



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



**SUSTAINABLE DEVELOPMENT GOAL 9**  
INDUSTRY, INNOVATION AND INFRASTRUCTURE

# Regional approaches to accelerate a market transformation towards Energy Efficient Lighting and Appliances

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SEAD Workshop for Sub-Saharan Africa  
COP 26 Product Efficiency Call to Action  
Doubling the efficiency of products sold globally  
26 November 2020

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## UNIDO at a glance:

The United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability.

UNIDO's mission is to promote and accelerate [inclusive and sustainable industrial development](#) (ISID) in developing countries and economies in transition

UNIDO programmatic focus is structured in four strategic priorities:



Creating shared  
prosperity



Advancing economic  
competitiveness



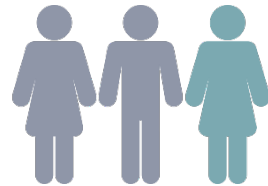
Safeguarding the  
environment



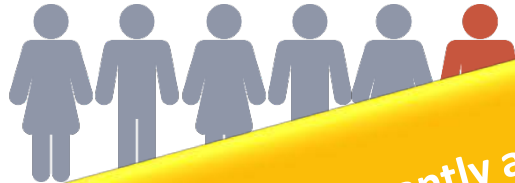
Strengthening knowledge  
and institutions



# Appliance Ownership in Sub-Saharan Africa



1 in 3 households  
own a television



1 in 9 own a  
generator

**This will change significantly and markets need to be prepared!!!**



1 in 9 own a  
computer



In rural areas, access is even lower—just 4% of rural households own a refrigerator

Source: CLASP 2020



# Barriers hindering a market transformation in SSA include

- Import oriented markets with no common policy framework for energy efficient lighting and appliances – absence of MEPS in most countries
- Significant barriers still exist around awareness, access to finance and skills
- Ad hoc versus systematic approach – need for transformation
- Lack of capacity to develop and implement regulations such as MEPS
- Challenges with enforcement capacity including local testing facilities
- Challenges on border control and leakage
- Lack of motivation for the private sector to invest as standards are not enforced - Small country focused markets
- Lack of service providers with viable business models that can deliver efficient energy services

# Benefits of a market transformation to more efficient products

- **Household savings** - reduce household energy bills
- **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
- **Market 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**



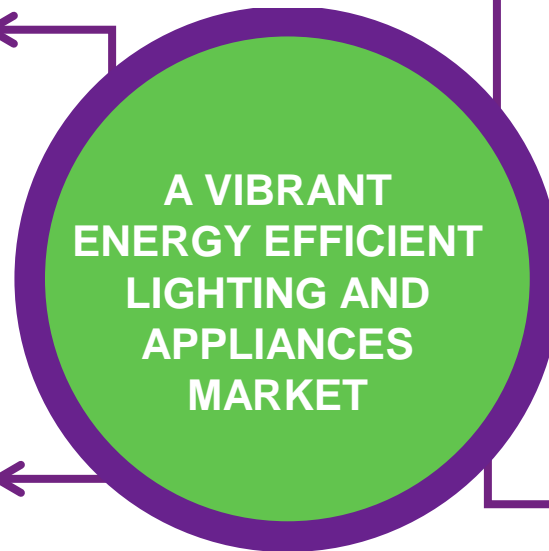
# Opportunities



Countries will benefit from greater **ENERGY SECURITY**



Less power use means fewer CO<sub>2</sub> emissions, **BENEFITING THE ENVIRONMENT**



Household savings and health **BENEFITS FOR PEOPLE**



New business opportunities for local and regional companies; alongside cheaper running costs for business using EE products will **BOOST THE ECONOMY**

# Why Regional Collaboration?

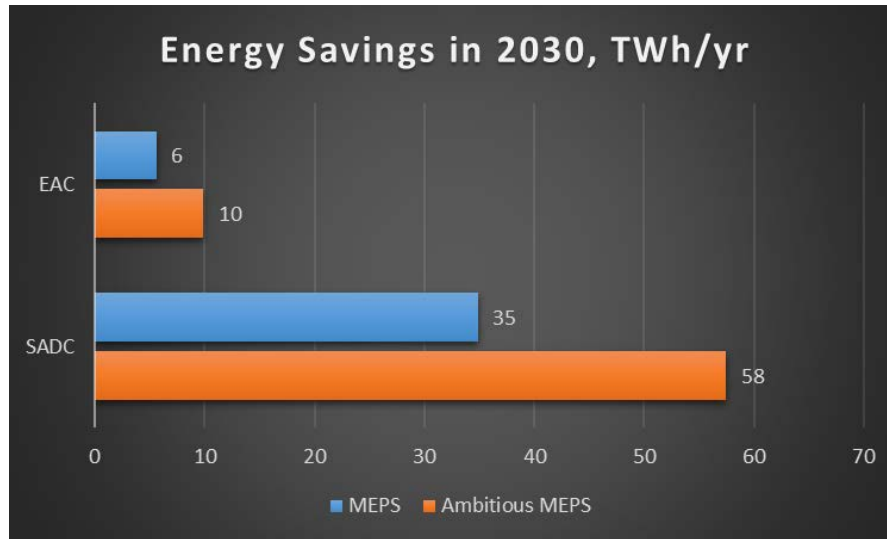
- Eliminates trade barriers for EE products
- Unlocks economies of scale
- Increase affordability
- Common monitoring, verification and enforcement
- Supports coordinated compliance planning and efficient use of resources when a regional market shares similar products
- Great potential to avoid duplication of compliance efforts



Regional Sustainable Energy Centres play a pioneering role in regional harmonisation



# The savings potential across Eastern and Southern Africa



Refrigerators



Air Conditioning



Motors



Lighting



Transformers

- Savings of 41 – 68 TWh/yr in 2030 across EA and SADC\*
- Equal to 5 - 8 times Kenya's total electricity consumption (IEA, 2016)
- Avoids 18 - 30 coal-fired powerplants\*\*, costing US\$22-37 billion to build

\*EA: Burundi, Kenya, Rwanda, South Sudan, Tanzania, Uganda. SADC: Angola, Botswana, DRC, eSwatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Zambia, Zimbabwe.

\*\*Assuming US\$2,500/kW and a 500MW power plant operating at 0.50 availability, producing 2.19 TWh/yr.





# 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 increasingly aware households, businesses and public facilities across East and Southern Africa. EELA stimulates the market for Energy Service Companies(ESCOs), local manufacturing and private sector investments and provides co-financing for innovative business models.

## The EELA approach to change



**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 REX and regional sustainable energy centres



Implemented by UNIDO with financial support from the government of Sweden and in collaboration with technical partners





# EELA Private Sector Support Facility



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

**Call for Expression of Interest to be launched soon**



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

- Conducted dedicated Country Private Sector Meetings
- BUSINESS MODELS – EPC, LEASING, CaaS, LaaS – Innovation
- EE TECHNOLOGIES – Lighting, Cooling, Productive Use



# Join the EELA – get involved

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