li> <li>Enforcement actions including those resulting from the DOE's verification programme</li> <li>Maintain accreditation as per the MEPS requirements</li> <li>Certify product performance according to Botswana's MEPS.</li> <li>Issuance of the energy labels.</li> </ul>	BERA	DOE and BOBS
	<p><b>Entry at the Customs</b></p> <ul style="list-style-type: none"> <li>Verification of paperwork</li> <li>Checking for mislabeling, this include inspection and analyzing the goods in question if the shipment papers are suspect or incomplete information is provided.</li> <li>Examination and seizure of disqualified products labelled as compliant with the Botswana's refrigerator MEPS</li> </ul>	BURS	BOBS and BERA
	<p><b>Market Surveillance</b></p> <ul style="list-style-type: none"> <li>Market Surveillance including creation of the market surveillance team, funding of the activity and the actual conducting of the market surveillance.</li> </ul>	BERA	DOE and BOBS
	<p><b>Check Testing</b></p> <ul style="list-style-type: none"> <li>The selection and testing of a product in the market to verify through laboratory testing among other methods that refrigerators offered for supply in Botswana meet the MEPS level requirements and the energy efficiency claims for manufacturers and suppliers.</li> </ul>	BOBS	BERA and DOE
Industry Compliance	<ul style="list-style-type: none"> <li>Submission of product for testing in an accredited laboratory</li> <li>Payment of application fees for certification and labels to BERA</li> <li>Preparation of Payment slips, test report and test certificate</li> <li>Application for labels and submission of reports and certificate to BERA for approval</li> <li>Submission of registration certificate to PVOC company while applying for COC</li> </ul>	Manufactures and Importers	

	<ul style="list-style-type: none"><li>• Fixation of the labels on the refrigerator</li><li>• Importation of certified products.</li><li>• Payment of penalties and fines as may be described by BERA in case of non-compliance.</li></ul>		
	<ul style="list-style-type: none"><li>• Selling only certified and well labeled product</li><li>• Payment of penalties and fines as may be described by BERA in case of non-compliance.</li></ul>	Retailers, wholesalers etc	

# 1. INTRODUCTION

### 1.1. Project Background

The project 'Leapfrogging to Energy Efficient Appliances and Equipment in Botswana (Refrigerators and Distribution Transformers)' through regulatory and financing mechanisms will result in Botswana having a regulatory framework, agreed MEPS and labelling scheme for refrigerators and distribution transformers. CLASP was contracted as implementing Network partner by UNEP through the Climate Technology Centre and Network (CTCN) as implementing institution and United for Efficiency (U4E) as a technical partner of the project.

The main objectives of this project are to:

- Develop mandatory minimum energy performance standards and labeling schemes
- Create a national policy roadmap and enabling environment for the implementation of standards and labels
- Propose appropriate financing mechanisms to accelerate deployment of energy efficient refrigerators and distribution transformers; and
- Strengthen the national capacity to develop standards and labels for other appliances in future.

### 1.2. Structure of the Report

The 'Executive Summary' of the report is provided in the beginning of the report. The body of the report is divided into six chapters which are then followed by References: A summary of what is covered in the Chapters is presented below.

- **Chapter 1:** Introduces the project background, the structure of the report, the methodology used, and what the roadmap entails.
- **Chapter 2:** Provides information on the national test standards and the minimum energy performance standards to be adopted in Botswana.
- **Chapter 3:** Provides information on the labeling approach to be adopted in Botswana and the labelling regulation.
- **Chapter 4:** Provides information on the communication plan and the consumer awareness plan to be used in Botswana once the standards and the labels have been adopted.
- **Chapter 5:** Provides the MV&E frameworks and measures to be used when implementing the refrigerator S&L program.
- **Chapter 6:** Provides the summary of the overall action plan and the budget.

### 1.3. Methodology and Approach of the policy roadmap plan

The main objective of this national roadmap plan is to briefly discuss the testing standards, MEPS, and labelling requirements proposed and how they should be adopted. It also lays out the consumer awareness, monitoring, verification, and enforcement (MV & E), the different agencies that will be the lead in adoption and implementation of the different components, and finally, the approximate funds and how to get the funds to make sure that the different components of the S & L program are well implemented.

This report is based on the Botswana Market Assessment Report, which provides evidence for Botswana to adopt an S & L program for refrigerators; the report on National labelling scheme and consumer awareness plan for refrigerators in Botswana, which reviews the labelling options for refrigerators to inform an appropriate national energy labelling scheme for refrigerators to complement the adoption of MEPS and the design of a consumer awareness campaign for the refrigerator label; the report on the development of MEPS monitoring, verification, and enforcement frameworks for refrigerators and distribution transformers, which provides ways of implementation of the S&L program, including different funding options for the implementation; PWG meetings; stakeholder trainings in Botswana; and any direct discussions with the government stakeholders in Botswana.

## 2. National Standards and MEPS.

## 2.1. National Standards

### 2.1.1. TEST STANDARD

Test standards are well-defined protocols (or laboratory test procedures) by which to obtain a sufficiently accurate estimate of the performance of a product in the way it is typically used, or at least a relative ranking of its performance compared to that of other models. Energy performance test standards determine the energy performance of an appliance. The IEC 62552:2015 parts 1, 2 and 3 were identified and proposed as the energy performance test standards to be used in Botswana's refrigerator S&L program. They were then approved by the TC-ref, published for comments and now are in the process of being gazetted as the national standard. BOBS will lead this process until it is finalized. It is therefore strongly recommended that Botswana adopt and use this standard as a mandatory test standard for refrigerators once finalized. The test standard shall be the cornerstone for the Minimum energy performance standard (MEPS). Here is the scope of parts 1, 2, and 3 of the IEC 62552:2015.

**Characteristics and test methods-Part 1: General requirements.** This part defines the scope of the new standard, definitions, instrumentations, test rooms and setting up of refrigerating products.

**Characteristics and Test methods –Part 2: Performance requirements.** This part of IEC 62552 describes the general performance of refrigerating appliances and methods of testing them.

**Characteristics and Test methods-Part 3: Energy consumption and volume-** This part of IEC 62552 describes the methods for the determination of energy consumption characteristics and defines how these can be assembled to estimate energy consumption under different usage and climate conditions. This part of IEC 62552 also defines the determination of volume.

### 2.1.2. MINIMUM ENERGY PERFORMANCE STANDARDS.

Minimum energy performance standards (MEPS) are the cornerstone of market transformation programs, and for refrigerator they are critical not only to establish a minimum threshold that must be met but also to address the quality of the product. CLASP recommends that Botswana continue to participate in and adopt the regionally harmonized refrigerator MEPS that is being developed by the UNEP team for the EAC and SADC countries. This adoption process should be led by the BOBS until the MEPS is adopted as the Botswana standard.

The harmonized standard applies to all refrigerating appliances of the vapor compression type, with a rated volume at or above 10 Liters (L) and at or below 1,500 L, powered by electric mains and offered for sale or installed in any application. The MEPS value in the regional MEPS is defined by the R value. R is a dimensionless metric of the efficiency of the refrigerator which accounts for differences in capacity or other factors by comparing the Maximum annual Energy consumption that is based on the refrigerator and freezer Adjusted volume to the Annual Energy Consumption.

$$R = \text{Maximum Annual Energy consumption (AECMax)} / \text{Annual Energy Consumption (AEC)}$$

Here are the proposed MEPS schedule levels and increases over time for Botswana. This means that BERA should implement the MEPS at R=1 at the start of the S&L program, and later in 2026, the new MEPS should be defined at R=1.25 for the three products as described in Table 2 below.

TABLE 2: MINIMUM R REQUIREMENTS FOR REFRIGERATING APPLIANCES

Category	R (2022)	R (2026)
Refrigerators	1.00	1.25
Refrigerator-Freezers	1.00	1.25
Freezers	1.00	1.25

The table below provides the various activities that fall under the development and adoption of the standards and the different roles for the different agencies. It should, however, be noted that detailed activities for each agency and the implementation will be explained well under the MV & E section and the Overall action plan section

TABLE 3: NATIONAL STANDARD ADOPTION

Activities	Lead Agency	Internal Support
Finalizations of the adoption process of the IEC 62552:2015 parts 1, 2 and 3 until it becomes the national standard	BOBS	BERA and DOE
Adoption of the regionally harmonized refrigerator MEPS to become Botswana's MEPS	BOBS	BERA and DOE

### 3. Regulations on Labelling

### 3.1. Labelling Approach in Botswana.

Labels and standards have been shown to be an effective tool in most cultures and marketplaces thus well-designed MEPS transform markets by eliminating highly toxic or energy inefficient products. Product labelling is designed to inform end-users of the energy consumption levels of allowed products. Energy labels serve to empower consumers to then make informed choices about the appliances they purchase to help them manage their energy bills. Energy-efficiency labels and standards for refrigerating appliances offer a huge opportunity to improve energy efficiency and are especially effective as an energy policy. Amplifying demand for products with higher efficiency will encourage suppliers to introduce more efficient products, which can yield economies of scale and bring down the cost of these products. When implemented well, labelling is one of the most cost-effective energy efficiency policy measures for consumers, industry, and government<sup>1</sup>. In addition to giving information that allows consumers who would be interested to purchase more efficient models, labels also provide a common energy-efficiency reference that makes it easier for utility companies and government energy-conservation agencies to offer consumers incentives to buy energy-efficient products.

The consultant teams, CLASP and GIB, presented the proposed approach to the PWG of Botswana on the way forward for the labelling. The PWG accepted the proposed approach. The following labeling classes are to be used in Botswana where the ranges represent the value of R, a constant measuring efficiency as defined in the MEPS. The labelling options are a direct adoption of the proposed regional labelling which is being developed by the UNEP team. This labeling option is to be used in conjunction with the proposed MEPS and should be mandatory for importers.

TABLE 4: LABELING REQUIREMENTS FOR REFRIGERATING APPLIANCES

Category	Low	Intermediate 1	Intermediate 2	High
Refrigerators	$1.00 \leq R < 1.25$	$1.25 \leq R < 1.50$	$1.50 \leq R < 1.75$	$1.75 \leq R$
Refrigerator-Freezers	$1.00 \leq R < 1.25$	$1.25 \leq R < 1.50$	$1.50 \leq R < 1.75$	$1.75 \leq R$
Freezers	$1.00 \leq R < 1.25$	$1.25 \leq R < 1.50$	$1.50 \leq R < 1.75$	$1.75 \leq R$

To represent above on the visual label, The ranges proposed are to be used.

- E = 1.00 (MEPS)
- D = 1.00 – 1.25
- C = 1.25 – 1.50
- B = 1.50 – 1.75
- A = >1.75 (HEPS)

### 3.2. Labelling Regulation.

The experience from other countries indicates that an area of possible resistance from manufacturers relates to printing of Energy Efficient labels that are not standardized in size across appliances. To address this issue, the proposed label is recommended to be of similar dimensions across appliance types but also to have the same number of bars across the various appliances.

Additionally, government ownership was considered more objective and in the greater interest of all rather than being biased. The credibility of the Energy Efficiency label increased with promotion thereof by government to raise greater awareness. The importer, product retailer, or installer or a direct user shall make sure that the label is fixed on the refrigerating appliance before the product enters the market. The label shall be affixed on the product in a location that is **readily visible** for the consumer.

The label shall indicate:

- 1) Model name / number;
- 2) Type of unit;
- 3) Country where the product was manufactured;
- 4) Volume of the different compartments and an indication of whether they are frost-free;
- 5) Rated performance grade;
- 6) Yearly energy consumption in kWh at ambient temperature in °C or °F;
- 7) Reference ambient temperature[s] used in performance rating;
- 8) Refrigerant and foam-blowing designation in accordance with ISO 817 or ASHRAE 34, including ODP and GWP.

All representations of energy performance shall indicate that the performance rating is an indicative value, and not representative of actual annual energy consumption in all situations.

<sup>1</sup> UAE Policy Guide: <https://united4efficiency.org/resources/model-regulation-guidelines-for-energy-efficient-and-climate-friendly-refrigerating-appliances/> (Accessed 10 December, 2021)

## 4. Communication Plan & Consumer awareness Plan

#### 4.1. Communication Plan

After the process of adoption of both the national standards, MEPS, and the labels has been finalized, and the country is ready for implementation, both BOBS and BERA should communicate this to the importers. This can be done through channels such as public gazette, radio, and public television channels. The government should give a six-month allowance before the mandatory implementation comes into effect to allow the importers to prepare enough to adhere to these new standards and labels.

#### 4.2. Consumer Awareness plan.

Consumer awareness campaigns support national strategies to promote energy-efficient refrigerators through MEPS and labels. In addition to these, changes in end user behavior can also contribute to energy savings, by making end users more “energy aware” through communication and education programmes<sup>2</sup>. Changes in energy conservation, through awareness and behaviour changes all contribute to the overall energy savings.

This section gives various steps that the Government of Botswana through BERA should take to conduct a consumer awareness campaign on the refrigerator label. The campaign should focus on publicizing the refrigerator label, as well as establish brand recognition around energy efficiency labels for subsequent campaigns. Based on the findings from the comprehensive and characterization of the refrigerating appliances in Botswana, a consumer awareness campaign is proposed to sensitize consumers on the importance of purchasing energy-efficient refrigerators. The campaign should incorporate messaging about the cost savings of purchasing higher-efficiency products, despite the slightly higher upfront product costs. The campaign should also include webinars or online training for retailers to ensure that salespeople are equipped to educate customers on label usage.

The key campaign messaging or catch phrase could be an adaptation of any of the following and could also be translated to local languages:

- *‘Go Green, Save More’*
- *‘The greener the label, the more the savings’*
- *‘Eco friendly=wallet friendly’*
- *‘Go Green, Be A-Rated’*

This targeted messaging is aimed to encourage consumers to buy products that are labeled A or are dark green in colour (symbolizing the highest levels of energy efficiency) to reap long-term financial and energy savings.

#### Communication Tools/Channels to use:

The most common channels of communication for awareness campaigns include broadcast media, roadshows print, and/or social media channels. Due to COVID 19, physical roadshows –which are the most common channel for carrying out consumer awareness campaigns, - would not be ideal, therefore CLASP recommends using digital, broadcast, and print media to carry out this awareness campaign.

In the Botswana context, the public government sources are trusted. Therefore, it’s easier to convince customers to buy energy-efficient refrigerators if government channels are used. Thus, we recommend:

- Traditional Media
  - Radios – 85% of the Botswana population has access to the national (government-owned) radio. The 3 national privately-owned radios listenership is unclear. Broadcast dominated by state-owned BTV. Hosting informative shows and placing advertisements there is one of the surest ways to reach many consumers.
  - Newspapers and Television–These will allow for the visual explanation of what an energy-efficient label looks like and guide customers on what to look for. However, while ideal, radios should be considered first as they have an 85% listenership.
- Social Media Channels – As of January 2021, Botswana had approximately 1.2 million registered social media users with a 47.0% internet access. The most common channels used were Facebook (48.8%) and Twitter (11.7%). The number of social media users in Botswana was equivalent to 50.5% of the total population in January 2021. The most common social media channels used in Botswana are:
  - Facebook - As of December 2021, there were over 1.2 million Facebook users from Botswana. This accounted for 48.8% of its entire population. Of the 1.2 million users, 50.4% were women while people aged 25 to 34 were the largest user group. Therefore, using Facebook could reach almost half the population. To increase the reach, it’s advisable to publish posts from government agencies as they are more trusted. Boosting the posts through paid Facebook advertisements will target and reach more users from Botswana. This (paid advertisement) allows one to narrow down to their age group, gender and even region.
  - WhatsApp Messenger – One of the most common channels of communication used across all age groups in Botswana. Therefore, it’s advisable to create short, targeted messages that can be distributed through WhatsApp messenger. However, this will involve working through local telcos which may be more expensive.

<sup>2</sup> UAE Policy Guide

- Working with MPs-- Legislators hold quarterly briefings with their constituents to update them on the development projects they are working on. As they are part of the government and therefore a trusted source, it is advisable to involve them in this campaign. The campaign could hold meetings with them to inform them on how energy-efficient labels can benefit their constituents and bring them on board as ambassadors of energy-efficient products. With their influence, they would be an important channel advocating, educating, and pushing for the adoption of energy-efficient products at the consumer level.
- Working through retailers and shops- This involves placing print advertisements, in targeted shops and with graphics and easy-to-understand messages. This will increase the reach of the information to 'local consumers.

**Language:**

The official languages of Botswana are English and Tswana. English is used for official business and most written communication while Tswana, the language of the Tswana people—Setswana—is the country's national language and is spoken by most of the population. In 2013, the adult literacy rate for Botswana was already at 86.82 %. For effective communication, we advise that the campaign uses both English and Tswana to ensure as many consumers as possible have been reached.

**Duration and Messaging:**

Consumer awareness campaigns can run anywhere from 1 month to a year. The duration varies based on the targeted audience, channels used, and geographical target. Other factors that influence the duration of a campaign include pre-campaign activities such as consumer research and message testing. In the case of Botswana, BERA should implement the campaign for at least a duration of 4 months.

Message testing is the process of testing out different versions of your awareness raising messages to better understand your audience, as well as which messages, and channels are the most effective. In the Consumer Awareness Campaign for Energy Labels, it would be ideal to identify

- If the target audience can relate to the campaign messages
- If the messages are clear and the language and words used are easy to understand
- If the audience can easily interpret the graphics

It is worth noting that different messaging would be required for retailers and distributors versus consumers. Some examples of key areas to cover for these key groups are:

For retailers:

- Webinars introducing Energy Labels
- Webinars on the importance of energy-efficient products
- Product Specific Messaging in Brochures for them to use when explaining to consumers
- Benefits of an energy-efficient refrigerator

For consumers

- What are Energy Labels and how can consumers know labeled products and how can they use them to compare efficiency? (What to look for)
- Benefits of an energy-efficient refrigerator
- Product Specific Messaging e.g. payback period and long-term cost savings

**Approach:**

For a campaign to be successful, it is crucial for BERA to have implementing partners across the various sectors. This includes:

- Government Partners- Including Ministry of Energy, Botswana Power Corporation, Members of Parliament
- Brand ambassadors – Celebrated public figures such as athletes or artists
- Retail shops and outlets that sell refrigerators

To aid in having consistent messaging, it would be beneficial to create a toolkit to share with partners to disseminate on the suggested channels below. The toolkit shared with partners should have the information contained in Table 5 below:

TABLE 5: MEDIA TOOLKIT FOR CONSUMER AWARENESS

Social Media Toolkit	Radio	Retailer Brochures
----------------------	-------	--------------------

<p>Hashtags to use</p> <p>Accounts to tag/direct for questions</p> <p>Images and easy to understand text</p> <p>Brand and Identity guidelines (guiding the partners on how to use the toolkit)</p> <p>Short Videos explaining:</p> <ul style="list-style-type: none"> <li>-what is an energy label</li> <li>-How to know/pick the most energy efficient label</li> <li>-What are the savings/benefits</li> <li>-Testimonials?</li> </ul>	<p>Detailed easy to understand information for sharing/being announced on the radio</p> <p>Statistics for dissemination</p> <p>Benefits</p> <p>Quotes/testimonials</p> <p>Short story –to explain make it relatable?</p> <p>How people can get more information</p>	<p>Short description of what Energy Label</p> <p>Benefits of energy efficient - Cost savings (simple and easy to understand)</p> <p>refrigerators</p> <p>How to know and choose energy label products</p> <p>How to get in touch for more information</p>
--	---	---

## 5. MV&E Framework and Measures

### 5.1. Objectives and results of the MV&E Framework

Strategic compliance programmes are critical to safeguarding energy savings, CO<sub>2</sub> emissions reductions, and other benefits accrued from appliance S&L programme. A holistic compliance framework enhances the credibility of government energy efficiency programmes, protects consumers, and creates a fair playing field for suppliers of energy-efficient and quality products.

Therefore, ensuring compliance is necessary for the realization of Botswana's energy efficiency, climate change and other related goals. In addition to broadening the scope of S&L programmes to cover more product categories, programme outcomes can be significantly increased at the implementation level. This includes making the selection criteria progressively more stringent and ensuring that set thresholds are adhered to.

The overall objective of the MEPS MV&E framework is to safeguard energy savings of Botswana's S&L programme by ensuring that the targeted products meet the specified standards and labeling requirements.

The following are the expected results

- Increased stakeholder support for S&L programmes
- Improved compliance rates among market players
- Consumer confidence and increased purchases of energy efficient products
- Increased investments and sales in the energy efficient market
- Overall increase in the country's energy savings
- MV&E information and knowledge used for learning, continuous improvement and evidence-based decision making and policy formulation
- Protecting the domestic market from imports of products with poor energy performance
- Strengthened MEPS accountability system

### 5.2. Institutional Framework

CLASP, the PWG and other government agencies identified the following key agencies that will play a critical role in the refrigerator MV&E implementation.

#### 5.2.1. CUSTOMS AGENCIES

Systematic monitoring of all ports of entry into the country helps to control legal imports and prevent illegal imports of non-compliant products through mislabeling or false documentation. Inspection of imports by dealers known to import for sale or their own use should be mandatory in order to verify compliance with regulations. The energy agency, licensing agency and customs administration should aim for compliance by monitoring imports and exports of controlled substances through border and document checks.

Some of the agencies that will be involved in customs clearance include:

##### 5.2.1.1. BOTSWANA UNIFIED REVENUE SERVICE (BURS)

One of the key agencies involved in customs procedures is the Botswana Unified Revenue Service (BURS). This is the main revenue service agency of the Botswana government and is responsible for tax collection and administration of the BURS Act.

As enforcement officers at the borders and all points of entry for cargo, customs officials are responsible for examining respective documents and cargo. The initial examination is for identification of shipments of appliances and to distinguish between imports of qualified products and disqualified products.

Some of the roles that the customs department should play in effecting the MV&E scheme include:

- Verification of paperwork: Import papers can be verified with supervisors and agents from BURS.

Commented [AW1]: I guess this is BURS as indicated on the import conformity assessment process diagram below.

- Check for mislabeling. Officers should inspect and analyze the goods in question if the shipment papers are suspect or incomplete information is provided
- Examination and seizure of disqualified products labelled as compliant with the Botswana's refrigerator MEPS

Importers are required to check if they are subject to any prohibitions or restrictions for any goods imported into Botswana. The Customs Officials are required to ensure compliance with customs law and other related legislation. Once the MEPS and labelling regulations are adopted, they will form part of the import legislation requiring importers to comply with specific labeling and energy performance requirements of targeted appliances.

#### 5.2.1.2. BOTSWANA BUREAU OF STANDARDS (BOBS)

The Botswana Bureau of Standards (BOBS) is mandated with formulating standards and coordinating quality assurance activities in Botswana. The Botswana Bureau of Standards (BOBS) implemented the Botswana (Import Inspections Regulations) SIIR to assure Botswana consumers of the quality and safety of imported goods and also to facilitate trade. Law and policy prohibit the use of information that could mislead consumers.

'Regulated Products' exported to Botswana that are within the programme require a Certificate of Compliance which verifies, in the respective exporting countries, that the products comply with the applicable Botswana technical regulations and mandatory standards or approved equivalent International/National Standards.

It is therefore expected that BOBS will be at the forefront in developing and effecting refrigerator MEPS. BOBS also plays a critical role in effecting the MV&E scheme by checking imports to ensure that products satisfy standard requirements, it will also be the lead agency in development of the PVOC program.

#### 5.2.2. ENERGY AND ENVIRONMENTAL MINISTRIES.

Government ministries play leading roles in policy development, monitoring and evaluation. Generally, ministries in charge of environment or energy establish the legislative framework and sets out responsibilities, delegating authority on compliance verification and enforcement actions.

##### 5.2.2.1. MINISTRY OF MINERALS AND ENERGY

The MME is the lead policy-making authority of Government of Botswana on all matters pertaining to mining and energy. It coordinates development and operational activities for the whole energy sector. The Department of Energy (DOE) is the lead policy-making authority of Government on all energy supply and demand matters. Other departments of the Ministry are:

- Department of Corporate Services
- Department of Mines
- Mineral Affairs Division
- Diamond Hub
- Projects & Energy Development Unit

The Department of Energy (DOE) is broadly responsible for the following functions.

- To lead policy-making authority of Government on all matters of energy supply and demand management.
- To formulate and coordinate national energy policy and programmes.
- To facilitate the availability of effective, reliable and affordable energy services to customers in an environmentally sustainable manner

In close coordination with BERA and BOBS, the DOE roles in implementing the MV&E scheme would include:

- Securing testing services using third-party test laboratories having appropriate capabilities and accreditations
- Procuring all refrigerator models selected for verification testing
- Developing and maintaining test report templates
- Monitoring test laboratories so as to ensure adherence to prescribed test procedures and established quality assurance or quality control programmes
- Approving laboratory test reports

#### 5.2.2.2. BOTSWANA ENERGY REGULATORY AUTHORITY (BERA)

BERA handles all regulatory issues of the entire energy sector. BERA currently regulates the technical and economic aspects of the electricity sector, administers licenses for sector activities and makes recommendations to the Minister of MMGE regarding issuance of licenses. With regards to petroleum fuels, BERA regulates pump prices, issuing of licenses and granting of permits for construction of new facilities and ensures that that service standards are met.

BERA could possibly be one of the leading agencies in verifying and approving laboratory test reports. The key roles for BERA as envisaged under the MV&E Framework include,

- Approving laboratory test reports.
- Enforcement actions including those resulting from the DOE's verification programme
- Maintain accreditation as per the MEPS requirements
- Certify product performance according to Botswana's MEPS.

When a product does not comply with the set MEPS regulations, BERA can propose further corrective actions that may include: seizure, market withdrawal, penalties, return to country of origin among others.

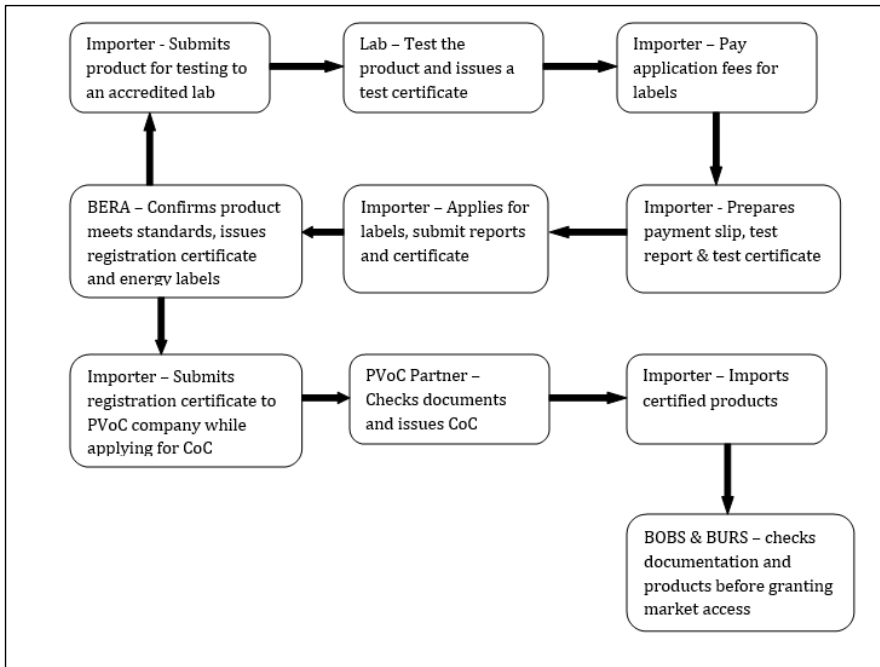
#### 5.3. MV&E Implementation for Refrigerators

From the Market Assessment Study undertaken as part of the S&L development in Botswana, all refrigerators offered for sale in Botswana are imported from other countries i.e South Africa, China. Therefore, it is imperative to ensure imported refrigerators meet the requirements specified under Botswana's MEPS for refrigerators. This could be done at the point of manufacture so that the products arrive at the port of entry already having an approved energy label.

An import conformity assessment process is proposed as below.

**Commented [AW2]:** How will the DOE and BERA coordinate the approval of laboratory test reports? On the DOE, I can see you also including that as one of their tasks. We could probably just choose one agency to do that.

FIGURE 1: PROPOSED BOTSWANA IMPORT & CONFORMITY ASSESSMENT PROCESSES FOR REFRIGERATORS



Components of the proposed framework include the following:

#### 5.3.1. PRE-EXPORT VERIFICATION OF CONFORMITY (PVoC)

A clear PVoC programme should be implemented to ensure that targeted products comply with the applicable MEPS and other approved specifications. PVoC programmes are facilitated in partnership with third-party agents from the country of origin. The role of these agents is to undertake conformity assessment activities in the country of origin for products being imported to another country. Botswana's MV&E scheme would require importers to submit PVoC documents from accredited institutions before their goods are cleared for imports. BOBS is well placed to be the leading agency in implementing the PVoC programme.

##### 5.3.1.1. DEVELOPING BOTSWANA'S PVoC PROGRAMME

BOBS is ideal to be the leading agency in implementing the PVoC programme. Ideally, BOBS should collaborate with other government agencies such as the Ministry of Trade and BERA in effecting the PVoC programme. Key actions involved in the development of Botswana's PVoC programme include but are not limited to:

- Selecting conformity agencies – Stakeholders involved should be allowed to select agents that match their criteria, such as location, fees and processing period
- The government should designate a directorate within BOBS responsible for implementing the programme. Staff managing the PVoC programme should be assigned specific roles and responsibilities.
- The directorate managing the PVoC programme should develop an implementation strategy as a priority. The team should also provide training on the PVoC programme and inspection requirements

- The conformity agencies shall establish PVoC country offices to handle conformity assessment for products imported into Botswana. In the absence of local testing facilities, Botswana can leverage the existence of testing facilities within the region, such as ISERT in South Africa
- There should be a clear communication plan and infrastructure to facilitate communication between the implementing agencies and other stakeholders. For example, the implementing agency should set up a programme website, a customer database and clear communication channels to facilitate communication updates the customers and other stakeholders. The communications channels include social media accounts, posts on the website, and newsletters sent via email

#### 5.3.1.2. FINANCING THE PVoC

The government can fully finance the programme by charging the exporter a percentage of each shipment's Freight on Board (FOB) value, subject to a minimum charge. The exporter may incur other administrative charges depending upon the option to demonstrate conformity. At its inception, the government of Botswana can set aside a budget to finance the implementation of the programme.

#### 5.3.2. PRODUCT CONFORMITY ASSESSMENT (PCA)

Conformity assessment verifies products' compliance with the requirements of applicable standards and technical regulations. It follows a review by product specialists of reports from verification activities such as laboratory testing, physical inspection and factory audits. Conformity of products is proved by the issuance of a Certificate of Conformity (CoC), a document that is mandatory for customs clearance. Accredited Agencies will work with importers to facilitate compliance and in turn issue them with a CoC. The interventions associated with the issuance of a CoC involve the following:

- Physical inspection prior to shipment
- Sampling, testing and analysis in accredited laboratories
- Audit of product manufacturing processes
- Documentary check and assessment of conformity with the requirements of the applicable technical regulations and standards, for example MEPS
- It offers the option for manufacturers/importers to be provided with (digital) data frameworks and transfer protocols to submit their product data. At the same time, market intermediaries may be able to rely on application programming interfaces (APIs) or other means to extract the information they need from the registration system.

#### 5.3.3. PRODUCT REGISTRATION SYSTEM

A product registration system (PRS) provides an initial compliance gateway wherein importers register eligible products with BERA. The registration process should require importers to submit test results to certify that the product performance meets Botswana's minimum energy performance standards (MEPS) and any labelling requirements before BERA/BOBS can authorize the product entry into the market. The specifics of developing the refrigerator product registration system (PRS) should be outlined in a separate document. The refrigerator product registration system can offer the following features to users:

- An online database of eligible refrigerators, with general information on the model, energy performance metrics and other metrics as necessary:
- Information on which refrigerators comply with Botswana's MEPS
- Information on new regulations, revisions or amendments to existing laws
- Provides the regulator with confidential product-related data, including product details, test results and any proprietary information

It offers the option for manufacturers/importers to be provided with (digital) data frameworks and transfer protocols to submit their product data, while market intermediaries may be able to rely on application programming interfaces (APIs) or other means to extract the information they need from the registration system

#### 5.3.4. MARKET SURVEILLANCE

There should be a clear and concise market surveillance programme. Such a programme involve various well-defined processes and procedures to ensure that refrigerators offered for supply in Botswana meet Botswana's MEPS and appliance registration requirements. Additionally, it is important to consider the supply and sales of second-hand refrigerators. Importers of second-hand appliances should be required to submit up to date test documentation as evidence of compliance.

##### 5.3.4.1. RETAIL STORE MARKET SURVEILLANCE

The BERA should adopt a Retail Store Market Surveillance (RSMS) Programme. The RSMS programme involves a regular broad market review of retail shelf products in major retailers across Botswana. This will assist to identify products that are improperly labelled as MEPS qualified. It also includes a more focused review of retail shelves and online sources in order to identify any disqualified models that continue to be advertised or labelled as having met Botswana's MEPS.

Commented [AW3]: BERA? BOBS? DOE?

##### 5.3.4.2. ROLES AND RESPONSIBILITIES

The roles of those carrying out market surveillance need to be determined, and relevant staff should be well-trained and have the necessary legal authority to execute their mandate. The government should set out the roles of importers and retailers, and other stakeholders in legislation. Additionally, the government should provide guidance and operational or administrative guidelines. The following are issues to consider when defining the roles and responsibilities of the market surveillance team:

Commented [AW4]: I was just wondering if the government agencies didn't want to specifically identify the organizations that would be involved in enforcement/surveillance during the training that you had. Because I know this comes with a lot of responsibilities, however enforcement is the backbone of a successful S&L program.

- Whether the existing compliance authorities are well equipped to efficiently conduct market surveillance inspections
- How agencies at the National level can work together with local authorities at the district level. It is important to consider priority areas among the 17 Botswana administrative district.
- How to incorporate existing systems and tools used by Botswana's customs agencies into the MV&E market surveillance.

##### 5.3.4.3. FUNDING FOR MARKET SURVEILLANCE

The directorate mandated to implement Botswana's MV&E framework can explore different options to fund the market surveillance programme. Ideally, the directorate can fully support the market surveillance programme from its budget. Additionally, other funding sources that the programme could explore are:

- Penalties – Penalties or fines may enable the authority to recover the costs of any successful prosecution; or if a product is found to be non-compliant, the responsible program participants can refund the costs of testing (also known as cost-sharing).
- Product registration fees – Fees generated through product registrations can contribute to or comprise the market surveillance budget.
- Stakeholder contributions – Collaboration and cooperation with industry or civil society may provide additional resources – through joint testing programs, by providing expertise, supporting data collection and sharing, or even providing testing facilities – that reduce the cost of program management.

Ultimately, the budget and scale of the market surveillance efforts depend on the type of conformity assessment process required to place the product on the market. Investment can be lighter if the government implements a more rigorous approach at the beginning to assure greater product compliance as products are imported into the country. Additionally, the government can leverage market surveillance results from neighboring countries or within the SADC & EAC region, saving on their investment in a comprehensive market surveillance programme

##### 5.3.4.4. CONDUCTING MARKET SURVEILLANCE

The implementing directorate must develop a detailed market surveillance guideline. The guideline will serve as a practical resource for the market surveillance team to follow when conducting, revising, and strengthening existing programs. When planning a market surveillance strategy, compliance authorities should consider:<sup>3</sup>

- Identifying realistic and achievable goals for market surveillance
- Targeting products at risk of non-compliance to accomplish more with less
- Starting with lower-cost and lower-resource efforts to identify non-compliance

Using the results of these activities to initiate enforcement discussions with the relevant stakeholders before launching into more resource-intensive activities to prove non-compliance.

#### 5.3.5. CHECK TESTING POLICY

There is need to have a well-defined check testing policy that outlines the principles used by MEPS regulators to verify through laboratory testing among other methods that refrigerators offered for supply in Botswana meet the MEPS level requirements and the energy efficiency claims for manufacturers and suppliers. The results of check testing and market surveillance activities should be made available at a centralized government database with access permission to consumers and other stakeholders.

#### CHECK TESTING PROCESS

The check testing process involves three major steps:

- Selecting models
- Acquiring products of the selected models
- Testing of the products

**Selecting models**—There should be a data driven and risk-based approach for selecting refrigerator models. For example, priority should be given to refrigerator models commonly used by households in Botswana.

**Acquiring products of models** – There should be well defined procedures to acquire refrigerator products from the market. BERA and other regulatory authorities should ensure proper sampling is used to select products from the market

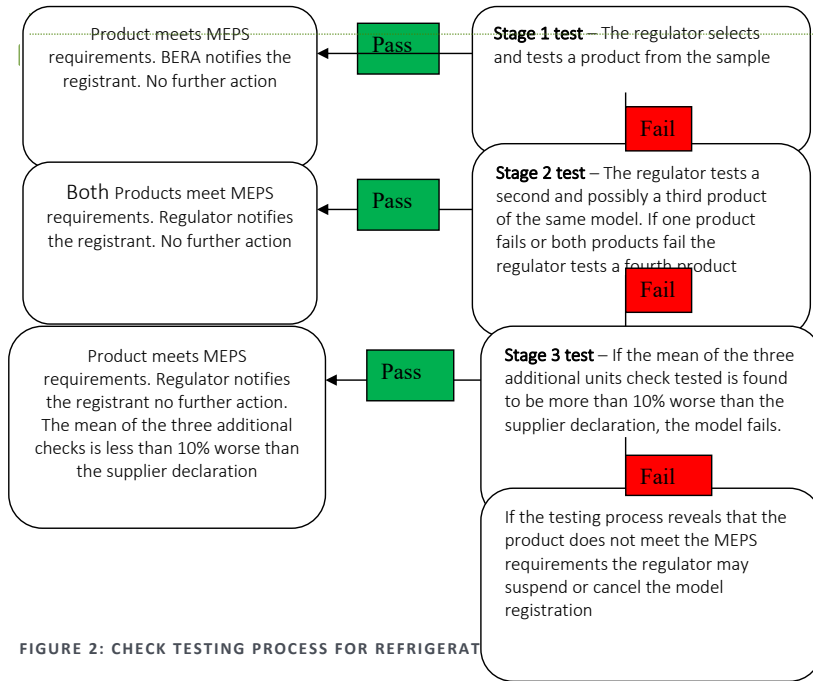
**Testing**—Check testing should be conducted by accredited laboratories. In the absence of local testing capacities regional testing laboratories should be considered. The laboratory should ensure the integrity of the check test results via strict controls relating to product identification and product access and ensures that all check tests are conducted in accordance with the relevant MEPS determination and test standard. <sup>4</sup>

Commented [AW5]: Who will be leading this BERA or DOE?

<sup>3</sup>CLASP, 2020

<sup>4</sup>PwC. (2016). *Development of standard and labelling (S&L) inspection guidelines for state designated agencies*. Shakti Foundation.

The following figure highlights the proposed check testing process for the refrigerators.



**Commented [AW6]:** Instead of the Regulator, I would prefer we use the names of the entities that will be involved. This helps with accountability and preparation of what they need to do to make sure the process is smooth.

FIGURE 2: CHECK TESTING PROCESS FOR REFRIGERAT

#### STANDARDIZING CHECK TESTING TEMPLATES

The implementing authority should ensure templates used to report the check testing results are standardized and tailored to Botswana's MEPS needs. These templates may be made available to manufacturer or commercial test facilities to download and use. The templates should reflect the type of information that the implementation authority considers necessary to comply with Botswana's MEPS test procedures.

#### TESTING WITH LIMITED RESOURCES

In the absence of accredited testing facilities within the country options for low-cost, high-quality testing would include

- Pooling resources with neighboring countries to establish a regionally funded and managed test laboratory
- Relying on existing test facilities from the country of origin if most units of an appliance are imported.
- Establishing energy-efficiency testing as part of wider government programs covering product safety, quality, and environmental acceptability.
- Cooperating with existing test laboratories in the private sector or at technical universities. Care must be taken, however, to avoid potential conflicts of interest. For example, it may not be appropriate for test laboratories that are doing research for regulated companies on a contract basis to also act as program-designated test center.

**Commented [AW7]:** BERA or DOE?

#### 5.3.6. NON-COMPLIANCE

#### INVESTIGATING NON-COMPLIANCE

The assigned directorate should assess each instance of suspected non-compliance and where appropriate perform an investigation to determine:

- whether it is an instance of non-compliance with Botswana's S&L programme
- the circumstances relating to the non-compliance
- the responses that should be considered to address the non-compliance.

Assessments and investigations incorporate the views of relevant internal and external subject matter experts, and provide transparent and defensible conclusions and recommended response options for the appropriate delegate to consider and authorize.

#### RESPONSE TO NON-COMPLIANCE

Responses to non-compliance should start with the least severe action and escalate to more severe actions depending on the type of non-compliance and the responsiveness of the offender. Responses to non-compliance include but not limited to:

- Suspending a registration
- Cancelling a registration
- Enforceable undertakings
- Infringement notices
- Civil penalty order
- Injunction

#### TESTING WITH LIMITED RESOURCES

In the absence of accredited testing facilities within the country options for low-cost, high-quality training would include

- Pooling resources with neighboring countries to establish a regionally funded and managed test laboratory
- Relying on existing test facilities from the country of origin if most units of an appliance are imported.
- Establishing energy-efficiency testing as part of wider government programs covering product safety, quality, and environmental acceptability.
- Cooperating with existing test laboratories in the private sector or at technical universities. Care must be taken, however, to avoid potential conflicts of interest. For example, it may not be appropriate for test laboratories that are doing research for regulated companies on a contract basis to also act as program-designated test center.

#### COMMUNICATING ENFORCEMENT ACTIONS

MV&E reinforces compliance, especially if the application of sanctions is communicated effectively. Disclosure of results gives praise to suppliers who comply with requirements, identifies suppliers who fail to comply, and enables governments and programme managers to take more effective action to strengthen the programme and enforcement action against non-compliance.<sup>5</sup>

In this regard, the Government of Botswana can utilize government communication channels such as TV stations and newspapers to communicate MV&E results to stakeholders. Notwithstanding its benefits, the implementing authorities must balance the risk of reporting against the potential use of reporting. Additionally, there must be a detailed communication guideline articulating what the authority can and cannot publish.

Commented [AW8]: ??

<sup>5</sup>IEA. (2010). *Monitoring, Verification and Enforcement: Improving compliance within equipment energy efficiency programmes*. Paris: IEA.

## 6. Overall action Plan and Budget

## 6.1. Overall, Action Plan

The table below summarizes the different activities to be implemented and their respective government lead agencies. It indicates the different action points to be undertaken by the different government agencies to see through the success of the refrigerator S&L program.

TABLE 6: REFRIGERATOR S&L ACTIVITIES

Components	Activities	Lead Agency	Internal Support
The National Standards	Finalizations of the adoption process of the IEC 62552:2015 parts 1, 2 and 3 until it becomes the national standard.	BOBS	BERA and DOE
	Adoption of the regionally harmonized refrigerator MEPS to become Botswana's MEPS.	BOBS	BERA and DOE
Labelling	Presentation of the mock label designs to consumers during focus group discussions of the different segments to test for comprehension and motivation to use the labels and finalization of the design label.	BERA	BOBS and DOE
Communication to the Public	Communication on the effective date of the national test standard, MEPS and Labels (S&L program) This can be done through channels such as public gazette, radio, and public television channels. The government should give a six-month allowance before the mandatory implementation comes into effect to allow the importers to prepare enough to adhere to these new standards and labels.	BOBS, BERA and DOE	BURS
Consumer awareness Campaign.	The consumer awareness campaign which aims at publicizing the refrigerator label, empowering consumers to make informed purchasing decisions and driving them towards high-efficiency products, empowering importers, retailers, government agencies, and any other stakeholder.	BERA	BOBS, DOE, BPC, and other relevant partner stakeholder as described in the consumer awareness report
MV&E Framework	<p><b>Testing</b></p> <ul style="list-style-type: none"> <li>Securing testing services using third-party test laboratories</li> <li>Procuring all refrigerator models selected for verification testing</li> <li>Developing and maintaining test report templates</li> <li>Monitoring test laboratories so as to ensure adherence to prescribed test procedures and established quality assurance or quality control programmes.</li> <li>Approving laboratory test reports</li> <li>Communicating to the importers and manufactures on the selected accredited laboratory and the test report templates.</li> </ul>	DOE	BERA and BOBS
	<p><b>PVOC</b></p> <ul style="list-style-type: none"> <li>Developing Botswana's Pre-Export Verification of Conformity (PVoC) Programme,</li> </ul>	BOBS	BERA, DOE and BURS

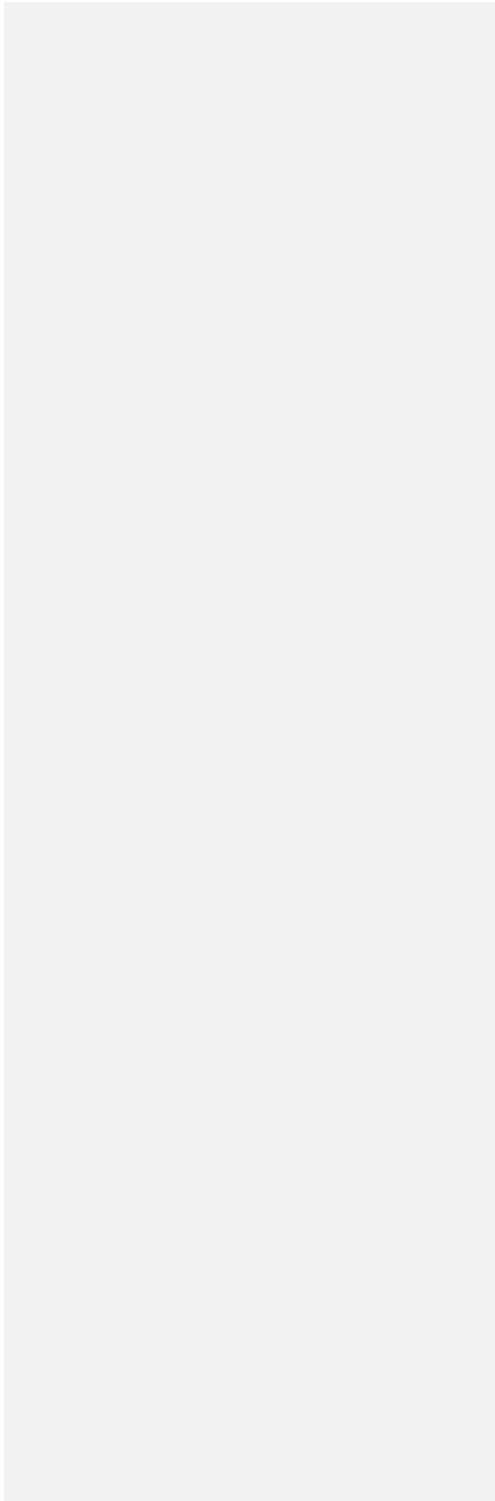
	<p><b>Certification</b></p> <ul style="list-style-type: none"> <li>• Approving laboratory test reports.</li> <li>• Enforcement actions including those resulting from the DOE's verification programme</li> <li>• Maintain accreditation as per the MEPS requirements</li> <li>• Certify product performance according to Botswana's MEPS.</li> <li>• Issuance of the energy labels.</li> </ul>	BERA	DOE and BOBS
	<p><b>Entry at the Customs</b></p> <ul style="list-style-type: none"> <li>• Verification of paperwork</li> <li>• Checking for mislabeling, this include inspection and analyzing the goods in question if the shipment papers are suspect or incomplete information is provided.</li> <li>• Examination and seizure of disqualified products labelled as compliant with the Botswana's refrigerator MEPS</li> </ul>	BURS	BOBS and BERA
	<p><b>Market Surveillance</b></p> <ul style="list-style-type: none"> <li>• Market Surveillance including creation of the market surveillance team, funding of the activity and the actual conducting of the market surveillance.</li> </ul>	BERA	DOE and BOBS
	<p><b>Check Testing</b></p> <ul style="list-style-type: none"> <li>• The selection and testing of a product in the market to verify through laboratory testing among other methods that refrigerators offered for supply in Botswana meet the MEPS level requirements and the energy efficiency claims for manufacturers and suppliers.</li> </ul>	BOBS	BOBS and DOE
Industry Compliance	<ul style="list-style-type: none"> <li>• Submission of product for testing in an accredited laboratory</li> <li>• Payment of application fees for certification and labels to BERA</li> <li>• Preparation of Payment slips, test report and test certificate</li> <li>• Application for labels and submission of reports and certificate to BERA for approval</li> <li>• Submission of registration certificate to PVOC company while applying for COC</li> <li>• Fixation of the labels on the refrigerator</li> <li>• Importation of certified products.</li> <li>• Payment of penalties and fines as may be described by BERA in case of non-compliance.</li> </ul>	Manufactures and Importers	
	<ul style="list-style-type: none"> <li>• Selling only certified and well labeled product</li> <li>• Payment of penalties and fines as may be described by BERA in case of non-compliance.</li> </ul>	Retailers, wholesalers etc	

6.2. Cost and schedule for the Consumer awareness Campaign.

Table 7 below provides information on the cost of various channels proposed in the consumer awareness report in Botswana Pula (1 Pula = 0.087 USD) as well as how each of the varied kinds of media can be leveraged to make the consumer awareness campaign a success.

TABLE 7: COST ESTIMATES OF VARIOUS MEDIA OPTIONS

Communication (Medium)	Audience	Goal(s)	Schedule/Frequency	Cost Estimates
<b>Botswana Daily News (Government print)</b>	Mostly ordinary consumers in the countryside/rural areas and those in the city who can't afford commercial private papers.	-to create widespread awareness of the project, its objectives, and the benefits	Twice a week for 2/3 months before the standards are published	28x5 full colour advertorial x3  P21,000
<b>Botswana Guardian</b>	This will target the affluent, working class in the city. Other stakeholders like distributors, wholesalers, and consumers could also learn of the proposed standards and label via this medium.	-to create widespread awareness of the project, its objectives, and the benefits	Once a week for 2/3 months before the standards are published	28x5 full colour advertorial x3  P33,000
<b>The Voice Newspaper</b>	This will target the affluent, working class in the city. Other stakeholders like distributors, wholesalers, and consumers could also learn of the proposed standards and label via this medium.	-to create widespread awareness of the project, its objectives, and the benefits	Once a week for 2/3 months before the standards are published	28x5 full colour advertorial x3  P33,000
<b>RB2 Radio Station</b>	A youthful radio station (commercial), appealing to ages 18-35	-to create widespread awareness of the project, its objectives, and the benefits	A fifteen-minute discussion at P1500 per slot x 8 weeks	P15,000
<b>Online Livestreaming</b>	Techno-savvy young and vibrant heavy users of social media platforms	to create widespread awareness of the project, its objectives, and the benefits	Twice a week discussion of the project and its wholesome objective	P30,000
<b>Engagement of Political Leadership (Virtual Workshops)</b>	Lawmakers who are critical opinion leaders in the community (we could target a parliamentary committee (s) responsibly for energy and environment issues	to create awareness amongst lawmakers as a way of seeking political support for the enforcement of these standards once fully passed. This stakeholder batch would also help create awareness by sharing information with their constituents.	2 rounds of workshops (one per committee)	P24,000



# 7. References

#### References

1. International Electrotechnical Commission, 2015. *IEC 62552-2015 part 1,2 and 3*. <https://webstore.iec.ch/publication/68114>, <https://webstore.iec.ch/publication/61988>, <https://webstore.iec.ch/publication/68117>
2. UNEP, 2022. *EACSADCREF Minimum Energy Performance Standards for Refrigerating appliances (MEPS)*.
3. Angellah Wekongo-CLASP, James Wakaba-CLASP, Boiki Mabowe-GIB 2022. *Market assessment Report on Residential Refrigerator and Distribution Transformers in Botswana*.
4. Martha Wakoli – CLASP, Tefo Kebabope– GIB, 2022. *Report on National Labelling scheme and consumer awareness for residential refrigerators in Botswana*.
5. Joseph Njuguna, 2022. *Proposal for Development of MEPS monitoring, verification and enforcement frameworks for Refrigerators and Distribution Transformers in Botswana*.
6. *PWG meetings in the Country*.
7. *Stakeholder trainings in the country*.