



# Financial Incentive Programs For Energy Efficiency in Thailand

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กระทรวงพลังงาน  
MINISTRY OF ENERGY

# Major causes of energy demand

Economic growths



Increasing populations



Expansion of urban area

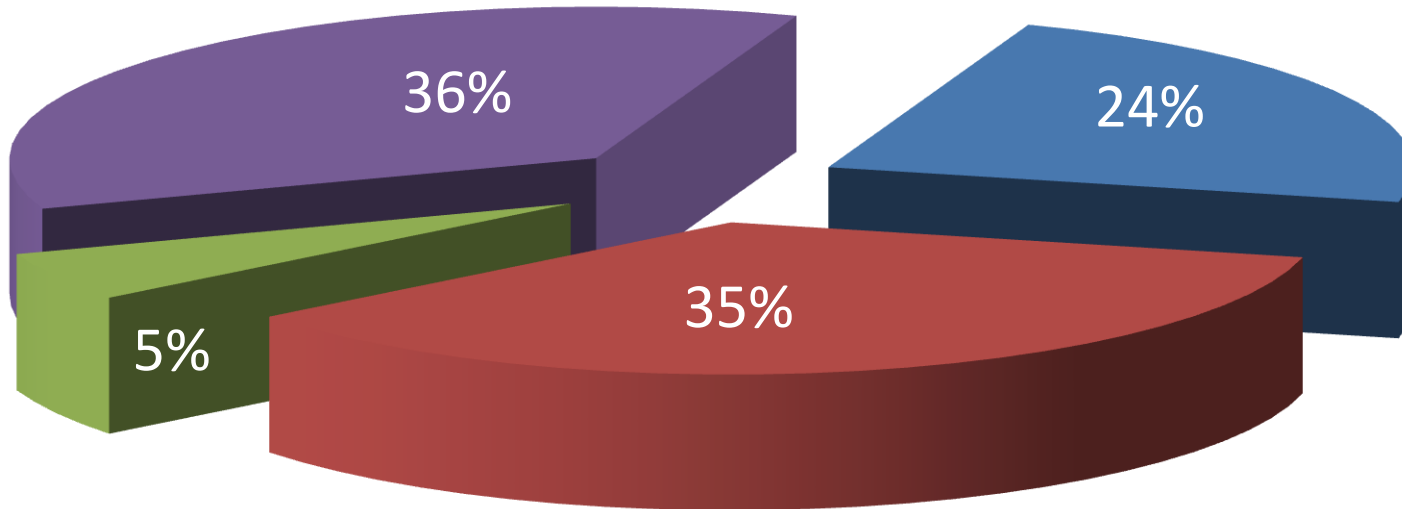


Infrastructure



## Energy consumption by economic sectors

■ Res. & Com. ■ Transport ■ Agriculture ■ Industry



- **Soft Loan Program**
- **Tax Incentive Program**
- **Direct Subsidy for EE Investment Program**

# **Soft Loan Program - Energy Efficiency Revolving Fund**

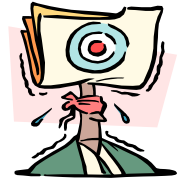
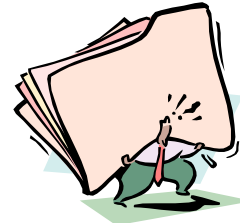
**Ministry of Energy has established *EE*  
*Revolving Fund*:**

- Promote Private Investment in RE/EE  
Projects**
- Partnership of Government and Banking  
Sector For Energy Conservation**

# Barriers / Concept

## Barriers

- Limited access to funds
- Not a priority
- Banks were not interested



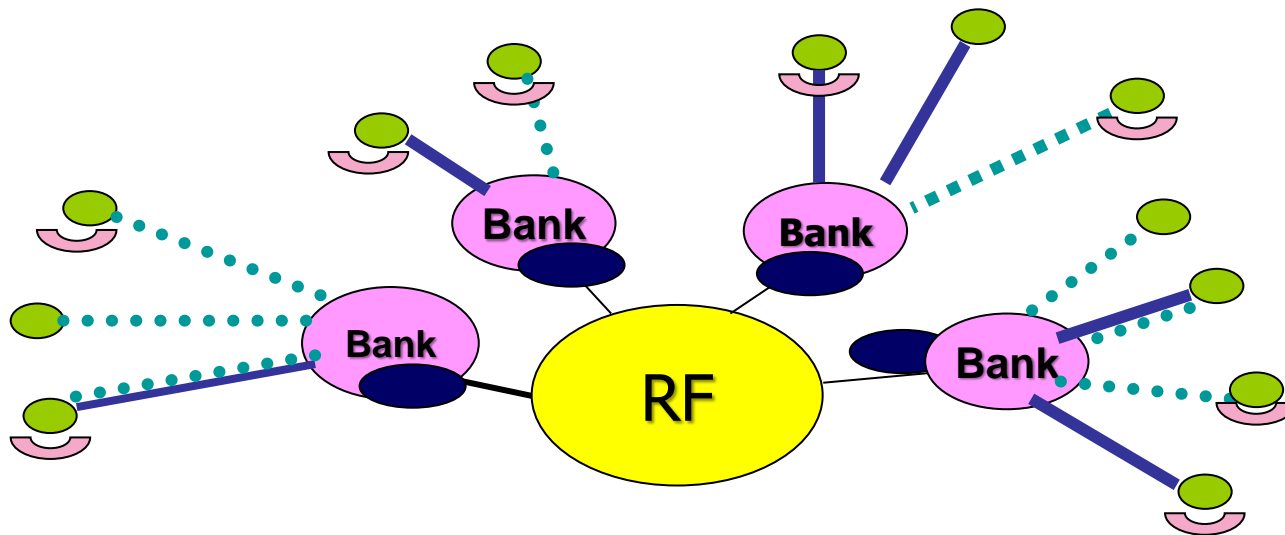
## Concept and Approach

- Stimulate Investment and Stimulate Interest among Banking Community
- Commercial Lending
- Simplified Procedures



# Objectives

- ✚ Stimulate commercial investment for EE Improvement
- ✚ Familiarize commercial banks with EE lending market



# Terms and Conditions

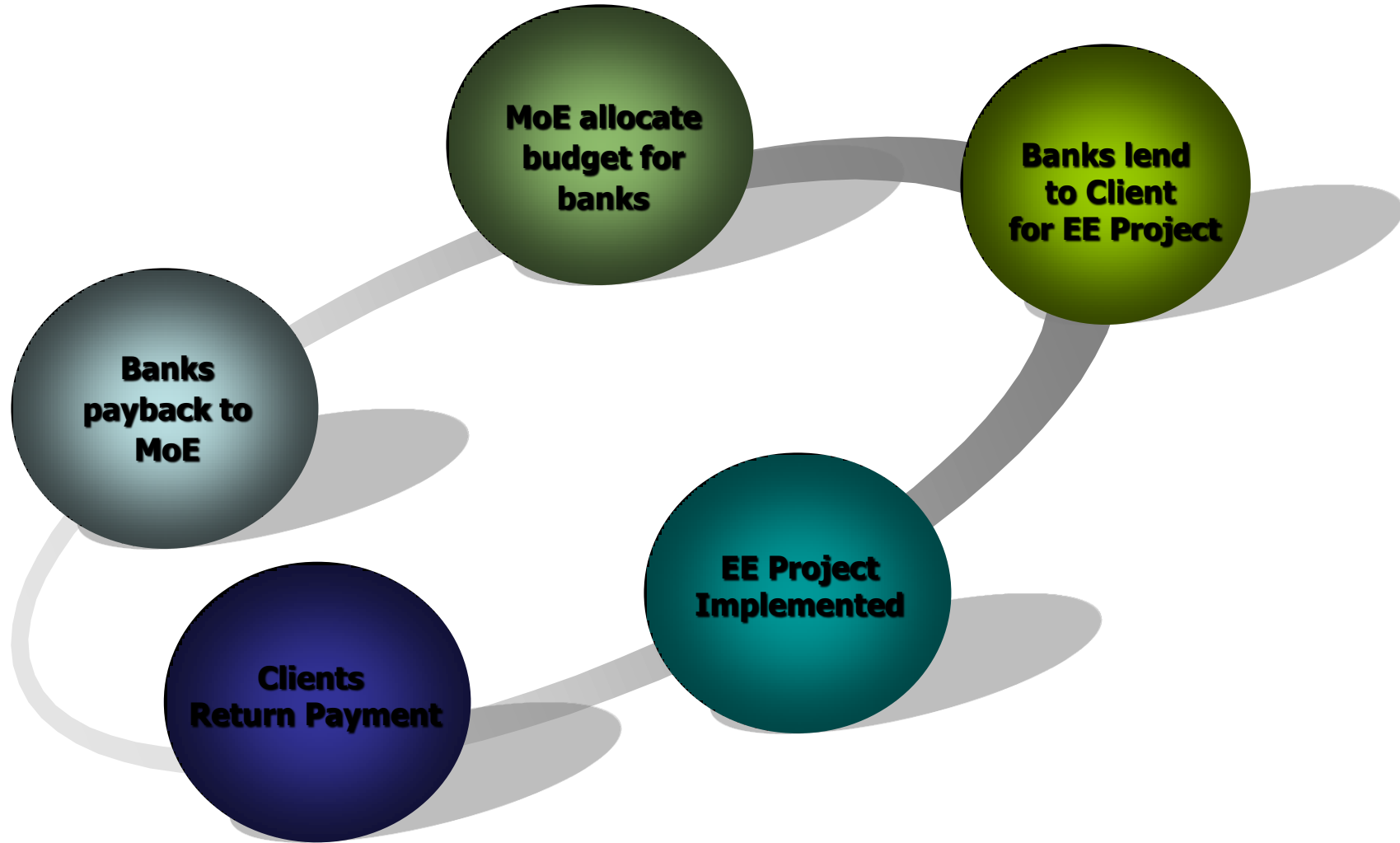
1 USD = 32 Bath

<b>Loan Period</b>	<b>7 years maximum</b>
<b>Eligible Borrowers</b>	<b>Facilities' Owners, ESCO and Project Developers</b>
<b>Eligible Projects</b>	<b>EE improvement or RE development</b>
<b>Loan Size from RF</b>	<b>Up to 1.56 million USD / project ( 50 million Baht / project)</b>
<b>Interests charge to customers</b>	<b>Not more than 4%</b>



# Work Process

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# 11 Participating Banks

1. Bangkok Bank (BBL)
2. Bank of Ayudhya (BAY)
3. CIMB Thai (CIMB)
4. Thai Military Bank (TM)
5. Siam City Bank (SCIB)
6. Siam Commercial Bank (SCB)
7. Thai Farmers Bank (TFB)
8. Exim Bank (Exim)
9. Krung Thai Bank (KTB)
10. SME Bank (SME)
11. UOB



# EE Revolving Fund

## Project Achievement

- Support over 295 EE/RE projects
- Total investment around 220 million USD Energy
- savings of 80 million USD per year.



## Tax Incentive Program → 2 schemes are given;

### 1. Tax Incentive for EE products

- Cooperation program with Revenue Dept.
- 25% tax credit from purchasing of EE products



### 2. Tax Incentive for EE Investment

- Cooperation program with Board of Investment (BOI)
- Exemption of corporate income tax and import duties with max. of 8 years for EE equipment manufacturers

# Tax Incentive for EE Products

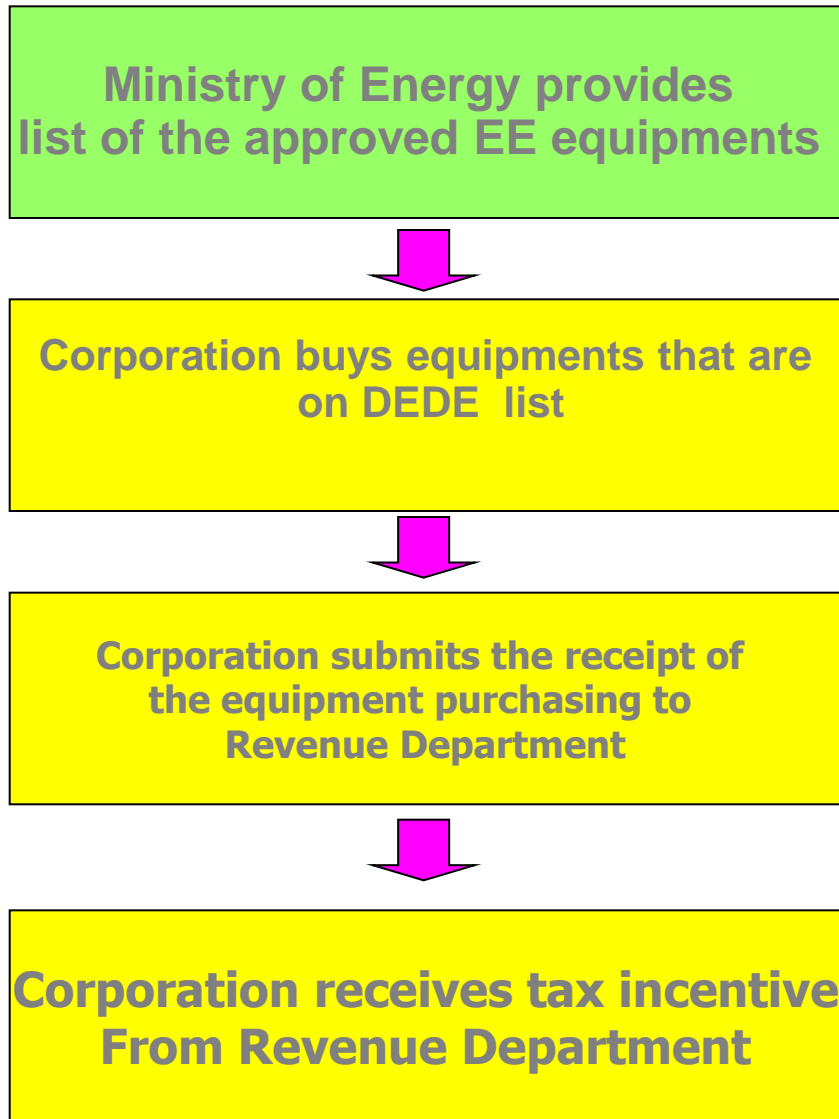
## Incentive Condition

Additional 25% of expense deduction for buying EE equipments

- **Project Condition**
- Corporations who buy EE equipments which are approved by Ministry of Energy can receive incentive directly from the Revenue Department



# Tax Incentive for EE Products



# Incentive through Board of Investment ( BOI )

- Exemption of import duties and cooperate tax on new investment in
  - High efficiency equipment and renewable energy equipment manufacturing
- Incentive last for the maximum period of 8 years



# Incentive through Board of Investment ( BOI )

## Project Achievement

- 56 projects have been approved through BOI
- Total investment 40 million USD
- Estimated total savings of 11 million USD/year





## Direct Subsidy for EE Investment Program

- 15 million USD allocated for subsidy of investment in 2 groups
  - Standard measures : 11 proven energy saving measures
  - Individual projects : Other measures / technologies
- 20% subsidy not more than 3 mill. Baht/facility & 7 yr. PB



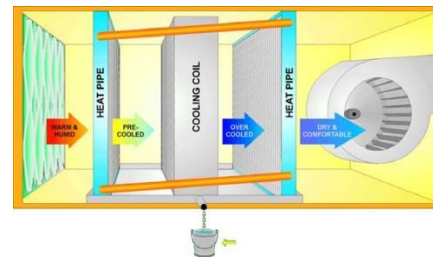
High eff. motor



VSD



Electronic Ballast



Heat Pipe



Heat Pump

# Direct Subsidy for EE Investment Program

## Project Achievement

- 842 projects approved with;
  - Total investment of 70 USD
  - Energy saving of 28 mill. USD/year



**Thank you for Your attention...**