



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

POLICY WORKING GROUP KICK-OFF MEETING # 1

PEGASYS/PWG/#1/01/2022

POLICY WORKING GROUP KICK-OFF MEETING

Date: 18 February 2022

Venue: Hilton Hotel Mbabane

Time: 0900-1330hrs

Participants: (register attached)

WORKSHOP PROGRESS:

AGENDA ITEM	RESPONSIBILITY	DEADLINE
<p>1. Participants Introductions All Participants introduced themselves and the organizations represented included the underlisted and register is attached:</p> <ul style="list-style-type: none">• ESERA• EEC• SWASA• MTEA-Met• EEA• MNRE• Pegasys	ALL	N/A
<p>2. Welcome remarks -MNRE Mr Zamokuhle Ndlangamandla briefly welcomed participants to the meeting and pleaded with all to make valuable contributions.</p>	ZM	N/A
<p>3. Project Overview and Clarification (<i>see presentation attached</i>) Igor Djurdjevic presented overview and objectives:</p> <ul style="list-style-type: none">• This is the first policy working group meeting and thereafter it is to be held quarterly (or more frequently if needed). In case more meetings are needed then more can be arranged.• The main aim is to develop energy efficiency standards for household refrigerators and distribution transformers and establish a framework necessary to improve the energy efficiency of these appliances in Eswatini.• Project involves implementation and funding mechanisms as well as consumer awareness.	ID	N/A

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<ul style="list-style-type: none"> • Initiative between the United Nations Green Climate Fund (UNGCF) and the government of the Kingdom of eSwatini. • Project is simultaneously ongoing within 7 other SADC countries, namely Botswana, Zimbabwe, Namibia, Malawi, Lesotho, Zambia and Tanzania. • It is to be done through the establishment of national standards for both refrigerators and distribution transformers as well as through the development of Minimum Energy Performance Standards (MEPS) including an energy labelling scheme for refrigerators. <p>Market Assessment overview- Igor Djurdjevic</p> <ul style="list-style-type: none"> • Market assessment was completed through data gathered via various sources including: <ul style="list-style-type: none"> ○ Household interviews ○ Publicly available information (e.g. desktop study) ○ Information provided by eSwatini stakeholders ○ Interviews with retailers and other entities • Important information gained on the current baseline of energy efficiency and hence the possible improvements and impact • Information also gathered on the key stakeholders and internal processes to be followed for most effective implementation <p>Refrigeration Findings- Igor Djurdjevic</p> <ul style="list-style-type: none"> • Energy efficiency is not one of the main purchasing decision drivers • The majority of the refrigerators are the fridge/freezer combo sets • The majority of the refrigerator volume is around the 300 – 350 litre mark • The majority of respondents indicated that they would not be willing to pay extra for increased energy efficiency. <p>Comment: Was it possible to identify the type of refrigerant used?</p> <p>Response In some instances it was but in the majority of the old refrigerators there might be repairs and the datasheet of the refrigerator could not always be trusted. The majority of the new refrigerators use R600a but with the older refrigerators the repairers would be better suited to explain the replacement refrigerant type.</p>		

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<p>Transformers Findings -Adesh Singh</p> <ul style="list-style-type: none"> • A total of 21599 transformers were analysed - based on the database provided by the EEC. • Transformer sizes vary between 16 kVA and 2500 kVA. • The commonly used transformers are the 16kVA • It is important that PCBs are removed from oils as they are carcinogenic (cancer causing) and it is recommended to instead use biodegradable vegetable oil Such as Ester oil from soya bean, rapeseed, canola etc. <p>Action Adesh to update the figures used in the calculation of energy efficiencies as they reflect errors</p> <p>Comment Will the use of vegetable oil not result in issues of food insecurity?</p> <p>Response The vegetables used are those mainly used as livestock feed and those utilised to enrich soil with nutrients.</p> <p>Comment Which standard should one use when procuring service provision for transformers?</p> <p>Response The IEC standard (IEC 60076 series) should be used. However, aspects of other standards that are applicable to specific situations can be used, e.g. SANS 780:2019 for losses or other specifications for bushings, other components, etc.</p>		
<p>4. Policy Working Group terms of reference and role</p> <p>Presentation on PWG -Igor Djurdjevic</p> <ul style="list-style-type: none"> • Policy Working Group is established to provide a guidance in ensuring coherence with national energy efficiency policies and act as steering committee for the project. • The objective and mandate of the Policy Working Group is to ensure coherence and synergy between the national policy roadmap and the regulatory framework to be developed and the national policies on energy efficiency. • PWG ToR and membership accepted and concluded! <p>Comment: Do we include Palfridge to Policy working Group as they are the only private refrigeration entity in the country?</p>		

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<p>Response: Would be good to involve them to add market information value</p> <p>Comment: Do we add Regulatory Quality Infrastructure Development in the Ministry of Trade and Commerce?</p> <p>Response: We will consult them whenever needed</p> <p>Comment: Do we include Consumer Representatives?</p> <p>Response: Consumer representatives to be consulted whenever necessary</p>		
<p>5. Discussion on the formation of the Technical committees</p> <p>Presentation on the formation of Technical Committees- Igor Djurdjevic</p> <ul style="list-style-type: none"> • Two separate technical committees to be formed, one for refrigerators and one for distribution transformers • To be guided by the eSwatini Standards Authority and its processes and policies • Important that the members have relevant technical expertise • Critical that there is no personal, organisational or financial agenda or motivation for participants <p>Comment How are the Technical meetings convened?</p> <p>Response Technical meetings were held at Mustapha before the Covid-19 pandemic convened by SWASA.</p> <p>Action We need to put in a proposal form for transformers to SWASA as we have one already submitted for refrigerators. SWASA will write to the various organisations requesting for representatives with relevant credentials</p> <p>Action Igor to check on allowances issue for Technical and Policy working group</p> <p>Suggestions for composition of Refrigeration Technical Committee</p> <ul style="list-style-type: none"> • MNRE 	<p>SWASA/Pegasys</p> <p>Pegasys</p>	

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<ul style="list-style-type: none"> • SWASA • MTEA-CCU • Palfridge • UNESWA • SCOTT • Association of Refrigeration and Airconditioning Committee • Voctim • SRA <p>Suggestions for composition of Transformers Technical Committee</p> <ul style="list-style-type: none"> • EEC • MNRE • ESERA • Met • Mormond • RESC • Ubombo • Tambankulu • Competition commission • Consumer Protection and Eswatini Consumer Association <p>Action PWG members to add to list in case there are other entities important to be part of the technical working committee.</p>	All	
<p>6. Discussion on the consumer awareness campaign and funding mechanisms Presentation on the consumer awareness campaign and funding mechanisms- Igor Djurdjevic The awareness products will be developed to suit the various targeted audiences Transformers: Policy makers, Importers and manufacturers, Retailers/ distributors, Installers and Public institutions. Refrigeration: Policy makers, Importers and manufacturers, Retailers/ distributors, and Public institutions. Businesses, Households Comment</p>		

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<p>Who will champion this task?</p> <p>Response Consultant will develop designs and conduct background work while the PWG will make inputs into the proposed designs</p> <p>Financing mechanisms</p> <p>Refrigeration</p> <ul style="list-style-type: none"> • There are 2 main types of scenarios to consider for financing of household refrigerators • Pure financing mechanism – loan for new refrigerators • Replacement of refrigerators – loan for replacement <p>Transformers Capital required to purchase new, more efficient DTs</p> <p>Comment Mechanisms of electrification at household level require to be reviewed</p> <p>Response Standardizing costs is a challenge especially in rural areas where homesteads are sparsely located.</p>		
<p>7. Organisation of the next meeting Meeting to take place after the first Technical Committee meeting to be organised within the next 2-3 weeks</p>	MNRE / SWASA	2-3 weeks

Adjourned 1330hrs