BỘ CÔNG THƯƠNG

STATUS AND SOME RESULTS OF THE ENERGY EFFICIENCY AND CONSERVATION PROGRAMME IN VIET NAM

11/2017

Văn phòng Tiết kiệm năng lượng
Energy Efficiency and Conservation Office

Contents

- Current status of energy consumption in VN
- Legal framework on EEC area (Energy Efficiency and Conservation)
- Some results of VNEEP II
- Difficulties and barriers
- Energy Efficiency and sustainable development programme in the period of 2018-2025

I. Current status of energy consumption in Việt Nam

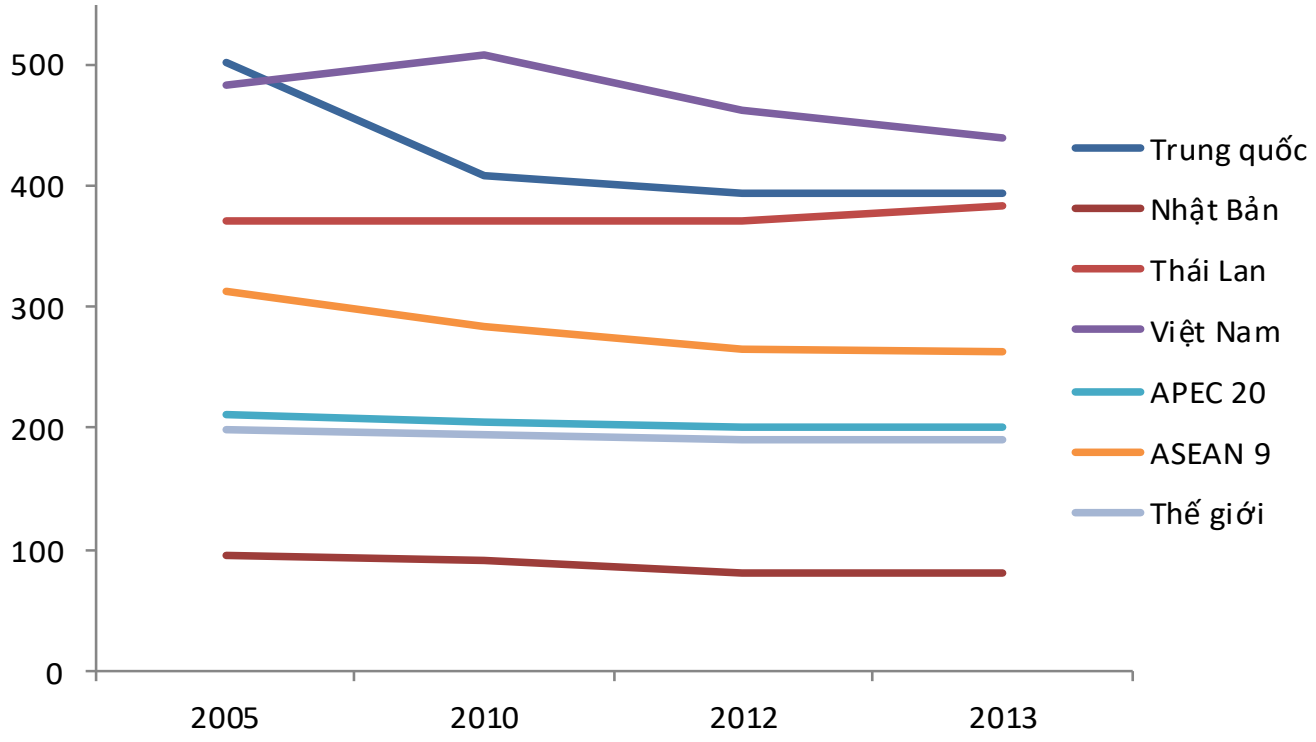
- Average GDP growth of 7,26%/year in the period of 2001-2010 and 5,91% in period of 2011-2015.
- Energy demand increases by 11,5% in the period of 2001-2010, electricity demand increases by 13,07%/year in the period of 2006-2010 and 11% 2011-2015.
- Greenhouse gas emission in EEC activities occupies 63% of total of Vietnam green house emission (year of 2010) and it is estimated to occupy by 83% and 86% in respectively year of 2020 and 2030.
- In the time to come, primary energy sources will not meet the energy consuming demand of the economy. In the current time, Vietnam has to import coal for electricity production and it is estimated to import Liquefied Petroleum Gas since the year of 2023.

I. Current energy consumption in Việt Nam

Some targets on Energy and Economy in VN in 2011-2015

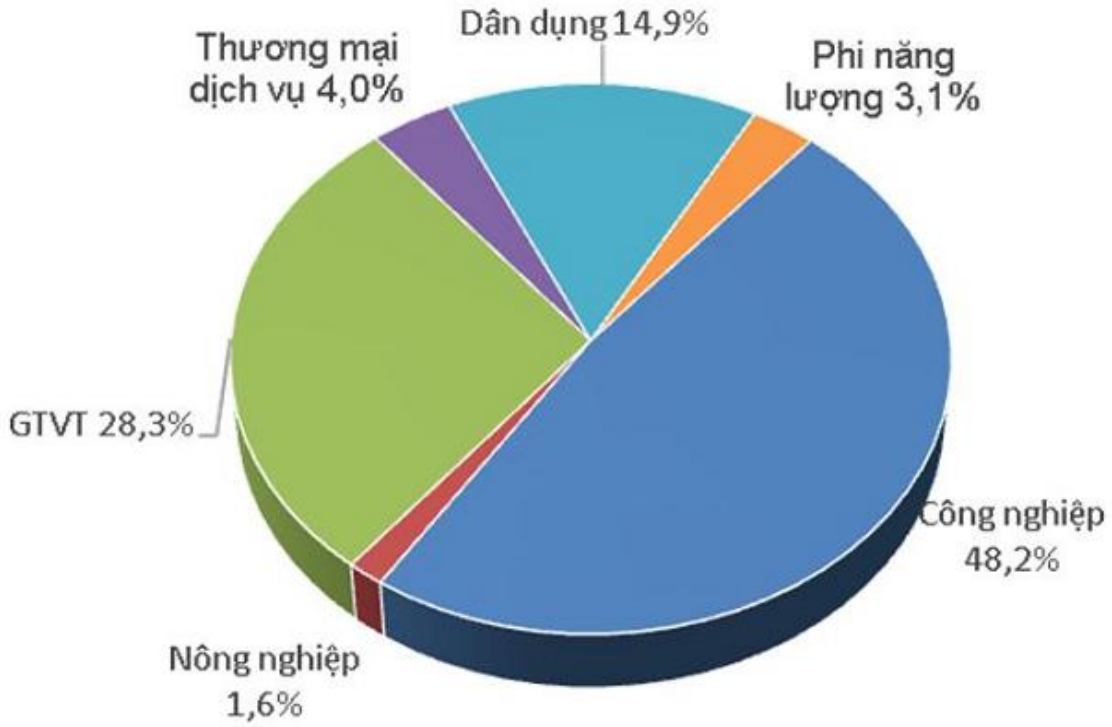
Description	Unit	2011	2012	2013	2014	2015
Total of primary energy supply	KTOE	57.073	57.855	59.203	64.797	70.588
Total of energy consumption of end-users	KTOE	48.485	49.134	50.606	52.248	54.080
Energy consumption of end-users/per capita	kgOE/person	551,8	553,2	563,8	575,9	589,7
Energy intensity	kgOE/1.000 USD	463,4	446,3	433,2	447,4	439,0
Electricity consumption per capita	kWh/person	1.077	1.187	1.294	1.416	1.564

I. Current status of energy consumption inViệt Nam



Trend of energy intensity through years (kgOE/1000 USD giá 2010)

I. Current status of energy consumption in Việt Nam

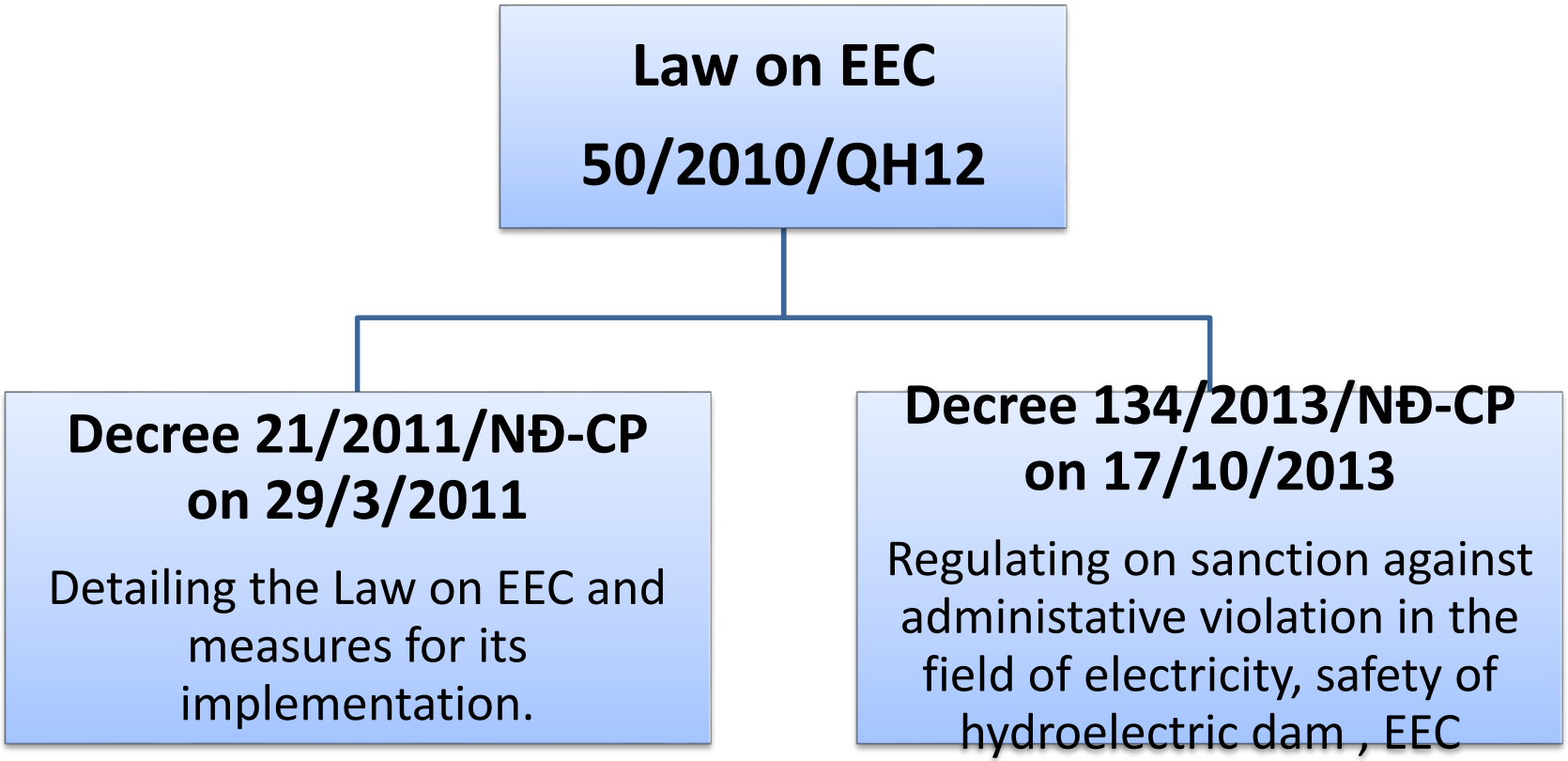


Energy consumption structure per sector , 2014

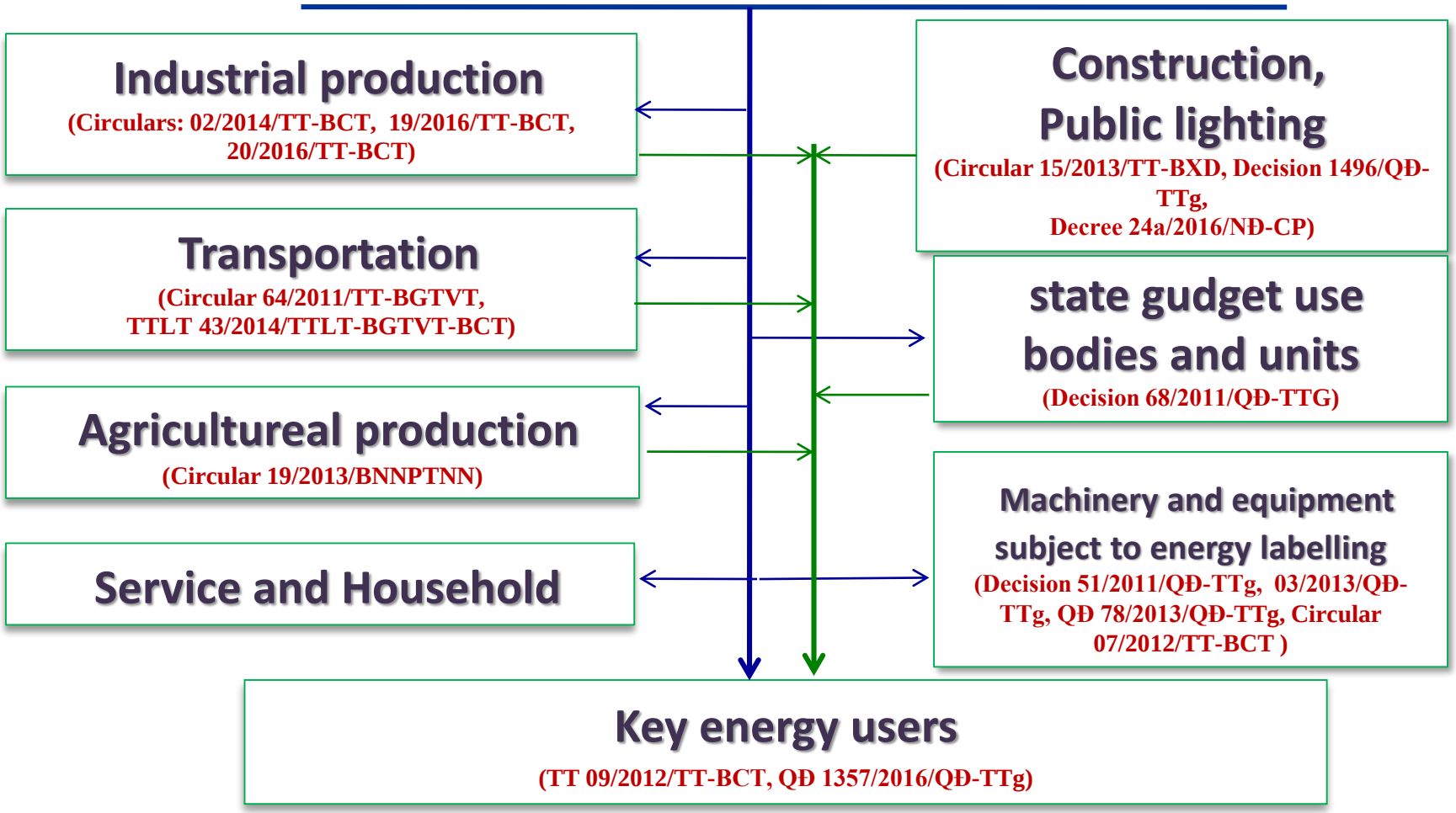
I. Current status of energy consumption in Việt Nam

- Technical potential in energy saving from 25-40% in industries in Vietnam (according to WB report).
- The estimated cost for saving 1kWh electricity only is equal to ¼ of the cost for such amount electricity production.

II. Legal framework



II. Legal Framework



III. Some results of (VNEEP) 2006-2015

Vietnam Energy Efficiency Programme.

Decision no 79/2006/QĐ-TTg dated 14/4/2006 of the Prime Minister on approving the VNEEP 2006-2015

Decision no 1427/QĐ-TTg dated 12/10/2012 on approving the VNEEP 2012 – 2015.

III. Some Results of VNEEP 2006-2015

Communication & education on awareness raising

- Use of multi media to promote the EEC for all objects
  - 100% of All types of media and with radio and television disseminating EEC area;
  - Launch campaigns and replicate EEC household model
- Organize programs and events;
- Develop EEC model in the schools;
- Organize movement and competition on EEC among households .

More than 85% Vietnamese know and understand energy saving through media;

III. Some results of (VNEEP) 2006-2015

Energy labelling Programs

> 60W

- More than 10,000 product samples in 15 product groups have been certified by the Ministry of Industry and Trade to label energy.
- Nominating 07 laboratories in the country, 02 laboratories in foreign countries to control the minimum energy performance standards (MEPS) for equipment and machineries.
- According to survey data in 2015, more than 90% of air conditioners and refrigerators sold in supermarkets and electronics stores have been labeled with energy labels.
- The quantity of incandescent bulbs consumed annually drops sharply from 50-55 million bulbs in 2011 to under 5 million bulbs in 2015

III. Some results of (VNEEP) 2006-2015

Industrial energy management – Construction (ISO 50001)

- 77 factories have implemented the energy management plans and completed operation improvement projects of which 15 enterprises have implemented the energy management system and certified with ISO 50001 certification.
- Five case studies have been developed and shared on the VNEEP website and a network of information exchange between enterprises was established.

Training for Capability Strengthening

- Training and provide certificates for 2200 energy managers and 250 energy auditors.
- Develop and issue 02 sets of training materials on energy audit and energy management; 02 sets of training materials for advanced energy auditing training for textile and beer industries
- .

III. Some Results of (VNEEP) 2006-2015

- 65 enterprises completed the steam system evaluation project, 62 enterprises continue to implement the project;
- 85 enterprises completed the compressed air system evaluation project, 77 enterprises continue to implement the project;
- 10 case studies of the implemented projects are shared on the information exchange network between enterprises.

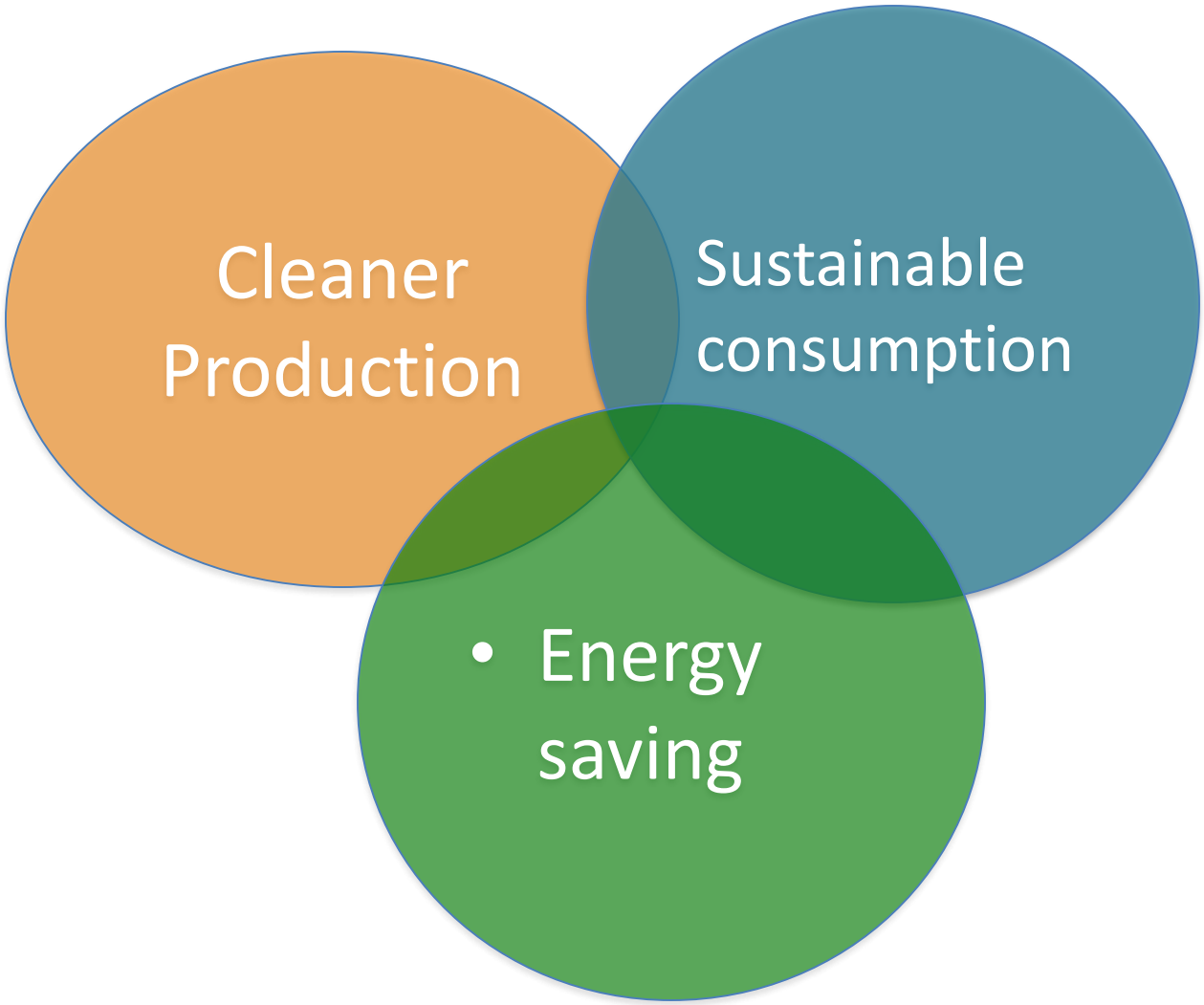
Financial support for Energy Efficiency

- Implementing capacity building activities for financial institutions to develop financial investment services for energy saving projects with 27 experts and staff from financial institutions trained.
- Implementing the ESCO (Energy Service Company) pilot model and providing financial advisory / assistance services to implement the EEC investment projects. There are currently 6 companies established and registered under the ESCO model.

IV. Difficulties, obstacles

- Funding from the state budget is often limited and late, while participants in the program are very broad and diverse.
- The awareness of the community and enterprises is still limited, the enterprises are lack of capital or difficult to access to preferential credit loans for energy saving projects.
- Many enterprises have not yet fulfilled the requirements stipulated by the Laws, Decrees, Circulars and Decisions.
- The resources for implementing and supervising the implementation of the Law on EEC and the legal documents are still limited.
- Lack of support mechanism for investment enterprises to replace downgraded technology chain with high energy efficiency and energy-saving technologies.
- Implementation of the energy labeling roadmap has encountered some difficulties such as pilot infrastructure, human resources and limited funds for implementation and monitoring..

V. Program of energy efficiency and sustainable development in the period of 2018-2025



V. Energy Efficiency in the period of 2018-2025

I. Objectives

- According to the NDC report, Vietnam is committed to reducing 13% of greenhouse gas emissions in the period 2021-2030
- 90% of industrial production establishments are aware of the benefits of applying cleaner production technologies in industry;
- 50% of industrial production establishments apply cleaner production technologies;
- Saving from 8 - 13% of energy, raw material, fuel and material consumption per unit of product;
- 90% of medium-scaled and large-scaled enterprises have a department in charge of cleaner production;
- 90% of Departments of Industry and Trade have full-time qualified staff to guide the application of cleaner production for industrial production establishments.

V. Energy Efficiency Program in the period 2018-2025

I. Implementation measures

1. Communication, awareness raising:

a) Intensify propaganda and education on raising the awareness of cleaner production and Energy Efficiency in the industry at all levels, sectors and industrial production establishments;

b) Develop and disseminate databases and websites on the application of clean production technologies and Energy Efficiency technologies;

c) Promote the dissemination and multiplication of pilot models in clean production and energy saving.

V. Energy Efficiency and Sustainable Development Program in the period 2018-2025

2. Solutions on organization, management, mechanisms and policies:

a) Promote the review, amendment, supplementation and perfection of mechanisms, policies and laws to promote cleaner and Energy Efficiency production in industry;

b) Strengthen the national energy management system

c) Programs on Energy performance standards management and Energy- consuming equipment and machineries management (SNL).

d) Implement integration of clean and Energy Efficiency production contents into strategies and plans for development of industries; socio-economic development strategies, plans; energy saving and environmental protection programs, plans of ministries, sectors and provinces/cities;

V. Energy Efficiency and Sustainable Development in the period 2018-2025

2. Solutions on organization, management, mechanisms and policies:

e) Develop a network for granting certificates of application of cleaner production in industry to industrial production establishments on the voluntary principle;

f) Develop a network of organizations to assist Energy Efficiency and cleaner production in the industry at the Ministry of Industry and Trade and other provinces and cities directly under the Central Government where there are many industrial production establishments.

g) Strengthen the supervision of key energy users

V. Energy Efficiency and Sustainable Development in the period 2018-2025

h) Implement programs on encouraging the transfer of high energy-efficient environments, machineries and equipment.

i) Develop programs to develop environmentally-friendly distribution channels, products; Establishing a system of indicators for assessment and certification of green distribution systems.

k) Encourage implementation of waste minimization, recycling and reuse. Improve management procedures, application and transfer to clean technologies, reuse and recycling of waste, minimize waste generation and environmental pollution.

V. Energy Efficiency and Sustainable Development in the period 2018-2025

3. Solutions on technical support, personnel training and international cooperation:

a) Promote development and dissemination of technical guidelines on cleaner production in industry; Support the application of cleaner production technologies at industrial production establishments;

b) Strengthen the linkage between research institutes, universities and industrial production establishments in the research, transfer and application of technologies for energy saving and cleaner production in industry;

V. Energy Efficiency and Sustainable Development in the period 2018-2025

c) Promote the training and retraining of, and capacity strengthening for supervisors in charge of program implementation and consults operating in the field of energy conservation and cleaner production in the industry.

d) Take advantage of the resources of organizations, individuals and foreign organizations to promote the application of energy saving and cleaner production in the industry.

V. Energy Efficiency and Sustainable Development in the period 2018-2025

- Implement programs to encourage the transfer of using high energy-efficient environments, equipment and machineries.
- Develop programs to develop environmentally friendly distribution channels, products; Establish a system of indicators for assessment and certification of green distribution systems.
- Provide technical assistance for manufacturers, assemblers, importers, retailers of high energy efficient products and domestic energy efficiency testing laboratories.

V. Energy Efficiency and Sustainable Development in the period 2018-2025

- Promulgate policies to encourage production and business establishments to apply environmental management systems according to ISO 14000; the regulations on guiding the use of emission quotas and forming the emission quota transfer market;
- Reduce, recycle, reuse waste. Improve management procedures, application and transfer to clean technologies, reusing and recycling of waste, minimizing of waste generation and environmental pollution.

Energy efficiency programs in the period 2018-2025

4. Investment and financial solutions.

a) Budget for implementation of the Strategy's contents and tasks shall be mobilized from various sources: State budget capital, aid capital, financial supports and investment of domestic and foreign organizations and individuals and other legal capital sources;

Energy Efficiency Program in the period 2018-2025

b) Formulate the support measures through state credit for energy efficiency and cleaner production projects in industry;

c) Apply product lifecycle approach in the implementation of eco-innovation activities at enterprises, industrial parks and industrial complexes to improve the efficiency of resource use, waste prevention and mitigation.

d) Promote ESCO market to assist enterprises in implementing clean energy technology conversion solutions

THANK YOU!