

B. GRIMM POWER PLC

No. 46/2021
31 March 2021

CORPORATES

Company Rating:	A
Issue Ratings:	
Senior unsecured	A-
Hybrid	BBB+
Outlook:	Stable

Last Review Date: 12/03/20

Company Rating History:

Date	Rating	Outlook/Alert
09/04/18	A	Stable

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RATIONALE

TRIS Rating affirms the company rating on B. Grimm Power PLC (BGRIM) at “A”. At the same time, TRIS Rating affirms the rating on BGRIM’s senior unsecured debentures at “A-” and the rating on its subordinated capital debentures at “BBB+”. The rating outlook remains “stable”.

The ratings continue to reflect the company’s predictable cash flow from long-term power purchase agreements (PPAs) with the Electricity Generating Authority of Thailand (EGAT) under the small power producer (SPP) scheme. The ratings also reflect the company’s proven record of operating cogeneration power plants and its well-diversified power portfolio. However, the ratings are weighed down by the company’s highly leveraged capital structure resulting from a significant rise in debt load to support business expansion.

KEY RATING CONSIDERATIONS

Well-diversified power portfolio

BGRIM has a well-diversified power portfolio with 48 operating projects in Thailand and abroad and a total installed capacity (gross capacity) of 3,058 megawatts (MW), or 1,938 MW when measured in proportion to BGRIM’s ownership of the plants (net capacity).

The company’s 18 gas-fired combined-cycle cogeneration power plants account for 68% of its net capacity. Most of the company’s gas-fired power plants are in reputable industrial estates in Thailand’s Eastern Economic Corridor (EEC). In March 2020, the company acquired a cogeneration power plant in Ang Thong province, adding another 86-MW to its total net capacity.

The remaining 32% of net capacity is spread among 22 solar power plants in Thailand, two solar power plants in Vietnam, one solar farm in Cambodia, three hydro power plants in the Lao People’s Democratic Republic (Lao PDR), one diesel-fired power plant in Vietnam, and one waste-to-energy (WTE) power plant in Thailand. No single power plant accounts for more than 15% of the company’s capacity.

Predictable cash flows from long-term PPAs

The ratings reflect BGRIM’s predictable cash flows from its cogeneration power plants, secured by long-term PPAs with EGAT and high-credit-quality industrial users. EGAT is BGRIM’s largest customer, accounting for 65% of total revenues in 2020. Electricity and steam sold to industrial users accounted for 23% of annual revenues. The remainder was made up for electricity sold to the Provincial Electricity Authority (PEA), the Metropolitan Electricity Authority (MEA), Electricite du Laos (EDL), Vietnam Electricity (EVN), Electricite du Cambodge (EDC), and industrial users in Vietnam.

Most of BGRIM’s cogeneration power plants have long-term PPAs with EGAT under the SPP scheme. The term of a typical PPA with EGAT is 21-25 years. The PPAs with EGAT help mitigate market risk since EGAT agrees to order electricity dispatch of not less than 80% of the contracted capacity based on power plant operating hours. The PPAs also contain a gas price pass-through mechanism in the tariff formula to mitigate fuel price risk.

BGRIM’s cogeneration power plants also have PPAs and steam purchase agreement (SPAs) with industrial users in various industries, such as the automotive, packaging, and consumer products industries. Those PPAs and

SPAs cover 5-15 years. The contracts with industrial users also specify the minimum amounts of electricity and/or steam each customer is obligated to purchase. The electricity tariffs charged to the industrial users are based on the electricity tariffs PEA charges to large general service customers. The tariffs generally carry a fuel adjustment charge, or Ft, to reflect changes in the price of fuel. However, the Ft adjustment carries a time lag and is subject to the authorities' discretion regarding the timing and size of adjustments. BGRIM's cogeneration power plants hold gas supply contracts (GSAs) with PTT PLC (PTT) for 21-25 years. The terms of the GSAs usually match the terms of the PPAs with EGAT.

All of the company's solar power plants in Thailand have 25-year PPAs with PEA and MEA under the very small power producer (VSPP) scheme. The PPAs carry a Feed-in Tariff (FiT) of THB4.12-THB5.66 per kilowatt-hour (kWh). The solar projects in Vietnam receive a flat tariff of USD0.0935 per kWh from EVN under 20-year PPAs. The solar project in Cambodia sells electricity to EDC under a 20-year PPA with a FiT of USD0.076 per kWh.

The three hydro power plants located in the Lao PDR, with a net combined capacity of 25 MW, supply electricity to EDL under 25-year PPAs. The PPA for each of the hydro power plants has a flat tariff of USD0.065 per kWh.

Proven record in operating cogeneration power plants

BGRIM has extensive experience in developing and operating gas-fired combined-cycle cogeneration power plants. BGRIM has its own technical teams for day-to-day operations and maintenance. The cogeneration plants have high availability factors (AF) and few unplanned outages. The average plant heat rates meet the criteria specified in the PPAs. During 2018-2020, the actual AFs of the cogeneration power plants ranged between 91% and 100%, exceeding the PPA targets. The average heat rate (HR) was also better than the HR specified in the PPAs.

After the acquisition of Ang Thong Power Co., Ltd. (ATP1), BGRIM has re-managed the power plant's electricity load profile to enhance its efficiency. As a result, ATP1's heat rate improved to 7,797 BTU/kWh in 2020 from 8,994 BTU/kWh in 2019.

In addition, most of BGRIM's power plants employ proven technologies from reputable suppliers, such as Siemens and GE Power (GE). The cogeneration power plants have long-term service agreements (LTSA) of up to 16 years to ensure the reliability of the turbines and keep maintenance costs under control.

Mild impact from COVID-19

In 2020, electricity sold to industrial users dropped by 8.5%. The decreased sales volume was mainly attributed to a 28% drop in electricity demand among industrial customers in the second quarter of 2020, caused by the fallout from the Coronavirus Disease 2019 (COVID-19). However, power sold to industrial users started to recover from the third quarter onwards and electricity volume sold in the fourth quarter of 2020 increased by 5% from the same period of the previous year.

Overseas projects slightly below expectation

During the past few years, BGRIM has expanded its renewable power portfolio into the Southeast Asian region. Two solar farms in Vietnam of 437 MW started operation in June 2019. In 2020, the solar projects in Vietnam sold about 1,007 gigawatt hours (GWh) to EVN. Electricity sales volume in the last six months of 2020 was 8% lower than the same period of the previous year due to some curtailment in the fourth quarter of 2020.

Rise in debt load during expansion period

We expect a sharp rise in the company's debt load over the next few years to fund capital expenditures for the development of multiple projects in the pipeline. These projects consist of conventional and renewable power plants, with the largest investment slated for gas-fired cogeneration power plants.

The company is developing five cogeneration power plants with commercial operations scheduled for 2022. These power plants are being developed under the SPP replacement scheme according to the Power Development Plan 2018 (PDP2018). The SPP replacement scheme is the renewal of PPAs expiring in 2017-2025 for SPP power plants under a 25-year replacement scheme. In the replacement PPAs, EGAT will reduce the contracted capacity to 30 MW from 90 MW in the original PPAs. Apart from the SPP replacement scheme, we expect the company to start operating two new SPP power plants in 2023. BGRIM is also developing a hybrid SPP power plant in U-Tapao with an investment of THB4.1 billion.

We project BGRIM's adjusted debt to peak at THB92.6 billion in 2023, rising from THB64.8 billion in 2020. The debt to capitalization ratio is forecast to peak at 69% in 2022, from 65% in 2020, while the debt to EBITDA ratio could peak at 6.9 times. However, we forecast the debt to EBITDA ratio to improve to 6 times when all the cogeneration power plants commence full-year operations in 2024.

BASE-CASE ASSUMPTIONS

- During 2021-2023, the average availability factors of the existing cogeneration units are expected to be in the range of 93%-98%.
- Revenue is forecast to be about THB44.8-THB50.4 billion per year with EBITDA of around THB12.6-THB14.8 billion per year. EBITDA margin should be in the range of 27%-29%.
- Minimum cash on hand to be THB15 billion.
- Total capital expenditures of THB50.7 billion during 2021-2023.
- Debt repayment (loans and bonds) to be THB5.7-THB9.4 billion per year.

RATING OUTLOOK

The “stable” outlook reflects our expectations that the company’s operating power plants will run smoothly and generate cash flow as planned. The outlook also reflects the expectation that BGRIM will be able to manage its capital structure in accordance with the company’s policy of maintaining a net interest-bearing debt to equity ratio of less than 2 times.

RATING SENSITIVITIES

A rating upgrade could occur if BGRIM can enlarge its cash generation while improving its capital structure on a sustained basis. A rating downside case may occur if BGRIM’s cash flow weakens considerably, which could occur if power plant performance falls significantly short of our forecast or the projects under development are materially delayed. A negative rating pressure could also arise if the capital structure weakens significantly, resulting from excessive growth of debt-funded investments.

COMPANY OVERVIEW

BGRIM was established in 1993 as a holding company for the power business under the conglomerate of the B. Grimm Group. BGRIM generates and sells electricity and steam through its subsidiaries and affiliates. BGRIM was listed on the Stock Exchange of Thailand (SET) on 19 July 2017. As of February 2021, BGRIM’s major shareholder was Mr. Harald Link and the B. Grimm Group, with a combined 65% stake. The rest of the company’s shares are publicly owned.

BGRIM was awarded its first SPP contract through a subsidiary, Amata B. Grimm Power 1 Ltd. (ABP1), in 1998. As of December 2020, BGRIM owned and operated 48 power plants with a total installed capacity of 3,058 MW or net equity capacity of 1,938 MW. The operating power portfolio consists of 18 gas-fired cogeneration power plants in Thailand, 22 solar farms in Thailand, two solar farms in Vietnam, one solar farm in Cambodia, three hydro power plants in Laos PDR, one waste-to-energy power plant in Thailand, and one diesel power plant back up for power trading in Vietnam.

As of December 2020, the company had 16 projects under development and construction with a total gross capacity of 1,189 MW, which five projects would replace the retiring SPP power plants of 564 MW. As a result, the developing projects will add net increase capacity of 624 MW. Total capacity is expected to reach 3,682 MW in 2025.

KEY OPERATING PERFORMANCE

Table 1: Power Plants' Key Operating Performance

Plant Performance	Unit	2020	2019	2018	2017	2016
Gas-fired SPP power plants						
Net output energy ¹	GWhe	12,719	12,422	10,928	9,841	8,604
Plant heat rate ²	BTU/kWh	7,906	7,854	7,823	7,842	7,882
Availability factor ²	%	97.8	97.3	96.8	96.7	95.6
Unplanned outage ²	%	0.8	0.8	1.3	2.7	2.6
Planned outage ²	%	1.4	1.8	1.7	0.6	1.9
Solar power plants						
Net output energy ³	GWh	1,164	720	59	12	8
Hydro power plants						
Net output energy	GWh	166	133	51	49	-

Sources: BGRIM and TRIS Rating's estimates

Notes: 1) Net output of electricity and steam equivalent

2) Values are average across all operating plants

3) Excluding output energy from associate and joint ventures companies

Table 2: Net Capacity (in Proportion to BGRIM's Ownership) by Fuel Type

Project	Dec-2020		Dec-2025	
	MW	%	MW	%
Gas-fired SPP power plants	1,311	67.6	1,769	68.7
Diesel-fired power plant (Backup for power trading)	4	0.2	4	0.2
Renewable power plants				
- Hydro	25	1.3	95	3.6
- Solar	596	30.8	596	23.1
- Wind	-	-	15	0.6
- WTE	2	0.1	2	0.1
- Hybrid	-	-	95	3.7
Total power plants	1,938	100.0	2,576	100.0

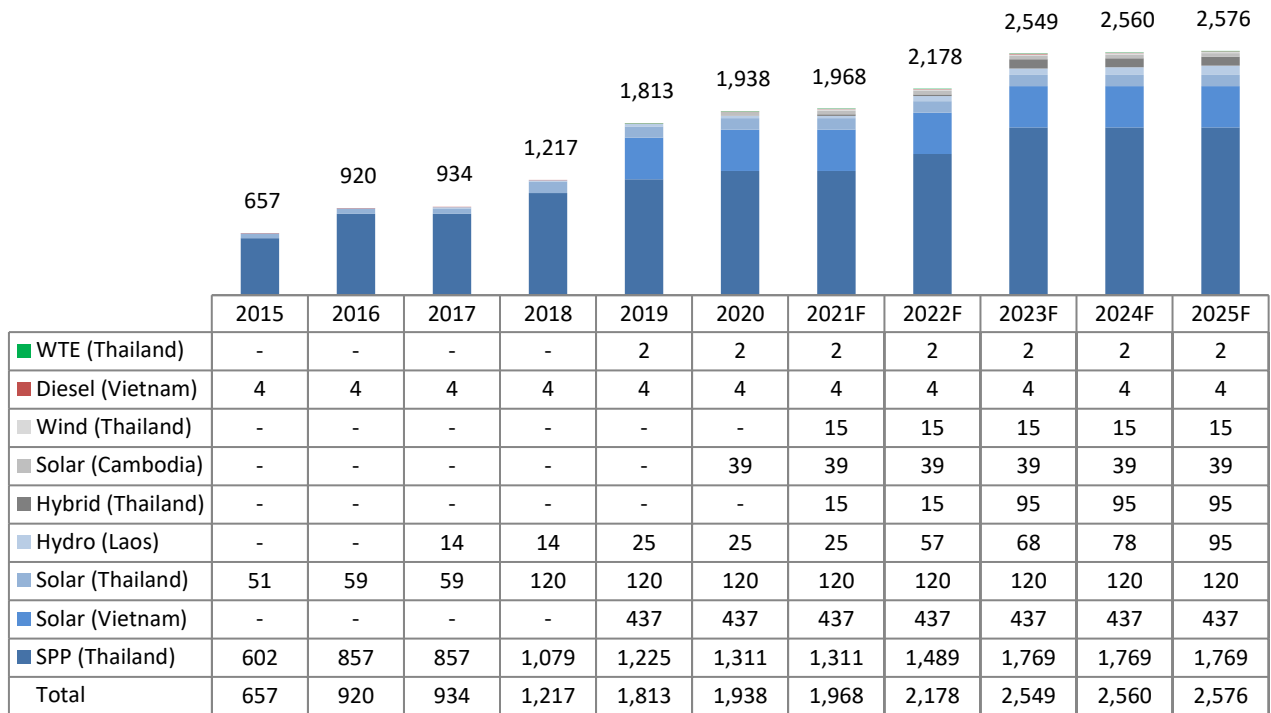
Sources: BGRIM and TRIS Rating's estimates

Table 3: Net Capacity (in Proportion to BGRIM's Ownership) by Country

Project	Dec-2020		Dec-2025	
	MW	%	MW	%
Thailand	1,433	74.0	2,001	77.7
Lao PDR	25	1.3	95	3.7
Vietnam	441	22.7	441	17.1
Cambodia	39	2.0	39	1.5
Total Power Plants	1,938	100.0	2,576	100.0

Sources: BGRIM and TRIS Rating's estimates

Table 4: Power Portfolio Development (Net Capacity in Proportion to BGRIM's Ownership)



Sources: BGRIM and TRIS Rating's estimates

FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS

Unit: Mil. THB

	----- Year Ended 31 December -----				
	2020	2019	2018	2017	2016
Total operating revenues	44,111	44,193	36,631	31,495	27,770
Earnings before interest and taxes (EBIT)	7,169	6,840	5,834	5,834	5,050
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	12,914	11,547	9,218	8,579	7,408
Funds from operations (FFO)	9,592	8,555	5,912	6,010	4,332
Adjusted interest expense	3,089	2,757	3,129	2,335	2,851
Capital expenditures	16,721	4,041	5,837	6,272	10,003
Total assets	130,696	121,693	100,636	89,241	76,047
Adjusted debt	64,759	44,640	47,801	39,885	50,562
Adjusted equity	35,328	34,701	27,739	25,744	11,534
Adjusted Ratios					
EBITDA margin (%)	29.28	26.13	25.17	27.24	26.68
Pretax return on permanent capital (%)	6.41	7.05	6.63	7.40	7.76
EBITDA interest coverage (times)	4.18	4.19	2.95	3.67	2.60
Debt to EBITDA (times)	5.01	3.87	5.19	4.65	6.83
FFO to debt (%)	14.81	19.16	12.37	15.07	8.57
Debt to capitalization (%)	64.70	56.26	63.28	60.77	81.43

RELATED CRITERIA

- Group Rating Methodology, 13 January 2021
- Rating Methodology – Corporate, 26 July 2019
- Hybrid Securities Rating Criteria, 12 September 2018
- Key Financial Ratios and Adjustments, 5 September 2018

B. Grimm Power PLC (BGRIM)

Company Rating:	A
Issue Ratings:	
BGRIM210A: THB2,700 million senior unsecured debentures due 2021	A-
BGRIM230A: THB1,500 million senior unsecured debentures due 2023	A-
BGRIM280A: THB5,000 million senior unsecured debentures due 2028	A-
BGRIM19PA: THB8,000 million subordinated capital debentures	BBB+
Rating Outlook:	Stable

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