



# **CK POWER PLC**

No. 37/2022 24 March 2022

# **CORPORATES**

Company Rating: A

Issue Ratings:
Senior unsecured AOutlook: Stable

Last Review Date: 15/09/21

**Company Rating History:** 

**Date** Rating Outlook/Alert 02/05/18 A Stable

## Contacts:

Narongchai Ponsirichusopol narongchai@trisrating.com

Jarturun Sukthong jarturun@trisrating.com

Parat Mahuttano parat@trisrating.com

Monthian Chantarklam monthian@trisrating.com



#### **RATIONALE**

TRIS Rating affirms the company rating on CK Power PLC (CKP) at "A", with a "stable" outlook, and also affirms the ratings on CKP's senior unsecured debentures at "A-". The issue ratings' one notch below the company rating reflects the structural subordination of the debentures, relative to the loans extended to CKP's operating subsidiaries.

The ratings reflect the reliability of cash flow from its power portfolio, backed by long-term power purchase agreements (PPAs) signed with the Electricity Generating Authority of Thailand (EGAT; rated "AAA/Stable" by TRIS Rating) and track record of sound operations. The ratings also embed our expectation of a gradual decline in CKP's financial leverage. Conversely, the ratings are tempered by the hydrology risk and the country risk of the Lao People's Democratic Republic (Lao PDR).

#### **KEY RATING CONSIDERATIONS**

#### Reliability of earnings

CKP's power portfolio mainly comprises two large-scale hydropower plants in the Lao PDR and two gas-fired cogeneration power plants. Currently, CKP's equity capacity (or contracted capacity in proportion to its ownership stakes in the power plants) totals 1,003 megawatts (MW). Of the total capacity, hydropower represents 83%, or 829 MW. CKP owns majority stakes in the Nam Ngum 2 Hydroelectric Power Project (NN2HPP), and the Xayaburi Hydroelectric Power Project (XHPP). The remainder capacity comprises two gas-fired cogeneration plants of 155 MW (15%), and solar power of 19 MW (2%).

CKP's power assets hold long-term PPAs with credible off-takers, which help mitigate payment risk and market risk. EGAT is the main off-taker, buying about 96% of the total installed capacity. The rest of capacity is purchased by Electricite Du Laos (EDL), Thai industrial customers, and the Provincial Electricity Authority (PEA) of Thailand.

CKP has sound operating record. NN2HPP, CKP's key power plant, has generally operated with high plant availability factor since the onset. At the same time, the cogeneration power plants have consistently performed in accordance with terms of EGAT PPAs.

## Hydropower is the centerpiece of business

CKP's earnings are heavily reliant on the performances of its hydropower plants. In 2021, the company's earnings before interest, taxes, depreciation, and amortization (EBITDA) came in at THB4.5 billion, of which about THB2.9 billion (or about 64%) was contributed by NN2HPP and THB296 million (or about 7%) was from XHPP. Hydropower has relatively low cost of electricity generation, compared to other types of power plants, due to the absence of fuel cost. In effect, it renders relatively higher profit than those of fossil-fuel power plants.

## Well-structured hydropower PPAs

The major risk of hydropower generation is the uncertainty of the volume of water flow. The power output largely hinges on the volume of water supply, which can vary significantly from year to year. High variability in water inflow can lead to highly variable electrical generation and result in fluctuating revenue during certain periods of time. This could impact available cash to





#### cover fixed costs.

The mitigate the risk of fluctuating water flow, CKP's hydropower PPAs are structured to help sustain cash flows, regardless of water fluctuation. The PPAs contain a mechanism, which allows the hydropower plants to sell electricity in excess of the Annual Supply Target in a year of plentiful water flow and receive compensation for exceeding target sales in a dry year. When a hydropower plant's electricity sale in any given year falls short of an Annual Supply Target, the shortfall can be added to the annual supply target in the following years.

#### Uncertainty in water resources remains the key risk

Notwithstanding the mitigation by the contractual mechanism, we view that CKP remains highly susceptible to hydrology risk, given the dominance of hydropower plants in its power portfolio. A drawn-out drought period could translate to a sharp decline in revenue during the affected period. This was demonstrated by the impact of low levels of water resources on NN2HPP's revenue over the past few years.

#### Hydropower continues to drive future growth

Currently, CKP is developing the "Luang Prabang Hydroelectric Power Project" (LPHPP) in Luang Prabang province, the Lao PDR. The project is a large run-of-river hydroelectric power plant in the Mekong River, for an installed capacity of approximately 1,460 MW. CKP holds 42% in the project company, Luang Prabang Power Co., Ltd. The construction is expected to start in 2023 while the commercial operation is set to begin in 2030. We estimate CKP will need to spend THB16 billion over the course of project development. To date, CKP has already injected capital of THB2.7 billion into the project.

#### Significant exposure to country risk of the Lao PDR

As CKP's main power plants are located in the Lao PDR, CKP is inevitably exposed to the country risk, in particular the downside risks stemming from regulatory changes for power generation in the country. However, these risks are mitigated by the concession agreement entered into with the government of Laos (GOL) and the PPAs entered into with EGAT. The two hydropower plants in the Lao PDR have a power-sale payment arrangement whereby the payment by EGAT for the power purchase, is paid directly to the power plants' revenue accounts in Thailand. Moreover, the Laos state-run EDL-Generation Public Company (EDL-Gen) is one of the sponsors of both NN2HPP and XHPP. We expect LPHPP will follow the same mechanism. The GOL is expected to take part in LPHPP as well.

## **Expectation of improving financial profile**

The rating affirmation embeds our expectation that CKP's financial profile will be improving, with a steady decline in leverage. Our base-case forecast is based on the level of water flow at the beginning of 2022 and a conservative assumption on the volume of water inflow over the forecast period. We forecast NN2HPP to generate electricity of about 1,600-1,650 gigawatt-hour (GWh) in 2022 and recover to nearly the average level in 2023-2024. In addition, we forecast that the cogeneration power plants continue to contribute a reliable cash flow of about THB1.1-THB1.2 billion. We also expect CKP to receive dividend income from XHPP of THB200 million per year during 2022-2024. As a result, CKP's EBITDA is estimated to be in range of THB4.0-THB4.7 billion a year in 2022-2024. Funds from operations (FFO) is projected to be THB2.8-THB3.5 billion per year over the same period.

## Leverage expected to decline

We expect CKP's debt to EBITDA ratio will gradually decline to stay below 4 times in 2024. In all, we project CKP to spend capital expenditures and investments in total of THB1.2 billion during 2022-2024. We expect CKP will continue focusing its business expansion in neighboring countries and leveraging its strengths to develop sizable hydropower projects. Since a hydropower project generally takes several years to develop, we do not expect robust growth in the company's assets in the next few years. In our base-case forecast, we expect the debt to capitalization ratio of CKP will stay below 40% in 2022-2024.

#### **Debt Structure**

As of December 2021, CKP's consolidated debt totaled THB31.1 billion, of which THB18.6 billion was considered priority debt, comprising all borrowings incurred by its operating subsidiaries. The priority debt to total debt ratio was 60%, suggesting that CKP's unsecured creditors are significantly disadvantaged to the priority debt holders with respect to claims against the company's assets. In effect, we rate CKP's senior unsecured debentures one notch below the company rating.





#### Adequate liquidity profile

On a consolidated basis, CKP held cash and cash equivalents, including restricted cash for project loans of about THB7.5 billion at the end of 2021. The company also has unused credit facilities (committed and uncommitted) of about THB10.1 billion. We forecast CKP's FFO to be about THB2.8 billion in 2022. Cash on hand, unused credit facilities and expected FFO should be sufficient to cover long-term loans and debentures coming due of about THB8.6 billion during 2022-2024. CKP plans to refinance about THB4 billion of its debentures coming due in 2022-2024 by issuance of new debentures to preserve liquidity.

In our forecast, we expect CKP's operating subsidiaries to be capable of generating sufficient cash to repay their respective financial obligations, both debentures and project loans. In addition, the operating subsidiaries are required to make deposits in the debt service reserve accounts. These accounts serve as debt servicing cushions for the project lenders, in case operating results do not meet expectations.

#### **BASE-CASE ASSUMPTIONS**

- NN2HPP's electricity sale to EGAT to be 1,600-1,650 GWh in 2022 and 2,000 GWh in 2023-2024.
- Electricity sale of two cogeneration power plants to be in range of 1,526 GWh to 1,545 GWh.
- Total capital spending and investments to be around THB1.2 billion over 2022-2024.

#### **RATING OUTLOOK**

The "stable" outlook reflects our expectation that CKP's power plants will perform in line with their respective guidance. As such, we expect CKP will continue receiving stable cash flows from its investments. We expect CKP's financial leverage will steadily decline while its cash flow against debt obligations will be in line with our forecast.

#### **RATING SENSITIVITIES**

The prospect of a rating upgrade is limited over the next 12-18 months. Contrarily, downward revision to the ratings could emerge if the performances of the operating power plants significantly fall short of estimates. This could occur from prolonged low levels of water inflow. Any large debt-funded investment that significantly weakens the company's financial profile could also trigger a rating downgrade.

## **COMPANY OVERVIEW**

CKP, as a holding company, was spun off from CH. Karnchang PLC (CK; rated "A-/Stable" by TRIS Rating) to be a flagship company of the CK Group to invest in power business. CKP was listed on the Stock Exchange of Thailand (SET) in July 2013. As of 19 March 2022, CKP's major shareholders were CK (30%), TTW PLC (25%), and Bangkok Expressway and Metro PLC (16.8%). The rest of the company's shares were publicly owned.

CKP's track record dates back in 2004 when it was a department of CK developing the 615-MW NN2HPP in the Lao PDR. This project's initial operation was in March 2011 and it commenced commercial operation in January 2013. The management, development, and operation teams were transferred to CKP in 2013.

Currently, CKP invests in seven power projects, through its subsidiaries and affiliated companies, with an aggregated installed capacity of 2,167 MW or equity capacity of 1,003 MW.

CKP's portfolio of power plants comprises hydropower, cogeneration, and solar power. All of CKP's operating power plants have secured long-term PPAs. The NN2HPP and the gas-fired cogeneration power plants, under the small power producer (SPP) scheme, hold 25-year PPAs with EGAT. The solar power projects hold five-year PPAs (with auto-renewal every five years) with the PEA, and 25-year PPAs with industrial customers. Meanwhile, the XHPP has secured PPAs with EGAT and EDL for 29 years and 31 years, respectively.

NN2HPP contributed a majority portion of CKP's EBITDA, accounting for about 60%-70%. The rest of 30%-40% was generated by the two gas-fired cogeneration power plants, a small solar power project, and XHPP.

CKP plans to enlarge its aggregate installed capacity to 6,000 MW by 2027. The company will focus on cross-border hydropower projects to leverage the strength of the Group.





## **KEY OPERATING PERFORMANCE**

Table 1: CKP's Portfolio											
	Project	Plant Type	Installed Capacity (MW)	CKP's Interest (%)	CKP's Capacity (MW)	COD/ SCOD	Main Off-taker	PPA (Years)			
1.	NN2HPP	Hydro	615	46	282.7	Mar 11*	EGAT	25+2			
2.	Bangpa-in Cogeneration 1	Gas-fired	118	65	76.7	Jun 13	EGAT	25			
3.	Bangpa-in Cogeneration 2	Gas-fired	120	65	78.0	Jun 17	EGAT	25			
4.	Bangkhenchai	Solar	8	100	8.0	Aug 12	PEA	5 (auto)			
5.	Chiang Rai Solar	Solar	8	30	2.4	Jan 13	PEA	5 (auto)			
6.	Nakhon Ratchasima Solar	Solar	6	30	1.8	Mar 12	PEA	5 (auto)			
7.	XHPP	Hydro	1,285	43	546.1	Oct 19	EGAT	29			
							EDL	31			
8.	Solar rooftop & farm	Solar	6.7	100	6.7	2019	IUs	25 (auto)			
Total			2,166.7		1,002.4						

<sup>\*</sup> NN2HPP commenced initial operation in March 2011 and commenced commercial operation in January 2013.





## FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS\*

Unit: Mil. THB

	Year Ended 31 December						
	2021	2020	2019	2018	2017		
Total operating revenues	8,849	7,077	8,859	9,096	6,916		
Earnings before interest and taxes (EBIT)	3,884	1,180	2,264	2,517	1,597		
Earnings before interest, taxes, depreciation,	4,472	2,910	4,015	4,618	3,587		
and amortization (EBITDA)							
Funds from operations (FFO)	3,357	1,905	2,829	3,173	2,077		
Adjusted interest expense	1,072	1,001	1,173	1,400	1,494		
Capital expenditures	49	106	251	779	2,704		
Total assets	68,977	67,038	64,191	62,503	60,462		
Adjusted debt	24,439	22,098	22,905	24,765	23,565		
Adjusted equity	36,130	35,038	35,547	31,522	30,659		
Adjusted Ratios							
EBITDA margin (%)	50.54	41.13	45.32	50.77	51.87		
Pretax return on permanent capital (%)	5.77	1.81	3.61	4.16	2.70		
EBITDA interest coverage (times)	4.17	2.91	3.42	3.30	2.40		
Debt to EBITDA (times)	5.46	7.59	5.71	5.36	6.57		
FFO to debt (%)	13.74	8.62	12.35	12.81	8.81		
Debt to capitalization (%)	40.35	38.68	39.19	44.00	43.46		

Consolidated financial statements

## **RELATED CRITERIA**

- Key Financial Ratio and Adjustments for Corporate Issuers, 11 January 2022
- Issue Rating Criteria, 15 June 2021
- Group Rating Methodology, 13 January 2021
- Rating Methodology Corporate, 26 July 2019





#### **CK Power PLC (CKP)**

Company Rating:	А
Issue Ratings:	
CKP22NA: THB1,000 million senior unsecured debentures due 2022	A-
CKP23NA: THB1,500 million senior unsecured debentures due 2023	A-
CKP245A: THB1,500 million senior unsecured debentures due 2024	A-
CKP265A: THB1,000 million senior unsecured debentures due 2026	A-
CKP27NA: THB1,500 million senior unsecured debentures due 2027	A-
CKP285A: THB1,500 million senior unsecured debentures due 2028	A-
CKP286A: THB2,500 million senior unsecured debentures due 2028	A-
CKP31OA: THB2,000 million senior unsecured debentures due 2031	A-
Rating Outlook:	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 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 used for the rating has been obtained by TRIS Rating form any 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 <a href="https://www.trisrating.com/rating-information/rating-criteria">www.trisrating.com/rating-information/rating-criteria</a>