

ENERGY EFFICIENCY APPLIANCES AND ON-BILL FINANCING WORKSHOP

Energy Efficient Lighting and Appliances (EELA) Project in East and Southern Africa

Readlay Makaliki – Lead Technical Expert





Presentation Outline

- **1. EELA APPROACH TO CHANGE**
- 2. EELA INTERVENTIONS
 - Policy Framework
 - Capacity Building
 - Private Sector Support
 - Communication and Outreach Activities
 - Webinar Series











Energy Efficient Lighting and Appliances in East and Southern Africa - EELA

EELA has a transformational approach towards the development of vibrant markets where suppliers are delivering high-quality services and products for energy efficient lighting and appliances to increase awareness for households, businesses and public facilities across East and Southern Africa. EELA stimulates local manufacturing and private sector investments.

The EELA approach to change

| \bigcirc | |
|------------|---|
| - :: | l |

Market incentives for the private sector to deliver efficient and high quality energy services



Minimum Energy Performance Standards (MEPS) for appliances which are harmonized in the region





Capacity building on policy and regulatory framework development, appliances testing and regulatory enforcement



Awareness raising on the benefits of adopting efficient technologies across all stakeholders

A coordinated regional effort through RECS and regional sustainable energy centres

ACREEE



Implemented by UNIDO with financial support from the government of Sweden







How Do We Transform to EE 2. Enegy A+++ Labels 1. Minimum Energy rds and Labeling Programme in Kenya **Performance** ประสิทธิภาพพลังงาน เวลง **Standards** XYZ 3. Procurement, กฟะ กระทรวงพลังงาน and other labels **ENERGY STA** High **Energy efficiency** Low



Benefits of Market Transformation Towards Efficiency

- Household savings reduce household energy bills (but still enjoy the same services!);
- Grid reliability reduce electricity shortages (brown-outs / black-outs); reduces peak power demand
- Save national investment reduce capital and loans tied up in power stations and grid upgrades; slows new demand growth
- Consumer protection avoid becoming dumping-ground for technologies banned elsewhere
- Energy imports reduce capital out-flow for fuel purchases / electricity imports; strengthen national energy security
- Climate change develop on a 'soft energy path', avoid becoming a high CO₂ emission country





Policy Framework

- Regional Technical Committees (TC) for SADC and EAC Established
- TC inaugural meetings 27 and 29 November 2019 in Lusaka and Nairobi respectively
- Draft MEPS for lighting for EAC and SADC developed and shared with Regional TC to kick start adoption process
- Series of national stakeholder consultations held to seek consensus
- SADCSTAN has since approved and adopted lighting MEPS by April 2021
- EAC TC51 will soon convene to adopt lighting MEPS after successful national consultations
- Collaboration with UNEP's U4E on co-sponsoring development of MEPS for cooling appliances (Refrigerators & Air Conditioners)









Regional Compliance Framework

GOAL: to enable member states effectively implement regionally harmonized energy efficiency policy measures and protect EAC and SADC markets from non-compliant and low-quality products

Strengthen Regional Centers

•Build up capacity of the two centers to coordinate regional collaboration, information sharing, and serve as intra-regional coordinators to align activities between EAC and SADC

•Regional Product Registration System [PRS]

•EAC and SADC regions establish and use regional Product Registration System to be hosted by EACREEE & SACREEE and implemented nationally. To serve as go-to product registration and compliance resource for member states

Regional Testing Capacity

•Member States would use and build on the existing regional network of testing laboratories and use alternative mechanisms

•Regional Coordination on Enforcement and Intelligence Sharing

•Regional centers coordinate at regional level to share market intelligence and testing information; market surveillance plans and results with all member states; and to conduct joint testing activities with some member state partners

• National Compliance Programmes

•Member states to establish national compliance programmes to enforce adopted efficiency policies and safeguard markets from substandard products

ELEMENTS

FIVE

3

4



Green Procurement Guidelines

Procurement Guidelines are intended to help Governments put in place mechanisms that ensure they purchase more efficient appliances both in terms of the quantities purchased relative to the total purchases and of the efficiency levels of individual products.

OBJECTIVES

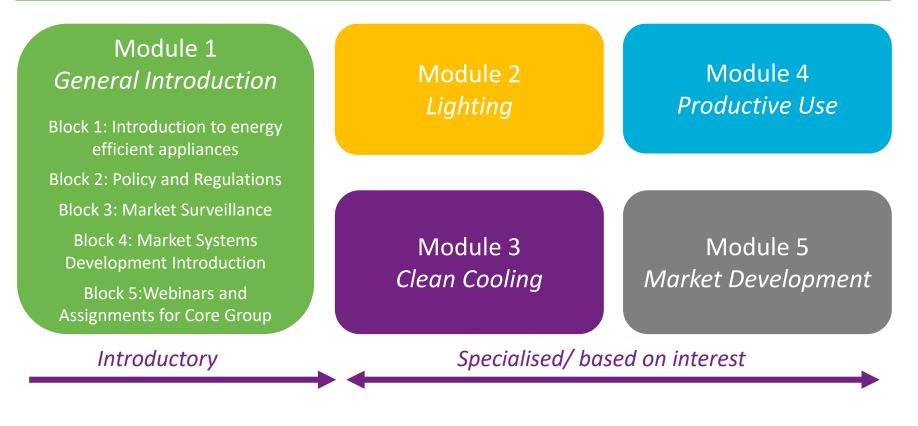
- Alignment with country overall procurement goals as defined in their constitution or other relevant laws and policies
- Value for money over the life cycle moving away from first cost, which tends to be lower for inefficient appliances, to lifecycle costs which tend to favor efficient appliances due to their low energy costs
- Reducing environmental impacts CO2 emissions
- Quality: since most efficient products are also better quality due to use of superior designs and materials
- Waste reduction: EE Public Procurement leads to less energy wastage and better appliances that last longer
- Training for Procurement Officers which will include sustainability aspects





Capacity Building of key Stakeholders - EELA Online Training

e-Learning platform is a substitute to the planned physical trainings to technical staff. Advantages include wider reach, more content and can be done at participants convenience.





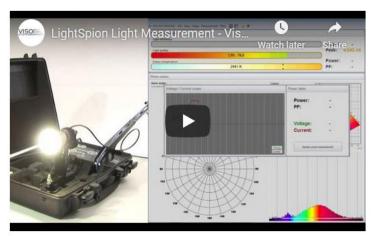
Capacity Building of key Stakeholders

- Lack of ability by MS to carry out market surveillance
- Test equipment key to market surveillance and standards enforcement
- EELA Project to capacitate 2 Regional Labs
- Portable Lighting Test Equipment procured for 21 Member States
- For use in Market surveillance and conformity checks

MEASURE IN 30 SECONDS

- Lumen
- Peak candela value
- Color temperature, CCT
- Spectrum, CRI, TM30, CQS
- Beam angle
- · Detailed light distribution
- Power and power factor
- Lumen per Watt





Measure any type of Light Source

Measures a variety of parameters No expert Knowledge required to use the equipment



Private Sector Support

Through the Facility EELA is providing support in Three ways



Technical Assistance (TA) to potential clients e.g. municipalities, cities or industries to design the right energy efficiency service business model and to engage an energy service company



Interest launched until 31 Financial Support is provided to energy service companies to particularly support the upfront costs for the purchase of equipment (co-financing facility)



Technical/Financial Support for Manufacturing companies wanting to transition to EE products

- **BUSINESS MODELS EPC, LEASING, CaaS, LaaS Innovation**
- **EE TECHNOLOGIES Lighting, Cooling, Productive Use**
- **Advisory Firm engaged**

Open Call for Expression of

December 2021



Private Sector Support

Technical Assistance and Co-Financing Facility Summary

| | Window 1 | Window 2 | Window 3 |
|-----------------|---|---|--|
| Applicants | Energy users | Energy service providers | Manufacturers |
| Support offered | Technical assistance to design an Energy Efficiency project applying an energy | Non- repayable grant to cover upfront costs for equipment | Non- repayable grant to support technology upgrade |
| | service business model | Max. 200,000 EUR | Max. 100,000 EUR |
| • | Demonstrated commitment to implement the project | Signed contract with a client. | Demonstrated need for upgrade of manufacturing |
| | | At least 25% demonstrated co- financing | At least 25% demonstrated co- financing |

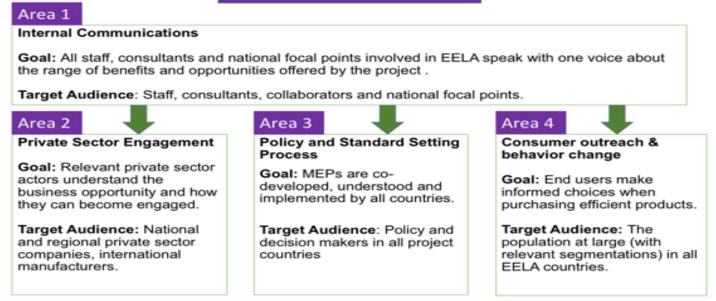


Communication Strategy

Designed to position EELA's unique mission, and to keep critical stakeholders informed and engaged

- Key stakeholder were consulted for the formulation of a communication strategy
- Identified risks and opportunities
- most relevant stakeholders to whom the EELA project shall communicate were identified
- General EELA, Private sector videos and flyers developed
- Pop up banners, social media cards and Stickers

EELA Communications Areas



Roadmap and calendar of project milestones developed and published on the project websites of the centers



EELA Webinar Series



Join the EELA webinar series!

The EAC and SADC region are taking important steps towards the organised by the EELA partners and will showcase opportunities a Participation in the webinars is free of charge but requires prior r

Enabling policies for a market transformation towards EELA

29 September @10:00 am - 12:30 pm CAT

Opportunities for private sector participation in EELA

21 October 2020 @10:00 am - 12:30 pm CAT

Putting a gender lens on EELA

11 November 2020 @10:00 am - 12:30 pm CAT

Monitoring, Verification and Enforcement 4 December 2020 @10:00 am - 12:30 pm CAT

Switch it on!

ENERGY EFFICIENT LIGHTING AND APPLIANCES In East and Southern Africa

Join the EELA webinar series 2021!

REGISTRATION

Pathways to Repair in the Global Off-grid Date & Time: 18 May 2021 @10:00am – 12:00pm CAT

Accessing financing for energy efficient lighting and appliances Date & Time: 14 July 2021 @10:00am – 12:00pm CAT

Opportunities for Energy Efficiency for on- and off-grid productive use equipment Date & Time: 6 October 2021 @10:00am – 12:00pm CAT

ify lessons from the EELA Technical Assistance and Co-Financing Facility and ospects for scalability

Date & Time: 8 December @10:00am - 12:00pm CAT











Switch it on!



THANK YOU

CONTACT UNIDO Ms. Karin Reiss, email: <u>K.REISS@unido.org</u> Ms. Evita Moawad, email: <u>E.MOAWAD@unido.org</u>

EACREEE Mr. Fungai Matura, email: <u>info@eacreee.org</u> Mr. Denis Ariho, email: <u>info@eacreee.org</u>

SACREEE Mr. Readlay Makaliki, email: <u>energy@sacreee.org</u>

For further information, visit: www.eacreee.org | www.sacreee.org | www.unido.org







