B.Grimm Power

BGRIM

B.Grimm Power Public Company Limited Bloomberg Reuters BGRIM TB BGRIM.BK

Key power supplier in Thailand's industry

We initiate coverage on BGRIM as "OUTPERFORM" based on the steady capacity growth of both conventional gas-fired SPPs and renewable power plants. It plans to boost installed capacity to 7,200MW by 2025, doubling from the committed capacity of 3,682MW. This will sweeten market sentiment, in our view. We estimate a profit CAGR of 17% during 2020 to 2022, driven by capacity additions, greater efficiency and higher sales to industrial customers (higher-margin segment). Our TP of Bt64/share is based on DCF, in view of its stable and secured operating cash flow pegged to LT power purchase agreements.

Steady capacity expansion. BGRIM's capacity will continue to rise over the course of five years (2021-25) with committed new capacity of 3.7GW (4% CAGR) and potential capacity of >3.5GW, which will increase CAGR to 19% over the same period. These include M&A of SPPs in Thailand, LNG-to-power in Vietnam and gas power plants in Malaysia. Management expects these additional projects to be concluded in 2021.

Abundant growth potential in Vietnam. BGRIM's long presence in Vietnam is giving it more growth opportunities in that country. Currently, BGRIM has two solar farms with combined capacity of 677MW (18% of total installed capacity of BGRIM), with one — Dau Tieng —the largest solar farm in ASEAN. Another opportunity in Vietnam's power industry is the LNG-to-power project, which it expects to be finalized by 2021.

Expect earnings CAGR of 17% over 2020-22F. We expect BGRIM's net profit to rise with CAGR of 17% over 2020-22F despite a slight decline in 2020F caused by the pandemic-led economic slowdown. The sale of electricity to industrial customers is growing after bottoming in 1Q20. Its earnings are safeguarded by long-term PPAs with government electricity authorities, including EGAT, and its customer base is diversified into various industries to reduce downside risk. Higher operating cash flow and various financing options will accommodate BGRIM's growth path without a new cash call, in our view.

TP of Bt64 is based on DCF valuation method. We derive our TP based on DCF given the uninterrupted operating cash flow for its SPP power and steam businesses and the renewable power projects. Key risks to our forecast arise mainly from the sale of electricity and steam from the SPP segment to industrial customers, which can be hurt by the economy and fuel costs, and by the performance of renewable power projects.

Forecasts and valuation

Year to 31 Dec	Unit	2018	2019	2020F	2021F	2022F
Revenue	(Btmn)	36,585	44,132	44,571	45,117	48,756
EBITDA	(Btmn)	9,898	11,580	12,165	14,477	16,085
Core profit	(Btmn)	1,868	2,194	2,312	3,165	3,710
Reported profit	(Btmn)	1,863	2,331	2,301	3,165	3,710
Core EPS	(Bt)	0.72	0.84	0.89	1.21	1.42
DPS	(Bt)	0.32	0.37	0.40	0.50	0.60
P/E, core	(x)	74.3	63.3	60.0	43.9	37.4
EPS growth, core	(%)	(13.7)	17.4	5.4	36.9	17.2
P/BV, core	(x)	7.2	4.9	4.7	4.4	4.1
ROE	(%)	9.9	9.3	8.0	10.4	11.4
Dividend yield	(%)	0.6	0.7	0.8	0.9	1.1
FCF yield	(x)	(1.7)	1.9	(10.0)	(5.8)	(5.4)
EV/EBIT	(x)	33.3	30.1	34.7	29.7	27.3
EBIT growth, core	(%)	2.6	5.5	(5.2)	26.8	15.9
EV/CE	(x)	3.4	3.3	2.8	2.7	2.5
ROCE	(%)	9.0	10.0	7.2	8.2	8.4
EV/EBITDA	(x)	22.1	18.0	18.7	17.1	16.3
EBITDA growth	(%)	8.2	17.0	5.1	19.0	11.1

Source: SCBS Investment Research



Tactical: OUTPERFORM

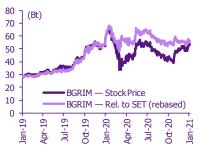
(3-month)

Stock data

Last close (Jan 15) (Bt)	53.25
12-m target price (Bt)	64.00
Mkt cap (Btbn)	138.82
Mkt cap (US\$mn)	4,436

Beta	L
Mkt cap (%) SET	0.82
Sector % SET	22.30
Shares issued (mn)	2,607
Par value (Bt)	2.00
12-m high / low (Bt)	69.3 / 27.3
Avg. daily 6m (US\$mn)	17.46
Foreign limit / actual (%)	49 / 42
Free float (%)	34.6
Dividend policy (%)	≥ 40

Price Performance



Source: SET, SCBS Investment Research

Share performance

(%)	1M	3M	12M
Absolute	4.4	26.6	(13.7)
Relative to SET	0.4	2.5	(11.2)

Source: SET, SCBS Investment Research

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Value proposition

BGRIM is one of Thailand's leading Small Power Project (SPP) producers, with 17 gas-fired power plants in operation and two plants under development in seven industrial estates in the central provinces and the eastern seaboard. Adding several renewable power projects in Thailand and neighboring countries gives total installed capacity of 3,058MW (or 1,945MW based on equity holding) at the end of 2020, comprised of 70% in conventional and 30% in renewable power plants. Its revenue and cash flow stream are secured by long-term PPAs with the government electricity authorities, with weighted-average remaining life of>18 years.

Business outlook

BGRIM's earnings growth is driven by capacity expansion, lower gas cost and higher demand from industrial customers. Its installed capacity will increase to 3,682MW (2,590MW equity) by 2025 based on committed projects. BGRIM is working to conclude new investment projects that will increase capacity to 7,200MW by 2025 as targeted. These capacity additions are expected to be finalized gradually over 2021-22. We estimate its net profit to rise at a CAGR of 17% during 2020-22F. BGRIM is also actively expanding its renewable power business in ASEAN, supported by strong partnership with local partners, i.e. governments and private operators.

Bullish views	Bearish views
Long-term PPAs with electricity authorities secure revenue and cash flow stream.	Rapid capacity expansion could spark investor concern about a possible cash call. Management has already reaffirmed that its committed investment plan will be fully funded without making another cash call.
2. Capacity expansion plan over 2020-25 is expected to boost its earnings growth over the next five years.	Dividend yield would be less attractive than other power companies during the expansion phase of the company.
3. Earnings bottomed in 1H20 when electricity demand from industrial customers was hit when they had to cut operations, chiefly the auto parts industry. These customers have gradually resumed normal operations since Jun'2020.	3. Stretched valuation with 2021 PE of >40x
4. BGRIM's LNG shipper license will increase its flexibility in gas sourcing to maximize profitability.	

Key catalysts

Factor	Event	Impact	Comment
Higher gas cost	Indicative gas cost shows that the average gas cost in 1Q21 will increase 2.7% QoQ.	Negative	BGRIM may be affected by higher cost of pooled gas from the Gulf of Thailand in the near term but this can be passed through under PPAs with EGAT. It can also adjust steam price to reflect higher gas cost. It can lower effective gas cost in the longer term via its LNG shipper license.
Near-term earnings outlook	4Q20F earnings momentum	Positive QoQ and YoY	We expect 4Q20F operating earnings to improve QoQ, driven by lower gas cost and higher electricity demand from industrial customers. More capacity is behind the YoY growth despite the brief impact of EGAT's maintenance of its transmission gridline.
Factors to watch in 2021	Capacity additions to achieve target of 7.2GW by 2025	Positive	Management expects most of its potential new capacity to be concluded in 1Q21, though the resurgence of COVID-19 may hinder discussions with the owners of targeted assets.

Key catalysts

Factor	Earnings impact	TP impact	
Gas price (+Bt1/mmbtu)	-0.5%	-Bt0.3/share	
Ft rate (-Bt0.01/KWh)	-0.6%	-Bt0.4/share	



Financial statement

Profit and	Loss	Statement
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FY December 31	Unit	2015	2016	2017	2018	2019	2020F	2021F	2022F
Total revenue	(Btmn)	23,943	27,747	31,482	36,585	44,132	44,571	45,117	48,756
Cost of goods sold	(Btmn)	19,288	21,632	24,013	29,079	35,637	36,371	35,065	37,264
Gross profit	(Btmn)	4,655	6,115	7,469	7,506	8,495	8,201	10,053	11,493
SG&A	(Btmn)	954	1,100	1,263	1,409	1,865	1,961	1,985	2,145
Other income	(Btmn)	249	172	187	460	289	320	248	290
Interest expense	(Btmn)	2,789	2,563	2,053	2,928	2,630	2,580	2,828	3,188
Pre-tax profit	(Btmn)	1,161	2,624	4,341	3,629	4,290	3,980	5,487	6,449
Corporate tax	(Btmn)	(28)	225	235	177	235	236	323	379
Equity a/c profits	(Btmn)	64	261	256	182	101	110	111	112
Minority interests	(Btmn)	(311)	(936)	(1,467)	(1,113)	(1,646)	(1,542)	(2,110)	(2,473)
Core profit	(Btmn)	38	1,295	2,165	1,868	2,194	2,312	3,165	3,710
Extra-ordinary items	(Btmn)	(2)	85	(38)	(6)	138	(11)	0	0
Net Profit	(Btmn)	36	1,380	2,127	1,863	2,331	2,301	3,165	3,710
EBITDA	(Btmn)	5,826	7,662	9,151	9,898	11,580	12,165	14,477	16,085
Core EPS	(Btmn)	0.24	0.69	0.83	0.72	0.84	0.89	1.21	1.42
Net EPS	(Bt)	0.23	0.73	0.82	0.71	0.89	0.88	1.21	1.42
DPS	(Bt)	0.00	0.06	0.30	0.32	0.37	0.40	0.50	0.60

Balance Sheet

FY December 31	Unit	2015	2016	2017	2018	2019	2020F	2021F	2022F
Total current assets	(Btmn)	12,362	16,615	25,837	23,822	33,493	27,219	29,664	31,838
Total fixed assets	(Btmn)	50,431	59,432	63,403	76,814	88,200	96,649	107,544	119,652
Total assets	(Btmn)	62,793	76,047	89,241	100,636	121,693	123,868	137,207	151,491
Total loans	(Btmn)	49,640	65,200	72,580	94,170	92,537	103,917	125,969	144,969
Total current liabilities	(Btmn)	7,899	7,076	9,447	8,189	25,832	15,036	12,647	13,555
Total long-term liabilities	(Btmn)	47,804	57,436	54,050	64,708	57,184	67,308	78,908	87,508
Total liabilities	(Btmn)	55,703	64,512	63,497	72,897	83,016	82,344	91,555	101,063
Paid-up capital	(Btmn)	1,578	3,780	5,214	5,214	5,214	5,214	5,214	5,214
Total equity	(Btmn)	2,744	5,900	18,653	19,253	28,144	29,450	31,468	33,770
BVPS	(Bt)	17.39	3.12	7.16	7.39	10.80	11.30	12.07	12.95

Cash Flow Statement

FY December 31	Unit	2015	2016	2017	2018	2019	2020F	2021F	2022F
Core Profit	(Btmn)	38	1,295	2,165	1,868	2,194	2,312	3,165	3,710
Depreciation and amortization	(Btmn)	1,876	2,475	2,758	3,341	4,660	5,605	6,161	6,448
Operating cash flow	(Btmn)	4,481	6,776	7,381	7,614	9,348	(1,928)	9,049	11,098
Investing cash flow	(Btmn)	(12,642)	(13,055)	(4,804)	(9,973)	(6,657)	(11,945)	(17,056)	(18,556)
Financing cash flow	(Btmn)	7,431	9,562	7,310	(3,290)	5,910	7,978	10,515	10,565
Net cash flow	(Btmn)	(731)	3,284	9,887	(5,650)	8,601	(5,895)	2,509	3,108

Key Financial Ratios

FY December 31	Unit	2015	2016	2017	2018	2019	2020F	2021F	2022F
Gross margin	(%)	19.4	22.0	23.7	20.5	19.2	18.4	22.3	23.6
Operating margin	(%)	15.5	18.1	19.7	16.7	15.0	14.0	17.9	19.2
EBITDA margin	(%)	24.3	27.6	29.1	27.1	26.2	27.3	32.1	33.0
EBIT margin	(%)	16.5	18.7	20.3	17.9	15.7	14.7	18.4	19.8
Net profit margin	(%)	0.2	5.0	6.8	5.1	5.3	5.2	7.0	7.6
ROE	(%)	1.2	30.0	17.6	9.9	9.3	8.0	10.4	11.4
ROA	(%)	0.1	1.9	2.6	2.0	2.0	1.9	2.4	2.6
Net D/E	(x)	6.2	4.8	2.1	2.9	1.8	2.1	2.4	2.5
Interest coverage	(x)	2.1	3.0	4.5	3.4	4.4	4.7	5.1	5.0
Debt service coverage	(x)	1.1	1.3	1.4	2.0	1.2	1.7	2.8	2.5
Payout Ratio	(%)	0.0	8.8	36.8	44.8	41.4	45.3	41.2	42.2

Main Assumptions

FY December 31	Unit	2015	2016	2017	2018	2019	2020F	2021F	2022F
Electricity sales - EGAT	(GWh)	3,744	5,805	6,706	7,702	9,100	9,497	9,387	9,171
Electricity sales - IU (Thailand)	(GWh)	2,436	2,568	2,949	3,057	3,084	3,451	4,035	5,358
Steam sales - IU (Thailand)	(kt)	538	509	512	501	855	784	913	907
Electricity tariff - IU (Thailand)	(Bt/KWh)	3.51	3.31	3.19	3.28	3.30	3.31	3.31	3.15
Steam price - IU (Thailand)	(Bt/KWh)	1,290	1,059	1,034	1,106	1,072	1,005	1,015	1,038
Effective gas cost	(Bt/MMBTU)	300	240	235	259	273	247	229	228



Financial statement

Profit	and	Loss	Statement

Unit	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20
(Btmn)	9,774	10,151	10,683	11,740	11,197	11,223	11,243	11,186
(Btmn)	8,236	8,464	8,736	9,340	9,097	8,910	9,033	8,737
(Btmn)	1,538	1,686	1,948	2,400	2,100	2,313	2,210	2,449
(Btmn)	425	337	394	439	650	476	486	478
(Btmn)	72	48	69	36	136	92	76	40
(Btmn)	917	554	517	827	732	1,530	327	982
(Btmn)	268	843	1,106	1,169	855	398	1,474	1,030
(Btmn)	46	49	62	76	48	54	20	59
(Btmn)	49	30	20	26	24	27	27	(10)
(Btmn)	(150)	(303)	(413)	(524)	(406)	(78)	(664)	(358)
(Btmn)	122	521	652	596	425	293	816	603
(Btmn)	8	11	(26)	168	(15)	(213)	202	(102)
(Btmn)	130	532	626	763	409	81	1,017	501
(Btmn)	2,141	2,366	2,719	3,283	2,896	3,251	3,195	3,406
(Btmn)	0.05	0.20	0.25	0.23	0.16	0.11	0.31	0.23
(Bt)	0.05	0.20	0.24	0.29	0.16	0.03	0.39	0.19
	(Btmn)	(Btmn) 9,774 (Btmn) 8,236 (Btmn) 1,538 (Btmn) 425 (Btmn) 72 (Btmn) 917 (Btmn) 268 (Btmn) 46 (Btmn) 49 (Btmn) (150) (Btmn) 122 (Btmn) 8 (Btmn) 130 (Btmn) 2,141 (Btmn) 0.05	(Btmn) 9,774 10,151 (Btmn) 8,236 8,464 (Btmn) 1,538 1,686 (Btmn) 425 337 (Btmn) 72 48 (Btmn) 917 554 (Btmn) 268 843 (Btmn) 46 49 (Btmn) 49 30 (Btmn) (150) (303) (Btmn) 122 521 (Btmn) 8 11 (Btmn) 130 532 (Btmn) 2,141 2,366 (Btmn) 0.05 0.20	(Btmn) 9,774 10,151 10,683 (Btmn) 8,236 8,464 8,736 (Btmn) 1,538 1,686 1,948 (Btmn) 425 337 394 (Btmn) 72 48 69 (Btmn) 917 554 517 (Btmn) 268 843 1,106 (Btmn) 46 49 62 (Btmn) 49 30 20 (Btmn) (150) (303) (413) (Btmn) 122 521 652 (Btmn) 8 11 (26) (Btmn) 130 532 626 (Btmn) 2,141 2,366 2,719 (Btmn) 0.05 0.20 0.25	(Btmn) 9,774 10,151 10,683 11,740 (Btmn) 8,236 8,464 8,736 9,340 (Btmn) 1,538 1,686 1,948 2,400 (Btmn) 425 337 394 439 (Btmn) 72 48 69 36 (Btmn) 917 554 517 827 (Btmn) 268 843 1,106 1,169 (Btmn) 46 49 62 76 (Btmn) 49 30 20 26 (Btmn) (150) (303) (413) (524) (Btmn) 122 521 652 596 (Btmn) 8 11 (26) 168 (Btmn) 130 532 626 763 (Btmn) 2,141 2,366 2,719 3,283 (Btmn) 0.05 0.20 0.25 0.23	(Btmn) 9,774 10,151 10,683 11,740 11,197 (Btmn) 8,236 8,464 8,736 9,340 9,097 (Btmn) 1,538 1,686 1,948 2,400 2,100 (Btmn) 425 337 394 439 650 (Btmn) 72 48 69 36 136 (Btmn) 917 554 517 827 732 (Btmn) 268 843 1,106 1,169 855 (Btmn) 46 49 62 76 48 (Btmn) 49 30 20 26 24 (Btmn) (150) (303) (413) (524) (406) (Btmn) 122 521 652 596 425 (Btmn) 8 11 (26) 168 (15) (Btmn) 130 532 626 763 409 (Btmn) 2,141 2,366	(Btmn) 9,774 10,151 10,683 11,740 11,197 11,223 (Btmn) 8,236 8,464 8,736 9,340 9,097 8,910 (Btmn) 1,538 1,686 1,948 2,400 2,100 2,313 (Btmn) 425 337 394 439 650 476 (Btmn) 72 48 69 36 136 92 (Btmn) 917 554 517 827 732 1,530 (Btmn) 268 843 1,106 1,169 855 398 (Btmn) 46 49 62 76 48 54 (Btmn) 49 30 20 26 24 27 (Btmn) (150) (303) (413) (524) (406) (78) (Btmn) 122 521 652 596 425 293 (Btmn) 8 11 (26) 168 (15)	(Btmn) 9,774 10,151 10,683 11,740 11,197 11,223 11,243 (Btmn) 8,236 8,464 8,736 9,340 9,097 8,910 9,033 (Btmn) 1,538 1,686 1,948 2,400 2,100 2,313 2,210 (Btmn) 425 337 394 439 650 476 486 (Btmn) 72 48 69 36 136 92 76 (Btmn) 917 554 517 827 732 1,530 327 (Btmn) 268 843 1,106 1,169 855 398 1,474 (Btmn) 46 49 62 76 48 54 20 (Btmn) 49 30 20 26 24 27 27 (Btmn) (150) (303) (413) (524) (406) (78) (664) (Btmn) 122 521 652

Balance Sheet

FY December 31	Unit	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20
Total current assets	(Btmn)	23,822	25,260	25,131	25,400	33,493	33,774	30,985	30,397
Total fixed assets	(Btmn)	76,814	84,901	88,670	88,638	88,200	96,134	95,182	96,581
Total assets	(Btmn)	100,636	110,161	113,801	114,038	121,693	129,907	126,167	126,978
Total loans	(Btmn)	91,495	61,815	61,161	59,849	58,261	65,032	62,163	69,611
Total current liabilities	(Btmn)	8,189	11,616	19,957	26,729	25,832	25,381	22,803	23,339
Total long-term liabilities	(Btmn)	64,708	70,009	65,262	57,847	57,184	68,289	66,588	65,895
Total liabilities	(Btmn)	72,897	81,625	85,218	84,576	83,016	93,670	89,391	89,234
Paid-up capital	(Btmn)	5,214	5,214	5,214	5,214	5,214	5,214	5,214	5,214
Total equity	(Btmn)	19,253	19,670	19,607	19,964	28,144	26,735	26,746	27,181
BVPS	(Bt)	7.39	7.55	7.52	7.66	10.80	10.26	10.26	10.43

Cash Flow Statement

FY December 31	Unit	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20
Core Profit	(Btmn)	122	521	652	596	425	293	816	603
Depreciation and amortization	(Btmn)	956	968	1,096	1,286	1,310	1,323	1,394	1,394
Operating cash flow	(Btmn)	3,298	2,128	3,097	1,124	3,000	3,904	3,432	3,261
Investing cash flow	(Btmn)	(5,453)	(4,797)	(1,114)	(200)	(545)	(2,435)	(1,503)	(9,015)
Financing cash flow	(Btmn)	1,736	1,534	(2,106)	(296)	6,778	(1,648)	(4,346)	5,809
Net cash flow	(Btmn)	(420)	(1,135)	(123)	627	9,233	(178)	(2,417)	55

Key Financial Ratios

FY December 31	Unit	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20
Gross margin	(%)	15.7	16.6	18.2	20.4	18.8	20.6	19.7	21.9
Operating margin	(%)	11.4	13.3	14.5	16.7	13.0	16.4	15.3	17.6
EBITDA margin	(%)	21.9	23.3	25.5	28.0	25.9	29.0	28.4	30.5
EBIT margin	(%)	12.1	13.8	15.2	17.0	14.2	17.2	16.0	18.0
Net profit margin	(%)	1.3	5.2	5.9	6.5	3.7	0.7	9.0	4.5
ROE	(%)	2.5	10.7	13.3	12.0	7.1	4.3	12.2	8.9
ROA	(%)	0.5	2.0	2.3	2.1	1.4	0.9	2.5	1.9
Net D/E	(x)	4.0	2.4	2.4	2.2	1.2	1.6	1.6	1.8
Interest coverage	(x)	2.3	4.3	5.3	4.0	4.0	2.1	9.8	3.5
Debt service coverage	(x)	1.5	1.3	1.2	1.5	1.6	1.2	2.7	0.9

Key Statistics

FY December 31	Unit	4Q18	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20
Electricity sales - EGAT	(GWh)	2,053	2,127	2,199	2,419	2,355	2,265	2,557	2,507
Electricity sales - IU (Thailand)	(GWh)	763	775	783	795	731	772	563	721
Steam sales - IU (Thailand)	('000 tons)	124	165	212	279	215	227	189	238
Electricity tariff - IU (Thailand)	(Bt/KWh)	3.30	3.30	3.30	3.29	3.31	3.31	3.32	3.28
Steam price - IU (Thailand)	(Bt/ton)	1,186	1,163	1,029	1,038	1,058	1,058	1,057	935
Effective gas cost	(Bt/mmbtu)	279	281	275	269	266	267	262	235



Capacity growth backs earnings growth

Capacity growth plan is on track. BGRIM's capacity increased in 2018-2020 with CAGR of 20% for installed capacity to 3,058MW and 24% for equity MW of 1,945MW. Its baseline growth based on committed capacity is set at 20% over the next five years (2021-25) or a CAGR of 4% to 3,682MW and 33% for equity MW or CAGR of 6% to 2,590MW. Management confirms the plan to conclude deals for 3.5GW new capacity in 2021, mainly in 1Q21, which will lift installed capacity to 7.2GW by 2025. Since BGRIM's interest in these projects is about 70% on average, the equity MW will increase to >5GW by 2025, equivalent to a CAGR of 21%, tracking its historical record.

7,200 6 Gas Solar ☐ IWTE Hydro → Wind 3,682 3.660 3.645 3,270 3.089 3,058 2,896 2.076 2018 2019

Figure 1: BGRIM - capacity growth plan

Source: BGRIM

The majority of the incremental capacity of committed projects are gas-fired SPPs in Thailand (nearly 80% of additional MW). This business will continue to grow, with management saying that more SPP M&As in Thailand will be concluded by 1Q21 with gross capacity of 300-360MW. It confirms its intention to acquire 3-4 SPPs that already have an industrial customer base to minimize investment risk.

More investments abroad are expected to be announced in 2021, mainly in ASEAN. These include LNG-to-power projects and renewable power projects (wind and solar) in Vietnam, gas-fired power plants in Malaysia and wind power projects in Korea.

Another investment opportunity in Myanmar will be via a partnership with AMATA and PTT group. BGRIM's interest may be $\sim 15\%$ via its subsidiary Amata-B. Grimm Power. BGRIM's role in the partnership is to operate a power plant in the industrial estate to feed industrial customers, with excess energy going to the Myanmar government.

Figure 2: Installed capacity breakdown (2020)

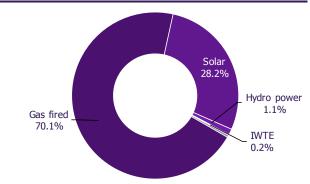
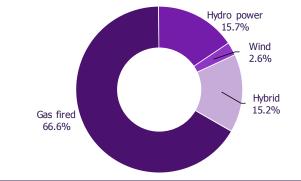


Figure 3: Breakdown of capacity additions



Source: BGRIM, SCBS Investment Research

Source: BGRIM, SCBS Investment Research



II. Growth strategy

Alliances for growth. One of BGRIM's keys to success is its capacity expansion via strategic partners. The company has well-established relationships with industrial estate developers, especially Amata Corporation (AMATA), making it the major electricity supplier in major industrial estates in Thailand. AMATA and B.Grimm have been strategic partners since the development of Amata B.Grimm Power 1 in 1990s, followed by nine other SPPs in Chonburi and Rayong since then. The two parties also jointly developed power projects in Vietnam when AMATA expanded its business to the country, whose industrial sector has increased exponentially. Recently, they have teamed up to develop a "smart city" in a major industrial area. In addition to AMATA, BGRIM also has strong ties with other IE operators, including WHA Group and Bang Kadi Industrial Park.

Abundant market opportunity for SPP business. BGRIM's SPP business has limited capacity, allowing it to supply electricity to only 130 customers out of 1,500 industrial users in five industrial estates (as shown in Figure 4 below). We view this as a great opportunity for BGRIM, especially as the new PPAs with EGAT for its five SPP replacement projects starting in 2022 will cover only 150MW contracted capacity vs. 320MW under current agreements. This will free up nearly 300MW capacity for industrial customers. This would accommodate the capacity expansion of its current customers as well the new ones. Note that most of BGRIM's SPPs are located in the heart of the Eastern Economic Corridor (EEC) or the Eastern Special Development Zone, which covers three provinces, Chachoengsao, Chon Buri, and Rayong.

Total number of industry users >1,500 B.Grimm's number of clients = 130 Laem Chabung / WHA Chonburi 1 Total > 170 factories 25 factories are our call WHA Eastern (Map Ta Phut) / Asia Total > 120 factories (from 4 linked industria estates including Asia, WHA Eastern (Map Ta Phut), Map Ta Phut and Padaeng) 3 factories are our clients Gas-fired cogeneration power plants

Figure 4: BGRIM – plenty of demand for electricity from IUs

Source: BGRIM, SCBS Investment Research

Overseas partnerships. Strong partnerships with local operators also facilitates BGRIM in overseas investments. It continues to build strategic investment partnership in target countries to reduce investment risk, obtain local market knowledge and gain connections. Its biggest success story is its investment in ASEAN's largest solar farm (420MW) located in Tay Ninh, southwest of Vietnam. This project is a joint venture with Xuan Cau Group, one of the largest conglomerates in Vietnam that runs many diverse businesses such as real estate, trading and services, energy and infrastructure. The project is the first step for BGRIM into the renewable power business in Vietnam and has been followed by several projects, including another solar farm – Phu Yen Solar (257MW) – with more on the way.

Partnership with PEA to expand business outside industrial estates. BGRIM also strengthened its relations with the Provincial Electricity Authority (PEA) and its subsidiary for international business – PEA ENCOM International (PEA ENCOM) to jointly study new business opportunities with cooperation in both technical and financial aspects. We believe this partnership will unlock a new window of opportunity for BGRIM to supply electricity to more industrial customers outside industrial estates by leveraging PEA's strength in electricity transmission and distribution network. This would give BGRIM greater competitiveness in the Map Ta Put area and could improve electricity supply efficiency for the private sector via directly supplying end users, i.e., the Independent Power Supply (IPS), renewable project expansion and jointly exploring a Microgrid and Smart Microgrid System, which would strengthen BGRIM's leading position and competitiveness in the power industry.



Management expects to conclude 5-6 IPS projects within 2021. The immediate benefit from the partnership is the investment cost savings of Bt315mn for the B.Grimm Power (AIE-MTP) project, a SPP replacement project, out of more than Bt1bn investment cost savings expected.

Vietnam is the second home for BGRIM. BGRIM's business in Vietnam started in 1999 with a partnership with Amata Corporation to supply the electricity to customers in Amata Bien Hoa Industrial Park. The company's interest in this business is only 30.7% and it is only an electricity trading business, as the electricity supply is purchased from EVN with committed capacity of 13MW. The company also has a diesel power plant for backup purposes.

BGRIM's investment in Vietnam became active again in 2018 when it began to develop two solar power projects with combined capacity of 677MW; one is the largest solar power project in ASEAN with capacity of 420MW and is located in Tay Ninh, southwest of Vietnam (DT). The other one is Phu Yen power plant with the capacity of 257MW (Phu Yen). Both solar power projects commenced operations in Jun 2019 and contributed 436.6MW or 23% to BGRIM's equity MW (as of Oct 2020). A long-term partnership with Asian Development Bank (ADB) has played a crucial part in these renewable power projects from ADB's participation in a US\$186mn syndicated loan with a group of lenders to support the financing of Phu Yen solar farm project in Oct 2020. The relationship between the parties was solidified following the launch of the first green bond in Thailand in 2018 for the development of renewable power projects in Thailand and neighboring countries.

Vietnam's government is working to conclude a new power development plan (PDP8), the master plan for 2021-2030 with a vision to 2045, which could feature a deviation from its high reliance on inflexible coal-burning IPPs toward renewable and LNG. Unlike previous plans, the capacity expansion to accommodate the unremitting increase in electricity demand will be driven mainly by new solar and wind energy projects as well as gas-fired power plants. These sources combined will make up 47% of the whole system of 138GW by 2030, rising to 60% of 222GW in 2040. With this backdrop, BGRIM will continue to grow its portfolio in Vietnam, including a joint investment with Petrovietnam (PVN) to develop an integrated LNG project and 3GW power plant. While this joint development with the Vietnamese government requires time, the company is also building relations with other private companies in parallel to develop LNG-to-power projects in Vietnam. Other potential investment in Vietnam is into a 150MW-wind power project, which is expected to be finalized in 2021. According to the assessment of the World Bank and Danish Energy Agency, Vietnam has an estimated potential of 160GW offshore wind energy within 5km and 100km from shore.

Expanding green power in portfolio. While the company has expertise in developing and operating gas-fired SPPs, one of its long-term targets is to build up a portfolio in renewable power. During 2017-20, operating capacity of renewable power plants increased a large 89% p.a. over the three years to 901MW by end-2020, largely solar power in Vietnam. This will increase to 1,029MW by 2025 based on committed projects. This is equivalent to 28% of total installed capacity. The key to its success has been its strong relationship with local partners. We believe the capacity of renewable power projects will continue to increase, especially in Vietnam, given the country's ambitious target to raise the proportion of renewables in its power mix to 15-20% by 2030 and to 25-30% by 2045 from 10% currently. Opportunities in Cambodia's solar power are also ample, with the company's first solar project in Cambodia, Ray Power, starting up in late 2020. According to ADB's assessment, the country's estimated technical potential is over 8,000 MW of solar power against the current 200MW±, and 18-72 MW of wind power potential.

After successful development of solar power, BGRIM will expand its capacity in renewable power to wind power projects in Vietnam and South Korea. Management expects to conclude investment in onshore and offshore wind power projects in 2021 with combined capacity of 280-310MW.





5 power plants39 MW

1 power plant
 420 MW

Figure 5: BGRIM – renewable power projects

Source: BGRIM, SCBS Investment Research

※ Solar power plants
 ★ Wind power plant
 ※ Waste to energy power plant



III. LNG shipper license is a game changer.

LNG shipper license granted. BGRIM is one of the private companies in Thailand that has been granted the LNG shipper license by the Energy Regulatory Commission (ERC) to import LNG for its power plants with an annual volume of 650kt. This is in line with the government's long-term policy to liberalize the gas market in Thailand. BGRIM initially planned to feed the imported LNG to five SPPs that are under the SPP Replacement scheme. This will increase its flexibility in sourcing natural gas from other providers in addition to piped gas from PTT and at a more competitive price. It was also allowed to import LNG to feed the existing power plants prior to the startup of the 700MW of SPP replacements. Management expects to import 650kt LNG for the existing SPPs in 2021 under the current license.

We believe this LNG shipper license will be a game changer for the SPP business in Thailand, optimizing fuel cost to achieve a higher return on investment. Management guided that it is negotiating with international LNG suppliers for 10-year contracts that would cap its gas cost at US\$7/mmbtu. The contract price will be indexed with Brent crude oil price, which is capped at US\$70/bbl. Hence, at current Brent oil price of <US\$60/bbl, imported LNG cost will be much lower than US\$7/mmbtu. Management guided that its cost for imported LNG will be 20-30% lower than PTT's L/T contract price for LNG. While this will providing gas cost savings for the electricity and steam sold to IUs, the electricity sold to EGAT under long-term PPAs will be accommodated by gas from PTT under long-term agreements. Since the cost of this gas can be passed through, there would be no benefit from imported LNG.

Although domestic price of natural gas from the Gulf of Thailand will be lower when the new profit-sharing contracts (PSC) for Erawan (G1/61) and Bongkot (G2/61) fields take effect in 2022-23, the gas pool price still includes the higher price of gas from Myanmar and imported LNG under long-term contract price. We believe BGRIM will still benefit from the more competitive cost of the imported LNG that is contracted based on the capped Brent oil price of <US\$70/bbl.

October 27, 2020 November 2, 2019 May 27, 2020: November 11, 2020: MOU signing with LNG Shipper licens LNG Approval from Committee on Energy Policy Administration approval from the (CEPA) acknowledged Ga existing SPPs from for jointly study and Energy Regulatory Liberalization-Phase II develop the LNG-to-Commission (ERC) 2020 onwards with the process to for 650,000 ton/yea ptt Ptt LNG B.GRIMM **SINCE 1878** Shipping Field Liquefaction Storage Pipeline Development Plant and Transmission Regassification **Power Plants** 1 USD/ mmBTU*

Figure 6: BGRIM - LNG-to-power and LNG value chain

Source: BGRIM, SCBS Investment Research



IV. Earnings review & outlook

Strong growth in normalized net profit in 9M20. BGRIM's 9M20 net profit was Bt1.6bn, down 16.8% YoY on higher finance cost from unrealized FX loss on its USD debts, mainly in 1Q20. Operating profit and normalized net profit (NNP), net of non-controlling interest, increased by 13.7% YoY and 21.2% YoY, respectively, backed by the growth in capacity provided by the startups of four new power projects (820MW), mainly renewable power, and newly acquired assets, B.Grimm Power (AIE-MTP) or BPAM (124MW) in Mar 2019 and Angthong Power (ATP) (123MW) in Mar 2020. The NNP, net of NCI, improved 11% QoQ in 3Q20 to a record Bt745mn, up from the year's trough in 2Q20.

Electricity sales to IUs bottomed in 2Q20. BGRIM's profitability would have been better if its electricity sales to industrial users had not been eroded by lower demand during the peak of the COVID-19 pandemic in 2Q20, largely in the automotive parts industry (57% of total IU segment). Even then, electricity demand for some customers, mainly in packaging, electronics and home appliance industries, improved YoY. We believe the poor demand from industrial customers bottomed in 2Q20, after which some resumed normal production. BGRIM also signed LT agreements with new customers in 2H20 of up to 16MW, more than half of this year's target of 31MW.

Lower gas cost and contribution from renewable power lifted margin. EBITDA margin improved from 25.7% in 9M19 to 29.3% in 9M20 upon the higher efficiency at some of its SPP power plants and a fall of 7.4% YoY in gas cost to Bt254.6/mmbtu against a stable electricity tariff for IUs. Profit contribution from renewable power plants increased on a better EBITDA margin. Revenue contribution from renewable power jumped from 4.6% of total electricity sales in 9M19 to 9.6% in 9M20.

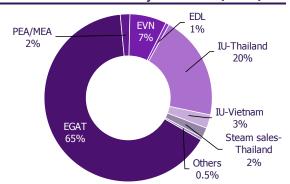
BGRIM's net gearing ratio increased slightly from 1x at the end of 2019 to 1.3x at end-3Q20. This reflects higher short-term borrowings and long-term loans for investment, for both asset acquisition and capital spending on several projects under development. This included the trust receipt agreement with financial institutions to repay the construction cost of solar power plants in Vietnam. Interest-bearing debt increased Bt8.6bn from the end of 2019, vs. capital spending of Bt13.7bn. The short-term loans will be refinanced later at a more competitive interest cost.

Figure 7: BGRIM – 3Q20 earnings review

		2						
	3Q19	2Q20	3Q20	YoY%	QoQ%	9M19	9M20	YoY%
P&L (Bt, mn)								_
Total revenue	11,740	11,243	11,186	(4.7)	(0.5)	32,574	33,652	3.3
Gross profit	2,400	2,210	2,449	2.0	10.8	6,034	6,972	15.5
EBITDA	3,283	3,195	3,406	3.8	6.6	8,367	9,852	17.7
Core profit	596	816	603	1.2	(26.1)	1,769	1,712	(3.2)
Net Profit	763	1,017	501	(34.4)	(50.8)	1,922	1,599	(16.8)
EPS (Bt)	0.29	0.39	0.19	(34.4)	(50.8)	0.74	0.61	(16.8)
B/S (Bt, mn)				•				
Total assets	114,038	126,167	126,978	11.3	0.6	114,038	126,978	11.3
Total liabilities	84,576	89,391	89,234	5.5	(0.2)	84,576	89,234	5.5
Total equity	29,462	36,776	37,744	28.1	2.6	29,462	37,744	28.1
BVPS (Bt)	7.66	10.26	10.43	36.2	1.6	7.66	10.43	36.2
Financial ratio								
Gross margin (%)	20.4	19.7	21.9	1.5	2.2	18.5	20.7	2.2
EBITDA margin (%)	28.0	28.4	30.5	2.5	2.0	25.7	29.3	3.6
Net profit margin (%)	6.5	9.0	4.5	(2.0)	(4.6)	5.9	4.8	(1.1)
ROA (%)	2.1	2.5	1.9	(0.2)	(0.6)	2.4	1.7	(0.7)
ROE (%)	12.0	12.2	8.9	(3.1)	(3.3)	13.1	7.7	(5.4)
D/E (X)	2,9	2.4	2.4	(50.6)	(6.6)	2.9	2,4	(50.6)

Source: BGRIM, SCBS Investment Research

Figure 8: Revenue breakdown by customer (9M20)



Source: BGRIM, SCBS Investment Research

Figure 10: Quarterly profit

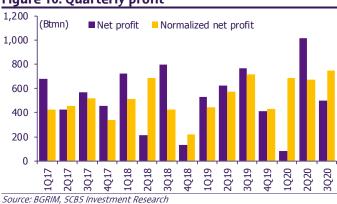
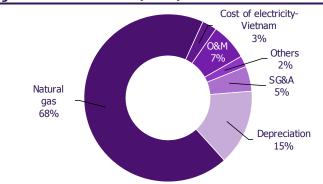
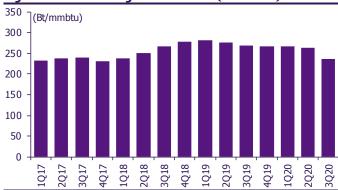


Figure 9: Cost structure (9M20)



Source: BGRIM, SCBS Investment Research

Figure 11: Effective gas cost – SPP (Thailand)



Source: BGRIM, SCBS Investment Research

4Q20F outlook: demand from IUs to continue to improve. We expect 4Q20 profit to recover QoQ as demand for electricity and steam from industrial users has come back up from the poor 2Q20. The company says that sales revenue from this segment touched bottom in May and has since then improved, with Sep already showing YoY growth. Its IU customers in the automotive industry began to claw their way back, largely those involved in auto tire business. Demand for electricity and steam for IUs in Thailand has already returned to pre-COVID level thanks to some customers who shifted a portion of production to Thailand from other locations where COVID remains more severe. Although this demand could decline later when the impact from COVID simmers down, it will be offset by more production for exports, currently still below pre-COVID levels.

Limited impact from EGAT's gridline maintenance. Electricity sales to EGAT will stay strong at a level similar to 2Q20 despite EGAT's maintenance of its transmission gridline that will affect electricity sales for BGRIM's seven SPPs in the eastern seaboard. Although the impact of EGAT's gridline maintenance is likely to be similar to 1Q20, BGRIM's overall electricity sales will be plumped up by new capacity of Angthong Power, which was acquired in Mar 2020.

Gas cost down QoQ. BGRIM expects its gas cost to drop by 8% QoQ in 4Q20 to Bt215.8/mmbtu based on PTT's price indication. Gas cost came down steadily from Apr 2020 due to lower oil price before beginning to move up again in 4Q20 due to the price adjustment of key producing gas fields in the Gulf of Thailand.

Finance cost to go up from more loan drawdowns. Better earnings from operations will be partly offset by higher interest expenses as it has drawn down more loans to develop new projects, including the Phu Yen solar project in Vietnam. This project commenced operations in Jun 2020 but payment was not made until 4Q20.

2021 outlook – Revenue and profit: Our revenue and profit forecast for 2021 is based on committed capacity, which will increase 1.9% YoY upon a full year of operations of Ray Power (a solar power project in Cambodia) and the startup of Bo Thong Wind Farm (16MW) and U-Tapao hybrid (15MW). We expect normalized net profit to increase by 11.2% YoY due to a higher portion of electricity sold to industrial customers, higher steam price and lower gas cost of 8% YoY, based on PTT's indicative gas price. In addition to committed capacity, its



earnings will be bumped up by new operating capacity growth in 2021 added by the acquisition of SPPs in Thailand and gas-fired power plants in Malaysia; at the same time, imports of LNG will help reduce effective gas cost.

Figure 12: Sales revenue

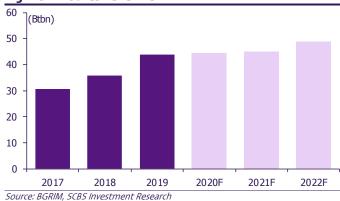
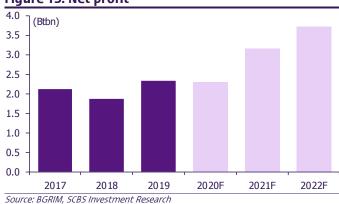


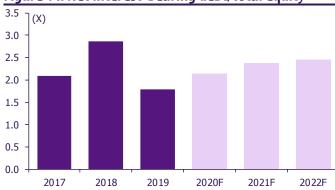
Figure 13: Net profit



Effective gas cost reduced by imported LNG. We estimate BGRIM's gas requirement at roughly 106mn mmbtu. Imports of 250kt could replace 12% of its annual requirement and provide savings of at least Bt100mn/year, based on net LNG cost of US\$7/mmbtu.

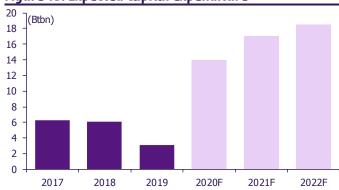
Balance sheet. We expect net debt to equity ratio to gradually increase during 2020-22, which is an investment phase. Management guides to the possibility that capital expenditure over the three years could be as high as Bt50bn for the committed projects in the pipeline, plus some potential upside from new projects. BGRIM has several options to finance the new projects without making a cash call. These may include the issuance of perpetual debentures and monetizing some assets on hand. Prior to listing on the SET, it raised funds via an infrastructure fund, Amata B. Grimm Power Plant Infrastructure Fund (ABPIF). We believe this option could be revived in the future if new investment opportunities with tempting return emerge.

Figure 14: Net interest-bearing debt/total equity



Source: BGRIM, SCBS Investment Research

Figure 15: Expected capital expenditure



Source: BGRIM, SCBS Investment Research



V. Valuation and risk factors

DCF-based TP is Bt64. Our valuation for BGRIM is based on discounted cash flow (DCF) method on its operating and committed projects since by nature, electricity generating provides stable cash flow, especially for those with long-term power purchase agreements or long-term contracts with electricity authorities and industrial customers. Our DCF-based valuation of Bt64/share is based on WACC of 4.3%, derived from cost of debt (net tax) of 3.8% and cost of equity of 5.8% (risk-free rate of 2.5%, expected market return of 8% and beta of 0.6). The sensitivity of our valuation to changes in WACC and beta is shown in Figure 16. Upside to our valuation could come from investment return from 24M Technologies, which we did not include in our model.

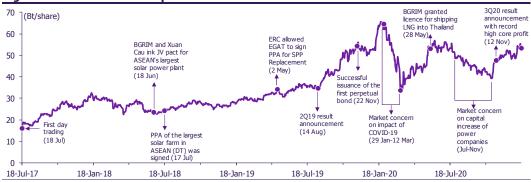
Figure 16: BGRIM - sensitivity of DCF valuation

			Base		
WACC	2.3%	3.3%	4.3%	5.3%	6.3%
	174.40	99.56	64.27	43.75	30.32
Beta	0.4	0.5	0.6	0.7	0.8
	71.91	67.94	64.27	60.87	57.71

Source: BGRIM, SCBS Investment Research

Share price performance: BGRIM's share price has risen by 23% over the past three months, slightly outperforming the SET (+21%) and the average of its local peers (+16%). We believe this reflects market optimism on its growth prospects based on its target to double installed capacity by 2025 and the continuous recovery of electricity demand from industrial customers as production gets back to normal, especially in the automotive and electrical appliance segments. At the current price, BGRIM is trading at PEG of 2.6x for 2021 based on 3-year profit CAGR of 17% over 2020-22F. This ratio is expected to decline gradually as more operating capacity is added to its portfolio by 2025.

Figure 17: BGRIM – share price movement

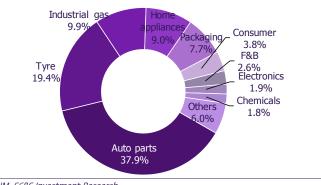


Source: BGRIM, SCBS Investment Research

Risk factors include:

Lower demand from industrial customers could hurt BGRIM's earnings as the margin from these users is normally higher than electricity sales to EGAT. BGRIM's revenue and profit in 2Q20 was hurt from lower demand from the automotive industry. It is worth noting, however, that BGRIM's industrial customers are spread across a variety of industries, which diversifies its market risk.

Figure 18: BGRIM's industrial customers (3Q20)

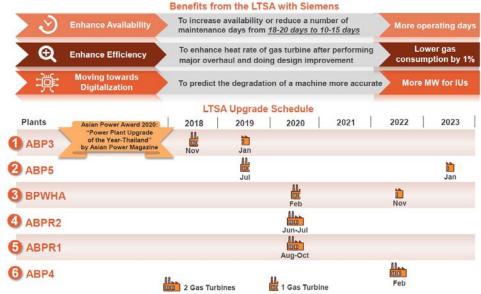


Source: BGRIM, SCBS Investment Research



Unplanned shutdowns could pose downside risk to operations. BGRIM, however, has a good operational track record, aided by preventive measures that include planned maintenance shutdowns. It also has long-term service agreements to enhance performance of operating projects with Siemens, a major equipment supplier, to ensure stable and efficient operations. The agreements also cover the higher availability of its plants by reducing the number of days for maintenance shutdown from 18-20 days to 10-15 days and a 1% cut in gas consumption. The company expects an upgrade of the gas turbines of six SPPs would save Bt70-80mn/year in energy costs.

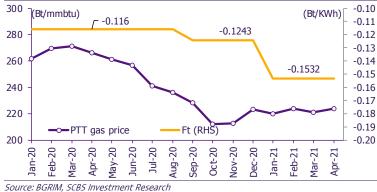
Figure 19: Long-term service agreements



Source: BGRIM, SCBS Investment Research

- **Higher gas cost than anticipated** could affect our earnings forecast although this can be largely passed through to customers under long-term PPAs with electricity authorities. Gas cost fluctuates in tandem with oil prices given the linkage of gas price formula to either fuel oil or crude oil prices.
- Mismatch of tariff and fuel cost adjustment. The tariff on sales to industrial customers is based on PEA's tariff, which is also subject to adjustment (known as Ft). BGRIM can be hurt by a mismatch between the adjustment in tariff and fuel cost (gas). Although, we view that this mismatch will not have meaningful impact in the longer term, it could affect market sentiment on earnings performance in the shorter time frame, particularly quarterly performance.

Figure 20: Indicative gas price (SPP) vs. Ft rate



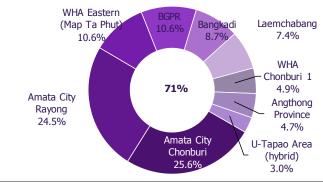
Lower-than-expected return on new investments. Several of BGRIM's power projects will be under development for the next three years. Any delays in start-up could lead to opportunity cost and cost overruns for the projects.

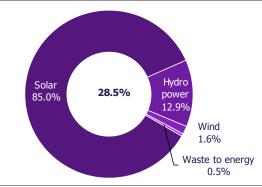


VI. Company overview

BGRIM is a holding company of B.Grimm Group, one of Thailand's leading conglomerates that has been doing business in Thailand for >140 years. Its purpose is to invest in power generation both in Thailand and neighboring countries. The company was founded in 1993 to participate in the first round of SPP bidding. The first SPP of BGRIM, Amata B.Grimm Power 1 (ABP1) with the installed capacity of 166MW, started up in 1998. Since then, BGRIM's SPP operating capacity in Thailand, based on 100% interest, has expanded to 2,144MW as of Oct 2020. This will increase to 2,640MW by 2023 when all projects under development commence operations, including five SPP replacement projects. The company has also invested in some renewable power projects (solar, wind and hydropower) both in Thailand and other Southeast Asian countries (Vietnam, Laos and Cambodia). As of Oct 2020, its installed capacity totaled 3,019MW based on 100% interest and 1,905MW based on equity interest.

Figure 21: Gas-fired power plants (industrial estate) Figure 22: Renewable group



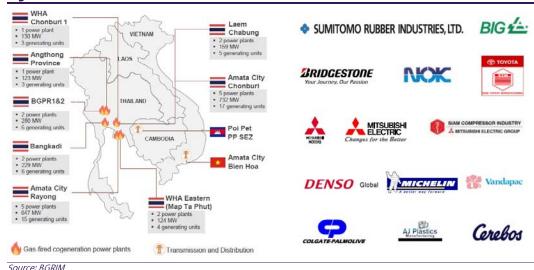


Source: BGRIM, SCBS Investment Research

Source: BGRIM, SCBS Investment Research

SPP business accounts for 71% of total capacity. BGRIM's SPP business covers seven industrial estates in the heart of Thailand's industrial zone, mostly in central and eastern provinces. The electricity and steam from BGRIM's plants is powering >130 customers with long-term contracted electricity capacity of 611.4MW and steam capacity of 183.7 tons/hour as of 3Q20 in Thailand of up to 15 years. These customers are mostly global players in various industries, from automotive and electrical appliances to packaging and consumer products. The company also has long-term contracted electricity capacity of 429.7MW for its power business in Vietnam. Note that its power business in Vietnam involves only transmission and distribution of electricity supplied by Vietnam Electricity's (EVN) subsidiary.

Figure 23: BGRIM's SPP business



Renewable power capacity is expanding. Capacity of BGRIM's renewable power plants accounts for 28.5% of the company's total installed capacity, including committed capacity which is under development. It has continued to build up capacity in renewable power plants across the region with total capacity of 1,029MW (727MW equity) as of Oct 2020. The largest



capacity is solar power generation in Vietnam, comprising two solar farms with combined capacity of 677MW, followed by 145MW from solar power projects in Thailand.

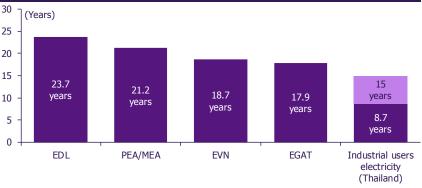
Figure 24: BGRIM's renewable power plants in the region (as of Oct 2020)

	<u>I</u>	nstalled MW			Equity MW	
Type of Energy	Total Capacity	%	In Operation	Total Capacity	%	In Operation
Gas fired	2,560	69.5	2,144	1,783	68.8	1,317
Solar	861	23.4	822	596	23.0	557
Hydro	133	3.6	35	95	3.6	25
Hybrid	95	2.6	-	95	3.7	-
Wind	16	0.4	-	15	0.6	-
IWTE	5	0.1	5	2	0.1	2
Backup for power trading	13	0.4	13	4	0.2	4
Total	3,682	100.0	3,019	2,590	100.0	1,905

Source: BGRIM

BGRIM's revenue stream is secured by long-term PPAs. More than 80% of BGRIM's conventional power plant capacity is contracted with electricity authorities in each country in which it operates, including the Electricity Generating Authority of Thailand (EGAT), and industrial customers under long-term power purchase agreements (PPAs). This cements the long-term earnings stream. Its weighted average remaining PPA life ranges between 17.9-23.7 years for electricity sales to the electricity authorities. BGRIM also has long-term contracted capacity with industrial users with remaining life of 8.7 years. Gong by past experience, this is likely to be extended to 15 years.

Figure 25: Weighted average remaining PPA life



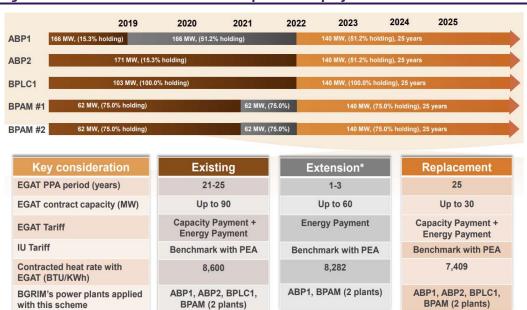
Source: BGRIM

SPP extension and replacement projects. BGRIM's SPP capacity, where existing PPAs are expiring over 2019-23, is secured by the Energy Regulatory Commission's (ERC) approval to extend and renew the PPAs of five SPPs with combined capacity of 700MW, up from 564.6MW under current PPAs. Nonetheless, the contracted MW with EGAT will be reduced to 150MW, down from 320MW. The remaining capacity will be contracted with industrial customers that are already in place. The available capacity for industrial customers is designed to support the high demand for stable electricity and steam arising from the Eastern Economic Corridor Development Project (EEC) and PPAs have now been signed with most industrial customers.

The key challenge to this SPP replacement projects is much lower contracted heat rate at 7,409 btu/KWh compared with 8,282-8,600 btu/KWh, implying that the new gas turbines will be more efficient than currently. Management confirms that the new gas turbine technology will allow it to reduce its actual heat rate to match the contracted rate. Its LNG shipper license will help reduce effective gas cost. All 700MW of the SPP replacement projects is scheduled to start commercial operation in 2023.



Figure 26: BGRIM – SPP extension and replacement projects

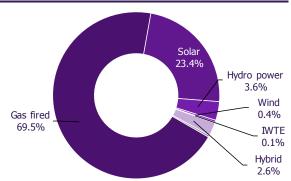


Source: BGRIM

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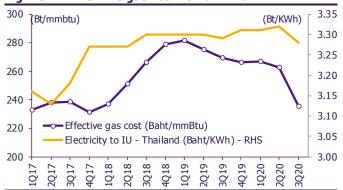
Appendix

Figure 27: Capacity breakdown



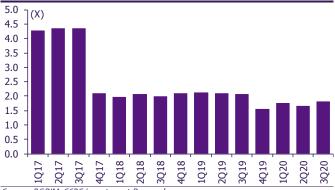
Source: BGRIM, SCBS Investment Research

Figure 29: Effective gas cost vs. tariff to IU



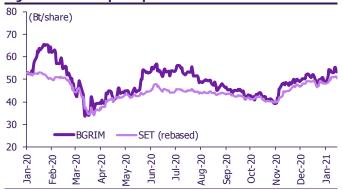
Source: BGRIM, SCBS Investment Research

Figure 31: Interest-bearing debt/Equity



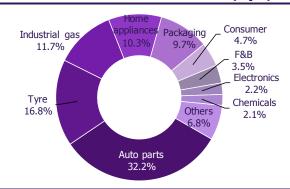
Source: BGRIM, SCBS Investment Research

Figure 33: Share price performance



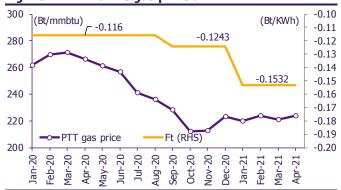
Source: Bloomberg Finance LP, SCBS Investment Research

Figure 28: Industrial customer breakdown (3Q20)



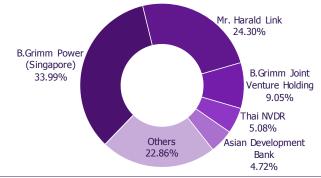
Source: BGRIM, SCBS Investment Research

Figure 30: Indicative gas price and Ft



Source: BGRIM, SCBS Investment Research

Figure 32: BGRIM – shareholders



Source: BGRIM, SCBS Investment Research

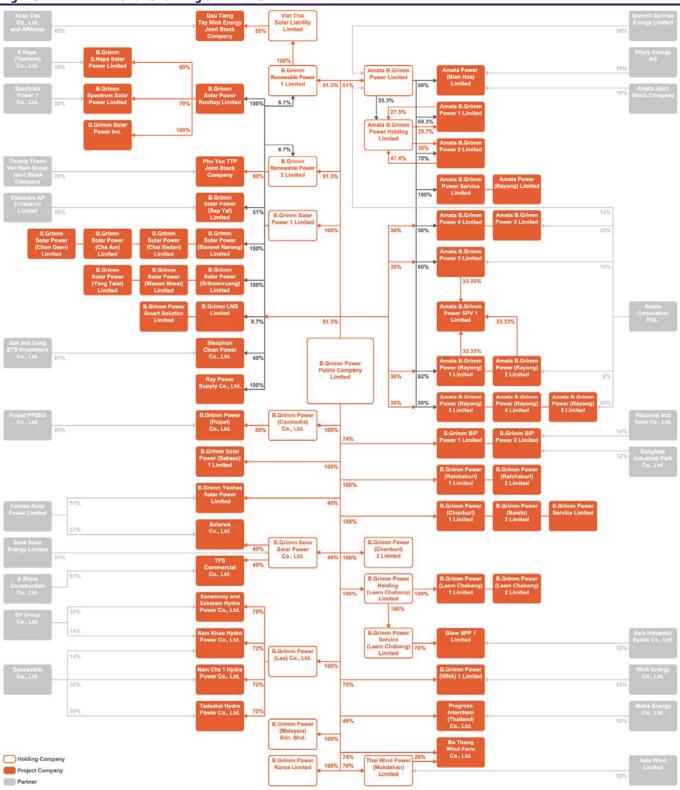
Figure 34: BGRIM - PBV band



Source: SCBS Investment Research



Figure 35: BGRIM - shareholding structure



Source: BGRIM, SCBS Investment Research

Figure 36: Valuation summary (price as of Jan 15, 2021)

	Jo. Valua		<u>y</u>	(Price	C 0.5 0.	J GITT 11	,	/														
	Rating	Price	Target	ETR	P/	E (x)		EPS gr	owth	(%)	P/I	BV (x)	RO	E (%	6)	Div. Y	ield ((%)	EV/EI	BITDA	1 (x)
		(Bt/Sh)	(Bt/Sh)	(%)	19A	20F	21F	19A	20F	21F	19A	20F	21F	19A	20F	21F	19A	20F	21F	19A	20F	21F
ACE	Outperform	3.82	5.0	32.2	38.7	24.6	18.4	62	57	33	3.6	3.1	2.8	11	14	16	0.0	1.3	1.6	20.7	16.9	12.8
BGRIM	Outperform	53.25	64.0	20.9	63.3	60.0	43.9	17	5	37	4.9	4.7	4.4	9	8	10	0.7	0.8	0.9	18.0	18.7	17.1
GPSC	Outperform	81.50	95.0	18.3	39.2	28.7	24.2	(8)	36	19	1.5	2.2	2.1	5	8	9	1.6	1.7	2.1	13.5	16.9	14.5
Average	1	•			47.1	37.8 2	28.8	(23)	104	4	3.3	3.3	3.1	9	10	12	0.8	1.3	1.5	17.4	17.5	14.8

Source: SCBS Investment Research



Figure 37: Peer comparison

Company name	Mkt. Cap		PE (x)		EPS G	rowth	(%)	P	BV (x)		Div.	Yield (º	%)	R	DE (%)		EV/E	BITDA	(x)
	(Btm)	20F	21F	22F	20F	21F	22F	20F	21F	22F	20F	21F	22F	20F	21F	22F	20F	21F	22F
Absolute Clean Energy	38,872	22.9	19.8	10.0	85.6	15.6	98.4	3.2	2.9	2.4	1.4	1.6	3.7	12.0	12.0	20.7	19.7	15.7	8.8
BCPG	41,190	18.8	20.4	21.0	-6.5	-8.1	-2.5	1.5	1.6	1.6	2.8	2.8	2.9	9.4	9.3	8.8	20.1	17.3	17.1
B Grimm Power	138,817	50.7	41.2	34.6	19.4	22.8	19.1	4.6	4.2	4.1	0.8	1.0	1.1	8.8	10.6	11.2	16.1	14.6	13.0
Banpu Power	48,511	14.4	12.2	10.8	13.9	17.7	12.9	1.2	1.1	1.1	3.8	4.1	4.4	8.2	9.4	10.2	51.4	63.7	66.3
Electricity Generating	100,555	9.9	9.4	8.2	-21.9	5.2	14.1	0.9	0.9	0.8	3.3	3.4	3.6	9.2	9.5	10.0	18.3	17.3	15.9
Global Power Synergy	229,808	29.4	25.5	23.8	23.1	15.4	7.2	2.1	2.0	1.9	1.7	1.9	2.0	7.1	7.8	8.0	16.6	15.4	14.7
Gulf Energy Development	413,594	88.8	51.1	35.3	-12.3	73.8	44.6	5.8	5.4	4.9	0.7	1.1	1.5	7.7	10.6	14.1	46.6	30.7	22.8
Ratch Group	75,400	12.9	10.5	10.1	-1.7	22.8	4.2	1.2	1.2	1.1	4.9	5.4	5.6	9.6	11.1	11.1	17.1	14.8	14.9
Average		31.0	23.8	19.2	12.4	20.7	24.8	2.6	2.4	2.2	2.4	2.6	3.1	9.0	10.1	11.8	25.7	23.7	21.7

Source: SCBS Investment Research, Bloomberg

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Corporate Governance Report

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To recognize well performers, the list of companies attaining "Good", "Very Good" and "Excellent" levels of recognition

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Declared (ประกาศเจตนารมณ์)

7UP, ABICO, AF, ALT, AMARIN, AMATA, AMATAV, ANAN, APURE, B52, BKD, BM, BROCK, BUI, CHO, CI, COTTO, DDD, EA, EFORL, EP, ERW, ESTAR, ETE, EVER, FSMART, GPI, ILINK, IRC, J, JKN, JMART, JMT, JSP, JTS, KWG, LDC, MAJOR, META, NCL, NOBLE, NOK, PK, PLE, ROJNA, SAAM, SAPPE, SCI, SE, SHANG, SINGER, SKR, SPALI, SSP, STANLY, SUPER, SYNEX, THAI, TKS, TOPP, TRITN, TTA, UPF, UV, WIN, ZIGA

APP, AQ, ARIN, ARIP, AS, ASAP, ASEFA, ASIA, ASIAN, ASIAN, ASIMAR, ASN, ATP30, AU, AUCT, AWC, BA, BAM, BC, BCT, BDMS, BEAUTY, BEC, BEM, BFIT, BGT, BH, BIG, APP, AQ, ARIN, ARIP, AS, ASAP, ASEFA, ASIA, ASIAN, ASIMAR, ASN, ATP30, AU, AUCT, AWC, BA, BAM, BC, BCT, BDMS, BEAUTY, BEC, BEM, BFIT, BGT, BH, BIG, BIZ, BJC, BLAND, BLISS, BOL, BR, BSM, BTNC, BTW, CAZ, CBG, CCET, CCP, CGD, CHARAN, CHAYO, CHG, CITY, CK, CKP, CMAN, CMO, CMR, CNT, COLOR, COMAN, CPH, CPL, CPR, CPT, CPW, CRANE, CRC, CRD, CSP, CSR, CSS, CTW, CWT, D, DCON, DHOUSE, DOD, DOHOME, DTCI, DV8, EASON, ECF, EE, EKH, EMC, EPG, ESSO, ETC, F&D, FANCY, FLOYD, FMT, FN, FORTH, FVC, GENCO, GIFT, GL, GLAND, GLOBAL, GLOCON, GRAMMY, GRAND, GREEN, GSC, GTB, GULF, GYT, HFT, HPT, HTECH, HUMAN, HYDRO, ICN, IFEC, IHL, IIG, III, ILM, IMH, IND, INGRS, INOX, INSET, IP, IRCP, IT, ITD, JAK, JAS, JCK, JCKH, JCT, JR, JUBILE, JUTHA, JWD, KAMART, KC, KCM, KEX, KDH, KIAT, KK, KKC, KOOL, KTIS, KUMWEL, KUN, KWM, KYE, LALIN, LEE, LEO, LH, LIT, LOXLEY, LPH, LST, MACO, MANRIN, MATCH, MATI, MAX, M-CHAI, MCS, MDX, MEGA, METCO, MGT, MICRO, MIDA, MILL, MITSIB, MJD, MK, ML, MM, MODERN, MORE, MPIC, MVP, NC, NCAP, NCH, NDR, NER, NETBAY, NEW, NEWS, NEX, NFC, NPK, NRF, NTV, NUSA, NVD, NYT, OHTL, OISHI, OSP, OTO, PACE, PAE, PAF, PERM, PF, PICO, PIMO, PJW, PMTA, POLAR, POMPUI, PORT, POST, PPM, PR9, PRAKIT, PRAPAT, PRECHA, PRIME, PRIN, PRO, PROUD, PTL, RAM, RBF, RCI, RCL, RICHY, RJH, ROCK, ROH, RP, RPC, RPH, RS, RSP, RT, S, S11, SA, SABUY, SAFARI, SAK, SALEE, SAM, SAMART, SAMCO, SAMYEL, SAMYEL, SAMYEL, SAMTEL, SAMYEL, SAMY KPTI, RS, RSF, RT, S, S11, SA, SABUT, SAFAKI, SAR, SALEE, SAM, SAMARI, SAMILL, SAMILL, SAMILL, SAMILL, SAWAD, SAWANG, SCGP, SCM, SCP, SDC, SEAFCO, SEG, SF, SFLEX, SFP, SFT, SGF, SHR, SIAM, SICT, SIMAT, SIS, SISB, SK, SKE, SKN, SKY, SLM, SLP, SMART, SMT, SO, SOLAR, SONIC, SPA, SPCG, SPG, SPVI, SQ, SR, SSC, STAR, STARK, STC, STEC, STGT, STHAI, STI, STPI, SUC, SUN, SUTHA, SVH, SVOA, SWC, SYMC, T, TACC, TAPAC, TC, TCC, TCC, TCJ, TCOAT, TEAM, TEAMG, TGPRO, TH, THANA, THE, THG, THL, THMUI, TIGER, TITLE, TIW, TK, TKN, TM, TMC, TMI, TMW, TNDT, TNH, TNPC, TOA, TPAC, TPBI, TPCH, TPIPP, TPLAS, TPOLY, TPS, TQM, TR, TRC, TRT, TRUBB, TSE, TSF, TSI, TSR, TSTE, TTI, TTT, TTW, TVT, TWP, TWZ, TYCN, UAC, UMI, UMS, UNIQ, UP, UPA, UPOIC, UREKA, UT, UTP, UVAN, VARO, VCOM, VI, VIBHA, VL, VNG, VPO, VRANDA, W, WAVE, WGE, WINNER, WORK, WORLD, WP, WPH, WR, YCI, YGG, YUASA, TMICO ZMICO

Explanations

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of June 24, 2019) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC.