

MINISTRY OF INDUSTRY AND TRADE
ELECTRICITY DEPARTMENT

**VIETNAM'S STRATEGY FOR THE DEVELOPMENT
OF RENEWABLE ENERGY BY 2030, VISION 2050**

**REPORT ON THE IMPLEMENTATION STATUS
FOR 2025**

Hanoi, January 2026

Pursuant to Decision No. 2068/QĐ-TTg, dated 25 November 2015, of the Prime Minister approving the Strategy for the Development of Renewable Energy in Vietnam by 2030, with a vision to 2050, the following strategic objectives have been set: “To increase electricity generation from renewable energy from approximately 58 billion kWh in 2015 to approximately 101 billion kWh by 2020, approximately 186 billion kWh by 2030, and approximately 452 billion kWh by 2050. The proportion of electricity generated from renewable energy sources in the country’s total electricity production will increase from approximately 35% in 2015 to approximately 38% by 2020; reaching approximately 32% by 2030 and approximately 43% by 2050”.

According to Resolution No. 55-NQ/TW of the Politburo, “The share of renewable energy sources in total primary energy supply is expected to reach approximately 15–20% by 2030; 25–30% by 2045”.

According to Resolution No. 70-NQ/TW of the Politburo, “The share of renewable energy in total primary energy supply is approximately 25–30%”.

According to the Revised Power Development Plan VIII, approved by Decision No. 768/QĐ-TTg dated 15 April 2025, the development strategy has been established as follows:

- + Maximise the development of electricity from renewable energy sources (wind power, solar power, biomass power, etc.), and continue to increase the share of renewable energy in the electricity generation mix and total electricity production.

- + By 2030, the total capacity of onshore and nearshore wind power will reach 26,066–38,029 MW.

- + The total offshore wind power capacity to meet domestic electricity demand will reach approximately 6,000–17,032 MW, with operations expected to commence between 2030 and 2035.

- + By 2030, the total capacity of solar power sources (including concentrated solar power and rooftop solar power, excluding solar power sources under Clause 5 of Article 10 of the Electricity Law No. 61/2024/QH15) will reach 46,459–73,416 MW.

- + By 2030, the total capacity of biomass power sources will be approximately 1,523–2,699 MW; electricity generated from waste and solid waste will be approximately 1,441–2,137 MW; and geothermal and other new energy sources will be approximately 45 MW.

- + By 2030, the total capacity of hydropower sources, including small hydropower, will reach 33,294–34,667 MW.

The strategy clearly stipulates that electricity utilities are responsible for purchasing all electricity generated from grid-connected renewable energy sources within the areas under their management.

The costs of purchasing electricity from power generation projects using renewable energy sources are included in the electricity production costs of the power utility and are fully calculated and incorporated into the retail electricity price structure, with costs recovered through electricity sales revenue. Electricity projects using renewable energy sources to generate electricity are given priority for connection to the national power grid. Reasonable connection costs and other related costs incurred by grid operators (transmission and distribution entities) arising from the purchase of electricity generated from renewable energy sources shall be included in the transmission and distribution costs of the grid operator.

Electricity prices shall be determined in accordance with the conditions of different regions and the characteristics of power generation technologies from various renewable energy sources, in accordance with the principle of promoting the development and use of renewable energy, whilst ensuring that investors recover their costs and achieve a reasonable profit.

Regarding independent power systems utilising independent power sources to generate electricity from renewable energy sources, the project investor shall prepare a tariff proposal and determine the total level of support from the state budget, submitting it to the relevant ministries for review and reporting to the Prime Minister for approval. The total level of support shall be drawn from the Sustainable Energy Development Fund.

Projects for the development and use of renewable energy sources shall be exempt from import duties on goods imported to form fixed assets for the project; goods imported as raw materials, supplies, and semi-finished products not yet produced domestically, imported to serve the project's production in accordance with current laws on export and import duties; and are eligible for corporate income tax exemptions or reductions in the same manner as projects in the investment incentive sector under current laws. Regarding land, projects will be exempted from or granted reductions in land use fees and land rental charges in accordance with current laws applicable to projects in the investment incentive sector.

In the coming period, to develop renewable energy, Vietnam genuinely needs to encourage and mobilise all available resources from society and the public to enhance access to modern, reliable energy sources at reasonable prices. We will intensify the development and use of renewable energy sources, increase domestic energy supply, and gradually raise the proportion of renewable energy in national energy production and consumption to reduce dependence on fossil fuels, thereby contributing to ensuring energy security, mitigating climate change, protecting the environment, and promoting sustainable socio-economic development.

Regarding biomass energy, priority will be given to the production of electricity, biogas, biomass pellets for direct use as fuel, and liquid biofuels, raising the proportion of industrial and agricultural waste used for energy purposes from approximately 45% in 2015 to 50% in 2020, to approximately 60%

by 2030 and approximately 70% by 2050; the proportion of livestock waste processed for energy purposes (biogas) from approximately 5% in 2015 to approximately 10% in 2020, approximately 50% by 2030, and by 2050, the majority of livestock waste will be processed; the proportion of municipal waste processed for energy purposes will rise from the current negligible level to 30% by 2020, approximately 70% by 2030, and the majority will be utilised for energy purposes by 2050.

Regarding wind power, onshore development will be prioritised; research into offshore wind power development on the continental shelf will commence after 2030. The target for electricity generation from wind power is to increase from approximately 180 million kWh in 2015 to approximately 2.5 billion kWh by 2020; approximately 16 billion kWh by 2030; and approximately 53 billion kWh by 2050. The proportion of electricity generated from wind power in the total electricity production () is to rise from the current negligible level to approximately 1.0% by 2020, approximately 2.7% by 2030, and approximately 5.0% by 2050.

Regarding solar energy, electricity generation from solar energy is expected to increase from approximately 10 million kWh in 2015 to approximately 1.4 billion kWh by 2020; approximately 35.4 billion kWh by 2030; and approximately 210 billion kWh by 2050. The proportion of electricity generated from solar energy in total electricity production is projected to rise from the current negligible level to approximately 0.5% by 2020, approximately 6% by 2030 and approximately 20% by 2050. In particular, develop solar-powered equipment to provide heat for households; industrial, agricultural and service sectors.

Based on the aforementioned development strategy, the report assessing the implementation of the Renewable Energy Development Strategy (RES) in 2025 has been compiled and evaluated, as follows:

1. Update on renewable energy capacity and electricity generation in 2025

By the end of 2025¹, the total installed capacity **of renewable energy sources** in operation across the entire system is expected to reach approximately **49,378 MW**, an increase of ~1,999 MW compared to 2024. Of this, the total capacity of renewable energy sources (wind and solar power) is 23,833 MW, accounting for 25.8%, hydropower (including small hydropower) stood at 25,039 MW, accounting for 27.1%. The scale of Vietnam's power system leads the ASEAN region in terms of installed capacity. Electricity generated from renewable energy sources in 2025 reached 149,455 million kWh.

Table 1. Capacity of renewable energy sources (MW)

¹ According to data compiled by the National System and Market Operator (NSMO)

No.	Statistical Content	Year 2024	2025
1	Hydropower	24,190	25,039
2	Solar power	16,823	17,488
3	Wind and solar power	22,750	23,833
4	Biomass and waste-to-energy	439	506
5	Total renewable energy capacity	47,379	49,378

Table 2. Electricity generation from renewable energy sources (million kWh)

No.	Statistical data	Year 2024	2025
1	Hydropower	88,723	106,837
2	Solar power	27,776	28,272
3	Wind power	12,747	15,114
4	Biomass power	1,032	1,230
6	Renewable energy electricity generation	130,278	149,455

2. On mechanisms and policies governing the development of the renewable energy sector

- On 10 October 2024, the Ministry of Industry and Trade issued Circular 20/2024/TT-BCT stipulating the methodology for establishing the electricity pricing framework for solid waste-to-energy plants and biomass power plants.

- On 21 November 2024, the Ministry of Industry and Trade issued Circular 27/2024/TT-BCT stipulating standards for evaluating tender documents and the format of tender documents for selecting investors to implement energy infrastructure investment projects.

- On 22 October 2024, the Government issued Decree No. 135/2024/NĐ-CP stipulating mechanisms and policies to encourage the development of rooftop solar power for self-generation and self-consumption.

- On 30 November 2024, the National Assembly passed the Electricity Law No. 61/2024/QH15, which includes chapters and articles relating to renewable energy, serving as a crucial foundation for promoting the development of renewable energy for the 2025–2030 period and beyond.

- On 3 March 2025, the Government issued Decree No. 56/2025/NĐ-CP providing guidelines on the Electricity Law regarding electricity development planning, power grid development plans, investment in electricity projects, and tendering procedures for selecting investors in electricity business projects.

- On 3 March 2025, the Government issued Decree No. 57/2025/NĐ-CP stipulating the mechanism for direct electricity trading between renewable energy power generators and large electricity consumers.

- On 3 March 2025, the Government issued Decree No. 58/2025/NĐ-CP detailing certain provisions of the Electricity Law regarding the development of renewable energy and new energy.

- On 4 March 2025, the Government issued Decree No. 61/2025/NĐ-CP: Detailing certain provisions of the Electricity Law regarding electricity operation licences

- In 2025, the Minister of Industry and Trade issued Circular No. 32/2025/TT-BCT and Circular No. 66/2025/TT-BCT amending Circular No. 27/2024/TT-BCT.

3. Practical implications for the development of renewable energy

With the coordinated and unified implementation of the aforementioned policies on renewable energy development, the renewable energy sector has essentially achieved the following objectives: (i) Encouraging the development of rooftop solar power for self-generation and self-consumption, promoting the development of wind power, and drawing attention to energy storage systems (BESS) and green hydrogen; (ii) Reducing pressure on electricity transmission and distribution infrastructure; (iii) Enhancing the stability of electricity costs; Vietnam's power mix is becoming more diverse and stable, reducing reliance on imported gas and coal, which are subject to high price volatility.

- Supplementing the Vietnamese power system with clean energy sources, thereby helping to ensure electricity supply for the economy and national energy security.

- Strongly encouraging domestic enterprises to invest in renewable energy projects; mobilising domestic financial resources and domestic banks to participate in lending for renewable energy projects; stimulating the domestic capital market and lending market for renewable energy projects.

- Fostering the development of a robust market for new technologies; enabling domestic investors, design firms, construction companies, installation firms and domestic banks to gain experience in investing in renewable energy projects.

- Stimulate the domestic market for the production of solar and wind power equipment, such as photovoltaic panels, electrical equipment, power cables, and switchboards...

- Make effective use of arid land, areas with low agricultural productivity, and even land currently lying fallow.

- Mobilise direct capital from the public to participate in rooftop solar power investment, thereby contributing to the provision of local electricity, reducing investment costs and transmission losses.

- Establish mechanisms and policies to develop the offshore wind power sector and facilitate the import and export of renewable energy with neighbouring countries.

Implementing Decision No. 768/QĐ-TTg dated 15 April 2025 of the Prime Minister approving the adjustment of the National Power Development Master Plan for the period 2021–2030, with a vision to 2050; Decision No. 1509/QĐ-BCT dated 30 May 2025 approving the Implementation Plan for the National Power Development Master Plan for the period 2021–2030, with a vision to 2050 (revised), whereby the provisions on renewable energy development have been specified in Decision No. 1509/QĐ-TTg for implementation to meet the set objectives: To carry out a strong energy transition from fossil fuels to new and renewable energy sources in order to reduce environmental pollution and greenhouse gas emissions, thereby contributing to the achievement of the targets committed to under the Nationally Determined Contribution and Vietnam’s goal of net-zero emissions by 2050.

Furthermore, to ensure energy security and sustainable development, the Politburo issued Resolution No. 70-NQ/TW on 20 August 2025 on ensuring national energy security by 2030, with a vision to 2045. On this basis, the National Assembly has issued Resolution 253/2025/QH15 on mechanisms and policies for national energy development for the period 2026–2030. This serves as the legal basis for promptly addressing practical issues to promote the development of power projects and facilities in general, as well as renewable energy projects and facilities in particular, during the 2025–2030 period .