

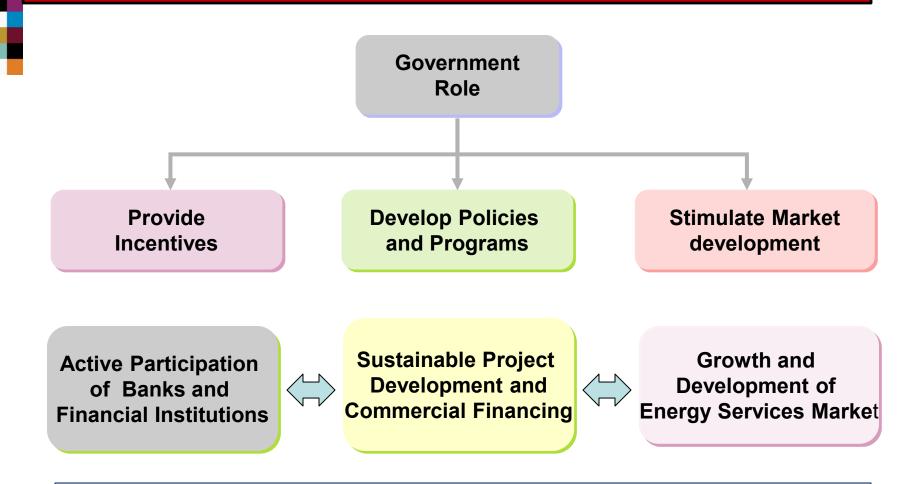
# Overcoming Regulatory and Policy Barriers To Catalyze ESCO Development Globally





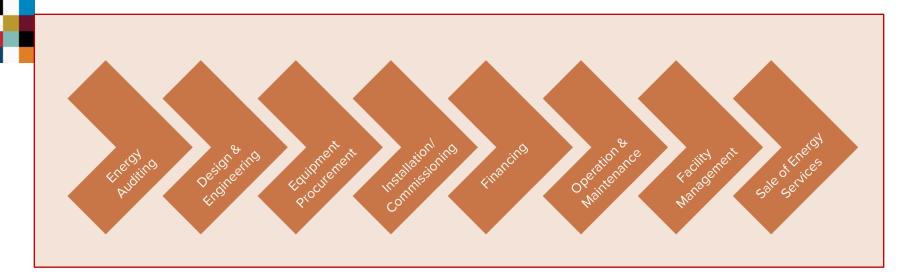
Catalyzing ESCO Development

#### Government Role vs. Market Role in Energy Efficiency



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

### The Energy Services Value Chain



- 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

INCREASING HOST BENEFIT

INCREASING	Outsourced Energy Management Business Model	Energy supply contracting – ESCO takes over equipment and sells output at fixed unit price ("Chauffage", "outsourcing", "Outsourced Energy Management")
ASING ESCO RISK	Performance Contracting Business Model	<ul> <li>Public or Super ESCO</li> <li>ESCOs with third party financing design, finance, implement, verify, and get paid a share of actual energy saved ("Shared Savings")</li> <li>ESCOs with design/implement project, and guarantee minimum level of savings ("Guaranteed Savings")</li> <li>ESCOs with variable term contract</li> <li>ESCOs with 1-year contract to design/implement project</li> </ul>
	Financial Services Business Model	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 Business Model	Engineering services with performance-based payments Engineering services with fixed payments

Source: Adapted by authors from Limaye 2014.

#### Catalyzing ESCO Development

## Key Characteristics of ESCOs

Provide or arrange a complete package of services

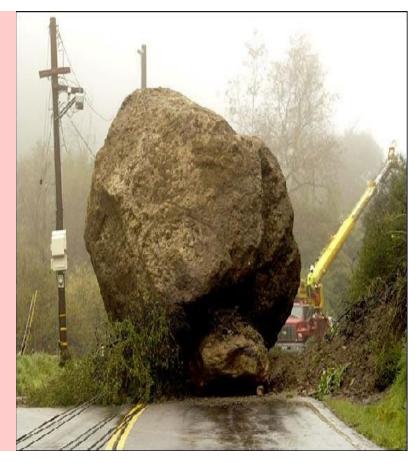
Energy Service Companies Offer business models for customers to pay for energy services from cost savings achieved

Accept payments contingent upon achieving guaranteed performance

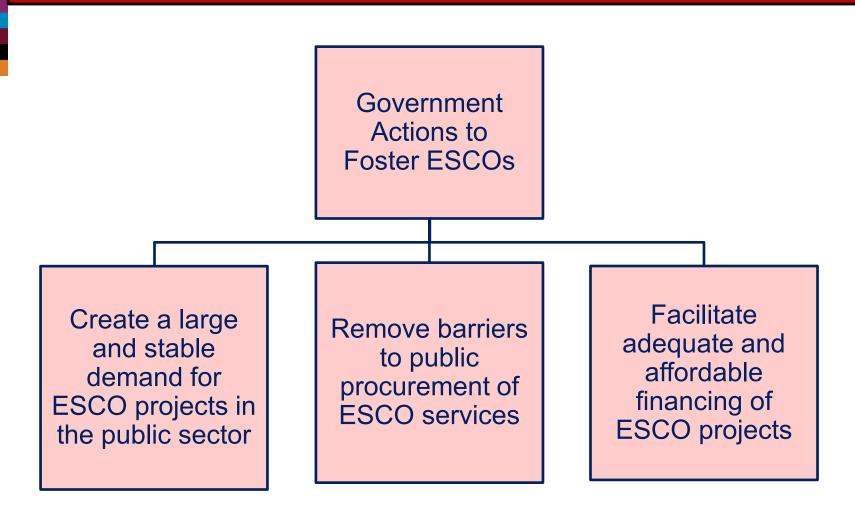
Assume most or all of the technical, financial and performance risks

#### 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**



## 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

Create a Demand for ESCO Services

#### Removing Barriers to Procurement of ESCO Services

Allow public agencies to sign multiple-year contracts

Allow retention of energy cost savings to pay ESCOs

Remove Barriers to Procurement of ESCO Services Change procurement rules to select most value, not least cost

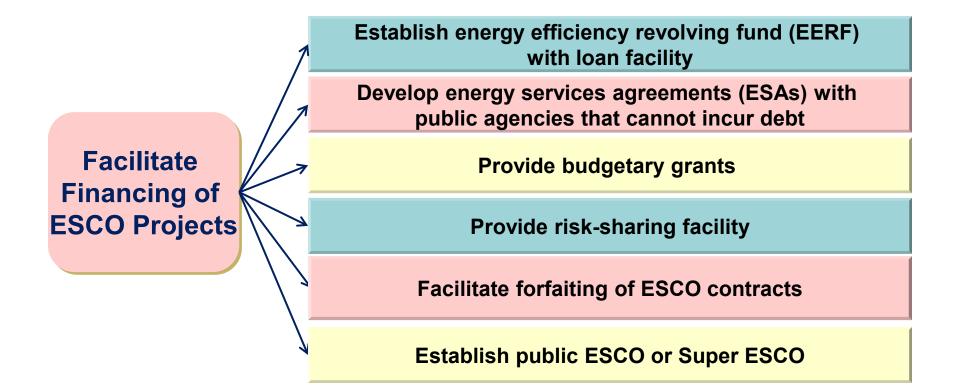
Exclude ESCO payments from public agency debt

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



## Energy Efficiency Financing Options Ladder



Source: Adapted from Limaye, 2019

#### Catalyzing ESCO Development

## Illustrative Government Actions to Foster ESCOs

Government Action	Country	Summary Description
Procurement Agent	Germany	Berlin Energy Agency provides guidance to public agencies for procuring ESCO services
Facilitating Public Procurement	Czech Republic	Reformed public procurement procedures to facilitate ESCO contracts
Project Bundling	Hungary	Single procurement of ESCO consortium for energy services to all public schools
Forfaiting	Bulgaria	Special Fund to purchase cash flows from ESCO projects
Revolving Fund with Loan Facility	U.K.	Established Salix Finance to provide loans for public sector projects
Revolving Fund with Energy Service Agmts.	Armenia	Armenia R2E2 Fund signs Energy Service Agreements with public agencies
Public ESCO	Croatia	HEP ESCO established under national electric utility to provide energy efficiency services
Super ESCO	India	Established National Super ESCO (EESL) to develop, finance, and implement all public sector projects

#### Road Map for Development of an ESCO 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 situation and borrowing capacity, financial markets and their willingness to finance public 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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