How Super ESCOs can bypass regulatory restrictions for contracting private ESCOs

Stephane le Gentil
December 2021
What is an ESCO (Energy Services Company)

• ESCOs are specialized providers of turnkey energy efficiency services
• ESCOs often offering outcome guarantees to their clients
• ESCOs services include:
  • auditing buildings to evaluate efficiency potential
  • baselining energy consumption
  • identifying all sources of energy waste
  • defining Energy Savings Measures (ESMs) to generate savings
  • installing the defined ESMs
  • keeping these ESMs operational for a number of years
  • measuring, verifying and guaranteeing the savings to their clients
What is an ESCO (Energy Services Company)

• ESCOs are active in multiple building sectors
  • Commercial buildings
  • Public sector buildings
  • Industrial facilities
  • Multi-residential buildings

• They focus on improving efficiency of:
  • Lighting, HVAC and control systems
  • Building insulation
  • Water systems
  • Waste heat, compressed air systems, industrial cooling, etc.

• They can also install decentralized renewable energy (solar PV or HW)
What is a Super ESCO & why creating one

• A specific dedicated organization (often set up as an independent company) created and funded by a government (local or federal) in order to manage a retrofit programme for its public-sector buildings to save energy

• Often part of a government strategy to rationalize energy demand, such as a Demand Side Management (DSM) strategy

• Has specific goals and KPIs linked to the savings objectives of the DSM strategy. A Super ESCO defines its own strategies to improve the energy efficiency of public-sector buildings and can also contribute to improving efficiency of the private-sector buildings
What is a Super ESCO & why creating one

The main roles of a Super ESCO in the public sector are to:

• Elaborate a strategic plan to address the DSM target it was given
• Realise energy audits of public buildings to identify energy savings opportunities
• Organize the procurement for retrofitting public buildings through ESCOs
• Manage the execution of the ESCO’s projects
• Finance or organize the financing of these projects
• Verify the energy savings realized and ensure that the ESCOs are fulfilling their promises
What is a Super ESCO & why creating one

Diagram:
- SUPER ESCO
  - Repayment for retrofit
  - Guarantee savings
  - Guarantee savings
  - Upfront payment for retrofit
- BUILDING OWNERS
- PRIVATE ESCOS
  - Building retrofit
Example of Super ESCO – EESL in India

- Established in 2009
- Owned by the Indian government under the Ministry of Power as a JV between NTPC Limited, Power Finance Corporation, REC Limited and POWERGRID
- EESL focuses on solution-driven innovation with no subsidy or capital expenditure (CAPEX) for the client using a Pay-As-You-Save (PAYS) model
- EESL is a Super ESCO that has not used private ESCOs to develop its model
- Great success in LED lighting with the UJALA programme
Example of Super ESCO – Etihad ESCO in UAE

- Established in 2013
- Owned by the Dubai Government through the Dubai Electricity and Water Authority (DEWA)
- Focusing on retrofitting 30,000 buildings to save 1.7TWh of electricity and 5.6 billion imperial gallons of water by 2030
- A government directive is helping its work with public sector entities
- Initiated the ESCO market in the UAE thanks to its projects
- Relying on third-party financing, notably the Dubai Green Fund, for its projects
- As of September 2020, it carried out 22 projects, resulting in the retrofitting of 7,763 buildings and generating savings of 307GWh of electricity and 289 million imperial gallons of water.
Example of Super ESCO – Tarshid in Saudi Arabia

• Established in 2017
• Owned by the Public Investment Fund of Saudi Arabia
• Focus on retrofitting public sector buildings across Saudi Arabia using private ESCOs to execute the work
• Capitalised with USD500 million to fund its projects
• A royal decree is mandating public sector entities to contract with Tarshid on an exclusive basis
• Tarshid executed a street-lighting replacement program for 2.5 million existing street-lights
• Mid-2020, Tarshid announced having achieved its first terawatt-hour reduction in energy consumption
Example of Super ESCO – ADES in UAE

• Established in 2020
• Abu Dhabi Government through TAQA & ADQ
• Focus on retrofitting public sector buildings in the emirate of Abu Dhabi using private ESCOs to execute the work
• ADES is funding projects to allow its clients not to have to pay anything to retrofit their buildings
• ADES has announced projects for the Ministry of Education for 200 schools, SEHA for around 50 hospitals & clinics, the UAE University and the Department of Culture and Tourism
Example of Super ESCO – SOFIAC in Canada

• Established in 2021
• Privately owned through Econoler and Fondaction
• Focus on retrofitting private sector buildings in Quebec using private ESCOs to execute the work. Savings are covering the cost of projects.
• Has recently raised 200million $ to finance its projects through Banque de l’Infrastructure du Canada, Fiera Private Debt and Fondaction
• Recently announced retrofit projects for a large private School, and the airports of Montreal
How to ensure Super ESCO success

• Mandate the use of the Super ESCO by public entities
• Provide exclusivity for the Super ESCO
• Develop an ESCO framework
  • ESCO accreditation or licensing scheme
  • Standard ESCO contracts and dispute resolution mechanism
  • Measurement & Verification protocol
  • Government to government contracts
  • Funding
Super ESCOs are not always positive for ESCOs

- Cherry picking approach vs. system approach
- Becoming a public ESCO competing against the private ESCOs and executing the work by itself and not through ESCOs
- Diversifying in other markets and loosing focus in home market
- Focusing too much on profitability and not on maximizing energy savings
Conclusion

• Super ESCOs are a powerful tool to accelerate the deployment of energy efficiency projects for government and private sectors.
• To be successful in the public sector, a Super ESCO will require a proper regulatory framework.
• A strong funding mechanism associated with the Super ESCO is required to ensure client interest.
• A Super ESCO will contribute to create jobs through the work it generates with the private ESCOs.