

# CK POWER PLC

No. 51/2019  
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## CORPORATES

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

Last Review Date: 17/05/18

### Company Rating History:

| Date     | Rating | Outlook/Alert |
|----------|--------|---------------|
| 02/05/18 | A      | Stable        |

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## RATIONALE

TRIS Rating affirms the company rating on CK Power PLC (CKP) at "A" and also affirms the ratings on CKP's senior unsecured debentures at "A-". The one notch below the company rating reflects the structural subordination of the debentures, compared with the existing loans at subsidiaries.

The ratings reflect the company's strengths in developing and operating large-scale hydroelectric power plants, highly predictable cash flow derived from power purchase agreements (PPAs) with the Electricity Generating Authority of Thailand (EGAT; rated "AAA/Stable" by TRIS Rating), and the proven technology used in the hydropower plants. However, the ratings are constrained by the hydrology risk and the sovereign risk of the Lao People's Democratic Republic (Lao PDR; rated "BBB+/Negative" by TRIS Rating).

## KEY RATING CONSIDERATIONS

### Well-established track record of developing power projects

CKP is a power project developer, owning a portfolio of power plants comprising hydropower, cogeneration, and solar power. But the company is best known for its hydropower projects in the Lao PDR. CKP has established track record of developing and operating the Nam Ngum 2 Hydroelectric Power Project (NN2HPP), a large hydropower with total capacity of 615 megawatts (MW). One of the key success factors is the strength of its major shareholder, CH. Karnchang PLC (CK; rated "A/Stable" by TRIS Rating), the second-largest engineering and construction (E&C) companies listed on the Stock Exchange of Thailand (SET) based on revenue and assets.

CKP's project management is sound. Its major operating assets, which are NN2HPP and two gas-fired cogeneration power plants, commenced operations on time and within budget. All of CKP's operating power plants have secured long-term PPAs. CKP has engaged in contractual arrangements, which help mitigate most of its project risks.

### Strengths in hydropower

Hydropower plants make up the vast majority of CKP's power portfolio. The technology used in the hydroelectric power plant is proven and helps ensure the operation reliability. In 2018, the company's EBITDA (earnings before interest, tax, depreciation, and amortization) came in at Bt4.62 billion, of which about Bt3.2 billion (or about 70%) was contributed by NN2HPP. The remainder was from two gas-fired cogeneration power plants and one small solar power project.

Currently, CKP is developing the Xayaburi Hydroelectric Power Project (Xayaburi HPP), the largest hydropower plant in the Lao PDR. Once the project commences operation, the company's equity capacity (or capacity in proportion to CKP's ownership stakes) at hydropower projects will account for about 80% of the company's total equity capacity of 913.8 MW.

### Highly predictable cash flows from long-term PPAs with creditworthy parties

The ratings take into account the company's highly predictable cash flow, due in part to the creditworthiness of major power off-takers. EGAT is the main off-taker, buying about 94% of CKP's total installed capacity, including the Xayaburi HPP. The rest is purchased by Electricite Du Laos (3%), Thai

industrial customers (2%), and Thailand's Provincial Electricity Authority (PEA; 1%).

Moreover, the company's PPAs are well structured, which largely help mitigate major risks of the projects. For instance, The NN2HPP's PPA contains a mechanism allowing more electricity to be sold than the annual supply target and then to receive compensation for those extra sales in a dry year. Whenever the NN2HPP sells an amount of electricity below the annual supply target, the shortfall can be added to the annual supply target in the following years. This mechanism helps smooth out the project's cash flow, and it is also applied to the Xayaburi HPP.

As for the cogeneration, the PPAs allow CKP's plants to pass on fuel costs to EGAT as long as they meet the agreed plant efficiency. The exposure to fluctuations in fuel prices is hence manageable. CKP's plants have so far outperformed the allowance.

### **The Xayaburi HPP is expected to enlarge power production and income**

The much-anticipated Xayaburi HPP has passed the period of high construction risk. The project construction was 98.2% complete as of February 2019, and its first unit is expected to start commissioning in April 2019, six months before the scheduled commencement of commercial operation in October 2019.

The project will generate revenue of about Bt15 billion and EBITDA of about Bt13 billion per annum. Based on CKP's 37.5% interest in the project, CKP is expected to record a share of the profit of about Bt1-Bt1.5 billion per annum in a full year of operation.

### **Exposure to hydrology risk**

The forecast energy production of the hydropower plants is established using long-term hydrological statistics of average water flow, but yearly water flows can vary. Even longer-term records offer no assurance that the hydrology will not change. Notwithstanding the merit of the contractual framework, the NN2HPP and the Xayaburi HPP remain susceptible to the risk of a precipitous and lingering falloff in water availability, which could drastically dampen cash flow and returns from the projects.

### **Exposure to country risk of the Lao PDR**

CKP's main power plants are located in the Lao PDR. Therefore, CKP is exposed to the Laos country risks, as well as regulatory risk. However, these risks are mitigated by the concession agreement with the government of Laos (GOL) and the PPAs with EDL, Laos state enterprise and one of the sponsors of both the NN2HPP and the Xayaburi HPP. The market risk is mitigated by the PPAs with EGAT.

TRIS Rating expects that CKP will continue to focus on neighboring countries. TRIS Rating believes the company will leverage its strengths to develop sizable hydropower projects. Since a hydropower project, in essence, takes several years to develop and alters large areas of the environment, TRIS Rating does not expect tremendous growth in the company's assets in the next few years.

### **Satisfactory performance and financial profile**

CKP's operating margin (operating income before depreciation and amortization as a percentage of operating revenues) is relatively high at about 50%-60% compared with other power holding companies, because CKP has concentrated its investment in the hydropower projects. On average, CKP's hydroelectric power project has an operating margin of about 75%-80%, while the cogeneration power plant has an operating margin of about 20%-25%. Such profitability is in line with peers.

CKP's EBITDA increased to Bt4.6 billion in 2018, from Bt3.6 billion in 2017. This was due to the full year contribution from its second cogeneration plant and revival of NN2HPP's performance. The EBITDA interest coverage ratio was 3.3 times in 2018, improving from 2.4 times in 2017. The company's capital structure is moderate. At the end of 2018, CKP had adjusted debt of Bt24.8 billion, with a debt to capitalization ratio of 44.0%. The ratio of funds from operations (FFO) to debt was 12.8% in 2018.

TRIS Rating expects that CKP will start to invest in new projects once Xayaburi HPP begins to operate. Given the tendency that CKP will look for growth in hydropower projects, large amounts of capital spending required would span over the course of development. Considering the expected cash flow of the ongoing projects, TRIS Rating does not expect CKP's financial profile, over the next few years, will materially change from the current level. In our forecast for 2019-2021, we expect EBITDA will sustain at Bt4.5-Bt4.6 billion per year. The debt to capitalization ratio should remain at around 45%. The ratio of FFO to debt should stay around 13%.

### **Adequate liquidity profile**

On a consolidated basis, CKP holds cash and cash equivalents, including restricted cash for project loans, of about Bt5.8

billion at the end of 2018. TRIS Rating expects CKP's FFO will be about Bt3.4 billion in 2019. Cash on hand and FFO are sufficient to cover loan repayments of about Bt2.0 billion, capital expenditures and investments of about Bt4 billion, including the acquisition and new project investment budget. However, CKP plans to issue new debentures or secure loans from financial institutions worth about Bt2 billion for funding some new investments.

Based on TRIS Rating's forecast, the operating subsidiaries should be capable of generating sufficient cash to repay their respective financial obligations, both debentures and project loans. In addition, the operating subsidiaries will make deposits in the reserve accounts for the next loan payment. These accounts serve as a protective cushion for the lenders, in case operating results do not meet expectations.

On a stand-alone basis, CKP held cash and cash equivalents of about Bt1.6 billion as of 2018. The dividend income from subsidiaries and associated companies is forecast about Bt1 billion per annum for 2019. CKP, on a stand-alone basis, has no debt due over 2019-2020. However, the company's debentures of Bt4 billion will be due in 2021. TRIS Rating expects that CKP will refinance those debentures with new debentures or borrowings from financial institutions. The refinancing risk is largely mitigated by CKP's highly predictable revenue stream and its accessibility to the capital market.

#### BASE-CASE ASSUMPTIONS

- Water inflow of NN2HPP is predicted at a 10% discount on the historical average water inflow of 6,270 million cubic meters.
- The capacity factor for NN2HPP will range 36%-40%.
- The capacity factor for two cogeneration power plants will range 75%-77%.
- Total capital spending will be Bt4.0 billion in 2019, and about Bt2.0 billion per year during 2020 -2021.

#### RATING OUTLOOK

The "stable" outlook reflects TRIS Rating's expectation that CKP's power plants will perform in line with their respective guidance. As such, CKP will continue to receive stable cash flows from its investments. Moreover, TRIS Rating also expects the Xayaburi HPP will commence operation as planned, and will contribute return as expected.

#### RATING SENSITIVITIES

Any credit upside would be limited over the next 12-18 months. A downside case may emerge if the performances of the operating power plants fall short of estimates, which will weaken CKP's cash flow. The ratings could also be lowered if the Xayaburi HPP delays its commercial operation date or its performance deviates materially from the expectation. Any large debt-funded investments which deteriorates the company's financial profile would be a negative pressure on the ratings as well.

#### COMPANY OVERVIEW

CKP, as a holding company, was spun off from CK 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 March 2019, CKP's major shareholders were CK (27.2%), TTW PLC (25.3%), and Bangkok Expressway and Metro PLC (17.8%). 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 eight power projects, through its subsidiaries and affiliated companies, with an aggregated installed capacity of 2,166.8 MW or equity capacity of 913.8 MW. Out of the equity capacity, about 425.2 MW is in operation while the remaining 488.6 MW, almost entirely from the Xayaburi HPP, is under construction.

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 (which auto-renew every five years) with the PEA. Meanwhile, the Xayaburi HPP has secured PPAs with EGAT and EDL for 29 years and 31 years, respectively.

In terms of off-takers for the operation phase of the project, about 375 MW or 88% is sold to EGAT and the rest is for the industrial customers in Thailand and the PEA. For the Xayaburi HPP, EGAT will be the main off-taker, accounting for about 95% of the project's installed capacity, while the rest will be purchased by EDL.

CKP plans to double its aggregate installed capacity to 5,000 MW by 2025. 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. Nam Ngum 2 HPP           | Hydro      | 615                     | 42                 | 258.3               | 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. Xayaburi HPP             | Hydro      | 1,285                   | 38                 | 481.9               | Oct 19   | EGAT           | 29          |
|                             |            |                         |                    |                     |          | EDL            | 31          |
| 8. Solar rooftop & farm     | Solar      | 6.8                     | 100                | 6.8                 | 2019     | IUs            | 5 (auto)    |
| <b>Total</b>                |            | <b>2,166.8</b>          |                    | <b>913.8</b>        |          |                |             |

\* Nam Ngum 2 HPP commenced initial operation date (IOD) in March 2011 and commenced commercial operation date (COD) in January 2013.

**FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS\***

Unit: Bt million

|  | -----Year Ended 31 December ----- |        |        |        |        |
|--|-----------------------------------|--------|--------|--------|--------|
|  | 2018                              | 2017   | 2016   | 2015   | 2014   |
| Total operating revenues   | 9,096                             | 6,916  | 6,337  | 6,779  | 7,000  |
| Operating income   | 4,585                             | 3,681  | 3,664  | 3,702  | 3,917  |
| Earnings before interest and taxes (EBIT)                                | 2,517                             | 1,597  | 1,731  | 1,903  | 2,103  |
| Earnings before interest, taxes, depreciation, and amortization (EBITDA) | 4,618                             | 3,587  | 3,657  | 3,785  | 3,954  |
| Funds from operations (FFO)  | 3,173                             | 2,077  | 2,384  | 2,649  | 2,730  |
| Adjusted interest expense  | 1,400                             | 1,494  | 1,260  | 1,135  | 1,224  |
| Capital expenditures   | 779                               | 2,704  | 3,496  | 1,186  | 182    |
| Total assets   | 62,503                            | 60,462 | 59,305 | 54,567 | 49,327 |
| Adjusted debt  | 24,758                            | 23,565 | 21,727 | 17,229 | 18,945 |
| Adjusted equity  | 31,522                            | 30,659 | 30,506 | 31,812 | 26,104 |
| <b>Adjusted Ratios</b>   |                                   |        |        |        |        |
| Operating income as % of total operating revenues (%)                    | 50.41                             | 53.22  | 57.82  | 54.61  | 55.95  |
| Pretax return on permanent capital (%)                                   | 4.16                              | 2.70   | 3.08   | 3.71   | 4.27   |
| EBITDA interest coverage (times)   | 3.30                              | 2.40   | 2.90   | 3.33   | 3.23   |
| Debt to EBITDA (times)   | 5.36                              | 6.57   | 5.94   | 4.55   | 4.79   |
| FFO to debt (%)  | 12.82                             | 8.81   | 10.97  | 15.38  | 14.41  |
| Debt to capitalization (%)   | 43.99                             | 43.46  | 41.60  | 35.13  | 42.05  |

\* Consolidated financial statements

**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

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**CK Power PLC (CKP)**

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|   |        |
|---|--------|
| <b>Company Rating:</b>  | A      |
| <b>Issue Ratings:</b>   |        |
| CKP216A: Bt4,000 million senior unsecured debentures due 2021 | A-     |
| CKP286A: Bt2,500 million senior unsecured debentures due 2028 | A-     |
| <b>Rating Outlook:</b>  | Stable |

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**TRIS Rating Co., Ltd.**

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