



**ENERGY EFFICIENT APPLIANCES
AND EQUIPMENT IN ESWATINI
(REFRIGERATORS AND
DISTRIBUTION TRANSFORMERS)
PROJECT**

POLICY WORKING GROUP PROGRESS MEETING #2

**(REFRIGERATORS AND
DISTRIBUTION TRANSFORMERS)**

PEGASYS/PWG/#4/04/08/2022

POLICY WORKING GROUP KICK-OFF MEETING

Date: 04 August 2022

Venue: Hilton Hotel Mbabane

Time: 0930-1300hrs

MEETING PROGRESS:

AGENDA ITEM	RESPONSIBILITY	DEADLINE
1. Opening of meeting No official opening done		N/A
2. Participants <ul style="list-style-type: none">• Zamokuhle Ndlangamandla (MNRE)• Bafana Simelane (MTEA-Met)• Milagrosa Mondlane (SWASA)• Adesh Singh (Pegasys)• Igor Djurdjevic (Pegasys)• Nicolette Mhlanga-Ndlovu (Pegasys)• Nonhlelo Mathunjwa (ESERA)• Cusi Manana (EEC)• Thabile Dlamini (EEA)• Benjamin Khathwane (EEC)• Patience Vilane (EEA)		N/A
<ul style="list-style-type: none">• Overview (<i>Presentation attached</i>)• Feedback from public consultations• Labelling options• Implementation plan points for discussion• Training overview for comment• Draft consumer awareness for comment• Financial mechanisms training for comment		N/A

AGENDA ITEM	RESPONSIBILITY	DEADLINE
<ul style="list-style-type: none"> • Questions and closing (next meeting) <p><u>Feedback from public consultations</u></p> <p>Question: When are we likely to get comments back on the Standard?</p> <p>Response: 31 August 2022</p> <p>Question What if there are no comments received?</p> <p>Response Then we adopt standard as is.</p> <p>Question What happens when there are comments?</p> <p>Response: If there are comments, then we retract and recall TWG</p> <p><u>Labelling options</u> Eswatini to choose from various design types: Bar type, Semi-circular type or Round type The bottom level is the minimum threshold (lowest) and a decision needs to be taken on whether to decline units below the minimum level</p> <p>Comment: Which design would Eswatini go by?</p> <p>Response: The usual Bar type as consumers and retailers are already aware of it.</p> <p>Comment: Does the country have a Policy that prohibits inefficient refrigerators?</p> <p>Response: The MNRE has indications in a policy that inefficient units will not be promoted but there is no regulation</p> <p>Recommendation: Eswatini will use the rating plate and a label too. Eswatini may need to consider transitional periods</p> <p>Comment: Will the Eswatini standard talk to carbon footprints?</p>		

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<p>Response: It is contained in the Regional standard and not in the label, but if Eswatini considers having it in the label then considerations on its complexity to the producer must be noted.</p> <p>Question Do we decline a circular labelling if we use Bar type?</p> <p>Response: Yes. They must comply with set criteria. As a supplier you must label according to recipients requirements.</p> <p><u>Implementation plan points for discussion</u></p> <ul style="list-style-type: none"> • Responsibilities within departments/entities The various roles of the various institutions such as Ministry of Natural Resources and Energy, Ministry of Tourism & Environmental Affairs, Eswatini Electricity Company, Central Bank of Eswatini etc need to be elaborated • Funding for implementation <p>Question: Who will be responsible for funding awareness campaign implementation?</p> <p>Response: Currently inspectors from ESERA inspect fuel -There may be a need to sue same resources</p> <ul style="list-style-type: none"> • Compliance requirements Some countries use IEC conformity standards • Surveillance types • Compliance process (registration?) <p>Question: Who will be responsible for checking compliance?</p> <p>Response: ESERA, MNRE for regulation, At ports its SRA</p> <ul style="list-style-type: none"> • Issuing Certificate of Compliance? Other countries issue certificates of compliance but this requires resources • Regulation development process Department or Ministry driven • Addressing non-compliance 		

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<p>Issuing compliance certificate may require that suppliers register prior to supply but if Eswatini goes this route, we need to consider the period and complications to the buyer... In cases of non-compliance Eswatini may need to consider issuing notices, fines etc</p> <p><u>Training overview – Refrigerators</u> A training session for TWG and PWG including some additional technical stakeholders will be arranged. The training sessions aim to cover the underlisted topics in no particular order</p> <ul style="list-style-type: none"> • Energy efficiency in refrigerators • Scope of residential refrigerators • 3 pillars configuration include assessment, market survey, enforcement • Structure of MV&E scheme • Objectives of MV&E scheme • Benefits in Eswatini • Requirements for MV&E scheme • Policy and regulatory framework • Reason for regulation • Regional standard and context • MEPS • HEPS/label • Compliance (e.g. product registration scheme) • Conformity assessment • market surveillance • non-compliance and impact • Roles of various institutions • Requirements for success <p><u>Consumer Awareness (Presentation attached)</u> Successful implementation of the MEPS and the national standard for refrigeration requires the change in purchase and use behaviour of the end-users, which as outlined in the market assessment comprised of households and small businesses operating from residential premises</p>		

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<p>The overall objective is for the change in the attitude towards energy saving among all households.</p> <p>Financial Mechanisms (<i>Presentation attached</i>) It is important to identify the existing and potential financing mechanisms for refrigerators in Eswatini (Dealer financing, Microfinance, Savings pools, On-bill financing, On-wage (?), Financial incentives – governmental etc.) The topics to be covered under financing include Benefits of Energy Efficient equipment, Barriers to Energy Efficient equipment, Types of financing mechanisms, Advantages and disadvantages of various systems, Sources of finance, Financing mechanisms</p>		
<p>Transformer Losses The efficiency of a transformer is given by:</p> $Efficiency = \frac{S_{input} - L}{S_{input}} = \frac{S_{output}}{S_{output} - L}$ <p>Energy Efficiency Index</p> <p>The efficiency index using Method A</p> $EI_A = \frac{kS_r - (P_0 + P_{c0}) - (k^2P_k + P_{ck}(k))}{kS_r}$ <p>Capitalisation of Losses The total cost of ownership TCO = Purchase Price + Valuation of Core Loss + Valuation of Load Loss</p> $TCO = IC + A \times (P_0 + P_{c0}) + B \times (P_k + P_{cs} - P_{c0})$ <p>A transformer is less efficient because the Losses are high ... In case the transformers are non-compliant the supplier must compensate EEC for the losses</p>		N/A

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<p>ACTIONS AND WAY FORWARD : Feedback on draft consumer awareness campaign to Igor Standard finalised if no comments we proceed</p> <p>There will be a need to prepare for the Training before Standards approval</p>	<p>ALL Milagrosa</p> <p>Milagrosa / Igor/Adesh</p>	<p>19 August 2022 01 September 2022 September 2022</p>

Adjourned 1250hrs