EELA WEBINAR SERIES

Energy Efficiency Investment Opportunities in EAC, ECOWAS, and SADC

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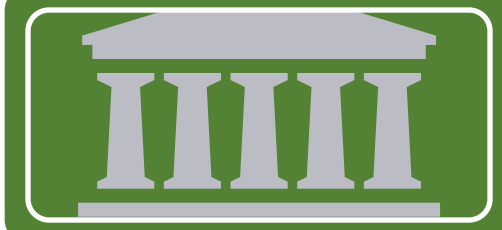
Energy efficiency opportunities are present across all sectors



Buildings

- Public and private buildings consume ~40% of global energy and have significant potential for energy savings
- Universities, schools, hospitals, libraries, museums, etc. have great energy saving potential. EE could be significant electrical appliances/equipment and building envelope measures, etc.,
- In most African countries, buildings tend to be older and have inefficient and poorly maintained equipment

Water Utilities

- 2 to 3% of the world's energy consumption is devoted to pumping and treating water, with potential for energy savings of more than 25%
- In developing countries, systems have outdated equipment, poor system design, leaks and other nonmetered losses

Public Lighting

- Street lighting networks in developing countries have a preponderance of mercury vapor lamps and high pressure sodium lamps with capacities of 100 to 400 W and replacing these more efficient ones (LED based solutions) could save up to 40 to 60% of energy costs, last 3 to 5 times longer, and have payback periods of less than 3 years

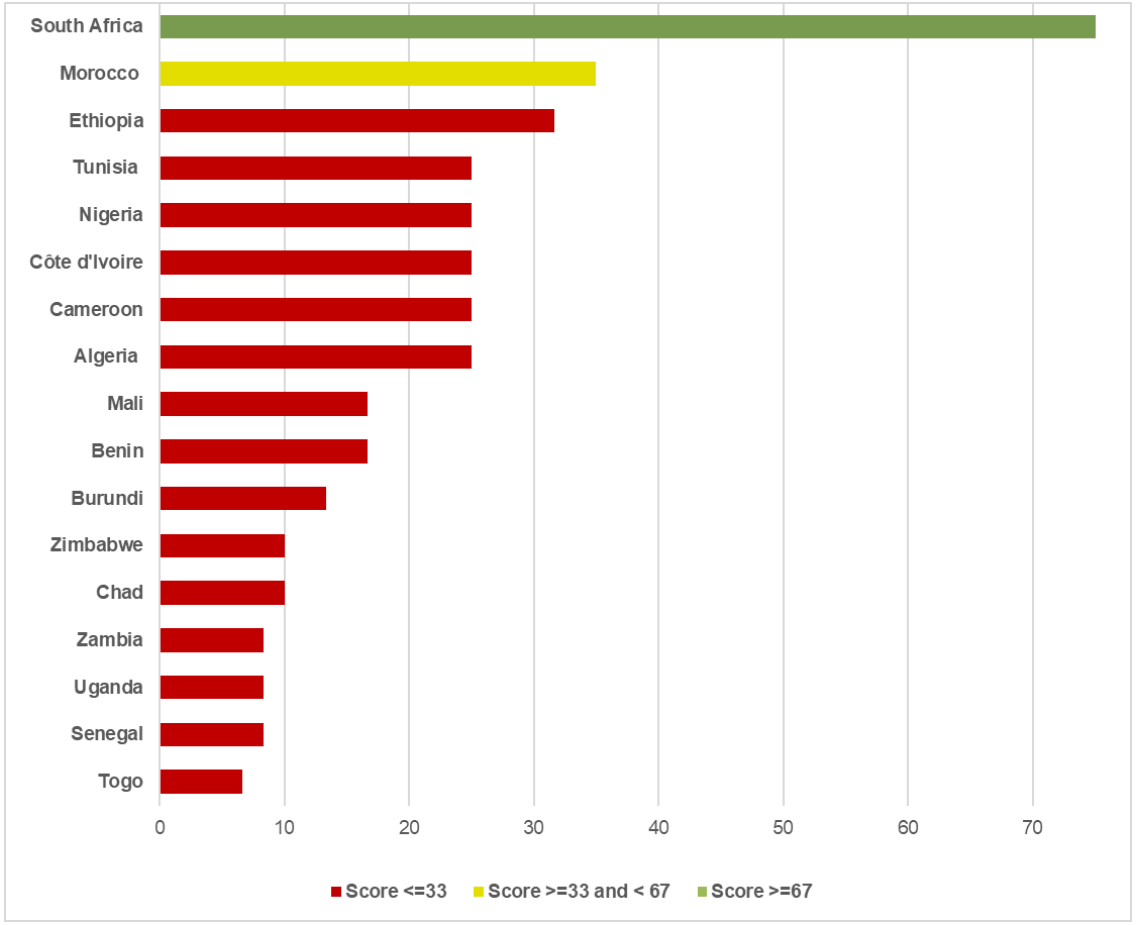
Clean cooking and cooling sector

- High potential for energy savings, notably in households, SMEs and public sector
- Efficiency improvements can be significant in lighting, refrigerators and air conditioners, electric motors and variables speed drives and other measures such as adoption of electric cooking

Source: World Bank, ESMAP

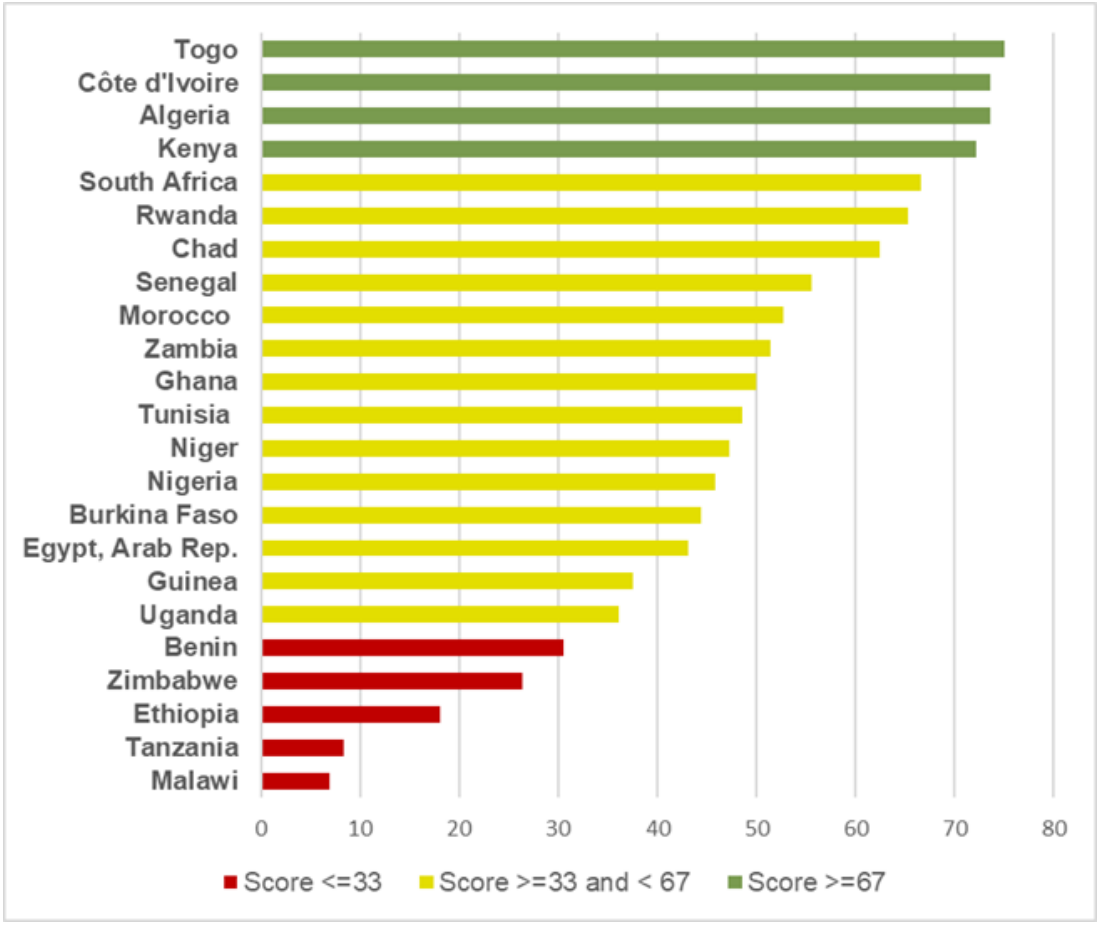
EE Situation- Regulatory Indicators for Sustainable Energy (RISE)

- **RISE Score for Financing mechanisms for EE**



Source: Adapted from RISE World Bank 2022

RISE Score for Adoption and Implementation of MEPS



Source: Adapted from RISE World Bank 2022

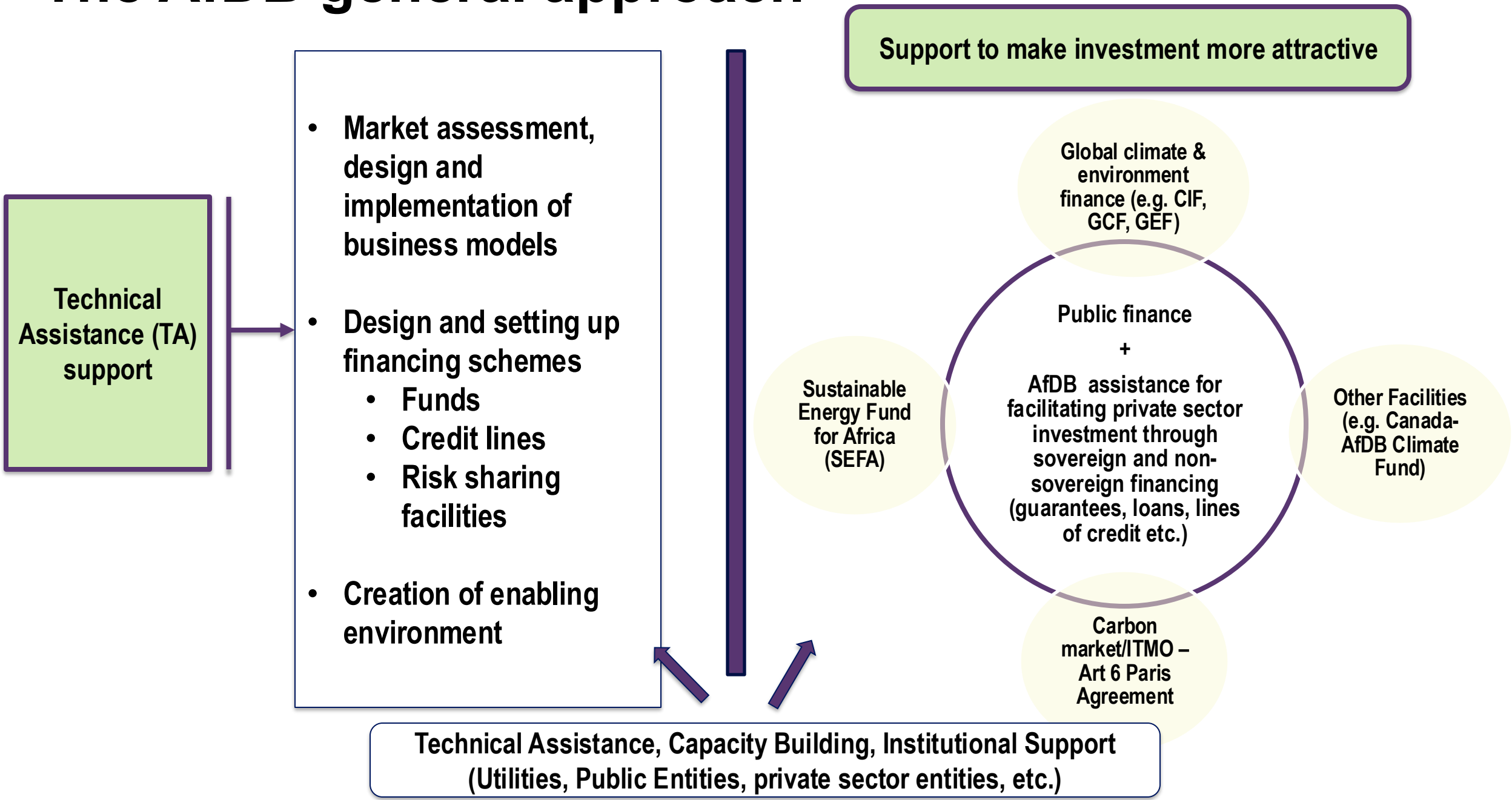
- A total of 39 African countries covered by the RISE 2022 Report. The indicator on financing mechanism for EE scored in the red zone in 37 out of 39 countries in the sub-Saharan Africa, while the adoption and implementation of MEPS scored in the red zone in 21 out of 39 countries

Main barriers to Uptake of Commercial Investment in EE

- **Electricity End Users**
  - High upfront-cost of new EE and climate-friendly technologies
  - Limited knowledge and lack of trust in EE
  - Limited credit capacity or access to finance for the majority of households
- **Technology providers**
  - Unfair competition with companies selling second-hand or sub-quality appliances and equipment
  - Hard to sell a promise of future benefits (energy savings) to end users
  - Lack of innovative financial mechanisms and low-risk credit recovery mechanisms for end users
- **Financial institutions (FIs)**
  - Low financial inclusion – cash is the prominent payment method for many consumers
  - High-risk perception on credit defaults and thus high collateral requirements for consumer seeking unsecured loans (consumer loans)
  - Limited collateral, credit track record and balance sheet limitations of project developers, including ESCOs and SMEs
  - High transaction costs due to the relatively small size and heterogenic nature of EE projects
  - Lack of performance data for energy efficient technologies

In EAC, ECOWAS and SADC markets, knowledge and awareness among financiers, businesses and policymakers about the potential and business model of energy efficiency improvements is limited.

The AfDB general approach



Innovative Financing Schemes

Models for addressing the barriers of high up front costs and access to capital

Source: https://powertechreview.com/why-energy-efficient-motors/

Source: https://www.lightbulbs.com/blog/energy-saving-lighting-tips

Source: https://international.lbl.gov/appliance-efficiency

Bulk procurement

Aggregate demand for EE technologies, leading to rapid reduction in prices (Example: India Energy Efficiency Services Limited (EESL) bulk procurement programs)

On Bill Financing

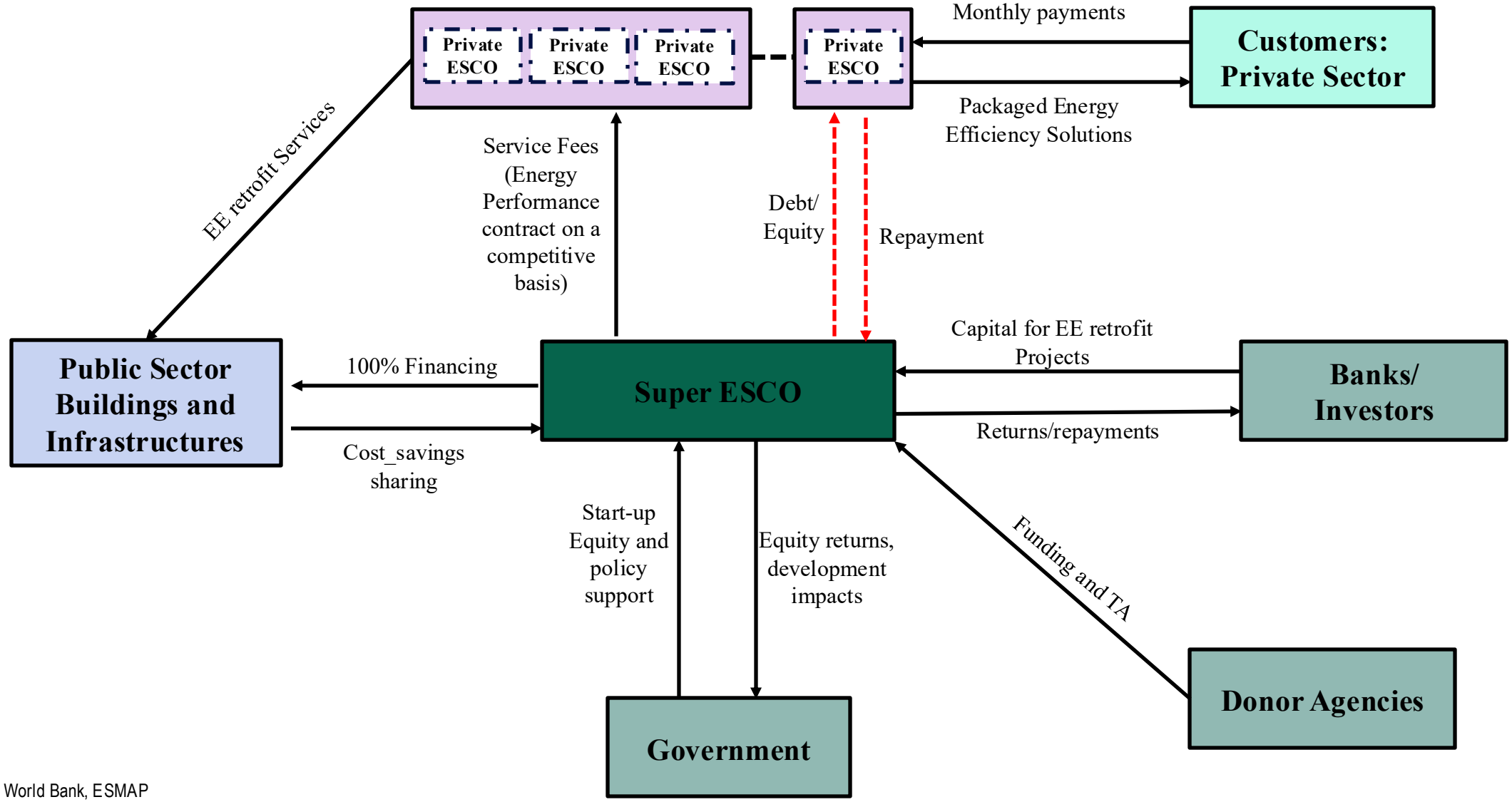
Provision of capital which is repaid via electricity bills (Example: Prosol program in Tunisia)

Green On-Wage Financing

Consumer finance product for sustainable energy products through salary deductions (Example: Ecofridge in Rwanda and Ghana)

ESCO Market Development

- Entity set up by government, which functions as an ESCO mainly or exclusively for the public sector (hospitals, schools, public buildings, street lighting and other public facilities)
- Builds private ESCOs capabilities and credentials



Source: World Bank, ESMAP

AfDB TA Support: EE Market development Program (Phase II)

- Objectives: **increase investment in EE and CC in the public and private sectors** by enhancing the enabling conditions for developing sustainable EE and CC markets and facilitating the development and implementation of bankable investment projects/programmes

Component 1: Investment Program/Project Design and Preparation Helpdesk

- Develop action plans and support the design and preparation of EE and CC investment opportunities
- Establish pipelines of EE and CC opportunities and facilitate investments in highly energy-efficient technologies (e.g., lighting, heating and cooling appliances, electric motors, etc.)
- Support new and innovative business models (e.g., on-bill-financing, energy performance contracting, cooling as a service, etc.)
- Design of EE financing facilities (lines of credit and/or guarantees)
- Prepare EE and CC investment projects (e.g., technical, environmental, legal support, financial advisory services, gender mainstreaming, technical advisory services) for both public and private entities

Component 2: Ecosystem and Enabling Environment Strengthening

- Knowledge sharing, and design of policy and regulatory tools
- Development of minimum energy performance standards and energy efficiency labelling schemes

Africa Super ESCO Acceleration Program (ASAP)

- Main Objectives:
  i. Pillar 1: Creating and operationalizing Super ESCOs in the selected countries;
  ii. Pillar 2: Developing harmonized regional certification schemes for ESCOs; and

Creation of an enabling environment with the objective of putting in place standard procedures and documents for a successful operationalization of the Super ESCO

Development of a pipeline of EE projects to support the Super ESCO in the realization of its first set of projects

Link for the REOI for the South Africa Super ESCO TA

EOI - Development and Operationalization of the South African Super-ESCO - PERN | African Development Bank Group

AFRICAN DEVELOPMENT BANK GROUP
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Renewable Energy and Energy Efficiency Department

Thank you!