



POLICIES AND INITIATIVES ON ENERGY EFFICIENCY AND CONSERVATION IN VIETNAM

*Energy Efficiency and Conservation Office
Ministry of Industry and Trade*

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Energy Efficiency and Conservation Office**

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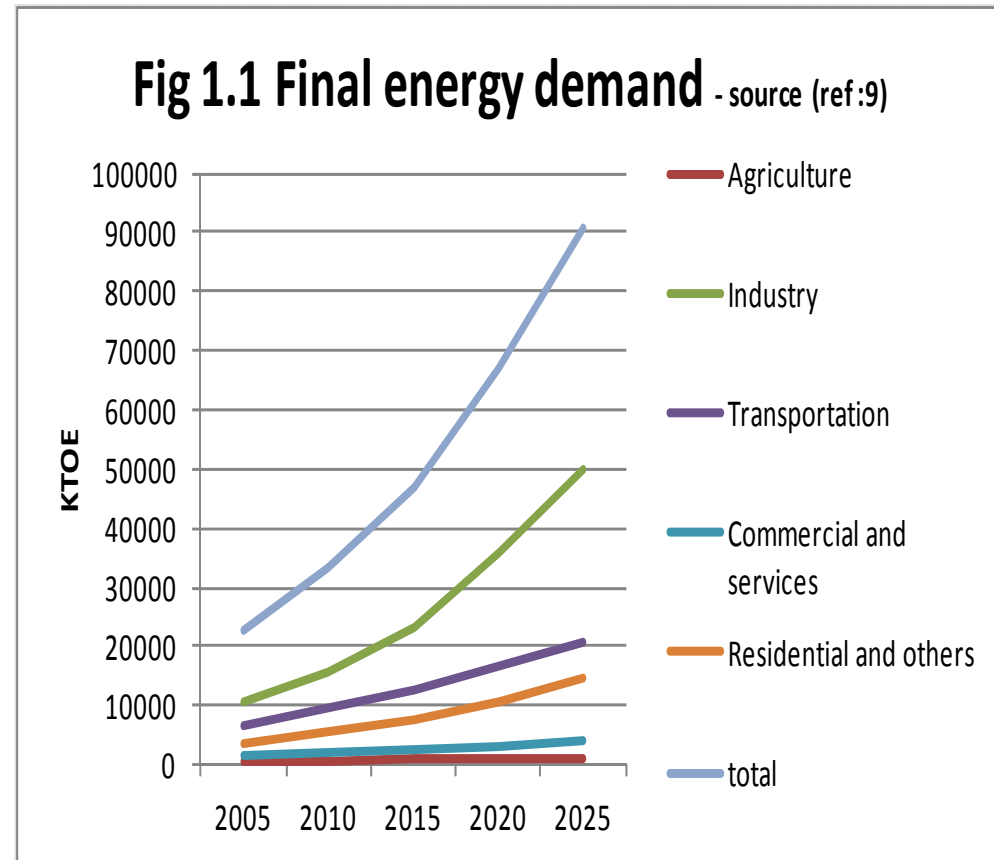
Energy Situation in Vietnam



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Energy demand

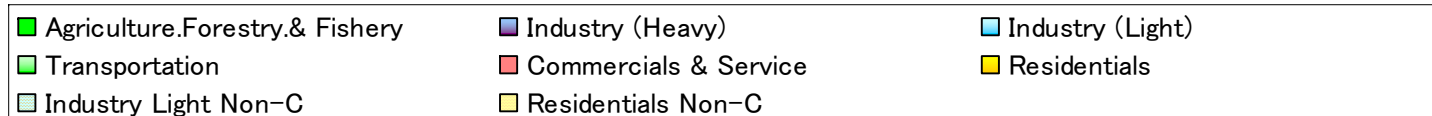
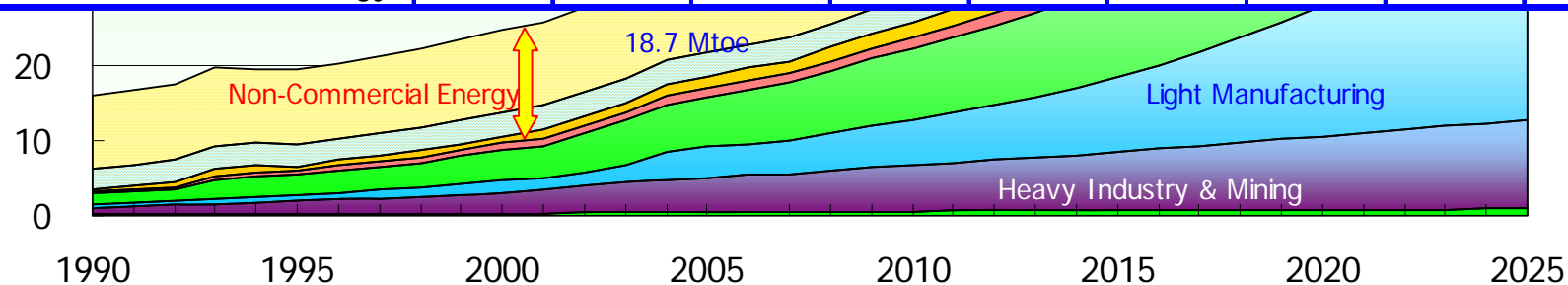
- Energy demand is likely to be tripled in the next 10 years
- Electricity demand increases 14% per year.



Sectoral Energy Outlook

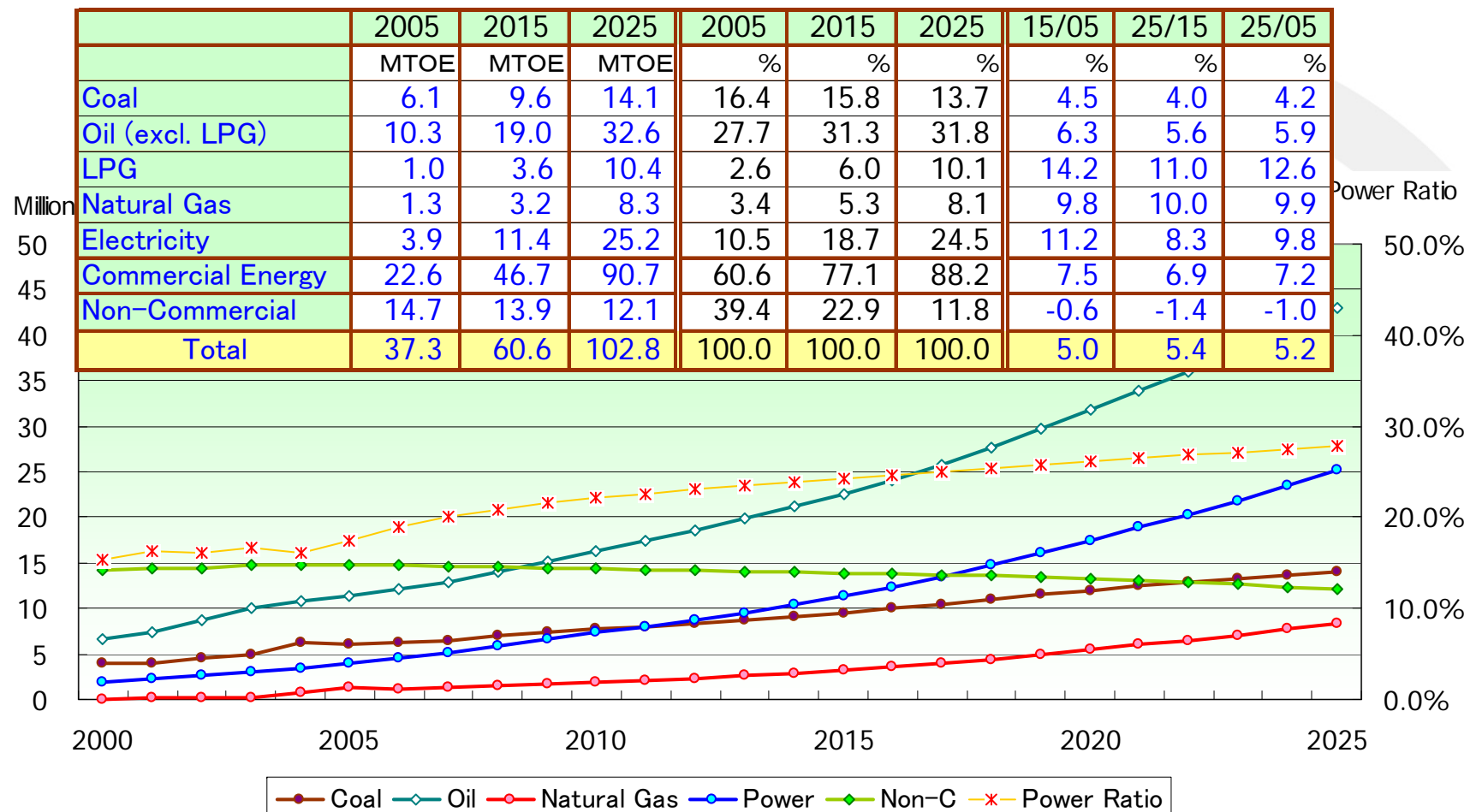
1. Energy demand will increase fast in Manufacturing Industry that will be leading the economic growth.
2. Energy demand of the transportation sector will be relatively slow as motorbike will be peaking out.
3. Residential sector continues to use Non-commercial energy in large quantity.

	2005	2015	2025	2005	2015	2025	05-->15	15-->25	05-->25
	Mtoe	Mtoe	Mtoe	%	%	%	%	%	%
Agriculture, F&F	0.5	0.7	0.9	2.8	2.0	1.4	3.1	2.8	2.9
Industry (Light)	4.1	10.0	26.2	22.2	28.4	40.0	9.2	10.1	9.7
Industry (Heavy)	4.6	7.8	11.9	24.5	22.1	18.2	5.5	4.3	4.9
Transportation	6.7	12.6	20.6	35.7	35.7	31.4	6.6	5.0	5.8
Commercials & Service	1.1	1.7	2.3	6.1	4.9	3.6	4.4	2.9	3.6
Residentials	1.6	2.4	3.5	8.8	6.9	5.4	4.0	3.8	3.9
Total Commercial Energy	18.7	35.4	65.4	100.0	100.0	100.0	6.6	6.4	6.5



Final Energy Demand by Source

1. Demand for LPG, natural gas and electricity will increase fast reflecting modernization of industry and civil life.
2. Non-commercial energy remains in large quantity though its share declines from 40% to 12%.



The Vietnam Energy Efficiency and Conservation Program (VNEEP)



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VNEEP objectives

Objective: To promote Energy Efficiency and Energy Savings in energy intensive prioritized sectors:

- Industry
- Commercial, Office and Residential Buildings
- Transportation
 - Expected energy savings: 3 – 5% of total energy consumption in the period of 2006 - 2010;
 - Expected savings: 5 – 8% of total energy consumption in the period of 2011 – 2015 (in comparison with the business as-usual scenario without EE improvements in social economic forecast).



VNEEP specific targets

- Energy audits conducted in 300 large enterprises and 12 power plants
- 300 energy audits conducted in SMEs and commercial buildings
- 1,024 designated enterprises have energy management system.
- 2,500 energy managers and 200 energy auditors got certification
- 100% of new buildings complied with EEBC by end of 2015
- Energy savings achieved in range from 1,750 to 2,800 KTOE in 3 sectors by end of 2015



VNEEP specific targets (cont.)

Energy savings between 1,750 and 2,800 KTOE in 3 sectors by end of 2015

Saving potential:

Industry	50%
Buildings	22%
Transport	28%



VNEEP Components

PA and education

- 1.1. Public awareness raising
- 1.2. Curriculum development
- 1.3. Household pilot

Industry

- 2.1. Standard and labeling
- 2.2. Equipment manufacture
- 2.3. Production enterprises
- 2.4. Energy management model
- 2.5 Access to finance

Buildings

- 3.1. Construction codes
- 3.2. Applying EE in buildings
- 3.3. Public lighting

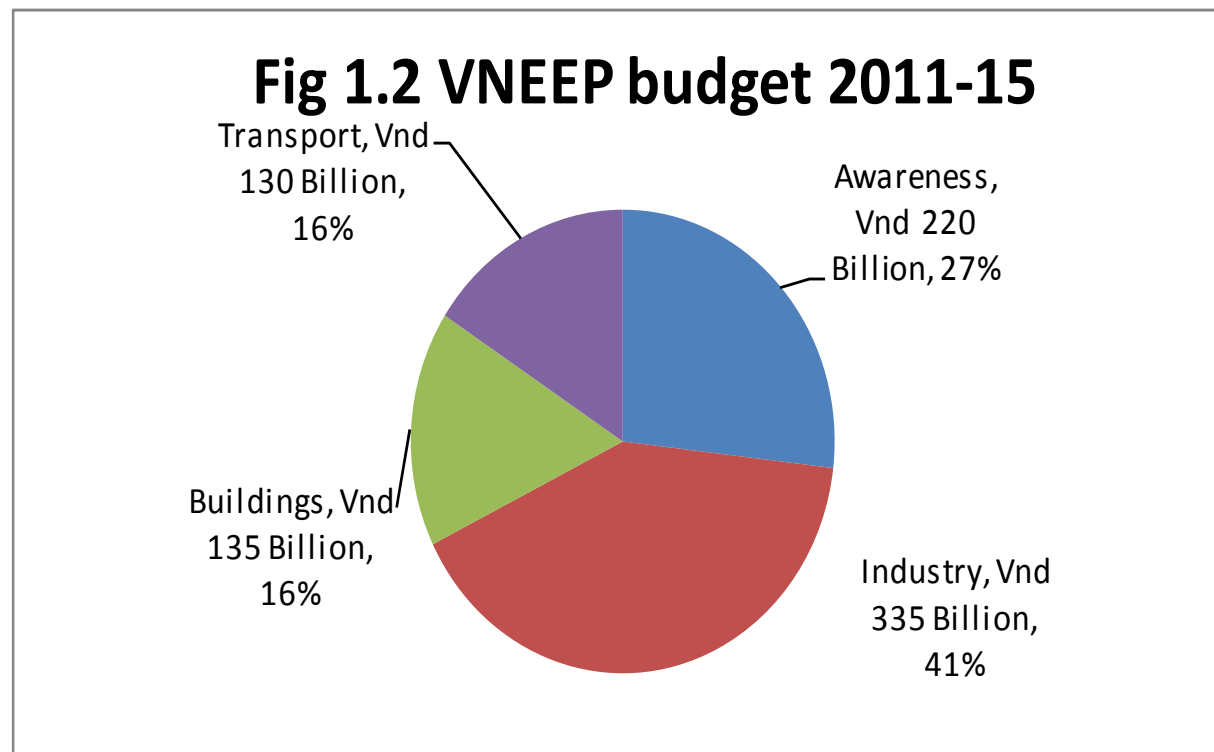
Transport

- 4.1. Master plan
- 4.2. Improvement
- 4.3. New energy, technology



Allocated Budget for VNEEP's Implementation

Phase 2's budget proposal: VND 820 billion (USD 41 million)



VNEEP Implementation Arrangement

Program Steering Committee including Representatives of the Ministries: MoIT, MoC, MoT, MoET, MoCI, MoST, MPI, MoF, Justice, and the Union of Vietnam Science and Technology Associations)

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People Committees of Provinces and Central Cities:
To prepare policies for monitoring Energy saving and efficiency at local level;
To collaborate with NPSC for implementing projects in localities.

Programme Branched Offices: Established at selected provinces and central cities

Supporting bases:
Laboratories for checking energy efficiency of electric devices.
Certificated Energy Auditing Agencies.

Programme components: 11 Projects located in 6 component groups.



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Key results – Overall target

- Total energy saving estimated for period 2006-2010 is KTOE 4,900 corresponding to 3.4%.
- In 2011 electric intensity per GDP is 1.63. This is significant reduce compare with 2008: 2.02; 2009: 2.42 and 2010: 2.0
- Power savings achieved by 1.43% for year 2011



Key results – Policy and Regulations

Law on Energy Saving and Efficiency (No. 50/2010/QH12):

- Enforced since 1st January 2011
- Provides regulations: (1) Mandatory energy labels; (2) Mandatory sectoral energy efficiency standards for appliances, equipment, technology and products; (3) EE requirements in building codes and construction practices; (4) Requirements for key utilities to offer EE plans;...

Various subsequent degrees/circulars on energy designated enterprises, labeling, energy performance standards, etc.



Key results – Implementation level

- **Household:**
 - 3000 biogas cellars, 100,000 solar water heaters, 46 million compact light bulbs per year.
- **Industry:**
 - Energy management system established in 250 designated enterprises.
 - 350 energy managers and 60 energy auditors certified
 - EE labelling for 147 products
 - Energy audits conducted for 243 enterprises, EE measures implemented for 50 enterprises.
- **Buildings:** implement green buildings model.



VNNEP Donors

Donors	Support (date -current or very recent) [approx budget]
ADB	<p>Technical assistance energy efficiency in the cement and steel industry (2011/12)</p> <p>Technical assistance for implementing VNNEP - surveys, training, financing mechanisms (2008-10)</p>
Danida	<p>Targeted programme budget support to the VNNEP (2009-2015) [USD 15 million]</p> <p>Support to cleaner production including technical assistance and investment support (50% of budget) (2008-12) [USD 10 million]</p>
EC	<p>Mainstreaming energy efficiency through business innovations for SMEs (2009-2013)</p>
Finland	<p>Capacity building with a focus on energy auditing (2007-2010)</p>
JICA	<p>Energy master plan (2008-2009) / Private sector investment finance –loans for new equipment for industries / Support to climate change adaptation and mitigation (2007-2010) / Capacity building on energy management training (2011-2014)</p>
KFW	<p>Funding for economic infrastructure, climate change including energy</p>



VNNEP Donors

SDC	Green credit line - support for cleaner production investment (2008-12) [USD 5 million]
UNDP/GEF	PECSME energy efficiency in SMEs (2006-2010) [USD 29 million] / Energy efficiency standards and labeling (2010+) [USD 0.6 million] /Phasing out of incandescent lamps (2010-2014) [USD 3million] /Planned support in building codes, labeling/standards, capacity building
UNIDO/GEF	Promoting industrial energy efficiency through system optimization and energy management standards, pilot projects in rubber, textile, pulp and paper and food and beverage. (2011-2014) [USD 4.5 million]
WB	Viet Nam demand side management and energy efficiency, industry and buildings (2000-2010) Cleaner production and energy efficiency project – action plans for key sectors, development of energy service providers, capacity building in programme management (2011-2016) Support to VNNEP for developing building codes for energy efficiency in large buildings.
IFC	Energy efficiency and cleaner production financing; IFC (2010-2011) [USD 2.3 million] Support to energy efficiency building code (EEBC) to be finalized by December 2012.



Conclusions

- The legal and Institutional framework for promoting EE&C activities in Vietnam are just in initial stage. The national energy efficiency program are the long-term EE&C program of Vietnam government.
- In order to successfully implement the EE&C programs it needs the coordination and cooperation of all implementing and state managing organizations, together with transparent legal framework, such as tax incentives, financial funds, electricity tariff adjustment as well as standards and mechanisms for monitoring, controlling quality of equipment and devices and other technical and training assistance.
- The Energy Efficiency Law is a foundation to develop a framework for the national program, develop appropriate funding mechanisms, lay out government functions and consumer obligations, allow for other policy instruments such as codes and standards to be developed and generally state the Government's long-term strategy for energy efficiency promotion within the country.
- Vietnam needs the cooperation and technical assistances in capacity building of the EE&C activities.



THANK YOU



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