



شركة الهندسة الطاقة  
SOCIÉTÉ D'INGÉNIERIE ÉNERGÉTIQUE

**Contribution of the investment in Energy Efficiency (EE) to the energy transition**

# NATIONAL CONTEXT : ENERGY EFFICIENCY (EE) IN MOROCCO

- Energy efficiency is the second pillar of the Moroccan energy model.
- Morocco's to energy transition since 2009, through the development of an efficient and decarbonized energy model, benefiting the well-being and prosperity of its citizens, relies mainly on the rise in power of renewable energies and the development of energy efficiency.



# THE NATIONAL ENERGY EFFICIENCY (EE) STRATEGY

Under the leadership of His Majesty King Mohammed VI, Morocco launched in 2009, a national energy strategy with an overall goal of reaching 20 % energy savings by 2030



## Objectives

Strengthening energy supply security and availability

Generalizing access to energy at competitive prices

Controlling demand

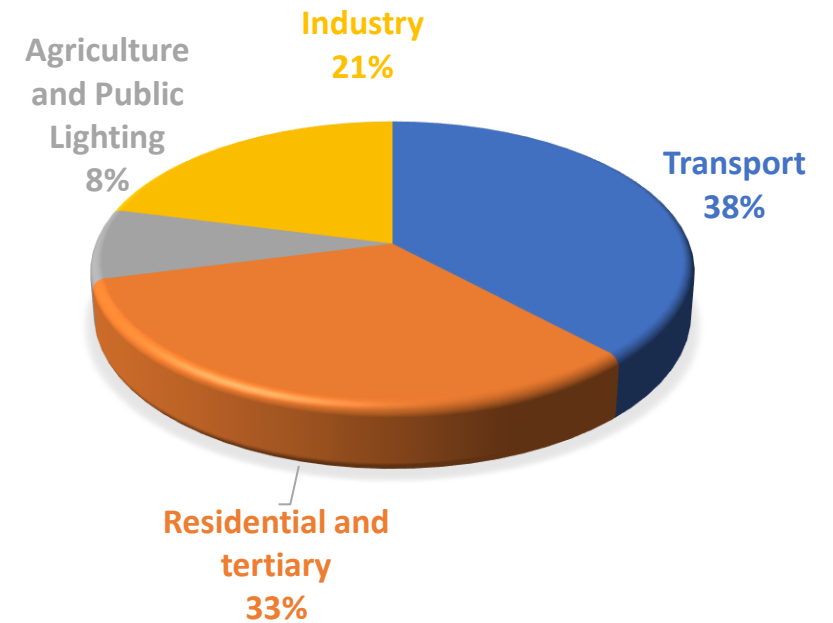
Preserving the environment

# TARGETED SECTORS

SECTOR SEGMENTATION / TARGET AREAS

|   |   |
|---|---|
| <b>BUILDINGS AND PUBLIC LIGHTING</b>    | <ul style="list-style-type: none"> <li>Residential</li> <li>Public administrations</li> <li>Social establishments</li> <li>Tertiary buildings</li> <li>Mosques</li> <li>Hammams</li> <li>Commercial premises</li> <li>Public lighting</li> </ul>        |
| <b>AGRICULTURE AND MARITIME FISHERY</b> | <ul style="list-style-type: none"> <li>Agribusiness</li> <li>Chemistry - Para chemistry</li> <li>Electrical, Electronic and Electromechanical</li> <li>Textile</li> <li>Mining industry</li> <li>Construction materials</li> <li>Handicrafts</li> </ul> |
| <b>TRANSPORT</b>                        | <ul style="list-style-type: none"> <li>Irrigated and fertilized agriculture</li> <li>Refrigerated warehouses</li> <li>Conditioning and drying</li> <li>Livestock and Poultry</li> <li>Maritime fishing</li> </ul>                                       |
| <b>INDUSTRY</b>                         | <ul style="list-style-type: none"> <li>Public transport</li> <li>Individual transport</li> <li>Haulage</li> <li>State parks</li> </ul>  |

## DISTRIBUTION OF DEMAND BY SECTOR



# EE STRATEGY'S VISION AND STRATEGIC ORIENTATIONS

A diversified and optimized mix based on optimized and competitive choices

Energy efficiency committed as a national priority

Sustainable development

The mobilization of national energy resources through the rise in power of renewable energies

Strengthening regional integration

## STRATEGIC ORIENTATIONS

**Compliance with energy efficiency fundamentals by any, and all new investments**

**Integration of the obligation to comply with energy efficiency at the level of all public expenditure and all projects benefiting from state support**

**Structurization and professionalization of the energy efficiency sector**

**Promotion of energy efficiency and positioning it as a key issue in the minds of professionals and citizens**

**Support of resources and improvement of coordination for the development of energy efficiency**

# EE STRATEGY'S VISION AND STRATEGIC ORIENTATIONS

## MAIN ACHIEVEMENTS

INSTITUTIONAL AND REGULATORY REFORMS

SKILLS AND CAPACITY DEVELOPMENT

ENERGY EFFICIENCY ACTIONS AND PROGRAMS

THE EXEMPLARY OF THE STATE IN PUBLIC BUILDINGS

# ZOOM ON THE MOROCCAN SUPER ESCO

Since its creation in 2010, SIE has been the State's financial tool in the sectors of renewable energies and energy efficiency.

Today, it is an important link in the institutional fabric and its role is to reach the national and strategic goals for the energy efficiency sector.

Under the supervision of the Ministry of Energy, Mines and the Environment, the « SUPER ESCO » structure is the State's Executing Agency for energy efficiency related projects.

It plays the role of intermediary, facilitator and creator of intersectoral partnerships between stakeholders.

It also offers a wide range of energy solutions and services in line with international standards to enable the Public Administration and Private sector companies to reduce their energy consumption.

**SIE covers 5 target sectors:**



PUBLIC BUILDINGS



PUBLIC LIGHTING



INDUSTRY



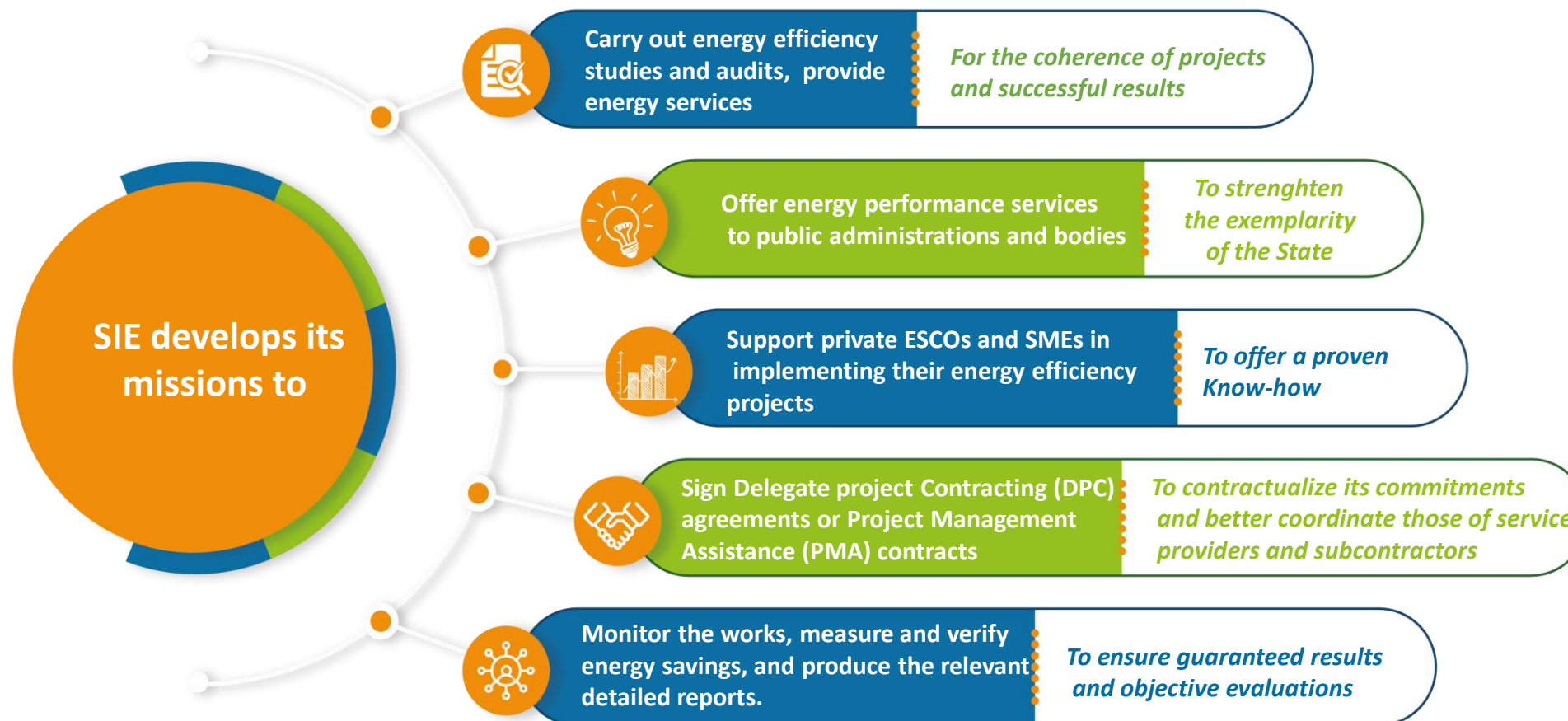
SUSTAINABLE MOBILITY



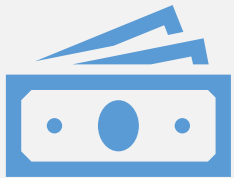
SUPPORT FOR SMES /  
Private ESCOs



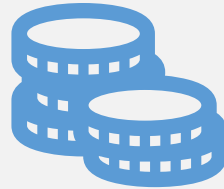
# SUPER ESCO'S MISSIONS



## Project financing methods



ESCO FINANCING



CLIENT FINANCING

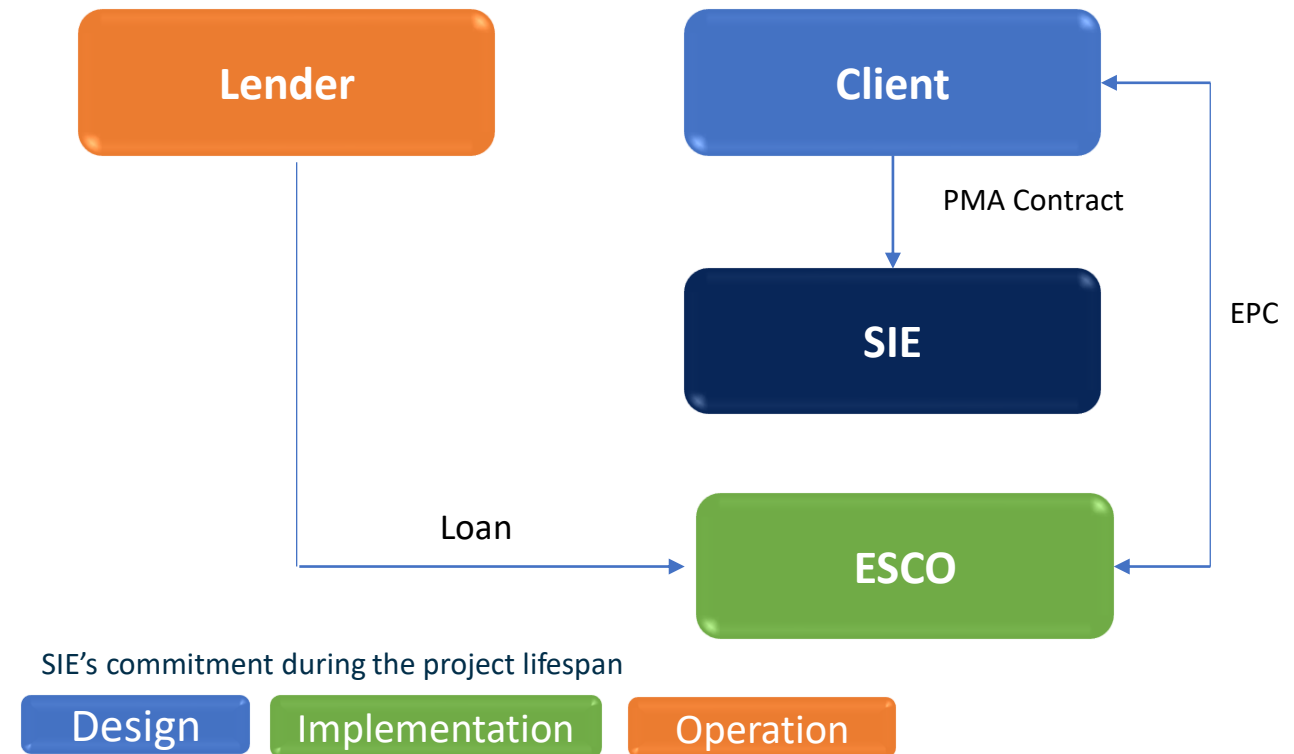


THIRD PARTY FINANCING

# TAILOR MADE MODES OF INTERVENTION

## PROJECT MANAGEMENT ASSISTANCE - PMA

The Super ESCO (State ESCO) supports its client in preparing, structuring, implementing and monitoring an energy efficiency project. In its steering role, the SUPER ESCO does not get involved in the works, on the other hand it guarantees the compliance of their execution. For this service, two types of contracts are possible: the Engineering, Procurement, Construction and Installation (EPCI) and the EPC (Energy Performance Contract).



# TAILOR MADE MODES OF INTERVENTION

## DELEGATED PROJECT CONTRACTING - DPC

- The client delegates the project management of the energy efficiency project to the Super ESCO.
- It takes responsibility for all activities falling under the project management such as the definition of needs, contractualization and the management of operations.
- The nature of the services rendered is the same as for PMA, but as DPC.
- Super ESCO acts as an intermediary with suppliers and has the capacity to contractually engage the customer by delegation.
- Here too, there are two types of contracts: EPCI and EPC.



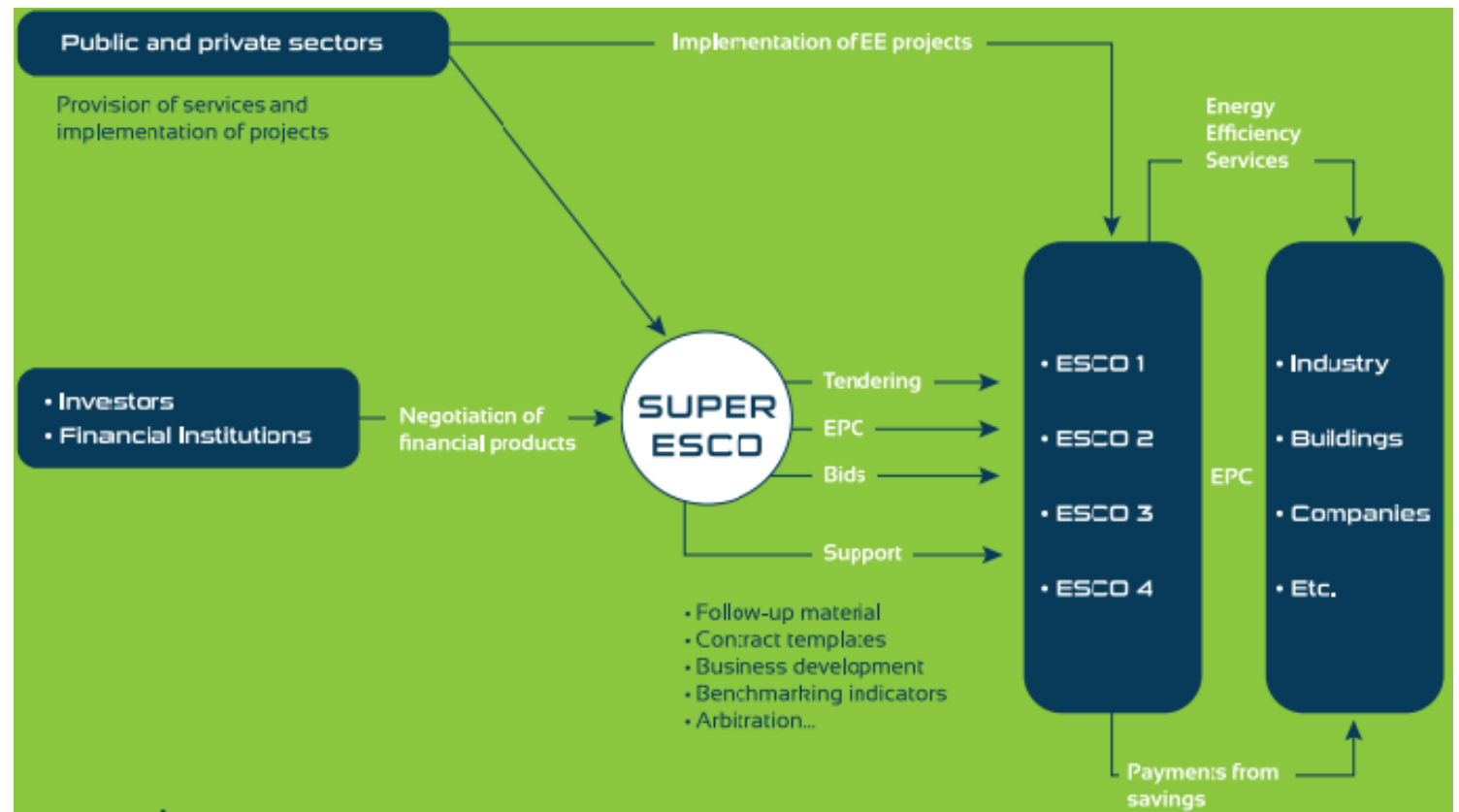
# TAILOR MADE MODES OF INTERVENTION

## ESCO MODE

This service is comparable to that of the DPM, supplemented by the provision of the necessary financing for the realization of the investments.

Through this mode, the Super ESCO concludes a performance contract with the client where it engages in the design, financing, implementation and maintenance of the energy efficiency project.

Also, it outsources the delivery of services to private companies.



# TAILOR MADE MODES OF INTERVENTION

**Creative  
financing  
models**

**Guaranteed  
Results**

**Targeted  
actions**



## Project Management

SIE ensures the co-development of project alongside investors. Our teams assist clients through technical support. They also provide detailed monitoring of the project's progress.



## Financial Advisory

SIE has a team of financial analysts with proven experience in financial structuring and fundraising. They ensure the strength of the project which maximizes chances of obtaining state aid and investor financing.



## Legal services

SIE legal teams ensure the complete legal aspect of the project, ranging from the establishment of the first memorandum of understanding to the negotiation of the shareholders' agreements and the articles of association during the company's creation process. This is an essential element in major projects mobilizing foreign investments.

# ACHIEVEMENTS: PROGRAMS IN PUBLIC BUILDINGS

The mosques energy upgrade program is targeting **50 000 mosques** with a first achievement of 1 700 mosques spread over the country. The program includes the carrying out of energy diagnostics and the organization of training sessions and awareness-raising on the technologies used for the benefit of Imams.

The energy efficiency project of social centers: a program that has started the energy upgrading of 37 centers spread over the municipalities of the Rabat-Salé-Kénitra region. These first actions made it possible to develop models for the execution of the overall program.

**Potential savings:** minimum 40% of the overall energy bill for a global cost of 5 Million Moroccan Dirhams.





# ACHIEVEMENTS: PUBLIC LIGHTING SECTOR

SIE develops projects in the public lighting sector through Energy Performance Contracting (EPC). The objective is to improve the energy performance reaching at least 40% in energy savings while guaranteeing a rate of availability greater than or equal to 95%.

This model has proven itself successful particularly in Marrakesh where the renovated park has **61.000 light points**:

- **More than 160 million Dirhams** of private investment with the objective of reaching 250 million in 2021.
- It locally generates 50,000 man-days of work and total energy savings ranging between **65% and 85%** for a relatively recent network with an obsolescence rate of less than **4%**.
- **200 people hired** during the implementation phase of the investment
- Bankability with Moroccan Merchant Banks



# ACHIEVEMENTS: SUSTAINABLE MOBILITY SECTOR

SIE develops projects based on the creation of Local Development Companies (LDCs). A successful model that allowed the establishment of different projects throughout the Kingdom including a Bus Rapid Transit System in Marrakesh

## Characteristics of the "Massira" line

- A frequency of 6 min;
- A service duration of 17h (from 6 am to 11 pm);
- An estimated commercial speed of 18km/h;
- A journey duration of 25min/direction;
- A daily traffic of 13 377 passengers.

*The 10 BRT introduced absorb an annual passenger traffic of 4,882,449.*



## Clean, renewable energy supply

The global solution includes a clean renewable energy power supply, produced through a 750 kWp solar power plant under the GEF-UNDP project "Renewable Energy for the City of Marrakesh Bus Rapid Transit System". A tracker system allows the plant's production to be reduced to 1MV.



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