Implementation and Financing Mechanisms in Commercial, Public & Industrial Buildings Sectors

National Consultation and Dissemination Workshop

November 10, 2022
Bridging the energy efficiency capital gap in the energy end-use sectors through ESCOs

*Removing barriers to debt finance and equity capital flowing through ESCO markets*

Alexander Ablaza
10 November 2022
Ten country ESCO associations have officially established the Asia-Pacific ESCO Industry Alliance (APEIA) through its six meetings since June 2018.
Global ESCO Network

The **Global ESCO Network** gathers ESCO associations of the world as well as international institutions and ESCO experts for the promotion of ESCOs and Energy Performance Contracting in response to the global climate change challenge and the goals set out by the Paris Agreement.

It is the **Vision** of the Global ESCO Network to be the global driver and inspire government actions for scaling up the contribution of ESCOs to the global response for mitigating the threat of climate change and the goals set out by the Paris Agreement. To realize this, it is the **Mission** of the Global ESCO Network to add to and reinforce existing efforts of National and Regional ESCO Associations to promote increased activities by the ESCO Sector at a global scale.

The Global ESCO Network recognizes the regional role of **APEIA** as convenor of ESCO associations under its membership and will work through APEIA to advance the Network’s objectives in the Asia-Pacific region.

The Global ESCO Network has its Secretariat anchored in the **UNEP Copenhagen Climate Centre** and the **Efficiency Valuation Organization (EVO)**.
Emerging concepts: Role and growth of the ESCO industry

Mobilizing USD 24.5 trillion in EE investments through 2040 may require over USD 16.5 trillion flowing outside the balance sheets of end-users, such as through ESCO performance contracts.

There may be no distinction between being in a developed economy or emerging market as far as the evolution and growth of an ESCO industry is concerned.
“60% of the global energy service company (ESCO) market is in Asia”

Asia-Pacific ESCO Industry Alliance, 5 June 2018, Asia Clean Energy Forum 2018
(based on IEA estimates, 2016)
ESCO market has been growing steadily since 2015

- Although the global ESCO market has grown to about USD 33 billion in 2020, the full potential of the industry remains hindered by multiple barriers with the Covid-19 adding restraints.
- China’s close to USD 20 billion ESCO market represents 59% of global size.

Global ESCO market growth, 2015-2020

Panel Discussion 1
Challenges and Opportunities of
Energy Service Performance Contracts
Major policy and market barriers impeding ESCO market development across Asia

ESCO sector need to build technical (e.g. capacities)

EE consumption thresholds for EE obligations are too high

ESCO accreditation system needs to be strengthened

Government procurement and budgeting disallow ESCO contracts

All rights reserved by A. Ablaza, the Asia-Pacific ESCO Industry Alliance (APEIA)
Removing ESCO policy and market barriers

**Policy or Market Barrier**

• Barrier Removal Interventions

**EE consumption thresholds for EE obligations are too high**

• Review and amend EE laws to capture more mandatory action from end-users across more sizes and sectors

**ESCO accreditation system needs to be strengthened**

• Create or strengthen ESCO accreditation, registration or certification systems

**ESCO sector need to build capacities**

• Intensify training and certification of CEMs, CMVPs and other EE/ESCO professionals and develop industry performance contract templates

• FIs will need to build up and sustain EE lending capacities and EE loan products

**Government procurement and budgeting disallow ESCO contracts**

• Correct Government procurement rules to allow procurement and budgeting for ESCO performance contracts, PPP transactions and JV agreements

All rights reserved by A. Ablaza, the Asia-Pacific ESCO Industry Alliance (APEIA)
Conclusions / Key Lessons

Government policies, incentives and donor capacity building have effectively evolved ESCOs and enabled market growth.

ESCO Associations play a valuable role of accelerating policy reforms and sustaining market development.

Further ESCO market growth will be driven by digitalization and Government procurement of ESCO services.
Panel Discussion 2
Financing and Risk Mitigation Models for Energy Efficiency
EE Investment Gap

Business-as-Usual USD 8.0 trillion

Off-Balance-Sheet USD 16.5 trillion

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

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

- ESCO Performance Contracts
- PPP Transactions
- Risk-Sharing Facilities
- Budget Financing
- Other modalities
Global EE Investments Needed through 2040 to Meet IEA’s Efficient World Scenario (EWS) by Financing Modality

Role of the Public Sector

Public agencies and facilities represent scalable EE opportunities that are largely untapped

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

All rights reserved by A. Ablaza, 2022
Energy Efficiency Financing and Investment Modalities

Business-as-Usual (BAU) Modalities

- **Self-financed**
  - Using own capital or operating budgets to procure EE technologies

- **Debt-financed**
  - EE loans
  - EE leasing

Innovative Modalities

- **Off-balance Sheet Investments**
  - ESCO performance contracting
  - PPP / BOT
  - Portfolio investments

- **Special Market Channels**
  - Utility-led DSM and Govt Programs
  - LGU subsidies (eg PACE)
  - Funds: EE, ESCO, Private Equity
  - Guarantees (EE Performance and Customer Credit)
Major financing barriers impeding ESCO capital flows across Asia

- ESCO markets have no EE aggregators, equity and guarantee providers
- MSMEs and ESCOs have limited access to EE debt finance
- Delayed phase-out of energy subsidies
- ESCO project investments need access to fiscal incentives

All rights reserved by A. Ablaza, the Asia-Pacific ESCO Industry Alliance (APEIA)
Removing ESCO financing barriers

<table>
<thead>
<tr>
<th>Financing Barrier</th>
<th>MSMEs and ESCOs have limited access to affordable EE debt finance</th>
<th>ESCO markets have no EE aggregators, equity and guarantee providers</th>
<th>ESCO project investments need access to fiscal incentives</th>
<th>Delayed phase-out of energy subsidies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Barrier Removal Interventions</td>
<td>• De-risk EE bank lending with risk sharing facilities and guarantee mechanisms</td>
<td>• Design, establish or enable EE portfolio aggregators, equity providers, ESCO guarantee funds (public or private) or facilitate entry of energy savings insurance products</td>
<td>• Government EE subsidies or tax incentives should be rolled out to ensure improved equity returns and debt service or de-risk long-term capital investments</td>
<td>• Accelerate phase-out of subsidies or mobilize Viability Gap Funding for EE projects</td>
</tr>
</tbody>
</table>

All rights reserved by A. Ablaza, the Asia-Pacific ESCO Industry Alliance (APEIA)
Asia will need to bridge its EE capital gap through 2040 by enabling off-balance sheet equity flows and ESCO-responsive debt finance through steadily growing ESCO markets.

Further ESCO market growth will be driven by innovative financial structures such as portfolio aggregation through Super-ESCOs.
Thank You

Alexander Ablaza
Founding Convenor and Co-Chair, Asia-Pacific ESCO Industry Alliance (APEIA)
Co-founder, Global ESCO Network
Principal Advisor, Energy Efficiency Finance, Investments, Policy and Market Transformation
aablaza@live.com