

NAM NGUM 2 POWER CO., LTD

No. 17/2019
8 February 2019

CORPORATES

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

Last Review Date: 05/03/18

Company Rating History:

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

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RATIONALE

TRIS Rating affirms the company rating on Nam Ngum 2 Power Co., Ltd. (NN2PC) at "A". At the same time, TRIS Rating assigns the rating of "A" to NN2PC's proposed issues of up to Bt6,000 million in senior unsecured debentures. The proceeds from the proposed debenture issuance will be used to pay off the outstanding project loans.

In addition, TRIS Rating upgrades the rating of NN2PC's outstanding senior unsecured debentures to "A" from "A-". The upgrade follows the full repayment of project loans, which results in discharge of the respective security to the lenders, including the first rank mortgages on the project assets. This lessens the disadvantage for unsecured creditors.

The ratings reflect the company's solid contractual framework, reliable cash flows received from a long-term power purchase agreement (PPA) with the Electricity Generating Authority of Thailand (EGAT; rated "AAA" by TRIS Rating), the experienced management team, and the proven technology used in the hydroelectric power plant. However, the ratings are constrained by the uncertain flow of water from the Nam Ngum river and the sovereign risk of the Lao People's Democratic Republic (Lao PDR; rated "BBB+/Negative" by TRIS Rating).

KEY RATING CONSIDERATIONS

Contractual framework mitigates major risks

The contractual framework embedded in the Nam Ngum 2 power project mitigates major risks of the project. A long-term PPA with EGAT mitigates market risk. The PPA is on a take-or-pay basis. EGAT is obliged to purchase up to 2,310 gigawatt-hour (GWh) (the Annual Supply Target) of power from NN2PC. The Annual Supply Target breaks down into Primary Energy (PE; 2,218 GWh) and Secondary Energy (SE; 92 GWh).

The concession agreement with the government of Lao (GOL) mitigates the risks of money transferability and currency convertibility. The concession agreement states NN2PC has the right to receive and hold its revenue accounts outside the Lao PDR. As a result, the revenue received from EGAT is paid to NN2PC's account in Thailand.

Experienced management team and proven technology

The operational risk is minimized because EGAT operates the power plant. 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. In addition, NN2PC also contracted with EGAT for major maintenance Services. Since the date of initial operation in March 2011 to 2017, the plant availability factor has been higher than 96%. In 2018, the plant availability factor was 92% due to the partial overhaul.

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-megawatt (MW) synchronous generator. The combined capacity of these units is 615 MW.

Hydrology risk remains, but PPA makes it manageable

The volume of water flowing into the hydroelectric plant may vary year by year. However, the PPA contains a mechanism to smooth out the cash flows for the project. The mechanism allows NN2PC to sell more electricity than the Annual Supply Target in wet years, and then receive compensation for the extra sales in dry year. 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.

The Annual Supply Target is derived from a water inflow of 6,270 million cubic meters (mcm), the yearly average, calculated from the historical records kept during 1949-2003.

In 2018, the water flowed into Nam Ngum 2 reservoir has broken 70-year record with the volume of 10,535 mcm. As a result, NN2PC declared power generation totally 2,454 GWh, comprising of PE (1,980 GWh), SE (130 GWh), and excess energy (EE: 344 GWh). However, the company still had a cumulative shortfall of 879 GWh in PE and 178 GWh in SE to be added to the Annual Supply Target in later years, due to the lower generation during 2015-2017.

EBITDA increase due to better inflow

For the first nine months of 2018, NN2PC's earnings before interest, tax, depreciation, and amortization (EBITDA) increased by 25.2% to Bt2.5 billion mainly due to a higher inflow of water. TRIS Rating forecasts NN2PC's EBITDA will be in the range of Bt3.0-Bt3.5 billion per year during 2019-2021. This forecast is based on a 10% reduction from the historical average inflow of water. This amount of EBITDA is sufficient to cover the outstanding debts coming due. The company will repay debt of about Bt600 million in 2019, about Bt2.1 billion in 2020, and about Bt1.0 billion in 2021. The company plans to refinance debt due in 2020 of about Bt1.0 billion.

Expected to improve in capital structure

TRIS Rating expects the capital structure of NN2PC will gradually improve to stay below 50% in 2021. TRIS Rating believes NN2PC will not have any huge investment and expenditures, other than maintenance in the foresee future. The latest investment was the upgrade of Nabong power substation completed in 2018 with the investment cost of Bt3.12 billion. As of September 2018, the company's adjusted debt was Bt14.3 billion, with debt to capitalization ratio of 57.2%.

Strong liquidity profile

TRIS Rating believes NN2PC will maintain strong liquidity profile over the forecast period. This is based on our expectation that the company will have smooth operation to generate predictable cash flow. TRIS Rating expects NN2PC's funds from operations (FFO) will exceed Bt2.5 billion in 2019. In addition, the company held Bt2.06 billion in cash on hand as of September 2018. Cash on hand, plus FFO, is sufficient to cover loan repayments of about Bt600 million in 2019.

With the proceeds from the new debentures, NN2PC will pay off the outstanding project loans, which will lead to discharge of respective security to the lenders, including the first-ranked mortgages on the project assets. This will considerably improve unsecured creditors position with respect to priority claims on the company's assets.

After refinancing all project loans with debentures, NN2PC conservatively sets an internal policy to reserve cash at least Bt1.0 billion preparing for the next debt installment. These accounts serve as a protective cushion for the bondholders, in case operations do not reach expectations. NN2PC is also intent on maintaining a minimum cash on hand of about Bt700 million to cover operating expenses for about 12 months.

BASE-CASE ASSUMPTIONS

- TRIS Rating assumes 10% discount on the historical average water inflow of 6,270 mcm
- The capacity factor is expected to be in the range of 36%-40% during 2019 -2021
- The plants availability factor is expected to be higher than 96% during the forecast period
- Energy tariff is adjusted in accordance with the term of PPA
- Operating and maintenance (O&M) is expected to increase about 3% per annum

RATING OUTLOOK

The "stable" outlook reflects TRIS Rating's expectation that NN2PC will continue to receive stable cash flows from its power plant. The power units and water flows into the reservoir are expected to be managed well, enabling NN2PC to achieve the Annual Supply Targets throughout the PPA life.

RATING SENSITIVITIES

Any credit upside would be likely if NN2PC demonstrates stronger performance on a sustainable basis. The downside case may emerge if cash flow deteriorates or if NN2PC makes any large investments which deteriorate the company's financial

profile.

COMPANY OVERVIEW

NN2PC is one of the flagship companies of the power segment under the CH. Karnchang Group (the 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 ultimate major shareholders of NN2PC comprise CK Power PLC (CKP; with a 42% 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. It is located on the Nam Ngum river, 35 kilometers (km.) upstream from the 150-MW Nam Ngum 1 hydroelectric power plant. The construction of the power plant was completed on time within the budget of about Bt31 billion. The plant commenced initial operation in March 2011 and commenced commercial operation in January 2013.

KEY OPERATING PERFORMANCE

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

Plant Performance	2018	2017	2016	2015	2014
Electricity generation (GWh)	2,454	1,857	2,109	2,104	2,215
Total availability (%)	93.0	98.1	97.6	96.5	97.1
Planned outage (GWh)	347.7	20.1	106.4	60.3	81.9
Maintenance outage (GWh)	7.1	19.7	19.8	57.2	52.8
Short notice and forced outage (GWh)	1.0	5.9	1.0	8.4	24.9
Reservoir Management					
Water level at the end of period (masl)	368.4	364.1	371.1	372.4	373.7
Water inflow (mcm)	10,535	5,104	5,360	5,806	6,342
Reservoir stock at the end of period (mcm)	4,209	3,749	4,481	4,779	4,851

Note: 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: Bt million

	Jan-Sep 2018	-----Year Ended 31 December -----			
		2017	2016	2015	2014
Total operating revenues	2,992	3,327	3,833	3,903	3,986
Operating income	2,454	2,627	2,991	2,955	3,159
Earnings before interest and taxes (EBIT)	1,638	1,423	1,864	1,910	2,066
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	2,456	2,505	2,946	2,997	3,155
Funds from operations (FFO)	1,839	1,522	2,077	2,101	2,166
Adjusted interest expense	582	967	855	896	989
Capital expenditures	545	1,577	915	24	25
Total assets	27,946	27,629	27,138	28,876	29,737
Adjusted debt	14,254	14,732	14,299	13,109	14,635
Adjusted equity	10,679	10,228	10,301	12,141	11,894
Adjusted Ratios					
Operating income as % of total operating revenues (%)	82.00	78.95	78.04	75.73	79.25
Pretax return on permanent capital (%)	7.07 *	5.27	6.77	6.61	6.95
EBITDA interest coverage (times)	4.22	2.59	3.44	3.34	3.19
Debt to EBITDA (times)	4.75 *	5.88	4.85	4.37	4.64
FFO to debt (%)	15.18 *	10.33	14.53	16.03	14.80
Debt to capitalization (%)	57.17	59.02	58.13	51.92	55.16

* Annualized with trailing 12 months

RELATED CRITERIA

- Key Financial Ratios and Adjustments, 5 September 2018
- Group Rating Methodology, 10 July 2015
- Sovereign Credit Rating, 8 October 2013
- Rating Methodology – Corporate, 31 October 2007

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

Company Rating:	A
Issue Ratings:	
NNPC200A: Bt1,000 million senior unsecured debentures due 2020	A
NNPC240A: Bt1,400 million senior unsecured debentures due 2024	A
NNPC270A: Bt3,600 million senior unsecured debentures due 2027	A
NNPC303A: Bt3,000 million senior unsecured debentures due 2030	A
Up to Bt6,000 million senior unsecured debentures due within 8 years	A
Rating Outlook:	Stable

TRIS Rating Co., Ltd.

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