

# ENCOURAGING ENERGY EFFICIENCY PRACTICE IN SUB-SAHARAN AFRICA.



## Overview of Sub Saharan Energy access in Sub-Sahara Africa

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# Table of contents

- Introduction
- What is Energy Efficiency
- Merits in Reducing Energy waste
- Overview of Energy Access Sub-Saharan Africa
- Clean Energy Access and market in Sub-Saharan Africa
- Renewable Energy and Industry Overview in the region
- Encouraging energy efficiency practice in the region
- Conclusion

# About WEC

Master text describing WEC. Information to be provided my communications team

# Overview of Sub Saharan Energy access in Sub-Sahara Africa



# Introduction

- The benefits of energy efficiency are manifold including;
  - lower energy bills,
  - Improved air quality,
  - reduced greenhouse gases,
  - energy security, and
  - deferred infrastructure costs.
- Almost all these benefits are not available in the sub-saharan Africa because Energy Efficiency drive in the region is very low and its affecting the region in enjoying the prevalence of economically attractive opportunities of energy savings.
- In 2011, Sub-Saharan Africa accounted for almost half (47.6%) of all people without access to electricity and is the only region in the world where the rate of progress in expanding access to electricity and non-solid fuels fell behind population growth between 1990 and 2010.

# What is Energy Efficiency?

- ▶ Energy Efficiency is the measure of the useful energy produced compared to the energy converted in low quality and using the energy to do work with no heat produce.



# Merit in Reducing Energy Waste

- . Prolongs Fossil fuel supplies
- . Reduces Oil Import
- . Very high net energy
- . Low cost
- . Reduces Pollution & Environmental degradation.
- . Improves local economy by reducing flow of money out to pay for energy
- . Creates local job

In summary, Increasing energy efficiency is the quickest and least costly way of addressing energy security, environmental and economic challenges.

# Overview of Sub-Saharan Africa

- With an expanding population of just over 334.6 million in mid-2014, ECOWAS Member States represent approximately one third of Sub-Saharan Africa's total population. They comprise a diverse set of demographic, socio-economic, and social contexts. Population size ranges from Cabo Verde (539,000) to Nigeria (177,156,000), while gross domestic product (GDP) per capita ranges from USD 800 in Niger to USD 4,400 in Cabo Verde.
- Overall, most ECOWAS Member States continue to face major development challenges, with 13 Member States classified as having “Low Human Development” by the United Nations. These factors, along with demographic trends including urbanization and accelerating economic development, contribute to and are influenced by the region's severe energy challenges.

# Clean Energy Access and market in Sub-Saharan Africa

Cooking accounts for a large share of regional energy use. An average 85.7% of each Member State's population currently uses solid fuels (predominantly wood and charcoal) for cooking, with national figures ranging from 98% in Guinea-Bissau, Liberia, Mali, and Sierra Leone, to 31% in Cabo Verde. Efficient cook stoves, gas, and electricity represent opportunities to expand access to clean cooking fuels. Although data on clean cook stove penetration in the region is limited, it is estimated that significant shares of the populations in Sierra Leone (10%), Senegal (16%), and the Gambia (20%) are using improved biomass cook stoves.

Cabo Verde and Senegal exhibit particularly widespread use of liquefied petroleum gas (LPG) which, although not renewable, has significant environmental and health benefits over wood and charcoal.

Very few ECOWAS inhabitants rely on electricity for cooking, which remains expensive and unavailable in many parts of the region.

# Renewable Energy and Industry Overview in the region

- Renewable energy technologies play an increasingly important role in power generation. Although hydropower has been used throughout the region for many decades, deployment of non hydro renewables—including wind, solar, and biomass—is accelerating. Within ECOWAS, electricity has traditionally been provided through conventional grid systems.
- As of mid-2014, an estimated 4.8 giga watts (GW) of grid-connected renewable installed capacity (39 megawatts (MW) exists in the region, accounting for approximately 28% of the region's total installed capacity.
- Hydropower is the region's most well established and widely used renewable energy technology and remains the only renewable technology deployed on a commercial scale in many Member States.  
With only 19% of the region's estimated 25 GW of hydropower potential exploited to date, significant opportunities for expansion remain.
- Increasingly, however, regional electricity grids face considerable challenges including high expansion costs, aging infrastructure, and vulnerability to the impacts of climate change. Moving forward, renewable mini-grids and stand alone systems have been identified as important tools to achieve the region's energy goals.

# Encouraging energy efficiency practice in the region

- Energy efficiency improvements are among the most cost-effective solutions for offsetting the rising energy costs, unpredictable and uncertain energy supply, and growing demand for energy services faced by ECOWAS Member States.
- The ECOWAS Heads of State have prioritized energy efficiency as an essential tool to meet the region's energy supply challenge, a commitment formalized with the 2013 adoption of the *ECOWAS Energy Efficiency Policy (EEEP)*.
- The EEEP priorities cooking, lighting, buildings, and electricity distribution as high-impact opportunities for improving efficiency, and outlines targets and priority measures to reduce energy use and increase productivity through the development of National Energy Efficiency Action Plans (NEEAP) in each Member State

# Conclusion

Energy Efficiency Improvement are among the most cost-effective solutions for offsetting the rising energy costs, unpredictable and uncertain energy supply, and growing demand for Energy services faced in Sub-Saharan countries.

The key will be to implement energy efficiency policies for the present and future energy demands. Government in this region must be committed and be ready in ensuring the consistent practice of the policies.



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