



Energy Efficiency - The Untapped Resource (Part 2)

The Super ESCO Model

Last month we discussed the locally untapped energy resource that is energy efficiency (EE). We also shared National Energy's ambition to advance EE in Trinidad and Tobago and identified a mechanism to address some of the barriers inhibiting EE from advancing locally.

It is well known that in a low-cost electricity environment like Trinidad and Tobago, energy efficiency would be difficult. Despite this challenge, National Energy firmly believes that the value is too significant to ignore. Whilst local energy service companies (ESCOs) are operating, the uptake is slow with only pockets of activity taking place in the EE space. Issues of financing, a lack of interest or know-how in the pursuit of EE gains as well as the ability to make the economics work and adopt energy-savings performance contracting (EPC), continue to present a fair share of challenges. We are actively developing a framework under which EE can take off locally.

This is where the concept of a government-backed 'super energy savings company' (Super ESCO) comes in. Following discussions with regional counterparts as well as international experts in the EE space, plans are being finalised for implementation of a Super ESCO to serve as a coordinated ESCO Model to advance energy efficiency programmes locally.

Super ESCOs are typically governmental entities created to serve the public sector, develop the capacity of private energy service companies (ESCOs) and facilitate project financing. Super ESCOs address multiple factors that increase the appeal of ESCO projects for external financiers. ESCO projects must be large while minimizing transaction and development costs.

From previous assessments locally, public buildings, including hospitals, schools, government buildings and other public facilities, have been identified as having an average 20-30% energy saving potential but the implementation of energy savings programs is complicated by numerous factors. Using the conceptual model in Figure 1, the Super ESCO provides projects to the private ESCO market who in turn provide technical guarantees based on the upgrades completed. Here the Super ESCO may also provide financing for the private ESCOs to execute the upgrades. The state (or other financing bodies) provides seed capital and is repaid by the Super ESCO. With public sector bodies, the Super ESCO is retained to execute energy efficiency upgrades and coordinates all stages from procurement to the monitoring of the savings derived from upgrade programmes.

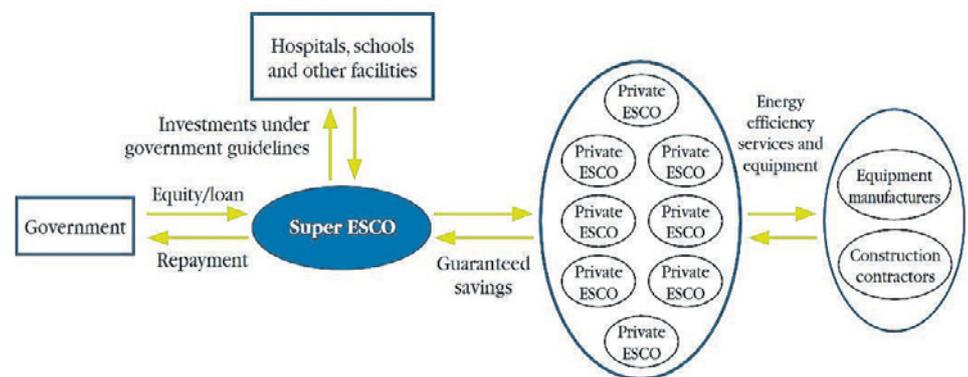
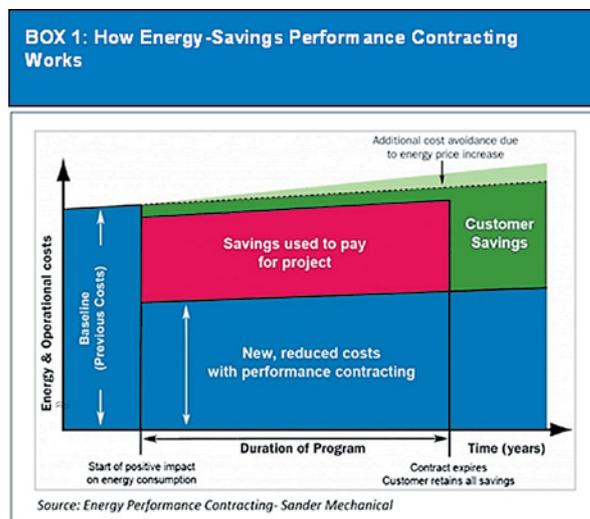


Figure 1: Conceptual Model of a Super ESCO
Source: Econoler

Super ESCOs:

- ✔ Help aggregate projects and drive down transaction costs through standardization.
- ✔ Provide necessary training and monitoring support.
- ✔ Leverage its technical capacities to help overcome barriers in launching tenders for projects under the EPC approach within the public sector and negotiate agreements for the implementation of EE projects on a sole-source basis using the EPC concept on the client's behalf.
- ✔ Ease access to external financing and other technical support.
- ✔ Increase EE project implementation rate (SRC 2010, cited in IEA, 2018¹).



Source: Energy Performance Contracting - Sander Mechanical

A Super ESCO is also a market enabler and contributes to the creation of jobs in this new clean energy space. According to Canadian energy efficiency consultancy Econoler, Super ESCOs reinforce capacity building and project development in existing private-sector ESCOs and help in setting up new ESCOs. A Super ESCO may, for example, absorb the commercial risk and secure the necessary financing if required while leaving the technical risks with private ESCOs, thereby enabling smaller ESCOs who lack financing but have the technical capabilities to participate in projects they would otherwise be excluded from. Thus, the presence of a Super ESCO to coordinate EE locally assists in the development of new service providers who can eventually export their services – and in turn derive jobs that generate US dollars.

Super ESCOs can prove vital in the coordination of an efficiency programme across state buildings by having the responsibility and know-how in one central location, allowing the state to benefit from savings on account of bundled procurement activities and providing the best recommendations and insight to specific locations. In the public sector setting, the Super ESCO is not crowding out the private sector from the market but moreso creating sustained activity that will provide confidence to the private ESCO's to secure capital equipment necessary to complete projects.

This coordinated approach and its ability to efficiently provide the critical resources that would otherwise not be accessible to a single entity, is one of the many reasons why National Energy believes that the Super ESCO programme currently being developed is critical to unlocking the full potential of energy efficiency in enterprises locally.

In 2022 we will embark on the pilot phase of our Super ESCO programme and seek to engage wide cross-section of stakeholders such as the financing sector, government, and private energy service companies. Here, our vision is to create an energy efficient Trinidad and Tobago – a recommended precursor to the large-scale adoption of significant renewable energy capacity.

Cognisant of the supply challenges facing the energy sector and the myriad of hurdles that inhibit the uptake of EE locally, a Super ESCO brings benefits that include:



1 IEA (2018), Energy Service Companies (ESCOs), IEA, Paris <https://www.iea.org/reports/energy-service-companies-escos-2>



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