



Federal Ministry  
for Economic Affairs  
and Climate Action



HỘI KHÓA HỌC VÀ CÔNG NGHỆ SỬ DỤNG NĂNG LƯỢNG  
TIẾT KIỆM VÀ HIỆU QUẢ VIỆT NAM

# Overview of VNEEP3 and the necessity of establishing energy efficiency clubs in Viet Nam

**Presenter: Nguyen Van Long**  
**Vice Chairman and Secretary General –**  
**Viet Nam Energy Conservation and Energy Efficiency Association**

*Ha Noi, November 29<sup>th</sup>, 2022*



## CONTENT

- I. The status of energy consumption in Viet Nam**
- II. Policies on energy efficiency in Viet Nam**
- III. Activities of the Viet Nam National Energy Efficiency Program in the 2019-2030 period (VNEEP3)**
- IV. The necessity of establishing energy efficiency clubs in Viet Nam**



# CONTENT



## I. The status of energy consumption in Viet Nam

- GDP: 2001-2010: average increase of 7.26%/year  
2011-2015: average increase of 5.91%/year.
- Energy demand:
  - 2001-2010: increased by about 10%/year, power demand increased by 13%/year
  - 2011-2015: increased by 11%/year.
- GHG emissions from the energy sector accounted for about 63% of Viet Nam's total emissions in 2010 and will account for about 73% and 80% by 2030 and 2045, respectively.
- In the future, primary energy sources will not meet the energy demand of the economy. Viet Nam has been importing coal for power generation and will start importing LNG from 2023.



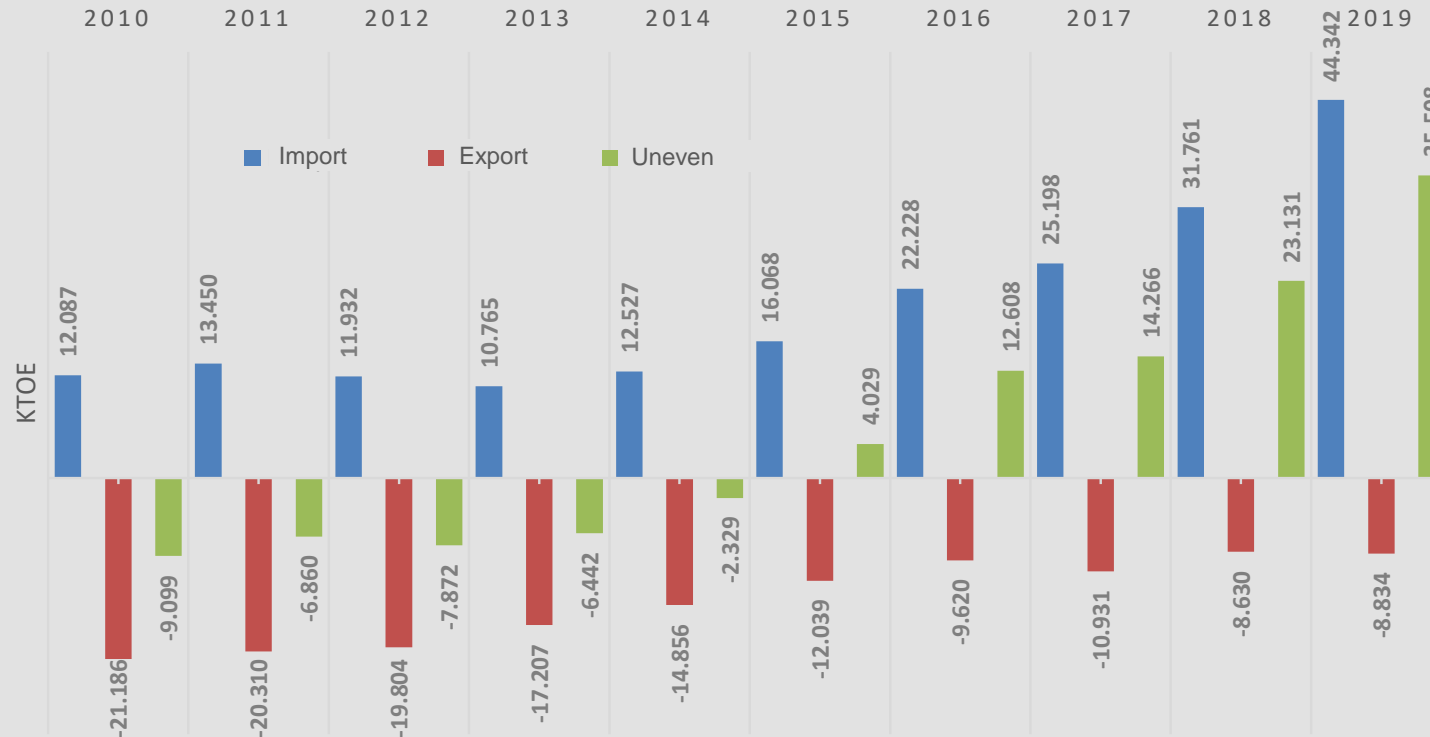
# I. The status of energy consumption in Viet Nam

## I. Some economic-energy indicators of Viet Nam, 2016-2020

Content	Unit	2016	2017	2018	2019	2020
Total primary energy supply	KTOE	68,825	70,909	84,140	94,495	95,762
Total final consumption	KTOE	50,460	53,432	60,457	64,542	66,014
Final consumption per capita	kgOE per capita	541	567	634	669	676
Final consumption/GDP	kgOE/1000USD	307	305	322	321	319
Power consumption per capita	kWh per capita	1,711	1,843	2,009	2,169	2,229



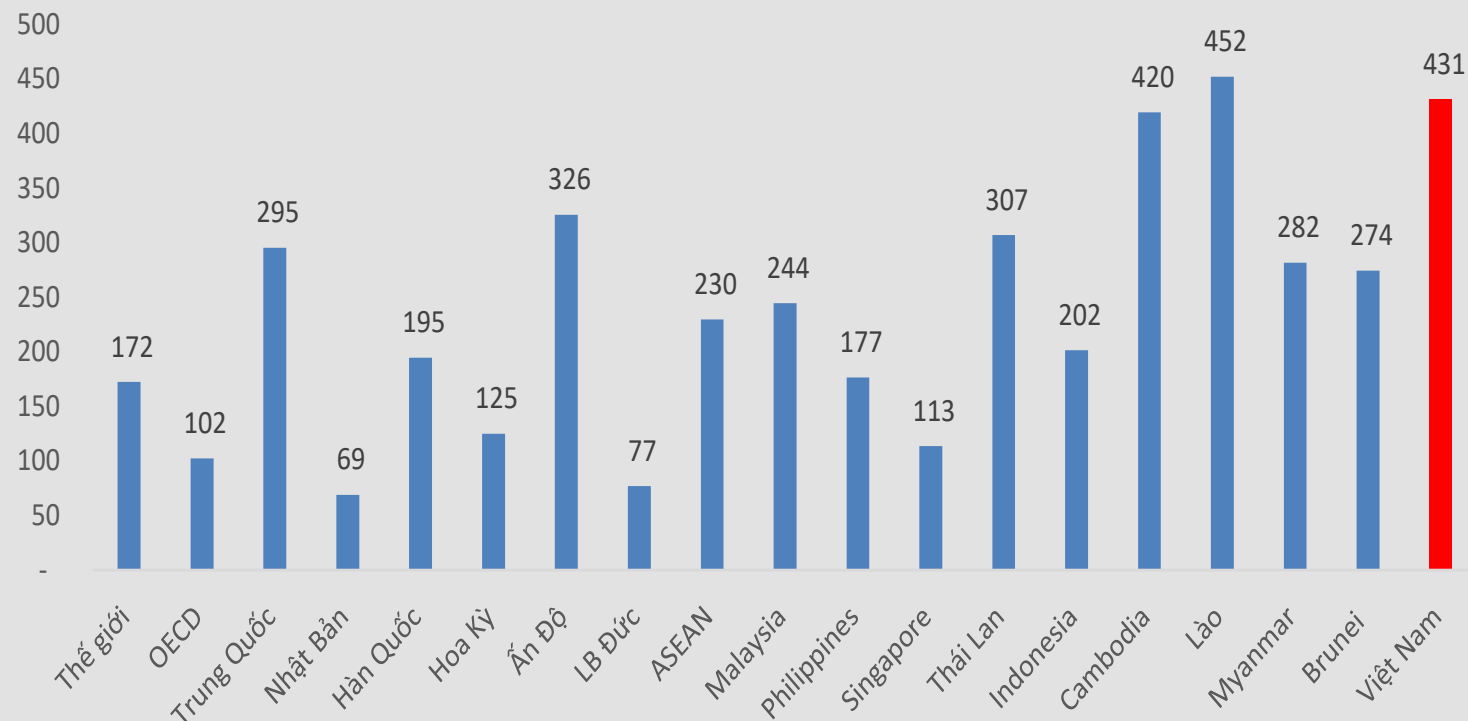
# I. The status of energy consumption in Viet Nam



Energy import and export in 2010 -2019, KTOE



## I. The status of energy consumption in Viet Nam



**Comparison of total primary energy supply to GDP  
(kgOE/1000USD)**



## **I. The status of energy consumption in Viet Nam**

List of designated energy users (DEUs) in 2020 (Decision No. 1881/QD-TTg dated November 9, 2021):

- The total number of DEUs nationwide was 2,961 in 2020:
  - + A total of 2,480 industrial production facilities, 13 agricultural production ones, and 80 transportation facilities have the total energy consumption in a year equivalent to 1000 TOE or more;
  - + A total of 388 constructions used as headquarters, offices, and houses; education and medical units, entertainment, physical training and sports establishments; hotels, supermarkets, restaurants, shops have the total energy consumption in a year equivalent to 500 TOE or more.



## II. Overview of energy efficiency policies

- Reduce energy intensity to 1-1.5% per year according to the Resolution of the 12<sup>th</sup> Party Congress.
- Resolution No. 55-NQ/TW of the Politburo: The energy-saving over the total final energy consumption against business-as-usual (BAU) scenario to reach 7% by 2030 and up to 14% by 2045;
- According to the Prime Minister's Decision No. 280/QĐ-TTg dated March 13, 2019 approving VNEEP3, energy consumption will be reduced by 5-7% compared to the total energy consumption of the whole country in the period of 2019-2025 and by 8-10% in the period of 2019-2030.
- According to the Nationally Determined Contributions (NDC), Viet Nam has committed to reduce GHG emissions by 9% in the period 2021-2030 against BAU level with domestic resources and possibly up to 27% with international support.





## II. Overview of energy efficiency policies

### Legal documents

- Law 50/2010/QH12 on economical and efficient use of energy dated June 28, 2010
- Decree 21/2011/ND-CP detailing the Law on economical and efficient use of energy and measures for its implementation
- Decree No.134/2013/ND-CP dated October 17, 2013 regulating sanctions against administrative violation in the field of electricity, hydroelectric dam safety, economical and efficient use of energy
- Decree No. 17/2022/ND-CP dated January 31, 2022 on amendments and supplements to administrative penalties



## II. Overview of energy efficiency policies

### Legal documents

- The issued Decisions of the Prime Minister, Circulars and regulations on economic and efficient use of energy in industry, construction, agriculture, transport sectors, etc.
- Circulars on energy consumption benchmarks in chemicals, beverage, steel, pulp and paper sectors issued by Ministry of Industry and Trade between 2014 and 2017, Circular 09/2012 TT-BCT (replaced by Circular 25/2020/TT-BCT) on elaboration of plans, report on implementation of plans on economical and efficient energy use; implementation of energy audit.



## II. Overview of energy efficiency policies

### Legal documents

- The issued Decisions of the Prime Minister, Circulars and regulations on economic and efficient use of energy in industry, construction, agriculture, transport sectors, etc.
- Circulars on energy consumption benchmarks in chemicals, beverage, steel, pulp and paper sectors issued by Ministry of Industry and Trade between 2014 and 2017, Circular 09/2012 TT-BCT (replaced by Circular 25/2020/TT-BCT) on elaboration of plans, report on implementation of plans on economical and efficient energy use; implementation of energy audit.



### III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

#### Overarching objectives

- Mobilize all domestic and international resources to promote energy efficiency (EE) through the synchronous implementation of state management solutions, technical assistance, science and technology research and product development, market transition, human resources training and development in EE
- Formulate the habit of economical and efficient use of energy in all social activities; reduce energy intensity in economic sectors; Energy efficiency becomes a regular practice in DEUs and key economic sectors that consume a lot of energy, aiming toward green growth and sustainable development.



## III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

### Specific targets

2019 - 2025

Reach the goal of saving  
5-7% of total national  
energy consumption

01



02

2025 - 2030

Reach the goal of saving  
8-10% of total national  
energy consumption



### III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

#### Phase 1 targets (2019-2025)

- Complete mechanisms, policies and legal regulations on energy efficiency
- Reduce power loss to below 6.5%
- Reduce the average energy consumption in industries compared to the 2015-2018 period:  
Steel 3-10%, Chemicals >7%, Plastics 18-22.46%, Cement >7.5%, Textile garment >5%,  
Alcohol and beverage 3-6.88%, Paper 8-15.8%
- 70% of industrial zones and 50% of industrial clusters have access to and adopt energy efficiency solutions.
- 100% of DEUs apply the energy management system
- 100% of key transport enterprises launching programs to communicate vehicle control skills and technical solutions for energy efficiency



### III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

- 80 buildings certified as green building
- Develop a market transition program on energy efficiency for at least 5 popular products
- Training and granting certificates to 3,000 energy managers / auditors
- 90% of provinces and centrally-run cities formulate and approve the program on energy efficiency
- Develop a network of energy efficiency facilities in at least 50 provinces.  
Build 01 energy database center in Viet Nam



## III. Viet Nam National Energy Efficiency Program in the 2019-2030 period



### • **VNEEP3 Program**

- Nationwide adoption and implementation
- Applicable to all agencies, organizations and individuals related to energy efficiency in Viet Nam
- The implementation period is from 2019 to 2030, divided into two phases namely 2019-2025 and 2026-2030





## III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

### Tasks under the Program

1. To review, develop and finalize mechanisms and policies on EE
2. To provide technical and financial assistance to promote projects on investment, production and trading of EE products
3. To establish Viet Nam Energy Database Center, databases and IT applications on energy and energy efficiency
4. To enhance capacity on energy efficiency



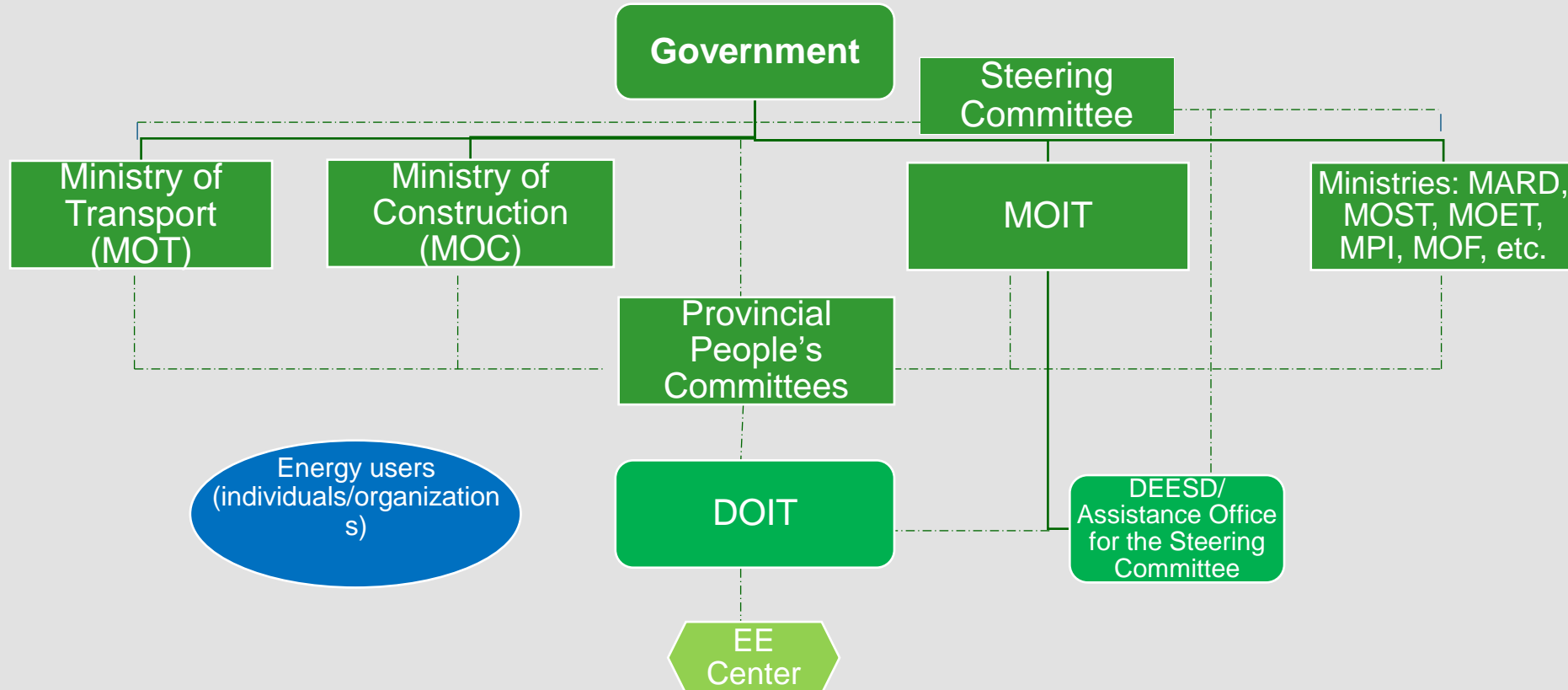
## III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

### Tasks under the Program

5. To strengthen inspection, monitoring, urging and guiding the implementation and assessment of the implementation of legal regulations on EE
6. To communicate and raise public awareness about energy efficiency
7. To conduct scientific and technological studies and researches
8. To strengthen international cooperation
9. To establish Fund/Facility



### III. Viet Nam National Energy Efficiency Program in the 2019-2030 period





## III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

### Operation and Implementation

- The Steering Committee is led by the Deputy Prime Minister (Chairman) with participation of the Minister of MOIT as the Standing Vice Chairman, and representatives of MOC, MOT, MARD, MOST, MOET, MOLISA, MIC, MPI, MOF, MONRE and VECEA as members of the Committee
- The Assistance Office established by the Minister of MOIT is located in MOIT premise
- Local tasks are handled and undertaken by DOITs



## III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

### Some of the Program results

- Provided guidelines for localities regarding developing, promulgating and implementation of the plan for the program implementation: 60/63 provinces and cities have issued action plans for the 2020-2025/2030 period.
- Guided localities in developing, promulgating and implementation of the Prime Minister's Directive 20/CT-TTg on enhancing electricity conservation in the 2020 - 2025 period: 54 provinces and centrally-run cities have developed and issued Implementation Plan for the Directive 20/CT-TTg or issued a provincial circular of the Chairman of the People's Committee.
- Prepared a report on research and review of the Law on economical and efficient use of energy.



### III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

#### Some of the Program results

- MOIT developed and managed the implementation of 27 tasks in 2020 with a total budget of VND 10 billion; 45 tasks in 2021 with a total budget of VND 30 billion; and has been conducting 44 tasks in 2022 with a total budget of VND 30 billion.
- Organized an Energy Efficiency Award competition in: Industry, Construction, Highest Energy Efficiency, Press and Communication in 2020 and 2021.
- Organized a series of activities toward the Earth Hour event.
- Conducted capacity building and development trainings in EE: training energy auditors; energy managers.
- Carried out regular inspection and supervision activities.



### III. Viet Nam National Energy Efficiency Program in the 2019-2030 period

#### Program implementation plan

- Promulgating and guiding the implementation of legal documents on EE.
- Strengthening inspection, supervision activities and promoting the implementation of the regulations and provisions regarding EE
- Enhancing capacity building and development trainings for state authorities, organizations and individuals
- Developing, propagating and replicating typical production and business models adopting EE
- Conducting advocacy and communication activities on EE
- Enhancing international cooperation

Nov 29, 2022



## IV. The necessity of establishing energy efficiency clubs in Viet Nam

### 1. Current state

+ Coordinate the activities of:

- Dept. of Energy Efficiency and Sustainable Development (EE Office)
- DOITs (Center for Industry Promotion and Energy Efficiency)
- Enterprises





## **IV. The necessity of establishing energy efficiency clubs in Viet Nam**

### **+ Challenges faced by state authorities and businesses**

- **DOITs have**
  - Limited human resources**
  - Very limited budget**
  - Very few experts/staffs with EE expertise**
- **There are activities under EE Clubs but are still struggling and not often: Northern region - Southern region**



## IV. The necessity of establishing energy efficiency clubs in Viet Nam

- **Industrial enterprises**
  - + **are obliged to perform EE tasks regulated by the Government and MOIT: annual report, energy audit, implementation of regular EE tasks, application of EE solutions...**
  - + **unspecialized task forces**
  - + **the consulting market is not strictly regulated, leading to low quality of consultations**



## **IV. The necessity of establishing energy efficiency clubs in Viet Nam**

### **2. The necessity to build EE clubs**

- + To have locations close to each other**
- + To have relatively similar features**
- + To support each other regarding techniques, machinery and equipment**
- + To improve the quality of energy audit and management**
- + To connect businesses with reputable consulting companies**



## IV. The necessity of establishing energy efficiency clubs in Viet Nam

### 2. The necessity to build EC clubs

- + **Businesses learn from others and have access and connected to specialized consultants**
- + **Enterprises support each other to implement EE**



Federal Ministry  
for Economic Affairs  
and Climate Action



HỘI NHỮNG HỌC VÀ CÔNG NGHỆ SỬ DỤNG NĂNG LƯỢNG  
TIẾT KIỆM VÀ HIỆU QUẢ VIỆT NAM

# Thank you for your attention

Vietnam Energy Conservation and Energy Efficiency Association (VECEA);  
Address: 4th floor, MOIT building, 655 Pham Van Dong, Tu Liem, Hanoi  
Website: <http://vecea.vn/>

Nov 29, 2022