Unshackling ESCO Potential: Public Financial Mechanisms that Enhance the Viability of ESCO Projects

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EE Investment Outlook

Global EE Investments Needed through 2040 to Meet IEA's Efficient World Scenario (EWS) by Financing Modality

- Self-Financed
- Debt-Financed
- Lease-Financed

Business-as-Usual USD 8.0 trillion

Off-Balance-Sheet USD 16.5 trillion

- ESCO Performance Contracts
- PPP Transactions
- Risk-Sharing Facilities
- Budget Financing
- Other modalities
Role of the Public Sector

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- **Business-as-Usual USD 8.0 trillion**
- **Off-Balance-Sheet USD 16.5 trillion**

Public policies can enable off-balance-sheet mechanisms that will support EE investment.

Public agencies and facilities represent scalable EE opportunities that are largely untapped.
Utility Programs: On-Bill Financing

**Positive impact on project viability**
- Lower customer credit risk from bundling project repayments with utility bills
- Leveraging ratepayers’ consumption behaviors to tailor-fit EE offerings
- Scalability of EE offerings across customer base

**Enabling conditions**
- Public utilities must be allowed to implement and profit from EE projects
- Billing infrastructure should be able to accommodate bundling of EE project repayments
- Public utilities must have a sizeable asset base or financing access to fund EE projects

**Global examples**
- Brazil (Contribuição para Custeio do Serviço de Iluminação Pública)
Energy Performance Contracting for Public End Users

**Positive impact on project viability**
- Project and financial risks are distributed more efficiently across the contract parties
- Upfront costs for the end users are reduced
- More public end users can be included in ESCO project pipelines

**Enabling conditions**
- Public procurement processes must allow public agencies to engage in EPCs
- Public agencies must not be deterred from taking on multi-year contracts that could span beyond one election cycle

**Global examples**
- United States, Canada, Belgium, Croatia, Denmark, Italy, Slovenia
Government-Owned EE Service Providers as Super ESCOs

Positive impact on project viability
- The public nature of Super ESCOs facilitates taking on large-scale public EE projects.
- The large asset base allows Super ESCOs to provide financing to smaller ESCOs.
- Super ESCOs can implement capacity-building activities.

Enabling conditions
- The local ESCO industry is typically in its early stages.
- Super ESCOs would not behave competitively against other ESCOs.
- Supportive policies and financial resources must be made available by the government to the Super ESCO.

Global examples
- Armenia (R2E2), Belgium (FEDESCO), Croatia (HEP ESCO), Saudi Arabia (Tarshid)
Long-term Concessional Financing

Positive impact on project viability
- Lower financing cost would lead to more prospective projects meeting minimum return thresholds.
- Long-term investment horizon of the financing facility would allow funding of entire project pipelines.

Enabling conditions
- Governments should establish relationships with IFIs and MDBs to provide supplementary capital.
- Achieving sustainability and climate goals should be a national priority to entice IFI/MDB funding.

Global examples
- China (Shandong Green Development Fund), Haiti (Green Climate Fund)
**Fiscal Tools and Policies: Budget Financing with Capital Recovery**

**Positive impact on project viability**
- Less credit-worthy public agencies gain access to financing for their EE projects.
- Typical restrictions on public agencies’ use of public funds and incurrence of debt are addressed.

**Enabling conditions**
- Government agencies should be subject to mandates to reduce energy consumption.
- Public agencies should be allowed to retain a portion of realized energy savings to incentivize pursuit of EE projects.

**Global examples**
- Macedonia (Municipality Services Improvement Project)
Energy Efficiency Revolving Fund

Positive impact on project viability
- EERFs help create a sustainable local funding source for ESCOs through involving local FIs.
- Participating FIs would lower risk premiums as they better understand ESCO business models.

Enabling conditions
- Marketing campaigns on the merits of EE investments to encourage participation of local FIs
- Participating local FIs should eventually increase investment exposure as support from the EERF tapers off

Global examples
- Thailand (Thai EERF)

GOV’T
- Seed capital

IFI / MDB
- Capital at low interest rates

EERF
- Credit line
- Regular repayments

LOCAL FIs
- Project loans
- Regular repayments

ESCO
- Project loans
- Regular repayments
Recommendations
(1-5)

Conduct EE market-mapping analyses and estimate the market potential of public-sector and less-creditworthy customer segments relative to the entire country.

Allocate funding to the preparation of public-sector EE projects, including budgets for investment-grade energy audits, PPP transaction support and the design of large-scale ESCO procurement programs.

Assess the existing ESCO industry and identify bottlenecks to the growth of project pipelines, and the accreditation and technical capacities of new ESCOs.

Assess the current environment for private-sector and government lending to ESCOs, and estimate the financial intervention needed from IFIs, MDBs, and the government to achieve EE market potential.

Review public procurement rules and how the policies allowing public-sector EPCs can be adapted.
Create innovative financial vehicles and structures (e.g. equity and guarantee funds, Super ESCOs, PPP, joint venture transactions) that can enable public funding and private-sector capital flows into ESCO-led EE retrofits in public facilities.

Create a road map for gradually removing subsidies in energy prices in order to improve EE project economics and the viability of ESCO financing.

Implement an incentives framework to improve after-tax returns for a wide range of EE technologies and services, and require establishments meeting a given energy-consumption threshold to create energy-use reduction plans.

Identify competency gaps across the EE value chain and establish training and international partnerships.

Conduct technical training and marketing campaigns to raise stakeholders’ confidence in EE projects and ESCO business models.

Recommendations (6-10)
Accelerate public spending towards EE improvements as a key component of post-COVID economic stimulus programs

### MAIN INVESTMENT AREAS

**Buildings**
- New construction
- Retrofits of existing buildings

**Technology**
- Subsidized replacements
- Rollout of new tech.

**Infrastructure**
- EE-enabling tech.
- Public transportation infrastructure

### DEVELOPMENTAL OUTCOMES

- **Reduction in carbon emissions**
- **Investment in a labor-intensive sector**
- **Reduction in energy intensity**

### Recommendations

- Provision of subsidies and rebates
- Leveraging existing large-scale EE programs
- Delivering programs through public utilities
- Bulk procurement and installation