Overcoming Regulatory and Policy Barriers To Catalyze ESCO Development Globally
Government Role vs. Market Role in Energy Efficiency

Government Role

Provide Incentives
Develop Policies and Programs
Stimulate Market development

Active Participation of Banks and Financial Institutions
Sustainable Project Development and Commercial Financing
Growth and Development of Energy Services Market

Governments need to “lead by example” to foster and promote ESCOs
ESCOs provide services spanning the energy services value chain, including energy auditing, design and engineering, equipment procurement, installation and commissioning, financing, operation and maintenance, facility management, and sale of energy services.

While some companies that perform individual services can serve as ESCOs, typically the hallmark of an ESCO is the ability to integrate these services under one contract.
Summary of Energy Services Business Models

1. Outsourced Energy Management 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.
**Key Characteristics of ESCOs**

**Energy Service Companies**

- Provide or arrange a complete package of services
- Offer business models for customers to pay for energy services from cost savings achieved
- Accept payments contingent upon achieving guaranteed performance
- Assume most or all of the technical, financial and performance risks
Public Sector ESCO Opportunities & Barriers

- Large opportunities for improving energy efficiency
- Public sector needs implementation assistance from ESCOs
- Barriers to ESCOs
  - Public procurement regulations
  - Limits on retention of savings
  - Inability to sign multi-year contracts
  - 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

- Create a large and stable demand for ESCO projects in the public sector
- Remove barriers to public procurement of ESCO 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 contract templates, benchmarks, & measurement and verification protocols
- Organize Workshops with public agencies and ESCOs
- Aggregate similar projects across public agencies
- Develop and implement ESCO accreditation or certification scheme
Removing Barriers to Procurement of ESCO Services

Remove Barriers to Procurement of ESCO 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 public agency debt
- Require consumption-based billing for district heating
- Facilitate Public-Private-Partnerships and EE equipment leasing
- Encourage public agencies to use simple ESCO models
Facilitating Financing of ESCO Projects

- Establish energy efficiency revolving fund (EERF) with loan facility
- Develop energy services agreements (ESAs) with public agencies that cannot incur debt
- Provide budgetary grants
- Provide risk-sharing facility
- Facilitate forfaiting of ESCO contracts
- Establish public ESCO or Super ESCO
Energy Efficiency Financing Options Ladder

PUBLIC EE FINANCING LADDER

- Advanced commercial or project financing (ESCOs)
- Vendor credit, leasing
- Commercial financing, bonds
- Partial risk guarantees
- Credit line with commercial bank(s)
- Credit line with municipal (development) bank
- Public or Super ESCOs
- EE revolving funds
- Energy Savings Capture Model
- Utility On-Bill Financing
- Direct lending to municipal utilities
- Grants

Source: Adapted from Limaye, 2019
## Illustrative Government Actions to Foster ESCOs

<table>
<thead>
<tr>
<th>Government Action</th>
<th>Country</th>
<th>Summary Description</th>
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<tbody>
<tr>
<td>Procurement Agent</td>
<td>Germany</td>
<td>Berlin Energy Agency provides guidance to public agencies for procuring ESCO services</td>
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<td>Facilitating Public Procurement</td>
<td>Czech Republic</td>
<td>Reformed public procurement procedures to facilitate ESCO contracts</td>
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<td>Project Bundling</td>
<td>Hungary</td>
<td>Single procurement of ESCO consortium for energy services to all public schools</td>
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<td>Forfaiting</td>
<td>Bulgaria</td>
<td>Special Fund to purchase cash flows from ESCO projects</td>
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<td>Revolving Fund with Loan Facility</td>
<td>U.K.</td>
<td>Established Salix Finance to provide loans for public sector projects</td>
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<tr>
<td>Revolving Fund with Energy Service Agmts.</td>
<td>Armenia</td>
<td>Armenia R2E2 Fund signs Energy Service Agreements with public agencies</td>
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<td>Public ESCO</td>
<td>Croatia</td>
<td>HEP ESCO established under national electric utility to provide energy efficiency services</td>
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<td>Super ESCO</td>
<td>India</td>
<td>Established National Super ESCO (EESL) to develop, finance, and implement all public sector projects</td>
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<td>Road Map for Development of an ESCO Market</td>
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<tr>
<td><strong>Identify and assess current market situation</strong></td>
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<td>Identify existing ESCOs and assess their capacity, strengths and limitations; assess budgeting and procurement regulations, understand public agency credit and borrowing capacity, financial markets and their willingness to finance public agencies.</td>
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<td><strong>Conduct stakeholder consultations</strong></td>
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<tr>
<td>Consult with public officials (budgeting, procurement, technical legal), existing and prospective ESCOs, financiers, etc. to identify needs and challenges; identify barriers to public procurement of ESCOs.</td>
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<tr>
<td><strong>Create demand for energy efficiency services</strong></td>
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<tr>
<td>Increase knowledge, awareness and capacity of public agencies to identify/assess projects, establish goals &amp; action plans, provide recognition/awards, standardize documents, bundle projects, conduct workshops, accredit and/or certify ESCOs.</td>
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<tr>
<td><strong>Remove barriers to public procurement of EE services</strong></td>
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<td>Allow multi-year contracts, allow agencies to retain energy cost savings, use 'most valuable' instead of least cost in public bid evaluation, facilitate PPPs, allow leasing of EE equipment, exclude ESCO payments from public debt.</td>
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<td><strong>Facilitate financing of ESCO projects</strong></td>
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<td>Consider options such as: establishing EE revolving funds; energy services agreements; funding energy audits of public agencies; providing grants and guarantees; risk sharing facilities; creating public ESCO or Super ESCO; facilitating forfeiting.</td>
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<td><strong>Develop and tests simple procurement models</strong></td>
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<td>Develop a simple and transparent procurement system with well-defined rules, regulations and procedures and supporting documents to facilitate public agency procurement of ESCO services.</td>
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<td><strong>Expand to more complex models</strong></td>
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<td>Learn from results of the simple models to develop scale-up strategies; disseminate results; introduce more complex models involving greater engagement of ESCOs and financiers; develop standardized documents/M&amp;V protocols.</td>
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Source: Prepared by Authors based on World Bank 2014a.
Thank you

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