



INVESTMENT OPPORTUNITIES FOR ENERGY EFFICIENCY IN EAC, ECOWAS AND SADC

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BACKGROUND AND INTRODUCTION



Need for Energy Efficiency in Africa

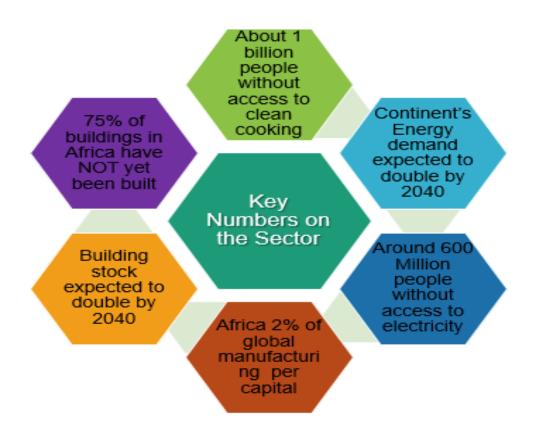
- □ Access to modern energy services is a prerequisite to shared objectives under SDGs, Agenda 2063 and individual member states development blueprints: human development, economic growth & environmental sustainability.
- ☐ Transformation in the African Energy Landscape would include:
 - Universal Energy Access: Committing to significantly expand access to about 600 million people without access to electricity
 and about 1 billion without access to clean cooking services across the continent. This is recognizing that this as a precondition
 for achieving the Sustainable Development Goals 7 (SDGs) and other SDGs such as ending hunger, quality health services and
 education, food security, gender, water supply, economic development etc.
 - **Energy Sustainability:** Ensuring that Africa's energy transition is aligned with the Paris Agreement's objectives, contributing to global efforts to mitigate climate change while addressing the continent's specific adaptation needs.
 - Energy Security: Availability, accessibility, acceptability, and affordability. Emphasizing the deployment of all of Africa's energy resources, including renewable and non-renewable options like natural gas, green and low carbon hydrogen, and nuclear energy, to meet the growing energy demand responsibly.

Energy Efficiency stands out as a low hanging fruit in balancing the three imperatives of the "energy triangle" – equity, security and sustainability.

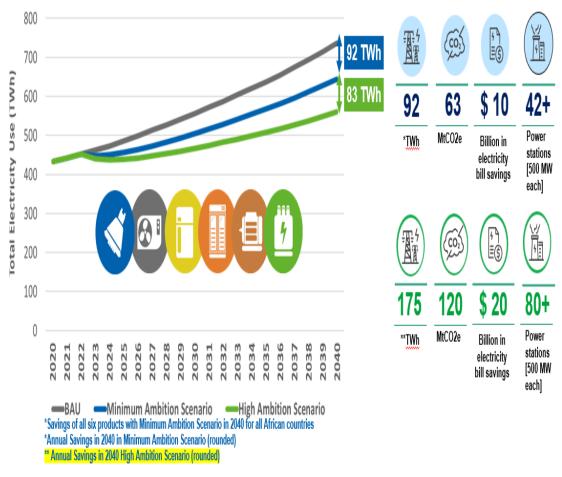
BACKGROUND AND INTRODUCTION

Role of Energy Efficiency Africa's Energy Landscape

- Potential to contribute to Sustainable energy system: energy security, energy equity (affordability and accessibility), and environmental sustainability.
- Efficiency in buildings for Africa is more than energy savings to include transition to cleaner fuels for cooking.



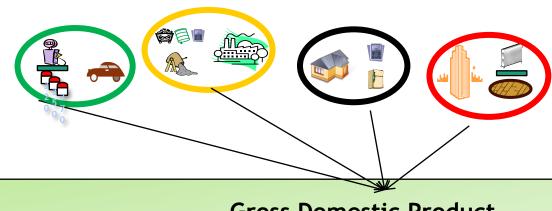
Continental Appliance and Market Transformation Potential

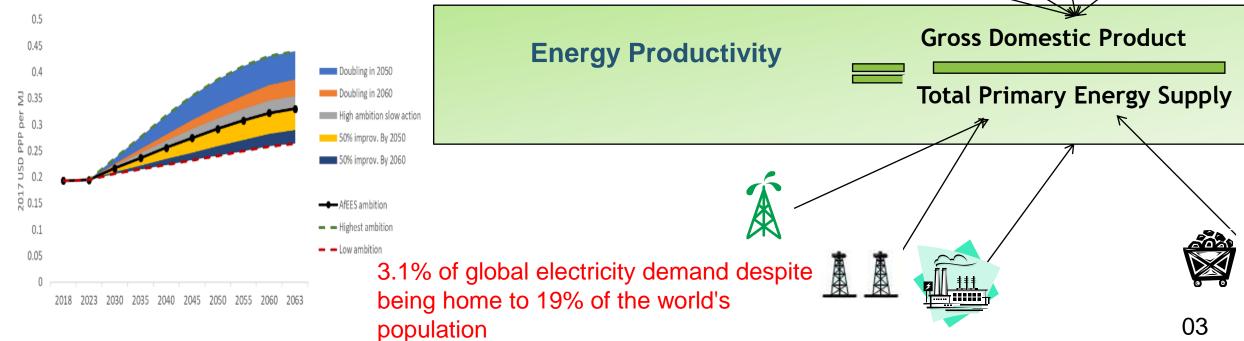




The African Energy Efficiency Programme through the African Energy Efficiency Strategy and Action Plan (AfEES) has set a target to enhance energy productivity.

Targets all sectors of the economy with the target of 50% increase in energy productivity by 2050 and 70% by 2063. The amount of economic output that is derived from each unit of primary energy consumed.

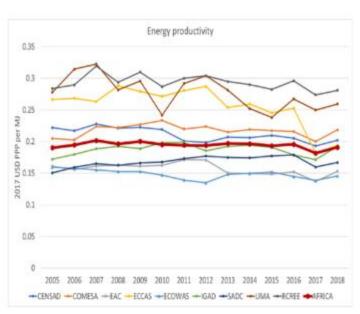


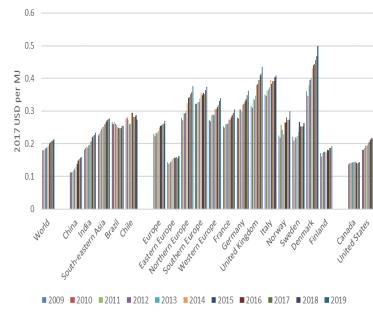




Significant investment opportunities to enhance Africa's energy productivity

 Potential exists to decouple the long-term economic growth from energy consumption, fostering energy-efficient and resilient economies and realizing universal access to modern, reliable and affordable energy in support of the Agenda 2063 goals





Africa's Productivity

Global Picture

Doubling energy efficiency in Africa could create 2 million jobs up to 2030

■ Targets all sectors of the economy with the target of 50% increase in energy productivity by 2050 and 70% by 2063. The amount of economic output that is derived from each unit of primary energy consumed.

The current energy productivity is less than half the productivity in other developed economies



Intervention Sectors under the Programme



Industrial Sector

Achieve energy-efficient operation of industrial and commercial end users (including both manufacturing and industries without smokestacks)



Building Sector (Domestic, Commercial and Institutional Facilities)

Enhance energy efficiency in the building sector by establishing and enforcing building codes, material efficiency, building star rating



Transport Sector

Fuel switching, of more efficient vehicles, use of mass transport, maintenance of vehicles, use of e-vehicles and streamlining of public transport system management



Electricity Sector

Improve the energy efficiency of the Electricity Supply Industry.



Agricultural Sector

Adoption of modern farming methods e.g., precision irrigation, use of machinery and fuel efficiency, greenhouses, efficient cooling, capacity building and renewable energy integration.



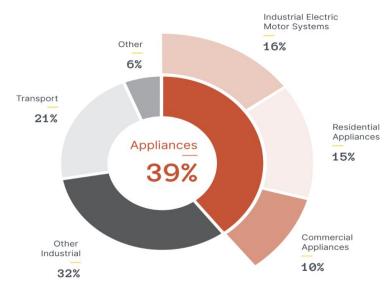
Appliances and Clean Cooking

Implement minimum energy performance standards and energy labels targeting lighting, cooking, cooking appliances and equipment, and support incentives for adoption.

HIGH EFFICIENT APPLIANCES AND EQUIPMENT

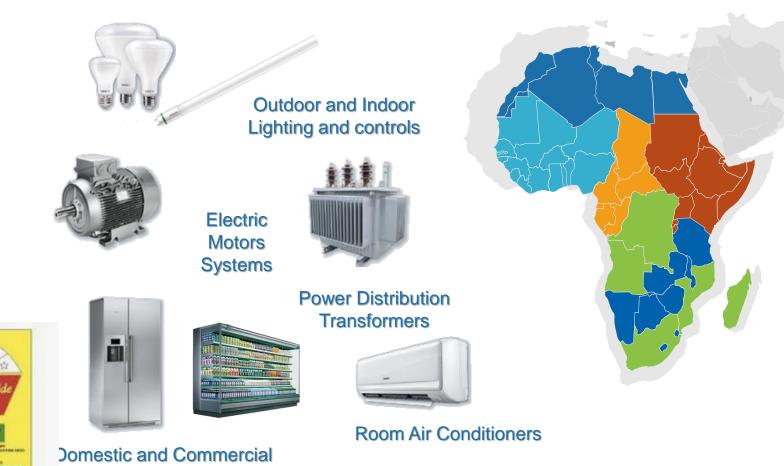


Energy Efficiency in Appliances (A)



Appliances are responsible for 39.3% of energy-related CO₂ emissions.

These emissions are equal to roughly the total CO₂ emissions from China, Europe, and Brazil.



Refrigerators

Publication available on: https://au-afrec.org/

HIGH EFFICIENT APPLIANCES AND EQUIPMENT

electricity consumption,

which is equivalent to:

regional electricity

[500MW each]

16 to 30 million

With the growing population and associated energy demand, the RECs have significant energy saving potential (

Eastern Africa

Western Africa

Savings Potential in West Africa from Energy-Efficient

Lighting, Appliances and Electrical Equipment

Total Electricity consumption forecast to 2040

**More stringent

policies reduce

this increase to ca.

-- - High Ambition Scenario

* Range Savings of all five products from a Minimum Ambition Scenario and a Higher Ambition Scenario to current international standards/norm

2023 2025 2025 2026 2027 2029 2030 2031 2033 2035 2035

By 2040 the electricity

to increase by over ca.

*Policies can

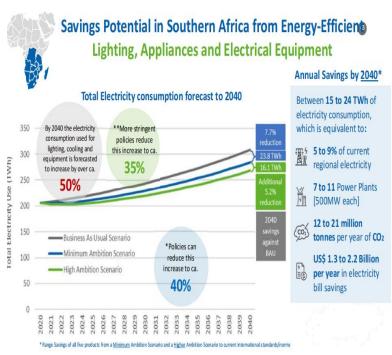
reduce this

increase to ca.

100%

Savings Potential in East Africa from Energy-Efficient Lighting, Appliances and Electrical Equipment Annual Savings by 2040 Annual Savings by 2040* Total Electricity consumption forecast to 2040 Between 11 to 22 TWh of Between 26 to 50 TWh of electricity consumption which is equivalent to: **More stringent By 2040 the electricity policies reduce TALL 16 to 32% of current 30 to 60% of current this increase to ca. regional electricity lighting, cooling and equipment is forecasted 5 to 10 Power Plants 12 to 22 Power Plants [500MW each] 5 to 10 million tonnes tonnes per year of CO2 Business As Usual Scenario *Policies can US\$ 1.3 to \$ 2.6 Billion reduce this US\$ 3.6 to 7 Billion per per year in electricity increase to ca. -- High Ambition Scenario vear in electricity bill * Range Savings of all five products from a Minimum Ambition Scenario and a Higher Ambition Scenario to current international standards/norms

Southern Africa



Significant investment potential in the manufacturing of the highly efficient products and financing of the delivery models e.g. through on bill financing Retrofit of motors in industries through ESCOs

ELECTRIC POWER SYSTEM IMPROVEMENT



Electricity Supply System

- □ Parts of Africa have the lowest supply of electricity than any other region in the worlds with about 600 million people without access and almost half of those with access reporting unreliable supply.
- ☐ The contrast is that 40% of the electricity utilities report losses of more than 20% losses compared to 8-10% in the developed countries.



Tech	2023	Baseline	Full Regional	Full Continental
Solar	9.8	203	187	262
Wind	8.2	125	370	342
BESS	0.124	14	32	25
Hydro	40	86	114	120
Nat. gas	121	272	393	390
CSP	1.1	2.6	11	11
Biomass	8.0	2.6	2.6	2.6
Geothermal	0.9	3.6	4.9	5.1
Pumped storage	3.7	6.5	6.5	6.5
Diesel	13	6.7	10	10
HFO	8.5	7.4	3.7	4.6
Coal	52	39.4	32.1	31.9
Nuclear	1.8	6.7	6.7	6.7
Total	263	775	1 199	1 213

- Regional Integration and Distributed Generation
- Grid Infrastructure Upgrades
- Distribution Network Optimization
- Adoption of Smart Grid Technologies
- Loss Mapping and Energy Audits
- Regional Interconnection Projects
- Enforcement of legal/regulatory measures in place

Significant investment additional capacity (Distributed generation), Public Private Partnerships for infrastructure upgrades, smart metering etc

INDUSTRIAL SECTOR AND BUILDINGS



BUILDINGS	INDUSTRY
According to IFC investment opportunity in energy efficiency is more than USD 770 billion in the building sector alone.	
Research, development and manufacture of energy efficient building materials	Energy Management Systems
Design and construction of energy efficient buildings	Appliances and equipment
Building Management Systems	Investment of energy conservation opportunities
Building appliances and equipment	Manufacturing of energy efficient appliances and equipment
Investment of energy conservation opportunities	



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African Energy Efficiency Alliance (1/2)



OVERACHING GOALS OF THE ALLIANCE

Annual African Energy Efficiency Forum

- Sharing of information on ongoing programmes
- Demonstration of results from programmes in Member States
- Building New Partnerships for implementation of EE programmes

Organize Capacity
Building & HighLevel Advocacy on
Energy Efficiency

- MEPS development
- Industry, transport, buildings, agriculture etc

Fund Mobilization and Joint Research Sharing of Information (National, Regional and Continental Publications)

- Best Regulation practices
- Energy Saving Assessments Reports
- Guidelines for MEPS Energy Labelling and Eco-Design at the Continental Level;
- Market Surveillance Strategy and Action Plan;
- Report on existing test laboratories, procedures and facilities;
- Roadmap for Strategic Test Laboratories;
- Strategy and Roadmap for Establishing a Market for Energy Efficient Appliances in Africa;

Member States

AFREC

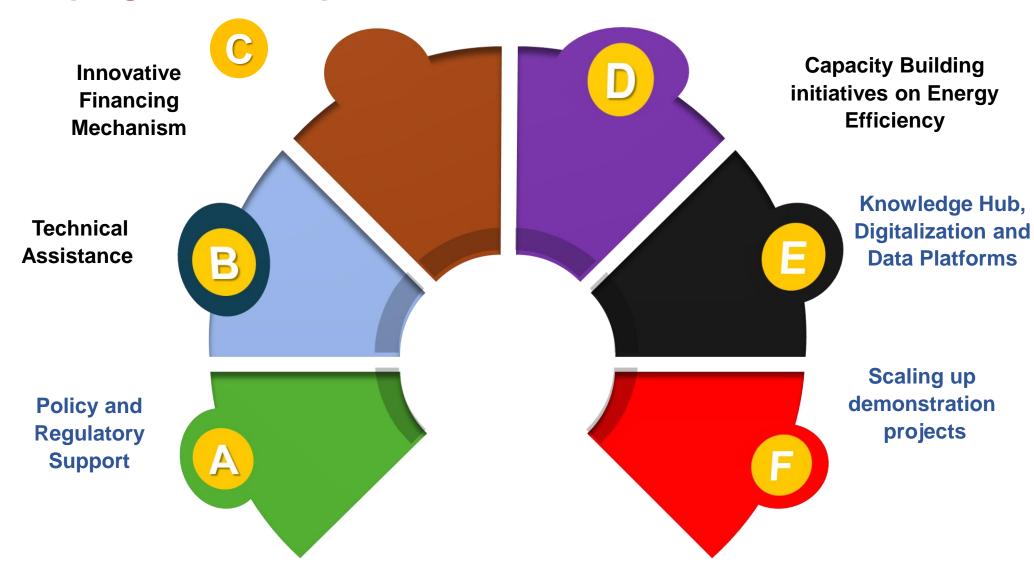
Renewable Energy and Energy Efficiency Centres

Partners supporting Energy Efficiency Programmes in Africa Africa: Target all sectors of the economy with a view to increase energy productivity by 2050 and 70% by 2063.

Global: Double the global average annual rate of energy efficiency improvements to over 4% by 2030

AFRICAN ENERGY EFFICIENCY \ALLIANCE

The programme components of the ALLIANCE





INAUGURAL EVENT FOR THE ALLIANCE

December 10-11, 2025

CONTINENTAL ENERGY PROGRAMME FOR AFRICA

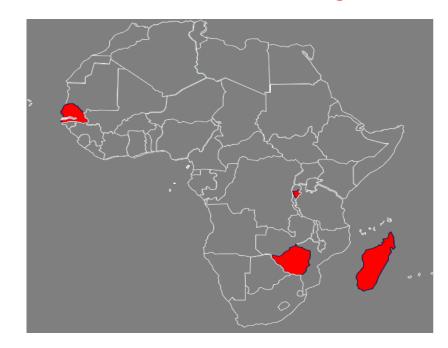


Support in developing NEESAP and EPB

Southern Africa		
Interest	Zimbabwe, Zambia, Malawi, Kingdom of Eswatini, Namibia, Lesotho and Botswana	
Phase I	Zimbabwe	
Central Africa		
Interest	Burundi, Republic of Congo, Central African Republic, Cameroon and Chad	
Phase I	Burundi	
Western Africa		
Interest	Sierra Leone, Liberia, Guinea, Benin, Senegal and Shana	
Phase I	Senegal	

Northern Africa		
Interest	Mauritania, Morocco and Algeria	

Eastern Africa			
Interest	Sudan, South Africa, Ethiopia, Rwanda, Ethiopia, Madagascar, Somalia, Tanzania, Seychelles and Comoros		
Phase I	Madagascar		



EFFICIENCY FIRST: POWERING AFRICA'S SUSTAINABLE DEVELOPMENT

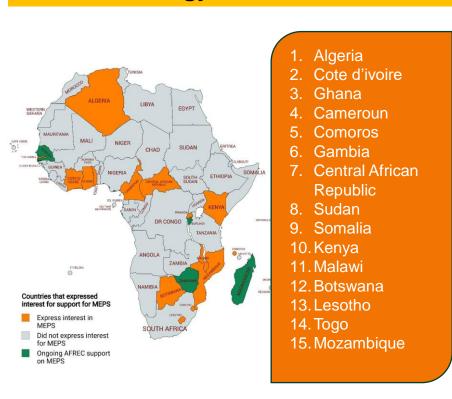


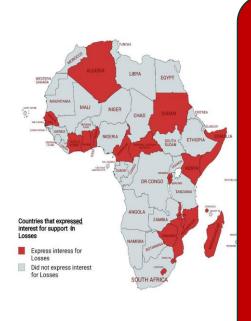
Summary of Member States that have expressed interest in the programme

Minimum Energy Performance Standards

Distribution Grid Losses

Monitoring and Evaluation







17. Togo

18. Madagascar

19. Mozambique

20. Zimbabwe

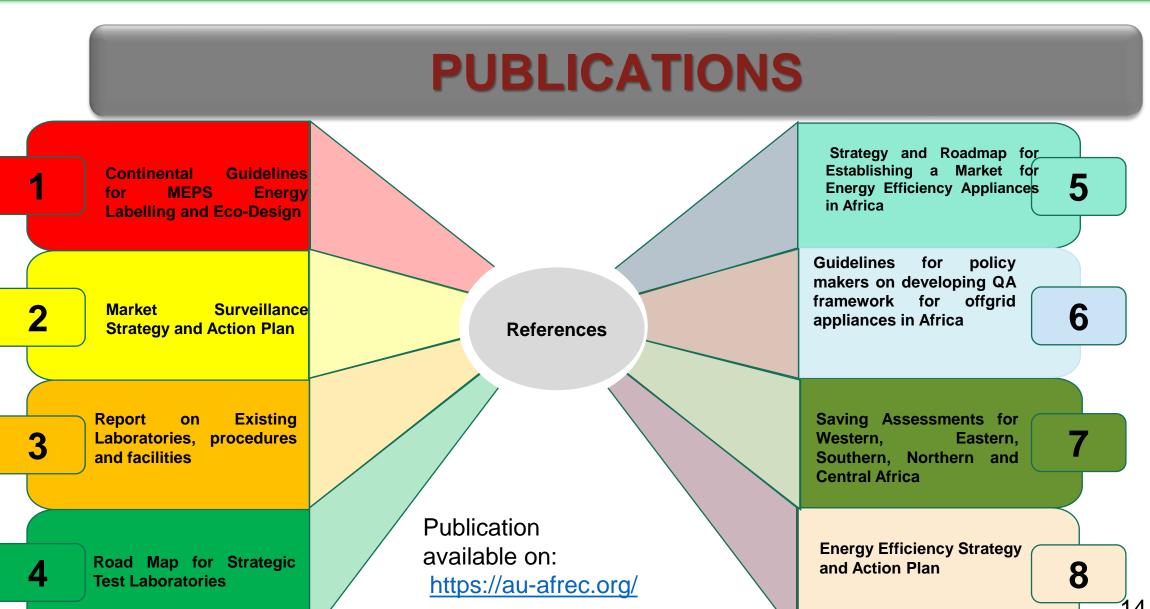
21. Rwanda



- 1. Algeria
- 2. Burindi
- 3. Benin
- 4. Botswana
- 5. Cote d'Ivoire
- 6. Ghana
- 7. Comoros
- 3. Gambia
- 9. Central African Republic
- 10. Eswatini
- 11. Senegal
- 12. Sudan
- 12. Sudan
- 13. Somalia
- 14. Kenya
- 15. Malawi
- 15. Ivialawi
- 16. Lesotho
- 17. Togo
- 18. Madagascar
- 19. Mozambique
- 20. Morocco
- 21. Zimbabwe
- 22. Rwanda

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Thank you Merci

شكرا

Obrigado Asante

