

UNDA project, on “Up-scaling Energy Efficiency in the residential and services sectors in the Arab Region”



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Development, Implementation and Evaluation of Energy Efficiency Policies in the Buildings Sector in Jordan

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MINISTRY OF ENERGY AND MINERAL RESOURCES
THE HASHEMITE KINGDOM OF JORDAN

Economic And Social Commission For Western Asia



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Role of Super ESCOs in overcoming barriers to investments in EE and small scale RE systems in the Arab region

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Upscaling EE & small scale RE requires the combination of at least 4 main axes of actions:

- Setting up ambitious, yet realistic, targets that are chronologically well defined
- Developing and enforcing appropriate and evolving policies, regulations and standards
- **Mobilizing financial resources and providing the right doses of incentives for implementation programs and projects**
- Designing and applying appropriate deployment instruments and schemes for the programs and projects

Role of Super ESCOs in overcoming barriers to investments in EE and small scale RE systems in the Arab region

Main challenges in the Arab countries to upscaling EE & small scale RE (sustainable energy services; SES) programs and projects:

- *Challenges related to institutional and policy frameworks (poor policy & institutional frameworks, limited capacity for enforcing regulations, disturbances in institutional governance, limited capacities and lack of effective coordination between public institutions)*
- *Challenges related to end-user energy price distortions*
- *Challenges related to difficulties in financing the upscaling programs and projects*
- *Challenges related to the limited role played by the private sector in promoting SES programs & projects*
- Challenges related to insufficient information about SES and lack of related technical skills and supporting institutions

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Energy Services Companies (ESCOs) can *potentially* play a major role in meeting many of the identified challenges: Provide a range of energy savings & financing services + guarantee that the specified results will be achieved under an Energy Performance Contract (EPC)

Different ESCO business models, but all set up to:

- Offer a complete range of energy savings implementation services
- Offer or arrange financing of energy savings implementation services (often 100%) under “shared savings” or “guaranteed savings” contracts
- Guarantee specific performance for the entire project, based on a level of energy and/or cost savings; Energy Performance Contracts (EPC)
- Receive payments for the provided services on the basis of demonstrated satisfaction of the performance guarantees
- Assume most of the technical, financial and maintenance risks associated with the project

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ESCO Market Size and Status for selected Arab Countries as of 2013:

Country	Date Establishment of first ESCO	Number of operating ESCOs	ESCO Market trend
Egypt	Prior to 1996 ^(a)	no exact information ^(b)	On the ground
Jordan	1991	11	Slow growth
Lebanon	2002	2 - 3	Growing at a slower rate
Morocco	1992	3 - 4	No change
Tunisia	2005	10	Continuous growth
Saudi Arabia	Recently	5	Expected growth
UAE	Recently	3 - 4	Expected rapid growth

ESCO markets in other Arab countries, at this point, are either small or inexistent despite their historical presence in their respective countries

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Challenges facing the ESCO markets in the Arab region:

- Lack of dedicated legislative framework for the ESCO business;
- Absence of regulatory framework for energy services for public sector / complicated & inadequate procedures for public procurement;
- Highly subsidized energy prices;
- Lack of appropriate forms for finance and lack of financial products by commercial banks for ESCOs;
- Perceived business and technical risks
- Low awareness about ESCOs and about the benefits of implementation of SES projects based on the ESCO concept;
- Low trust in ESCOs.

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Super ESCOs are intended to address 2 main issues:

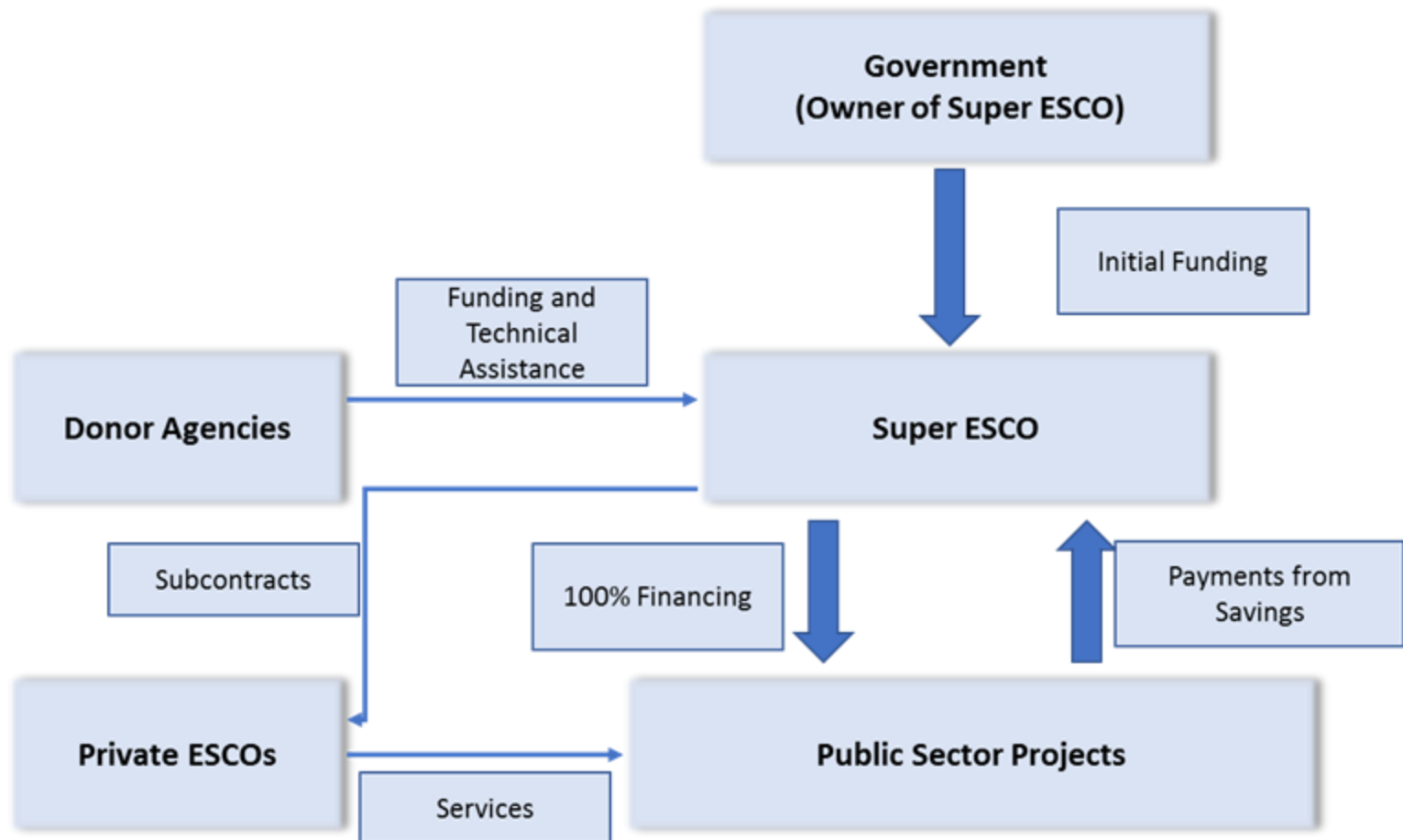
- ✓ Accelerating SES programs, primarily in the public sector,
- ✓ inducing the development of a tissue of private ESCOs, usually SMEs, or reinvigorating an existing one, by facilitating access to SES projects and their financing

Configuration of Super ESCOs would allow to lift most barriers that ESCOs are facing where ESCOs markets have a difficulty to develop. They would allow:

- Easy Access to public sector facilities
- Proper access to tailored, and affordable, project financing
- A sizeable reduction of transaction costs for small projects through bundling a number of them

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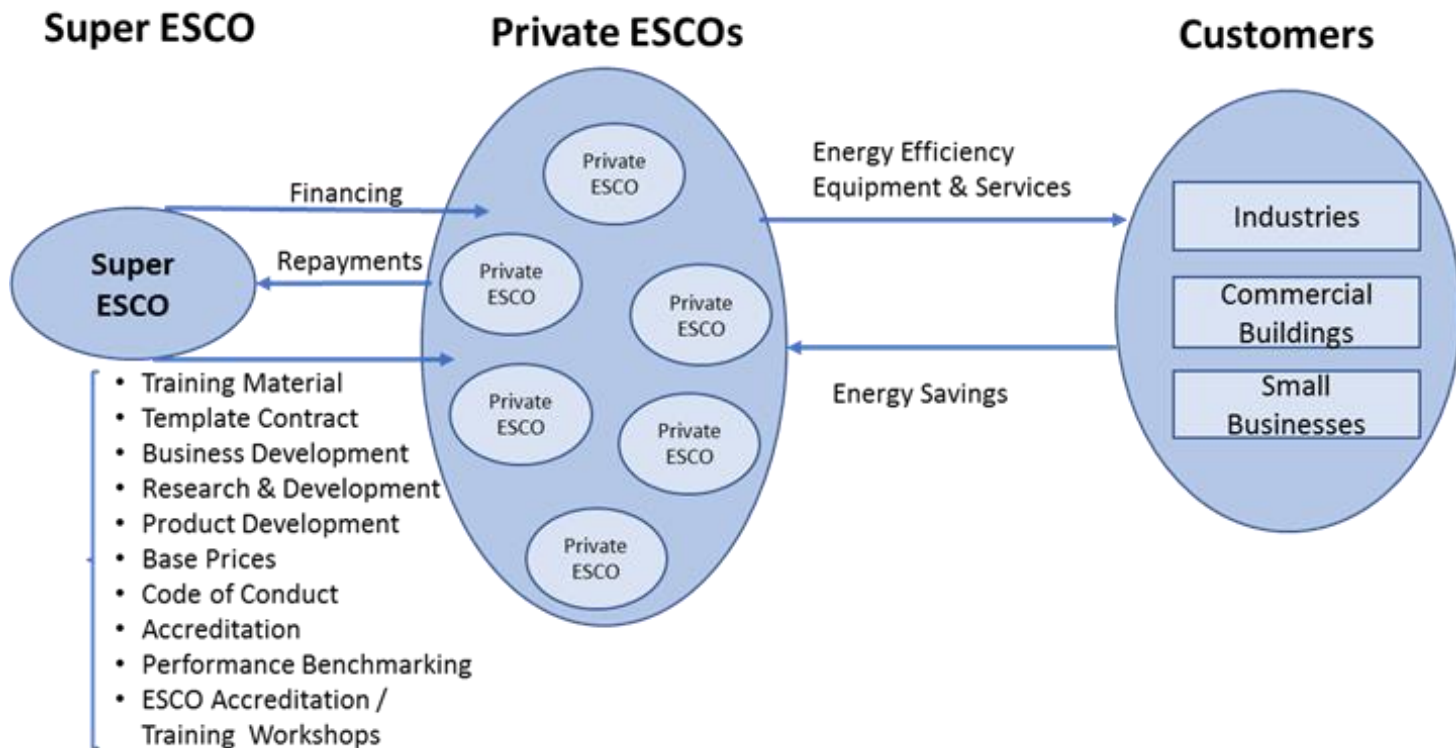
Typical Set Up for a Public Super ESCO Scheme



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Other models of Super ESCOs may be developed, particularly as a public–private partnership (PPP) entity: may be more suitable for targeting the private sector

Typical business model for a Super ESCO with extended features



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In countries where ESCO markets are inexistent, or not very active, Super ESCOs can rapidly produce a significant transformation of the scale of these markets:

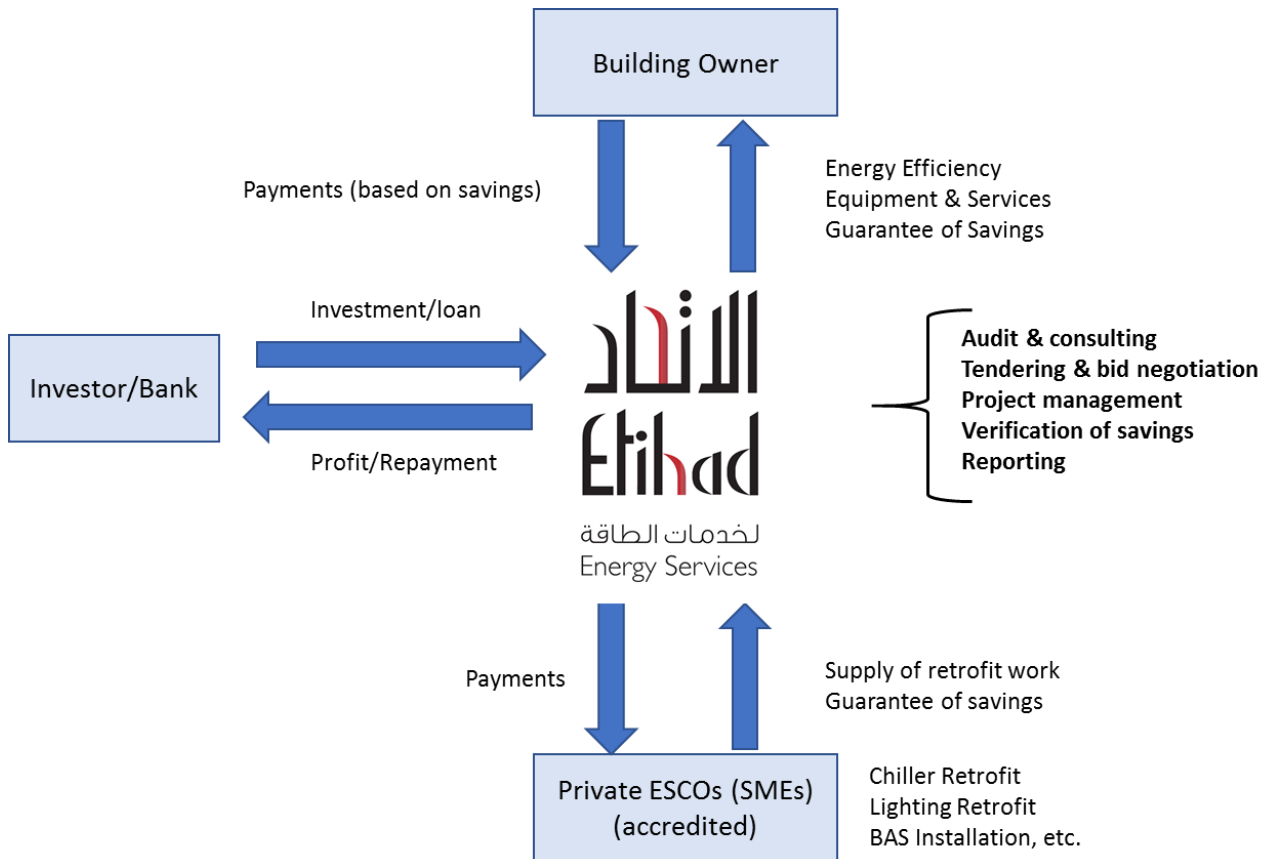
- Funnel public funds dedicated to financing SES programs
- Address SES issues in the public sector, and overcome the barriers that private sector ESCOs face when trying to implement SES projects in this sector.
- Built the capacity, by providing training and technical assistance, of private sector ESCOs and increase their level of competence and hands-on experience (implementation process of programs & projects
- Develop standard contracting models and related templates for agreements, typical practices and guidelines, as well as monitoring and verification procedures, for both public and private sector

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- Create financing facilities and develop suitable instruments to allow easy access to project financing to facilitate the engagement of private sector ESCOs in the implementation process of energy savings services
- Leverage funds from local, and international, commercial financial institutions and international donor agencies to create an energy savings funding facility in the country, in addition to seed funds provided by the government.
- Improve the level of knowledge and awareness of energy end-users, as well as their level of confidence in the potential of EE projects to stimulate the demand for energy savings services products and projects.

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Schematic business model of ETIHAD Super ESCO Set up



Established in 2013 by Dubai Electricity & Water Authority (DEWA)

Goals for 2030

- ✓ 1.7 TWh of Electricity saved annually by 2030
- ✓ 5.6 Billion IG of Water saved annually by 2030
- ✓ 1 Million Tons of CO2 abated annually by 2030
- ✓ Estimated about USD 270M saved annually by 2030
- ✓ Over USD 10M invested by 2016

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Concluding remarks:

- Super-ESCOs can be considered as a “Nega-power” utility company,
- Super-ESCOs provide a unique opportunity for upscaling SES programs
- For the last two decades, many efforts were made in the Arab region to promote SES, but no real upscaling was achieved
- ESCOs that were created in the region stayed very small and limited in terms of human resources and financial capacities.
- SES programs are often not economically attractive to end users, but economically interesting to governments (reduction of volume of energy subsidies from national budgets)
- Super-ESCOs can be used to channel public funds into nationally designed SES programs in an efficient way

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- Allow stimulating the SES and ESCOs markets. Super-ESCOs would design & manage national SES programs / provide the quality insurance and monitor the implementation sub-contracted to a network of smaller SME structures, i.e. the ESCOs.
- Create a win-win situation for all stakeholders: Governments will reduce the volume of energy subsidies, end-users will get a reduction in their energy consumption and hence a reduction in their energy bills and an SES and ESCO market can be developed.
- Super ESCOs offer tailored financing mechanisms, allowing public agencies & private institutions to avoid budgeting issues: Assigned Capital Expenditure vs. Operating Expenditure for the public sector / Competing with budgets set for running core business in the case of the private sector. This allows both the public agencies and private institutions an easy access to financing.

For further info on the topic of Super ESCOs, refer to ESCWA publication:

“The role of Super ESCOs in upscaling energy efficiency in the Arab Region”

<https://www.unescwa.org/publications/super-escos-energy-efficiency-arab-region>

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THANK YOU FOR YOUR ATTENTION

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