Vietnam

EE&C Policy and Support Measures Towards Carbon Neutrality

1. Climate Change Initiatives

1-1. Name of the initiatives, competent ministries/agencies, and the outline of the initiatives

Oct, 2021: National Green Growth Strategy for 2021-2030, vision towards 2050

Jul, 2022: National Action Plan on Green Growth for the 2021-2030

Dec, 2021: Establishing National Steering Committee to implement climate change pledge at COP26

Jul, 2022: Scheme on tasks and solutions to implement the outcomes of the 26th United Nations Climate Change Conference of the Parties (COP26)

Jan, 2022: Decree on Mitigation of GHG emissions

Jan, 2022: Decision on promulgation of lists of sectors and GHG emission facilities subject to GHG inventory

Oct, 2022: Updated Nationally Determined Contribution 2022

Jul, 2022: National Strategy for Climate Change until 2050
May, 2023: National Power Development Plan VIII for the 2021 - 2030 period, with a vision towards 2045 (PDP VIII)

Jul, 2023: National Energy Master Plan for the 2021-2030 period, with a vision to 2050

Jui, 2022: Action Program for Transition to Green Energy and Mitigation of Carbon Dioxide and Methane Emissions from Transportation:

Jul, 2022: Program on sustainable forestry development for the 2021-2025

Jan, 2019: Vietnam - National Energy Efficiency Program 2019 - 2030

Feb, 2024: Hydrogen Development Strategy

Jan, 2022: The Strategy for Sustainable Agriculture and Rurral Development

Aug, 2022: Action Plan for Methane Emissions Reduction to 2030

Aug, 2023: National Plan for Implementation of the Glasgow Declaration on Forests and Land Use to 2030

Apr, 2023: Plan for Emission Mitigation in Agriculture

Sept, 2024: Plan for Emission Mitigation in Energy and Industry sector

Sep, 2024: Plan for Emission Mitigation in Transportation sector

•The government announced that it will build an \$840 million hydrogen plant in the southern province of Ben Tre, with trial operations scheduled to begin in the first quarter of 2023. The plant will initially produce 24,000 tonnes of green hydrogen, 150,000 tonnes of ammonia and 195,000 tonnes of oxygen per year, with the next stage expected to more than double production capacity.

· COP 26 Statement: Vietnam will leverage its advantages in renewable energy and take stronger measures to reduce greenhouse gas emissions. Vietnam is making every effort to both address climate change and promote economic development. Contribute responsibly together with the international community.

Vietnam will leverage its domestic resources, in terms of finance and technology, together with the cooperation and support of the international community, especially from developed countries, to achieve net zero emissions by 2050, including through mechanisms under the Paris Agreement. ing.

*Stated that it would move forward with a project to build a 10 megawatt nuclear reactor with Russian support.

The \$350 million project consists of a Russian-designed research reactor, multipurpose cyclotron, and laboratory, but the total investment could exceed \$500 million. Russian state-owned company Rosatom Group says it aims to complete construction by the end of 2024

1-2. Specific contents of the climate change initiatives

GHG reduction policy

- 1) National Green Growth Strategy
- 2) National strategy against climate change
- 3) Update nationally determined contributions for 2022
- 4) Cabinet Order on Reducing Greenhouse Gas Emissions
- 5) Programs on sustainable forestry development
- 6) National Energy Efficiency Program 2019 2030
- '+ the types of renewable energy included: (i) wind (ii) solar; (iii) biomass energy; (iv) solid waste energy; (v) small hydroelectricity; (vi) other renewable energy (tidal, geothermal and biogas); new energy (hydrogen, ammonia and hydrogen-based fuels).
- + To strongly develop renewable energy sources for electricity production, reaching the rate of about 30,9 39,2% by 2030, towards the target of 47% renewable energy rate if supported. strong in international finance, technology and governance according to JETP. '3. Financial support Orientation to 2050 the rate of renewable energy up to 67,5 - 71,5%.
- 1. It was Resolved to set the ratio of renewable energy in primary energy supply to 15 to 20% in 2030 and 25 to 30% in 2045 ("National energy from 2021 to 2030 with an eye on 2045" Resolution 55-NQ / TW on the direction of development strategy ")
- 2. The renewable energy ratio in the power source composition is set to 29% in 2030 and 44% in 2045 (draft of the 8th National Electricity Master Plan (PDP8)).
- 3. The use of renewable energy has the same high goals as Thailand. Vietnam has also set high targets for the use of renewable energy for power generation. This goal reflects what was advocated by the Climate Vulnerability Debate (CVF), as in the Philippines.
- 4. Investment in renewable electricity and fuel, Vietnam is also included in the top 19 countries.

The feed-in tariff (FIT) expired at the end of 2020 for solar PV and at the end of 2021 for wind PV. Under the new MOIT, the maximum price for solar PV is set at 1185-1508 VND/kWh (5-6.3 US cents/kWh) and for wind PV at 1587-1816 VND/kWh (6.6-7.6 US cents/kWh).

- 1. Decree 06/2022/NĐ-CP dated 07/01/2022: Providing mitigation of greenhouse gas emissions and protection of the ozone layer.
- 2. Decree No. 01/2022/QĐ-TTg dated 18 January 2022: promulgating a list of sectors and establishments emitting greenhouse gases that are subject to the greenhouse gas inventory
- 3. Circular No. 01/2022/TT-BTNMT dated July 1, 2022; Details on the implementation of the Law on Environmental Protection on Climate Change Response.
- 4. the Strategy on Climate Change (Decision No. 896/QĐ-TTg dated 26 July 2022)
- 5. the Action Plan of CH4 reduction (Decision No. 4 942/QĐ-TTg dated May 8, 2022).
- National Tratasy on Green Growth (Decision No. 1658/QĐ-TTg dated October 1, 2021).
- National Action Plan on Green Growth (Decision No. 882/QĐ-TTg dated 22 July 2022).
- 8. National Energy Master Plan.
- National Master Plan for Electricity.
- 10. Action Plan on the Response to Climate Change of the Ministry of Industry and Trade.
- 1-3. Laws/regulations related to climate change measures, by name and year of introduction/revision
- 1-4. Climate change action targets (NDC)

[Goals toward carbon neutral] Carbon neutrality by 2050. Carbon emission targets by 2030. (1) Total carbon emissions reduction 15.8 (unconditional) to 43.5% (conditional) BAU basis:. (2) Energy sector: Reduction 32.6%, total carbon emissions 457 million tons CO2te (3) Agriculture sector: Reduce 43.0%, total carbon emissions 64 million T CO2te (4) Forest and soil: reduction 70% and increase of carbon absorption 20%, (5) Waste: Reduction 60.7%, total carbon emissions 18 mtCO2te (6) Industrial sector: reduction 38.3%, total carbon emissions 86 mtCO2te. On a 2010 basis, reduce total GHG emissions by at least 1% per year by 2030 in the absence of international support, and by 2% in the presence of international support. - Reduce GHG emissions by 1.5-2% per year by 2030 and 2050 relative to 2010 baseline Increase share of new and renewable energy to about 11% of total commercial primary energy by 2050 Reduce GHG emissions from energy activities by 20-30% by 2030 on a 2010 basis (BAU basis). Forest coverage will be 45% by 2030. By 2050, nuclear power will account for about 15-20% of total commercial energy consumption (based on 2007 levels). By 2030, the area of coastal security forests will be increased to 380,000 hectares through the planting of 20,000 to 50,000 hectares of additional mangroves. '- Five regulations on carbon neutrality were promulgated in 2022. 1) Environmental Protection Law 2) Decree No. 06/2022/ND-CP (Reduction of greenhouse gas emissions) 3) Decision No. 01/2022/QĐ-TTg (Scrutiny of greenhouse gas emissions of business establishments) 4) Decision No. 896/2022/QĐ-TTg (National Strategy to 2050) 5) Decision No. 942/2022/QĐ-TTg (Reduce methane emissions by 30% by 2030 compared to 2020) 1-5. Budgetary measures for climate change initiatives Measures toward Carbon-Neutral 2-1. Carbon tax initiatives 2-2. Carbon credit and carbon trading initiatives Momentum gaining for immplement Decision 1775/QD-TTg 2012 issued by the Prime Minister of Vietnam on November 21, 2012. It approves a project on managing greenhouse gas emissions and managing carbon credit trading activities in international markets. The objectives include strengthening national greenhouse gas inventory capacity; implementing periodic national inventories; promoting GHG mitigation technologies; developing Vietnam's NAMA framework; establishing national MRV systems; and improving management of carbon trading activities. 2-3. Trend of new technologies for climate change measures 2-3-1. Hydrogen Decision 165/QĐ-TTg/2024 on Hydrogen development stratergy 2-3-2. Fuel ammonia 2-3-3. CCUS Currently, there isn't a policy commitment to incentivise CCS projects, and has not yet developed CCUS-specific legislation. 2-3-4. Biofuel 13% and 25% of the transportation sector's fuel demand in 2030 and 2050, respectively 2-3-5. Renewable Energy The country has been rapidly developing solar and wind energy projects, including for industrial use, and offers incentives such as feed-in tariffs and tax exemptions. a. Vietnam has implemented a Feed-in Tariff (FiT) program to incentivize renewable energy generation, including for industrial consumers. b. Vietnam has established standardized Power Purchase Agreement (PPA) templates for renewable energy projects, including those catering to industrial consumers. c. Vietnam has introduced a Renewable Portfolio Standard, which sets a target for the percentage of electricity to be generated from renewable energy sources. Electricity suppliers, including industrial consumers, are encouraged to procure a certain portion of their electricity from renewable sources to meet the RPS requirements d. Vietnam has implemented a Net Metering policy and promotes the installation of rooftop solar power systems 2-3-6. Nuclear power Suspended 2-3-7. Storage battery

To meet the projected demands, PDP8 also aims to develop storage with a capacity of 2,400 MW and battery storage of 300MW by 2030 to manage the electricity loads.

2-3-8. Initiatives for Smart City

The ASEAN Smart Cities Network (ASCN) was established at the 32nd ASEAN Summit in 2018. ASCN is a collaborative platform working toward the common goal of smart and sustainable urban development, with 26 cities from 10 ASEAN member countries participating as pilot cities. Hanoi, Ho Chi Minh City, and Da Nang are participating in ASCN in Vietnam. The following is an overview of the action plans of Hanoi and Ho Chi Minh City.

1. Hanoi

Vision: Hanoi will be a green, culturally rich, civic and modern city with sustainable development to create a better life for people by 2030.

• Priority areas: establishment of smart operation centers, intelligent road transportation system, smart

travel/education/health/environment/energy

Strategic Goals: [By 2030] improve quality of life, streamline urban management, improve traffic conditions, promote sustainable tourism, protect the environment, improve economic competitiveness, provide convenient public services, and ensure safety and security.

City Project 1: Establish an Intelligent Operation Center to manage information and resources across all sectors.

City Project 2: Develop an intelligent road transportation system to reduce congestion and improve logistics efficiency

Ho Chi Minh City

Vision: Ho Chi Minh City's vision by 2025 is to achieve rapid and sustainable economic development through optimal resource utilization and citizen-centered governance.

Key focus areas: e-government, intelligent road transport system, electronic payment system for transportation, flood control, environmental quality monitoring network, health and food security, emergency response center, smart public lighting management.

Strategic Goals: [By 2025] develop a digital economy and sustain economic growth, increase the efficiency of urban management through forecasting, improve the quality of living and working environments, and enhance citizen and organizational participation in urban governance. City Project 1: Integrate daily information across all sectors, information/data from government department security cameras, sensors, and operations centers.

City Project 2: Develop an integrated and consolidated emergency response center for security and public order issues, fire and prevention, and medical services.

2-3-9. Initiatives for Smart Grid

- 1. electrification rate: 98%
- 2. Smart Grid Plan: The legal basis for the Smart Grid Development Plan is "Decision No. 1670 / QD-TTg" of November 8, 2012.
- 3. Smart Meter Deployment Goal: Approximately 10,000 smart meters installed in a pilot project between Vietnam Electricity Group (EVN) and the World Bank.
- 4. Main contents of the Smart Grid Plan: The three phases of implementation are as follows

Phase 1 (2012-2016)

- -Improved efficient operation of the electric power system
- -Implementation of pilot programs
- -Compilation of regulatory documents in smart grid
- -Development of technical specification standards
- -Installation of SCADA / EMS systems at three regional load dispatch centers and at 500kV, 220kV, and 110kV level power plants and substations.
- -Creation of Advanced Metering Infrastructure (AMI) for distribution companies, including Automatic Meter Reading (AMR).
- -Integration of renewable energy sources into the grid.
- (ii) Phase 2 (2017-2022)
- -Continue the smart grid development program
- -Apply the electric system.
- -Optimize the operation of the power grid.
- -Install SCADA (Supervisory Control And Data Acquisition) / EMS (energy management system) on all distribution transformers
- -Extend the installation of AMI (Advanced Metering Infrastructure) to all major customers and implement demand response applications to enable electricity markets at the grid level.
- -Integration of distribution resources into the MV (medium voltage) and LV (low voltage) grid.
- -Encourage smart home and smart city research programs.
- (iii) Phase 3 (after 2022).
- -Continue distribution of telecommunications infrastructure programs.
- -Apply smart grid results to the electric system.
- 5. current smart grid activities: ToU (Time of Use) meter program
- Load Demand Study
- Project "10-Year Roadmap for Smart Grid Electricity Distribution in Vietnam," including smart metering, customer programs, and distribution automation
- Supervisory Control And Data Acquisition (SCADA) / energy management system (EMS) projects related to distribution network management
- Installation of electronic metering projects
- Tourism and electric vehicles in major cities (Qua Lo, Sam Son, Hai Phong, Hanoi, Ho Chi Minh City)
- Automatic Meter Reading (AMR) project in Ho Chi Minh City by Electricity Company A
- MiniSCADA project in Da Nang by Electricity Company A
- Wide-area monitoring system for 500kV power grid via fiber optic overhead ground wire (OPGW)

2-3-10. Initiatives for demand responsse

In 2019, Vietnam Electricity conducted 10 voluntary demand response events, including 7 emergency events and 3 planned events. Around 1,300 consumers participated in these events, committing to reduce their electricity consumption.

Looking ahead to 2023, around 6,521 consumers with annual electricity consumption of 1 million kWh or more had registered in the demand response program by mid-2023.

2-3-11. Others

2-4. Key Points to Promote and Support Climate Change Measures

Vietnam is amplifying its efforts to cope with climate change and reduce its reliance on fossil fuels. In 2023, it became the third country to enter into a Just Energy Transition Partnership (JETP) with the G7, EU, Norway and Denmark, committing to the realization of carbon neutrality by 2050.

3. Energy Conservation initiatives

3-1. Name and outline of energy policies, and ministries/agencies in charge of the policies

The government of Vietnam has approved the Vietnam Renewable Energy Development Strategy to 2030 with outlook up to 2050, which aims to give priority to renewable energy, especially biomass, biogas, wind and solar, for energy and electricity uses. The country will promote onshore wind power until 2030 and study potential offshore developments as of 2030

Decision No. 500/QD-TTg approving the national power development plan for 2021-2030, with a vision to 2050 (Power Development Plan VIII). Focus on renewable energy like wind, solar, biomass. Limit new coal power plants. Import electricity from Laos and other countries. Encourage rooftop solar power. Transmission Grid Development Plan: Develop 500kV and 220kV lines to integrate renewable power, enhance connectivity with neighboring countries. Apply advanced technologies like smart grid.

3-2. Name and outline of energy efficiency and conservation(EC) policies, and ministries/agencies in charge of the policies.

Decision No. 280/2019/QD-TTg VNEEP Vietnam national energy efficiency programme for period 2019-2030

The VSUEE project consists of two components

(1) Facilitating the establishment of a Risk Sharing Facility (RSF): MOIT will provide a 50% credit guarantee (RSF guarantee) through the RSF to PFIs that finance industrial enterprises (IEs) and energy service companies (ESCOs) engaged in certified energy efficiency projects

(2) Technical Assistance: This program provides funds to build the capacity of private companies to develop and implement energy efficiency projects.

National Strategy for Addressing Climate Change through 2050 (Decision No. 896/QD-TTg), net zero greenhouse emission by 2050 Vietnam Scaling Up Energy Efficiency Project (VSUEE) was approved to improve energy efficiency across Vietnam's industrial sectors and Vietnam's Decarbonization and Energy Transition (V-DET) Project.

3-3. Specific contents of EC policies

Energy management

High performance equipment

Efficient lighting

Industrial inverter compressors, pumps, fans

Feasibility Study to promote Electric Vehicle and launching of EV Charging Stations

Draft energy labeling for electric cars, motorcycles and mopeds

3-4. Name and year of introduction/revision of laws/regulations related to EC measures

Energy Saving Law 50/2010 / QH12 On EE & C

Decree 21/2011 / ND-CP: Details pertaining to the energy saving law enforcement

Decree 134/2013 / ND-CP: Penalties for violations, fines

Circular 39/2011 / TT-BCT: Energy Management, Energy Manager

Circular 09/2012 / TT-BCT: Planning & Reporting of EE & C

Circular 36/2016 / TT-BCT: Labeling

Decree 17/2022/NĐ-CP: This decree regulates fines and penalties for violating energy efficiency and conservation regulations.

3-5. EC goals

- Decision No. 280/2019/QD-TTg; 2019-2025 Save 5-7% of the total national energy onsumption, 2025-2030 Save 8-10% of the total national
- Transport Sector under VNEEP: 100% of key transport companies have programs to disseminate skills to control vehicles technical solutions in an energy-saving manner by 2025; Reduce 5% of fuel and oil consumption in transportation by 2030; 90% of centrally affiliated cities and provinces to develop and approve the Programme on economical and efficient use of energy ·Draft energy labels for electric vehicles, motorcycles, and mopeds

3-6. Green (EC) building Code

The Vietnam Energy Efficiency Building Code, QCVN 09: 2013/ BXD developed by the Vietnam Federation of Civil Engineering Associations (VFCEA) in 2013 and enacted by the Ministry of Construction as the national technical guide on energy efficiency for building

The country introduced LOTUS in 2010 as a voluntary rating tool formed by the Vietnam Green Building Council (VGBC) based on various international green building rating systems such as Leadership in Energy and Environmental Design (LEED), Green Star, Building Research Establishment Environmental Assessment Method (BREEAM), Green Building Index (GBI) and Green Mark.

Complementary activities to support BEC implementation:

- 1. Hundreds of building practitioners and governmental officials have been trained to implement the code in most provinces around the country. 2. Implementation of 15 EE demonstration buildings (new and existing ones) to surpass code requirements (on going).
- 3. Establishment of an online EE materials and equipment database to support designers finding appropriate EE products.

7. Display system for EC performance of the building

- ·LOTUS system: A voluntary green building evaluation system developed by the Vietnam Green Building Council (VGBC) that evaluates environmental performance from the perspective of the entire building throughout its lifecycle.
- Managed as a project of the Non-profit Green Cities Fund (USA). There are 6 categories depending on the size and type of building
- Ratings are on a five-point scale from "Platinum" to "Not certified."

3-8. Items based on EC Law

3-8-1. Designation criteria of designated business operator

Identification of the KEUEs such as:

- 1) Industrial and agricultural production establishments and transport units which annually consume energy of a total of one thousand tons of oil equivalent (1,000 TOE) or higher per year;
- 2) Construction works used as offices and houses; educational, medical, entertainment, physical training and sports establishments; hotels, supermarkets, restaurants and shops which annually consume energy of a total of five hundred tons of oil equivalent (500 TOE) or higher per year.

3-8-2. Number of designated business operators

Number of designated enterprises: 3,068

3-8-3. Obligations which designated business operator shall comply with

The key energy using entities (KEUEs) have to

a) Announcement of objectives and policies on economical and efficient use of energy in their establishments

b)Annual and five (5) years planning of economical and efficient use of energy in their establishments; formulation and application of measures for economical and efficient use of energy according to their set objectives, policies and planning; definition of responsibilities of each, collective and person to implement plans on economical and efficient use of energy

c)Availability of a network and energy managers

d)Regular check and monitoring of energy consumption demand of devices and equipment of entire production chains, and the installation, upgrading and repair of energy consuming equipment of their establishment

e)Energy audit; proposal and selection of managerial and technological solutions for economical and efficient use of energy f)Regular training and retraining in economical and efficient use of energy for employees

g)Adoption of reward and discipline regimes to promote economical and efficient use of energy in their establishments

-8-4. Contents of energy management system

The key energy using entities (KEUEs) shall perform mandatory energy audits once every 3 years; submitted develop and implement annual and 5-year plans for energy efficiency and conservation.

3-8-5. Contents of energy manager system

Legal Framework for the Implementation of Energy Management Training

aw No. 50/2010 on Energy Efficiency and Conservation

Decree No. 21/2011 on details and measures for implementation of the Law on Energy Efficiency and Conservation

Prime Minister's Decision No. 1294/2011 on the publication of the list of specific energy-using equipment

MOIT Circular No. 09/2012 on the regulation of planning, reporting on the implementation of energy conservation and efficient use; implementation of energy audits.

MOIT Circular No. 39/2011/TT-BCT

It is stipulated in Article 35 of the Energy Conservation Act. Energy managers also need to be authorized by the authority

VNEEP 2019 - 2030 pledged to provide training and issue certificates for 3,000 and 5,000 specialists in energy management or energy audit by 2025 and 2030, respectively.

Training on energy management and energy audits, and awarding certificates

- · Number of energy managers: 3,619
- Organization certifying energy managers: MOIT
- ·Certified energy auditors: 320
- ·Validity period of energy managers: No expiration date.
- · Major energy users (KEUEs) must designate those who will attend management training and energy management inspection certification by the Ministry of Industry and Trade.
- · KEUEs must organize energy management systems in the manufacturing process and manage the energy consumption rate.
- The energy auditor system is stipulated
- · Accreditation body: MOIT
- · One of the energy manager and auditor training facilities in Vietnam is TÜV Rheinland.

3-8-6. Contents of the periodic report system

Every major energy user that has been defined under Decree no. 21/2011/ND-CP as well as industrial energy users that consume 600 TOE (or 3.6 million kWh) or more are responsible for submitting annual reports to local Department of Industry and Trade (DoITs) on energy consumption, implementation of economical and efficient energy use plan through the website http://dataenergy.vn.

Moreover, they also shall submit their plan for economical and efficient energy use for the next five (5) years and report on implementation of the previous five (5)-year plans to the same website Besides reports on energy use and energy conservation plan and implementation, Circular 25/2020/TT-BCT also stipulates key energy users for mandatory reporting the energy audit results within 30 days after conducting the audit to DoITs.

3-8-7. Energy saving regulation for equipment "MEPS": "Name of applicable equipment" and classification of "mandatory/voluntary

•The Government of Vietnam has introduced a law implementing the Minimum Energy Performance Standard (MEPS) for instruments and quipment, along with a program of energy labeling.

In 2017, Prime Minister Decision No. 04/2017/QĐ-TTg was enacted which provides the list of mandatory equipment and appliances of energy labelling and MEPS as well as the roadmap of implementation. This decision divides the equipment into four (4) groups, such as: (i) household appliances, (ii) office/commercial equipment, (iii) industrial equipment, and (iv) transportation vehicles. Energy labelling and MEPS for industrial equipment are including distribution transformers and electric motor.

- The Bureau of Industry and Innovation Science has provided assistance in the "Vietnam Energy Efficiency Standards and Labeling (VEESL) Program"
- · Vietnam energy efficiency standards for air conditioners, television sets, computer monitors, printers, copiers (TCVN 7830: 2012, TCVN 9537: 2012, TCVN 9508: 2012, TCN 9509: 2012, ISO 9510, respectively) : 2012) must be observed.
- · 15 products(airconditioner, CFL, etc)
- Energy label and MEPS for electrical motors are mandatory since 2013 and 2015, the related energy efficiency standards for that equipment renamely; (i) TCVN 7540-1; 2013 for MEPS, and (ii) TCVN 7540-2; 2013 for methods for performance determination

-In 2013, a study on fuel consumption standards for LDVs and motorbikes was completed. The voluntary standard on limit of fuel consumption for passenger cars and 2-wheeled motorcycles and mopeds has been issued by the Ministry of Science and Technology in the form of fuel consumption limits (L/100km).

3-8-8. Energy-saving "labeling" system: "Name of applicable equipment" and classification of "mandatory/voluntary

(Decision 51/2011/QD-TTg and Decision 04/2017/QD-TTg i.c.w. Circular 36/2016/TT-BCT from the Ministry of Industry and Trade (MOIT). Group 1: Household appliances - Tubular fluorescent lamp, compact fluorescent lamp, Ballast, Air conditioner, refrigerator, Washing machine, Rice cooker, Electric fan, Television, LED lamps, Storage water heater

Group 2: Office and Commercial Equipment - Photo Copy Machine, Computer Monitor, Printer, Commercial Refrigrated Cabinet, Laptops

Group 3: Industrial Equipment - Distribution Transformer, Asynchronous Motor

Group 4: Transportation Vehicle - Cars up to 7 seats, 9 seats, and motorcycle

3-8-9. MEPS, labeling: Name of "certification body"

MOIT
3-8-10. MEPS, labeling: Is there "performance evaluation agency" and if so, its name?

The Ministry of Science and Technology has jurisdiction over accredition

3-8-11. Status to create restrictions by "benchmarks'

From benchmarking study result, MOIT of Vietnam had issued the following Circular:

Circular 20/2016 / TT-BCT dated 09.20.2016, regulations on energy consumption rate in the steel industry: Circular 19/2016 / TT-BCT dated 14.09.2016, regulations on energy consumption rate in the brewing industry and beverage

Circular 02/2014 / TT-BCT dated 16.01.2014, regulations on energy efficiency indicators for the chemical industry
The other Circulars regulation on energy efficiency indicators for other sectors (Cement, pupl and paper, frozen catfish and shrimp, sugar, plastic)

are going to be issued

3-8-12. Status to create "EC guideline" and "EC manual".

3-9. EC propelling measures

3-9-1. Financial support(Subsidies, Tax incentives,Low-interest loan, Funds)

1)Subsidies : [Outline]

Vietnam Scaling up Energy Efficiency for Industrial Enterprises Project (VSUEE):

EC Law stipulates financial supports by the government for the EC promotion projects

Vietnam traditional production sectors such as food, ceramics,materials are interested in by sponsoring foreign organizations to improve production efficiency

2)Tax incentives:

3)Low-interest loan: Foreign organizations support the financial mechanism such as GEF, DANIDA, World Bank, IFC

4)Funds: Vietnam Environment Protection Fund

National Technology Innovation Fund (NATIF) Vietnam Development Bank (VDB)

3-9-2. Supports for energy audit

[Outline]

'Vietnam - National Energy Efficiency Program:

to support factories to implement energy audits and finding the sollutions for energy efficiency

to delivery the training cources on energy audits

Provincial Department of industry and Trade (DOITc) have implementation support for energy audits for enterprises according to the annual

Under Circular 09/2012 TT-BCT Year 2021 on planning and report on the implementation of energy efficiency and conservation, procedures on energy audits, the product establishment in the field of transport sector are encouraged to make annual energy reports and periodically implement energy audit.

3-9-3. EC award system

•Industrial and Building Energy Management Award •ASEAN Energy Award

4. EC training center. And the name and activities if any.

CSED(Center of supporting and enterprise deveropment) in Ho Chi Minh City

3-9-5. ESCO Business Support

VNEEP 3 Programme: a)Research, develop and promulgate policies and legal regulations on ESCO models and b)Organise training and enhance capacity for research institutes, training institutions, consultancy organizations in the field of ESCO

3-9-6. Supports for R&D

encourage research and application of new technologies of energy efficiency:

-The VNEEP 3 Programme requires the establishment of one (1) Vietnam energy information centre, databases, and the application of information technology on energy and economical and efficient use of energy by 2025. The Centre will play a role in collecting energy statistics, establishing a national EE&C database system, establishing mechanisms for coordination and platform to share EE&C information.

Smart industry: On 27 September 2019, Resolution 52-NQ/TW was issued providing several guidelines and policies to actively participate Fourth Industrial Revolution. Furthermore, the Ministry of Planning and Investment (MPI) Vietnam has released the Draft National Strategy on Industry 4.0 in 2019 to accomplish the goals set in the Resolution.

3-10. ESCO business deployment

3-11. Subsidy for fuel

3-12. Subsidy for electricity bills

Wind power feed in tariff, biomass power feed in tariff

Decision No.37/2011/QD-TTg date June 29, 2011 on the mechanism supporting the development of wind power project in Vietnam Decision 24/2014/QD-TTg by Prime Minister: Support mechanism for biomass power project's development in Vietnam Decision No. 31/2014/QD-TTg date May 5, 2014 on the support mechanism for the development of solid waste power projects in Vietnam Other Dicesion/Circular: www.renewableenergy.org.vn/index.php?page=legal-documents

3-13. Name of the government organization which controls energy conservation matters

General Directorate of Energy - Ministry of Industry and Trade; Ministry of Transport; Ministry of Construction; Ministry of Science and Technology; Ministry of Planning and Investment; Vietnam Energy Efficiency and Energy Conservation Association; Electricity of Vietnam

. Name of the EC promotion organization (private organization such as ECCJ)

ECC Hanoi: Energy Conservation Center Hano

3-15. Cooperation related to energy conservation by Japan

Organizations like JICA Japan, ECCJ has cooperation with the government of Vietnam in the field of energy conservation for years METI/ECCJ: Dispatch of experts, Acceptance of trainees

1. Bilateral cooperation: Thai - Japan

2. Multilateral cooperation: Japan-AMS (ASEAN Member States) cooperation

- PROMEEC (for commercial buildings 2001-2011
- ASEAN-Japan Energy Efficiency Market Transformation with Information Provision Scheme (AJ-EMTIPS)
- AJEEP Scheme 2,3 2012~
- AJEEP Scheme 4,5 2022∼

3-16. Cooperation related to energy conservation by foreign countries except Japan

The US Aid Vietnam Clean energy program; Vietnamese-German cooperation creating the MOIT/GIZ Energy Support Programme; Vietnam -Denmark to Sign MoU in Energy Sector Cooperation; Vietnam had cooperated with Denmark Embassy in 2015 to assist SMEs to reduce their energy use through the Green Investment Facility (GIF) under the Low Carbon Transition in Energy Efficiency Programme

3-17. Achievements of Joint Crediting Mechanism (JCM)

Project implemented as a JCM equipment subsidy project in 2022

1.48MW Offshore Wind Power Generation Project in Duyen Hai District, Tra Vinh Province

2. Energy Supply Project by 1.8MW Rooftop Solar Power System to Automotive Parts Factory and Construction Materials Factory

3.Introduction of 5.7MW Rooftop Solar Power System to Fastener and Aluminum Factories

4.16MW Mini Hydro Power Plant Project in Binh Thuan Province

5.20MW Biomass Power Plant Project in Hau Giang Province

6. Energy Supply Project by 7.9MW Rooftop Solar Power System to Automotive and Garment Factories

7. Introduction of 0.4MW Rooftop Solar Power System to Aluminum Wheel Manufacturing Factory (JCM Eco Lease Scheme)