

Overcoming Regulatory and Policy Barriers To Catalyze ESCO Development Globally





Catalyzing ESCO Development

Global ESCO Network

Summary of Energy Services Business Models

Figure 2. ESCO Business Models

Outsourced Energy INCREASING HOST INCREASING Management Business Model **ESCO** Performance Contracting RISK BENEFIT **Business Model** Financial Services Business Model **Engineering Services Business Model**

Energy supply contracting – ESCO takes over equipment and sells output at fixed unit price ("Chauffage", "outsourcing", "Outsourced Energy Management")

Public or Super ESCO

ESCOs with third party financing design, finance, implement, verify, and get paid a share of actual energy saved ("Shared Savings")

ESCOs with design/implement project, and guarantee minimum level of savings ("Guaranteed Savings")

ESCOs with variable term contract

ESCOs with 1-year contract to design/implement project

Supplier credit, an equipment vendor designs, implements, and commissions project with payment deferred

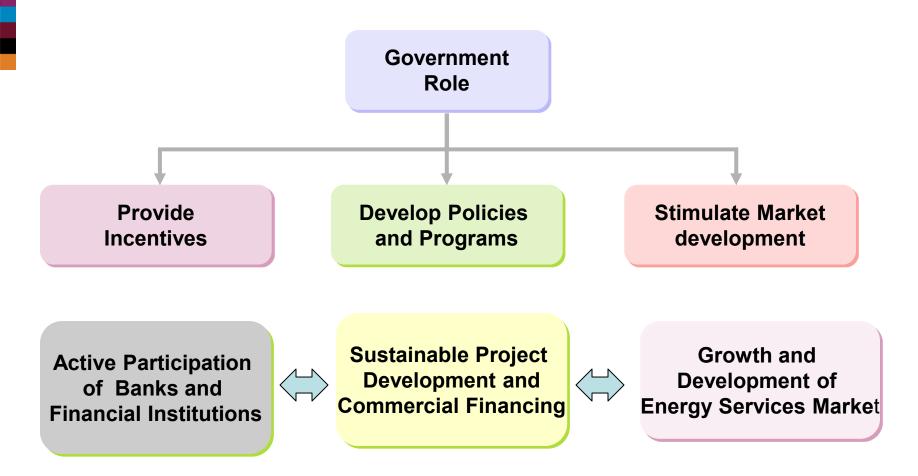
Equipment leasing, providing EE equipment under lease with fixed payments over several years

Engineering services with performance-based payments

Engineering services with fixed payments

Source: Adapted by authors from Limaye 2014.

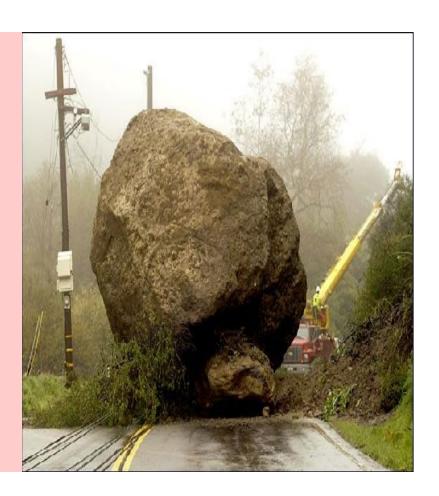
Government Role vs. Market Role in Energy Efficiency



Governments need to "lead by example" to foster and promote ESCOs

Public Sector ESCO Opportunities & Barriers

- Large opportunities for improving energy efficiency
- Public sector needs implementation assistance from ESCOs
- Barriers to ESCOs
 - Public procurement regulations
 - Inability to sign multi-year contracts
 - Limits on retention of savings
 - Limited internal capacity to implement or to manage ESCO contracts
 - Lack of availability of commercial financing
 - Split responsibilities for capital and operating budgets



Government Actions to Foster ESCOs



Government
Actions to
Foster ESCOs

Create a large and stable demand for energy services projects in the public sector

Remove barriers to public procurement of EE services Facilitate
adequate and
affordable
financing of
ESCO projects

Creating a Demand for ESCO Services



Increase public agency knowledge and awareness of ESCOs

Increase public agency capacity to identify ESCO opportunities

Require public agencies to establish EE targets & action plans

Develop standard templates, benchmarks, & M&V schemes

Organize Workshops with PAs and ESCOs

Aggregate similar projects across PAs

Develop and implement ESCO accreditation or certification

Removing Barriers to Procurement of EE Services



Remove
Barriers to
Procurement
of EE Services

Allow public agencies to sign multiple-year contracts

Allow retention of energy cost savings to pay ESCOs

Change procurement rules to select most value, not least cost

Exclude ESCO payments from PA debt

Require consumption-based billing for DH

Allow PAs to engage in PPPs and EE equipment leasing

Encourage PAs to use simple ESCO models



Facilitating Financing of ESCO Projects

Facilitate
Financing of
ESCO Projects

Establish EE revolving fund (EERF) with loan facility

Establish EERF with energy services agreements (ESAs)

Provide budgetary grants

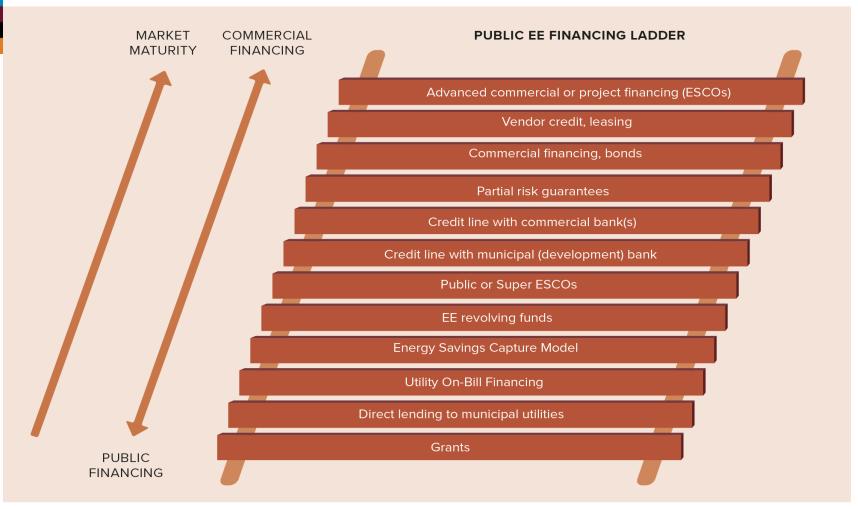
Provide risk-sharing facility

Facilitate forfeiting of ESCO contracts

Establish public ESCO or Super ESCO

Energy Efficiency Financing Options Ladder

Figure 4. Public Energy Efficiency Financing Options Ladder



Source: Adapted from Limaye, 2019

Illustrative Government Actions to Foster ESCOs

Government Action	Country	Summary Description
Procurement Agent	Germany	Berlin Energy Agency helps public agencies, on a fee-for- service basis, to identify EE opportunities, provide standard templates for audits, RFPs, bid evaluation, contracts, etc., and provides guidance throughout ESP procurement process
Facilitating Public Procurement	Czech Republic	Reformed public procurement procedures to facilitate ESP contracts; uses multiple criteria in ESP bid evaluation; Certifies "energy experts"
Project Bundling	Hungary	Issued single procurement for all schools and competitively selected an ESP consortium to provide EE services to all schools under a master contract
Forfeiting	Bulgaria	The Bulgaria ESCO Fund was financed by EBRD to purchase the cash flows from an ESP project to allow the ESP to free up funding for additional projects.
EE Revolving Fund with Loan Facility	U.K.	Salix finance established by U.K. DECC to provide loan financing exclusively for public sector projects; has worked with 138 public agencies and financed over 11,000 projects. Many are implemented by ESPs.
EE Revolving Fund with ESAs	Armenia	Armenia R2E2 Fund offers public agencies ESAs under which it designs the project, hires ESPs, oversees construction, and monitors project under a fixed price long-term agreement
Public ESCO	Croatia	Established public ESCO in national utility HEP to develop, finance and implement EE projects using local businesses as key delivery agents; and provide opportunities for ESPs to tap into new energy efficiency business opportunities.
Super ESCO	India	Established public sector entity (EESL) to develop, finance and implement EE projects in the public sector using private ESCOs as subcontractors or partners

Figure 5. A Road Map for Developing the Energy Services Market

Identify existing ESCOs and assess their capacity, strengths and limitations; **Identify and assess current market** assess budgeting and procurement regulations, understand public agency credit and borrowing capacity, financial markets and their willingness to finance public situation agencies Consult with public officials (budgeting, procurement, technical legal), existing and prospective ESCOs, financiers, etc. to identify needs and challenges; identify Conduct stakeholder consultations barriers to public procurement of ESCOs. Increase knowledge, awareness and capacity of public agencies to identify/assess **Create demand for energy efficiency** projects, establish goals & action plans, provide recognition/awards, standardize services documents, bundle projects, conduct workshops, accredit and/or certify ESCOs Allow multi-year contracts, allow agencies to retain energy cost savings, use 'most Remove barriers to public procurement of valuable' instead of least cost in public bid evaluation, facilitate PPPs, allow leasing **EE** services of EE equipment, exclude ESCO payments from public debt Consider options such as: establishing EE revolving funds; energy services agreements; funding energy audits of public agencies; providing grants and Facilitate financing of ESCO projects guarantees; risk sharing facilities; creating public ESCO or Super ESCO; facilitating forfeiting Develop a simple and transparent procurement system with well-defined rules, **Develop and tests simple procurement** regulations and procedures and supporting documents to facilitate public agency models procurement of ESCO services Learn from results of the simple models to develop scale-up strategies; disseminate results; introduce more complex models involving greater **Expand to more complex models** engagement of ESCOs and financiers; develop standardized documents/M&V protocols

Source: Prepared by Authors based on World Bank 2014a.



Thank you

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