



ENERGY EFFICIENCY PROJECTS IMPLEMENTATION IN INDONESIA :

PERFORMANCE CONTRACTING AND ESCO SOLUTION

BACKGROUND

- ❑ As Indonesian's economy growing, energy consumption and GHG emissions will also grow.
- ❑ To reduce the potential negative impacts of GHG emissions on the global environment, Indonesian has made a national commitment to energy efficiency (EE) and energy conservation (EC).
 - Energy Law (UU.No.30/2007)
 - Government Regulation on energy conservation (PP 70/2009)
 - Presidential Instruction (No.13/2011)
- ❑ High Energy Conservation Opportunities



BARRIERS TO LARGE SCALE IMPLEMENTATION OF ENERGY EFFICIENCY PROJECTS IN PUBLIC SERVICES

Implementation of energy efficiency projects may be constrained by a number of barriers:

1. Facility managers in public enterprises generally do not have a good understanding of the opportunities, costs and benefits of energy efficiency options;
2. Contracting and procurement rules in public enterprises are often restrictive; for example, they require the selection of the lowest bidder, which makes it difficult to adopt the performance contracting approach;
3. Responsibilities for capital and operating budgets in public agencies are often dispersed, making it difficult to deploy funds from capital budget to reduce operating costs;
4. Commercial banks are generally unwilling to provide project financing to public services enterprises.



BARRIERS TO LARGE SCALE IMPLEMENTATION OF ENERGY EFFICIENCY PROJECTS IN PRIVATE SECTOR

Barriers to large-scale implementation of energy efficiency projects in the private sector include the following:

1. Large commercial energy users are unwilling to provide a high priority to energy efficiency projects and have limited interest in investing their own funds for such projects;
2. Senior managers of many large energy users are not convinced of the benefits from energy efficiency projects;
3. The concepts of performance contracting are relatively new to many commercial and industrial energy users in Indonesia;
4. Many financial executives are unwilling to take on additional debt on their balance sheets to finance energy efficiency projects. Project financing would be a preferred approach, but commercial financial institutions are not used to project financing of energy efficiency projects;



OVERVIEW :

The growth of ESCO industry in Indonesia has been so slow due to some reasons, such as follows :

- There is no ESCOs model in Indonesia nationally accepted and local ESCO has limited experience with successful ESCO projects;
- The concept of project financing for ESCO projects is not commonly accepted by commercial financial institutions in Indonesia. A major reason for this is that commercial financial institutions require collateral and are generally unwilling to accept the savings stream generated by the project as appropriate collateral.
- The commercial financial institutions typically have limited knowledge and understanding of energy efficiency projects and the performance contracting concept;
- The commercial financial institution also perceive energy efficiency projects as inherently more risky than other investments, and generally require a large proportion of equity funding from ESCOs for a project.



ESTABLISHMENT OF ESCO INDUSTRIES

In order to achieve EE implementation potential, ESCO need to establish in Indonesia, and need the following actions :

1. To provide an ESCO model and gain acceptance and government support
2. Promotion with education and awareness training
3. Standardize contracts for ESCOs & Standardize measurement and verification for ESCO projects.
4. Government Regulation concerning in ESCO Industries if necessary;
5. Establish a energy efficiency and energy conservation special fund and develop a third-party financing network.
6. Implement pilot projects
7. Develop incentive and disincentive mechanisms;
8. Develop a medium and long term plan;
9. Promote energy performance contracting in public sector
10. Establish an equipment-leasing in accordance with ESCO mechanism.



ESCO Financing-Some Successful Global Experiences

- Hungary-WB IFC PCG program
- China-WB ESCO program
- Brazil-Electricity cess for ESCO program
- Korea-Petroleum cess for ESCO program
- Thailand-Utility DSM & ESCO projects
- Japan-Utility ESCO development



Potential Financing Mechanism

Equity Capital for ESCOs

- RDPT (Special Purpose Mutual Fund Type)
- Venture capital for corporate and/or project equity

is

Guarantee Fund

Payment Security Mechanism

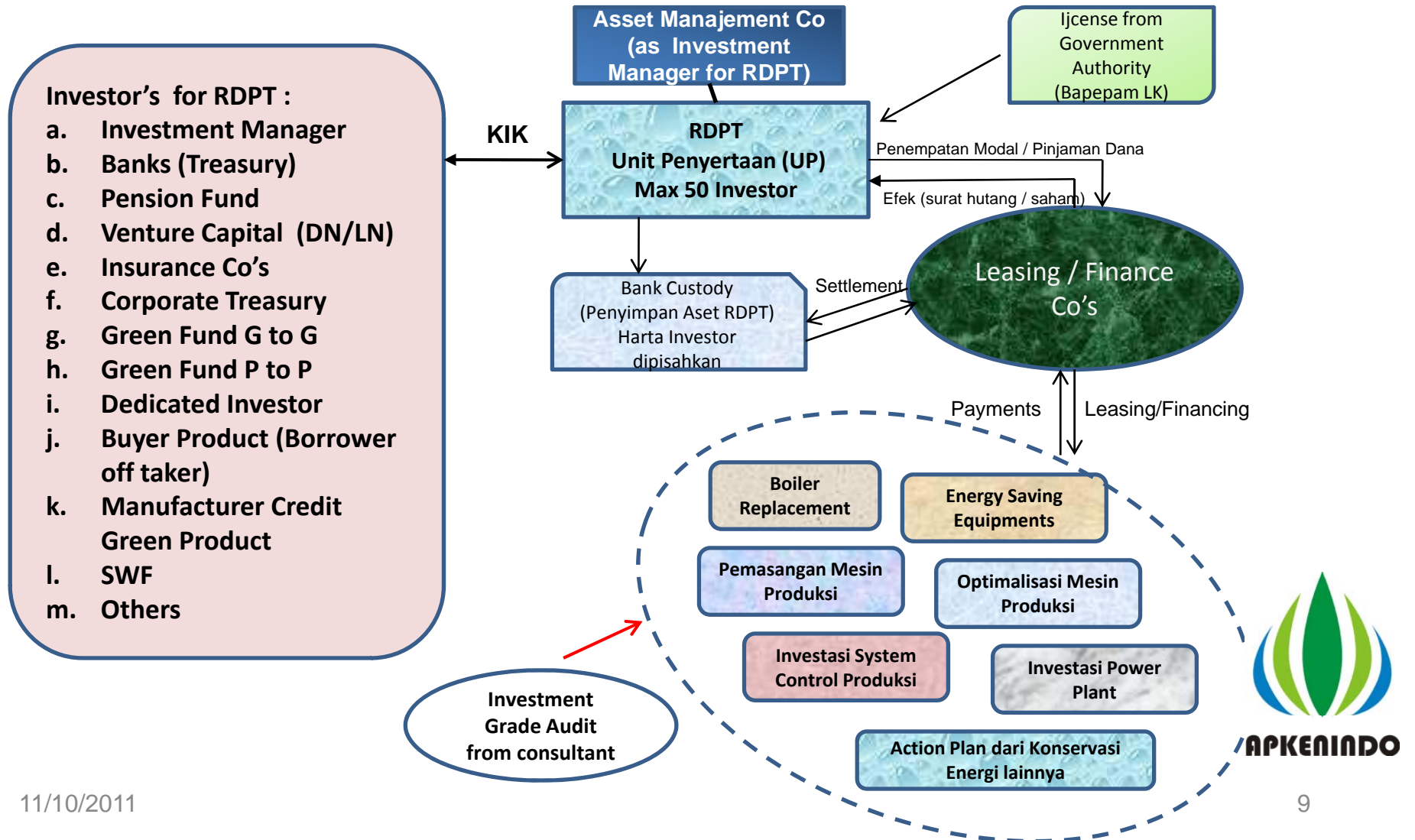
- Mechanism to secure the cash flows from energy savings for debt service

Streamlined (Program-based) approach for small projects

- Development of standardised project approval parameters that mitigate risks on a portfolio basis

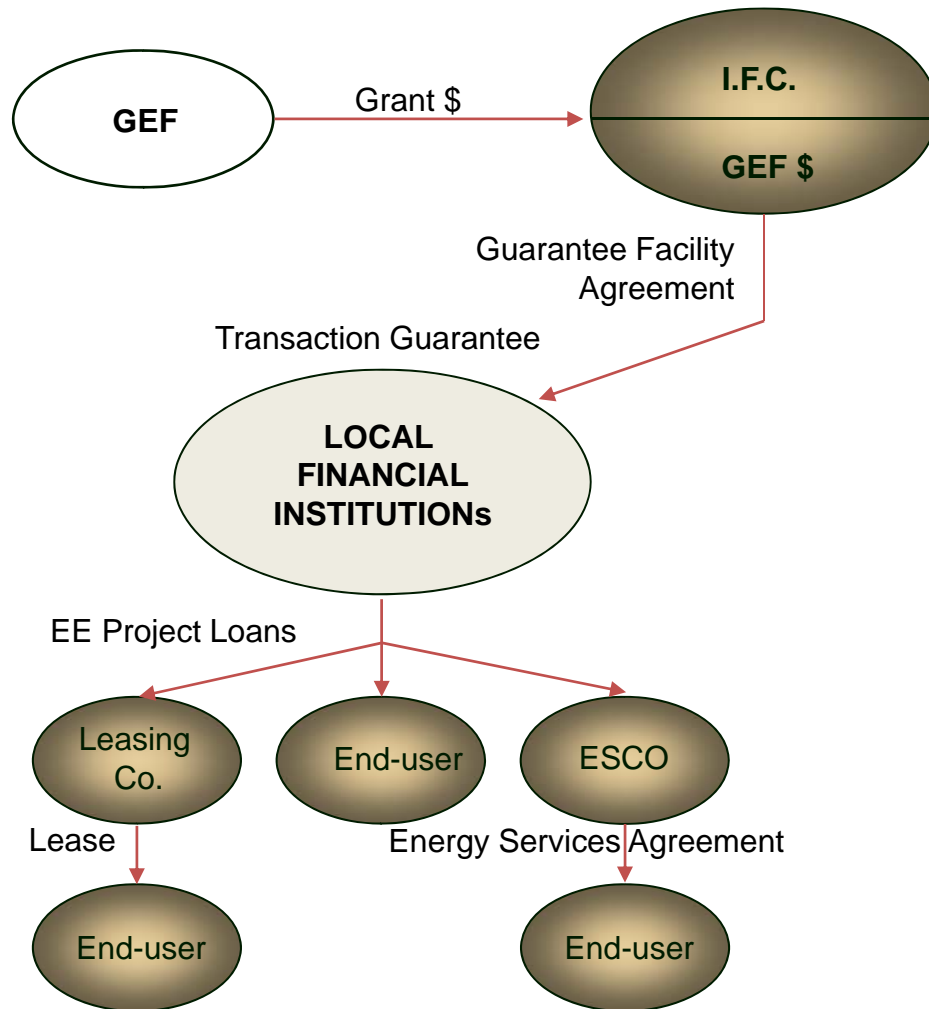


Financing Scheme from RDPT – 1



IFC/GEF E.E. Finance Guarantee Program

Key Features:

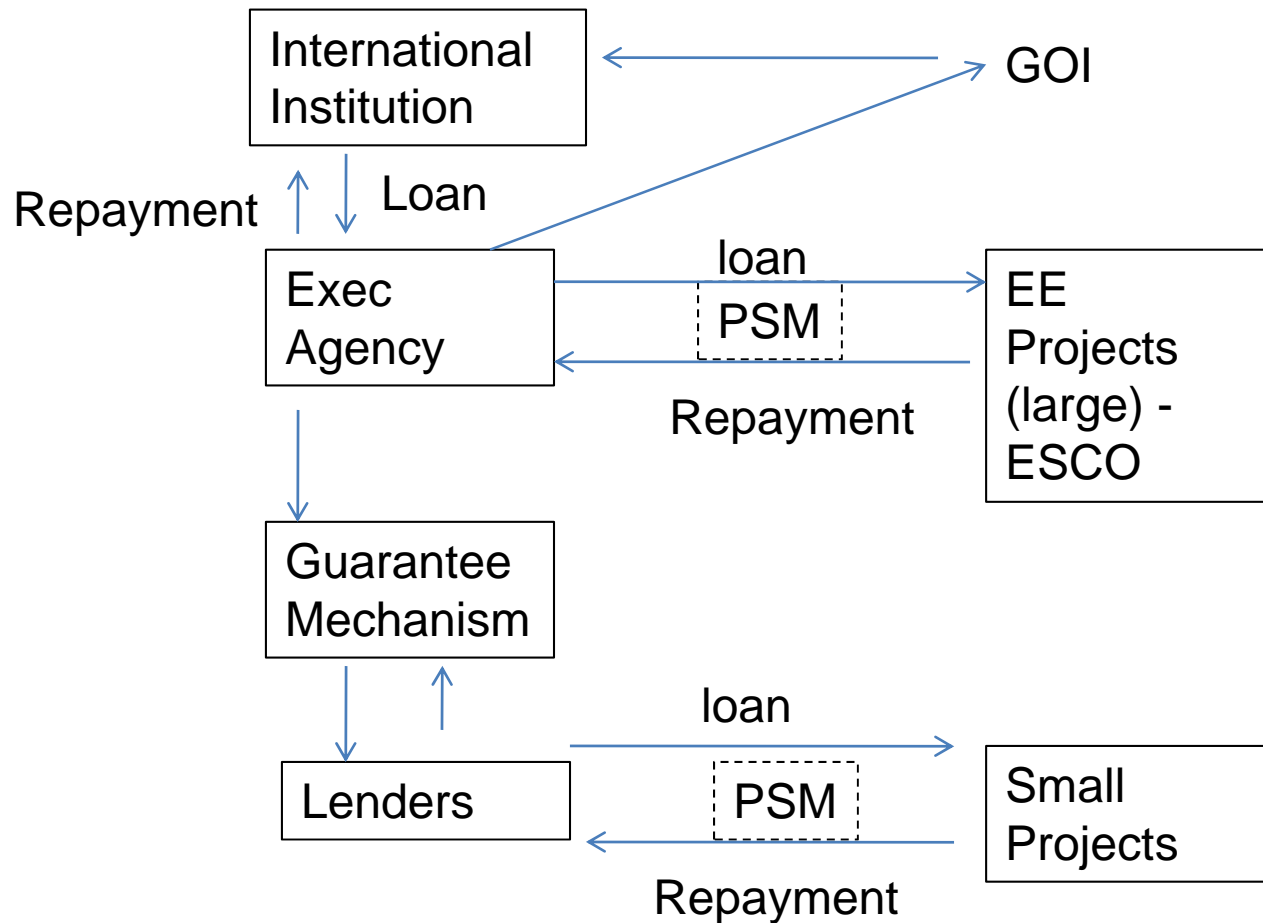


- TA provided to all parties to prepare projects & build capacities
- Financial products w/guarantee developed for industry, SMEs, municipalities, hospitals, district heating, cogen & thermal plants, lending to ESCOs

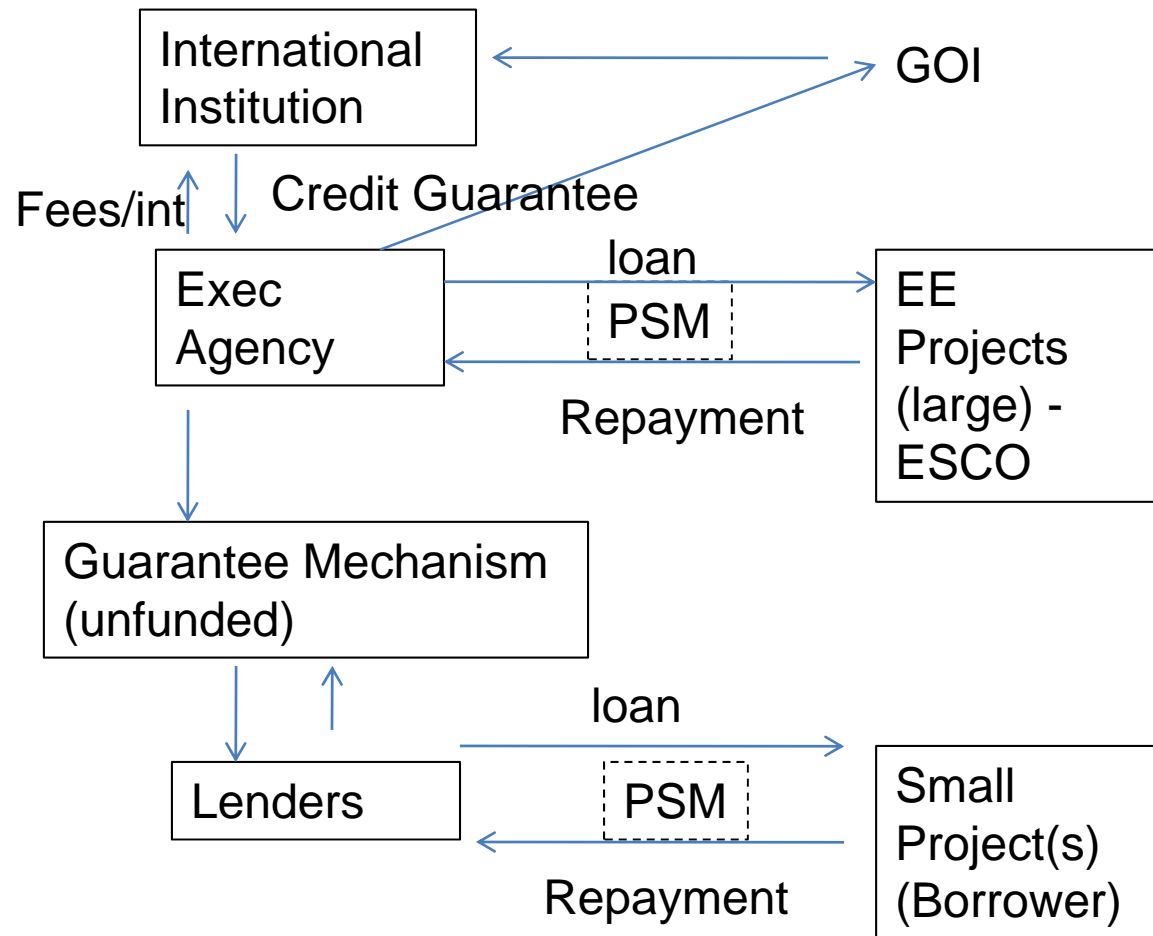
Source : World Bank



Alt – 1 : Public Sector Window



Alt – 2 : Private Sector



Why Do WE Need M&V?

Verifies guaranteed savings:

1. ESPCs are financed using avoided cost as a revenue to service debt.
2. A critical part of this financing tool is the ESCO- provided savings guarantee.
3. M&V assures the government that savings have been fully achieved before full payment is made to ESCO.



About APKENINDO (www.apkenindo.com)

- Energy Conservation Support Companies Association established in March 23, 2011
- Mission statement :

To support stakeholders in achieving energy conservation opportunities through greatest competence and internationally recognized standard.

- Member : 20 group of companies



Role of APKENINDO

1. Catalyzing activities and promotion of the establishment of strategic alliances :
 - ESCOs, Potential Clients – Energy End Users, Financing institutions, Energy efficient equipment's manufacturers and distributors, and Support Institutions
2. Strengthen the offer of ESCOs by
 - a) Establishing a Special Fund (there is a current initiative)
 - b) Help establish a financing mechanism that will allow ESCOs to bundle several projects and reduce transaction costs.
3. Support to project development
 - a) Technical Assistance
 - b) Assistance in establishing the contact, negotiations and follow-up
 - c) Capitalization of Experiences – Promotion of results





APKENINDO

THANK YOU