

Vietnam Energy Efficiency for Industrial Enterprises Project (VEEIEs)

Project Introduction

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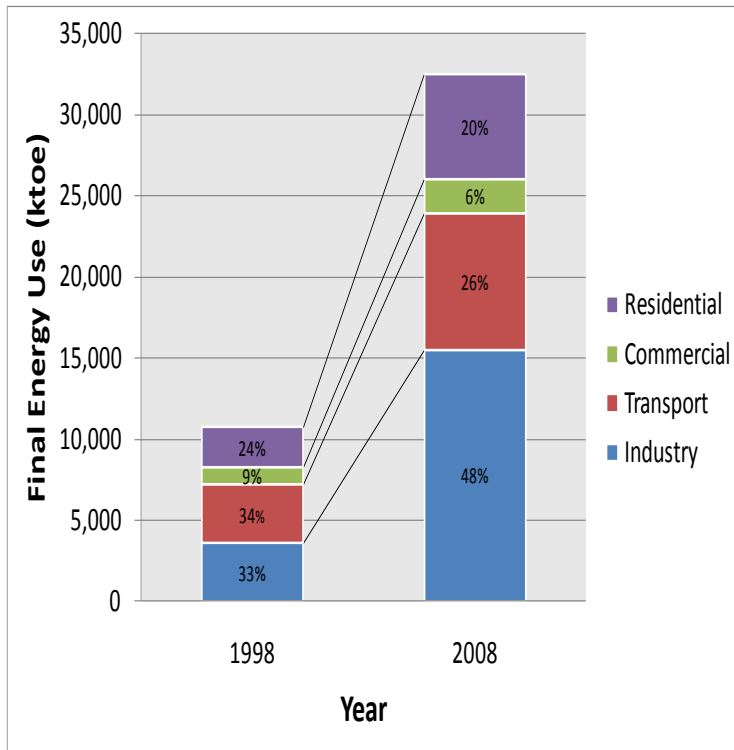
World Bank Co-Task Team Leader

Overview

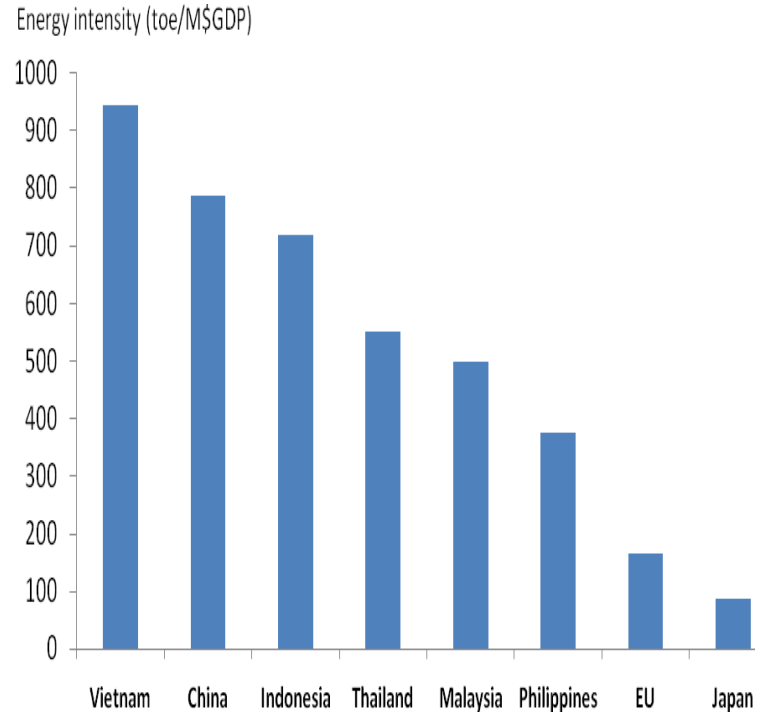
- Why do we need VEEIEs?
- What are the barriers to EE?
- What is international experience?
- What is VEEIEs?
- VEEIEs Project Development Objective?
- Which Companies will be Eligible?
- Credit Line Model
- Project Design Framework
- Institutional Arrangements
- Selections of EE Projects
- Eligible Industrial Enterprises
- Project Status and Next Steps
- Discussion

Why do we need VEEIEs?

Energy consumption tripled in the past 10 years in Vietnam



Vietnam is the most energy intensive in East Asia



What are the Barriers for EE?

.... financial viability and maturity of EE technologies

BUT market failures and barriers, (i) low or subsidized energy pricing;

(ii) the small share that energy costs represent in operating costs, leading to consumers' low interests in energy conservation;

(iii) a lack of institutional champions due to the fragmented nature of EE measures; and

(iv) limited financing for the high up-front investments.

What are the Barriers for EE?

Specifically in Vietnam

- there is a lack of accountability to enforce the national-level EE targets, as EE is usually not a priority for industrial enterprises;
- financial incentives offered by the government are insufficient; and
- a lack of access to financing for EE is the major bottleneck to EE scale-up.

Financing Barriers for EE in IEs

- ***Credit risks.*** Most energy inefficient end users are industrial enterprises, mostly state owned in Vietnam. Many of those enterprises have low creditworthiness. Also, the concept of project-based financing that focuses on the cash flows from energy savings has not yet been widely accepted by financial institutions.
- ***Performance risks.*** EE investments also involve perceived performance risk because lenders are not sure whether the expected future savings will be realized or captured by the investors.
- ***A lack of expertise, interest, and confidence in EE financing on the part of financial institutions.*** Most local financial institutions lack the required technical expertise to appraise EE investments.
- ***Small deals with high transaction costs.*** EE investments tend to be relatively small, with high transaction costs.

International Experience

-demonstrated that **dedicated credit lines** are effective at increasing the capacity, interest, and confidence of financial institutions in mainstreaming the EE financing business line through a learning-by-doing process, and at changing their perceptions so that they recognize that EE investments are actually a profitable business.
-achieves a **double leverage effect** by leveraging substantial debt contributions from the participating financial institutions and equity financing from end beneficiaries, then later revolving the loans that are paid back to the fund.
-participating financial institutions **continue** to provide EE financing after the credit line program is completed.

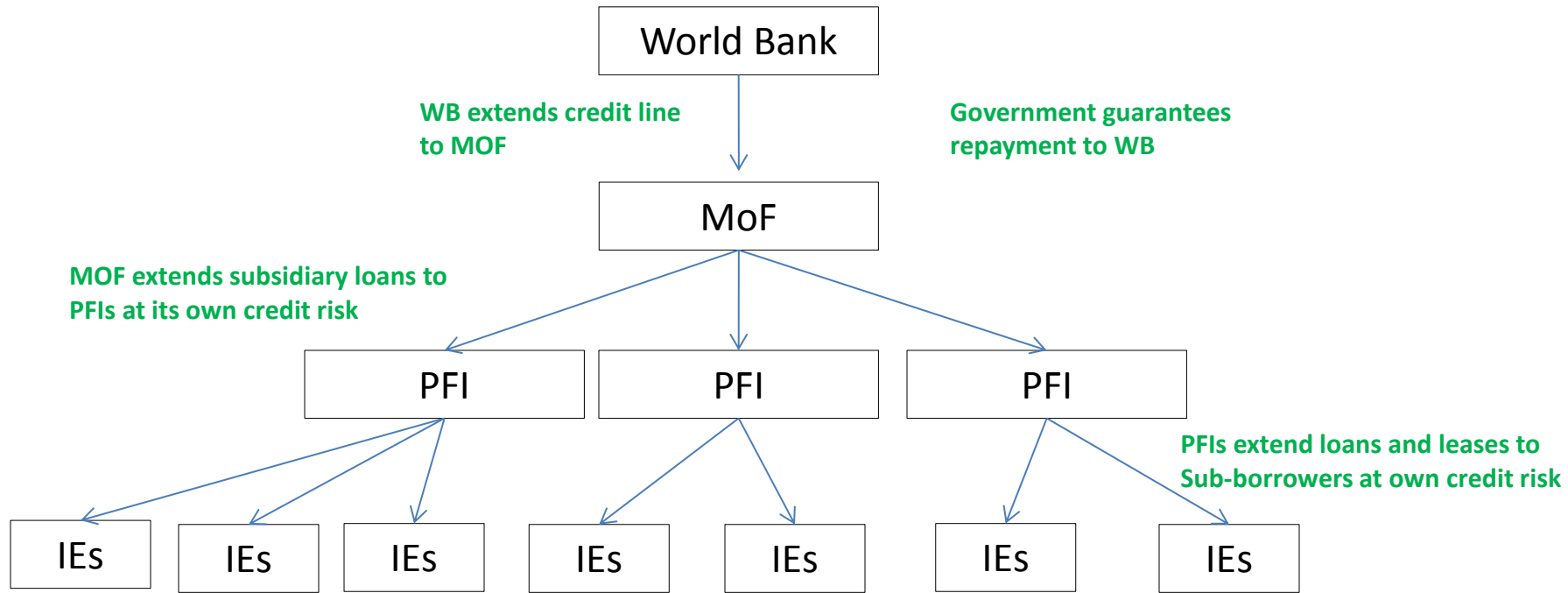
Success Formula for Credit Lines is well established:

- (i) **careful selection of PFIs** against well-defined criteria;
- (ii) **inclusion of a few PFIs**, so developers can shop for the best deal;
- (iii) **strong PFI management commitment**, dedicated teams at both headquarters and branches, and incentives to staff within the PFIs;
- (iv) **TA to support project pipeline development** and capacity building of both PFIs and local project developers; and
- (v) **aggressive marketing and business development** as well as new financial products tailored to EE financing are critical to generate sufficient deal flows.

Project Development Objective (PDO)

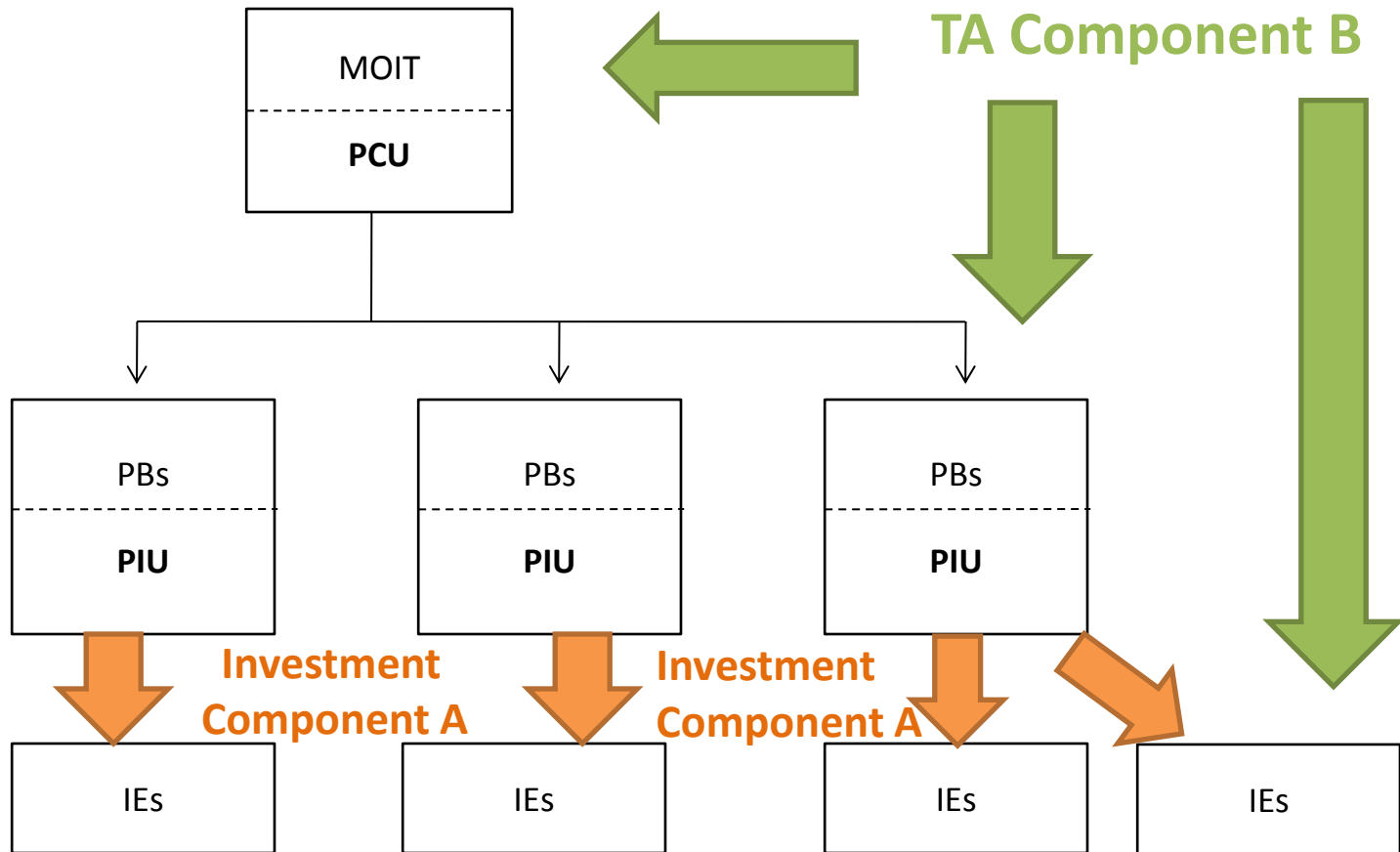
- The **PDO** is to improve energy efficiency of selected energy end-users in key energy-consuming sectors, thereby supporting the government to achieve its EE targets.
- Project **outcome performance indicators** include:
 - Cumulative amount of incremental EE investments supported by the project (US\$ million);
 - Associated total annual energy savings (million tons of oil equivalent); and
 - Associated total annual reductions of GHGs (million tons of CO₂).

Credit Line Model



Mr. Thi will present in more details

Project Design Framework



Project Components

- **Component 1 –\$330 million over five years:** (a) \$200 million in debt financing from IBRD; (b) PFIs will co-finance project at least 20 percent of the loan; and (c) sub-borrowers will contribute 20 percent of investments as equity financing, which is common practice for loan applications in Vietnam.
- **Component 2 – Technical Assistance and Capacity Building** for Improving Energy Efficiency (US\$3million IDA)

Technical Assistance and Capacity Building

Capacity building to the PFIs

- Capacity building and training, particularly to staff at both the HQ and branches as well as risk assessment staff, including support for the development of necessary procedures, and the creation of an adequate knowledge base to evaluate and extend energy efficiency loans;
- marketing and business development to generate a robust EE lending pipeline;
- support to due diligence of eligible energy efficiency sub-loans, including financial, technical, social and environmental assessments, M&E; and
- development of energy conservation-related financing instruments and risk management tools.

Technical Assistance and Capacity Building

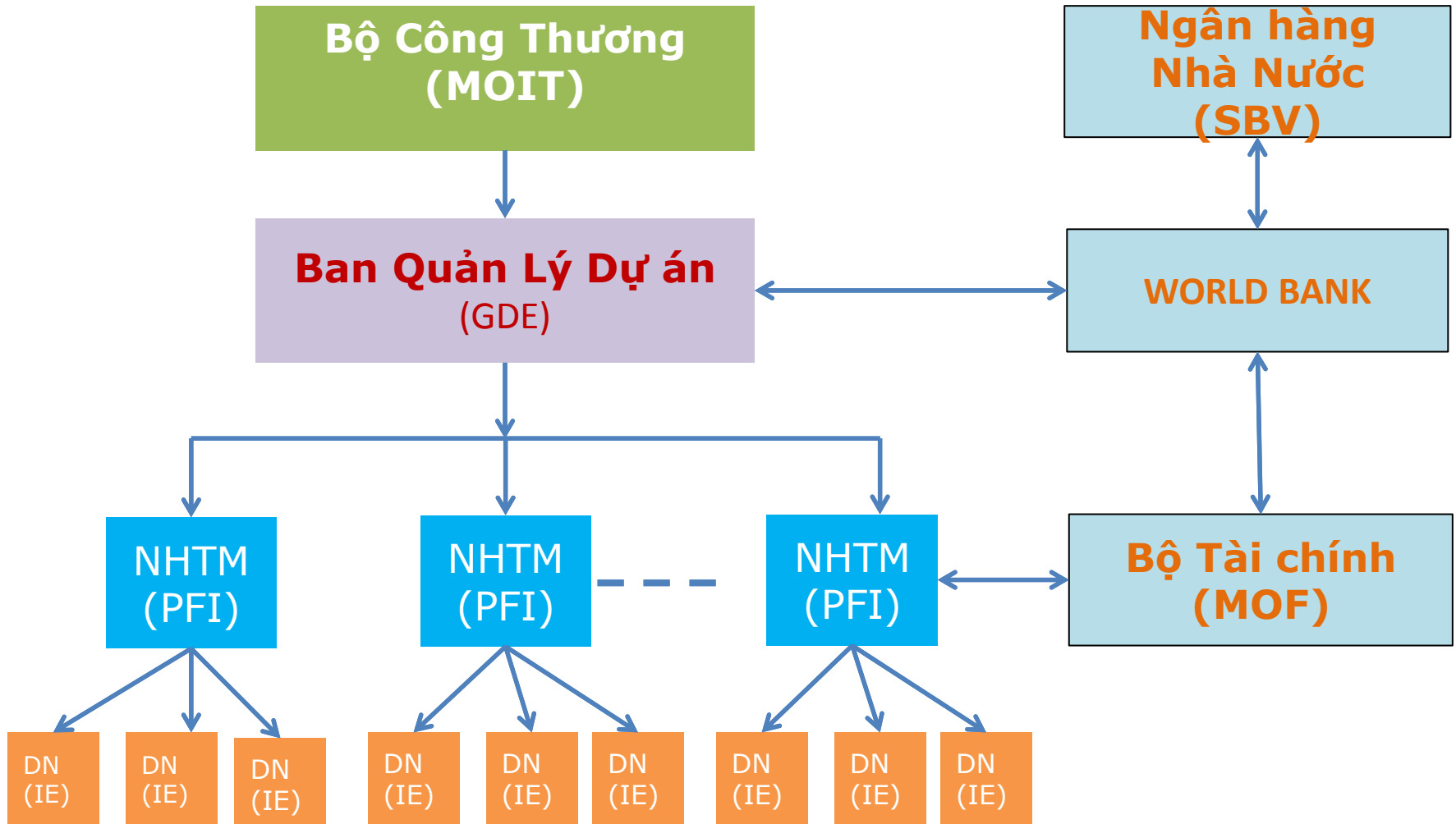
Capacity building to MOIT:

- Strengthen the policy and legal and regulatory framework for EE in industrial enterprises; and
- Conduct communication campaign to raise awareness on EE for IEs;
- Strengthen EE database, sectors portfolio, and M&E system.

Capacity building for industrial enterprises:

- Identify EE projects and prepare relevant energy audits, technical design and EE project preparation; and
- Raise awareness through a communication campaign organized jointly with relevant industry associations.

Organization Structure



Institutional Arrangements

- The **MOIT** has the overall project coordination responsibility for project.
- The **EE Unit**, located at MOIT, will coordinate the VIEEF project and implement the capacity building for MOIT component.
- The EEU will assume specific VIEEF project coordination roles, including **compiling and presenting financial and other required documents** (eg progress reports).

Institutional Arrangements for PFIs

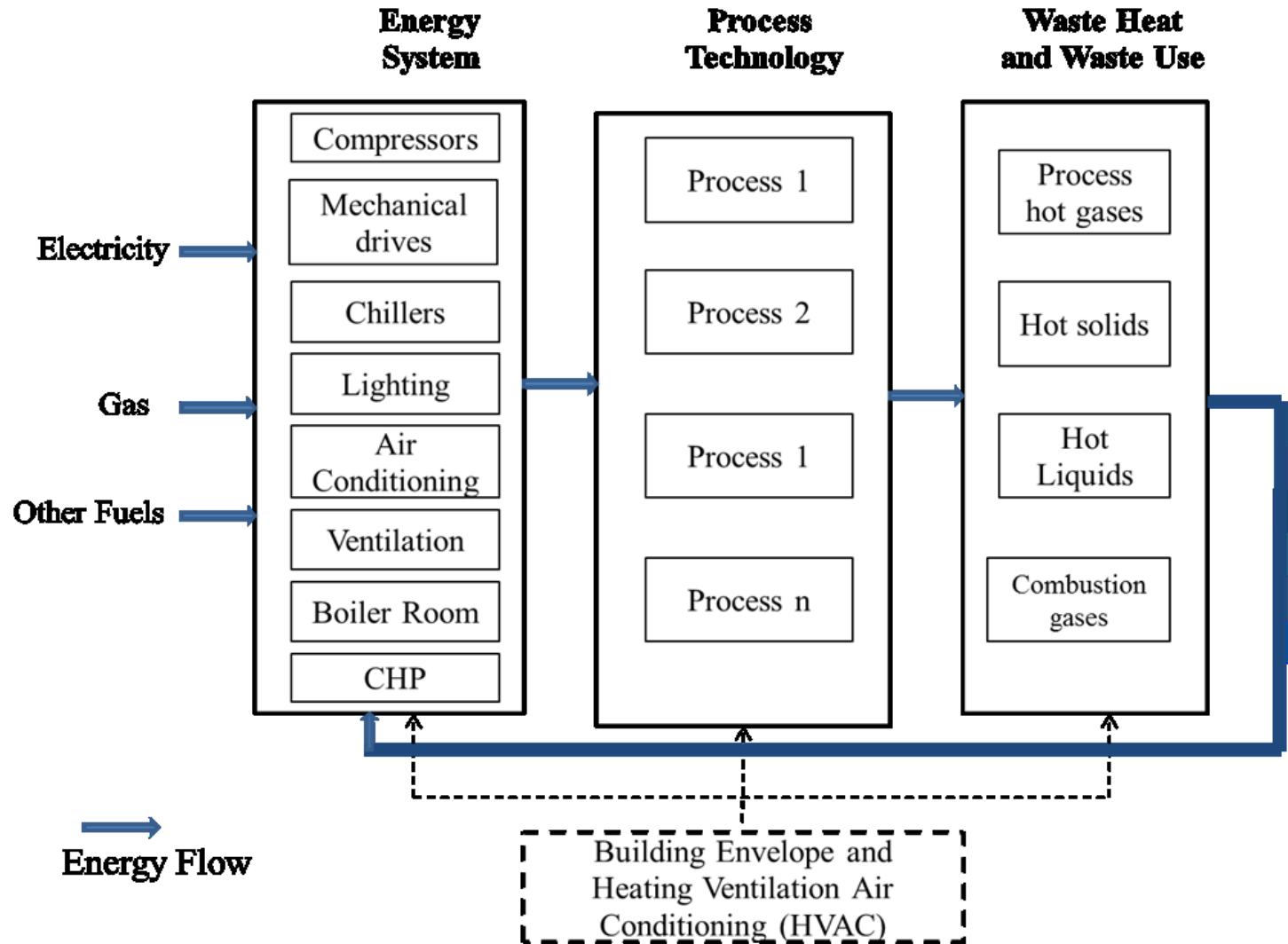
- The PFIs will implement the credit line with eligible industrial enterprises and are responsible for Component 1.
- The PFIs have **full responsibility for the EE lending process and approvals** and bear all the associated credit risks. MOIT will not be involved in the review/approval of the sub-loan applications of eligible IEs.
- Each PFI will form a **Project Implementation Unit (PIU)** with dedicated teams, supported by technical, environmental and social safeguards, and procurement experts. The PIU will coordinate and implement the sub-lending activities and act as the PFI's focal point in interact with the World Bank, MOIT and other stakeholders.
- The PFIs will **supervise/monitor all sub-loans** to ensure they are implemented according to Vietnamese and World Bank requirements and guidelines.

Selection of EE Projects

- **RE applications** considered to reduce fuel consumption (solar PV, co-generation)
- **Technology** will not be specified/mandated
- BUT EE sub-projects will need to demonstrate minimum **energy savings** and **high IRR/payback**.
- **No second hand equipment and only retrofitting (old for new)**
- The **Operational Manual** defines detailed eligibility criteria for sub-projects.

Selection of EE Projects

Energy Flows and Investments in Typical Industrial Enterprise (IE)



Categories of Eligible Industrial Enterprises

- Which IEs should be eligible for financing?
 - Industry classification?
- What are eligibility criteria for IE participation?
 - *Total employees* not exceeding [x] and an annual turnover not exceeding US\$[x million]
 - *State ownership* or control in IEs not greater than [%]
 - IE should not have any ownership stake in PB
 - PB should not have any ownership stake in IE
 - *Demonstrated profitability* in the last 3 years
 - No budgetary subsidies
 - No arrears to tax authorities or utilities

Project Status and next steps

- Project will be effective late 2015-early 2016
- Project Concept was agreed by the WB's management
- Financing mechanism was agreed by the government
- PFIs selection is proceeded
- Project Pipeline Development – Two Track Approach (**starting now**)

Track I: Low Hanging Fruit

- IEs have already good understanding of EE, engaged on voluntary agreements, carried out pilots, discussed project with PFIs, advanced level of technical preparation (eg, no audit required, technical design done) etc.
 - **Cement** – Waste Heat Recovery Systems
 - **Steel** – electric furnaces
 - **Food processing** – chillers, fridges, biomass boilers
 - **Pulp and Paper** – boilers
 - **Water supply** – electric pumps
 - **Textiles** – Dying, weaving machines, processing

Project Status and next steps

- MOIT/WB will closely work with Industry Associations to identify **profitable industries** and **viable EE projects**
- MOIT/WB will conduct **focused industry workshops**
- MOIT/WB will assist selected industries to finalize **project preparation**
- Industry Associations not on the list and who wish to participate in Track and have **viable projects** should contact MOIT/WB

Track II: Higher Hanging Fruit

- IEs have little EE awareness, need detailed audits, technical design, FS, preparation takes 1-2 years
- Industries will be targeted as part of **project implementation**

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