

EDL-GENERATION PUBLIC COMPANY

No. 71/2020
15 May 2020

CORPORATES

Company Rating:	BBB
Issue Ratings:	
Senior unsecured	BBB
Outlook:	Negative

Last Review Date: 28/06/19

Company Rating History:

Date	Rating	Outlook/Alert
28/06/19	BBB	Stable
12/06/17	BBB+	Negative
15/10/14	BBB+	Stable

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RATIONALE

TRIS Rating affirms the company rating on EDL-Generation Public Company (EDL-Gen) and the ratings on EDL-Gen's senior unsecured debentures at "BBB". At the same time, TRIS Rating revises the rating outlook on EDL-Gen to "negative" from "stable".

This outlook revision follows the outlook revision of the sovereign rating on the Lao People's Democratic Republic (Lao PDR). TRIS Rating revised the Lao sovereign rating outlook downward to "negative" from "stable" while affirming the Lao sovereign rating at "BBB" on 15 May 2020.

The "BBB" ratings continue to reflect EDL-Gen's high integration with Electricite du Laos (EDL), the company's major shareholder and the sole purchaser of the electricity EDL-Gen produces. EDL is a state-owned enterprise, owned by the government of the Lao PDR. As a result, EDL's credit profile is underpinned by the sovereign rating of Lao PDR.

EDL-Gen's ratings also take into consideration the company's critical role in the electrical power industry in the Lao PDR. The ratings are constrained by the sovereign rating of the Lao PDR, the sizable investments EDL plans to make, and an oversupply of electricity in the Lao domestic market.

KEY RATING CONSIDERATIONS

Credit profile reflects EDL and Lao PDR's sovereign credit worthiness

EDL-Gen's credit profile is underpinned by the credit profiles of EDL and the Lao PDR. EDL-Gen is a core subsidiary of EDL. EDL-Gen took over the role of electricity generation for the country from EDL at its inception. On the other hand, EDL is the sole customer of EDL-Gen and the sole owner of the nation's power grid. EDL-Gen is tightly integrated with EDL under the structure.

EDL influences EDL-Gen's business direction in many ways, such as the pursuit of growth opportunities, the structure of future power purchase agreements (PPAs), and dividend policy.

EDL is wholly-owned by the Ministry of Finance of the Lao PDR (MOFL). The credit quality of EDL is underpinned by the very high likelihood that the government of the Lao PDR will provide full support to EDL in the event of distress. This likelihood is reinforced by the fact that EDL and EDL-Gen fulfill a critical role in the power development plan of the Lao PDR, and the power sector plays an important part in efforts to advance the economic and social development of the Lao PDR.

Strong market position in Lao PDR's power sector

EDL-Gen is one of the leading power producers in the Lao PDR, with a 16.5% share of total installed capacity. For domestic power supply, EDL-Gen is the largest power producer, supplying about 22.6% of the power consumed in the Lao PDR.

EDL-Gen's equity capacity increased significantly during 2019-2020. In 2019, EDL transferred to EDL-Gen, shareholdings in four Independent Power Producers (IPPs), equivalent to 350 megawatts (MW) (proportionate to shareholdings), EDL also transferred 80 MW of the Nam Ngum 1 expansion unit. In addition, Donsahong, an IPP hydroelectric power project that represents an equity capacity of 52 MW for EDL-Gen, commenced operation in December 2019. For 2020, EDL plans to transfer three hydroelectric power

plants with total installed capacity of 187 MW to EDL-Gen. TRIS Rating expects EDL-Gen's equity capacity to increase to 1,896 MW by the end of 2020 from 1,159 MW at the end of 2018.

Domestic oversupply to continue for several years

Based on preliminary data available to TRIS Rating, the installed capacity of all power plants in the Lao PDR increased to 9,972 MW at the end of 2019, from 7,080 MW at the end of 2018. Out of the total installed capacity, 5,961 MW are generated by IPPs for direct export, mainly to Thailand, while the remaining 4,011 MW are distributed by EDL for domestic use via EDL's grid.

During the past few years, the power generation capacity for Laos's domestic market has grown at a compound annual growth rate (CAGR) of 17.5%. Capacity jumped to 4,011 MW in 2019 from 2,105 MW in 2015. On the other hand, domestic demand for electricity has grown at a slower pace of 9.3% CAGR, rising to 1,085 MW in 2019 from 760 MW in 2015, resulting in an oversupply of 1,500-2,000 MW. EDL has tried to ease this situation by exporting electricity to neighboring countries such as Cambodia, Vietnam, Myanmar, and Malaysia, on a grid-to-grid basis. EDL is constructing a new backbone grid connecting the central region of the Lao PDR with the southern region, to facilitate the sale of electricity to Cambodia and Vietnam. The upgrade of the transmission line is expected to reach completion by 2021-2022, which means the oversupply situation is likely to continue for the next couple of years.

The domestic oversupply has strained EDL-Gen's operating performance in terms of electricity sales. EDL has to purchase electricity from other domestic IPPs and may reduce electricity purchased from EDL-Gen to balance supply and demand, especially during the wet season. As many IPPs operate run-of-river power plants, they cannot reduce power output during the wet season, while some of EDL-Gen's plants have reservoirs and are able to slow down operations during the wet season and maximize operations during the dry season.

Drought has impacted performance in 2019-2020

In 2019, EDL-Gen's power generation was 25% off target, as a severe drought hit the northern region of the Lao PDR. Based on preliminary data available to TRIS Rating, EDL-Gen generated and sold 2,114 gigawatt-hours (GWh) of electricity to EDL. The shared profits from investments in IPP projects also declined to Kip339 billion in 2019 from Kip626 billion in 2018 due to low water inflows in the Lao PDR.

The drought situation in 2019 has resulted in the water level in EDL-Gen's main reservoirs hitting its lowest point at the end of 2019. Electricity generation in 2020, from the existing projects, is therefore not expected to exceed the 2019 level. However, EDL transferred three power plants with a total capacity of 187 MW to EDL-Gen in February 2020. TRIS Rating forecasts that EDL-Gen's revenue from electricity sales is likely to increase by 8% to about Kip1.3 trillion in 2020, thanks to the revenue from the new assets transferred from EDL.

Exposure to foreign exchange risk

EDL-Gen has continued to suffer from foreign exchange losses. The foreign exchange loss was due to the weaker kip compared with the US dollar and the Thai baht, as all of EDL-Gen's debt is denominated in foreign currency. EDL-Gen will continue to be exposed to foreign exchange risk because of the currency mismatch of revenue and expenses. The majority (50%) of income EDL-Gen receives is denominated in Lao kip, followed by US dollars (46%) and Thai baht (4%), while its major obligations are mostly in US dollars and Thai baht.

At the end of 2019, the company reported a total debt of Kip13.9 trillion. Of the total, about 60% was denominated in US dollars, 39% in Thai baht, and 1% in euros and Japanese yen.

Moderate investment during 2021-2025

EDL-Gen has revised downward its investment plan. EDL-Gen has decided to delay investments in some IPP projects. During 2020-2023, EDL-Gen is expected to spend about Kip5 trillion to acquire 100% shareholdings in four of EDL's power plants, purchase shares in two IPP projects from EDL, as well as invest directly in two IPP projects. EDL-Gen is also developing and constructing four hydroelectric power projects and one solar power project. Of the expected investment of Kip5 trillion, EDL-Gen has already paid an advance amount of about Kip2.2 trillion to EDL for equity stakes in several projects. EDL-Gen's equity capacity during 2021-2025 is forecast to increase by 80 MW per annum, compared with the increases of 490 MW and 247 MW in 2019 and 2020, respectively.

Leverage continues to increase

Financial leverage is forecast to rise following the transfers of power plants from EDL during 2018-2020. The increase in leverage is mainly from the consolidation of the debts of several power plants transferred to EDL-Gen from EDL. TRIS Rating expects EDL-Gen's debt to capitalization ratio to deteriorate to 63%-67% during 2020-2022, from 58.5 % at the end

of 2019.

EBITDA to rise after 2021

Under TRIS Rating's base-case scenario, EDL-Gen's earnings before interest, tax, depreciation, and amortization (EBITDA) will increase to reach around Kip2-Kip2.1 trillion in 2022-2023 from Kip1.4 trillion in 2019 once EDL-Gen realizes the full benefits of the assets and shares in IPP projects purchased from EDL. By 2022, almost all of the power projects will have been in operation for a full year.

TRIS Rating forecasts the debt to EBITDA ratio of EDL-Gen to increase to around 11-12 times in 2020 from about 9.6 times in 2019. The ratio is expected to improve to a range of 8-10 times during 2021-2022. Based on the forecast levels of EBITDA and capital expenditures, EDL-Gen will need to refinance its Thai baht debentures coming due in 2021.

Adequate liquidity profile

TRIS Rating assesses EDL-Gen's liquidity to be adequate over the next 12 months. Sources of funds comprise cash on hand of Kip1.1 trillion at the end of 2019. Funds from operations (FFO) over the next 12 months are forecast to be approximately Kip590 billion. EDL-Gen does not have bonds due in 2020. However, it does have long-term loans coming due of about Kip580 billion. The cash on hand plus the projected FFO should be sufficient to cover the loan repayments in 2020.

BASE-CASE ASSUMPTIONS

- EDL-Gen's electricity sales to grow by 8% in 2020 to reflect the three new power plants in its portfolio.
- The oversupply and transmission line bottlenecks in the Lao PDR to begin easing in 2022.
- The operating margin (operating income before depreciation and amortization as a percentage of sales) to be above 80% during the forecast period.
- Capital expenditures during the period of 2020-2023 to be about Kip5 trillion. Expenditures include annual maintenance expenditures, the purchase of power plants from EDL, purchases of stakes in IPP companies from EDL, construction of new power plants, and investments in other IPP companies.

RATING OUTLOOK

The "negative" outlook reflects the outlook of the sovereign rating of the Lao PDR. TRIS Rating expects that the business model and the level of integration between EDL and EDL-Gen will remain unchanged, and that EDL will continue holding a majority stake in EDL-Gen and receiving support from the government of the Lao PDR.

RATING SENSITIVITIES

A change in the outlook to "stable" is dependent on the outlook for the sovereign rating of the Lao PDR. The upside and downside scenarios for EDL-Gen's ratings are primarily tied to a change in the sovereign rating of the Lao PDR. EDL-Gen's rating profile fully reflects the creditworthiness of EDL and the government of Lao PDR.

COMPANY OVERVIEW

EDL-Gen was founded in 2010 and listed on the Lao Securities Exchange (LSX) in 2011. The incorporation of EDL-Gen was part of the restructuring of the power sector in the Lao PDR, which called for EDL-Gen to purchase the current and future power generating assets from EDL. Before EDL-Gen was set up, EDL was the sole vertically integrated electric power utility, dominating all aspects of the sector in the Lao PDR, from power generation, transmission lines, and the distribution of electricity to end-users. EDL also owned stakes in several IPPs operating in the Lao PDR. Notwithstanding the transfer of its electricity generating assets to EDL-Gen, EDL remains the single buyer of electricity in the Lao PDR and the dominant electricity distributor. EDL owns almost all of the power grids in the Lao PDR.

As of March 2020, EDL held a 75% stake in EDL-Gen. EDL-Gen owns and operates hydropower assets developed by EDL. EDL-Gen also invests in IPP hydropower projects previously held by EDL. Each of EDL-Gen's power generating asset operates under a PPA and concession covering 30 years.

As of March 2020, EDL-Gen's aggregate equity capacity was 1,836 MW, comprising 886 MW from its 13 wholly-owned hydropower plants and 950 MW from equity investments in 14 IPPs and one solar power project.

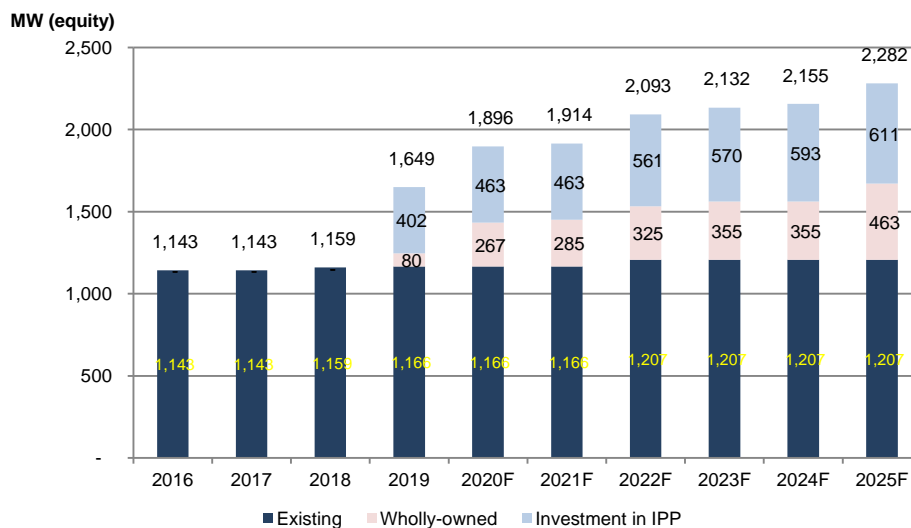
Table 1: EDL-Gen's Power Portfolio (In Operation)

Plant	EDL-Gen's Stake (%)	Location	Acquired Year	COD	Installed Capacity (MW)	Equity Capacity (MW)
Wholly-owned						
1 Nam Ngum 1	100	Vientiane	2010, 2019	1971, 2018	235	235
2 Nam Leuk	100	Xaysomboun	2010	2000	60	60
3 Nam Mang 3	100	Vientiane	2010	2005	40	40
4 Nam Song	100	Vientiane	2010	2012	6	6
5 Xeset 1	100	Saravanh	2010	1991	45	45
6 Xeset 2	100	Saravanh	2010	2009	76	76
7 Selabam	100	Champasak	2010	1969	5	5
8 Nam Sana	100	Vientiane	2015	2014	14	14
9 Houy Lamphan Gnai	100	Xekong	2015	2015	88	88
10 Nam Khan 2	100	Luang Prabang	2015	2015	130	130
11 Nam Khan 3	100	Luang Prabang	2020	2018	60	60
12 Xeset 3	100	Saravanh	2020	2018	23	23
13 Nam Chiane	100	Xaysomboun	2020	2018	104	104
Total wholly-owned					886	886
Investment						
14 Theun-Hinboun	60	Bolikhamsai	2012	1998, 2013	520	312
15 Houay Ho	20	Attapeu	2012	1999	152	30
16 Nam Lik 1-2	10	Vientiane	2012	2010	100	10
17 Nam Ngum 2	25	Vientiane	2012	2011	615	154
18 Nam Ngum 5	15	Vientiane	2015	2012	120	18
19 Solar power	60	Vientiane	2017	2017	32	19
20 Nam Long	20	Luang Nam Tha	2018	2013	5	1
21 Nam Beng	10	Oudomxay	2018	2016	34	3
22 Donsahong	20	Champasack	2018	2019	260	52
23 Xayaburi	20	Xayaburi	2019	2019	1,285	257
24 Nam Ou 2	15	Luang Prabang	2019	2017	120	18
25 Nam Ou 5	15	Phonsaly	2019	2017	240	36
26 Nam Ou 6	15	Phonsaly	2019	2017	180	27
27 Nam Mang 1	10	Bolikhamsai	2019	2017	64	6
28 Nam Lik 1	10	Vientiane	2019	2019	60	6
Total investment					3,787	950
Total					4,673	1,836

Note: As of Mar 2020

Source: EDL-Gen

Chart 1: EDL-Gen's Growth Plan



Source: EDL-Gen

FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS*

Unit: Kip million

	-----Year Ended 31 December -----				
	2019	2018	2017	2016	2015
Total operating revenues	1,248,800	1,163,906	1,245,535	1,252,246	863,957
Earnings before interest and taxes (EBIT)	851,800	1,088,865	1,026,593	819,900	752,932
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	1,362,002	1,438,909	1,390,299	1,232,918	881,524
Funds from operations (FFO)	618,398	834,238	868,609	1,017,557	731,326
Adjusted interest expense	743,604	604,671	505,747	166,251	110,244
Capital expenditures	142,711	226,917	987,895	756,108	499,649
Total assets	23,656,378	22,553,171	19,619,193	18,729,565	11,968,372
Adjusted debt	13,082,815	11,754,784	8,377,012	2,160,325	1,253,741
Adjusted equity	9,290,405	9,353,869	9,208,819	9,186,402	9,104,228
Adjusted Ratios					
EBITDA margin (%)	109.06	123.63	111.62	98.46	102.03
Pretax return on permanent capital (%)	3.75	5.31	6.16	6.34	7.49
EBITDA interest coverage (times)	1.83	2.38	2.75	7.42	8.00
Debt to EBITDA (times)	9.61	8.17	6.03	1.75	1.42
FFO to debt (%)	4.73	7.10	10.37	47.10	58.33
Debt to capitalization (%)	58.48	55.69	47.64	19.04	12.10

* Consolidated financial statements

RELATED CRITERIA

- Rating Methodology – Corporate, 26 July 2019
- Key Financial Ratios and Adjustments, 5 September 2018
- Group Rating Methodology, 10 July 2015
- Sovereign Credit Rating, 8 October 2013

EDL-Generation Public Company (EDL-Gen)

Company Rating:	BBB
Issue Ratings:	
EDLGEN217A: Bt3,810.3 million senior unsecured debentures due 2021	BBB
EDLGEN21DA: Bt2,000 million senior unsecured debentures due 2021	BBB
EDLGEN227A: Bt1,085.5 million senior unsecured debentures due 2022	BBB
EDLGEN237A: Bt4,078.1 million senior unsecured debentures due 2023	BBB
EDLGEN247A: Bt1,660.7 million senior unsecured debentures due 2024	BBB
EDLGEN24DA: Bt3,000 million senior unsecured debentures due 2024	BBB
EDLGEN257A: Bt1,443.1 million senior unsecured debentures due 2025	BBB
EDLGEN287A: Bt1,897.9 million senior unsecured debentures due 2028	BBB
EDLGEN307A: Bt809.8 million senior unsecured debentures due 2030	BBB
EDLGEN311A: Bt1,093.4 million senior unsecured debentures due 2031	BBB
EDLGEN337A: Bt1,621.2 million senior unsecured debentures due 2033	BBB
EDLGEN239A: US\$51 million senior unsecured debentures due 2023	BBB
EDLGEN269A: US\$166 million senior unsecured debentures due 2026	BBB
EDLGEN289A: US\$95 million senior unsecured debentures due 2028	BBB
Rating Outlook:	Negative

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