



IGIP
AGENCY FOR INNOVATION, GREEN TRANSITION AND INDUSTRY PROMOTION

Energy Efficiency & Conservation in Vietnam

LAI DUC TUAN (Mr)

Agency for Innovation, Green Transition and Industry Promotion (IGIP)
Vietnam Ministry of Industry and Trade



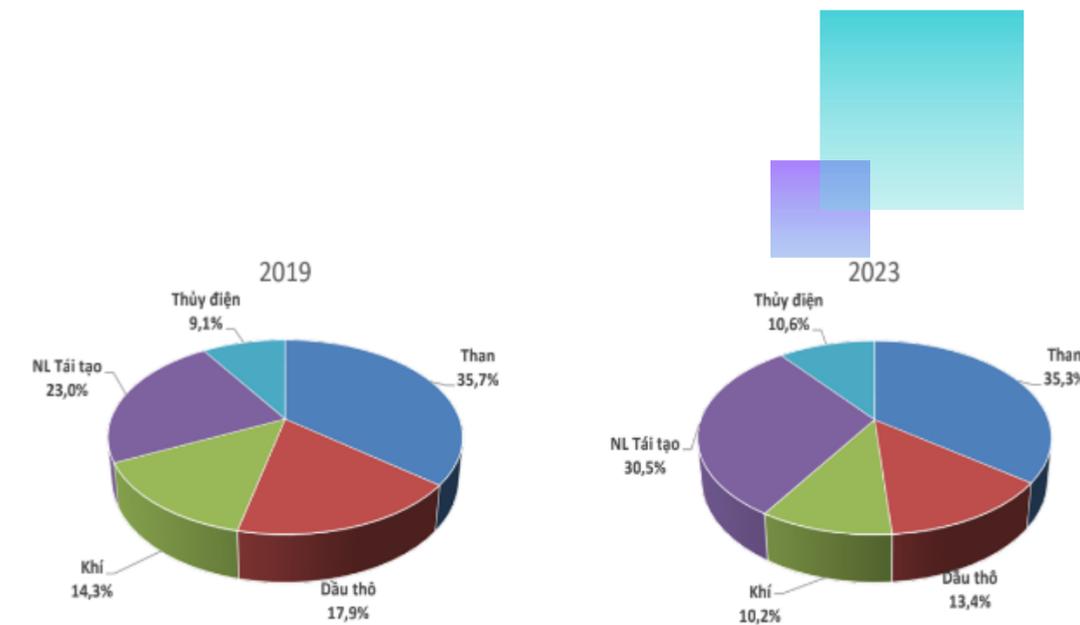
OVERVIEW OF ENERGY CONSUMPTION IN VIETNAM

- ❖ Vietnam's population in 2025 is estimated at 102 million people. Vietnam is the third most populous country in Southeast Asia, after Indonesia and the Philippines, Vietnam has 34 provincial-level administrative units, including 28 provinces and 6 cities from July 1, 2025.
- ❖ GDP increased by an average of 7,26% per year in the period 2001-2010 and 5,2% per year in the period 2016-2021. Target 8% per year
- ❖ Energy demand increased by about 10% in the period 2001-2010, the demand for electricity increased by 13% per year in the period 2001-2010 and about 11% in the period 2011-2015.
- ❖ The primary energy sources will not meet the economy's energy consumption needs. Vietnam has started importing coal for power generation and import LPG from 2023.

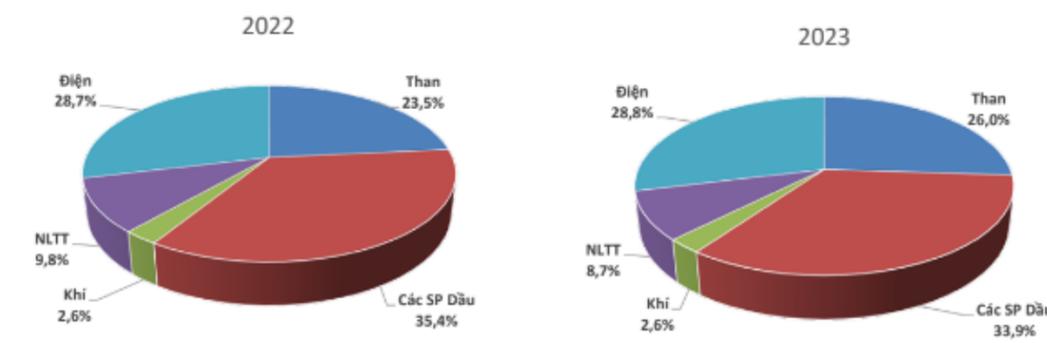


OVERVIEW OF ENERGY CONSUMPTION IN VIETNAM

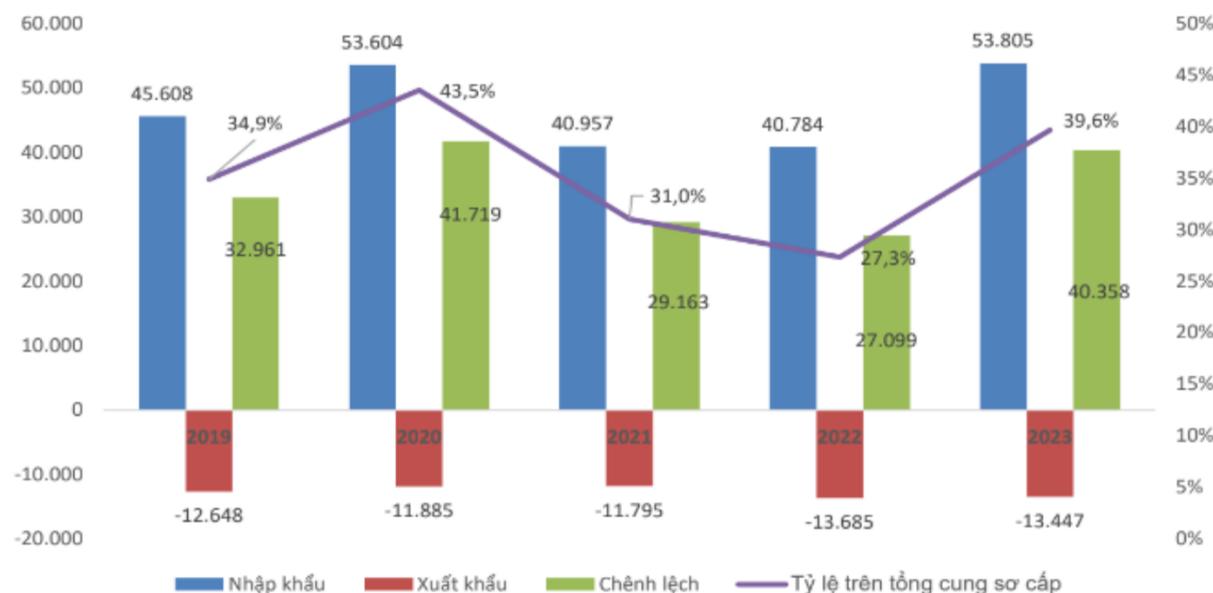
Content	Unit	2019	2020	2021	2022	2023
Total Primary Energy Supply (TPES)	KTOE	94.495	95.864	94.035	98.879	101.788
Total Final Energy Consumption (TFEC)	KTOE	64.542	66.014	66.864	71.995	75.122
Final energy consumption per person	kgOE/person	669	676	679	724	749
TFEC/GDP	kgOE/1.000USD	321	320	316	315	312
Electricity consumption per person	kWh/person	2.169	2.229	2.271	2.419	2512



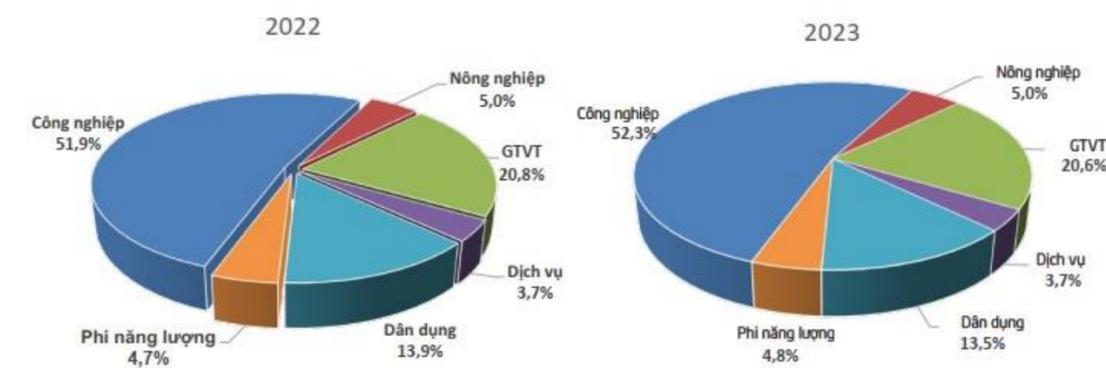
Hình 4. Cơ cấu khai thác năng lượng trong nước



Hình 6. Cơ cấu tiêu thụ năng lượng cuối cùng theo dạng nhiên liệu



Hình 5. Diễn biến xuất nhập khẩu năng lượng



Hình 7. Cơ cấu tiêu thụ năng lượng cuối cùng theo ngành

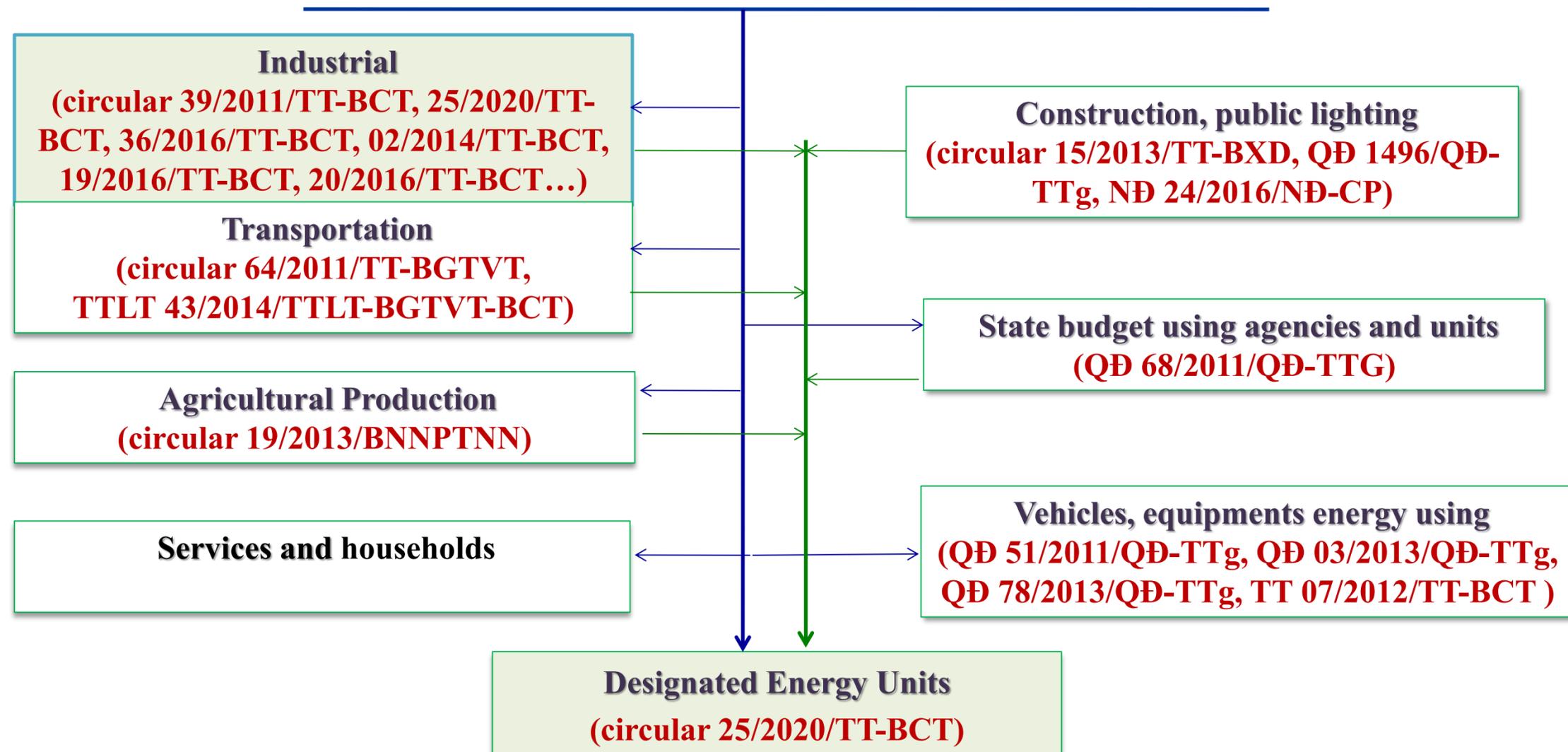


ENERGY EFFICIENCY POLICIES

Law on Energy Efficiency and Conservation

Decree 21/2011/ND-CP guideline Laws

Decree 17/2022/ND-CP (Decree 73/2011/ND-CP, Decree 134/ND-CP)



ENERGY EFFICIENCY POLICIES

Regulations in the industrial sector:

- ❖ Circular 39/2011/TT-BCT of MOIT ***stimulating on training, certification for energy managers and energy auditor.***
- ❖ Circular 25/2020/TT-BCT of MOIT on ***planning, reporting on implementation of energy efficiency, energy audit report.***(replace Circular 09/2012/TT-BCT)
- ❖ Circular 36/2016/TT-BCT of MOIT on 28th Dec, 2016 on ***regulation of energy labelling for energy using vehicles, equipment under the management of MOIT.***(replace Circular 07/2012/TT-BCT)
- ❖ Circulars on energy consumption ***norms in chemical, beer and beverage, iron and steel, plastic, paper and pulp and seafood processing industries*** which were issued from 2014-2024 by MOIT.
- ❖ 50 TCVNs technical standard, Decision to guideline



ENERGY EFFICIENCY POLICIES

Designated Energy Users

STT	Lĩnh vực	Số lượng CSSDNL trọng điểm	TOE	Tỷ lệ phần trăm về số lượng	Tỷ lệ % về TOE
1	Nông nghiệp	18	31.774	0,52%	0,08%
2	Giao thông vận tải	70	260.614	2,01%	0,64%
3	Công trình xây dựng	539	710.301	15,44%	1,75%
4	Công nghiệp	2.864	39.582.716	82,04%	97,53%
Tổng số CSSDNL Trọng điểm 2023		3.491	40.585.405		
Tổng số CSSDNL Trọng điểm 2022		3.472	40.764.289		
Chênh lệch		19	-178.884	0,55%	-0,44%

NOTES: Nếu áp dụng hệ số quy đổi TOE của điện năng: 0,00086 kWh/TOE
Tổng năng lượng tiêu thụ của các CSSDNLTD 2023: 33.439.860 TOE (Chênh lệch: Gần 7 triệu TOE khi sử dụng hệ số 0,0001543)

Key energy-using establishments are establishments with the following energy consumption levels:

- a) Industrial and agricultural production establishments, transport units with a total energy consumption in one year converted to one thousand tons of oil equivalent (**1000 TOE**) or more.
- b) Construction works used as headquarters, offices, houses; educational, medical, entertainment, physical training and sports establishments; hotels, supermarkets, restaurants, shops with a total energy consumption in one year converted to five hundred tons of oil equivalent (**500 TOE**) or more.

- In 2023, Vietnam Total Energy consumption (TFEC) was estimated of 75,122 KtoE, and Designated Energy Users was estimated of 33.439 KtoE (45% share)
- **3472 units** have to get Energy Management Systems and Energy Audits....

- This is the subject that must implement the responsibilities stipulated in the Law on EE such as:
- Building and operating the Energy Management System
 - Energy managers with a Certificate from the Ministry of Industry and Trade
 - Implementation *energy audits every 3 years*
 - *Annual reports every 5 years, implementing Energy Saving solutions*
 - *Benchmarking report*



ENERGY EFFICIENCY POLICIES

Circular 25/2020/TT-BCT of MOIT on *planning, reporting on implementation of energy efficiency, energy audit report*

MINISTRY OF INDUSTRY AND TRADE

SOCIALIST REPUBLIC OF VIETNAM
Independence – Freedom – Happiness

No. 25/2020/TT-BCT

Hanoi, September 29, 2020

CIRCULAR

STIPULATING

PLANNING AND REPORTING THE IMPLEMENTATION PLANS FOR ENERGY EFFICIENCY; IMPLEMENTATION OF ENERGY AUDIT

Pursuant to Law on Economical and Efficient Use of Energy dated June 17, 2010;

Pursuant to Decree No. 98/2017/ND-CP dated August 18, 2017 of the Government on functions, tasks, powers, and organizational structure of the Ministry of Industry and Trade;

Pursuant to Decree No. 21/2011/ND-CP dated March 29, 2011 of Government on elaborating to Law on Economical and Efficient Use of Energy;

At request of Director General of Energy Efficiency and Sustainable Development Department;

Minister of Industry and Trade promulgates the Circular on planning and reporting the implementation of plans for economical and efficient use of energy and energy audit.

Chapter I

GENERAL PROVISIONS

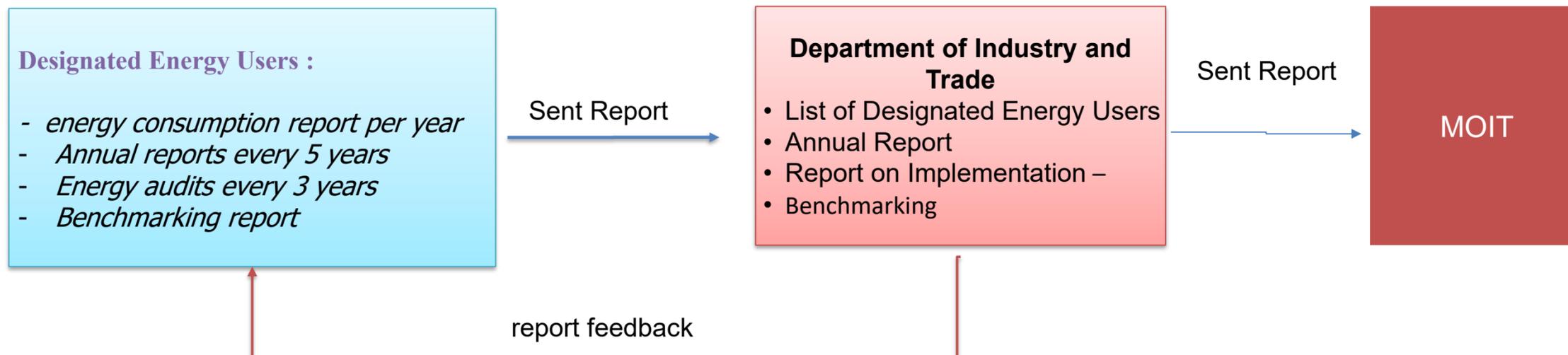
Article 1. Scope of governance

This Circular prescribes:

1. Preparation of the list of key energy users annually.
2. Preparation of plans and reports on the implementation of annual and 5-year plans for economical and efficient use of energy of key energy users.
3. Preparation of plans and reports on annual energy use of agencies and entities with annual energy consumption of 100,000 kWh or more .
4. Procedures for implementation and details of energy audit report.

Article 2. Subjects of application

Report system



Báo cáo
Báo cáo tình hình SDNL hàng năm
Báo cáo kế hoạch hàng năm
Báo cáo kế hoạch 5 năm
Sản phẩm/nguyên liệu
Giải pháp tiết kiệm năng lượng

BÁO CÁO SỬ DỤNG NĂNG LƯỢNG HÀNG NĂM							
Báo cáo đang duyệt và chưa gửi + Thêm báo cáo							
STT	Kế hoạch năm	Ngày lập báo cáo	Ngày gửi báo cáo	Ngày nhận báo cáo	Người lập BC	Trạng thái	Thao tác
1	2018	24/10/2020				Đã chuyển báo cáo SCT	🔍
2	2019	24/10/2020				Đã chuyển báo cáo SCT	🔍
3	2020	24/10/2020				Đã chuyển báo cáo SCT	🔍
4	1999	24/10/2020				Đang soạn thảo	✎ 🗑
Báo cáo đã được duyệt							
STT	Kế hoạch năm	Ngày báo cáo	Ngày xác nhận	Ngày nhận báo cáo	Người lập BC	Thao tác	
1	2020	05/10/2020	24/10/2020				🔍

ENERGY EFFICIENCY POLICIES

Deployment, Dissemination, and Legal Awareness Activities

A series of activities for Earth Hour, including a campaign encouraging households to save electricity, directly attracted **120,000 participating households. 4,500 news articles and reports** were disseminated through online newspapers and radio stations in various provinces and cities. **Over 80 in-depth features** on energy-saving solutions were produced and broadcast on provincial and city television networks. **More than 9,500 households** were encouraged to install rooftop solar power systems through the electricity-saving program. **Over 300 training sessions and workshops** on electricity saving for businesses and the public were conducted. Annual award competitions are organized in the field of energy saving, including: Industrial energy saving, Energy-efficient buildings, Highest energy performance products.

Enforcement and Training Activities on Efficient Energy Use

We supported **1,200 businesses in conducting energy audits**, developing energy management models, and implementing electricity-saving solutions.

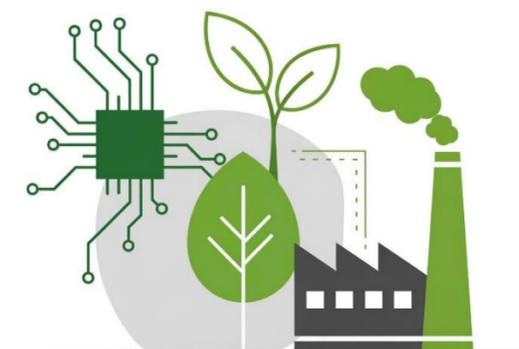
We also organized training and human resource development programs: trained and **certified over 5,000 energy auditors, energy managers**



ENERGY EFFICIENCY POLICIES

Energy Standards and Labeling Program

- The Ministry of Industry and Trade has collaboratively developed over **50 sets of standards** covering energy performance, testing methods, and energy efficiency assessment for various energy-consuming equipment and vehicles. They have also designated **12 energy performance testing laboratories**.
- The Ministry of Industry and Trade has carried out energy labeling for 19 product types across four groups: home appliances, office equipment, industrial equipment, and transportation vehicles. As a result, **over 30,000 products** on the market have received energy labels.
- This program has led to significant impacts: approximately 45 million incandescent light bulbs have been removed from the market. The efficiency of air conditioners has increased by 13% annually, resulting in savings of around 100 million kWh per year.
- Furthermore, upgrading the CSPF (Cooling Seasonal Performance Factor) of air conditioners from 3.8 to 4.2 in the TCVN 7830:2015 standard (from TCVN 7830:2012), combined with the development of inverter air conditioners from 2016-2021, assuming an air conditioner is installed in an apartment with a diversity factor of 0.35, the estimated power savings for 2021 reached 270MW, this capacity is roughly equivalent to a 300MW thermal power plant.



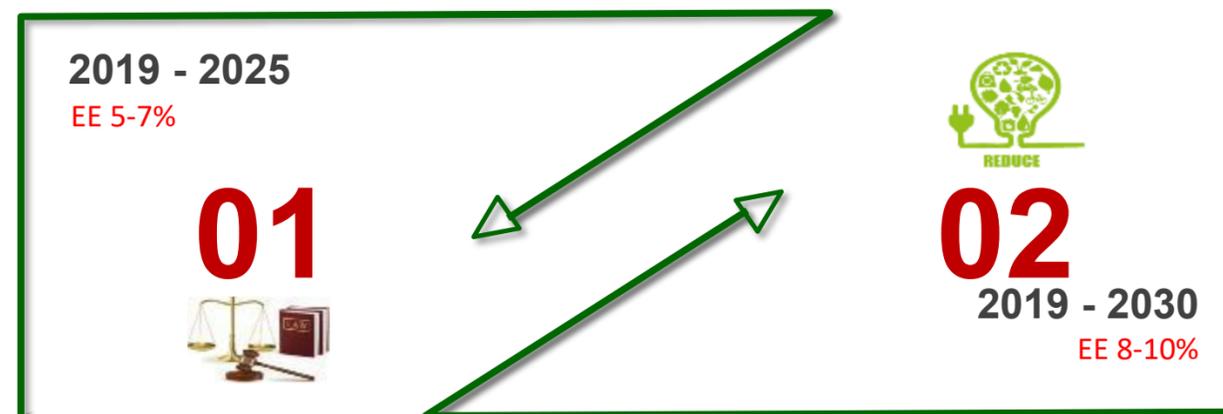
ENERGY EFFICIENCY POLICIES

National Energy Efficiency Program

- Result VNEEP I & II

	VNEEP I	VNEEP II
	2006-2010	2011-2015
Target (%)	3-5	5-8
Result (%)	3,4	5,65
Total energy saving (M.TOE)	4,5	11,261

- Target VNEEP III

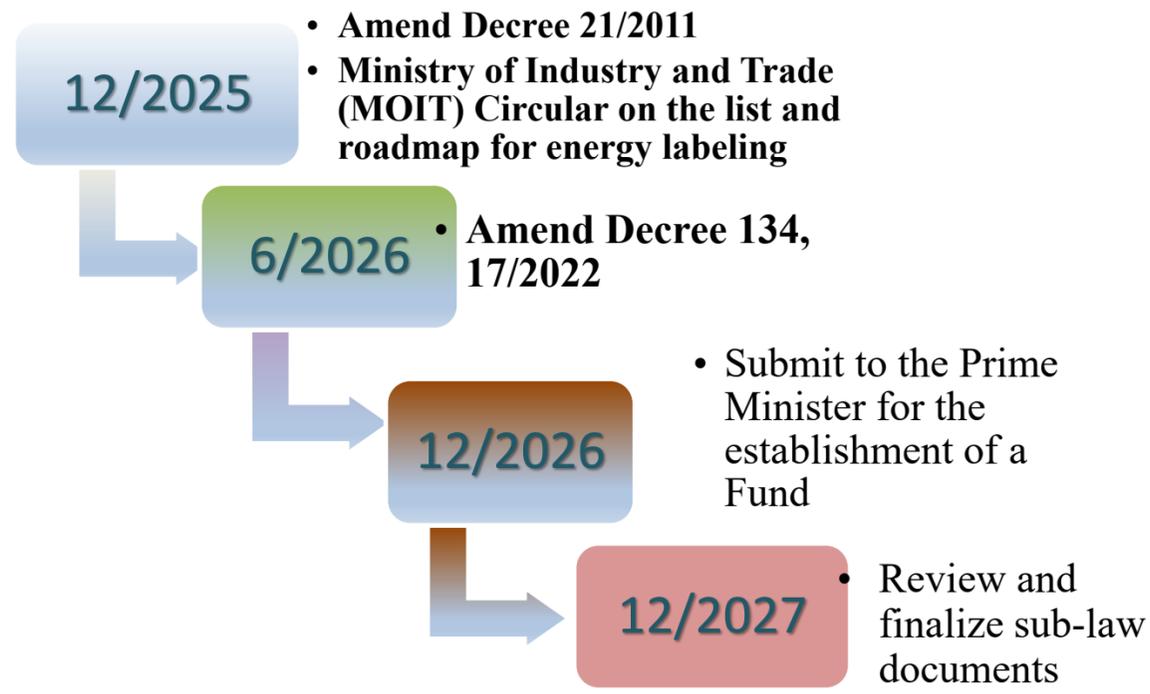


ENERGY EFFICIENCY POLICIES

The Law amending and supplementing a number of articles of the Law on Energy Efficient and Conservation was passed by the National Assembly on June 18, 2025



Layout:
 The Law amending and supplementing a number of articles of the Law on Energy Efficiency Use comprises **3 Articles**:
Article 1: Regarding the amended and supplemented contents of the Law on Energy Efficiency and Conservation: This includes **21 clauses** related to the necessary amendments and additions across **19 articles**, and the addition of **1 new article** to the current Law.
Article 2: Regarding the effective date: **January 1, 2026**.
Article 3: Transitional provisions: Energy management certificates issued before the effective date of this Law will remain valid until **December 31, 2030**.



KẾT QUẢ BIỂU QUYẾT		
THỜI GIAN	0:00	
THAM GIA	426	89.12%
TÁN THÀNH	425	88.91%
KHÔNG TÁN THÀNH	1	0.21%
KHÔNG BIỂU QUYẾT	0	0.00%



ENERGY EFFICIENCY POLICIES

The Law amending and supplementing a number of articles of the Law on Energy Efficient and Conservation was passed by the National Assembly on June 18, 2025

Regulations on the Term of Energy Management Certificates:

Clause 3, Article 35

Development of Energy Service Companies (ESCOs): Articles 3, 43

- The Definition of "energy service company" and "energy performance contract."

- Energy service companies undertake consulting activities on investment and implement energy-saving solutions, and execute energy efficiency contracts.

- The Government will regulate the conditions for investment and business in energy auditing, and develop support and incentive mechanisms to foster the ESCO system.

The Minister of Industry and Trade regulates the inspection and supervision of entities operating in the fields of energy services, energy auditing, and the training of energy auditors and energy managers. This includes guiding technical requirements and notification forms for energy service organizations.

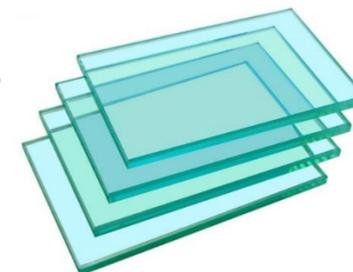
• Addition of Incentive Policies

Clause 3, Article 41: The government will regulate incentives for organizations and businesses to invest in, expand, upgrade, renovate, and transition to energy-saving technologies and greenhouse gas (GHG) emission reduction, to invest in and transition to energy-saving and GHG-reducing products through green credit support mechanisms and the issuance of green bonds.

Clause 4, Article 41: The government will develop incentive mechanisms and support solutions to promote the application of transformation processes in line with the technological revolution and digital transformation in industrial production and processing, fostering innovation in the field of economical and efficient energy use.

• Addition of Construction Materials to Energy Labeling Scope.

Clause 2, Article 37: Energy labeling will now apply to energy-consuming vehicles, equipment, and construction materials. **Clause 1, Article 39:** Vehicles, equipment, and construction materials on the list requiring energy labels must be labeled before being placed on the market.

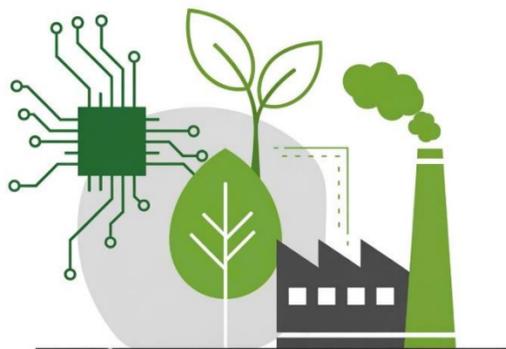


Energy Efficiency Fund

Article 41a: Energy Efficiency Fund

- A non-budgetary state financial fund, operating on a non-profit basis.
 - The fund's activities will include mobilizing capital, lending, investing, entrusting and receiving entrustment to promote efficient energy use activities nationwide.
 - Its goal is to support and finance projects, tasks, and activities that promote energy efficiency, with flexible mechanisms tailored to donor requirements and current legal provisions.
 - The Prime Minister will decide on the fund's establishment, organization, and operations, aiming for socialization, financial independence, and ensuring it doesn't overlap with state budget revenues or expenditures. The fund will also aim to avoid increasing production and business costs for enterprises and manufacturing facilities.
- The government will regulate the fund's sources of capital.

To implement this model in Vietnam, the Energy Efficiency Fund needs to be designed as a public-private partnership (PPP) financial model. It should be capable of attracting and revolving capital, simultaneously supporting industrial and civil renovation, and technological innovation.



FUND AND ESCO SOLUTIONS

ESCOs (Energy Service Companies) represent an innovative business model successfully implemented in many developed countries because of its optimization pre-investing in energy-efficient equipment for users and repayment the cost of equipment over using time; promoting the energy efficiency market, encouraging businesses to invest in this sector, helping Vietnam meet its commitments to reduce greenhouse gas emissions and foster sustainable development.

Promotion of the ESCO (Energy Service Company) investment model, including:

- Development and proposal of ESCO business models adapted to Viet Nam's context;
- Preparation of ESCO investment guidance documentation;
- Development of standardized Measurement & Verification (M&V) procedures to ensure transparent and reliable performance tracking.



Agency for Innovation, Green Transition and Industry Promotion, MOIT

 024. 22218282

 igip@moit.gov.vn

 www.dck.gov.vn | www.igip.gov.vn

 54 Hai Bà Trưng, Hoàn Kiếm, Hà Nội

WE JUST WANT TO SAY



FOR YOUR SUPPORT

designed by  freepik.com