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OECD

ENERGY SAVING INSURANCE (ESI) and ESCO BUSINESS MODEL

-Needs Assessment for Energy Savings Insurance in Indonesia-

Presented at :
FGD Mekanisme Pembiayaan Efisiensi Energi: Pengembangan Mekanisme yang Inovatif dan Berlandaskan Kondisi Lintas Sektor di Indonesia
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Overview

OECD programme funded by Australia, Denmark, Egypt and Germany

Aim: to help accelerate clean energy finance and investment by strengthening domestic enabling conditions

Scope: grid-scale renewable electricity, energy efficiency, and industry decarbonisation

Activities:

CEFIM country partners: Colombia, Egypt, India, Indonesia, Philippines, South Africa, Thailand and Viet Nam

CEFIM Activities in Indonesia

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Finished

- The Clean Energy Finance and Investment Policy Review (2021)
- Advice on the development of OJK's (Financial Services Authority) Green Taxonomy
- A joint report prepared with the OJK on the financial institutions' progress in supporting a clean energy transition (2022); capacity-building events on innovative financing models for high efficiency and low emissions cooling systems, insurance products for financing renewable energy
- FGD Series (November 2021; March 2022; May 2022) on the design of Indonesia's emissions trading scheme for the power sector (in collaboration with the IEA);
- 3-Year Clean Energy Finance and Investment Training. The 1st training week was held in Bandung (Oct-Nov 2022), the 2nd in Yogyakarta (June 2023)
- The implementation of the OECD Framework for industry's net-zero transition ("the Framework") for the Indonesian steel and textile sectors.

Ongoing and Development

- Analysis on Energy Saving Insurance (ESI) model in Indonesia with OJK and MEMR
- Development of EE guidebook for financial institutions
- A training and certification on the RETSreen Clean energy management platform with OJK and MEMR (July 2024)
- 3rd Clean Energy Finance and Investment training week (October 2024) with OJK and MEMR
- Stakeholders consultation on transition finance in Indonesia with OJK
- Stakeholders consultation on carbon trading and market with OJK

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Secondee (Person on Loan) Programme

- OECD CEFIM provides a 12 months secondee (person on loan) positions to Indonesia Financial service Authority (OJK) and Ministry of Energy and Mineral Resources (MEMR)
- The purpose of the programme is to promote cooperation, provide development opportunities for staff, support greater familiarity with each other's working methods, and foster cross fertilization
- OJK has sent a secondee on 2022-2023 and sent 2 secondees for 2023-2024.
- MEMR will send 2 secondees for 2024-2025

Working areas:

- *Series of FGDs on transition finance*
- *Clean energy finance training*
- *Energy efficiency guidebook for financial institution*
- *Analysis on Energy Saving Insurance (ESI) model*
- *Blended finance guidance for project, sector, and country-specific risk*
- *Series of FGD on carbon trading and market*
- *Analysis of the impact of supply-side shocks of critical raw material on financial returns, price stability, and the realisation of a Paris-Aligned transition*

Background

Indonesia has raised its emission reduction targets in the Enhanced NDC to 31.89% with its own effort (unconditional) and a with international assistance (conditional) to 43.2% by 2030.

In the Enhanced NDC, mitigation measures are focused on five sectors: energy, industry, forestry, agriculture and waste, with energy being the second largest contributor to total GHG emissions on 2010. Energy Efficiency is the second largest target out of the other, however in 2023 is furthest away from the 2030 target, currently reaching only24,1% of the envisioned target. (see table below)

No	Mitigation Action	2023		2030	
		Target	Achievement	Target	% Achievement of Target in 2023
1.	Energy Efficiency	29,4	31,87	132,25	24,1%
2.	Renewable Energy	51,00	51,29	181,45	28,3%
3.	Clean Power Technology	15,92	15,55	21,53	92,4%
4.	Low Carbon Fuels	16,54	13,33	16,83	61,9%
5.	Others	3,95	15,63	5,84	267,6%
	TOTAL		127,67	358	35,6%

Target and Achievement in Million Ton CO_2

Energy efficiency has become a concern of the Indonesian government, and several initiatives related to energy efficiency and ESI are in place in Indonesia, such as MENTARI Energy Efficiency partnership (development of ESI), GIZ CASE (synthesis study).

Energy Efficiency Initiatives

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- Energy efficiency is crucial in achieving NZE by its potential to mitigate climate change, reduce costs, and generate employment opportunities in order to mitigate the severe impact of climate change and promote sustainable development.
- However, several challenges remains, such as :
  a. *Level of **understanding and awareness** of the benefits and potentials of energy efficiency measures and technologies are limited and need to be improved.*
  b. *Limited **energy efficiency performance data** due to the relatively new development of the energy efficiency market.*
  c. *Limited number of energy **managers and auditors (M&V)***
  d. *Implementation of Energy Conservation initiatives is in early stages of development.*
  e. ***Energy subsidies** resulting in market distortions due to excessive energy use, and may have a negative impact on investment*
  f. *The **incentives** provided thus far have **failed to attract Energy Efficiency business actors***
  g. *Limited technical capacity to attain best practices of procedures and technologies in delivering reliable energy saving solutions*

- From the financing perspective, the challenges includes
  a. ***Relatively small scale** of projects compared to transaction costs: The relatively small scale of EE project and the complexity of M&V bring challenges for facility owners as well as FIs.*
  b. ***Limited understanding** and **related interest** of Financial Services Institutions and Investors in energy efficiency projects, and high risk perception resulting in higher cost of finance*
  c. *Underwriting requirement that can challenging for MSMEs and Energy Services Companies (ESCOs) to meet, resulting in **limited access to funding***
  d. *Energy **saving cash flows** are not acknowledged as **loan collateral***
- Therefore, Energy Efficiency Financing needs to be supported by other mechanism, such as **capacity building** for stakeholders, increase awareness on **energy efficiency financing through publication/guidebook**, and de-risking facility such as **Energy Saving Insurance**.

Energy Savings Insurance and ESCO Business Model

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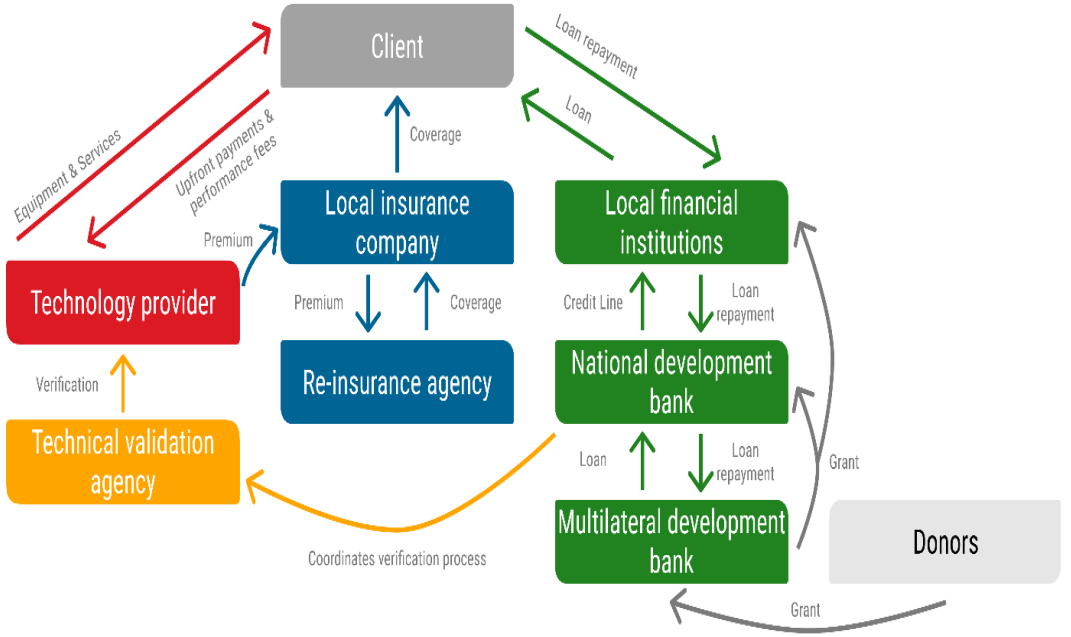
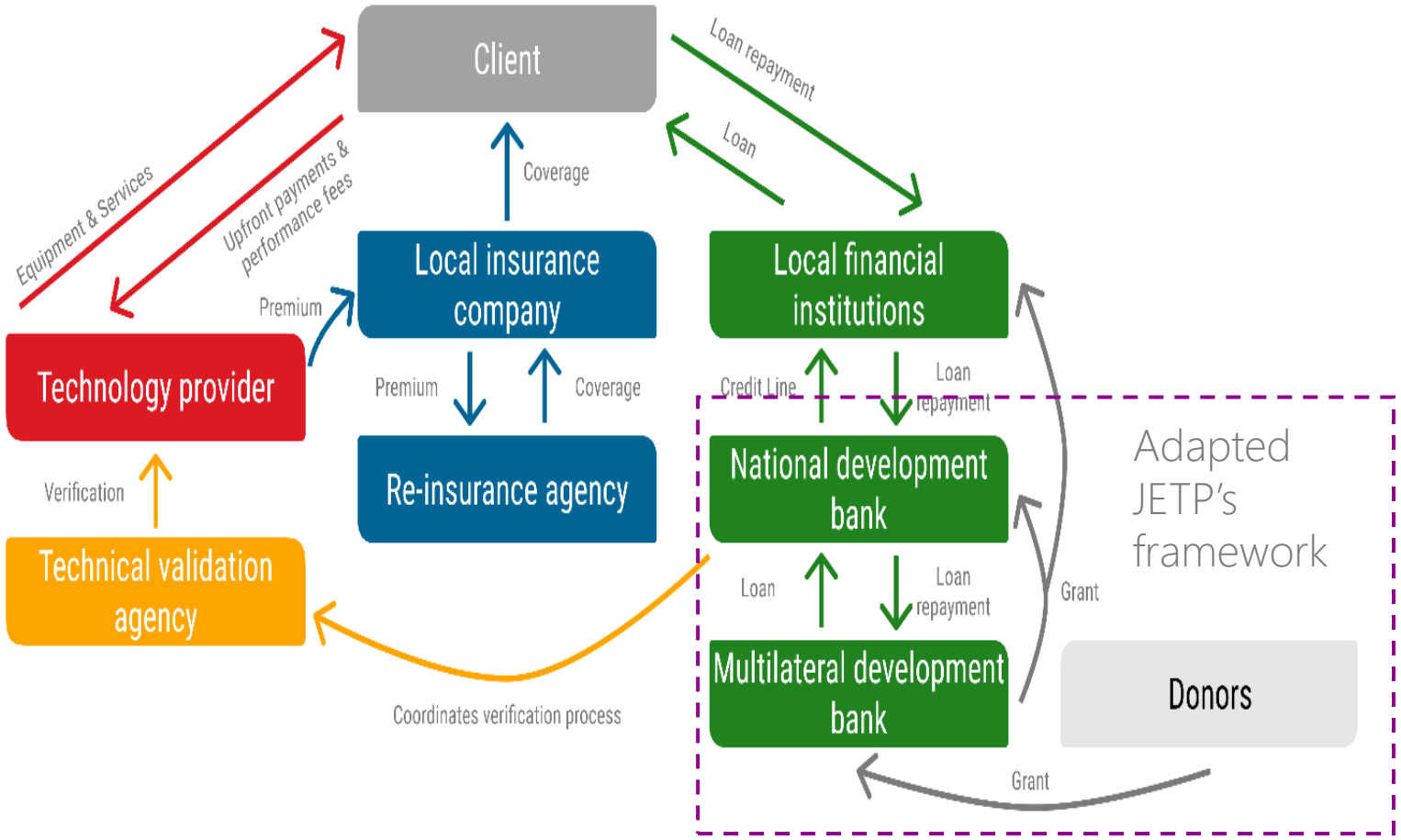
- De-risking instruments are essential for encouraging investment and removing barriers to energy efficiency. Guarantee and insurance are two widely known de-risking instruments.
- The Energy Savings Insurance (ESI) model was first developed by the Inter-American Development Bank (IDB) in 2014, with the support of the Basel Agency for Sustainable Energy (BASE), to drive investments in energy efficiency projects.
- An international focus group discussion was organized by MEMR), Indian BEE, and OECD CEFIM in March 2023 to share lessons learned in the development and implementation of the ESI programme in Colombia, El Salvador, Chile, and Mongolia.
- Key lessons include the importance of **strategic partnerships**, adapting the components of the ESI model to the **local context**, engaging in **stakeholder discussions and/or workshops for local actors** and offering technical assistance to develop the needed market capacity.

- The ESI model is a de-risking package consisting of both financial and non-financial elements designed to build investor confidence in energy efficiency projects. It has four building blocks :
  - ✓ Standard contract
  - ✓ Technical validation
  - ✓ Energy savings insurance
  - ✓ Concessional credit lines



Conceptual design of ESI, based on Micale, Stadelmann and Boni (2015)

Potential strategies for integrating ESI and the ESCO business model into the JETP's framework



- No national development bank in Indonesia
- Local financial institution cannot accept donor's funds directly
- JETP's framework (e.g. through PT. SMI) can potentially adopted to add the Indonesian local context

Conceptual design of ESI, based on Micale, Stadelmann and Boni (2015)

Proposed Work Plan 2024

	May	Okt	Nov	Dec
Event	Stakeholder Consultation on De-Risking Instruments and Unlocking ESI in Indonesia	ESI Development Workshop	Workshop on The Draft of ESI Need Assessment Result	Final Deliverable and Soft Launching
	A hybrid dialogue bringing international experts and Indonesia stakeholders to increase awareness and Unlocking ESI Potential	An offline technical workshop will focus on the implementation of ESI in Indonesia between stakeholders	Online event to gather feedback and inputs for finalising the needs assessment repot to stakeholders	The soft launch will introduce Need Assessment Report and symbolise a commitment for stakeholders' engagement & awarness
MEMR	Issues invitations, opening speech, presenting regulation update, recommending list of ESCO, technology providers, project developers, potential project owner, ESCO association		Issues invitations	Issues invitations, opening speech
OJK	Issues invitations, opening speech, presenting regulation update, recommending list of banks, insurers, reinsurers, finance companies, including the associations		Issues invitations	Issues invitations, opening speech

Deliverable

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The **Need Assessment Draft**

- Case studies of exiting applications in Latin America countries
- Generalized framework to assess the needs and market potential for ESI to be implemented in Indonesia based on key lesson learned from previous workshops.
- Indonesia context:
  - Identify priority sectors and technologies
  - Identify market potential, barriers and financing needs
  - Identify key stakeholders under different categories (technology providers, technical validation entities, insurance companies, financial institutions, etc.)
- Developing a cross-cutting SWOT analysis based on case studies, public private sector discussions, and workshop

Other Work Programme including The Launch of **Energy Efficiency Financing Guidebook for Financial Institutions** (under coordination of OJK), and the **Clean Energy Finance and Investment Training**, including topics on Energy Efficiency Financing

Indonesian Stakeholders

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ESCO

- ESCO Association needs to be more active
- Limited access to finance (not bankable)
- Small scale project

Insurer/Reinsurer

- Limited experience and knowledge in energy efficiency
- Lack of data (**loss profile**) to calculate the risk and underwriting process

Energy Auditors

- Institutional energy auditor in energy efficiency (M&V)

Banks/Finance Companies

- Limited experience and knowledge in energy efficiency
- Requirement for collateral/guarantee
- High risk perception resulting in higher cost of finance

Energy Efficiency Ecosystem consists of energy industry (ESCO, Energy Manager, Energy Auditor, Tech Supplier, and Project Owner) and financial sector (banks, finance companies, insurers) must be developed.

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Please visit our webpage:

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