#### THE PRIME MINISTER

### No. 769/OD TTo

# THE SOCIALIST REPUBLIC OF VIETNAM Independence - Freedom - Happiness

No. 768/QD-TTg

Hanoi, April 15, 2025

#### **DECISION**

Approving the Adjustment of National Power Development Master Plan for the 2021-2030 period, with a vision toward 2050

#### THE PRIME MINISTER

Pursuant to the Law on Organization of the Government dated February 18, 2025;

Pursuant to the Planning Law dated November 24, 2017;

Pursuant to the Electricity Law dated November 30, 2024;

Pursuant to the Law on Amending and Supplementing a Number of Articles of the Planning Law, Investment Law, Law on Investment in the Form of Public-Private Partnership and Bidding Law dated November 29, 2024;

Pursuant to the National Assembly's Resolution No. 81/2023/QH15 dated January 9, 2023, on the National Overall Master Plan for the 2021-2030 period, with a vision toward 2050;

Pursuant to the National Assembly's Resolution No. 174/2024/QH15 dated November 30, 2024 of the XV<sup>th</sup> National Assembly;

Pursuant to the National Assembly's Resolution No. 139/2024/QH15 dated June 28, 2024, on the National Marine Space Master Plan for the 2021-2030 period, with a vision toward 2050;

Pursuant to the Government's Decree No. 37/2019/ND-CP dated May 7, 2019, detailing the implementation of a number of articles of the Planning Law;

Pursuant to the Government's Decree No. 58/2023/ND-CP dated August 12, 2023, amending and supplementing a number of articles of the Government's Decree No. 37/2019/ND-CP dated May 07, 2019, on detailing the implementation of a number of articles of the Planning Law;

Pursuant to the Government's Decree No. 22/2025/ND-CP dated February 11, 2025, amending and supplementing a number of articles of the Government's Decree No. 37/2019/ND-CP dated May 7, 2019, detailing the implementation of a number of articles of the Planning Law, which has a number of articles amended and supplemented under the Government's Decree No. 58/2023/ND-CP dated August 12, 2023;

Pursuant to the Government's Decree No. 56/2025/ND-CP dated March 03, 2025, detailing a number of articles of the Electricity Law on electricity development master plan, electricity supply network development plan, investment in construction of electricity projects and bidding for selection of investors for electricity business investment projects;

Pursuant to Resolution No. 937/NQ-UBTVQH15 dated December 13, 2023 of the Standing Committee of the National Assembly on the thematic supervision of the implementation of policies and laws on energy development for the 2016 - 2021 period;

Pursuant to the Government's Resolution No. 25/NQ-CP dated February 05, 2025, on growth targets for sectors, fields and localities to ensure the national growth target of 8% or higher in 2025;

Pursuant to Directive No. 01/CT-TTg dated January 03, 2025 of the Prime Minister on proactively implementing solutions to ensure sufficient electricity supply for production, business, and people's daily life during the peak period of 2025 and the 2026 - 2030 period;

At the proposal of the Ministry of Industry and Trade in the Report No. 1414/TTr-BCT dated February 26, 2025, Report No. 1823/TTr-BCT dated March 15, 2025, Document No. 1892/BCT-DL dated March 19, 2025, Document No. 2208/BCT-DL dated March 30, 2025; Document No. 2406/BCT-DL dated April 05, 2025; Document No. 2588/BCT-DL dated April 13, 2025; Appraisal Report No. 70/BC-HDTD dated February 28, 2025 of the Appraisal Council for the Adjustment of the National Power Development Master Plan for the 2021-2030 period, with a vision toward 2050.

#### **DECIDES:**

**Article 1.** To approving the Adjustment of National Power Development Master Plan for the 2021-2030 period, with a vision toward 2050, known as the Adjustment of Master Plan VIII (below referred to as the Master Plan) with the following principal contents:

#### I. SCOPE AND BOUNDARIES OF THE MASTER PLAN

The Master Plan aims to develop electricity sources and transmission grids of the voltage of 220 kV or higher, and renewable energy and new energy industries and services in the territory of Vietnam for the 2021-2030 period, with a vision toward 2050, including also works connecting the domestic electricity grid with the neighboring countries.

#### II. DEVELOPMENT VIEWPOINTS AND OBJECTIVES

1. Development viewpoints

- a) Electricity is an important infrastructure sector and the development of this sector must take one step ahead in order to create a foundation to promote national rapid and sustainable development, build an independent and self-generating economy, improve the people's living standards, and assure national defense and security. The power development master plan must have a long-term vision, ensure efficiency and sustainability, and give the first and foremost priority to the interests of the country and the nation.
- b) To develop electricity on the principle of generally optimizing the elements of electricity sources, transmission, distribution, and efficiency and conservation under an appropriate roadmap in parallel with the protection of natural resources and the environment and transformation of economic models, thereby ensuring national energy security at the lowest cost.
- c) To ensure that the power development master plan is based on scientific grounds and of successive, dynamic and open nature; to efficiently exploit and use domestic energy resources in combination with rational energy import and export and energy efficiency and conservation; to consider the development of renewable and new energies an opportunity to comprehensively develop the energy industry ecosystem.
- d) The State shall focus on investing in, and encourage all economic sectors to rapidly develop, the electricity sector on the principle of fair competition, and apply the market mechanism with regard to electricity selling prices, ensuring the harmony of interests among subjects that invest in and use electricity and meeting development requirements of regions and areas.
- dd) To ensure that the electricity development keeps abreast of the science and technology development trend in the world, particularly in renewable and new energies, in association with the national economic transformation toward green economy, circular economy and low-carbon economy; to ensure that energy transition conforms to the international trend and is carried out in a sustainable, just and rational manner.
  - 2. Development objectives
  - a) General objectives
- To firmly maintain national energy security, meeting requirements of national socio-economic development and industrialization and modernization.
- To successfully carry out just energy transition in association with the modernization of production, building of smart electricity grids, and management of the advanced electricity system following the trend of green transition, emission reduction and science and technology development around the world.
  - To form the general energy industry ecosystem based on renewable and

new energies.

- b) Specific targets
- Regarding assurance of national energy security:
- + To fully meet the domestic electricity demand, thereby achieving the socio-economic development objectives with the average GDP growth rate of around 10.0%/year in the 2026-2030 period and 7.5%/year in the 2031-2050 period, specifically as follows:
- . The commercial electricity output will be around 500.4 557.8 billion kWh by 2030, 1,237.7 1,375.1 billion kWh by 2050.
- . The generated and imported electricity output will be around 560.4 624.6 billion kWh by 2030, 1,360.1 1,511.1 billion kWh by 2050.
- . The maximum capacity will be 89,655 99,934 MW by 2030, and 205.732 228.570 MW by 2050.
- + To ensure the safe and reliable electricity supply to meet N-1 criterion for important load areas and N-2 criterion for particularly important load areas, and nuclear power sources. By 2030, the country's electricity supply reliability will be among top 4 ASEAN countries, while the electricity access index will be among top 3 ASEAN countries.
- + To strive for the target that by 2030, half of office buildings and half of people's private houses will have self-generating rooftop solar power (for self-consumption and not for sale to the national power system).
  - Regarding just energy transition:
- + To vigorously develop renewable energy sources (not including the hydroelectric power) to serve electricity generation, accounting for 28 36% of total energy sources by 2030. By 2050, renewable energy sources will account for 74-75% of total energy sources.
- + To control greenhouse gas emissions from electricity generation activities at 197-199 million tons by 2030 and 27 million tons by 2050. To strive for the target that the peak emission level will not exceed 170 million tons by 2030 on the condition that the JETP commitments are fully and substantially fulfilled by international partners.
- + To build smart electricity grids capable of integrating and safely and efficiently operating large-scale renewable energy sources.
- Regarding development of the renewable energy industry and service ecosystem:
- + By 2030, to form 2 inter-regional renewable energy industry and service centers for electricity generation, transmission and consumption; the

industry of renewable energy equipment manufacturing, building and installation, and related services; to build the renewable energy industry ecosystem in regions with great potential, such as the North, southern Central Vietnam and the South when favorable conditions are available.

+ To develop electricity sources from renewable energies and generate new energies for exporting them to Singapore, Malaysia, and other partners in the region; to strive for the target that by 2035, the total electricity capacity for export will reach 5,000-10,000 MW, which may be higher depending on the importing party's demand, on the basis of high economic efficiency and ensuring domestic energy security and national defense.

#### III. NATIONAL ELECTRICITY DEVELOPMENT PLANS

- 1. Electricity source development plans
- a) Development orientations
- To synchronously develop and diversify electricity sources of a rational structure in order to assure energy security, raise the electricity sector's autonomy, and reduce its dependence on imported fuels.
- To continue promoting the development of renewable energy sources (hydropower, onshore, nearshore and offshore wind power, solar power, biomass-fueled electricity, etc.), new energies, green energies (hydrogen, green ammonia, etc.) as appropriate to the ability to ensure the electricity system safety and with reasonable electricity prices, particularly self-generating and self-consuming electricity sources and rooftop solar power.
- To exploit and efficiently use domestic fossil fuel sources together with imported energy sources: To gradually reduce the proportion of coal-fired thermal power and prioritize the development of domestic gas-fueled electricity, and develop imported LNG-fueled electricity sources on an appropriate scale; to carry out energy transition following the technological development trend and production costs in the world.
- To develop region-based balanced electricity sources, aiming to ensure the intra-regional supply-demand balance; to rationally arrange electricity sources in localities within the region in order to efficiently exploit these sources, ensure the reliable on-spot electricity supply and reduce technical losses and long-distance electricity transmission.
- To develop new electricity sources with modern technologies in parallel with technology renewal for operating electricity plants; to terminate the operation of electricity plants that no longer meet environmental standards.
- To diversify forms of investment in the development of electricity sources in order to promote competition and raise the economic efficiency.

### b) Development plans

- (i) To maximally develop electricity sources from renewable energies (wind power, solar power, biomass-fueled electricity, etc.) and continue to increase the proportion of renewable energies in the structure of electricity sources and the generated electricity output:
- + To promote the development of onshore, nearshore and offshore wind power and solar power, especially floating solar power, as appropriate to the absorption capacity of the electricity system, the output release capacity of the electricity grid and electricity costs, and with reasonable transmission prices, in association with assurance of the operation safety and general economy of the electricity system and optimal use of existing grid infrastructure facilities; to prioritize and promote the development of wind power and solar power, including photovoltaic systems on rooftops of residential houses, commercial centers, and other construction works, factories and industrial parks, solar power at production and business establishments for their own consumption and not for connection and sale of electricity to the national electricity grid. The concentrated solar power development must be combined with the installation of storage batteries with a minimum capacity ratio of 10% and a storage duration of 2 hours.
- + By 2030, the total onshore and nearshore wind power capacity will reach 26,066 38,029 MW (the total technical potential in Vietnam is around 221,000 MW). Priority shall be given to the allocation of newly planned wind power sources in localities with good wind potential and difficult economic conditions. The spatial arrangement of onshore and nearshore projects shall be determined in the provincial master plans.
- + To bring into the fullest play the offshore wind power's technical potential (around 600,000 MW) for generation of electricity and new energies:

the total offshore wind power capacity meeting the domestic electricity demand will reach around 6,000 - 17,032 MW, expected to be operational in the 2030 - 2035 period. By 2050, the offshore wind power capacity will reach 113,503-139,097 MW.

Offshore wind power will be strongly developed in combination with other renewable energies (solar power, onshore and nearshore wind power, etc.) for the generation of new energies (hydrogen, green ammonia, etc.) for domestic consumption and export.

The projected capacity of offshore wind power sources for the generation of new energies will be around 15,000 MW by 2035 and around 240,000 MW by 2050.

- Vietnam's solar power potential is around 963,000 MW (837,400 MW from ground solar panels, 77,400 from water surface solar panels, and around

- 48,200 MW from rooftop photovoltaic systems). By 2030, the total capacity of solar power sources (including concentrated solar power and rooftop solar power, excluding solar power sources defined in Clause 5, Article 10 of the Electricity Law No. 61/2024/QH15) will reach 46,459 73,416 MW; with an orientation towards 2050, the total capacity will be 293,088 295,646 MW.
- + To prioritize and promote the development of types of biomass-fueled electricity and electricity generated from garbage and solid wastes in order to make the exhaustive use of agro-forestry and wood processing by-products, thereby promoting forestation and environmental treatment in Vietnam. By 2030, the total capacity of biomass power sources will reach approximately 1,523 2,699 MW; the capacity of electricity generated from garbage and solid wastes will reach approximately 1,441 2,137 MW; the capacity of geothermal power and other new energy will be about 45 MW. Towards 2050, the total capacity of biomass power will be approximately 4,829 6,960 MW; the capacity of electricity generated from garbage and solid wastes will be approximately 1,784 2,137 MW; the capacity of geothermal power and other new energy will be approximately 464 MW.
- (ii) To bring into the fullest play the economic and technical potential of hydropower sources (Vietnam's total maximum hydropower potential is around 40,000 MW) on the basis of protecting the environment and forests and ensuring the watercourse security; to selectively expand the existing hydropower plants in order to have a contingency capacity; to generate hydroelectricity on hydraulic and storage reservoirs. By 2030, the total capacity of hydropower sources, including also small-sized hydropower plants, will reach 33,294 34,667, by 2050, the total capacity will reach 40,624 MW.

### (iii) Storage electricity sources

- To develop pumped hydropower storage (PHS) plants with a total capacity of around 2,400 6,000 MW and 20,691 21,327 MW by 2030 and by 2050, respectively, in order to regulate the load, provide a contingency capacity and help integrate large-scale renewable energy sources.
- To develop storage batteries to serve the needs of the system and in combination with renewable energy, arranged in a distributed manner close to wind power and solar power source centers or on the power system at load centers. By 2030, the projected total capacity of this source will be around 10,000 16,300 MW; by 2050, the capacity of storage batteries will reach 95,983 96,120 MW to align with the high proportion of renewable energy.
- (iv) To prioritize and promote the development of combined heat and power (CHP) plants and plants operated by unused heat, furnace air and byproducts of technological lines in industrial establishments.
  - (v) To develop nuclear power sources in accordance with the orientation

approved by the National Assembly in Resolution No. 174/2024/QH15 dated November 30, 2024, Resolution No. 189/2025/QH15 dated February 19, 2025 on special mechanisms and policies for investment in the Ninh Thuan Nuclear Power Project, and Directive No. 01/CT-TTg dated January 03, 2025 of the Prime Minister. The Ninh Thuan 1&2 Nuclear Power Plants with a scale of 4,000 - 6,400 MW will be put into operation in the 2030 - 2035 period. By 2050, the system will need to add approximately 8,000 MW of nuclear power sources to provide base load power and may increase the capacity according to demand.

(vi) Coal-fired thermal power: To continue implementing only projects specified in the master plan and currently under construction through 2030. Subsequently, to use biomass and ammonia at reasonable costs instead of using fuels for plants that have operated for 20 years or more. To stop the operation of plants that have operated for over 40 years if it is impossible to change to new fuels.

By 2030, the total capacity of operating electricity plants and projects currently under construction and expected to be completed and put into operation will be around 31,055 MW; to expeditiously complete 5 projects with a total capacity of 4,360 MW currently under construction, namely Na Duong II, An Khanh-Bac Giang, Vung Ang 2, Quang Trach I, and Long Phu 1.

+ For the 3 projects/5,300 MW (Nam Dinh 1, Song Hau 2, Vinh Tan 3) that are facing difficulties in capital arrangement and changes in the investor structure, the Ministry of Industry and Trade will continue to exchange and negotiate with the investors to propose handling plans in accordance with regulations.

By 2050, not to use coal for electricity generation and totally shift to use biomass and ammonia, with a total capacity of 25,798 MW.

- (vii) Gas-fired thermal power: To prioritize the use of domestic gases for electricity generation; in case the output of domestic gases sees a decrease, natural gas or LNG will be imported to make up for the deficit; to develop LNG-fueled projects and synchronous infrastructure facilities for LNG import on an appropriate scale and with modern technologies; to follow the roadmap for shifting the use of fuel to hydrogen as soon as hydrogen-using technology is commercialized and costs become reasonable.
- + Domestic gas-fired thermal power: To concentrate efforts on accelerating the implementation of gas-fired power plants from Lot B and Blue Whale Lot, and 6,900 MW of downstream power projects closely following the progress of the upstream power projects: Plants of O Mon II, O Mon III and O Mon IV (with a total capacity of 3,150 MW), Mien Trung I and Mien Trung II and Dung Quat I, Dung Quat II and Dung Quat III (with a total capacity of

3,750 MW); to shift to use gas from Lot B for O Mon I plant (with a capacity of 660 MW); to implement the combined-cycle gas turbine plant of Quang Tri (with a capacity of 340 MW) using gas from Bao Vang mine.

In the southeastern region: To implement solutions and attach importance to building infrastructure facilities and studying domestic and regional connections to serve import of natural gases and LNG to ensure gas supply for Phu My, Ba Ria and Nhon Trach power plants.

In the southwestern region: To implement solutions and invest in building infrastructure facilities and studying domestic and regional connections to serve import of natural gases and LNG to ensure gas supply for power plants in Ca Mau.

By 2030, the total capacity of power plants using domestic gases will reach 10,861 - 14,930 MW. By 2050, around 7,900 MW will be generated using domestic gases or LNG, and 7,030 MW will be generated totally using hydrogen.

+ LNG-fueled thermal power: To develop LNG-fueled power sources appropriately if there are alternative solutions to reduce its dependence on imported fuels. By 2030, the total capacity of LNG-fueled electricity sources will reach 22,524 MW; for the 2031-2035 period, the approved Long An II and Long Son LNG-fueled electricity plant will be put into operation or their progress may be accelerated if conditions are favorable, some projects will be included in the reserve list for other projects that are behind schedule or if the load increases to accommodate the investment wave into Vietnam. By 2050, the total capacity of power plants using LNG co-fired with hydrogen will be 18,200 - 26,123 MW; LNG-fired power plants to fully use on hydrogen with the total capacity of 8,576 - 11,325 MW; LNG-fired power plants with CCS - Carbon Capture and Storage (newly built, equipped with carbon capture and storage), with the total capacity of 1,887 - 2,269 MW.

To continue implementing projects on building of warehouses and ports for LNG import in Thi Vai area (for supply of gas for Nhon Trach 3 and Nhon Trach 4 power plants and additional supply of gas for power plants in the southeastern region), and in Son My area (Son My I and Son My II power plants); to develop a complete system of LNG import warehouses and ports compatible with power plants under the Master Plan.

- (viii) Flexible electricity sources: To invest in developing flexible electricity sources for regulating the load and maintaining the stability of the electricity system for absorbing large-scale renewable energy-powered electricity sources. By 2030 and 2050, the total expected capacity of these sources will reach 2,000 3,000 MW and 21,333 38,641 MW, respectively.
  - Electricity import and export: To make efficient electricity connections

and exchanges with the regional countries, guaranteeing interests of stakeholders and enhancing the electricity system's safety; to boost import of electricity from the ASEAN and Greater Mekong Sub-region (GMS) countries that have great hydropower potential; to pay attention to investing in and exploiting overseas electricity sources for supply of electricity to Vietnam. By 2030, to import around 9,360 - 12,100 MW from Laos under the Agreement between the two Governments and to take advantage of import capacity suitable to the grid connection conditions from China at a reasonable scale; with an orientation towards 2050, to import approximately 14,688 MW. If conditions are favorable and the cost is reasonable, the electricity capacity for import from Laos to the Northern region may be increased or the import time can be accelerated.

To prioritize the development of power sources from renewable energy for export. By 2030, to increase the electricity export capacity to Cambodia to approximately 400 MW. By 2035, the total electricity capacity for export to Singapore, Malaysia and other partners in the region will reach 5,000-10,000 MW and maintain at 10,000 MW by 2050, which may be higher depending on the importing party's demand, on the basis of high economic efficiency and ensuring domestic energy security and national defense.

In the process of administering the Power Development Master Plan, the Ministry of Industry and Trade shall regularly review and report to the Prime Minister on the development status of power source types to promptly propose adjustments to the master plan and the power development program in accordance with the actual implementation situation.

- c) Structure of electricity sources
- (i) By 2030:

The total capacity of power plants to meet the domestic demand will be 183,291 - 236,363 MW (excluding the capacity for export), in which:

Onshore and nearshore wind power capacity will reach 26,066 - 38,029 MW (14.2 - 16.1% of the total capacity);

Offshore wind power capacity will reach 6,000 - 17,032 MW, which is put into operation for the 2030 - 2035 period, their progress may be accelerated in case of favorable conditions and reasonable cost;

Solar power sources (including concentrated solar power and rooftop solar power, excluding solar power sources defined in Clause 5, Article 10 of the Electricity Law No. 61/2024/QH15) will reach 46,459 - 73,416 MW, 25.3 - 31.1% of the total capacity;

The biomass and garbage-fueled electricity capacity will be 1,523 - 2,699 MW, and 1,441 - 2,137 MW, respectively; the capacity of geothermal power

and other new energy will reach 45 MW; which may be developed on a larger scale if material sources are sufficient, land use efficiency is high, environmental treatment and power grid infrastructure conditions permit, and electricity prices and transmission costs are reasonable;

Hydropower capacity will reach 33,294 - 34,667 MW (14.7 - 18.2% of the total capacity), which may be developed on a larger scale if environmental protection, forest protection, and water source security are ensured;

Nuclear power capacity will reach 4,000 - 6,400 MW, which is put into operation for the 2030 - 2035 period, their progress may be accelerated if conditions are favorable;

+ Storage electricity capacity: 10,000-16,300 MW (5.5-6.9% of the total capacity);

Coal-fired thermal power capacity: 31,055 MW (13.1 - 16.9% of the total capacity);

Domestic gas-fired thermal power capacity: 10,861 - 14,930 MW (5.9 - 6.3% of the total capacity);

LNG-fueled thermal power capacity: 22,524 MW (9.5 - 12.3% of the total capacity);

Capacity of flexible power sources (thermal power using LNG, oil, hydrogen... with high operational flexibility): 2,000 - 3,000 MW (1.1 - 1.3% of the total capacity);

PHS capacity: 2,400 - 6,000 MW;

Imported electricity capacity: 9,360 - 12,100 MW from Laos and China (4.0 - 5.1% of the total capacity, maximizing the imported electricity capacity from Laos according to the Agreement between the two Governments or accelerating the time of electricity imports from Laos to the Northern region if conditions are favorable).

For coal-fired power projects that are facing difficulties in their implementation, borrowing capital, and changes in shareholders, the treatment process shall be updated for adjust the structure of wind power, solar power, and biomass-fueled electricity sources to suit the demand.

Regarding participation in direct power purchase agreements (DPPA) and new energy production: According to statistics, the current number of large customers consuming 1 million kWh/year or more accounts for about 25% of the total electricity output of the entire system (with approximately over 1,500 customers).

By 2030, the electricity export capacity to Cambodia will be increased to approximately 400 MW. By 2035, the total electricity capacity for export to

Singapore, Malaysia and other partners in the region will reach 5,000-10,000 MW, which may be higher depending on the importing party's demand, on the basis of high economic efficiency and ensuring domestic energy security and national defense.

#### (ii) Orientations toward 2050:

The total capacity of power plants to meet the domestic demand will be 774,503 - 838,681 MW (excluding the capacity for export), in which:

Onshore and nearshore wind power capacity will reach 84,696 - 91,400 MW (10.9% of the total capacity);

Offshore wind power capacity will reach 113,503-139,097 MW (14.7-16.6% of the total capacity);

The capacity of solar power sources (including concentrated solar power and rooftop solar power) will reach 293,088 -295,646 (35.3 - 37.8% of the total capacity);

The capacity of biomass power will be 4,829 - 6,960 MW, the capacity of electricity generated from garbage will be 1,784 -2,137 MW, the capacity of geothermal power and other new energy will be approximately 464 MW;

Nuclear power capacity will reach 10,500-14,000 MW (1.4 - 1.7% of the total capacity);

Hydropower capacity will reach 40,624 MW (4.8 - 5.2% of the total capacity);

Storage electricity capacity: 95,983 - 96,120 MW (11.5-12.4% of the total capacity);

Coal-fired thermal power capacity: 0 MW; coal will no longer be used for electricity generation;

Biomass or ammonia-fueled electricity capacity will reach 25,798 MW (3.1 - 3.3% of the total capacity);

Domestic gas-fired and LNG-fueled thermal power capacity: 7,900 MW (0.9 -1.0% of the total capacity);

Capacity of totally hydrogen-fueled thermal power converted from domestic gas-fired thermal power: 7,030 MW (0.8 - 0.9% of the total capacity);

The capacity of LNG-fired power with CCS - Carbon Capture and Storage (newly built, equipped with carbon capture and storage) will be 1,887 - 2,269 MW (0.2 - 0.3% of the total capacity);

Mixed LNG and hydrogen-fueled thermal power capacity: 18,200 - 26,123 MW (2.3 -3.1% of the total capacity);

Capacity of totally hydrogen-fueled thermal power converted from LNG-

fueled thermal power: 8,576 - 11,325 MW (1.1 - 1.4% of the total capacity);

+ Capacity of flexible electricity sources: 21,333 - 38,641 MW (2.8-4.6% of the total capacity);

PHS capacity: 20,691 - 21,327 MW;

Imported electricity capacity of 14,688 MW from Laos and China (1.8 - 1.9% of the total capacity), the electricity capacity for import from Laos to the Northern region may be increased or the import time can be accelerated.

Regarding participation in direct power purchase agreements (DPPA) and new energy production, it will account for about 30 - 60% of the total electricity output generated from renewable energy, or higher depending on market development conditions.

The total electricity capacity for export to Singapore, Malaysia and other partners in the region will be maintained at around 10,000 MW, which may be higher depending on the importing party's demand, on the basis of high economic efficiency and ensuring domestic energy security and national defense.

- 2. Plans on development of power grids
- a) Development orientations
- To develop the electricity transmission system in synchrony with the development of electricity sources and load development needs of localities, using modern technologies up to international standards and getting ready for regional connections; to develop smart grids for integrating large-scale renewable energy sources to meet requirements of safe, stable and economical operation of the power system.
- To develop the 500 kV and 220 kV transmission grids to facilitate the release of capacity of power plants, improve the reliability of electricity supply, reduce the electricity loss and satisfy N-1 criterion for important load areas and N-2 criterion for particularly important load areas and nuclear power sources; to develop transmission grids with long-term backups and intensify the use of multiple-circuit and multiple-voltage poles to reduce land occupancy; to promote the building of transformer stations for transmission and supply of electricity for adjacent load areas.
- To consider the 500 kV transmission grid as the backbone of the interconnected regional electricity systems and for the electricity exchange with regional countries; to keep the inter-regional electricity transmission limit at a reasonable level, reduce long-distance electricity transmission and minimize the building of new inter-regional transmission lines before 2030.
  - To build the reliable 220 kV transmission grid and transformer stations

in areas with a high load intensity designed according to diagrams for flexible operation; to build 220 kV transformer stations capable of automatically operating; to accelerate the building of GIS and 220/22 kV transformer stations and underground stations at load centers.

- To apply the back-to-back system and flexible electricity transmission equipment in order to raise the transmission capacity and reduce the land occupancy; to research and apply technologies for alternating and direct current transmission at a voltage of over  $500 \, \mathrm{kV}$ .
- For the after-2030 period, to develop ultra-high voltage direct-current electricity transmission lines connecting the central and south areas of Central Vietnam and the North for tapping the offshore wind power potential; to study the trans-Asia-Pacific connections.
- To research and apply new technologies and smart grid solutions such as High Voltage Direct Current (HVDC), Static Var Compensator (SVC), Static Var Generator (SVG), devices of lexible AC Transmission Systems (FACTS), Battery Energy Storage System (BESS), and Dynamic Line Rating (DLR) in accordance with system needs to meet technical requirements and enhance operational efficiency.

# b) Electricity transmission grid building volumes

- During the 2021-2030 period: To build 500 kV transformer stations with a total output of 102,900 MVA and renovate the existing ones with a total output of 23,250 MVA; to build 12,944 km of 500 kV transmission lines and renovate 1,404 km of the existing ones; to build 220 kV transformer stations with a total output of 105,565 MVA and renovate the existing ones with a total output of 17,509 MVA; to build 15,307 km of 220 kV transmission lines and renovate 5,483 km of the existing ones.
- Orientations for the 2031-2035 period: To build high-voltage direct current (HVDC) transformer stations with a total output of 26,000 36,000 MW and 3,500 6,600 km of HVDC transmission lines. To build 500 kV transformer stations with a total output of 73,800 MVA and renovate the existing ones with a total output of 36,600 MVA; to build 7,480 km of 500 kV transmission lines and renovate 650 km of the existing ones; to build 220 kV transformer stations with a total output of 44,500 MVA and renovate the existing ones with a total output of 34,625 MVA; to build 4,296 km of 220 kV transmission lines and renovate 624 km of the existing ones.
- Orientations for the 2036-2050 period: To build high-voltage direct current (HVDC) transformer stations with a total output of 26,000 36,000 MW and 3,600 6,700 km of HVDC transmission lines; to build high-voltage alternating current (HVAC) transformer stations at voltages above 500 kV with a total output of 24,000 MVA, and 2,500 km of HVAC transmission lines at

voltages above 500 kV; to build 500 kV transformer stations with a total output of 72,900 MVA and renovate the existing ones with a total output of 102,600 MVA; to build 7,846 km of 500 kV transmission lines and renovate 750 km of the existing ones; to build 220 kV transformer stations with a total output of 81,875 MVA and renovate the existing ones with a total output of 103,125 MVA; to build 5,370 km of 220 kV transmission lines and renovate 830 km of the existing ones.

The volume of electricity grids is indicative for development space allocation, estimation of land use demand for power development, and serving as a basis for updates in provincial master plans and relevant technical and specialized master plans. Detailed parameters regarding capacity, scale, transformer station locations, length, cross-section, and number of circuit lines for connection will be determined during the project preparation phase.

# 3. Connection of electricity grids with the regional countries

- To continue studying cooperation and connection of electricity grids with the Greater Mekong Sub-region's countries and ASEAN countries at the voltages of 500 kV and 220 kV in order to enhance the system connectivity and electricity exchange and bring into full play the advantages of natural resources of these countries.
- To make electricity grid connections with Laos via 500~kV and 220~kV lines for import of electricity from power plants in Laos according to the signed treaties and memoranda of understanding on cooperation between the two Governments.
- To maintain electricity grid connections with the neighboring countries via the existing 220 kV and 110 kV lines and medium-voltage lines; to study implementing the solution of asynchronous grid interconnection among electricity systems via direct current/alternating current transformer stations at the voltages of  $220 \, \text{kV-}500 \, \text{kV}$ .
- To perform electricity grid connections using 500 kV and 220 kV transmission lines to import electricity from China to the Northern provinces in the period up to 2030, including research on interconnection options in the form of direct current alternating current conversion or ultra-high voltage direct current.
- To research and apply ultra-high voltage electricity grid connections with countries in the ASEAN region for electricity import and export. Specific plans will be approved by the competent authorities on a per-project basis.

# 4. Orientations for rural electricity development

To formulate the Program on electricity supply to rural and mountainous areas and islands so as to supply electricity to households not yet accessible to

electricity and renovate the existing rural electricity grids; to supply electricity from the national power grid in combination with supply of electricity from renewable energy sources for rural and mountainous areas and islands; to strive for the target that by 2025 all rural households will have access to electricity.

- 5. Orientations for development of the renewable energy industry and service ecosystem
- By 2030, to form 2 inter-regional renewable energy industry and service centers in regions with great potential such as the North, the south Central Vietnam and the South when conditions permit.
- Inter-regional renewable energy industry and service centers are projected to include renewable energy-powered power plants of a capacity of between 2,000 MW and 4,000 MW (mainly offshore wind power); plants manufacturing renewable energy equipment and equipment for generation of new energies; equipment and vehicles for transportation, building and installation of renewable energy equipment; auxiliary services; green and low-carbon industrial parks; and renewable energy research centers and training institutions.

### 6. Investment capital demand

- For the 2026 2030 period: The total investment capital for development of electricity sources and transmission grids is estimated at USD 136.3 billion, in which investment capital for electricity sources will be around USD 118.2 billion and that for electricity transmission grids will be around USD 18.1 billion.
- Orientations for the 2031-2035 period: The demand for investment capital for development of electricity sources and transmission grids is estimated at USD 130.0 billion, in which investment capital for electricity sources will be USD 114.1 billion and that for electricity transmission grids will be USD 15.9 billion, which shall be accurately calculated in subsequent master plans.
- Orientations for the 2036-2050 period: The demand for investment capital for development of electricity sources and transmission grids is estimated at USD 569.1 billion, in which investment capital for electricity sources will be USD 541.2 billion and that for electricity transmission grids will be USD 27.9 billion, which shall be accurately calculated in subsequent master plans.
- IV. ORIENTATIONS FOR LAND USE ALLOCATION FOR DEVELOPMENT OF ELECTRICITY WORKS AND ENVIRONMENTAL PROTECTION, CLIMATE CHANGE RESPONSE AND ECOLOGICAL, LANDSCAPE AND RELIC CONSERVATION ACTIVITIES

## 1. Land use allocation for electricity development

The land demand for development of electricity establishments and infrastructure facilities will be 89.9 - 93.36 thousand ha for the 2021-2030 period and around 169.8 - 195.15 thousand ha for the 2031-2050 period, in conformity with the land allocation criteria defined in Resolution No. 39/2021/QH15, in order to achieve the electricity development objectives.

2. Environmental protection, climate change response and ecological, landscape and relic conservation activities

To carry out energy transition from fossil fuels to renewable energies and new energies in order to reduce polluting gas and greenhouse gas emissions, thereby achieving the goal of net-zero emissions by 2050.

To apply new and modern technologies in the direction of transition to a low-carbon economy, reduction of energy consumption and emissions and satisfaction of requirements on carbon emissions per export product unit and the carbon market.

To avoid and limit to the utmost the development of energy works and energy infrastructure facilities in locations that are likely to exert adverse impacts on forests, nature and biodiversity reserves, natural heritages, and ranked cultural relics and heritages.

To take into account solutions to combat climate change and respond to such extreme weather events as drought, water inundation, storms, floods, landslides, heat waves, heavy precipitation, sea level rise, etc., in the course of implementation of electricity projects so as to ensure their safe and stable operation and minimize risks and damage.

# V. LISTS OF EXPECTED NATIONAL IMPORTANT PROJECTS, PRIORITY PROJECTS OF THE ELECTRICITY SECTOR AND PRIORITY ORDER FOR IMPLEMENTATION

1. Criteria and scientific grounds for formulation of the lists of expected national important projects, priority projects of the electricity sector.

The lists of expected national important projects, priority projects of the electricity sector shall be formulated based on the following criteria and scientific grounds:

- Projects that play an important role in balancing national and regional power supply and demand, and important load centers in order to assure power supply security and meet socio-economic development needs.
- Projects that assure national defense and security; projects that assure general economic benefits associated with national defense and security.
  - Projects that increase the supply of electricity to areas prone to

electricity shortage.

- Projects that assure the national electricity system safety and security among base-load electricity sources, renewable energy-powered electricity sources, and loads (PHS, energy storage batteries, etc.).
- Projects that contribute to climate change adaptation, reduction of greenhouse gas emissions, and environmental protection (electricity generated from renewable energy, biomass, waste, solid waste, CHP generation, excessive gas utilization, etc.) for fulfilling climate commitments.
- Projects that contribute to creating a comprehensive renewable energy industry and service ecosystem.
- Projects that export electricity and new energies generated from renewable energies.
  - 500 kV and 220 kV electricity grid projects.
- 2. The list of expected national important projects, priority projects of the electricity sector.

The list of expected national important projects, priority projects of the electricity sector are provided in Appendices I and III to this Decision.

# VI. SOLUTIONS AND RESOURCES FOR IMPLEMENTATION OF THE MASTER PLAN

- 1. Solutions to ensure the electricity supply security
- To diversify fuel sources used for electricity generation, and harmoniously combine domestic and imported primary energy sources.
- To intensify prospection and exploration so as to increase domestic coal and oil and gas exploitation output for electricity generation in order to reduce dependence on imported fuels.
- To invest in technical infrastructure facilities for import of natural gases, LNG and coal based on the structure of thermal power sources and the energy transition trend.
- To strongly develop renewable energy sources in order to replace fossil fuels; to promptly update global scientific and technological advances for use of new energy sources (hydrogen, ammonia, etc.) for electricity generation.
- To research and apply technologies for conversion of power plants fired by coal and gases into those using biomass, ammonia, hydrogen.
- To organize study and evaluation of potential of non-conventional energy sources.
- 2. Solutions to create capital sources and mobilize investment capital for electricity sector development

- To study and improve financial mechanisms and mobilize capital for investment in the electricity sector development.
- To diversify capital sources and forms of capital mobilization, and efficiently attract domestic and foreign funding sources for electricity development, thereby assuring national defense, security, and competitiveness in the electricity market; to call for, and efficiently use, international support (JETP, AZEC, etc.), green credits, climate credits, green bonds, etc.
- To diversify investment forms (public, private, public-private partnership, etc.) in electricity projects; to promote the role of state enterprises and strongly attract domestic and foreign sole proprietorships to invest in electricity development; to continue negotiating with, efficiently using donation sources and channeling funds provided by, international partners in the course of implementing Vietnam's energy transition toward net zero emissions.
- To create a favorable and transparent environment to attract and encourage private sector to invest in and develop electricity projects.
- To gradually increase enterprises' capacity to mobilize financial sources for the electricity sector at the request of domestic and international financial institutions.

### 3. Law and policy solutions

- To improve the mechanism for administering electricity prices based on the State-regulated market mechanism, ensuring a harmonious combination of the State's politico-socio-economic objectives and electricity enterprises' production and business targets and financial autonomy; Ensure that the electricity prices help recover costs, generate reasonable profits, attract investment in electricity development, facilitate competition in electricity generation, transmission, distribution, retail and use, and prevent electricity waste; to continue to renovate and complete the existing electricity tariff; to study the application of two-part electricity prices at a proper time; to continue to ensure the transparency of electricity prices.
- To revise the Law on Economical and Efficient Use of Energy to drastically reduce the energy use intensity of the economy; to promulgate sanctions and mandatory standards and technical regulations on efficient energy use, contributing to the renewal of the economic growth model.
- To formulate mechanisms and policies to encourage domestic enterprises to participate in the development of renewable energies, renewable energy and new energy industry for domestic use and export, and the electrical equipment manufacturing industry.
- To formulate policies to raise the electricity sector's localization rate in order to increase its self-reliance and reduce costs.

- To review the legal system and legal documents to formulate a plan for building and completing the legal ground for nuclear power development. To build a roadmap for establishing a system of law regulations to ensure nuclear safety.
- 4. Environmental protection and natural disaster prevention and control solutions
- To carry out energy transition, focusing on transition from fossil fuels to renewable and new energies; to improve carbon absorption tanks and research the application of carbon sequestration technology.
- To study, apply and develop technologies for treatment of wastes, particularly those from the renewable energy-powered electricity on the principles of reducing, recovering, reusing and recycling so as to minimize waste volumes and utilize discarded materials as materials for other economic sectors.
- To implement solutions to prevent and control disasters and respond to climate change and extreme weather phenomena right from the stage of selecting project locations, work engineering and construction to production operation.
- To limit the development of electrical works and infrastructure facilities in locations that are likely to affect natural forests, nature reserves, biodiversity, natural heritages and ranked relics and cultural heritages in conformity with the zoning of national environmental protection areas.
  - 5. Scientific and technological solutions
- To invest in establishment of centers for fundamental research and development of renewable energies, new energies, and carbon sequestration technology in Vietnam in order to increase the technological level, technology transfer, absorption and governance in order to accelerate and expand the scale of the renewable energy generation and manage the clean electricity system in Vietnam and the region.
  - To invest in electricity research and development (R&D).
- To apply modern technologies to new electrical works; to step by step upgrade and renovate existing works.
- To renovate and upgrade the electricity transmission and distribution system in order to improve its reliability and reduce electricity loss; to speed up the building of smart electricity grids.
- To modernize information and data systems, automation and control systems that serve the load dispatch and operation of power systems and the electricity market; to access new scientific and technological achievements,

artificial intelligence, and the Internet of Things (IoT), including digital transformation in the electricity sector.

- To step by step implement measures to promote or compel the renovation of technologies and equipment of electricity-intensive economic sectors.
- To successfully implement Resolution No. 57-NQ/TW dated December 22, 2024, of the Political Bureau on breakthrough development of science, technology, innovation, and national digital transformation.
- To consolidate the technical support infrastructure and the national scientific and technological potential for the general development and ensuring nuclear safety and security for nuclear power.
  - 6. Solutions on economical and efficient use of electricity
- To raise the awareness about economical and efficient use of electricity and environmental protection which is an important national policy and the entire society's responsibility as stated in the Political Bureau's Resolution No. 55-NQ/TW dated February 11, 2020.
- To promote investment and use of energy-efficient technologies and equipment; to intensify energy audit; to step up the application of energy service company model.
- To apply mandatory standards and technical regulations together with sanctions for electricity-intensive fields and sectors regarding the efficient use of electricity.
- To speed up the implementation of demand-side management (DSM) programs and programs on energy efficiency and conservation.
  - 7. Human resource development solutions
- To develop high-quality human resources, especially in electricity generation, transmission, distribution, load dispatch, electricity market and smart electricity grid, etc.
- To build a contingent of highly skilled experts and scientists in the electricity sector; to build units with electricity science and technology strength.
- To provide training and retraining for technicians and managers of the electricity sector up to standards of the region and the world.
- To renew training programs and contents, diversify human resource training methods, and combine training with the production reality so that workers are qualified for the operation of large-scale electricity systems with a high proportion of renewable energy sources and application of smart grid technology.

### 8. International cooperation solutions

- To actively and efficiently implement the contents of the Political Declaration on Establishing the Just Energy Transition Partnership (JETP) with international partners, making the best use of international partners' support in technology transfer, governance, human resource training and financing, considering JETP an important solution for energy transition in Vietnam.
- To implement flexible, efficient, equitable and mutually beneficial external policies on energy and climate; to expand and deepen energy cooperation relations with strategic and important partners.
- To promote cooperation in research and deployment of power grid connectivity with the neighboring countries, Southeast Asian nations and Greater Mekong Sub-region (GMS) countries.
- To expand international cooperation on scientific research and technological development for the electricity sector, taking advantage of technology and capital transfer from foreign partners.
- 9. Solutions to raise the domestic capacity, localize the electricity sector's equipment, and build and develop the electrical mechanical engineering
- To establish renewable energy industry centers, and create a complete renewable energy industry ecosystem associated with the manufacturing and auxiliary service provision and industrial parks.
- To focus on developing industries that manufacture renewable energy equipment, electricity storage equipment, and carbon sequestration, storage and use technologies, etc. in the country in order to take the initiative in exploiting the country's potential, increasing the electricity sector's independence and autonomy and reducing renewable energy-powered electricity generation costs.
- To encourage domestic enterprises to implement complex and hi-tech electricity projects; to increase the capability for project engineering, procurement, management and operation of domestic enterprises to be able to act as general contractors of large-scale electricity projects.
- To raise the domestic equipment designing and manufacturing capacity in order to increase the proportion of domestic equipment in electricity source and grid works; to raise the domestic electrical equipment repair, maintenance and inspection capacity.
- 10. Solutions to organize the management and raise the efficiency of electricity operations
- To vigorously renew the management of the electricity sector toward openness, transparency, competitiveness, efficiency, higher labor productivity and lower costs in all stages in conformity with the socialist-oriented market

economy institutions.

- To restructure the electricity sector in accordance with the approved roadmap for building a competitive electricity market.
- To renovate and raise the efficiency of state enterprises in the electricity sector, apply advanced governance models and practices, improve international credit ratings, and ensure the operation publicity and transparency of these enterprises.
- 11. Solutions to organize and monitor the implementation of the Master Plan
- To develop the electricity sector's database that contains data on the Master Plan and the implementation of the Master Plan to serve as a basis for monitoring the implementation of the Master Plan; to regularly review national and local load development and progress of the building of electricity source and grid works so as to propose solutions to adjust the electricity source structure and building schedule when necessary, thereby ensuring electricity supply-demand for the economy.
- To stricly manage the development of self-generation and self-consumption electricity sources, CHP generation sources, electricity generation using excessive heat, blast furnace gases, by-products of technological chains in industrial establishments, rooftop solar power sources and other electricity sources under DPPAs between electricity generation units and electricity purchasers.
- To formulate and apply institutions of discipline and compliance for organizing the implementation of the Adjustment of Master Plan VIII which are applicable to project owners, ministries, sectors and localities.

## **Article 2. Implementation organization**

- 1. The Ministry of Industry and Trade shall:
- Take responsibility for the accuracy of data, documents, diagrams, maps and databases in the Master Plan dossier, ensuring their consistency with this Decision.
- Announce the Master Plan under regulations and implement this Decision in association with the performance of socio-economic development tasks in accordance with law regulations;
- Formulate a plan to implement the Master Plan according to regulations in order to fulfill objectives and tasks set forth in the Master Plan; evaluate the implementation of the Master Plan in accordance with the Planning Law.
- Regularly inspect and supervise the implementation of power source and grid projects to propose solutions to ensure progress according to the

approved master plan, and to handle delays within their competence and regulations.

- Formulate and promulgate a suitable and effective power generation price framework for various types of power sources, ensuring flexibility, harmonious benefits, and shared risks.

#### 2. Ministries and sectors shall:

Perform their functions, tasks and powers in order to implement projects under the Adjustment of Master Plan VIII on schedule; propose mechanisms, policies and solutions to address problems for efficiently achieving the objectives set forth in the Master Plan, ensuring consistency with socioeconomic development objectives of sectors and localities.

- 3. People's Committees of provinces and centrally-run cities shall:
- Take responsibility for the list of proposed projects, the priority order of the projects, and the accuracy and rationality of the grid connection schemes for power sources according to the proposed documents.
- Direct relevant departments and sectors to update the list of power sources and grids identified in this master plan into the provincial master plans and other technical and specialized master plans such as construction planning, urban planning, rural planning, and provincial- and district-level land-use master plans to organize space as a basis for implementation of the investment in construction of power projects.
- To review the adjustment and update in the provincial master plans and the plans for implementation of the provincial master plan in accordance with the law on planning and electricity (if there is any conflict with this master plan), clearly defining the scope of power sources and grids in the power supply plan as defined in Article 4 and Clause 1, Article 24 of Decree No. 56/2025/ND-CP dated March 03, 2025, of the Government detailing a number of articles of the Electricity Law on electricity development master plan, electricity supply network development plan, investment in construction of electricity projects and bidding for selection of investors for electricity business investment projects, ensuring consistency with the contents and scale of additional capacity allocation for localities in the Master Plan VIII and the Adjustment of Master Plan VIII, and compliance with the list and priority order already proposed to the Ministry of Industry and Trade.
- Organize the selection of project owners for electricity projects according to their competence; arrange land areas for electricity works in accordance with law regulations; assume the prime responsibility for, and closely coordinate with project owners in, carrying out land clearance, compensation, population relocation and resettlement for electricity source and grid projects under regulations.

- Direct and supervise project owners to implement electricity source and grid projects in the locality according to the schedule, ensuring that projects are put into operation in accordance with the scheduled phases of the master plan.
  - 4. The Vietnam Electricity (EVN) Group shall:
- Play the leading role in securing stable and safe electricity supply for socio-economic development; invest in electricity source and transmission grid projects according to its assigned tasks.
- Regularly review and evaluate the electricity supply and demand balance, the operation of national and regional electricity systems, and report thereon to competent authorities.
- Thoroughly implement solutions to renovate corporate governance, raise the production and business efficiency, increase labor productivity, reduce electricity loss and electricity generation costs and electricity prices.
  - Implement electricity source and grid projects on schedule.
  - 5. The Vietnam National Industry Energy Group shall:
- Intensify prospecting, exploration and exploitation of domestic gas sources for electricity generation to meet the electricity load demand; efficiently and promptly operate gas fields of Block B, Blue Whale and Ken Bau under approved schedules.
- Implement solutions to build infrastructure facilities of warehouses and ports, and connect the domestic and regional gas systems to serve the import of natural gases and LNG in order to ensure gas supply for electricity plants.
  - Implement electricity source and grid projects on schedule.
- 6. The Vietnam National Coal and Mineral Industries Holding Corporation Limited and Dong Bac Corporation shall:
- Play a key role in ensuring coal supply for electricity generation in accordance with the energy transition roadmap, and raise the domestic coal production capacity in the immediate future in association with coal import to supply sufficient fuels for electricity plants.
- Invest in electricity source and grid projects according to its assigned tasks.

**Article 3.** This Decision takes effect on the signing date and replaces the Decision No. 500/QD-TTg dated May 15, 2023 of the Prime Minister. Power projects included in the power development master plan and the plan for implementation of the power development master plan in Decision No. 500/QD-TTg dated May 15, 2023, Decision No. 262/QD-TTg dated April 01, 2024, Decision No. 1682/QD-TTg dated December 28, 2024, or power projects for which the competent authority has approved the policy on electricity import

shall continue to be implemented according to the approved master plan or electricity import policy.

**Article 4.** Ministers, heads of ministerial-level agencies, heads of government-attached agencies, chairpersons of People's Committees of provinces and centrally-run cities, chairpersons of Members' Councils and Chief Executive Officers of the Vietnam Electricity, Vietnam National Industry - Energy Group, and Vietnam National Coal and Mineral Industries Holding Corporation Limited; and the President and Chief Executive Officer of the Dong Bac Corporation and related agencies shall implement this Decision.

FOR THE PRIME MINISTER DEPUTY PRIME MINISTER

**Bui Thanh Son** 

### **Appendix I**

# LIST OF PRIORITY SCHEMES/PROJECTS ON COMPLETING POLICIES AND LAWS, AND STRENGTHENING THE CAPACITY OF THE ELECTRICITY SECTOR

(Attached to the Decision No. 768/QD-TTg dated April 15, 2025 of the Prime Minister)

- 1. Schemes/projects on building and completing policies and laws.
- 2. Schemes/projects on strengthening scientific and technological capacity and establishing fundamental research centers and development centers, including:
- Center for research in renewable energy and new energy science and technology;
  - Center for energy and climate change research;
  - Center for nuclear power research and development;
- Research on the scheme for establishing inter-regional renewable energy industry and service centers.
- 3. Scheme/project on training and improving the quality of human resources.

\* Other Appendices are not translated herein.