

NAM NGUM 2 POWER CO., LTD.

No. 21/2024
5 March 2024

CORPORATES

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

Last Review Date: 31/03/23

Company Rating History:

Date	Rating	Outlook/Alert
26/07/17	A	Stable

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RATIONALE

TRIS Rating downgrades the company rating on Nam Ngum 2 Power Co., Ltd. (NN2PC) and the ratings on its outstanding senior unsecured debentures to “A-” from “A”. The outlook is “stable”. The downgrade follows the downward revision of the company rating on CK Power PLC (CKP), its parent company to “A-/Stable” on 5 March 2024.

The company rating on NN2PC is equal to the company rating on CKP 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 reflects the well-structured contractual framework and reliable cash flows received from a long-term power purchase agreement (PPA) with the Electricity Generating Authority of Thailand (EGAT, rated “AAA/Stable”). The SACP also takes into account NN2PC’s track record of efficient plant operation and adequate liquidity. Conversely, the SACP is constrained by the by the uncertainty of water flow from the Nam Ngum River and the country risk of the Lao People’s Democratic Republic (Lao PDR).

KEY RATING CONSIDERATIONS

Reliability of cash flow underpinned by EGAT PPA

NN2PC owns and operates a large-scale hydropower plant, with an installed capacity of 615 megawatts (MW). The power plant is located on the Nam Ngum River in the central part of the Lao PDR. NN2PC holds a PPA with EGAT to sell electricity over a 25-year period. The PPA is on a take-or-pay basis, which largely mitigates market risk. EGAT is obliged to purchase up to 2,310 gigawatts-hour (GWh), which is the annual supply target. The annual supply target breaks down into primary energy (PE; 2,218 GWh) and secondary energy (SE; 92 GWh). NN2PC carries minimal counterparty risk, given the credit strength of EGAT.

Although NN2PC’s hydropower plant is operating in the Lao PDR, we remain of the view that the country risk is substantially abated 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 allowed to receive and hold its revenue accounts outside 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.

A streak record of efficient 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 term of day-to-day operations, NN2PC leverages expertise in water resource management from its parent, CKP. Since the commencement of operation, the power plant has satisfactorily maintained the availability factor of above 95% on average.

Uncertainty of water resource

Uncertain water resource remains the key risk. The performance of hydropower 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 drop-off 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, drawn-out periods of drought could translate into less power generation and lower revenues during an affected period.

Risks mitigation through contractual framework

The contractual mechanism of 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. Whenever NN2PC sells an amount of electricity below the annual supply target, the shortfall can be added to the annual supply target in the 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. Under the terms of PPA, 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 will temporarily exempt NN2PC from such 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. Notwithstanding the merits of the scheme, an adverse scenario could emerge if NN2PC encounters rampant water insufficiencies repeatedly over successive years.

Improving trend of water inflow, yet still below long-term average

The annual water inflow has staged an improving trend after NN2PC had experienced the lowest water inflow of 3,639 million cubic meters (mcm) in 2019. In 2023, the water inflow was 5,620 mcm, a 17% increase from 4,810 mcm in 2022. However, the water inflow in 2023 was still below the annual average of 6,377 mcm (average from 1954-2018). The water level in NN2PC's reservoir was at 367.4 meters above sea level (masl) at the end of 2023.

In 2023, NN2PC generated electricity of 1,685 GWh, a 2% increase from 1,655 GWh in 2022. Total electricity generation comprised PE of 1,603 GWh and SE of 82 GWh. The PE achieved about 72% of the annual supply target reflected the lower-than-average level of water inflows, a key factor for a hydropower plant.

Earnings expected to slightly improve

In 2023, NN2PC's earnings before interest, taxes, depreciation, and amortization (EBITDA) came in at THB2.6 billion in 2023, a 5.6% drop from 2022. Decrease in EBITDA was due mainly from higher in maintenance expenditures resulted from major maintenance. Adjusted net debt was THB8.4 billion as of 2023, down from THB9.4 billion as of 2022. As a result, the debt to EBITDA ratio declined to 3.2 times. The debt to capitalization ratio stood at 41.7% as of 2023.

Given the pattern of water flow in the recent years, we project NN2PC to sell electricity of about 1,800 GWh per year in 2024-2026, improving from our previous forecast of 1,650-1,800 GWh per year. As a result, we project NN2PC's EBITDA will arrive at THB2.8 billion per year over the forecast period.

Debt on downward path

We do not expect NN2PC to make any major investments in the foreseeable future other than the planned major maintenances. We forecast NN2PC to spend maintenance capital expenditure about THB0.1 billion per annum in 2024-2026. According to the scheduled debt repayment and NN2PC's financing plan, we forecast adjusted net debt to consistently recede to THB4 billion by 2026. The debt to EBITDA ratio is projected to consistently fall to about 1.4 times in 2026. We expect the debt to capitalization ratio to fall below 30% by 2026.

Adequate liquidity

NN2PC has maintained a prudent internal policy to maintain cash reserves to cover the upcoming debt repayments. NN2PC also intends to maintain a minimum cash on hand of about THB700 million to cover operating expenses for about 12 months. As of December 2023, NN2PC had cash of nearly THB3 billion. We forecast NN2PC's funds from operations (FFO) to be about THB2.3 billion in 2024. Cash on hand plus FFO enable NN2PC to comfortably cope with debt coming due in the next 12 months of THB1.5 billion.

Debt structure

NN2PC's debt, excluding lease liability, totaled THB11.3 billion as of December 2023. This was entirely owed to senior unsecured debenture holders, suggesting an absence of priority debt.

A core subsidiary of CKP

In our view, NN2PC is a subsidiary of CKP. CKP owns 46% of NN2PC and has direct control over NN2PC's business and financial policies. NN2PC generally contributes about 60%-70% of EBITDA to CKP's entire power portfolio. Given its significant earnings contribution to the group, we assess NN2PC as a core subsidiary of CKP. Based on our "Group Rating Methodology", the company rating on NN2PC is equivalent to that assigned to CKP.

BASE-CASE ASSUMPTIONS

These are the key assumptions in TRIS Rating's base-case forecast for NN2PC's operations during 2024-2026:

- Electricity sale to EGAT is forecast to be 1,800 GWh per year.
- Plant availability factor of above 94%
- The energy tariff will be adjusted in accordance with the terms of the PPA.
- Operation and maintenance (O&M) expenses are expected to increase by about 3% per annum.
- Total capital expenditure for maintenance of THB100 million per year.

RATING OUTLOOK

The "stable" outlook embeds our expectation that NN2PC will continue to generate stable cash flows from its power plant, and that the water inflow will stay around average level in the longer term. We also expect NN2PC to maintain its efficient management of power generation and water level in the reservoir. NN2PC's earnings and financial leverage will align with our forecast.

RATING SENSITIVITIES

According to TRIS Rating's "Group Rating Methodology", the rating on NN2PC will move in tandem with that on its parent, CKP. Any change in the rating and/or outlook on CKP will affect the rating and/or outlook on NN2PC accordingly.

An upward revision on NN2PC's SACP is unlikely. On the other hand, we could lower the SACP if NN2PC's performance is worse than 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 of the power segment under the CH. Karnchang Group (CK Group). 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 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.

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

Plant Performance	2023	2022	2021	2020	2019
Electricity generation (GWh)	1,688	1,659	1,845	920	1,685
Total availability (%)	94.2	97.7	97.0	97.1	92.0
Planned outage (GWh)	285.0	104.0	79.4	96.3	77.7
Maintenance outage (GWh)	8.5	4.2	58.5	29.9	202.1
Short notice and forced outage (GWh)	0.8	0.9	4.5	0.3	7.9
Reservoir Management					
Water level at the end of period (masl)	367.4	358.1	361.1	368.7	355.2
Water inflow (mcm)	5,620	4,810	4,301	3,934	3,639
Reservoir stock at the end of period (mcm)	4,110	3,266	3,420	4,240	2,841

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-----				
	2023	2022	2021	2020	2019
Total operating revenues	3,574	3,616	3,769	2,063	3,403
Earnings before interest and taxes (EBIT)	1,508	1,671	1,787	263	1,438
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	2,577	2,729	2,850	1,348	2,573
Funds from operations (FFO)	2,102	2,196	2,312	786	1,886
Adjusted interest expense	447	501	532	563	675
Capital expenditures	122	27	14	15	43
Total assets	23,287	24,174	24,071	24,272	25,692
Adjusted debt	8,369	9,372	10,935	12,313	12,599
Adjusted equity	11,715	11,110	10,412	9,845	10,788
Adjusted Ratios					
EBITDA margin (%)	71.8	75.4	75.4	64.4	73.8
Pretax return on permanent capital (%)	6.5	7.1	7.6	1.1	5.5
EBITDA interest coverage (times)	5.8	5.4	5.4	2.4	3.8
Debt to EBITDA (times)	3.2	3.4	3.8	9.1	4.9
FFO to debt (%)	25.1	23.4	21.1	6.4	15.0
Debt to capitalization (%)	41.7	45.8	51.2	55.6	53.9

RELATED CRITERIA

- Group Rating Methodology, 7 September 2022
- Corporate Rating Methodology, 15 July 2022
- Key Financial Ratios and Adjustments for Corporate Issuers, 11 January 2022
- Issue Rating Criteria, 15 June 2021

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

Company Rating:	A-
Issue Ratings:	
NNPC240A: THB1,400 million senior unsecured debentures due 2024	A-
NNPC253A: THB600 million senior unsecured debentures due 2025	A-
NNPC259A: THB600 million senior unsecured debentures due 2025	A-
NNPC273A: THB2,000 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

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