



VIETNAM NATIONAL ENERGY EFFICIENCY AND CONSERVATION

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Energy Efficiency (DSTEE)*

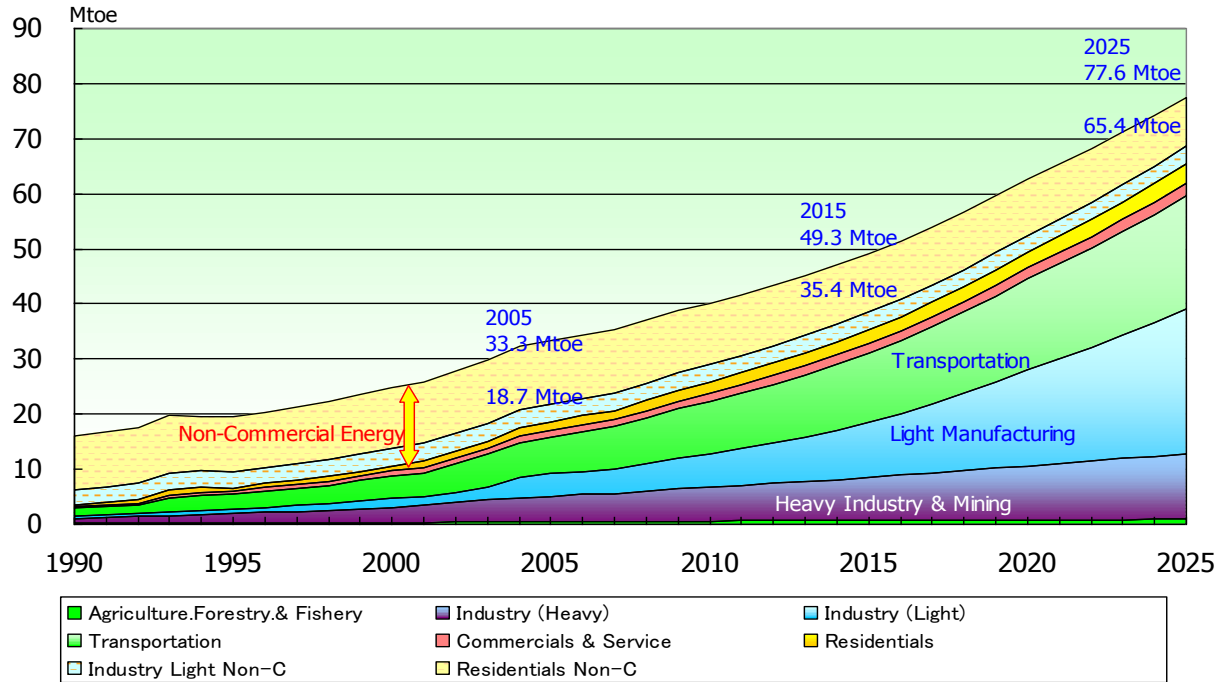
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CONTENT

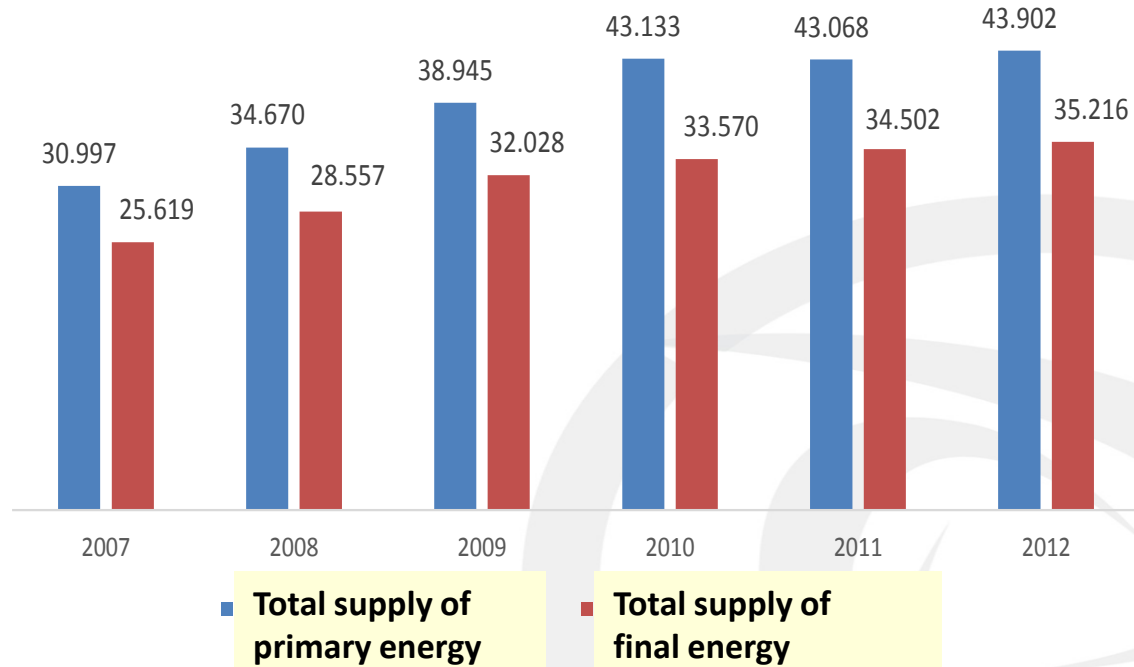
- I. Current status of energy consumption in Vietnam
- II. Legal framework on Energy Efficiency and Energy Conservation
- III. Brief introduction of VNEEP
- IV. Establishing benchmarks and MPES for industries in Vietnam
- V. Energy consumption data of the cement sector
- VI. Proposals and Action Plans for the coming period



I. CURRENT STATUS OF ENERGY CONSUMPTION IN VIETNAM

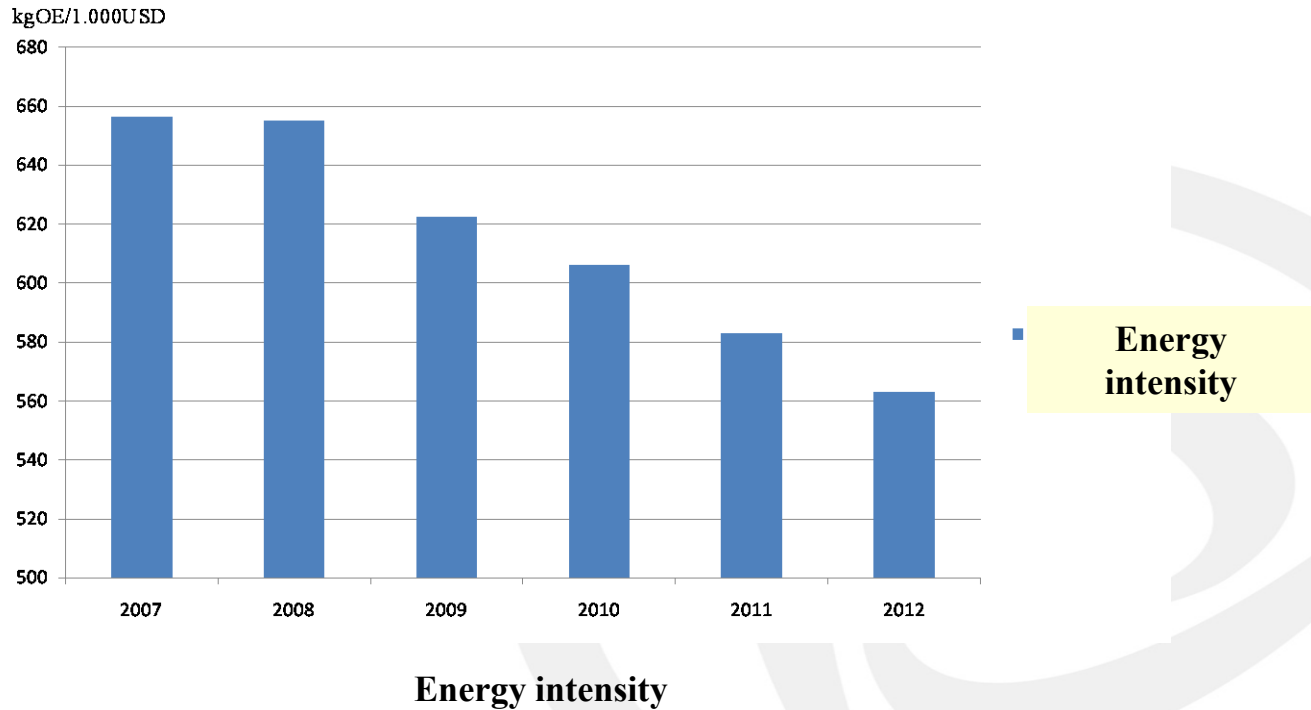


I. CURRENT STATUS OF ENERGY CONSUMPTION IN VIETNAM

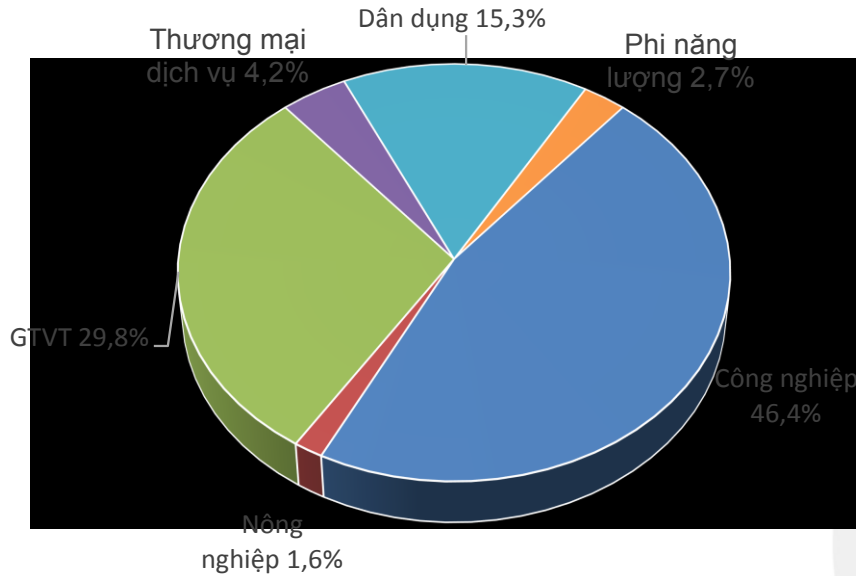


**Commercial electricity supply for period 2007-2012
(unit KTOE)**

I. CURRENT STATUS OF ENERGY CONSUMPTION IN VIETNAM



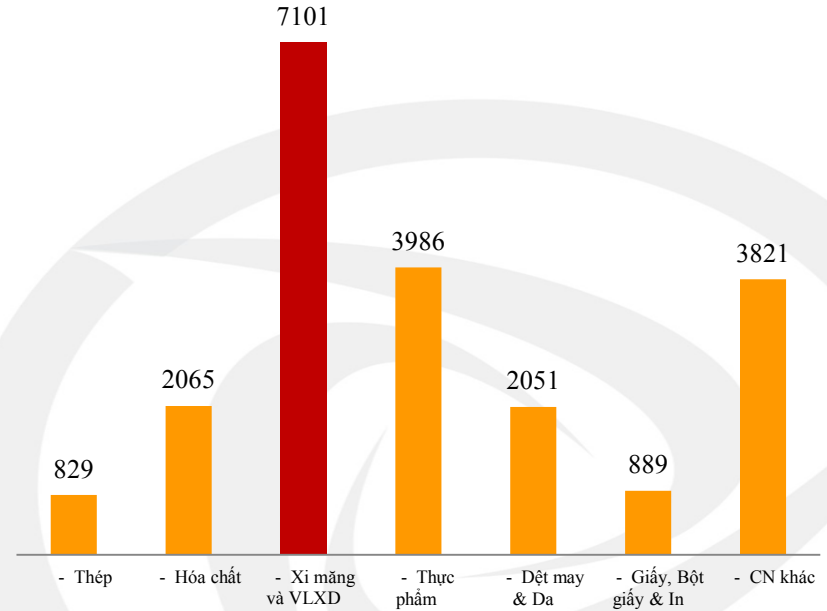
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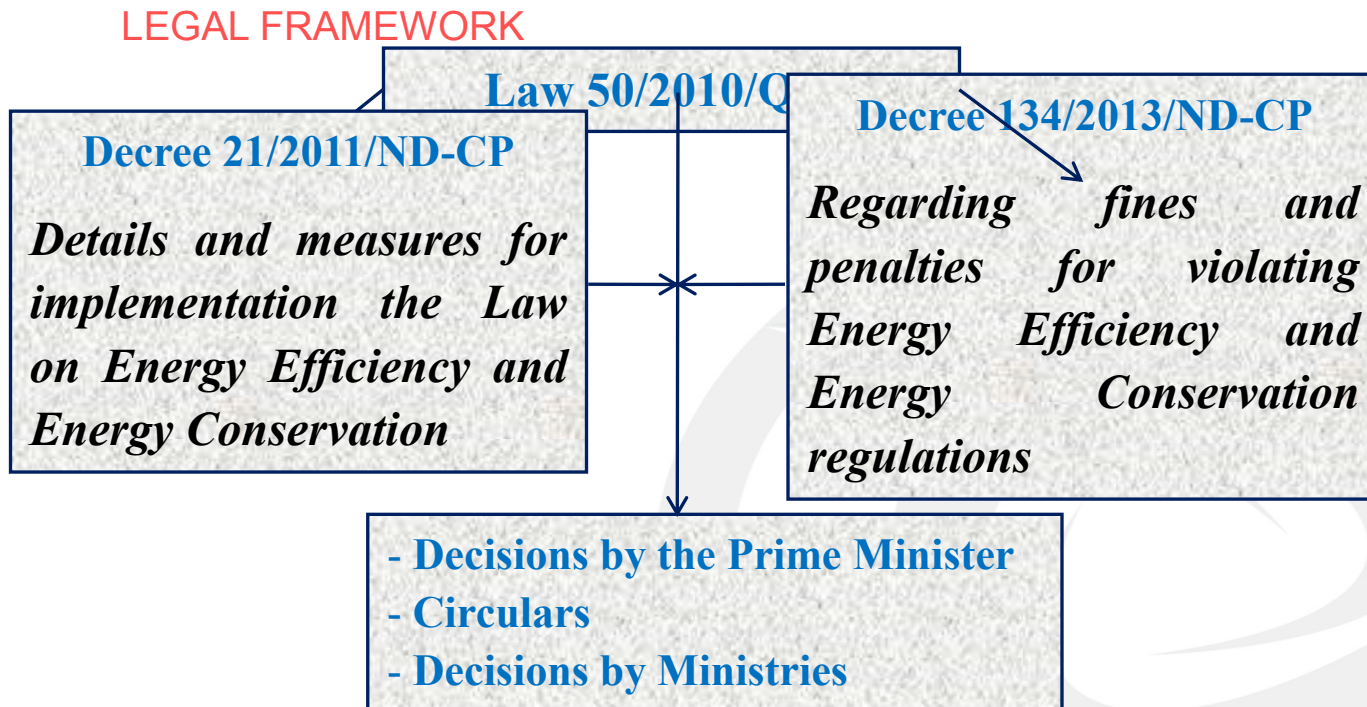
Primary energy consumption by sector

Source: Vietnam Energy Statistics (VNEEP, 2014)

Energy consumption in industries, kTOE



II . LEGAL FRAMEWORK ON ENERGY EFFICIENCY AND ENERGY CONSERVATION



II. . LEGAL FRAMEWORK ON ENERGY EFFICIENCY AND ENERGY CONSERVATION

ROLES OF MINISTRY OF INDUSTRY AND TRADE (MOIT) IN EE&C IN VIETNAM

- MOIT is the ministry in charge of state management in EE&C in Vietnam.
- To issue, or to propose to the authority to issue legal documents, strategies, master plans, policies, programs, projects on EE&C.
- To establish and manage the national energy database.
- To promulgate and provide legislative education on EE&C
- To organize R&D activities and technological application/transfer in EE&C.

III. ENERGY EFFICIENCY PROGRAMS AND PROJECTS

NATIONAL TARGET PROGRAM ON ENERGY EFFICIENCY AND CONSERVATION (VNEEP)

- **Decision No. 79/QĐ/2006/QĐ-TTg (dated April 14, 2006):
Approval on the National Target Program on Energy Efficiency and Conservation for the period 2006-2015.**
- **Decision No. 1427/QĐ-TTg (dated October 02, 2012):
Approval on the National Target Program on Energy Efficiency and Conservation for the period 2006-2015.**



III. NATIONAL TARGET PROGRAM ON ENERGY EFFICIENCY AND CONSERVATION (VNEEP)

OBJECTIVES:

- To achieve 5-8% savings on total national energy consumption for the period 2012-2015.
- To set up a network for the implementation of the Law on Energy Efficiency and Conservation at central and local levels.
- To widely use high efficient equipment, removing backward technologies and equipment, reducing 10% of energy intensity in energy intensive industries.
- To have mandatory management in accordance to Vietnam Building code for 100% new buildings or renovated buildings
- To meet 10-15% demand of public transportation in big cities.



III. NATIONAL TARGET PROGRAM ON ENERGY EFFICIENCY AND CONSERVATION (VNEEP)

VNEEP PROJECTS

- **Project 1:** Strengthening education, information dissemination, public relations, awareness raising, promotion on energy efficiency and conservation
- **Project 2:** Development and information dissemination on high efficient equipment, gradual removal of low efficient equipment.
- **Project 3:** Energy Efficiency and Conservation in Buildings.
- **Project 4:** Energy Efficiency Promotion in Transport sector.



III. NATIONAL TARGET PROGRAM ON ENERGY EFFICIENCY AND CONSERVATION (VNEEP)

INCENTIVE MECHANISM OF THE VNEEP

- Training and capacity building for entities on energy efficiency and conservation.
- Support for enterprises for the establishment of energy management system.
- Support for enterprises with energy audits.
- Supports for enterprises for investments in energy efficiency measures.
- Development and Implementation of technical assistances to support manufacturing enterprises in energy efficiency improvement.

IV. ESTABLISHING BENCHMARKS AND MINIMUM ENERGY PERFORMANCE STANDARDS FOR INDUSTRIES IN VIETNAM

Issued legal documents

- Circular 02/2014/TT-BCT dated 16 January 2014 promulgating EE&C measures in industries in general, and the energy management/EE measures in the chemical industry in particular.

Legal documents in preparation

- Circulars guiding EE&C measures in steel and beverage industries

Benchmarks in preparation

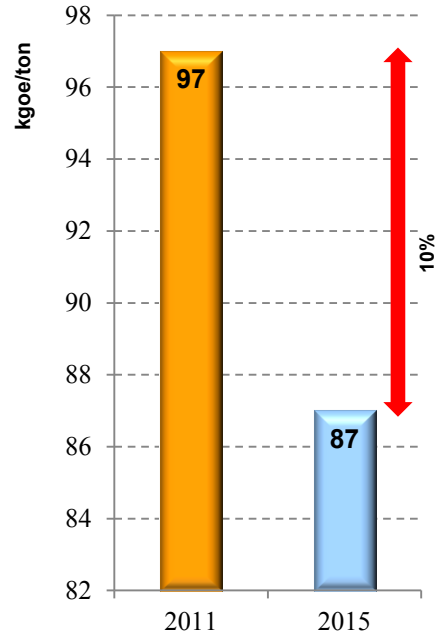
- Benchmarks for pulp and paper, plastic, and food processing industries

IV. ESTABLISHING BENCHMARKS AND MINIMUM ENERGY PERFORMANCE STANDARDS FOR INDUSTRIES IN VIETNAM

Estimation of EE potentials and investment needs for selected industries

| No | Description | Unit | Steel | Pulp and paper | Food processing | Chemical | Beverage | Other |
|-----|-------------------------|-----------|-----------|----------------|-----------------|----------|----------|----------|
| 1 | Investment for sector | Mil USD | 671.96 | 73.94 | 128.37 | 400.78 | 40.70 | 108.19 |
| 2 | Investment rate | USD/toe/y | 180.59 | 607.65 | 1,520.72 | 1,796.11 | 696.02 | 111.81 |
| 3 | Energy saving | Mtoe/y | 3.72 | 0.12 | 0.084 | 0.2231 | 0.0585 | 0.97 |
| 3.1 | - Electricity | GWh/y | 13,007.49 | 588.09 | 547.06 | 156.41 | - | 2,278.98 |
| 3.2 | - Coal | Mt/y | 2.86 | 0.05 | - | 0.3317 | - | 1.03 |
| 4 | CO2 emission reductions | MCO2/y | 17.61 | 0.60 | 0.688 | 4.966 | 0.131 | 1.41 |

V. ENERGY CONSUMPTION IN CEMENT INDUSTRY



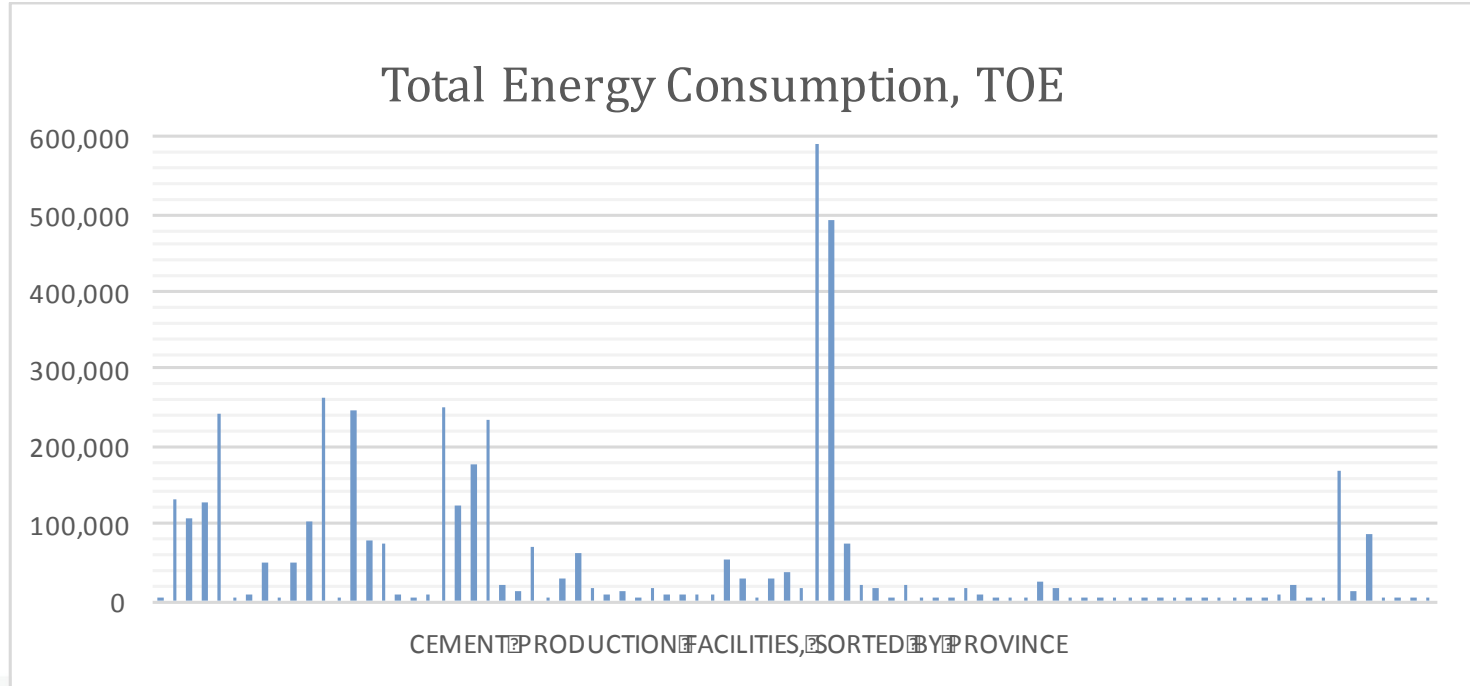
Source: Decision 1427/QĐ-TTg approving VNEEP period 2012-2015

Key Performance Indicators

| Specific Energy Consumption (SEC) | Unit | Value |
|---|----------------|--------------|
| Specific Thermal Consumption | kgoe/t clinker | 88.37 |
| Specific Electricity Consumption, clinker | kgoe/t clinker | 1.41 |
| Specific Electricity Consumption, cement | kgoe/t cement | 2.08 |
| Aggregate | kgoe/t cement | 90.45 |

V. ENERGY CONSUMPTION IN CEMENT INDUSTRY

Energy consumption data in MOIT database of key energy using enterprises



VI. SOME PROPOSALS AND ACTION PLANS

ENERGY EFFICIENCY PROMOTION IN INDUSTRY SECTOR

- To continue the development of energy benchmark for key industrial sectors.
- To promote the communication, energy audit and consulting services for entities in key industrial sectors, giving priorities for the application of high efficient equipment, gradually removing low efficient equipment.
- To develop ESCO market to support energy efficiency investments for enterprises in the industry sector.
- To develop and perfect the energy consumption database system as the tool for energy efficiency assessment.
- To develop M&E framework and NAMA in EE

THANK YOU FOR YOUR ATTENTION!

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