



KEMENTERIAN KOORDINATOR
BIDANG PEREKONOMIAN
REPUBLIK INDONESIA



Focus Group Discussion: Financing models for energy efficiency

22 October 2020 • 8h30-11h00 CEST/13h30-16h00 GMT+7/ West Indonesia Time

Background

The OECD [Clean Energy Finance and Investment Mobilisation \(CEFIM\) Programme](#) aims to support Indonesia in strengthening its policy frameworks to accelerate investments in renewable energy and energy efficiency. This focus group discussion (FGD) was one in a series of virtual events that are part of the OECD Clean Energy Finance and Investment Review of Indonesia. The FGDs call upon Indonesian and international experiences in topical areas, which will help produce insights and provide recommendations on the enabling conditions to mobilise clean energy finance and investment in Indonesia.

This FGD considered enabling frameworks for energy efficiency investments, pulling from Indonesian and international experiences with energy finance models such as dedicated credit, risk-sharing facilities, public private partnerships (PPPs) and energy performance contracting. The FGD discussed the state of play and experiences with energy efficiency finance in Indonesia as well as lessons learned from other countries on measures to improve access to finance and stimulate private sector investment in energy efficiency. These discussions serve as background for recommendations of steps Indonesia can take to accelerate its clean energy transition through support for energy efficiency investments.

Summary of Discussions

The Government of Indonesia has introduced a number of standards and regulations in support of energy efficiency, including the 2005 National Master Plan on Energy Conservation, Government Regulation no. 70/2009 on Energy Conservation and the 2017 National General Energy Plan (RUEN), which targets 1% annual reductions in energy intensity to 2025, amongst other goals. The country also announced in early 2020 ambitious targets to improve energy efficiency and achieve overall energy reductions of 25 million barrels of oil equivalent by 2025. It has also implemented policy measures such as minimum energy performance standards (MEPS) for end-use equipment. While these are still limited to a few electrical household appliances, the government is pursuing plans to increase the number of appliances and equipments that fall under such regulations. It equally is in the process of improving its core 2009 Regulation on Energy Conservation, which is expected to be enacted in the first semester of 2021.

Energy efficiency finance in Indonesia is currently limited and challenging. The Government has supported a number of activities to try and improve this situation, for example by creating its Partnership Program on Energy Conservation, which supports energy conservation by providing government-funded energy audits for buildings and industry. It also intends to introduce measures in the new core regulations (mentioned above), such as: support for energy service company (ESCO) business models to improve investment grade (energy) audits as well as measurement and verification protocols; fiscal and non-fiscal incentives; mandatory energy management requirements for certain large energy users and providers; improved capacity building programmes; and other efforts to de-risk energy efficiency finance.

Several key challenges remain. There is a clear knowledge gap among stakeholders about energy efficiency projects. Mainstream banks lack familiarity of the notions and benefits of energy efficiency projects, and as a result consider lending to them as risky. Financial institutions also have low confidence in energy performance contracting (particularly on how to monetise energy savings), and thus project finance is very uncommon. The

limited number of ESCOs actually operating in Indonesia also typically have very limited capital, thereby lacking sufficient profiles to access corporate finance (e.g. due to lack of collateral). There equally are no real incentives or dedicated lines of credit (nor project finance products) for energy efficiency from mainstream financial institutions, and government financial support, essentially for public-private partnerships (PPPs), is more suited to large infrastructure projects, hence making it very difficult to apply to energy efficiency¹.

In addition, many business leaders, facility owners and facility managers have limited awareness of energy efficiency opportunities, and therefore do not look to finance those projects. Often, there also is inadequate human resource capacity (e.g. to carry out investment grade audits) to make energy efficiency opportunities attractive, thus creating additional barriers to project bankability. Average project size, as in many other countries, is generally small (typically much less than USD 1 million), and there is no real platform to aggregate financing across projects. As a result (and in addition to lack of confidence), banks do not find it worthwhile to engage efforts in energy efficiency financing. Another challenge is that the commercial interest rates offered by mainstream banks are quite high (between 9-12%) compared to that in neighboring countries².

Several measures can be considered to overcome these barriers. The Government can strengthen policy and create mandatory regulation in support of energy efficiency development. This includes leading by example, for example creating business opportunities for energy efficiency projects by allowing relatively small projects to apply PPP models in state-owned facilities. These projects can be applied to help the market to recognise monetised energy savings as a stream of income, which is particularly important to enable energy savings performance contracts for ESCO development. The Government can also support financial institutions to develop project finance (e.g. providing information and capacity building) and work with them to identify potential solutions to aggregate multiple energy efficiency projects. It likewise can work with international donors through the use of grants or blended finance (where appropriate) to initiate pilot projects aimed at building success stories that improve confidence in and demonstrate replicable finance models for energy efficiency projects.

In addition, the Government can provide incentives and market instruments (e.g. tradable energy savings certificates, introduce a credit guarantee scheme and energy saving insurance products, and consider other possible de-risking features to support energy efficiency projects. The Government may also consider establishing a green fund or dedicated energy efficiency fund (e.g. through PTSMI's SDG One Fund), which could be used (in part) as a risk-sharing facility to overcome gaps like lack of collateral. The fund could also be used as a line of credit with financial partners using a list of eligible projects and/or technologies, to build up awareness and confidence in the market (as was shown by SIDBI's experience in India in the 2000s). This can equally be expanded to a "lending plus" approach, providing non-financial support (e.g. technical assistance or support in preparing contractual structures). Lastly, establishing the carbon pricing and/or trading mechanism being considered by the Government would help encourage demand for energy efficiency projects as well as build better perceived risk for finance.

Conclusions and recommendations

- Strong and clear-cut regulations are crucial to help the market identify energy efficiency opportunities and create demand for finance and investments by pushing up the market floor. Standards (e.g. for appliances and buildings) need to be strengthened and expanded. These measures can be complemented by additional policy tools, such as grants or financial incentives to buy high-efficiency products, to create a "carrot and stick" approach, which has been successful in other countries (e.g. in the Danish experience).
- A number of initiatives require support from the Government; it is therefore important to prioritise support to demonstrate successful energy efficiency financing to the market. The Government can kick-

¹ An on-going street lighting project in Surakarta city is a promising example of a PPP for energy efficiency. Other cities are waiting for the results of this project to replicate the PPP energy savings model.

² Rates as reported by during the Focus Group Discussion on Financing Models for Energy Efficiency.

start this process by focusing on clusters (e.g. energy intensive industries) or specific sectors (e.g. air conditioning, working with international partners such as the Kigali Cooling Efficiency Program to raise capital for energy-efficient cooling). The focus should be on enabling replicability and expansion to other areas (as was shown by SIDBI's early experience in India) as well as providing basis to build other clean energy business models (e.g. involving renewable energy applications such as solar rooftop for industry and residential buildings to improve energy performance and mitigate climate change).

- Effective co-ordination among relevant government ministries and institutions should be prioritised to avoid confusion and frustrations among stakeholders in the development and implementation stages of energy efficiency projects
- Continued and extended capacity building is critical to improve the skills and human resources needed to raise awareness of and familiarity with energy efficiency projects and their business models (e.g. energy performance contracting). The Government needs to work with professional training institutions and financial institutions to build knowledge (e.g. education on risk return profiles for energy efficiency projects) and capacity for energy efficiency finance (including notably project finance). Capacity building is also needed with actors preparing energy efficiency projects, including support of an accreditation scheme for ESCOs, training on investment grade energy audits, and certification of 3rd party monitoring and evaluation, all which are critical to build market confidence and enable project finance.
- Standard documentation for energy service contracting needs to be rigorously developed to make it effective and straightforward. Repayment conditions (including e.g. minimum charges for ESCOs if energy savings are not as expected), security of payment and contract terms between parties are crucial, and this needs to be accounted for in the standard documentation.
- Collaborative efforts between government, developers and financial institutions (possibly with the support of international partners) are needed to develop a pipeline of bankable projects. The Government can support this in several ways, including developing a network or shared platform to support development of energy efficiency projects. It can also work with banks to leverage client networks (tapping into customers with credit history and on-going relationships) to make credit lines work as well as to connect credit-worthy clients with ESCOs, thus enabling familiarity with this type of financing as well as an initial pipeline of projects in the market.
- Tailored financing, including use of dedicated credit lines or an energy efficiency fund (e.g. with international financial institutions through SDG Indonesia One), can play a vital role in enabling scale-up of investments in energy efficiency. These funds can include additional elements of financial support, such as guarantees or insurance against energy savings risk, to help overcome barriers to project finance for energy service models.
- Financial support can also engage in project development, where elements like investment grade audits (e.g. within the ESCO model) can be a sunk cost (and thus barrier) for project developers. The Government can support the overcoming of these costs, for instance using reimbursable grants, to provide both credit and project development support (a successful element of SIDBI's enabling framework in India). This could be done through existing funds (e.g. PTSMI can use grants to provide project preparation services) or as part of a dedicated energy efficiency fund.