**VIETNAM’S**

**PDP8 IMPLEMENTATION PLAN**

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In May 2023 the Prime Minister issued the long-awaited Decision 500, approving the national power development plan which is broadly known as (“**PDP8**”). Decision 500 will take effect on May 15, 2023. It covers a term of 27 years (2023 to 2050). It provides general policies, objectives, plans for development of power generation and transmission lines, land use, list of important projects, and a general road map to implement PDP8.

After PDP 8 was issued, the Ministry of Industry and Trade (“**MOIT**”) was assigned to draft a plan to implement PDP8. Several drafts have been submitted and reviewed since issuance. In late March 2024 the MOIT resubmitted the final Draft PDP8 Implementation Plan to the Prime Minister for approval. On April 1, 2024 the Prime Minister issued Decision 262, approving the PDP8 Implementation Plan (“**Plan**”). Generally, the Plan is consistent with PDP8, but it provides more detail.

***Double capacity of power generation (up to 2030)***. Vietnam plans to double the current capacity of the power industry, reaching 137,853 MW in 2030. Below is a table that describes the total capacity of the power industry by source of energy:

|  |  |  |
| --- | --- | --- |
| **No.** | **Source of energy** | **2030** |
| **Capacity (MW)** |
| 1 | Hydropower plants | 29,346 |
| 2 | Coal-fired power plants | 30,127 |
| 3 | Domestic gas-fired power plants | 14,930 |
| 4 | LNG power plants | 22,400 |
| 5 | Onshore wind power projects | 21,880 |
| 6 | Offshore wind power projects | 6,000 |
| 7 | Biomass | 1,088 |
| 6 | Waste-to-energy projects | 1,182 |
| 9 | Heat and power co-generation | 2,700 |
| 10 | Flexible source | 300 |
| 11 | Pumped-storage hydroelectricity | 2,400 |
| 12 | Battery storage | 300 |
| 13 | Imported electricity from Laos | 5,000 |
|  | **Total** | **137,653[[1]](#footnote-1)** |

The list of particular energy projects can be found in Appendices 1, 2, 3, 4, 5, 6,7,8,9,10, and 11.

***Development of Renewable Energy (“RE”) under the Plan (up to 2030)***. Vietnam plans to develop various sources of energy, but will focus on RE and clean energy. It is projected that (i) the RE portion (including hydro-power projects) will contribute about 43% of the generated energy in 2030; (ii) the total capacity of onshore wind projects will be 21,880MW in 2030; (iii) the total capacity of offshore wind projects may reach 6,000 MW[[2]](#footnote-2); (iv) the total capacity of biomass and WTE projects will be 2,270MW; and (v) under the Plan, new rooftop solar power projects (with total capacity of 2,600 MW) will be developed for self-consumption.

Under the Plan, Vietnam will develop RE projects (with a total capacity of 5,000 MW) and convert the electricity generated from these RE projects in order to produce new energy (green hydrogen, ammoniac). Vietnam also has a plan to export electricity generated by RE projects. The projected volume is 5,000 MW and it may reach 10,000MW.

***Development of Power Transmission Lines****.* It is planned that US$15 billion will be used to develop the transmission lines. A list of particular transmission line projects can be found in Decision 262. For the purpose of purchasing electricity from Laos and China, Vietnam has a plan to develop the national transmission lines to connect with Laos and China.

***Development of Legislation.*** The current regulations do not deal with several matters of PDP8. Vietnam has a plan to issue new policies and laws during 2023-2025, including:

* Issuing pricing mechanisms for various types of power sources;
* Issuing regulations to regulate direct power purchase arrangements;
* Develop a mechanism to encourage the development of rooftop solar power projects for self-production and self-consumption;
* Amending the Electricity Law;
* Amending the Law on Energy Saving and Efficient Use; and
* Developing a mechanism to develop a carbon credit market.

***Reservation of land for power development***. Under the Plan, 90,000 ha is reserved to develop power projects (up to 2030).

**APPENDIX 1**

**LIST OF HYDRO-POWER PLANTS**

1. **LIST OF MEDIUM AND LARGE SCALED HYDRO-POWER PROJECTS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **Capacity (MW)** | **Province** | **Year of operation** | **Notes** | |
| 1 | Long Tao hydropower plant | 44 | Dien Bien | - | Being operated | |
| 2 | Song Lo 6 | 60 | Ha Giang | - | Being operated | |
| 3 | Pac Ma | 160 | Lai Chau | - | Being operated | |
| 4 | Suoi Sap 2A hydropower | 49.6 | Son La | - | Being operated | |
| 5 | Dak Mi 2 hydropower plant | 147 | Quang Nam | - | Being operated | |
| 6 | Song Tranh 4 hydropower | 48 | Quang Nam | - | Being operated | |
| 7 | Thuong Kon Tum | 220 | Kon Tum | - | Being operated | |
| 8 | Song Lo 7 | 36 | Tuyen Quang | - | Being operated | |
| 9 | Nam Cum 1,4,5 hydropower | 95.8 | Lai Chau | 2024-2027 | Under construction | |
| 10 | Nam Cum 2,3,6 hydropower | 79.5 | Lai Chau | 2023-2027 | Under construction | |
| 11 | Song Hieu hydropower plant | 45 | Nghe An | 2024 | Being developed | |
| 12 | Phu Tan 2 hydropower plant | 93 | Dong Nai | 2023 | Being operated |
| 13 | Yen Son hydropower plant | 90 | Tuyen Quang | 2025 | Under construction | |
| 14 | Hoi Xuan hydropower Station | 102 | Thanh Hoa | 2024 | Under construction | |
| 15 | Ialy TD MR | 360 | Gia Lai | 2024 | Under construction | |
| 16 | Dak Mi 1 hydropower plant | 84 | Kon Tum | 2024 |  | |
| 17 | Hoa Binh hydropower plant | 480 | Hoa Binh | 2025 | Under construction | |
| 18 | Tri An hydropower plant MR | 200 | Dong Nai | 2027 | In progress |
| 19 | Thanh Son hydropower plant | 40 | Dong Nai | 2026 | Planning is being adjusted | |
| 20 | My Ly hydropower plant | 120 | Nghe An | 2028 | Pending | |
| 21 | Nam Mo 1 hydropower plant | 51 | Nghe An | 2028 | Pending | |
| 22 | Duc Thanh hydropower plant | 40 | Binh Phuoc | 2026 | Under construction |
| 23 | La Ngau hydropower plant (\*) | 46 | Binh Thuan | 2026 | Under construction |
| 24 | Phu Tho low water hydropower station (\*\*) | 105 | Phu-Tho | 2026 |  |
| 25 | Cam Thuy 2 hydropower plant | 38 | Thanh Hoa | 2030 | Conflict with Cam Hoang lake zoning | |

Note:

(\*) La Ngau hydropower project was approved in the adjusted Electricity Planning VII, and has been granted an Investment Certificate and Land Use Rights Certificate. The People's Committee of Binh Thuan province issued Document No. 21/UBND-KT dated January 3, 2020 requesting to remove the La Ngau hydroelectric project from the plan. The Ministry of Industry and Trade issued Document No. 1986/BCT-DL dated March 20, 2020 requesting the People's Committee of Binh Thuan province to completely handle the contents mentioned in Notice No. 193/TB-VPCP dated May 25, 2018 of the Ministry of Industry and Trade. Government Office, reporting to the Prime Minister.

(\*\*) Phu Tho Provincial People's Committee has issued Document No. 4424/UBND-CNXD dated November 8, 2023 requesting to remove this project from the PDP8 Implementation Plan.

1. **SMALL HYDRO-POWER PLANTS**

| **No** | **Name** | **Capacity (MW)** | **Year of operation** | **Notes** |
| --- | --- | --- | --- | --- |
|  | **Bac Kan Province** | **47.3** |  |  |
| 1 | Khuoi Thoc hydroelectric plant | 3 | 2025 |  |
| 2 | Khuoi Noc 2 hydroelectric plant | 4.2 | 2025 |  |
| 3 | Thac Gieng 2 hydroelectric plant | 4 | 2026-2030 |  |
| 4 | Khuoi Noc hydroelectric plant | 6.6 | 2026-2030 |  |
| 5 | Kim Lu hydroelectric plant | 9 | 2026-2030 |  |
| 6 | Nam Cat 2 hydropower plant | 5 | 2023-2030 |  |
| 7 | My Thanh hydroelectric plant | 5 | 2026-2030 |  |
| 8 | Cong Bang hydroelectric plant | 4 | 2026-2030 |  |
| 9 | Pac Nam hydroelectric plant | 6.5 | 2026-2030 |  |
|  | **Binh Dinh Province** | **49.9** |  |  |
| 1 | Dong Mit hydroelectric plant | 7 | 2023 | Being operated |
| 2 | Nuoc Luong hydroelectric power | 22 | 2024 |  |
| 3 | Vinh Son 4 hydroelectric plant | 18 | 2025 |  |
| 4 | Ha Luu Dap Dang Phu Phong hydroelectric power | 2.9 | 2025 |  |
|  | **Binh Phuoc Province** | **36.1** |  |  |
| 1 | Dak Kar | 12 | 2023 |  |
| 2 | Long Ha hydroelectric plant | 20.1 | 2026-2030 |  |
| 3 | Dam Lo | 4 | 2023-2030 |  |
|  | **Cao Bang Province** | **121** |  |  |
| 1 | Pac Khuoi hydroelectric plant | 7 | 2024 |  |
| 2 | Khuoi Luong hydroelectric plant | 4.4 | 2024 |  |
| 3 | Hong Nam hydroelectric plant | 24 | 2025 |  |
| 4 | Bao Lac A hydroelectric power | 30 | 2026-2030 |  |
| 5 | Thuong Ha hydroelectric power | 13 | 2026-2030 |  |
| 6 | Ban Nga hydroelectric plant | 24 | 2026-2030 |  |
| 7 | Ban Rien hydroelectric plant | 18.6 | 2026-2030 |  |
|  | **Dak Lak Province** | **10.6** |  |  |
| 1 | Ea Tih hydroelectric plant | 8.6 | 2025 |  |
| 2 | Hydroelectric power plant behind Krong Buk Ha lake irrigation dam | 2.0 | 2026-2030 |  |
|  | **Dak Nong Province** | **8.8** |  |  |
| 1 | Dak Sor 4 | 8.8 | 2023-2030 |  |
|  | **Dien Bien Province** | **116.5** |  |  |
| 1 | Huoi Chan 1 | 15 | 2023 | Being operated |
| 2 | De Bau | 6 | 2023 | Being operated |
| 3 | Muong Muon | 22 | 2024 |  |
| 4 | Phi Linh | 18 | 2024 |  |
| 5 | Muong Luan 2 | 10 | 2024 |  |
| 6 | Muong Tung | 13 | 2024 |  |
| 7 | Nam Nua 2 | 7.5 | 2025 |  |
| 8 | Chieng So 2 | 16 | 2025 |  |
| 9 | Nam He Thuong 2 | 9 | 2026-2030 |  |
|  | **Dong Nai Province** | **44** |  |  |
| 1 | Phu Tan 1 hydropower project | 28 | 2026-2030 |  |
| 2 | Thac Troi hydropower project | 16 | 2026-2030 |  |
|  | **Ha Tinh Province** | **6.5** |  |  |
| 1 | Irrigation combined with Song Rac hydropower project | 1.7 | 2023-2030 |  |
| 2 | Vu Quang | 4.8 | 2023-2030 |  |
|  | **Kontum Province** | **358.5** |  |  |
| 1 | Bo Ko 2 hydroelectric plant | 12.6 | 2023 | Being operated |
| 2 | Dak Robaye hydroelectric plant | 10 | 2024 |  |
| 3 | Nam Vao 2 hydropower plant | 8.6 | 2024 |  |
| 4 | Thuong Dak Psi hydropower plant (2.4MW sub-reservoir) | 2,4 | 2024 |  |
| 5 | Dak Mi 1A hydroelectric plant | 11 | 2024 |  |
| 6 | Dak Psi 1 hydroelectric plant | 4 | 2024 |  |
| 7 | Nuoc Long 1 hydroelectric plant | 3.2 | 2024 |  |
| 8 | Nuoc Long 2 hydroelectric plant | 6.4 | 2024 |  |
| 9 | Dak Nghe hydroelectric plant | 7 | 2024 |  |
| 10 | Bo Ko 1 hydroelectric plant | 6 | 2024 |  |
| 11 | Ngoc Tem hydroelectric plant | 7.5 | 2024 |  |
| 12 | Thuong Nam Vao hydroelectric plant | 9.8 | 2025 |  |
| 13 | Dak Mi 1B hydroelectric plant | 6 | 2025 |  |
| 14 | Dak Po Co 1 hydroelectric plant | 11 | 2025 |  |
| 15 | Dak Mek 3 hydropower plant | 7.5 | 2025 |  |
| 16 | Dak Lo 4 hydropower plant | 10 | 2025 |  |
| 17 | Dak Lo 1 hydropower plant | 12 | 2025 |  |
| 18 | Dak Lo 3 hydropower plant | 22 | 2025 |  |
| 19 | Plei Kan Ha hydroelectric plant | 13 | 2025 |  |
| 20 | Dak Pru 3 hydropower plant | 5 | 2025 |  |
| 21 | Dak Re Thuong hydroelectric plant | 14 | 2026-2030 |  |
| 22 | Dak Roong hydroelectric plant | 5 | 2026-2030 |  |
| 23 | Dak Pone hydroelectric plant (reservoir B plant) | 1.6 | 2026-2030 |  |
| 24 | Dak Krin hydroelectric plant | 7.4 | 2026-2030 |  |
| 25 | Nam Vao 1 hydropower plant | 10 | 2026-2030 |  |
| 26 | Dak Ruoi 2 hydroelectric plant | 14 | 2026-2030 |  |
| 27 | Dak Ruoi 3 hydroelectric plant | 3 | 2026-2030 |  |
| 28 | Ngoc Linh 1 hydroelectric plant | 4 | 2026-2030 |  |
| 29 | Ngoc Linh 2 hydroelectric plant | 7.8 | 2026-2030 |  |
| 30 | Ngoc Linh 3 hydroelectric plant | 8.2 | 2026-2030 |  |
| 31 | Dak Pek Hydroelectric Plant | 10.2 | 2026-2030 |  |
| 32 | Thuong Dak Psi 1 hydroelectric plant | 7.2 | 2026-2030 |  |
| 33 | Tan Lap hydroelectric plant | 5.2 | 2023-2030 |  |
| 34 | Nuoc Tre hydroelectric plant | 12.8 | 2023-2030 |  |
| 35 | Sa Thay 1 hydroelectric plant | 9.5 | 2023-2030 |  |
| 36 | Sa Thay 2 hydroelectric plant | 11.2 | 2023-2030 |  |
| 37 | Sa Thay 3 hydroelectric plant | 10.5 | 2026-2030 |  |
| 38 | Dak Bla 3 hydroelectric power | 8.6 | 2026-2030 |  |
| 39 | Dak Su 2 hydropower plant | 7.2 | 2026-2030 |  |
| 40 | Dak Toa hydroelectric plant | 5 | 2026-2030 |  |
| 41 | Dak Po Ne 4 hydropower plant | 6 | 2026-2030 |  |
| 42 | Dak Glei hydroelectric plant | 10.6 | 2026-2030 |  |
| 43 | Dak Piu 1 hydroelectric plant | 4.5 | 2026-2030 |  |
|  | **Lai Chau Province** | **1,056.85** |  |  |
| 1 | Pa Ha | 28 | 2023 | Being operated |
| 2 | Pa Tan 2 | 20 | 2023 | Being operated |
| 3 | Nam Lan | 15 | 2023 | Being operated |
| 4 | Nam Lum 2 | 18 | 2023 | Being operated |
| 5 | Nam Nghe 1A | 10 | 2023 | Being operated |
| 6 | Nam Xe | 20 | 2023 | Being operated |
| 7 | Chu Va 2 | 12 | 2023 | Being operated |
| 8 | Chang Phang | 5 | 2023 | Being operated |
| 9 | Suoi Linh | 5.2 | 2023 | Being operated |
| 10 | Huoi Van | 8 | 2024 |  |
| 11 | Nam Xi Lung 2A | 29 | 2024 |  |
| 12 | Kho Ha | 22 | 2024 |  |
| 13 | Nam Cau 1 | 13 | 2024 |  |
| 14 | Nam Cau Thuong | 7 | 2024 |  |
| 15 | Nam Cum | 7 | 2024 |  |
| 16 | Nam Bum 1A | 9.5 | 2024 |  |
| 17 | Nam Cuoi 1 | 19 | 2024 |  |
| 18 | Nam Cuoi | 11 | 2024 |  |
| 19 | Nam Pi | 10 | 2024 |  |
| 20 | Nam Pang 2 | 11 | 2024 |  |
| 21 | Nam Chan | 7.8 | 2024 |  |
| 22 | Nam Xe 2 | 8 | 2024 |  |
| 23 | Nam Xe 2A | 10 | 2024 |  |
| 24 | Vang Ma Chai 2 | 19 | 2024 |  |
| 25 | Nam Dich 2 | 9 | 2024 |  |
| 26 | Nam Mit Luong | 6.8 | 2024 |  |
| 27 | Hua Be | 10 | 2024 |  |
| 28 | Nam Be 2 | 10 | 2024 |  |
| 29 | Muong Mit | 11 | 2024 |  |
| 30 | Muong Kim 3 | 18.5 | 2024 |  |
| 31 | Ta Pao Ho | 10 | 2024 |  |
| 32 | Nam Cau | 29.6 | 2024 |  |
| 33 | Nam Luong | 21.5 | 2024 |  |
| 34 | Dong Pao | 7.6 | 2024 |  |
| 35 | Pa Tan 1 | 8 | 2024 |  |
| 36 | Ho Mit | 5 | 2024 |  |
| 37 | Ta Pao Ho 1A | 13.5 | 2024 |  |
| 38 | Nam Han | 8 | 2024 |  |
| 39 | Nam Xi Lung 1B | 11 | 2024 |  |
| 40 | La Si 1 | 11 | 2024 |  |
| 41 | Tho Ma | 6 | 2024 |  |
| 42 | Nam Puc | 6 | 2024 |  |
| 43 | Ta Pao Ho 2 | 5 | 2024 |  |
| 44 | Nam Chan 1 | 5 | 2024 |  |
| 45 | Suoi Ngang | 12 | 2024 |  |
| 46 | La Po | 22 | 2024 |  |
| 47 | Chu Va 2A | 8 | 2024 |  |
| 48 | Phieng Khon | 18 | 2024 |  |
| 49 | Kha U 2 | 15.5 | 2024 |  |
| 50 | Nam Mo 1A | 30 | 2024 |  |
| 51 | Chu Va 12 | 1.8 | 2025 |  |
| 52 | Nam Xi Lung 2 | 29.65 | 2025 |  |
| 53 | Tho Gu | 30 | 2025 |  |
| 54 | Tho Gu 1 | 10.2 | 2025 |  |
| 55 | Na An | 10.2 | 2025 |  |
| 56 | Nam Ma 3 | 11.5 | 2025 |  |
| 57 | Ta Pao Ho 1B | 10.5 | 2025 |  |
| 58 | Vang Ma Chai 3 | 21 | 2025 |  |
| 59 | Nam Xi Lung 1A | 7.8 | 2025 |  |
| 60 | Nam Han 1 | 18 | 2025 |  |
| 61 | Nam Bon 1 | 10 | 2025 |  |
| 62 | Nam Cuoi 1A | 7 | 2025 |  |
| 63 | Nam Cuoi 1B | 7.5 | 2025 |  |
| 64 | Nam Cum 7 | 6.5 | 2025 |  |
| 65 | Nam Ma 1A | 16.6 | 2025 |  |
| 66 | Nam Ma 1B | 14 | 2025 |  |
| 67 | Nam Ma 1C | 10.5 | 2025 |  |
| 68 | Nam Ma 2A | 11.5 | 2025 |  |
| 69 | Nam Ma 2B | 13.8 | 2025 |  |
| 70 | Nam Cha 1 | 24 | 2025 |  |
| 71 | Nam Cha 2 | 4.4 | 2025 |  |
| 72 | Nam Cay | 15 | 2025 |  |
| 73 | Pa Vay Su 1 | 8.5 | 2025 |  |
| 74 | Nam Lon | 10 | 2025 |  |
| 75 | Nam Mo 2 | 17 | 2025 |  |
| 76 | Nam Lung | 5.4 | 2026-2030 |  |
| 77 | Nung Than 1 | 30 | 2026-2030 |  |
| 78 | La Si 1A | 28 | 2026-2030 |  |
| 79 | Nam Nga | 24 | 2026-2030 |  |
|  | **Lang Son Province** | **68.8** |  |  |
| 1 | Ban Lai hydroelectric plant | 7 | 2023 | Being operated |
| 2 | Ban Nhung hydroelectric plant | 13 | 2024 |  |
| 3 | Trang Dinh 2 hydroelectric plant | 29.8 | 2026-2030 |  |
| 4 | Bac Giang hydropower plant (Vang Puoc) | 14 | 2026-2030 |  |
| 5 | Deo Khach hydroelectric plant | 5 | 2026-2030 |  |
|  | **Lao Cai Province** | **223.5** |  |  |
| 1 | Bao Nhai hydroelectric plant level 1 belongs to Bao Nhai hydroelectric plant project | 14 | 2024 |  |
| 2 | May Ho hydroelectric plant | 6.5 | 2024 |  |
| 3 | Nam Tha Ha hydroelectric plant | 6 | 2025 |  |
| 4 | Nam Khoa 1 -2 hydropower plant | 15 | 2025 |  |
| 5 | Si Ma Cai hydroelectric plant | 18 | 2025 |  |
| 6 | Nam Trung Ho 1 hydroelectric power Plant | 20 | 2025 |  |
| 7 | Xuan Hoa hydroelectric plant | 3.2 | 2026-2030 |  |
| 8 | Mong Sen 1 hydroelectric plant | 4.5 | 2026-2030 |  |
| 9 | Ban Me hydroelectric plant | 5 | 2026-2030 |  |
| 10 | Ngoi Nhu 1A hydropower plant | 6 | 2026-2030 |  |
| 11 | Suoi Chan hydroelectric plant | 6.8 | 2026-2030 |  |
| 12 | Nam Cang 1A hydropower plant | 10 | 2026-2030 |  |
| 13 | Ta Loi 1 hydroelectric plant | 15 | 2026-2030 |  |
| 14 | Yen Ha hydroelectric plant | 13 | 2026-2030 |  |
| 15 | Lan Bo hydroelectric plant | 7.6 | 2026-2030 |  |
| 16 | Viet Tien hydroelectric plant | 7 | 2026-2030 |  |
| 17 | Sa Phin hydroelectric plant | 6 | 2026-2030 |  |
| 18 | Sang Ma Sao hydroelectric plant | 12.5 | 2026-2030 |  |
| 19 | Hom Duoi hydroelectric power | 18 | 2026-2030 |  |
| 20 | Nam Ho hydroelectric plant | 2 | 2026-2030 |  |
| 21 | Coc Dam hydroelectric plant | 2,3 | 2026-2030 |  |
| 22 | Nam Mu hydroelectric plant | 5 | 2026-2030 |  |
| 23 | Nam Pung hydroelectric plant | 3.1 | 2026-2030 |  |
| 24 | Suoi Chan 2 hydroelectric plant | 8 | 2026-2030 |  |
| 25 | Vo Lao hydroelectric plant | 9 | 2026-2030 |  |
|  | **Lam Dong Province** | **96.2** |  |  |
| 1 | Da Chomo hydroelectric plant | 9 | 2023 | Being operated |
| 2 | Dai Binh hydroelectric plant | 15 | 2023 | Being operated |
| 3 | Da Sar hydroelectric plant | 12 | 2023 | Being operated |
| 4 | Da Br'Len hydroelectric plant | 6.2 | 2024 |  |
| 5 | Tan Thuong hydroelectric plant | 22 | 2025 |  |
| 6 | Cam Ly hydroelectric plant | 12 | 2025 |  |
| 7 | Bao Lam hydroelectric plant | 10 | 2026-2030 |  |
| 8 | Da Huoai 2 hydroelectric plant | 10 | 2026-2030 |  |
|  | **Ninh Thuan Province** | **40** |  |  |
| 1 | Phuoc Hoa hydroelectric plant | 22 | 2026-2030 |  |
| 2 | Thuong Song Ong 2 hydropower plant | 7 | 2026-2031 |  |
| 3 | Lam Son hydroelectric plant | 11 | 2026-2032 |  |
|  | **Nghe An Province** | **57.8** |  |  |
| 1 | Chau Thon | 29.8 | 2024 |  |
| 2 | Thong Thu | 28 | 2026-2030 |  |
|  | **Phu Yen Province** | **36** |  |  |
| 1 | Khe Cach hydroelectric plant | 12 | 2026-2030 |  |
| 2 | Son Hoa 1 hydroelectric plant | 10 | 2026-2030 |  |
| 3 | Son Hoa 2 hydroelectric plant | 14 | 2026-2030 |  |
|  | **Quang Binh Province** | **42** |  |  |
| 1 | Kim Hoa hydroelectric plant | 20 | 2024 |  |
| 2 | La Trong hydroelectric plant | 22 | 2026-2030 |  |
|  | **Quang Ngai Province** | **210.4** |  |  |
| 1 | Thach Nham hydropower plant (Irrigation combined with | 10 | 2024 |  |
| 2 | Tra Phong hydropower plant (Tra Phong 1A: 19MW; Tra Phong 1B:  11MW) | 30 | 2024 |  |
| 3 | Song Lien 1 hydroelectric plant | 15 | 2024 |  |
| 4 | Ba Vi hydroelectric plant | 9 | 2025 |  |
| 5 | Tra Khuc 1 hydroelectric plant | 30 | 2025 |  |
| 6 | Tra Khuc 2 hydroelectric plant | 30 | 2025 |  |
| 7 | Song Lien 2 hydroelectric plant | 12 | 2025 |  |
| 8 | Dakdrinh 2 hydroelectric plant | 21 | 2026-2030 |  |
| 9 | Tay Tra 1 hydroelectric plant | 10 | 2026-2030 |  |
| 10 | Tay Tra 2 hydroelectric plant | 9 | 2026-2030 |  |
| 11 | Tay Tra 3 hydroelectric plant | 10 | 2026-2030 |  |
| 12 | Long Son hydroelectric plant | 10.6 | 2026-2030 |  |
| 13 | Son Linh hydroelectric plant | 7 | 2026-2030 |  |
| 14 | Son Nham hydroelectric plant | 6.8 | 2026-2030 |  |
|  | **Thua Thien Hue Province** | **9** |  |  |
| 1 | Ho Truoi hydroelectric plant | 6 | 2026-2030 |  |
| 2 | Song Bo 1 hydropower plant | 3 | 2026-2030 |  |
|  | **Tuyen Quang Province** | **27.2** |  |  |
| 1 | Hung Loi 1 hydroelectric plant | 8 | 2026-2030 |  |
| 2 | Hung Loi 2 hydroelectric plant | 3.5 | 2026-2030 |  |
| 3 | Thac Giom hydroelectric plant | 5.4 | 2026-2030 |  |
| 4 | Hung Loi 3 hydroelectric plant | 3.3 | 2026-2030 |  |
| 5 | Suoi Ba 2 hydroelectric plant | 4 | 2026-2030 |  |
| 6 | Khuan Co hydroelectric plant | 3 | 2026-2030 |  |
|  | **Thanh Hoa Province** | **46.5** |  |  |
| 1 | Song Am | 14 | 2026-2030 |  |
| 2 | 10 Tan | 12 | 2026-2030 |  |
| 3 | Xuan Khao | 7.5 | 2026-2030 |  |
| 4 | Muong Min | 13 | 2026-2030 |  |
|  | **Yen Bai Province** | **274.1** |  |  |
| 1 | Chi Lu hydroelectric plant | 15 | 2023 |  |
| 2 | Thao Sa Chai hydroelectric plant | 6.5 | 2023 |  |
| 3 | Hanh Phuc hydroelectric plant | 7 | 2024 |  |
| 4 | Mi Hang Tau hydroelectric plant | 4,6 | 2024 |  |
| 5 | Nam Tang 3 hydropower plant | 17.5 | 2024 |  |
| 6 | De Dinh Mao hydroelectric plant | 22 | 2024 |  |
| 7 | Thac Ba 2 hydroelectric plant | 18.9 | 2025 |  |
| 8 | Phin Ho 2 hydropower plant | 10 | 2025 |  |
| 9 | Nam Tuc Bac I hydropower plant | 21 | 2025 |  |
| 10 | Ban Liu hydroelectric plant | 3 | 2026-2030 |  |
| 11 | Chan Thinh hydroelectric plant | 10 | 2026-2030 |  |
| 12 | Tan Linh hydroelectric plant | 22 | 2026-2030 |  |
| 13 | Ngoi Hut 8 hydroelectric power | 11 | 2026-2030 |  |
| 14 | Nam Puoi hydroelectric plant | 15 | 2026-2030 |  |
| 15 | Chong Khua hydroelectric plant | 9.5 | 2026-2030 |  |
| 16 | Nha Trang hydroelectric plant | 2.6 | 2026-2030 |  |
| 17 | Dong Ngai hydroelectric plant | 9 | 2026-2030 |  |
| 18 | Ho Bon 2 hydroelectric power | 5 | 2026-2030 |  |
| 19 | Phong Du Ha hydroelectric plant | 16 | 2026-2030 |  |
| 20 | Phong Du Thuong hydroelectric plant | 22 | 2026-2030 |  |
| 21 | Dao Sa hydroelectric plant | 15.5 | 2026-2030 |  |
| 22 | Nam Bung hydroelectric plant | 11 | 2026-2030 |  |

**APPENDIX 2**

**LIST OF COAL-FIRED POWER PLANTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **Capacity (MW)** | **Province** | **Year of**  **operation** | **Notes** |
| 1 | Van Phong 1 thermal power plant | 1,432 | Khanh Hoa | 2024 | Being operated |
| 2 | Vung Ang II thermal power plant | 1,330 | Ha Tinh | 2025-2026 |  |
| 3 | Na Duong II thermal power plant | 110 | Lang Son | 2026 | To be developed |
| 4 | Quang Trach I thermal power plant | 1,403 | Quang Binh | 2026 | Under construction |
| 5 | An Khanh thermal power plant | 650 | Bac Giang | 2027 |  |
| 6 | Long Phu I thermal power plant | 1,200 | Soc Trang | 2027 |  |

List of coal-fired power projects behind schedule, facing difficulties in changing shareholders and arranging capital

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Project** | **Capacity (MW)** | **Stage** | **Notes** |
| 1 | Quang Tri thermal *(\*)* | 1,320 | 2023-2030 | The Ministry of Industry and Trade works with investors and allows it to be extended until June 2024. If it cannot be implemented, it must be considered for legal termination. |
| 2 | Cong Thanh thermal *(\*\*)* | 600 | 2023-2030 |
| 3 | Nam Dinh I thermal | 1,200 | 2023-2030 |
| 4 | Vinh Tan III thermal | 1,980 | 2023-2030 |
| 5 | Song Hau II thermal | 2,120 | 2023-2030 |

Note:

(\*) The investor has requested to stop the project (According to Document EGATi 277/2023).

(\*\*) The People’s Committee of Thanh Hoa Province proposes to convert to gas-turbine power plant.

**APPENDIX 3**

**LIST OF DOMESTIC GAS FIRED POWER PLANTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Project** | **Capacity**  **(MW)** | **Conscious** | **Year of operation** | **Notes** |
| 1 | O Mon I\* thermal power | 660 | Can Tho | Being operated | Use Block B gas |
| 2 | O Mon II thermal power | 1,050 | Can Tho | 2027 |
| 4 | O Mon IV thermal power | 1,050 | Can Tho | 2028 |
| 5 | TBKHH Dung Quat I | 750 | Quang Ngai | 2028 | Use Blue Whale gas |
| 6 | TBKHH Dung Quat II | 750 | Quang Ngai | 2028 |
| 7 | TBKHH Dung Quat III | 750 | Quang Ngai | 2028 |
| 3 | O Mon III thermal power | 1,050 | Can Tho | 2030 | Use Block B gas |
| 8 | Central Region I | 750 | Quang Nam | 2030 | Use Blue Whale gas |
| 9 | Central Region II TBKHH | 750 | Quang Nam | 2030 |
| 10 | Quang Tri TBKHH | 340 | Quang Tri | 2030 | Using gas from Bao Vang field |

Note:

(\*) Existing power plant will be converted and will use Block B gas;

The exact scale of the power plants will be specifically determined, in accordance with the capacity of the generating units during the project implementation phase.

**APPENDIX 4**

**LIST OF LNG POWER PLANTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Name** | **Capacity**  **(MW)** | **Province** | **Year of operation** | **Notes** |
| 1 | Nhon Trach 3 and Nhon Trach 4 power plants | 1,624 | Dong Nai | 2024-2025 | Under construction |
| 2 | LNG Hiep Phuoc phase I | 1,200 | HCM City | 2025 | Under construction |
| 3 | Bac Lieu LNG | 3,200 | Bac Lieu | 2027-2029 | Preparing FS |
| 4 | Son My II thermal power  plant | 2,250 | Binh Thuan | 2027-2029 | Preparing FS |
| 5 | Son My I BOT thermal power plant | 2,250 | Binh Thuan | 2027-2029 | Preparing FS |
| 6 | Quang Ninh LNG | 1,500 | Quang Ninh | 2028-2029 | Preparing FS |
| 7 | Hai Lang LNG phase 1 | 1,500 | Quang Tri | 2028-2029 | Preparing FS |
| 8 | Thai Binh LNG | 1,500 | Thai Binh | 2029 | Choosing an investor |
| 9 | LNG Nghi Son | 1,500 | Thanh Hoa | 2029-2030 | Choosing an  investor |
| 10 | Ca Na LNG | 1,500 | Ninh Thuan | 2029-2030 | Choosing an investor |
| 11 | LNG Quang Trach II | 1,500 | Quang Binh | 2029-2030 |  |
| 12 | LNG Quynh Lap | 1,500 | Nghe An | 2029-2030 |  |
| 13 | LNG Long An I | 1,500 | Long An | 2029-2030 | Preparing FS |
|  | Potential locations, backup for projects that are behind schedule or cannot be implemented |  |  |  | Thai Binh, Nam Dinh, Nghi Son, Quynh Lap, Vung Ang, Chan May, Mui Ke Ga, Hiep Phuoc 2, 'Tan Phuoc, Ben Tre,  Ca Mau,... |

Note:

The exact scale of the power plants will be specifically determined, in accordance with the capacity of the generating units during the project implementation phase.

**APPENDIX 5**

**LIST OF ONSHORE WIND POWER PROJECTS**

| **No.** | **Name** | **Capacity (MW)** | **operation stages** | **Notes** |
| --- | --- | --- | --- | --- |
|  | **Dien Bien Province** | **300** |  |  |
| 1 | BCG Dien Bien 1 wind power plant | 175 | 2026-2030 |  |
| 2 | Envision Nam Po wind power  plant | 125 | 2026-2030 |  |
|  | **Bac Kan Province** | **400** |  |  |
| 1 | Cho Moi 2 wind power plant | 130 | 2026-2030 |  |
| 2 | Ngan Son wind power plant | 150 | 2026-2030 |  |
| 3 | Thien Long Cho Moi wind power plant | 120 | 2026-2030 |  |
|  | **Yen Bai Province** | **200** |  |  |
| 1 | Nam Bung wind power plant | 200 | 2026-2030 |  |
|  | **Bac Giang Province** | **500** |  |  |
| 1 | Bac Giang 1 wind power plant | 55 | 2026-2030 |  |
| 2 | Bac Giang 2 wind power plant | 55 | 2026-2030 |  |
| 3 | Cam Ly wind power plant | 55 | 2026-2030 |  |
| 4 | Tan Son wind power plant | 50 | 2026-2030 |  |
| 5 | Luc Ngan wind power plant | 30 | 2026-2030 |  |
| 6 | SD Son Dong wind power plant | 105 | 2026-2030 |  |
| 7 | Yen Dung wind power plant | 150 | 2026-2030 |  |
|  | **Lang Son Province** | **1,444** |  |  |
| 1 | Ai Quoc wind power plant | 100 | 2026-2030 |  |
| 2 | Binh Gia wind power plant | 80 | 2026-2030 |  |
| 3 | Cao Loc wind power plant | 55 | 2026-2030 |  |
| 4 | Cao Loc 3 wind power plant | 69 | 2026-2030 |  |
| 5 | Chi Lang wind power plant | 100 | 2026-2030 |  |
| 6 | Cao Loc 1 wind power plant | 50 | 2026-2030 |  |
| 7 | Cao Loc wind power plant 1.1 | 50 | 2026-2030 |  |
| 8 | Dinh Lap wind power plant | 100 | 2026-2030 |  |
| 9 | Dinh Lap 1 wind power plant | 50 | 2026-2030 |  |
| 10 | Dinh Lap wind power plant 1.1 | 50 | 2026-2030 |  |
| 11 | Dinh Lap 4 wind power plant | 90 | 2026-2030 |  |
| 12 | Dinh Lap 5 wind power plant | 100 | 2026-2030 |  |
| 13 | Van Quan 1 wind power plant | 50 | 2026-2030 |  |
| 14 | Huu Kien wind power plant | 90 | 2026-2030 |  |
| 15 | Loc Binh wind power plant | 60 | 2026-2030 |  |
| 16 | Loc Binh - Pharbaco wind power plant | 50 | 2026-2030 |  |
| 17 | Loc Binh 1 wind power plant | 50 | 2026-2030 |  |
| 18 | Loc Binh 3 wind power plant | 60 | 2026-2030 |  |
| 19 | Mau Son wind power plant | 30 | 2026-2030 |  |
| 20 | Thang Long 3 wind power plant | 50 | 2026-2030 |  |
| 21 | Van Lang 1 wind power plant | 80 | 2026-2030 |  |
| 22 | Van Quan wind power plant | 30 | 2026-2030 |  |
|  | **Thai Binh Province** | **70** |  |  |
| 1 | Tien Hai wind power plant - Thai  Binh | 70 | 2026-2030 |  |
|  | **Thanh Hoa Province** | **300** |  |  |
| 1 | Bac Phuong - Nghi Son wind power plant | 100 | 2026-2030 |  |
| 2 | Muong Lat wind power plant | 200 | 2026-2030 |  |
|  | **Nghe An Province** | **70** |  |  |
| 1 | Nam Dan wind power plant | 70 | 2026-2030 |  |
|  | **Ha Tinh Province** | **350** |  |  |
| 1 | HBRE Ha Tinh wind power farm | 120 | 2023-2025 |  |
| 2 | Ky Khang wind power plant - phase 1 | 60 | 2026-2030 |  |
| 3 | Cam Xuyen wind power plant 1 | 70 | 2024-2025 |  |
| 4 | Cam Xuyen 2 wind power plant | 100 | 2026-2030 |  |
|  | **Dak Lak Province** | **870** |  |  |
| 1 | Cu Ne 1 wind power plant | 50 | 2023-2025 | 18 wind turbines have been deployed, expected to operate in 2024 |
| 2 | Cu Ne 2 wind power plant | 50 | 2023-2025 | Expected operation 2025 |
| 3 | Krong Buk 1 wind power plant | 50 | 2023-2025 | 18 wind turbines have been deployed, expected to operate in 2024 |
| 4 | Krong Buk 2 wind power plant | 50 | 2023-2025 | 18 wind turbines have been deployed, expected to operate in 2024 |
| 5 | Buon Ho 1 wind power plant | 20 | 2023-2025 |  |
| 6 | Buon Ho 2 wind power plant | 20 | 2023-2025 |  |
| 7 | Buon Ho 3 wind power plant | 15 | 2023-2025 |  |
| 8 | Cu M'Gar 2 wind power plant | 10 | 2023-2025 |  |
| 9 | Ea H'Leo 3 wind power plant (Cu M'Gar) | 10 | 2023-2025 |  |
| 10 | Ea H'Leo 4 wind power plant (Cu  M'Gar - Buon Ho) | 20 | 2023-2025 |  |
| 11 | Easin1 wind power plant | 100 | 2026-2030 |  |
| 12 | Krongbuk 3 wind power plant | 100 | 2026-2030 |  |
| 13 | Thuan Phong Dak Lak wind power plant | 100 | 2026-2030 |  |
| 14 | Tan Lap - Ea Ho wind power plant | 50 | 2026-2030 |  |
| 15 | Cu Pong 1,2 wind power plant | 80 | 2026-2030 |  |
| 16 | Krong Nang 1.1 wind power plant;  1.2 ' | 80 | 2026-2030 |  |
| 17 | NT 1 wind power plant; NT 2 | 75 | 2026-2030 |  |
|  | **Lam Dong Province** | **118.9** |  |  |
| 1 | Duc Trong wind power plant | 50 | 2026-2030 |  |
| 2 | Cau Dat wind power plant | 68.9 | 2023-2025 | Construction |
|  | **Ninh Thuan Province** | **553.7** |  |  |
| 1 | Part of Hanbaram wind power plant's capacity | 93 | 2026-2030 |  |
| 2 | Phuoc Huu wind power plant | 50 | 2023-2025 |  |
| 3 | Vietnam Power wind power plant No. 1 | 30 | 2023-2025 |  |
| 4 | Cong Hai 1 wind power plant - phase 2 | 25 | 2023-2025 |  |
| 5 | Cong Hai 1 wind power plant -  phase 1 | 3 | 2023-2025 |  |
| 6 | Phuoc Nam - Enfinity - Ninh  Thuan renewable energy power plant | 65 | 2023-2025 |  |
| 7 | Dam Nai 3 wind power plant | 39.4 | 2023-2025 |  |
| 8 | Dam Nai 4 wind power plant | 27.6 | 2023-2025 |  |
| 9 | BIM wind power plant expansion phase 2 | 50 | 2023-2025 |  |
| 10 | Wind power plant 7A phase 2 | 21 | 2023-2025 |  |
| 11 | Phuoc Dan wind power plant | 45 | 2023-2025 |  |
| 12 | Bau Ngu Lake wind power plant | 25.2 | 2023-2025 |  |
| 13 | Tri Hai wind power plant | 79.5 | 2023-2025 |  |
|  | **Phu Yen Province** | **298** |  |  |
| 1 | HBRE An Tho wind power farm  Phase 1 | 200 | 2023-2025 |  |
| 2 | Song Cau green wind power plant phase 1 | 50 | 2023-2025 |  |
| 3 | Nam Viet Green wind power plant | 48 | 2023-2025 |  |
|  | **Binh Dinh Province** | **30** |  |  |
| 1 | Nhon Hoi wind power plant phase 2 | 30 | 2023-2025 | Operated May 2023 |
|  | **Ba Ria Vung Tau Province** | **150** |  |  |
| 1 | Xuyen Moc nearshore wind power plant phase 2 | 47 | 2026-2030 |  |
| 2 | Ba Ria - Vung Tau Cong Ly wind  power plant phase 1 | 103 | 2026-2030 |  |
|  | **Ben Tre Province** | **713.45** |  |  |
| 1 | VPL wind power plant | 4.2 |  |  |
| 2 | Binh Dai wind power plant | 25.8 |  |  |
| 3 | Binh Dai wind power plant No. 2 | 49 |  |  |
| 4 | Binh Dai No. 3 wind power plant | 49 |  |  |
| 5 | Thanh Phong wind power plant | 29.7 |  |  |
| 6 | Sunpro wind power plant | 30 | 2023-2025 | Completed 07 pillars/29.4 MW |
| 7 | Wind power plant No. 5 Ben Tre phase 2 (Thanh Hai 2,3,4 thermal power plant) | 85.75 | 2023-2025 | Completed 21  pillars/90 MW, 4.25 MW connected to the grid, expected to  generate 85.75 MW of electricity in 2024 |
| 8 | VPL wind power plant (Phase 2) | 30 | 2023-2025 | Operational progress 2025 |
| 9 | Nexif Energy Ben Tre wind power  plant | 30 | 2023-2025 | Investment policy has  been granted |
| 10 | Nexif Ben Tre wind power plant phases 2 and 3 | 50 | 2023-2025 | Investment policy has been granted |
| 11 | Thien Phu 2 wind power plant | 30 | 2023-2025 | Investment policy has been granted |
| 12 | Thien Phu wind power plant | 30 | 2023-2025 | Investment policy has  been granted |
| 13 | Thanh Phu wind power plant | 120 | 2023-2025 | Investment policy has been granted |
| 14 | Bao Thanh wind power plant | 50 | 2023-2025 | Investment policy has  been granted |
| 15 | Wind power plant No. 19 | 50 | 2023-2025 | Investment policy has been granted |
| 16 | Wind power plant No. 20 | 50 | 2023-2025 | Investment policy has  been granted |
|  | **Bac Lieu Province** | **741** |  |  |
| 1 | Hoa Binh 3 wind power plant | 50 | 2026-2030 |  |
| 2 | Hoa Binh 2-1 wind power plant | 50 | 2026-2030 |  |
| 3 | Hoa Binh 4 wind power plant | 50 | 2026-2030 |  |
| 4 | Hoa Binh 6 wind power plant | 40 | 2026-2030 |  |
| 5 | Hoa 8 wind power plant | 50 | 2026-2030 |  |
| 6 | Hoa Binh wind power plant 5.1 | 80 | 2026-2030 |  |
| 7 | Dong Hai 1 wind power plant - phase 3 | 50 | 2026-2030 |  |
| 8 | Dong Hai 13 wind power plant | 100 | 2026-2030 |  |
| 9 | Dong Hai 3 wind power plant - phase 1 | 50 | 2026-2030 |  |
| 10 | Dong Hai 6 wind power plant | 30 | 2026-2030 |  |
| 11 | Bac Lieu wind power plant phase III | 141 | 2023-2025 |  |
| 12 | Japanese wind power plant - Bac  Lieu | 50 | 2023-2025 |  |
|  | **Tien Giang Province** | **200** |  |  |
| 1 | Tan Thanh wind power plant | 100 | 2026-2030 |  |
| 2 | Tan Phu Dong 1 wind power plant | 100 | 2026-2030 |  |
|  | **Tra Vinh Province** | **872.5** |  |  |
| 1 | Hiep Thanh wind power plant | 64.5 | 2023-2025 | Commercially  operated |
| 2 | Duyen Hai wind power plant | 48 | 2023-2025 | Choosing EPC general contractor |
| 3 | Dong Thanh 1 wind power plant | 80 | 2023-2025 | Under construction |
| 4 | Dong Thanh 2 wind power plant | 120 | 2023-2025 | Under construction |
| 5 | Thang Long wind power plant | 96 | 2023-2025 | Investment policy granted |
| 6 | Dong Hai 3 wind power plant (location V3-3) | 48 | 2026-2030 |  |
| 7 | Expanded V1-2 wind power plant | 48 | 2026-2030 |  |
| 8 | Wind power plant V1-3 Phase 2 | 48 | 2023-2025 |  |
| 9 | Wind power plant V1 -5 and V1-6 Phase 2 | 80 | 2023-2025 |  |
| 10 | Duyen Hai 2 wind power plant | 96 | 2026-2030 |  |
| 11 | Wind power plant No. 3 (location V3-8) ' ' | 48 | 2026-2030 |  |
| 12 | V1-1 Tra Vinh wind power plant phase 2 | 48 | 2023-2025 |  |
| 13 | Long Vinh wind power plant | 48 | 2026-2030 |  |
|  | **Soc Trang Province** | **733.2** |  |  |
| 1 | Hoa Dong 2 wind power plant | 45.6 |  |  |
| 2 | Lac Hoa 2 wind power plant | 123.6 |  |  |
| 3 | Lac Hoa wind power plant - phase 1, Soc Trang province | 5 |  |  |
| 4 | Lac Hoa 2 wind power plant | 6.4 |  |  |
| 5 | Lac Hoa wind power plant | 30 |  |  |
| 6 | Hoa Dong wind power plant | 30 |  |  |
| 7 | Cong Ly wind power plant phase 1 | 30 |  |  |
| 8 | Wind power plant No. 3 | 29.4 |  |  |
| 9 | Wind power plant No. 2 | 30 |  |  |
| 10 | Wind power plant No. 18 | 22.4 |  |  |
| 11 | Wind power plant No. 7, phase 2 | 90 |  |  |
| 12 | Wind power plant No. 11 | 100.8 |  |  |
| 13 | Tran De wind power plant | 50 |  |  |
| 14 | Song Hau wind power plant | 50 |  |  |
| 15 | Soc Trang 16 wind power plant | 40 | 2026-2030 |  |
| 16 | BCG Soc Trang 1 wind power plant | 50 | 2026-2030 |  |
|  | **An Giang Province** | **50** |  |  |
| 1 | JR An Giang wind power plant | 50 | 2026-2030 |  |
|  | **Ca Mau Province** | **900** |  |  |
| 1 | Tan An 45 wind power plant MW | 75 | 2023-2025 | 45 MW has been operated and 30 MW  is under construction |
| 2 | Vien An wind power plant | 50 | 2023-2025 | 25 MW has been operated, and another 25 MW is under |
| 3 | Ca Mau 1A wind power plant | 88 | 2023-2025 | Under construction |
| 4 | Ca Mau 1B wind power plant | 88 | 2023-2025 | Under construction |
| 5 | Ca Mau 1C wind power plant | 88 | 2023-2025 | Evaluating technical design |
| 6 | Ca Mau 1D wind power plant | 86 | 2026-2030 | Evaluating technical design |
| 7 | Wind power plant project in Khai Long tourist area - Ca Mau phase  1 | 100 | 2023-2025 |  |
| 8 | Tan Thuan wind power plant phase 3 | 25 | 2023-2025 |  |
| 9 | An Dong 1 wind power plant | 50 | 2023-2025 |  |
| 10 | Khanh Binh Tay wind power plant | 50 | 2023-2025 |  |
| 11 | Khai Long wind power plant phase 2 | 100 | 2023-2025 |  |
| 12 | Khai Long wind power plant  phase 3 | 100 | 2026-2030 |  |
|  | **Hau Giang Province** | **100** |  |  |
| 1 | Long My 1 wind power | 100 | 2023-2025 |  |
|  | **Kien Giang Province** | **137** |  |  |
| 1 | Hoa Dat 1 wind power plant | 77 | 2026-2030 |  |
| 2 | Kien Luong 1 wind power plant | 60 | 2026-2030 |  |

**APPENDIX 6**

**LIST OF OFFSHORE WIND POWER PROJECTS BY REGION[[3]](#footnote-3)**

|  |  |  |
| --- | --- | --- |
| **TT** | **Region name** | **Capacity (MW)**  **2023-2030** |
| 1 | Northern region | 2,500 |
| 2 | North Central | 0 |
| 3 | Central Central | 500 |
| 4 | South Central region | 2,000 |
| 5 | Highlands | 0 |
| 6 | Southern | 1,000 |
|  | **Total capacity** | **6,000** |

**APPENDIX 7**

**LIST OF BIOMASS PROJECTS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Name** | **Capacity (MW)** | **Stage** | **Notes** |
|  | **Ca Mau Province** | **24** |  |  |
| 1 | Khanh An biomass power plant | 24 | 2026-2030 |  |
|  | **Lang Son Province** | **30** |  |  |
| 1 | Bac Son biomass power plant | 12 | 2026-2030 |  |
| 2 | Lang Son biomass power plant | 18 | 2026-2030 |  |
|  | **Yen Bai Province** | **108** |  |  |
| 1 | Yen Bai biomass  electricity 1 | 50 |  |  |
| 2 | Truong Minh biomass power | 58 | 2026-2030 |  |
|  | **Tuyen Quang Province** | **50** |  |  |
| 1 | Tuyen Quang biomass electricity | 50 | 2026-2030 |  |
|  | **Nghe An Province** | **10** |  |  |
| 1 | Quy Hop biomass power plant | 10 | 2026-2030 |  |
|  | **Ha Tinh Province** | **5** |  |  |
| 1 | Hung Anh biomass power plant | 5 | 2026-2030 |  |
|  | **Binh Phuoc** | **10** |  |  |
| 1 | Binh Phuoc biomass power plant | 10 |  |  |
|  | **Dong Nai Province** | **12** |  |  |
| 1 | Ajinomoto Bien Hoa biomass power plant | 12 |  |  |
|  | **Vinh Long Province** | **10** |  |  |
| 1 | Biomass power plant project | 10 |  |  |
|  | **Ben Tre Province** | **10** |  |  |
| 1 | Ben Tre biomass power plant | 10 |  |  |
|  | **Hau Giang Province** | **30** |  |  |
| 1 | Hau Giang biomass power plant | 20 |  |  |
| 2 | Hau Giang rice husk  power plant | 10 |  |  |

**APPENDIX 8**

**LIST OF WTE PROJECTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | | **Name** | **Capacity (MW)** | **Year of operation** | **Notes** |
|  | | **Bac Ninh Province** | **36.7** |  |  |
| 1 | | Investment project to build an industrial waste and domestic solid waste treatment complex | 6.1 | 2023 - 2025 | Being operated |
| 2 | | Investment project to build a solid waste treatment plant | 11.6 | 2023 - 2025 | Being operated |
|  | | high-tech energy generation |  |  |  |
| 3 | | Investment project to build a high-tech domestic solid waste treatment plant that generates energy | 13 | 2023 - 2025 | Being operated |
| 4 | | Project of domestic solid waste  treatment area focusing on electricity generation | 6 | 2023 - 2025 | Being operated |
|  | | **Lang Son Province** | **11** |  |  |
|  | 1 | Lang Son waste power plant | 11 | 2026 - 2030 |  |
|  | | **Nam Dinh** | **15** |  |  |
|  | 1 | Greenity Nam Dinh waste power plant | 15 | 2023 - 2025 | Under construction |
|  | | **Hai Phong** | **40** |  |  |
| 1 |  | Investment project to build a domestic solid waste treatment plant using waste incineration technology to generate | 20 | 2026 - 2030 |  |
| 2 | | Investment project to build a household solid waste treatment plant using Dinh Vu waste incineration technology,  phase 1 | 20 | 2026 2030 |  |
|  | | **Thanh Hoa Province** | **18** |  |  |
|  | 1 | Thanh Hoa household waste  treatment plant generates | 18 | 2026 - 2030 |  |
|  | | **Ha Tinh Province** | **30** |  |  |
|  | 1 | Waste treatment and power generation plant in Hong Loc  commune, Loc Ha district, Ha | 30 |  |  |
|  | | **Phu Yen Province** | **15** |  |  |
|  | 1 | Trung An household waste treatment and electricity | 15 | 2026 - 2030 |  |
|  | | **Binh Phuoc** | **15** |  |  |
|  | 1 | Tan Hung Hon Quan waste power plant | 15 |  |  |
|  | | **Dong Nai Province** | **66** |  |  |
|  | 1 | Vinh Tan waste power plant phase 1 | 20 |  |  |
| 2 | | Quang Trung waste power  plant | 7.5 |  |  |
| 3 | | W2E Dong Nai waste power plant - phase 1 | 20 |  |  |
| 4 | | Dinh Quan waste power plant  - phase 1 | 18.5 |  |  |
|  | | **Ba Ria Vung Tau Province** | **30** |  |  |
|  | 1 | Electricity produced from waste in Ba Ria - Vung Tau | 5 | 2026 - 2030 |  |
| 2 | | Electricity produced from Toc  Tien 02 waste | 20 | 2026 - 2030 |  |
| 3 | | Electricity produced from Toc Tien waste | 5 | 2026 - 2030 | Investment policy has been granted |
|  | | **Soc Trang Province** | **16** |  |  |
|  | 1 | Power generation plant from solid waste in Soc Trang | 16 | 2026 2030 |  |
|  | | **Ben Tre Province** | **15** |  |  |
|  | 1 | Solid waste incineration plant to generate electricity in Ben | 15 | 2026 - 2030 |  |
|  | | **Tien Giang Province** | **10** |  |  |
|  | 1 | Tien Giang waste power plant | 10 | 2026 - 2030 |  |
|  | | **Vinh Long Province** | **14** |  |  |
|  | 1 | Waste incineration plant project (electricity generation using solid waste) | 14 |  |  |
|  | | **Kien Giang Province** | **14** |  |  |
| 1 | | Hon Dat waste power plant | 10 |  |  |
| 2 | | Phu Quoc waste power plant | 4 |  |  |
|  | | **Ca Mau Province** | **16** |  |  |
|  | 1 | Ca Mau city waste power plant | 4 | 2026 - 2030 |  |
| 2 | | Nam Can waste power plant | 6 | 2026 - 2030 |  |
| 3 | | U Minh waste power plant | 6 | 2026 - 2030 |  |

**APPENDIX 9**

**LIST OF CO-GENERATION POWER SOURCE PROJECTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Name of power plant** | **Capacity (MW)** | **Province/City** | **Year of operation**  **required** | **Notes** |
| 1 | Formosa HT2 | 650 | Ha Tinh | 2026 |  |
| 2 | Duc Giang cogeneration | 100 | Lao Cai | 2027 |  |
| 3 | Hai Ha 1 cogeneration thermal power plant | 300 | Quang Ninh | 2025-2030 |  |
| 4 | Hoa Phat II residual gas | 300 | Quang Ngai | 2025-2026 |  |
| 5 | Other projects | Prioritize and encourage the development of this type of electricity production to increase energy use efficiency. The total capacity of this type is developed without limitation in accordance with the needs and potential of industrial facilities. | | | |

**APPENDIX 10**

**LIST OF PUMPED STORAGE HYDROPOWER PROJECTS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Project** | **Conscious** | **Capacity**  **(MW)** | **Year of**  **operation** | **Notes** |
| 1 | Bac Ai hydropower plant | Ninh Thuan | 1,200 | 2028-2029 |  |
| 2 | Phuoc Hoa hydropower | Ninh Thuan | 1,200 | 2029-2030 |  |
|  | Other projects | Some localities propose additional pumped storage hydropower projects: Dien Bien, Lai Chau, Quang Tri, Kon Tum, Khanh Hoa, Dak Nong,... However, the number of projects, capacity, location, the need must be further evaluated based on system needs to report to the Prime Minister. | | | |

**Storage battery project list**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TT** | **Project** | **Capacity (MW)** | **Stage** | **Notes** |
| 1 | 50 MW battery storage project | 50 | 2023-2030 | According to Decision No.  1009/QD-TTg dated August 31, 2023 |
| 2 | 7 MW battery storage project integrated into 50 NW solar farm | 7 | 2023-2030 |
|  |
| 3 | 105 MW battery storage project | 105 | 2023-2030 |
| integrated into 400 MW solar farm |
| 4 | Other battery storage projects | 138 | 2023-2030 |  |

**APPENDIX 11**

**LIST OF ROOFTOP SOLAR PROJECTS BY EACH PROVINCE**

| **Region/province** | **Capacity increase 2023-2030 (MW)** |
| --- | --- |
| **Northern region** | **927** |
| Hanoi | 47 |
| Hai Phong | 107 |
| Hai Duong | 70 |
| Hung Yen | 62 |
| Ha Nam | 57 |
| Nam Dinh | 31 |
| Hoa Binh | 32 |
| Ninh Binh | 23 |
| Ha Giang | 3 |
| Cao Bang | 2 |
| Lao Cai | 28 |
| Bac Kan | 3 |
| Lang Son | 25 |
| Tuyen Quang | 4 |
| Yen Bai | 26 |
| Thai Nguyen | 52 |
| Phu-Tho | 31 |
| Vinh Phuc | 59 |
| Bac Giang | 86 |
| Bac Ninh | 79 |
| Quang Ninh | 73 |
| Lai Chau | 2 |
| Dien Bien | 1 |
| Son La | 5 |
| Peace | 19 |
| **North Central** | **231** |
| Thanh Hoa | 75 |
| Nghe An | 54 |
| Ha Tinh | 74 |
| Quang Binh | 28 |
| **Central Central** | **168** |
| Quang Tri | 23 |
| Hue | 33 |
| Da Nang | 30 |
| Quang Nam | 43 |
| Quang Ngai | 39 |
| **Highlands** | **32** |
| Kon Tum | 7 |
| Gia Lai | 8 |
| Dak Lak | 8 |
| Dak Nong | 9 |
| **South Central region** | **134** |
| Binh Dinh | 38 |
| Phu Yen | 18 |
| Khanh Hoa | 14 |
| Ninh Thuan | 21 |
| Binh Thuan | 38 |
| Lam Dong | 7 |
| **Southern** | **1.107** |
| Ho Chi Minh City | 73 |
| Binh Phuoc | 93 |
| Tay Ninh | 53 |
| Binh Duong | 185 |
| Dong Nai | 229 |
| BA Ria Vung Tau | 133 |
| Long An | 153 |
| Dong Thap | 16 |
| An Giang | 11 |
| Tien Giang | 22 |
| Vinh Long | 16 |
| Ben tre | 17 |
| Kien Giang | 10 |
| City. Can Tho | 29 |
| Hau Giang | 28 |
| Tra Vinh | 10 |
| Soc Trang | 14 |
| Bac Lieu | 2 |
| Ca Mau | 15 |
| **Nationwide** | **2,600** |

1. *A large volume of solar power projects (with capacity of 12,836MW), as approved in PDP8, is not included in the Plan.* [↑](#footnote-ref-1)
2. *In computing the capacity of offshore wind projects, PDP8 does not include the capacity of offshore wind projects for the production of new energy.* [↑](#footnote-ref-2)
3. The Plan does not specify the name of each project. The Plan provides only the allocation to each region. [↑](#footnote-ref-3)