

B.Grimm Power Public Company Limited ("BGRIM")

Company Fact Sheet - Operation

August 2021

Disclaimer: This document is a summary only and does not purport to contain all of the information that may be required to evaluate any potential transaction and any recipient hereof should conduct its own independent analysis of the Company, including the consulting of independent legal, business, tax and financial advisers. The information in these materials is provided as at the date of this document and is subject to change without notice.

Capacity

August 2021

	Units	Current	2021E	2022E	2023E	2024E	2025E
Installed capacity	MW	2,878	2,909	3,090	3,465	3,480	3,502
Equity capacity	MW	1,938	1,968	2,178	2,549	2,560	2,576
	%		2%	11%	17%	0%	1%
% by Type of fuel							
Conventional	MW	2,158	2,158	2,293	2,653	2,653	2,653
Renewable	MW	721	752	797	812	827	849
	%	75%	74%	74%	77%	76%	76%
Renewable	%	25%	26%	26%	23%	24%	24%
% Geography							
Thailand	MW	2,294	2,325	2,461	2,821	2,821	2,821
International	MW	584	584	629	644	659	682
	%	80%	80%	80%	81%	81%	81%
International	%	20%	20%	20%	19%	19%	19%

Developing projects	Bo Thong 1&2 BGP Extension U-Tapao Solar	5 SPP Replacement Nam Khao 4 Tadsakoi	Nam Khao 2 BGPAT2&3 U-Tapao Gas U-Tapao ESS	Nam Khao 3	Nam Khao 1 Nam Khao 5
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Key project information

August 2021

Power plants	Location	Fuel Type	% Ownership	COD	Electricity Capacity		EGAT/PEA/MEA/EDL PPA	
					Installed MW	Equity MW	Contract MW	Tenor years
Operating projects								
ABP1	Amata City (Chonburi)	Gas	50.7%	Sep-1998	166.4	84.3	60.0	21+3
ABP2	Amata City (Chonburi)	Gas	15.3%	Sep-2001	171.2	26.2	90.0	21
ABP3	Amata City (Chonburi)	Gas	60.7%	Oct-2012	132.5	80.4	90.0	25
ABP4	Amata City (Chonburi)	Gas	55.5%	Nov-2015	131.1	72.8	90.0	25
ABP5	Amata City (Chonburi)	Gas	55.5%	Jun-2016	131.1	72.8	90.0	25
ABPR1	Amata City (Rayong)	Gas	61.7%	Nov-2013	123.3	76.1	90.0	25
ABPR2	Amata City (Rayong)	Gas	61.7%	Jun-2013	124.4	76.8	90.0	25
ABPR3	Amata City (Rayong)	Gas	55.5%	Feb-2018	133.0	73.8	90.0	25
ABPR4	Amata City (Rayong)	Gas	55.5%	Jun-2018	133.0	73.8	90.0	25
ABPR5	Amata City (Rayong)	Gas	55.5%	Oct-2018	133.0	73.8	90.0	25
BPLC1	Laemchabang	Gas	100.0%	Jul-2001	103.0	60.0	21	
BPLC2	Laemchabang	Gas	100.0%	Feb-2009	56.1	56.1	25	
BIP1	Bangkok	Gas	74.0%	Apr-2015	114.6	84.8	90.0	25
BIP2	Bangkok	Gas	74.0%	Jan-2016	114.6	84.8	90.0	25
BPWHA	WHA Chonburi 1	Gas	75.0%	Nov-2016	130.2	97.7	90.0	25
BGPM	WHA Eastern (Map Ta Phut)	Gas	70.0%	Feb & Sep-1998	124.0	86.8	110.0	23
BGPAT1	Anghong	Gas	70.0%	May-2016	123.0	86.1	90.0	25
APB	Vietnam	Diesel	30.7%	Apr-1999	13.0	4.0	-	-
BGPSK	Sakaew	Solar	100.0%	Apr-2016	8.0	8.0	8.0	25
BGYSP	Nakornpathom	Solar	100.0%	Dec-2015	59.7	59.7	59.7	25
BGSENA	Saraburi	Solar	47.5%	Dec-2015	46.5	46.5	25	
WVO & Co-op	Thailand	Solar	100.0%	Dec-2018	30.8	30.8	30.8	25
XXHP	Laos	Hydro	70.0%	Aug-2017	20.1	14.1	20.1	25
Nam Che 1	Laos	Hydro	72.0%	Jun-2019	15.0	10.8	15.0	25
DT	Vietnam	Solar	96.3%	Jun-2019	240.0	231.0	200.0	20
Phu Yen TTP	Vietnam	Solar	80.0%	Jun-2019	257.0	205.6	214.1	20
PIK	Ratchaburi	IWTE	48.0%	Dec-2019	4.8	2.3	4.0	20
Ray Power	Cambodia	Solar	100.0%	Dec-2020	39.0	39.0	30.0	20

Developing projects

Bo Thong 1&2	Mookdaham	Wind	92.2%	Aug-2021	16.0	14.8	16.0	25
U-Tapao Solar	U-Tapao International Airport (Rayong)	Hybrid	100.0%	2021	15.0	15.0	-	up to 25
BPLC1 Replacement	Laemchabang	Gas- Replacement	100.0%	2022	140.0	140.0	30.0	25
ABP1 Replacement	Amata City (Chonburi)	Gas- Replacement	51.2%	2022	140.0	71.7	30.0	25
ABP2 Replacement	Amata City (Chonburi)	Gas- Replacement	51.2%	2022	140.0	71.7	30.0	25
BGPM (1) Replacement	WHA Eastern (Map Ta Phut)	Gas- Replacement	70.0%	2022	140.0	98.0	30.0	25
BGPM (2) Replacement	WHA Eastern (Map Ta Phut)	Gas- Replacement	70.0%	2022	140.0	98.0	30.0	25
Nam Khao -4	Laos	Hydro	72.0%	2022	15.0	10.8	15.0	25
Tadsakoi	Laos	Hydro	70.0%	Dec-2022	30.0	21.0	30.0	25
Nam Khao -2	Laos	Hydro	72.0%	2023	15.0	10.8	15.0	25
BGPAT2	Anghong	Gas	100.0%	2023	140.0	140.0	90.0	25
BGPAT3	Anghong	Gas	100.0%	2023	140.0	140.0	90.0	25
U-Tapao Gas	U-Tapao International Airport (Rayong)	Hybrid	100.0%	2023	80.0	80.0	-	up to 25
U-Tapao ESS	U-Tapao International Airport (Rayong)	Hybrid	100.0%	2023	50.0 MWh	50.0 MWh	-	up to 25
Nam Khao -3	Laos	Hydro	72.0%	2024	15.0	10.8	15.0	25
Nam Khao -1	Laos	Hydro	72.0%	2025	15.0	10.8	15.0	25
Nam Khao -5	Laos	Hydro	72.0%	2025	7.5	5.4	7.5	25

*60.0 during extension period

Operational information

Power Plants Type	Total Electricity equi generation		Avg. Implied heat rate		Avg. Availability factor		Avg. Capacity factor	
	2020 GWh	6M'2021 GWh	2020 mmBtu/KWh	6M'2021 mmBtu/KWh	2020 %	6M'2021 %	2020 %	6M'2021 %
1st Round SPP (ABP1, ABP2, BPLC1, BGPM)	3,488	1,790	8,577	8,586	97.4%	96.6%	73.2%	75.0%
2nd Round SPP (ABP3, ABPR1, ABPR2, BIP1)	3,162	1,625	7,609	7,580	95.6%	98.6%	72.6%	73.0%
3rd Round SPP (ABP4, ABP5, ABPR3, ABPR4, ABPR5, BIP2, BPWHA, BGPAT)	5,762	2,990	7,622	7,574	99.0%	97.1%	65.1%	67.0%
Solar-Thailand (BGPSK, BGYSP, BGSENA, WVO & Co-op)	223	116	n/a	n/a	n/a	n/a	17.5%	18.4%
Solar-Vietnam (DT, Phu Yen TTP)	1,007	475	n/a	n/a	n/a	n/a	16.9%	16.1%
Solar-Cambodia (Ray Power)	3	32	n/a	n/a	n/a	n/a	17.4%	19.1%
Hydro - Laos (XXHP & Nam Che 1)	166	52	n/a	n/a	n/a	n/a	54.0%	34.0%

Sales Volume

	2017 GWh	2018 GWh	2019 GWh	2020 GWh	6M'2021 GWh
EGAT	6,706	7,702	9,100	9,714	4,816
IU - Thailand					
Amata City Chonburi	1,551	1,610	1,530	1,302	771
Amata City Rayong	345	372	484	509	321
Laemchabang	688	697	680	628	329
WHA Chonburi1	221	236	227	213	123
Bangkok	145	143	148	156	94
WHA Eastern (Map Ta Phut)	-	-	16	13	7
IU - Thailand	2,949	3,057	3,084	2,821	1,645
IU - Vietnam	483	500	519	510	282

	2017 Ton	2018 Ton	2019 Ton	2020 Ton	6M'2021 Ton
Steam sales					
Amata City Chonburi	132,244	144,118	142,696	132,786	75,263
Amata City Rayong	164,450	141,770	136,621	126,371	61,439
Laemchabang	214,979	215,092	219,056	197,500	125,883
WHA Eastern (Map Ta Phut)	-	-	357,004	440,845	225,102
Anghong Province	-	-	-	9,803	0
Steam sales	511,673	500,980	855,377	907,305	487,686

Price per unit

		2017	2018	2019	2020	6M'2021
EGAT	Baht/kWh	2.89	3.07	3.16	2.92	2.79
IU - Thailand	Baht/kWh	3.19	3.28	3.30	3.29	3.23
Steam	Baht/Ton	1,034.45	1,105.73	1,083.93	985.75	797.34
Eff. Gas cost	Baht/mmBtu	235.27	259.00	272.84	244.41	230.10

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Company Fact Sheet - Financial

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Executive summary

	2017	2018	2019	2020	6M2021
	million bt	million bt	million bt	million bt	million bt
Sales and service income	31,482	36,585	44,132	44,087	21,928
EBITDA	8,725	9,199	11,485	13,003	6,818
Net profit	3,594	2,976	3,977	3,755	2,319
Net profit - Owner of the parent	2,127	1,863	2,331	2,175	1,633
Normalised net profit (NNP)	2,918	3,027	3,658	4,308	2,560
NNP - Owner of the parent	1,727	1,842	2,161	2,617	1,656
EBITDA margin (%)	27.7%	25.1%	26.0%	29.5%	31.1%
NNP margin (%)	9.3%	8.3%	8.3%	9.8%	11.7%
% NNP - Owner of the parent	59.2%	60.9%	59.1%	60.7%	64.7%

Revenue structure

	2017	2018	2019	2020	6M2021	%
	million bt	million bt	million bt	million bt	million bt	
Electricity sales						
Sales to EGAT	19,354	23,664	28,726	28,330	13,413	61%
Sales to IUs - Thailand	9,394	10,040	10,174	9,270	5,313	24%
Sales to IUs - Vietnam	1,189	1,183	1,238	1,214	675	3%
Sales to PEAMEA/Rooftop	65	300	773	772	426	2%
Sales to EDL	107	107	268	338	104	0%
Sales to EVN	-	-	1,623	2,941	1,374	6%
Sales to EDC	-	-	-	7	76	0%
Electricity sales	30,110	35,294	42,802	42,872	21,381	98%
Steam sales	529	554	927	894	389	2%
Denim Water	-	-	36	44	24	0%
Others	843	737	366	277	135	1%
Sales and services income	31,482	36,585	44,131	44,087	21,929	100%

Cost structure

	2017	2018	2019	2020	6M2021	%
	million bt	million bt	million bt	million bt	million bt	
Cost of sales and services						
Natural gas	18,128	22,139	26,618	24,726	11,939	67%
Cost of electricity- Vietnam	1,061	1,061	1,120	1,097	617	3%
O&M	1,761	2,127	2,693	2,768	1,472	8%
Depreciation - COGS	2,599	3,210	4,569	5,350	2,530	14%
Others	1,193	1,195	952	907	454	3%
Cost of sales and services	20,951	29,732	35,952	34,848	17,012	95%
SG&A	1,104	1,278	1,774	1,895	743	4%
Depreciation - SG&A	159	131	91	144	78	1%
Total expenses	1,104	31,141	37,817	36,887	17,833	100%

Capital structure

	2017	2018	2019	2020	6M2021
	million bt	million bt	million bt	million bt	million bt
Cash, cash equivalent and short-term investments	18,556	15,179	23,271	19,992	22,873
Total assets	89,241	100,636	121,693	130,696	139,147
Total interest-bearing debts	53,856	58,173	60,387	77,370	84,048
Total liabilities	63,497	72,897	83,016	91,392	98,077
Total equities	25,744	27,739	38,677	39,304	41,070
Total equities to owner	18,653	19,253	28,144	27,470	28,788
<i>Net-int debt to equity</i>	1.3	1.5	1.0	1.5	1.5

Other items

	2017	2018	2019	2020	6M2021
	million bt	million bt	million bt	million bt	million bt
Other revenues	187	460	289	251	72
Share of profit of associates	256	182	101	58	41
Gain (Loss) on FX	(38)	(6)	138	(334)	629
Realised FX gain/(loss)	26	(41)	13	(37)	342
Unrealised FX gain/(loss)	(64)	35	125	(297)	287
Finance cost					
Interest from borrowing	2,291	2,424	2,705	2,806	1,494
Interest expense from ABPIF	546	343	199	107	45
Interest expenses on long-term construction payables	-	-	221	223	-
Realised loss/(gain) from FX	14	(171)	36	8	151
Unrealised loss/(gain) from FX	(1,113)	81	(605)	(55)	529
Other financing costs	314	250	75	97	64
Finance cost	2,053	2,928	2,631	3,186	2,283
Tax expense (income)					
Tax on profits	230	225	244	311	245
Deferred tax	5	(47)	(8)	(78)	(8)
Tax expense (income)	235	177	235	233	237

Normalised net profit

	2017	2018	2019	2020	6M2021
	million bt	million bt	million bt	million bt	million bt
Net profit for the year	3,594	2,976	3,977	3,755	2,319
Add Unrealised (gain)/loss FX	(1,049)	46	(730)	242	241
Add One-time gain from business combination (BGYSP)	-	(276)	-	-	-
Add Non-operating expenses	373	281	411	311	-
Normalised net profit (NNP)	2,918	3,027	3,658	4,308	2,560
Less Minority interest	1,191	1,184	1,496	1,691	904
NNP - Owner of the parent	1,727	1,842	2,161	2,617	1,656
<i>NNP per share*</i>	0.66	0.71	0.83	1.00	0.64
<i>No. of shares in calculation*</i>	2,607	2,607	2,607	2,607	2,607