

NAM NGUM 2 POWER CO., LTD.

No. 38/2025
31 March 2025

CORPORATES

Company Rating:	A-
Issue Ratings:	
Senior unsecured	A-
Outlook:	Stable

Last Review Date: 05/03/24

Company Rating History:

Date	Rating	Outlook/Alert
05/03/24	A-	Stable
26/07/17	A	Stable

Contacts:

Narongchai Ponsirichusopol
narongchai@trisrating.com

Pravit Chaichamnapai, CFA
pravit@trisrating.com

Parat Mahuttano
parat@trisrating.com

Monthian Chantarklam
monthian@trisrating.com



WWW.TRISRATING.COM

RATIONALE

TRIS Rating affirms the company rating on Nam Ngum 2 Power Co., Ltd. (NN2PC) and the ratings on its outstanding senior unsecured debentures at “A-”. The outlook remains “stable”.

The company rating and outlook on NN2PC are equal to those on CK Power PLC (CKP), “A-/Stable” as we maintain our assessment of NN2PC’s group status as a “core subsidiary” of CKP. We expect NN2PC will continue to contribute significant earnings to the group. NN2PC’s stand-alone credit profile (SACP) remains at “a”.

The SACP is predicated on the well-structured contractual framework and reliable cash generation from its long-term power purchase agreement (PPA) with Electricity Generating Authority of Thailand (EGAT, rated “AAA/Stable”). The SACP also factors in NN2PC’s efficient operational track record and adequate liquidity. However, the SACP remains constrained by the uncertain water flow and the country risk of the Lao People’s Democratic Republic (Lao PDR).

KEY RATING CONSIDERATIONS

Reliable cash generation with EGAT PPA

NN2PC holds a 25-year PPA with EGAT that will expire in 2037. The reliable cash generation is underpinned by EGAT’s take-or-pay commitment to purchase up to 2,310 gigawatt-hours (GWh) each year, which is the annual supply target. This structure mitigates market risk, provided that NN2PC has sufficient water and maintains plant availability. The counterparty risk is minimal, given EGAT’s solid credit profile.

NN2PC’s hydropower plant is operating in the Lao PDR. That said, we hold our view that the country risk is substantially mitigated as the project is established under the collaboration between the government of Thailand and the government of Laos (GOL). In addition to the PPA, NN2PC holds the concession agreement with the GOL, under which the company is permitted to receive and hold its revenue accounts outside of the Lao PDR. Accordingly, payments from EGAT under the PPA are paid to NN2PC’s account in Thailand. This mechanism mitigates the risks of fund transferability and currency convertibility.

Hydrological risk mitigated through PPA framework

The contractual mechanisms under the PPA mitigates the impact from the fluctuating water supply. It allows NN2PC to sell electricity in excess of the annual supply target in wet years and receive compensation for exceeding target sales in dry years. Any shortfall in electricity sales below the annual target can be added to the annual targets in following years.

In addition, in the event that the water supply is insufficient for NN2PC to meet the production requirements, NN2PC has the right to declare a drought year. According to the PPA’s terms, NN2PC is obliged to maintain minimum availability to generate electricity at (i) eight hours per day in each month, and (ii) 10 hours per day in each year. A drought year declaration temporarily exempts NN2PC from this obligation. NN2PC can declare a drought year twice during the 25-year period of the PPA. NN2PC exercised the first drought year declaration in 2020. Despite this mitigation mechanism, an adverse scenario

could emerge should NN2PC encounter repeated and significant water insufficiencies over successive years.

Sound track record of plant operation

NN2PC holds an operation and maintenance agreement (OMA) with EGAT covering the entire term of the PPA. EGAT has extensive experience and expertise in operating hydroelectric power plants in Thailand. Additionally, NN2PC also engages EGAT to provide major maintenance services. In terms of day-to-day operations, NN2PC leverages expertise in water resource management from its parent company, CKP. Since operations commenced, the power plant has satisfactorily maintained an average availability factor of above 95%.

Improving water inflow

The annual water inflow has exhibited an improving trend after NN2PC had experienced the lowest water inflow of 3,639 million cubic meters (mcm) in 2019. In 2024, the water inflow was 6,049 mcm, an 8% increase from 5,619 mcm in 2023. Still, it is below the annual average of 6,377 mcm (average from 1954-2018). The water level in NN2PC's reservoir was at 370 meters above sea level (masl) at the end of 2024, which is considered a satisfactory level ready for power production in 2025.

In 2024, NN2PC generated electricity of 2,132 GWh, marking a significant 26% increase from 1,688 GWh in 2023. Total electricity generation comprised 2,000 GWh of primary energy (PE) and 20 GWh of secondary energy (SE). The PE achieved about 90% of the annual supply target.

With that, NN2PC reported EBITDA of THB3.4 billion, representing a sharp increase of 33% year-over-year. Adjusted net debt was THB6.3 billion as of 2024, decreasing from THB8.4 billion in the prior year. This led to a debt to EBITDA ratio of 1.8 times, while the debt to capitalization ratio was 33%.

Hydrological risk remains a rating constraint. The performance of a hydropower plant primarily depends on water availability, which can vary significantly from year to year. High variability in water inflow can lead to unsteady electrical generation and result in a decrease in revenues during certain periods of time. This could impact available cash to cover fixed costs. Although NN2PC's reservoir storage provides some cushion from short-term fluctuations, prolonged periods of drought could translate into less power generation and lower revenues during an affected period.

Cash flow against leverage level on upward trend

In our base-case projection, we forecast NN2PC's electricity sales to be approximately 1,900 GWh in 2025 and 1,800 GWh annually from 2026-2027. This translates to an estimated EBITDA range of THB2.9-THB3.1 billion per year. With no major investments, except for scheduled maintenance, we forecast annual maintenance spending of approximately THB100 million for 2025-2027. Based on NN2PC's financing plan, we forecast its debt to consistently decrease, reaching below THB1 billion by 2027. As a result, the debt to EBITDA ratio is projected to be below 1 time by 2026, and the debt to capitalization ratio to fall below 20% by the same year.

Adequate liquidity

NN2PC has maintained a prudent internal policy to maintain cash reserves to cover forthcoming debt repayments. NN2PC intends to maintain a minimum cash on hand of approximately THB700 million to cover a full-year operating expenses. As of December 2024, NN2PC had cash of THB3.2 billion. We forecast NN2PC's funds from operations (FFO) to be about THB2.7 billion in 2025. These sources of liquidity should enable NN2PC to comfortably cover the THB3.1 billion maturing debt in 2025.

Debt structure

As of December 2024, NN2PC had THB9.9 billion in debt, excluding lease liabilities. This debt consisted entirely of senior unsecured debentures, indicating no presence of priority debt.

A core subsidiary of CKP

We assess NN2PC as a core subsidiary of CKP. CKP owns 46% of NN2PC and has direct control over NN2PC's business and financial policies. On top of that, NN2PC generally represents a vast majority of CKP's overall EBITDA, contributing approximately 45%-65% portion. NN2PC's SACP remains at "a", suggesting its stronger credit profile relative to that of CKP. Based on our "Group Rating Methodology", the company rating on NN2PC is capped by that assigned to CKP.

BASE-CASE ASSUMPTIONS

These are the key assumptions in TRIS Rating's base-case forecast for NN2PC's operations during 2025-2027:

- Electricity sale to EGAT is forecast to be 1,900 GWh in 2025 and to be 1,800 GWh per year afterward.
- Plant availability factor of above 94%.

- Operation and maintenance (O&M) expenses are expected to increase by about 3% per annum.
- Capital expenditures for maintenance of THB100 million per year.

RATING OUTLOOK

The “stable” outlook on NN2PC mirrors that on CKP and reflects our expectation that NN2PC will maintain its core subsidiary status. That is, we expect NN2PC to remain the core earnings contributor, given its predictable cash generation. We also expect NN2PC to maintain its efficient management of power generation and the reservoir’s water levels, and that NN2PC’s earnings and financial leverage will remain in line with our forecast.

RATING SENSITIVITIES

The ratings on NN2PC will move in tandem with those on CKP. Therefore, any change in the ratings on CKP will result in the same rating action to that on NN2PC.

We are unlikely to upgrade the SACP. On the other hand, we could lower the SACP if NN2PC’s performance consistently misses our expectation, resulting in a material deterioration of cash generation against debt obligations. This could emerge from prolonged low levels of water inflow.

COMPANY OVERVIEW

NN2PC is one of the flagship companies under CKP. NN2PC was incorporated in 2007, under the laws of the Lao PDR, to own and operate the Nam Ngum 2 hydroelectric power plant in the Lao PDR. The major shareholders of NN2PC comprise CKP (with a 46% stake), Ratchaburi Electricity Generating Holding PLC (RATCH; 25%), and EDL-Generation PLC (EDL-Gen; 25%).

The Nam Ngum 2 hydroelectric power plant has an installed capacity of 615 megawatts (MW). The technology used in the hydroelectric power plant is proven, and this technology helps enhance the reliability of the plant. NN2PC’s plant contains three Francis turbines, manufactured by Toshiba. Each turbine is connected to a 205-MW synchronous generator.

The power plant is located on the Nam Ngum River, 35 kilometers (km.) upstream from the 150-MW Nam Ngum 1 hydroelectric power plant. The annual supply target is derived from a water inflow of 6,270 mcm, the yearly average calculated from historical records kept during 1949-2003. The construction of the power plant was completed on time within the budget of about THB31 billion. The plant commenced initial operations in March 2011 and commercial operations in January 2013.

NN2PC holds a PPA with EGAT to sell electricity over a 25-year period. The PPA is on a take-or-pay basis. EGAT is obliged to purchase up to 2,310 GWh in each year, which is the annual supply target. The annual supply target breaks down into PE of 2,218 GWh and SE of 92 GWh. PE is the amount of electricity, as declared by NN2PC, produced in a month at a maximum declaration of 16 hours per day from Monday through Saturday. SE is the amount of electricity that is declared during wet season (August-October). The maximum of declared SE is not more than two hours per day during Monday through Saturday and eight hours on Sunday. The excess energy (EE) is any other amount of electricity produced in excess of the amounts of PE and SE produced. NN2PC could sell electricity produced in excess of the amounts of PE and SE produced, known as EE.

KEY OPERATING PERFORMANCE

Table 1: Performance Statistics of Nam Ngum 2 Hydroelectric Power Plant

Plant Performance	2024	2023	2022	2021	2020
Electricity generation (GWh)	2,132	1,688	1,659	1,845	920
Total availability (%)	93.0	94.2	97.7	97.0	97.1
Planned outage (GWh)	320.0	285.0	104.0	79.4	96.3
Maintenance outage (GWh)	29.6	8.5	4.2	58.5	29.9
Short notice and forced outage (GWh)	7.4	0.8	0.9	4.5	0.3
Reservoir Management					
Water level at the end of period (masl)	370.3	367.4	358.1	361.1	368.7
Water inflow (mcm)	6,049	5,620	4,810	4,301	3,934
Reservoir stock at the end of period (mcm)	4,397	4,110	3,266	3,420	4,240

Notes: Electricity generation = PE+SE+EE+Test Energy

GWh = gigawatt-hours

masl = meter above sea level

mcm = million cubic meters

Source: NN2PC

FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS

Unit: Mil. THB

	-----Year Ended 31 December -----				
	2024	2023	2022	2021	2020
Total operating revenues	4,387	3,574	3,616	3,769	2,063
Earnings before interest and taxes (EBIT)	2,308	1,508	1,671	1,787	263
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	3,433	2,577	2,729	2,850	1,348
Funds from operations (FFO)	2,951	2,102	2,196	2,312	786
Adjusted interest expense	421	447	501	532	563
Capital expenditures	88	122	27	14	15
Total assets	23,021	23,287	24,174	24,071	24,272
Adjusted debt	6,316	8,369	9,372	10,935	12,313
Adjusted equity	12,880	11,715	11,110	10,412	9,845
Adjusted Ratios					
EBITDA margin (%)	77.0	71.8	75.4	75.4	64.4
Pretax return on permanent capital (%)	10.1	6.5	7.1	7.6	1.1
EBITDA interest coverage (times)	8.2	5.8	5.4	5.4	2.4
Debt to EBITDA (times)	1.8	3.2	3.4	3.8	9.1
FFO to debt (%)	46.7	25.1	23.4	21.1	6.4
Debt to capitalization (%)	32.9	41.7	45.8	51.2	55.6

RELATED CRITERIA

- Issue Rating Criteria, 26 December 2024
- Group Rating Methodology, 7 September 2022
- Corporate Rating Methodology, 15 July 2022
- Key Financial Ratios and Adjustments for Corporate Issuers, 11 January 2022

Nam Ngum 2 Power Co., Ltd. (NN2PC)

Company Rating:	A-
Issue Ratings:	
NNPC259A: THB600 million senior unsecured debentures due 2025	A-
NNPC273A: THB1,400 million senior unsecured debentures due 2027	A-
NNPC270A: THB3,600 million senior unsecured debentures due 2027	A-
NNPC303A: THB3,000 million senior unsecured debentures due 2030	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 2025, 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. 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