



Peer Review on Energy Efficiency (PREE) Phase 11 (EWG 02 2021A)

Background

In Peer Review on Energy Efficiency (PREE) Phase 11 (EWG 02 2021A), the 6th Energy Efficiency Policy (EEP) workshop was organized. The EEP program is the project which succeeds Cooperative Energy Efficiency Design for Sustainability (CEEDS) project as a forum in PREE. On November 2021, Follow-up Peer Review on Energy Efficiency in Indonesia (PREE Phase 10) was held online, focusing on the review of the transport, industry, buildings, home appliances and energy supply sectors in Indonesia. During this peer review process, discussions were held on investment issues in energy efficiency in Indonesia and led to the issue of energy efficiency project financing.

To improve the efficiency of energy use in APEC after COVID-19, it is important to establish financial mechanisms and arrangements to support energy efficiency projects. Energy efficiency project financing enables APEC economies to deploy limited financial resources efficiently and attract more funds for energy saving measures through cooperation with the private sector.

Objectives

The EEP workshop aims to deliver capacity building in energy efficiency policy and provide examples through the sharing of information and experiences among APEC economies. In particular, this workshop has a goal to provide a capacity building opportunity related to energy efficiency project financing framework in designing an effective program available to economies, including economy's practical trends and best practices. Due to the COVID-19 pandemic, the workshop was held as a half day online event on 29 March.

Main contents

As originally intended, the financing mechanisms to promote energy efficiency management and innovative financing techniques were discussed to expand APEC members' capacity. The workshop was divided into two sessions. The first session discussed 'expanding investment in energy efficiency' and the second session covered 'financing models for energy efficiency projects.'

The first session began with a presentation on energy efficiency and digital technologies, which explored how digital technologies can improve energy efficiency and facilitate investment. What is highlighted in this agenda was that industry leaders, NGOs and public sectors can cooperate for 'active efficiency' which includes all the ways based on digital technologies together with traditional energy efficiency measures. For example, the member of the Alliance to Save Energy

and restaurant chains achieved a 11.4 GWh reduction, 1.2 million US\$ savings and a 308% return on investment with the use of sensor devices over 34 months.

The second agenda focused on energy efficiency investment in the midst of an energy crisis. The speaker mentioned that there are remaining financial barriers such as lack of similar projects for comparable savings, unclearness of metrics for analysis, stakeholders' unawareness of project risks, etc. However, she also showed recent promising energy efficiency policies around the world and best practices to lower funding barriers via changes of its operation design logic.

The last agenda in the first session was about financing options for electric vehicle (EV) charging infrastructure. The speaker mainly discussed a financing model of Virginia's pilot program in the U.S. that can be used to support the deployment of EV charging infrastructure with the process of transparent verification. The IT platform to manage entire customer processes with marketing & outreach campaign was also emphasized in the program.

The second session started from a business model in Indonesia for promoting energy efficiency. The speaker illustrated how an energy technology company can support the system integrator which proposes energy saving services to the client under cooperation of a bank partner. By guaranteeing its energy-saving technology to the bank, the energy technology company can make the system integrator get a non-collateral loan more easily and then the client is only required to make a repayment from energy savings without collateral requirement. As another solution to spread the risk, de-risking instruments with a seed grant were also suggested.

The second presentation showed two financing models in Korea for ESCOs. One model is 'policy loan fund' and another model is 'factoring of ESCO's receivables.' Unlike the former, the latter has an advantage that ESCOs' credit limit does not decrease. The speaker also answered that, to the question about the major barriers to the ESCO industry, financial institutions tend to be vaguely afraid to make financial investments because many ESCOs are small and lack the necessary capital.

The last presentation was related to CLP Power Hong Kong Limited (CLP)'s eco building fund for energy efficiency. The fund was set up to support the carrying out of retrofitting or retro-commissioning to enhance the energy efficiency performance of building services installations for communal use in residential, commercial, and industrial buildings. The speaker presented six stages from submitting application to award the fund with successful cases.

Conclusions for APEC

These are key results through above discussion:

- Access to capital has been identified as the most important barrier to the deployment of energy efficient technologies. There are potential policies and market driven solutions to facilitate energy efficiency investment such as cost reduction incentives.
- Stakeholder awareness of energy efficiency projects must continue to be improved because insufficient information and a lack of awareness of energy efficiency can be a contributing factor to the low level of interest.
- Measurement and verification of energy efficiency projects remain a significant concern for many stakeholders and this workshop was able to convey how financial models can be developed for transparent measurement and verification.