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 Management Business Model**: Energy supply contracting – ESCO takes over equipment and sells output at fixed unit price ("Chauffage", "outsourcing", "Outsourced Energy Management")
- **Performance Contracting Business Model**: 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")
- **Financial Services Business Model**: ESCOs with variable term contract
- **Engineering Services Business Model**: 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

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
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

- 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

Create a Demand for ESCO Services
Removing 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

- 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

<table>
<thead>
<tr>
<th>Government Action</th>
<th>Country</th>
<th>Summary Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement Agent</td>
<td>Germany</td>
<td>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</td>
</tr>
<tr>
<td>Facilitating Public Procurement</td>
<td>Czech Republic</td>
<td>Reformed public procurement procedures to facilitate ESP contracts; uses multiple criteria in ESP bid evaluation; Certifies &quot;energy experts&quot;</td>
</tr>
<tr>
<td>Project Bundling</td>
<td>Hungary</td>
<td>Issued single procurement for all schools and competitively selected an ESP consortium to provide EE services to all schools under a master contract</td>
</tr>
<tr>
<td>Forfeiting</td>
<td>Bulgaria</td>
<td>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.</td>
</tr>
<tr>
<td>EE Revolving Fund with Loan Facility</td>
<td>U.K.</td>
<td>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.</td>
</tr>
<tr>
<td>EE Revolving Fund with ESAs</td>
<td>Armenia</td>
<td>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</td>
</tr>
<tr>
<td>Public ESCO</td>
<td>Croatia</td>
<td>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.</td>
</tr>
<tr>
<td>Super ESCO</td>
<td>India</td>
<td>Established public sector entity (EESL) to develop, finance and implement EE projects in the public sector using private ESCOs as subcontractors or partners</td>
</tr>
</tbody>
</table>
## Figure 5. A Road Map for Developing the Energy Services Market

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Identify and assess current market situation</strong></td>
<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>
</tr>
<tr>
<td><strong>Conduct stakeholder consultations</strong></td>
<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>
</tr>
<tr>
<td><strong>Create demand for energy efficiency services</strong></td>
<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>
</tr>
<tr>
<td><strong>Remove barriers to public procurement of EE services</strong></td>
<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>
</tr>
<tr>
<td><strong>Facilitate financing of ESCO projects</strong></td>
<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>
</tr>
<tr>
<td><strong>Develop and tests simple procurement models</strong></td>
<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>
</tr>
<tr>
<td><strong>Expand to more complex models</strong></td>
<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>
</tr>
</tbody>
</table>

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

Dilip R. Limaye
dlimaye@srcglobal.com