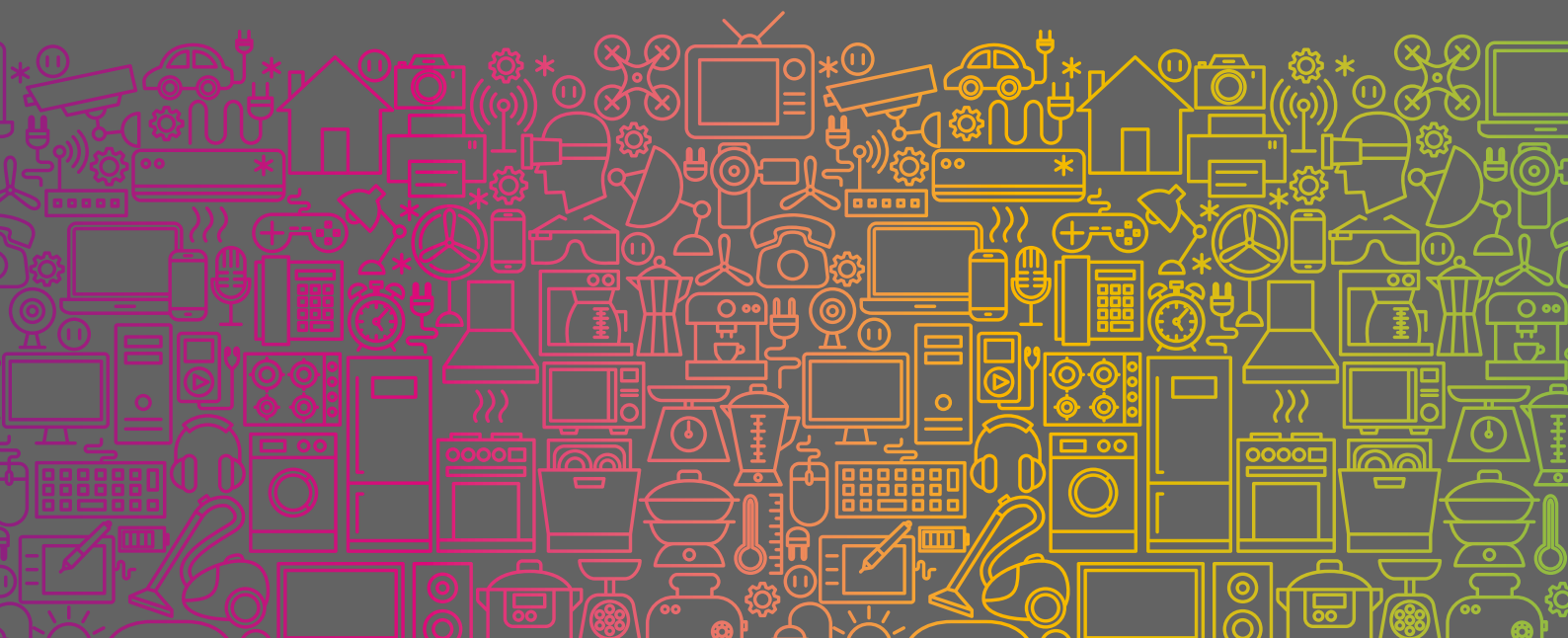


EmPowering Energy Efficient Appliances for Greater Livelihoods in EAC and SADC

Taking Stock on Achieved Milestones in the
Energy Efficient Lighting and Appliances Project
(EELA)



The Challenge

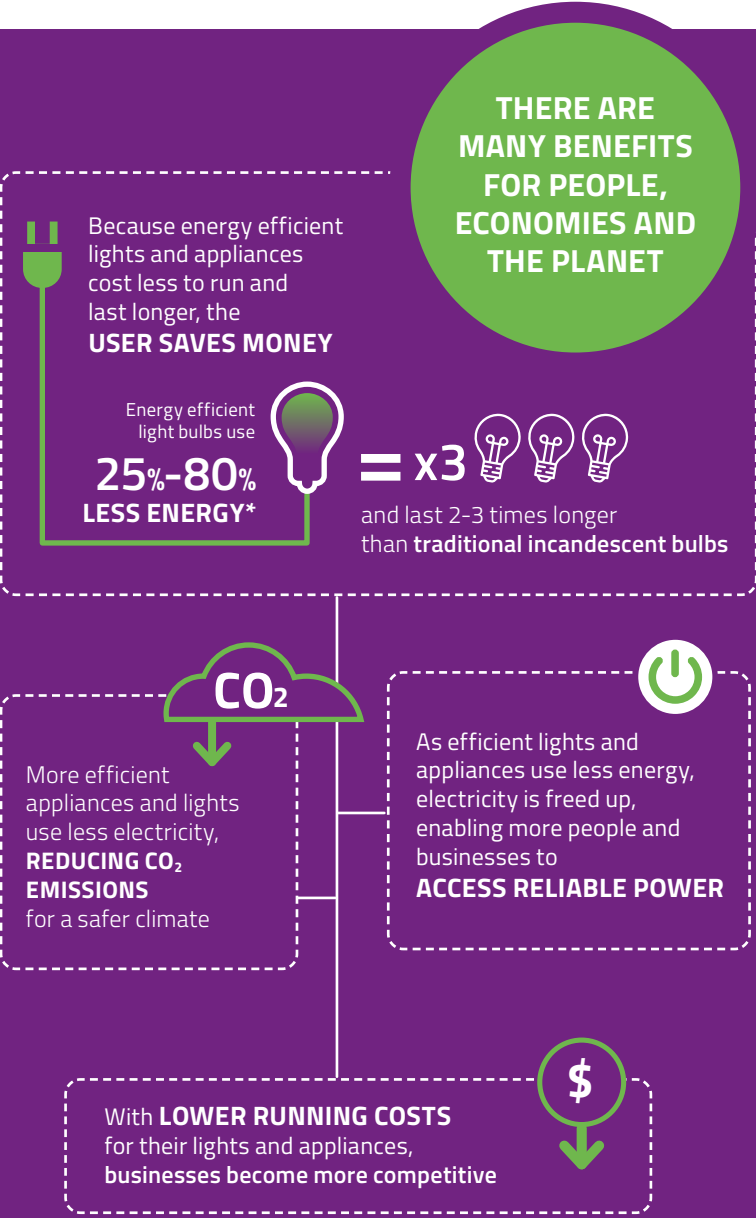
Creating vibrant markets for energy-efficient (EE) lighting and appliances depends on several key factors like expanding consumer choice, implementing effective policies and regulations, and fostering private sector engagement. Addressing these areas is essential for the development and success of EE markets.

In markets flooded with outdated, inefficient products consuming excessive energy and incurring high costs, consumers need greater variety and options for energy efficient alternatives.. Stronger policies and regulations are urgently needed to cover a range of issues, for example, protecting local markets from the influx of low quality and inefficient products which have already been banned in many other regions in the world. Furthermore, strong private sector involvement is needed to create a market of high-quality energy efficient services and products. Incentives play a crucial role in encouraging the private sector to offer energy efficient products and services.

The Opportunity

The EELA project is fostering vibrant markets for energy efficient lighting and appliances by promoting enabling policies and regulations as well as private sector development. These efforts ensure suppliers offer quality products and services, governments enforce standards, and informed consumers demand energy-efficient options.

This leads to numerous benefits. It reduces pressure on national grids, providing a more reliable electricity supply to a broader population. It also enhances business competitiveness, facilitates household savings, and contributes to lower CO2 emissions. Energy-efficient lights and appliances offer affordable and reliable options for communities using decentralized renewable energy systems. As costs for these systems decrease, their popularity grows, offering a viable solution for the many people currently not connected to national grids.



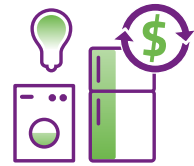
BARRIERS & RATIONALE	OPPORTUNITIES
- Lack of Service Providers with Viable Business Models - No common Policy Framework for EELA - Absence of MEPS - AD-HOC vs Systematic Approach - Need for Market Transformation - Challenge with Enforcement and Local Testing Capacity - Country Focused Markets - Need for Regional Collaboration - Absence of Energy Service Companies (ESCOs) in the Markets - Non-conducive Investment Environment for the Private Sector	- Household Savings and Benefits for People - Greater Energy Security for Countries - Less Power = Fewer CO2 Emissions - Grid Reliability - Reducing Electricity Shortages - Market Protection - Avoid Becoming Dumping Ground for Old Technologies - Women Empowerment and Gender Equality - New Business Opportunities for Local Companies

Improving Lives and Livelihoods through Energy Efficiency
➔ HEALTH Energy Efficiency appliances improve health outcomes by reducing reliance on inefficient and polluting energy sources in homes. Furthermore, EE enable cold chains which play a vital role in health by ensuring the safe storage of vaccines and medicines, enhance food security through better preservation and reduce post-harvest losses. ➔ GENDER EQUALITY Energy Efficiency appliances are crucial for advancing gender equality. By reducing the time spent on household chores, the appliances help to free up time for education and income generating activities, which lead to economic independence for women. ➔ POVERTY REDUCTION Energy Efficiency appliances offer significant cost savings over their lifetime by reducing utility bills and maintenance costs, thus increasing household disposable incomes. This economic relief is particularly beneficial for low-income households, making energy efficiency a powerful tool for poverty reduction. ➔ ENVIROMENTAL BENEFITS Energy Efficiency reduces greenhouse gas emissions and alleviates pressure on existing energy infrastructure. By using energy-efficient appliances, electrical waste can be reduced, and improved durability leads to the use of fewer resources.

* www.energy.gov/energysaver/save-electricity-and-fuel/lighting-choices-save-you-money/how-energy-efficient-light

The EELA Approach to Change

The EELA approach to change is based on four key pillars. Since its launch in 2019, the EELA project has been implementing a broad range of activities on energy efficient lighting, cooling, and productive use of energy appliances in these four key areas across the 21 member countries of the Southern African Development Community (SADC) and the East African Community (EAC)¹.



MARKET DEVELOPMENT AND BUSINESS SUPPORT for the private sector to deliver efficient and high-quality energy services; higher climate resilience and creation of green jobs and on Energy Service Business Models.



SUPPORT A CONDUCIVE POLICY ENVIRONMENTS through harmonised Minimum Energy Performance Standards (MEPS) and energy efficiency labels for appliances, compliance frameworks, waste management, public procurement guidelines.



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.



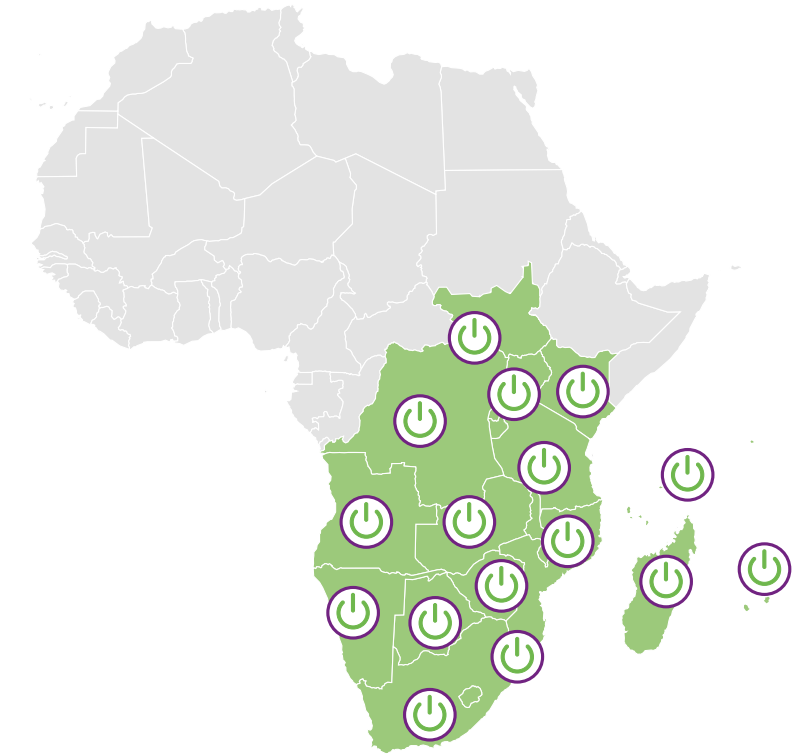
EELA contributes to a low-carbon, climate-resilient and environmentally sustainable economy and responds to the priorities of the countries Nationally Determined Contributions (NDCs) and development goals.

1. The Southern African Development Community (SADC) includes Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Eswatini, United Republic of Tanzania, Zambia, and Zimbabwe (mainland states) and Madagascar, Comoros, Mauritius and Seychelles (island states). The East African Community (EAC) includes Democratic Republic of the Congo (DRC), Burundi, Kenya, Rwanda, Federal Republic of Somalia, South Sudan, Uganda, and United Republic of Tanzania.

Delivered through Regional Platforms:

The key executing partners for the EELA project are the East African Centre of Excellence for Renewable Energy and Efficiency (EACREEE) in Kampala, Uganda and the Southern African Development Community Centre for Renewable Energy and Energy Efficiency (SACREEE) in Windhoek, Namibia. These Platforms also convene different stakeholders, provide a growing knowledge hub and proactively share information with all stakeholders, also including the private sector.

Through guidelines, workshops, best practice documentation, capacity building, and other activities, the Platforms also support national governments and stakeholders to take action in their countries.



OUTCOME 1
Coordinating regional mechanisms and platforms



OUTCOME 2
Improving the regional policy for EELA in the SADC and EAC regions



OUTCOME 3
Strengthening the capacities of key institutions, testing centres, and stakeholders



OUTCOME 4
Enhancing awareness among market players and policy makers



OUTCOME 5
Establishing incentive mechanisms to encourage EELA uptake



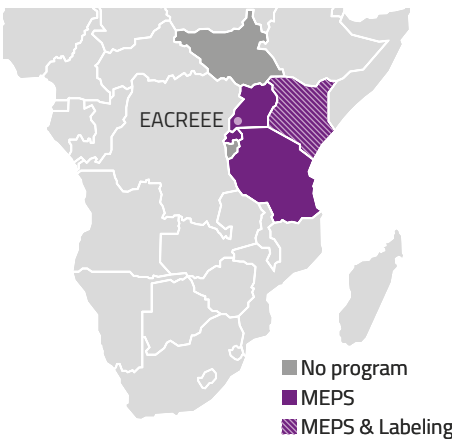
The EELA Team at the 2023 Annual Stakeholder Forum in Nairobi, Kenya

Milestones of the EELA Project: An Overview of Impactful Achievements

Policy Transformations:

Minimum Energy Performance Standards (MEPS): Policies and standards development for energy efficient lighting, cooling, and productive use appliances have been improved through the EELA project. This has involved developing regional frameworks and harmonised Minimum Energy Performance Standards (MEPS) for lighting and cooling products and appliances. A significant milestone was achieved with the approval of regional MEPS for lighting by SADC Cooperation in Standardization (SADCSTAN) in April 2021, followed by EASC in July 2022. In November 2023, SADCSTAN approved the harmonized MEPS for cooling appliances, including residential refrigerators and room air conditioners. The EAC’s approval process for these standards is in progress. The development of the MEPS for cooling appliances was also supported by United for Efficiency .

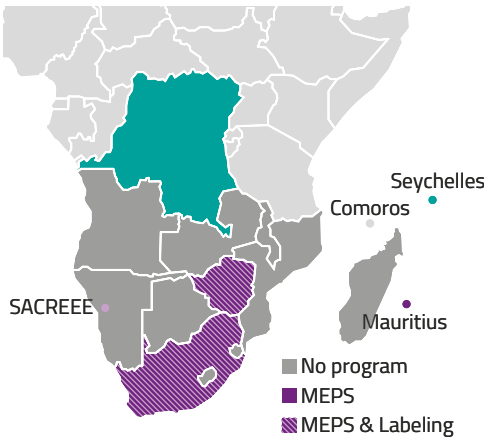
EAC SUMMARY OF MEPS IMPLEMENTED



State Member	MEPS	Labeling	Naional Testing Lab	Other Testing Lab
Kenya				
Uganda*				
Tanzania**				
Rwanda**				

Burundi and South Sudan do not currently have standards and labeling policies for appliances and products.
* Voluntary MEPS for air conditioners
**Voluntary MEPS for all products

SADC SUMMARY OF MEPS IMPLEMENTED



State Member	MEPS	Labeling	Naional Testing Lab	Other Testing Lab
DRC	Unknown			
Malawi				
Mauritius				
Seychelles				
South Africa				
Zimbabwe				
Zambia				

**Voluntary MEPS

Lighting products Air conditioners Refrigerators Motors Audio visual equipment



Management guidelines: The EELA project is supporting the development of e-waste management guidelines for the EAC and SADC regions by assessing existing e-waste policies and practices. This has led to recommendations on Extended Producer Responsibility (EPR), repairability, capacity development, and skills enhancement. The aim is to harmonize efforts and provide a robust EPR framework, enabling countries to integrate these elements into national policies and business opportunities. Additionally, the project supports government institutions in developing policies and standards for waste lighting, cooling, and photovoltaic equipment. It also promotes sustainable e-waste management in the EAC and SADC regions, suggesting supplementary measures to support these recommendations, particularly the development of EPR policies and harmonizing data.

Development of regional energy efficiency labels: The EELA project is supporting the development of harmonized energy efficiency labels across the SADC and EAC regions. Energy efficiency labels offer crucial information to end-users regarding the energy consumption and performance of appliances and equipment. This empowers consumers to understand future running costs and make informed purchasing decisions suitable for their households and businesses. Globally, governments have recognized energy labels as one of the most cost-effective tools to lower household energy bills, reduce peak electricity demand, and cut CO2 emissions, all while ensuring consumers benefit from high-quality appliances and equipment.

Capacity building

An e-learning platform has been developed and made available to all stakeholders free of charge. The training comprises five modules, focusing on essential EELA topics. These include an introductory session on establishing an enabling EELA market, followed by in-depth modules covering lighting, clean cooling, productive use of energy, and market development strategies.

Change Agents were nominated by Member States to undergo extensive guided training, comprising both webinars (utilising the e-learning platform) and in-person workshops. The guided training is administered by the EELA project, in collaboration with the Kafue Gorge Regional Training Centre (KGRTC).



The EELA project supports Change Agents to drive the process of adopting MEPS and introduce new energy service business models in their countries.

— Readlay Makaliki, Lead Technical Expert, SACREEE and UNIDO

The EELA project procured portable lighting test equipment and donated to each of the 21 countries on the project. The equipment is capable of doing a variety of tests within 30 seconds. Hands-on training has been provided to lab technicians from national standards bodies (NSBs) and the technicians have conducted market surveillance tests with samples from the local market in their respective countries to provide policy makers with evidence based data on energy efficient lighting. This data, referenced to the harmonised EELA lighting MEPS will serve as national baselines as countries implement the lighting standards.

Furthermore, regional reference laboratories for lighting products were capacitated in Uganda and Mozambique, with more to follow. These reference laboratories accommodate product testing from other member states and host technicians for hands-on training. This also contributes to the objective of strengthening collaborative efforts among national standards bodies.



Laboratory testing plays a crucial role in market surveillance, ensuring the protection of the market from substandard and low-quality energy products.

— Denis Ariho, Lead Technical Expert, EACREEE and UNIDO

Raising Awareness

Raising Awareness about the benefits of energy efficient technologies among market players, policymakers, and consumers is achieved through public information campaigns across traditional and social media channels, as well as through outreach events. The EELA Stakeholder Forum is an important annual event which brings together key energy stakeholders from the regions to discuss and promote energy efficiency initiatives. The event provides a platform to track the uptake of energy-efficient appliances, share lessons learned, raise awareness, showcase trends and initiatives, and explore potential markets. The 2023 event held in Nairobi, Kenya, saw the launch of the EELA Champion Awards, which recognize outstanding leadership, commitment, and achievements in energy efficiency. These awards honor the exemplary efforts of countries, institutions, and individuals in advancing EELA objectives within the EAC and SADC regions.

The EELA project maintains a high profile through targeted information campaigns and a strong communication focus on EELA outreach events and programs. This includes extensive social media engagement on platforms such as LinkedIn and X (formerly Twitter) at **EELA Energy** and **@eela_energy**, respectively, along with traditional media coverage. In addition, the EELA project website, eela-project.org, was launched in 2022 as a resource to support countries with information, tools, and guidelines, including an ongoing series of webinars on key EELA topics.

Selection of photos from EELA Stakeholder Forum, Nairobi, 2023



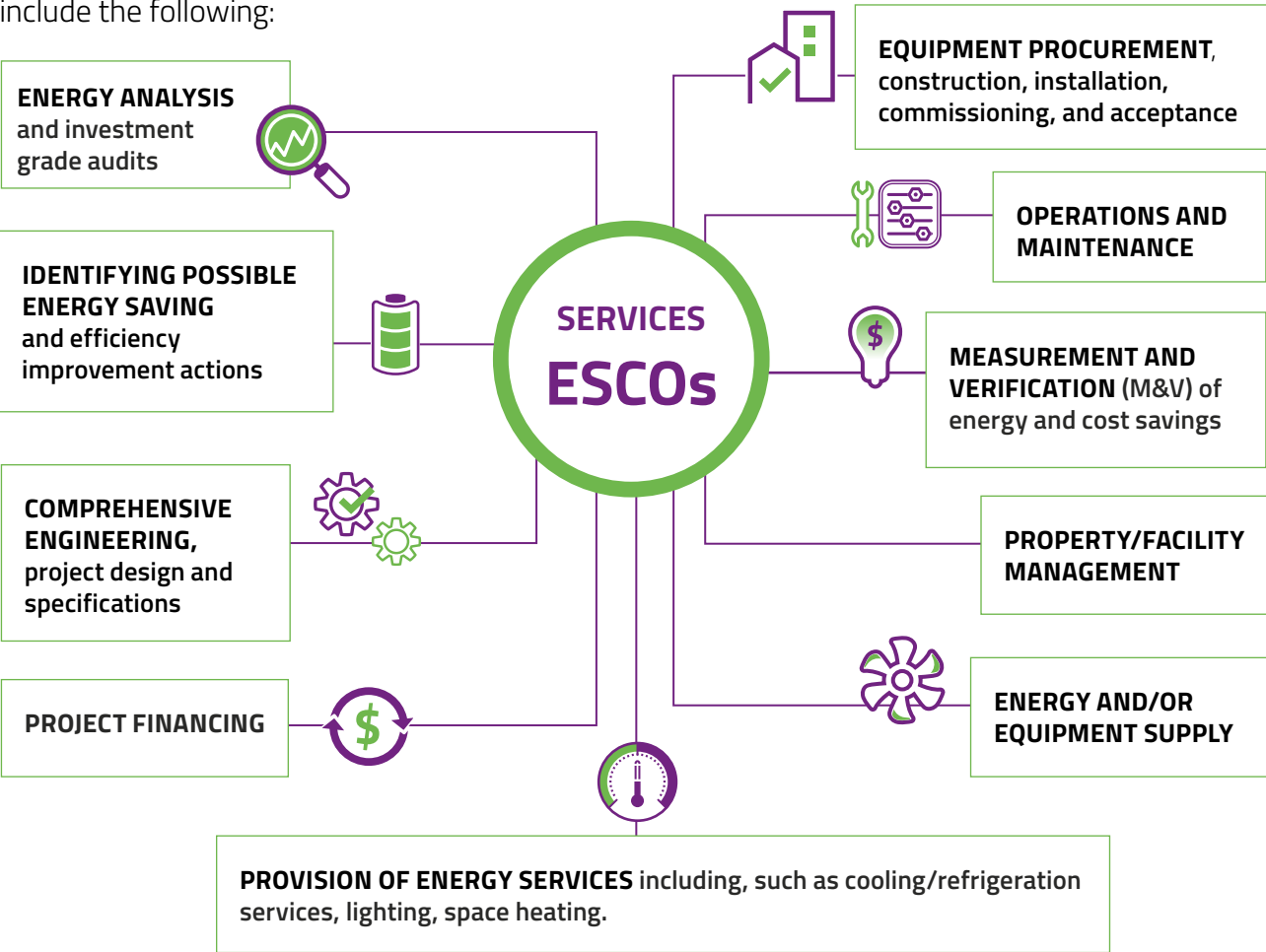
Private sector support

A central aim of the EELA project is to foster market transformation by empowering the private sector to provide efficient energy services, thereby enhancing climate resilience and creating green jobs. To support this, a private sector strategy was developed for the EAC and SADC regions, leading to the launch of the EELA Technical Assistance and Co-Financing Facility. The Facility offers technical assistance and financial incentives to energy service companies (ESCOs) and commercial energy users to deliver efficient, high-quality energy services. To date, this facility has co-financed six ESCOs following a transparent selection process: Green Impact Technologies and Zuwa Energy in Malawi, Icopower in Kenya, ERE Ltd and STOP Ltd in Rwanda, and AG Energies in Tanzania. Additionally, the Facility has provided St. Francis Referral Hospital and Lugala Lutheran Hospital in Rwanda with technical assistance to conduct feasibility studies.

The Energy Service Company (ESCO) model

ESCOs play a multifaceted role, encompassing the development, design, construction, and financing of projects geared towards energy conservation, cost reduction, and decreased operations and maintenance expenses. ESCO clients pay a fee for energy services without the concern of technical solutions or upfront investment costs, a significant barrier to the energy efficiency market in sub-Saharan Africa.

The **ranges of services ESCOs provide** include the following:



Expanding to new regions and areas of intervention: From Energy Efficient Appliances to Industrial Energy Efficiency

The Energy Efficient Lighting and Appliances (EELA) project is in the transition to advance from a project to a program. This transition includes the expansion to a broader energy efficiency approach and also to expand to new regions joining the regional EELA work. It also includes the support to national EE initiatives through the development of national energy efficiency projects to support the national implementation.

This expansion will form part of a follow-on phase of the EELA project. A core principle of the **EELA 2.0 project** is that each region will focus on its own priority areas. This will allow the three regions to conduct activities that address their specific needs, adhering to their specific regional procedures. Regional collaboration will remain the backbone for harmonisation and standardisation activities, with a focus on selected products, whereas national engagement will be the key to successful implementation.

National implementation: the Kenya Energy Efficiency Project (KEEP)

The first national Energy Efficiency Project under the new EELA programmatic approach is the **Kenya Energy Efficiency Project (KEEP)**. The overall objective of the KEEP project is to stimulate inclusive sustainable economic growth through a National Energy Efficiency Project targeting energy efficient on- and off-grid appliance activities linked to the regional EELA Project. It also includes **the set-up of a private-sector cleantech platform to accelerate investments in the low-carbon transformation of the industrial sector, particularly in the tea industry**. In addition, the KEEP project includes skills development for the repair, maintenance and end-of-life treatment of energy efficient equipment, with a special focus on off-grid equipment such as solar home systems, off-grid refrigerators and off-grid productive use equipment. With financial support from Sida, the EELA project is supporting KEEP to stimulate inclusive sustainable economic growth in Kenya by supporting the implementation of the **Kenya National Energy Efficiency and Conversation Strategy (NEECS) 2020**.

About us

The EELA project is funded by the Swedish International Development Cooperation Agency (Sida), and is implemented by the United Nations Industrial Development Organization (UNIDO) with support from the East African Centre of Excellence for Renewable Energy and Efficiency (EA-CREEE) and the Southern African Development Community Centre for Renewable Energy and Energy Efficiency (SACREEE). Technical support is provided by the Swedish Energy Agency (SEA) and CLASP.

Key stakeholders

- SADC and EAC and their subsidiary bodies
- National Ministries of Energy/ Environment/ Trade and others
- Power Pools and Regulatory Associations
- Private Sector Associations
- Producers and distributors of household and industrial appliances
- Electricity supply companies (ESCOs)
- National Standards Bodies and Regional Coordination Mechanisms
- National Accreditation Bodies
- National Testing Facilities
- Domestic and commercial energy users and many more

Join us and help Switch On the Power of Energy Efficient Lighting and Appliances across East and Southern Africa!

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

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