

Building trust in ESCOs in a developing country context: the case of Kenya



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Presentation Format

- Introduction
- Kenya's energy consumption/efficiency status
- Contemporary framework for energy efficiency in Kenya
- Barriers to energy efficiency in developing countries
- ESCOs as potential solutions to energy efficiency barriers
- Potential ESCO market trust issues
- Solutions to market trust issues
- Way forward

Introduction

Developing countries have various intervention opportunities to meet NDCs

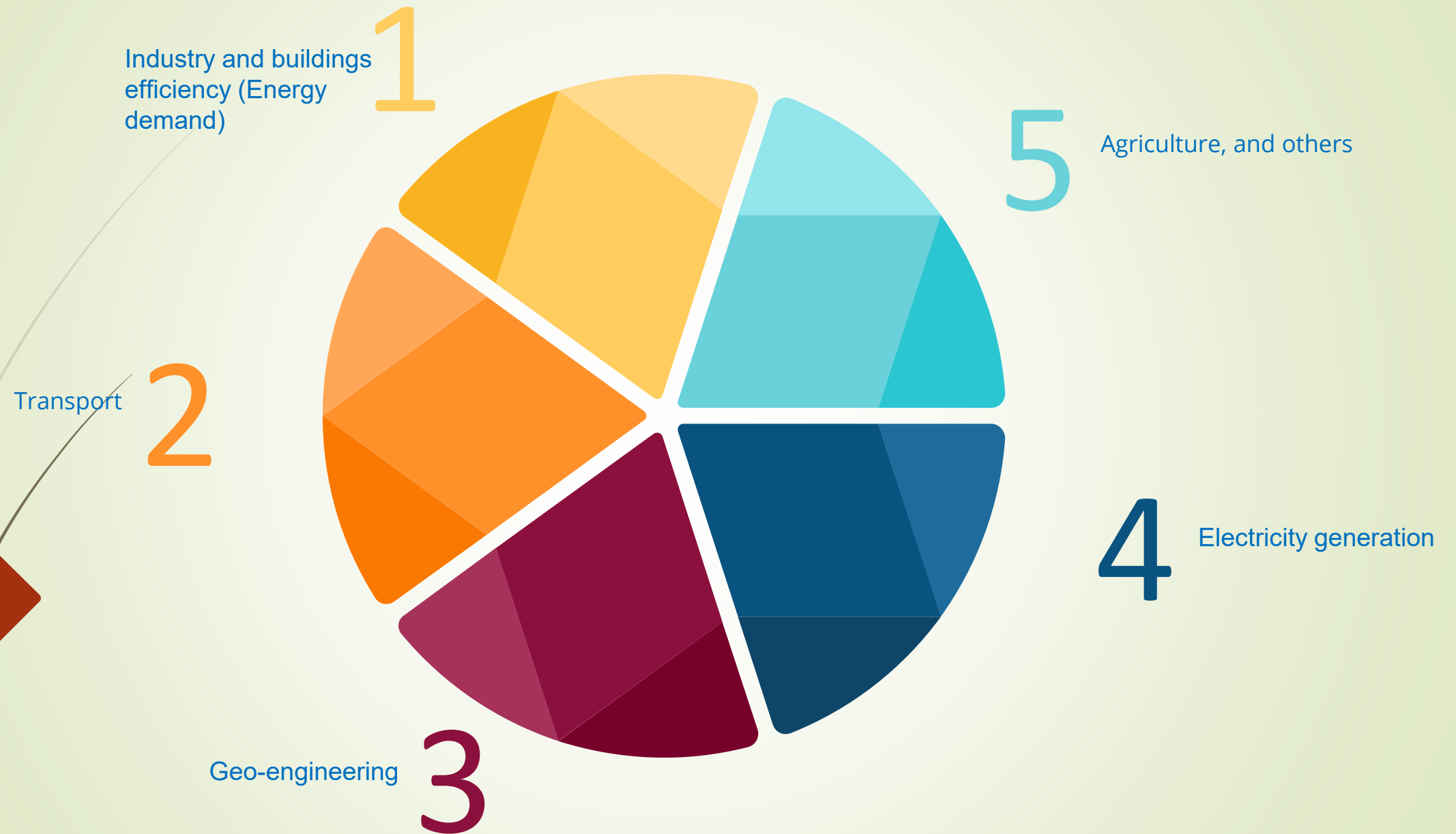
**Kenya's Business
As Usual-143**
MtCO₂ equivalent

Updated NDC as per
December 28, 2020

Reduced emissions by 32
% of BAU baseline, by
2030

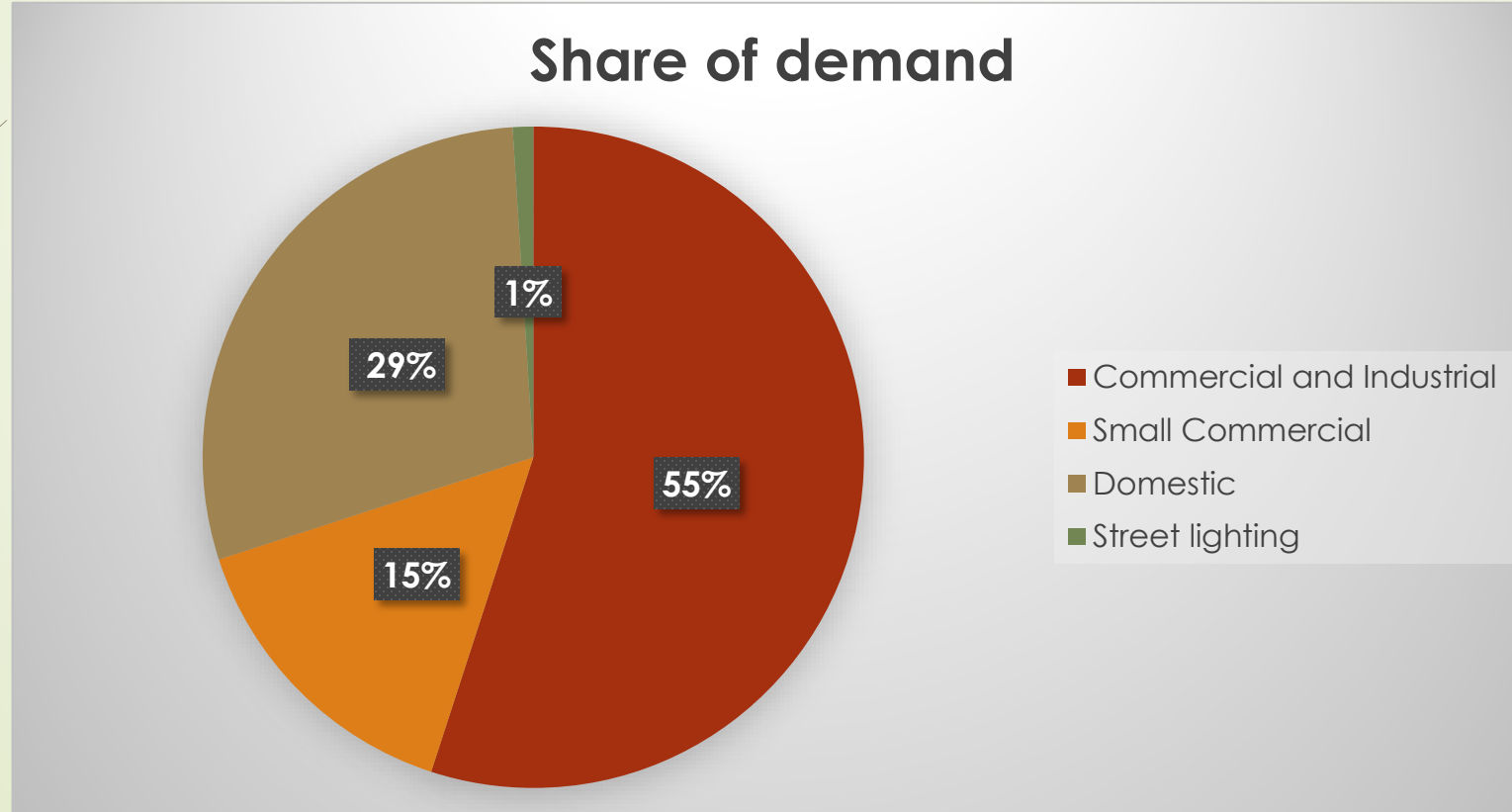


- Various pathways to meeting NDCs in Kenya have been articulated:



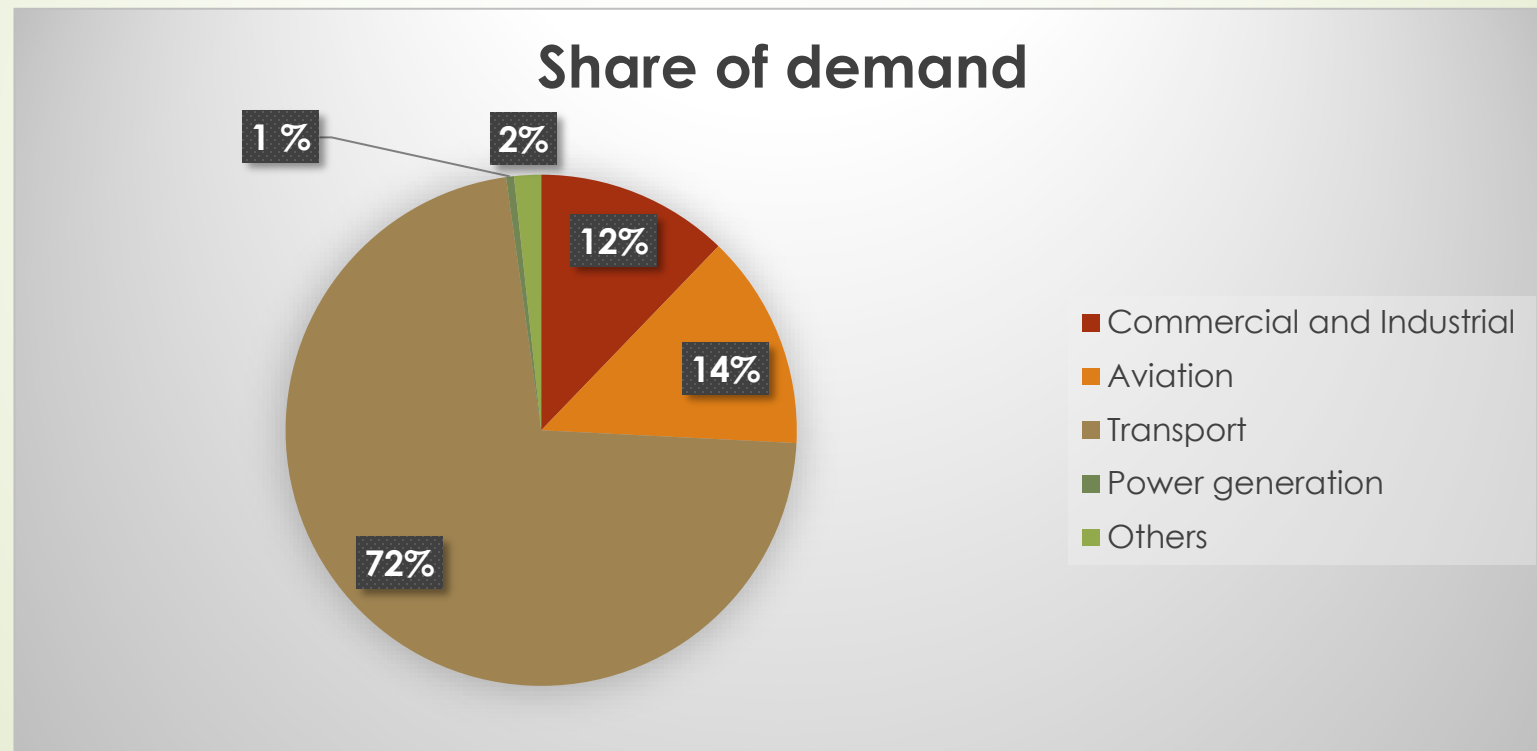
Kenya's Status

- Annual electrical energy consumption of **8769 GWh** in 2019



Kenya's Status

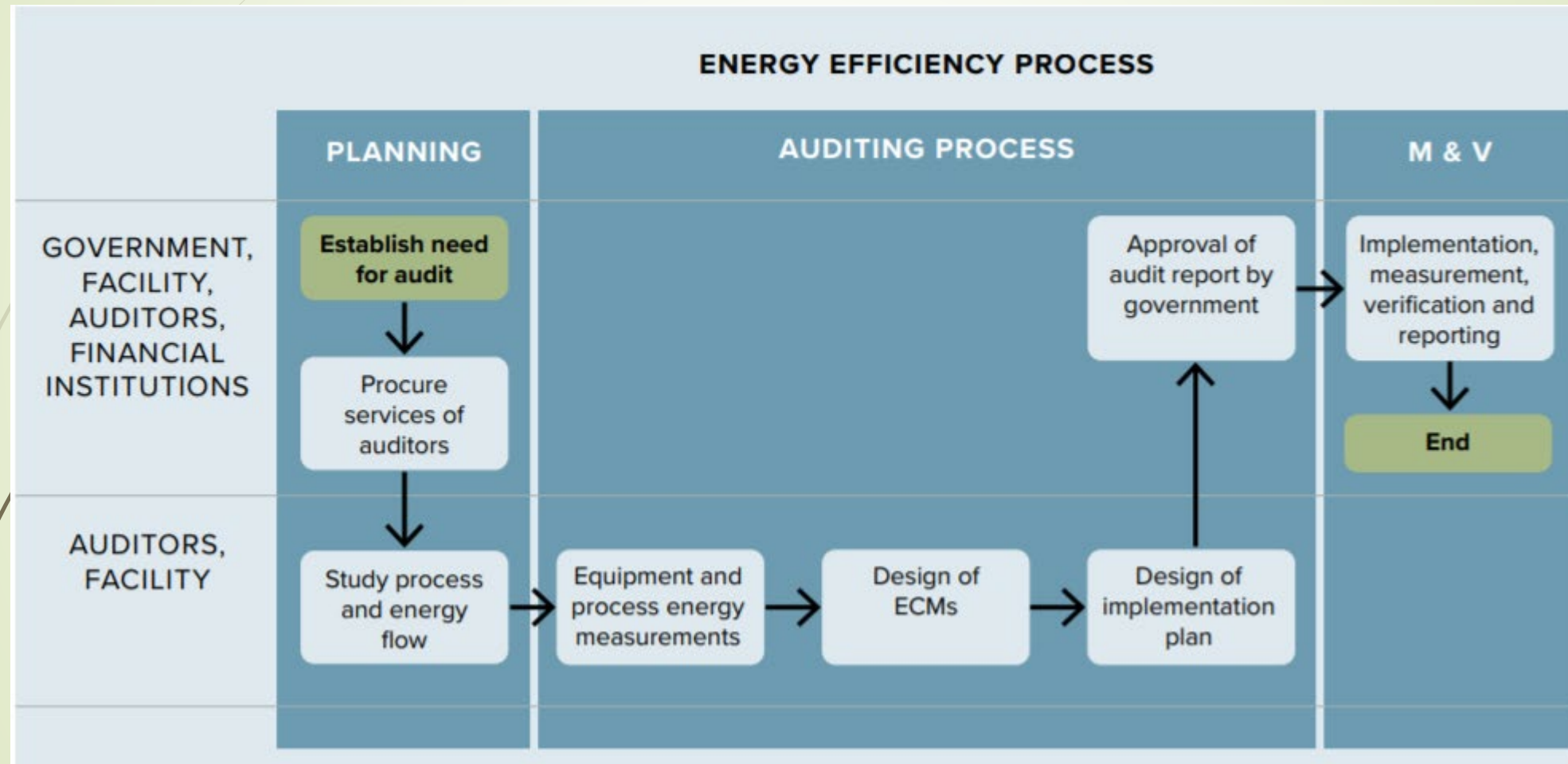
- Total petroleum products used amounted to **6438900** tons in 2019



Kenya's Status

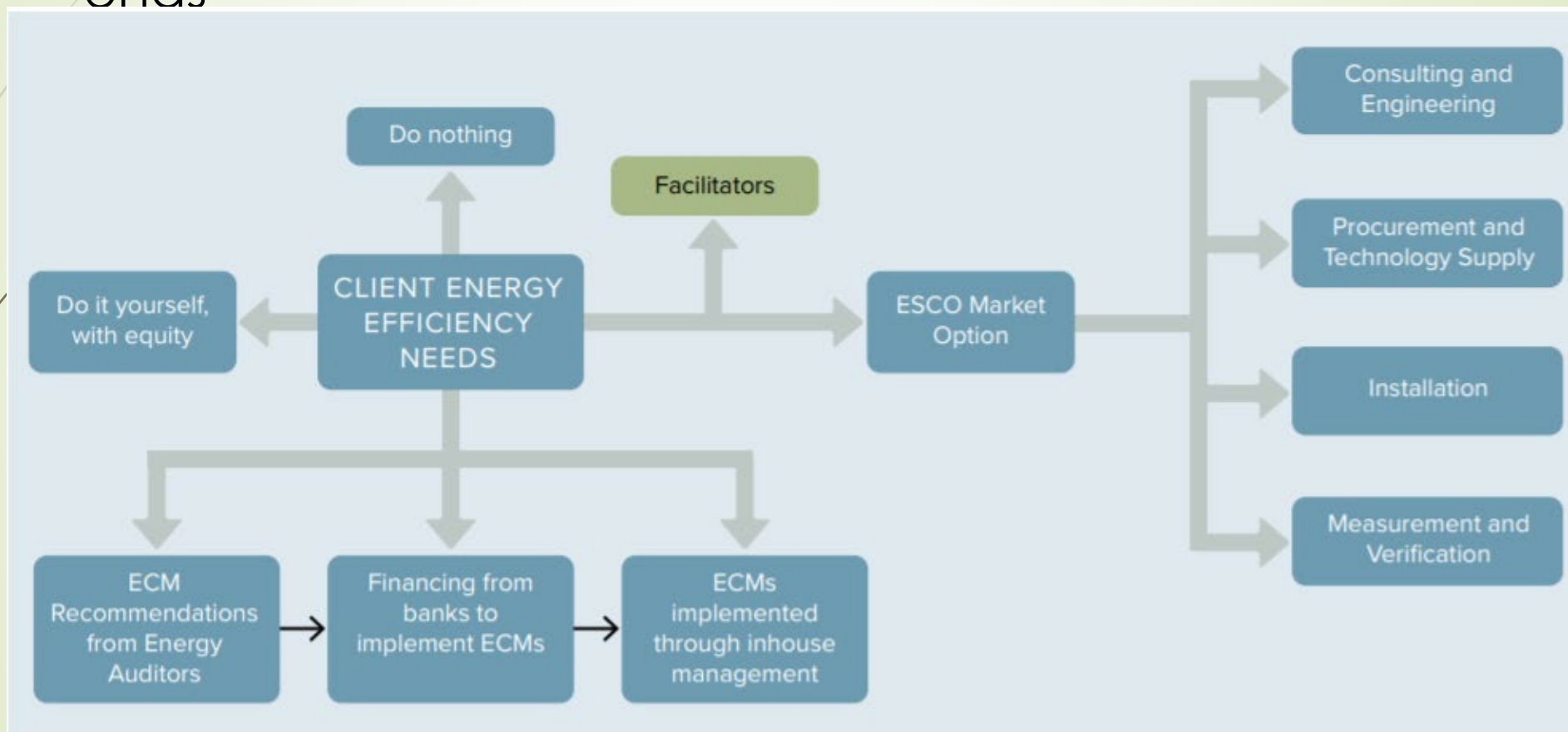
- Efficiency in commercial and industrial sector is an attractive area
- So far, Kenya has been on efficiency path, targeting more than **3500** facilities
- Out of 1313 facilities that have attempted compliance, only **43 %** have fully complied
- If all the **1313** have 100 % compliance, **2563 GWh** will be saved per year
- So far, only **1102 GWh** per year have been saved

Contemporary Framework in Energy Efficiency in Kenya



Contemporary Framework in Energy Efficiency in Kenya

- Various pathways are used to obtain the energy efficiency ends



Barriers to Energy Efficiency in Developing Countries

Obstacles to uptake of energy efficiency projects, as analyzed in an EPRA study of 2020 include:

PRIORITY PROJECTS

Skills and
Financial
Resource
problem

UNREALISTIC ECMS

Skills problem

LESS SKILLS AND KNOWLEDGE OF EE

Skills problem

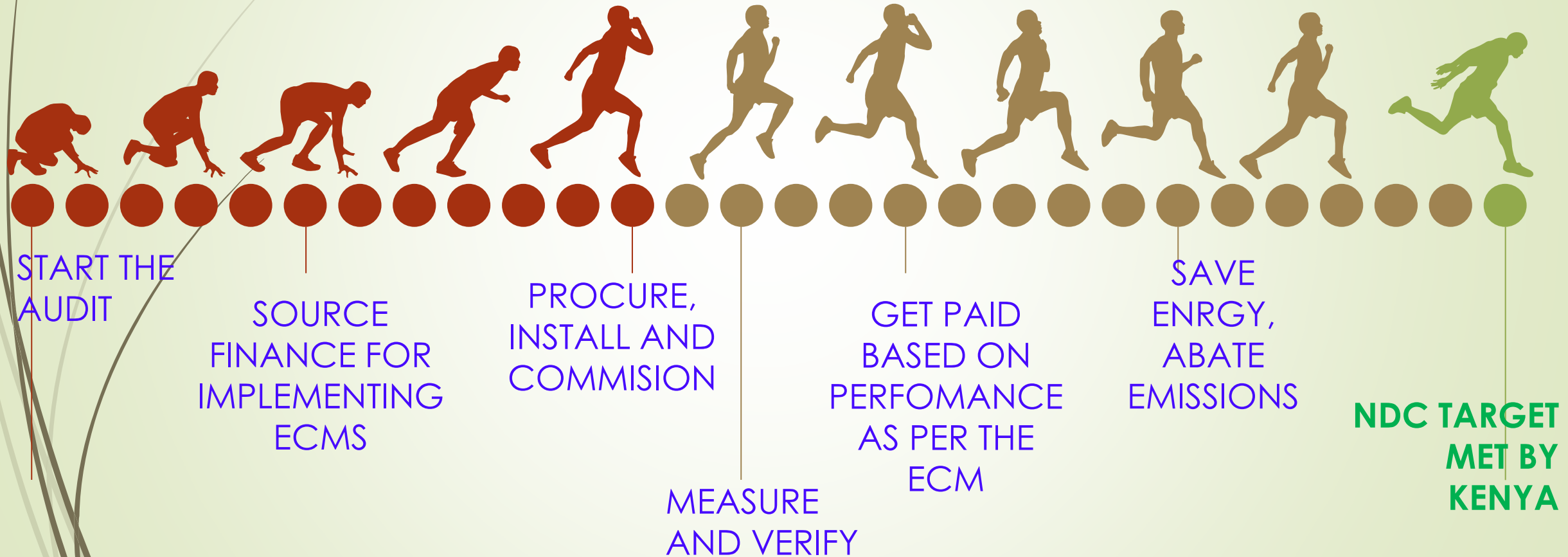
INADEQUATE MECHANISMS OF VERIFICATION

Skills problem

ENERGY EFFICIENCY ROAD, BLOCKED!

ESCOs as Potential Solutions to EE Barriers

ESCOs have a potential to offer solutions to these problems by offering wholesome services:



Potential ESCO Market Trust Issues

Barriers to uptake of EE in developing countries morph into issues that may erode trust in ESCO markets

Category	Barriers
Pipeline of Projects	Inadequate participation of government facilities in energy efficiency
	Facilities' failure to appreciate energy efficiency as an investment
	Inadequate awareness of energy efficiency regulatory requirements
Financial	High upfront costs of energy efficiency investment
	High transaction costs
	Energy price fluctuations
Knowledge and Skills	Inadequacy of measurement and verification skills
	Inadequacy of energy efficiency knowledge and skills

Solutions to the Market Trust Issues

Category	Suggested Solutions
Pipeline of Projects	Mandatory legal requirements for government facilities to adopt energy management systems in their operations
	Inclusion of energy efficiency as part of performance contract for government agencies
	Establishment of energy facilitators to help facilities make investment decisions and understand regulatory requirements
	Formation of super ESCOs
	Establishment of energy efficiency revolving fund for public facilities
Financial	Clarity on definition of ESCOs, for administration of financial incentives, in Regulations
	Fiscal policies favorable to ESCO markets
	Formation of a super ESCO
	Formation of an ESCOs Association for lobbying
	Development of energy efficiency consolidated fund for ESCOs
Knowledge and Skills	Development of local curriculum for energy efficiency and measurement and verification
	Adoption of measurement and verification protocols
	Training programs by government and manufacturers association

Way Forward

- Interventions should be split into focus points
- The points should be:
 - i. ESCO side based intervention
 - ii. Client side based intervention
 - iii. Transaction based intervention (focus on both parties in the market)



Thank You

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