

# ELECTRICITY GENERATING AUTHORITY OF THAILAND

No. 105/2022  
30 June 2022

## CORPORATES

**Company Rating:** AAA  
**Outlook:** Stable

**Last Review Date:** 30/06/21

### Company Rating History:

Date	Rating	Outlook/Alert
30/06/17	AAA	Stable

### Contacts:

Sermwit Sriyotha  
sermwit@trisrating.com

Pravit Chaichamnapai, CFA  
pravit@trisrating.com

Parat Mahuttano  
parat@trisrating.com

Wiyada Pratoomsuwan, CFA  
wiyada@trisrating.com



WWW.TRISRATING.COM

## RATIONALE

TRIS Rating affirms the company rating on Electricity Generating Authority of Thailand (EGAT) at “AAA”, with a “stable” rating outlook. The rating reflects EGAT’s integral linkage with the Thai government and its status as a major state-owned enterprise (SOE) playing a critical role in securing electricity supplies for Thailand. The rating also takes into consideration EGAT’s dominant position as the country’s largest power generator and sole owner of the high-voltage power transmission system in Thailand, its solid financial profile, and strong government support under the EGAT Act B.E. 2511.

## KEY RATING CONSIDERATIONS

### Integral relationship with the government

TRIS Rating considers EGAT integrally linked with the Thai government. This assessment is based on the government’s full ownership and tight control of EGAT. EGAT was established as an SOE under the EGAT Act B.E. 2511. It comes under the supervision of the Ministry of Energy (MOE) and the Ministry of Finance (MOF). The board of directors and governor are approved by the Cabinet. EGAT’s current strategic plan was formulated in accordance with the National Strategy (2018-2037) and the Thailand Integrated Energy Blueprint, which incorporates the Power Development Plan 2018 (PDP2018 Revision 1). The strategic plan has been reviewed by the State Enterprise Office (SEO) under MOF. EGAT’s capital expenditures and investment plans are subject to approval of MOE, the Office of the National Economic and Social Development Council (NESDC), and the Cabinet. EGAT’s debt service and borrowing plan must be submitted to the Public Debt Management Office (PDMO), under MOF.

EGAT also receives strong support from the Thai government. Under the EGAT Act B.E. 2511, the Thai government will provide extraordinary support to EGAT in the event that EGAT’s revenue is not sufficient to cover its expenses, including interest expenses and debt repayments.

### Critical role in Thailand’s power sector

TRIS Rating expects that EGAT will continue to play the critical role in the electricity industry in Thailand. Under the enhanced single buyer model adopted in Thailand, EGAT is the sole SOE responsible for sourcing electricity supplies in bulk for the nation, via its own power plants and purchasing from private power generators, domestically and abroad. EGAT, then, sells about 71% of the generated and procured electricity to the Provincial Electricity Authority (PEA) (rated “AAA/Stable” by TRIS Rating) and 27% of electricity to Metropolitan Electricity Authority (MEA) (rated “AAA/Stable” by TRIS Rating) through the national transmission network (national grid). EGAT is also the sole owner and operator of the national grid. It operates the National Control Center (NCC) to ensure electricity supplies meet electricity demand for the whole country at reasonable prices. All power plants connected to the national grid come under the supervision of the NCC for their power generation schedule.

At the end of March 2022, the contracted capacity in EGAT’s system was 46,719 megawatts (MW). EGAT owned and operated 52 power plants with a total capacity of 15,520 MW, representing 33.2% of total capacity in EGAT’s system. The remainder is purchased from private power producers in Thailand (54.6%) and imported from Laos and Malaysia (12.2%).

### Protected investment return, earnings from tariff structure

Electricity tariffs in Thailand are regulated by the Energy Regulatory Commission (ERC). This is designed to enable EGAT to recover its investment costs plus a return on investment in both power plants and the transmission network. Under the structure of electricity tariffs, any changes in the price of fuel or the price EGAT must pay for purchasing electricity will passthrough to end users in the fuel adjustment charge ( $F_t$ ) components, calculated and published every four months by ERC. The  $F_t$  to end users is based on ERC's discretion as to the timing and magnitude of adjustment, which may differ from the actual  $F_t$  calculated under the tariff structure. Therefore, the stream of cash received from selling electricity may not match the fuel expenses during the same period. The cash received from selling electricity can be less than EGAT's revenue, if ERC delays its adjustment of  $F_t$  to end users during a period of rising fuel prices, and vice versa.

### Expected rise in leverage due to fuel price surge

TRIS Rating expects EGAT's financial leverage to increase in 2022, reflecting the increase in working capital needed to fund rising fuel prices. Based on the tariff structure, EGAT's electricity tariff increased to about THB3.80 per kilowatt-hour (unit) for the first three months of 2022 from THB2.73 per unit in 2020, resulting from the surging fuel price since the second half of 2021. However, EGAT has not been able to reflect fuel price increases on the  $F_t$  charged to PEA and MEA, as it depends on ERC's decision. ERC, aiming to relieve inflationary pressure on the Thai people, allowed EGAT to charge an average electricity tariff to PEA and MEA of only THB2.69 per unit in 2021 and THB2.90 per unit for the first three months of 2022. As a result, EGAT recorded an accrued  $F_t$  revenue of about THB65 billion at the end of March 2022. Currently, EGAT funds its accrued  $F_t$  revenue mainly with its cash on hand, account payable, and loans. EGAT's debt to capitalization ratio increased to 42.6% as of March 2022 from 39.1% at the end of 2020.

For 2022, we forecast EGAT to record incremental accrued  $F_t$  revenue due to the continued delay in  $F_t$  adjustment. However, we believe ERC will gradually adjust  $F_t$  to reflect the actual change in fuel prices, which may take 12-18 months to recover the full amount of  $F_t$  shortfall. We forecast EGAT's debt to capitalization ratio to increase to 45%-50% in 2022, before improving to about 40% in 2024.

### Strong financial profile

EGAT's earnings before interest, taxes, depreciation, and amortization (EBITDA) increased by 16% year-on-year (y-o-y) to THB35.5 billion for the first three months of 2022, mainly reflected an increase in electricity sales and increase in dividend received from associated companies. EGAT's capital structure remains strong. Although EGAT's adjusted debt increased to THB391.8 billion as of March 2022 from THB313.0 billion at the end of 2020, its debt to capitalization increased slightly to about 42.6% as of March 2022, from 39.1% at the end of 2020. EGAT's debt to EBITDA ratio also slightly increased to 2.9 times as of March 2022 from 2.7 times in 2020. We forecast EGAT's debt to EBITDA ratio to increase to about 3-4 times over the next 3 years, depending on the level of debt to fund its working capital due to the surge in fuel prices and the timing of ERC's action to adjust the  $F_t$ .

EGAT's liquidity profile is sound. It had cash on hand of THB51.9 billion and undrawn credit facilities of THB10 billion at the end of March 2022. Its funds from operations (FFO) for the next 12 months are expected to range between THB75-THB80 billion. EGAT's cash on hand plus undrawn credit facilities and expected FFO are assessed to comfortably cover debt due over the next 12 months of about THB14 billion, including short-term loan.

### Prudent financial policy

EGAT has adopted a conservative financial policy. It has a policy to maintain a minimum cash balance of THB45 billion and has internal guidelines to ensure financial discipline is maintained. Key financial guidelines include maintaining a debt to equity ratio of less than 1.5 times, a self-financing ratio of more than 25%, and a debt-service coverage ratio of more than 1.5 times.

### Changing electricity industry structure in Thailand

We expect Thailand's electricity supply structure to gradually change as induced by digitalization and disruptive technology that allow end users to produce their own electricity and connect to each other via a smart grid. The future electricity supply model is likely to evolve from centralized power generation toward more widely distributed power generation. Another important trend is decarbonization which will continue to lead the way for more electricity supplies from renewable sources, while the electrification trend of vehicles and transportation could be a key driver for future electricity consumption.

TRIS Rating foresees these trends as impacting EGAT's role as the main electricity producer in the country over the long term. Under the current power development plan (PDP2018 Revision 1), electricity produced by Independent Power Supply (IPS) is forecast to increase to around 17% of total electricity consumption by 2037, from 13% in 2018, while EGAT's own electricity generation is expected to decline to 24%, from 34%, over the same period. Despite our view that the

importance of EGAT's role as an electricity producer may be diluted to some extent in the long term, we believe that EGAT will continue its critical role in securing electricity supplies for the country and maintaining the stability of the national electricity supply system.

---

**BASE-CASE ASSUMPTIONS**

---

- Electricity sales to grow by 1%-2% per annum during 2022-2024.
- EBITDA to be about THB120-THB130 billion per year during 2022-2024.
- Capital expenditure and investment to be about THB226 billion over the period of 2022-2024, of which THB158 billion spent by EGAT, and the rest by its subsidiaries.
- Ratio of debt to EBITDA is forecast to stay at around 3-4 times during 2022-2024.

---

**RATING OUTLOOK**

---

The "stable" outlook reflects TRIS Rating's expectation that EGAT will continue its critical role in the power industry in Thailand.

---

**RATING SENSITIVITIES**

---

A credit downside case may arise if EGAT's SOE status or its role in the Thai power industry weakens as a result of government policy changes.

---

**COMPANY OVERVIEW**

---

EGAT was established in 1969, under the EGAT Act B.E. 2511, through the merger of the three SOEs responsible for supplying electricity in the country. Currently, EGAT is an SOE under the supervision of MOE and MOF.

EGAT is responsible for securing electricity supplies for the whole country. At the end of March 2022, EGAT owned and operated 52 power plants, with a total capacity of 15,520 MW, accounting for 33.2% of total capacity in EGAT's system. The remaining 66.8% was produced by private power producers or imported from neighboring countries, who sell electricity to EGAT under the enhanced single buyer model used in the Thai power industry.

KEY OPERATING PERFORMANCE

Table 1: EGAT's Electricity Generation Capacity Breakdown

Unit: MW

	Mar 2022	2021	2020	2019	2018	2017
<b>EGAT's own plants</b>	<b>15,520</b>	<b>16,082</b>	<b>16,037</b>	<b>15,131</b>	<b>15,814</b>	<b>16,091</b>
Purchase from						
IPP	16,123	15,498	14,249	14,949	14,949	14,949
SPP	9,355	9,381	9,474	9,498	8,757	7,536
Import	5,721	5,721	5,721	5,721	3,878	3,878
<b>Total purchase</b>	<b>31,199</b>	<b>30,600</b>	<b>29,444</b>	<b>30,168</b>	<b>27,584</b>	<b>26,363</b>
<b>Total generation capacity</b>	<b>46,719</b>	<b>46,682</b>	<b>45,481</b>	<b>45,299</b>	<b>43,398</b>	<b>42,454</b>
<b>% of Total</b>						
<b>EGAT's own plants</b>	<b>33.2</b>	<b>34.4</b>	<b>35.3</b>	<b>33.4</b>	<b>36.4</b>	<b>37.9</b>
Purchase from						
IPP	34.5	33.2	31.3	33.0	34.5	35.2
SPP	20.0	20.1	20.8	21.0	20.2	17.8
Import	12.3	12.3	12.6	12.6	8.9	9.1
<b>Total purchase</b>	<b>66.8</b>	<b>65.6</b>	<b>64.7</b>	<b>66.6</b>	<b>63.6</b>	<b>62.1</b>
<b>Total generation capacity</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: EGAT

Table 2: EGAT's Customer Breakdown

Unit: GWh

	Jan-Mar 2022	2021	2020	2019	2018	2017
<b>PEA</b>	<b>33,873</b>	<b>136,266</b>	<b>131,558</b>	<b>134,607</b>	<b>131,970</b>	<b>130,238</b>
MEA	13,078	51,323	52,344	55,002	53,302	52,646
Others	892	2,639	3,463	3,729	2,117	2,247
<b>Total sales</b>	<b>47,843</b>	<b>190,228</b>	<b>187,365</b>	<b>193,338</b>	<b>187,389</b>	<b>185,131</b>
<b>% of Total</b>						
<b>PEA</b>	<b>70.8</b>	<b>71.6</b>	<b>70.2</b>	<b>69.6</b>	<b>70.4</b>	<b>70.3</b>
MEA	27.3	27.0	27.9	28.4	28.4	28.4
Others	1.9	1.4	1.9	2.0	1.2	1.3
<b>Total sales</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: EGAT

## FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS\*

Unit: Mil. THB

	Jan-Mar 2022	-----Year Ended 31 December -----			
		2021	2020	2019	2018
Total operating revenues	185,135	562,646	513,104	563,078	526,092
Earnings before interest and taxes (EBIT)	23,729	81,929	65,669	76,538	88,297
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	35,542	129,556	115,784	119,268	126,572
Funds from operations (FFO)	25,529	93,301	80,437	81,512	85,717
Adjusted interest expense	9,434	35,862	35,250	37,153	39,564
Capital expenditures	8,558	36,714	46,794	53,681	59,228
Total assets	1,113,877	1,101,447	994,763	1,003,951	1,021,211
Adjusted debt	391,853	360,134	312,979	310,478	312,821
Adjusted equity	527,494	510,626	488,141	474,653	452,830
<b>Adjusted Ratios</b>					
EBITDA margin (%)	19.20	23.03	22.57	21.18	24.06
Pretax return on permanent capital (%)	9.31 *	8.99	7.51	8.76	10.29
EBITDA interest coverage (times)	3.77	3.61	3.28	3.21	3.20
Debt to EBITDA (times)	2.91 *	2.78	2.70	2.60	2.47
FFO to debt (%)	24.68 *	25.91	25.70	26.25	27.40
Debt to capitalization (%)	42.62	41.36	39.07	39.54	40.86

\* Consolidated financial statements

\*\* Annualized with trailing 12 months

## RELATED CRITERIA

- Key Financial Ratio and Adjustments for Corporate Issuers, 11 January 2022
- Government-Related Entities Rating Methodology, 30 July 2020
- Rating Methodology – Corporate, 26 July 2019

---

**Electricity Generating Authority of Thailand (EGAT)**

---

<b>Company Rating:</b>	AAA
<b>Rating Outlook:</b>	Stable

---

**TRIS Rating Co., Ltd.**

Silom Complex Building, 24th Floor, 191 Silom Road, Bangkok 10500, Thailand Tel: +66 2 098 3000

© Copyright 2022, TRIS Rating Co., Ltd. All rights reserved. Any unauthorized use, disclosure, copying, republication, further transmission, dissemination, redistribution, or storing for subsequent use for any purpose, in whole or in part, in any form or manner or by any means whatsoever, by any person, of the credit rating reports or information is prohibited, without the prior written permission of TRIS Rating Co., Ltd. The credit rating is not a statement of fact or a recommendation to buy, sell or hold any debt instruments. It is an expression of opinion regarding credit risks for that instrument or particular company. The opinion expressed in the credit rating does not represent investment or other advice and should therefore not be construed as such. Any rating and information contained in any report written or published by TRIS Rating has been prepared without taking into account any recipient's particular financial needs, circumstances, knowledge and objectives. Therefore, a recipient should assess the appropriateness of such information before making an investment decision based on this information. Information used for the rating has been obtained by TRIS Rating from the company and other sources believed to be reliable. Therefore, TRIS Rating does not guarantee the accuracy, adequacy, or completeness of any such information and will accept no liability for any loss or damage arising from any inaccuracy, inadequacy or incompleteness. Also, TRIS Rating is not responsible for any errors or omissions, the result obtained from, or any actions taken in reliance upon such information. All methodologies used can be found at [www.trisrating.com/rating-information/rating-criteria](http://www.trisrating.com/rating-information/rating-criteria)