

ASIA CLEAN ENERGY FORUM 2019

PARTNERING FOR IMPACT

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Deep Dive Workshop

Monday, 17 June 2019, 2:00pm – 5:30pm, Auditorium C

Scaling up Energy Efficiency with Simplified M&V Meters and ESCO Business Models

APEIA

Asia-Pacific ESCO Industry Alliance



ENERGY
STUDIES
INSTITUTE

National University of Singapore



Efficiency
Valuation
Organization



Sustainable Energy Association of Singapore

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Background

This Deep Dive Workshop will bring together international and Asia-based experience to discuss how energy efficiency efforts can be scaled up for impact. The workshop will cover two primary areas: (a) how measurement and verification (M&V) tools and methods can be used to effectively create an “EE meter”; and (b) experience with testing and scaling up business models for energy service companies (ESCOs).

Measurement and Verification (M&V) is the meter of an EE Project and is required to be able to calculate the achieved energy savings (revenues) with any degree of accuracy or reliability. Without a M&V Meter, no responsible investor or financier will fund energy efficiency on a sustainable basis and energy efficiency will not be recognized as a sustainable or scalable market opportunity.

This DDW will demonstrate the relatively simple and transparent ways to measure and verify savings on the primary EE technologies according to the generally accepted M&V principles of the International Performance Measurement and Verification Protocol (IPMVP). It will also present the new global Certified Energy Savings Verifier (CESV) certification being provided (initially in Indonesia and France) by the Efficiency Valuation Organization (EVO) to professional individuals who have passed a rigorous exam demonstrating they have the competency to independently certify estimated and achieved savings of EE Projects.

Importance of ESCOs. Based on IEA estimates, over 60% of global energy service company (ESCO) business is situated in Asia, driven largely by the dramatic ESCO market growth in China. Presentations and discussions in the workshop will comparatively show which ESCO business models across key Asia-Pacific markets show the promise of growth, and how such models can be replicated in other nascent ESCO markets. Also, a Singapore case study intends to gather market feedback on possible next steps which include an improvement of the existing financing programmes and the design and implementation of new government and private sector interventions to scale-up energy efficiency financing in the country's manufacturing sector.

Objective

This DDW aims to provide energy efficiency market stakeholders, which include government agencies, development partners, debt and equity investors, energy service companies (ESCOs), energy efficiency technology and solutions providers, and commercial/industrial end-users an updated understanding of:

- Measuring and verifying savings using M&V principles of the International Performance Measurement and Verification Protocol (IPMVP).
- Details of the new Certified Energy Savings Verifier (CESV) global certification
- The energy efficiency financing gap and the ESCO performance contracting model
- Country ESCO presentations: A comparison of ESCO business models in Asia-Pacific
- Energy efficiency financing and market-based instruments

Agenda

2:00 – 2:05

Scaling up Energy Efficiency through Simplified M&V Meters
Session Introduction by Moderator, Thomas K. DREESSEN

- 2:05 – 2:20 New Certified Energy Savings Verifier (**CESV**) Professional Certification
Thomas K. DREESSEN, Treasurer and Past Chair of EVO
- 2:20 – 2:35 New IPMVP Core Concepts Summary
Mark LISTER, Secretary, EVO
- 2:35 – 2:50 Simplified EE Savings M&V for LED Lighting Retrofits
Elena MARSELAS, Head of Systems Center MET, Pakistan and Africa, Signify (formerly Philips Lighting)
- 2:50 – 3:05 Simplified EE Savings M&V for Chiller Retrofits
CHOONG Chow Neng, Director, Business & Operations, G-Energy Global PTE Ltd
- 3:05 – 3:30 Q&A/Discussion
- 3:30 – 3:35 Synthesis/Closing
- 3:35 – 3:55 **Coffee Break**
- 3:55 – 4:00 **Scaling up Energy Efficiency through ESCO Business Models**
Session Introduction by Moderator, Alexander ABLAZA, Co-chair, APEIA
- 4:00 – 4:08 China's ESCO Business Models
ZHAO Ming, Energy Conservation Association of China (EMCA)
- 4:08 – 4:16 India's ESCO Business Models
Deepak TEWARI, Alliance for an Energy-Efficient Economy (AEEE, India)
- 4:16 – 4:24 Japan's ESCO Business Models
Hidetoshi NAKAGAMI & Tetsuya MAEKAWA, Japan Association of Energy Service Companies (JAESCO)
- 4:24 – 4:32 Korea's ESCO Business Models
Dien YOON, Korea Association of Energy Service Companies (KAESCO)
- 4:32 – 4:40 Malaysia's ESCO Business Models
Zulkifli ZAHARI & ONG Ching Loon, Malaysia Association of Energy Service Companies (MAESCO)
- 4:40 – 4:48 Philippines' ESCO Business Models
Alexander ABLAZA, Philippine Energy Efficiency Alliance (PE2)
- 4:48 – 4:56 Singapore's ESCO Business Models
CHOONG Chow Neng, Sustainable Energy Association of Singapore (SEAS)
- 4:56 – 5:04 Taiwan's ESCO Business Models
Veronica LIN (on behalf of WU Chun-yen), Taiwan Energy Service Association (TESA)

5:04 – 5:12	Innovative Solutions to Scale-up EE Financing in Industrial Sector in Singapore Yang LIU, Energy Studies Institute (ESI)
5:12 – 5:27	Q&A / Discussion
5:27 – 5:30	Synthesis/Closing

About the Organizations

The Efficiency Valuation Organization (EVO) is an international non-profit organization whose products and services help people engineer and invest in energy efficiency projects worldwide. EVO's Vision is to create a world that has confidence in energy efficiency as a reliable and sustainable energy resource. And EVO's Mission is to ensure that the savings and impact of energy efficiency and sustainability projects are accurately measured and verified.

The Asia-Pacific ESCO Industry Alliance (APEIA) was formed at a meeting convened during the Asia Clean Energy Forum in June 2018. APEIA now represents the ESCO markets of China, India, Japan, Korea, Malaysia, Philippines, Singapore and Taiwan, and believes that energy efficiency capital and solutions can be deployed at a more climate-responsive rate if ESCO markets across the region, and the global market, are strengthened with risk-mitigated, investment-grade ESCO business models and other barrier removal interventions.

The Energy Studies Institute (ESI) is an independent research institute within the National University of Singapore. With a focus on the areas of energy economics, energy security and energy and the environment, ESI conduct research and analyses of energy policies and their national, regional and global implications.