

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	137,653¹

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

¹ A large volume of solar power projects (with capacity of 12,836MW), as approved in PDP8, is not included in the Plan.

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 MW²; (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).

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.*

APPENDIX 1

LIST OF HYDRO-POWER PLANTS

A. 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.

B. 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	

No	Name	Capacity (MW)	Year of operation	Notes
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	

No	Name	Capacity (MW)	Year of operation	Notes
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	

No	Name	Capacity (MW)	Year of operation	Notes
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	

No	Name	Capacity (MW)	Year of operation	Notes
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	

No	Name	Capacity (MW)	Year of operation	Notes
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	

No	Name	Capacity (MW)	Year of operation	Notes
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	

No	Name	Capacity (MW)	Year of operation	Notes
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	
2	O Mon II thermal power	1,050	Can Tho	2027	Use Block B gas
4	O Mon IV thermal power	1,050	Can Tho	2028	
5	TBKHH Dung Quat I	750	Quang Ngai	2028	
6	TBKHH Dung Quat II	750	Quang Ngai	2028	Use Blue Whale gas
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	

No.	Name	Capacity (MW)	operation stages	Notes
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	

No.	Name	Capacity (MW)	operation stages	Notes
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	

No.	Name	Capacity (MW)	operation stages	Notes
	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	

No.	Name	Capacity (MW)	operation stages	Notes
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		

No.	Name	Capacity (MW)	operation stages	Notes
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 REGION³

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

³ The Plan does not specify the name of each project. The Plan provides only the allocation to each region.

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 MW solar farm	7	2023-2030	
3	105 MW battery storage project integrated into 400 MW solar farm	105	2023-2030	
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

Region/province	Capacity increase 2023-2030 (MW)
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