

EDL-GENERATION PUBLIC COMPANY

No. 75/2019
23 May 2019

CORPORATES

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

Last Review Date: 19/06/18

Company Rating History:

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

Contacts:

Sermwit Sriyotha

sermwit@trisrating.com

Pravit Chaichamnapai, CFA

pravit@trisrating.com

Parat Mahuttano

parat@trisrating.com

Wiyada Pratoomsuwan, CFA

wiyada@trisrating.com



WWW.TRISRATING.COM

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+". The ratings reflect 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 People's Democratic Republic (Lao PDR). As a result, EDL's credit profile is underpinned by the sovereign rating of "BBB+/Negative", assigned by TRIS Rating, to the 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 Laos 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 profile of EDL and the Lao PDR. EDL-Gen is a core subsidiary of EDL. As such, it is tightly integrated with EDL. EDL-Gen is a main domestic power producer, supplying electricity to EDL's electricity grid. EDL is the sole customer, and the sole owner of the nation's power grid.

EDL influences EDL-Gen's business profile 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 assumption is supported by the fact that EDL and EDL-Gen fulfill critical roles in the power development plan for the Lao PDR. In addition, the power sector plays an important part in the effort to advance the economic and social development goals of the Lao PDR.

Strong market position

EDL-Gen is the second-largest power generator in the Lao PDR based on installed capacity, with a 16.2% share of total installed capacity. For domestic power supply, EDL-Gen is the largest power producer, supplying about 23% of the power consumed in the Lao PDR.

At the end of March 2019, EDL-Gen owned and operated 10 hydroelectric power plants in the Lao PDR with total capacity of 619 megawatts (MW). EDL-Gen also owns stakes in seven hydroelectric power projects under the Independent Power Producer (IPP) scheme, and one solar power project. When the investments in these eight plants are included, total production capacity rises to 1,152 MW, on an equity basis, as of March 2019.

Over supply hurts operating results

There is an oversupply of electricity in the Laos PDR. At the end of 2018, the installed capacity of all the power plants in the Lao PDR totaled 7,080 MW. Of this figure, 4,160 MW is exported mainly to Thailand; the rest, or 2,920 MW, is connected to EDL's grid.

During the past few years, power generating capacity for domestic grew at a compound annual growth rate (CAGR) of 11.5%. Capacity jumped from 2,105 megawatts (MW) in 2015 to 2,920 MW in 2018 (preliminary figure). Demand for electricity has grown at a lower pace by 7.9% CAGR, rising from 760 MW in 2015 to 954 MW in 2018 (preliminary figure), resulting in over supply of 1,500- 2,000 MW. TRIS Rating believes the oversupply will continue for two to three more years.

The oversupply has put pressure on EDL-Gen performance in terms of electricity sales, EDL has to purchase electricity from other domestic IPP and reduce the electricity sales of EDL-Gen to balance the supply and demand.

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 southern region, to ease bottlenecks in the transmission lines.

Current performance below target

EDL-Gen's electricity sales were 14% below target in 2018. Electricity sales decreased by 9% to 2,349 gigawatt hours (GWh), from 2,575 GWh in 2017. The drop was mainly due to the declining output sold to EDL and transmission line constraints. Despite the drop in electricity output, revenue slipped by less, falling by 6.8%. This difference was attributed to annual one percent increases in the electricity tariff. In addition, the company benefitted partly from the depreciation of the Lao kip against the US dollar.

Exposure to foreign exchange risk

In 2018, EDL-Gen recorded a foreign exchange loss of Kip429,012 million. Of the total, Kip357,358 million was an unrealized loss from the mark-to-market of its foreign currency debt. EDL-Gen will continue to face foreign exchange risk because of the currency mismatch of revenue and expenses. The majority (51%) of income EDL-Gen receives is denominated in Lao kip, followed by US dollars (43%) and Thai Baht (6%), while its major obligations are mostly in US dollars and Thai Baht.

At the end of 2018, reported debt totaled Kip12.4 trillion. Of the total, about 68% was denominated in US dollars, 30% in Thai baht, and 2% in euros and Japanese yen.

Huge investment plan

For the expansion plan covering the period of 2019-2023, EDL-Gen will enlarge its generation capacity by 1,293 MW with a total investment cost of Kip16.7 trillion. EDL-Gen's operating capacity will double by 2024, rising from 1,147 MW at the end of 2018 to 2,440 MW in 2024.

EDL-Gen's total capital expenditures are forecast at around Kip13.8 trillion over 2019 to 2021. About 60% of this total will go towards acquiring power plants from EDL and towards funding the construction of new plants. The rest will be used to purchase EDL's stakes in IPP projects and to make direct investments in IPP projects. The investments in IPP projects include a 20% interest in Xayaburi hydroelectric power project (total capacity of 1,285 MW) and 20% stake interest in the Donsahong hydroelectric power project (total capacity of 260 MW). These two power plants will come on stream in 2019. Of this forecast capital expenditures of Kip13.8 trillion, EDL-Gen has already paid about Kip6 trillion in advance to EDL for its equity stakes in several of the projects.

Leverage to increase

Financial leverage is forecast to rise due to the significant investments EDL-Gen plans to make. The increase of financial leverage is mainly from the consolidation of the debts of several power plants after EDL-Gen acquires the power plants from EDL. The debt to capitalization ratio is projected to deteriorate to 60%-66% during 2019-2021, compared with 57.4% at the end of 2018.

EBITDA rising after 2021

Based on TRIS Rating's base-case scenario, EDL-Gen's earnings before interest, taxes, depreciation, and amortization (EBITDA) will grow slightly from Kip1.44 trillion in 2018 to approximately Kip1.9 trillion in 2021. EBITDA will jump in 2022 because EDL-Gen will realize the full benefit of purchasing assets and shares in IPP projects from EDL. By 2022, almost all of the power projects will have been in operation for a full year.

Based on the forecast levels of EBITDA and capital expenditures, EDL-Gen will need to refinance the debentures coming due during 2019 -2021.

Moderate liquidity profile

EDL-Gen's liquidity is moderate. Sources of funds comprise cash on hand of Kip0.75 trillion at the end of 2018. Its funds from operations over the next 12 months is forecast at about Kip0.67 trillion. On the other hand, a significant amount of

debt totaling Kip1.02 trillion will come due over the next 12 months. EDL-Gen had issued debentures worth Bt3,840 million in January 2019 for its working capital and reserving for refinancing debentures worth Bt1,500 million coming due in December 2019.

BASE-CASE ASSUMPTIONS

- EDL-Gen's electricity sales grow by 1%-2% in 2019 to reflect the oversupply and transmission line bottlenecks in the Lao PDR.
- EDL is expected to transfer most of power plants to EDL-Gen in 2020
- Electricity sales will grow by 10%-15% in 2020 and 2021, once EDL-Gen acquires power plants from EDL
- The operating margin (operating income before depreciation and amortization as a percentage of sales) should be above 80% during the forecast period.
- Capital expenditures over the 2019-2021 forecast period will total Kip13.8 trillion. Expenditures include annual maintenance expenditures, the purchase of a power plant from EDL, purchasing stake in IPP companies from EDL, constructing a new power plant, and investing in other IPP companies.

RATING OUTLOOK

The "negative" outlook reflects the outlook for 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. EDL is expected to continue to hold a majority stake in EDL-Gen and to continue to receive support from the government of the Lao PDR.

RATING SENSITIVITIES

A change in the outlook to "stable" is ultimately dependent on the outlook for the sovereign rating of the Lao PDR. The upside and downside scenario for EDL-Gen's ratings is 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 was 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 grid in the Lao PDR.

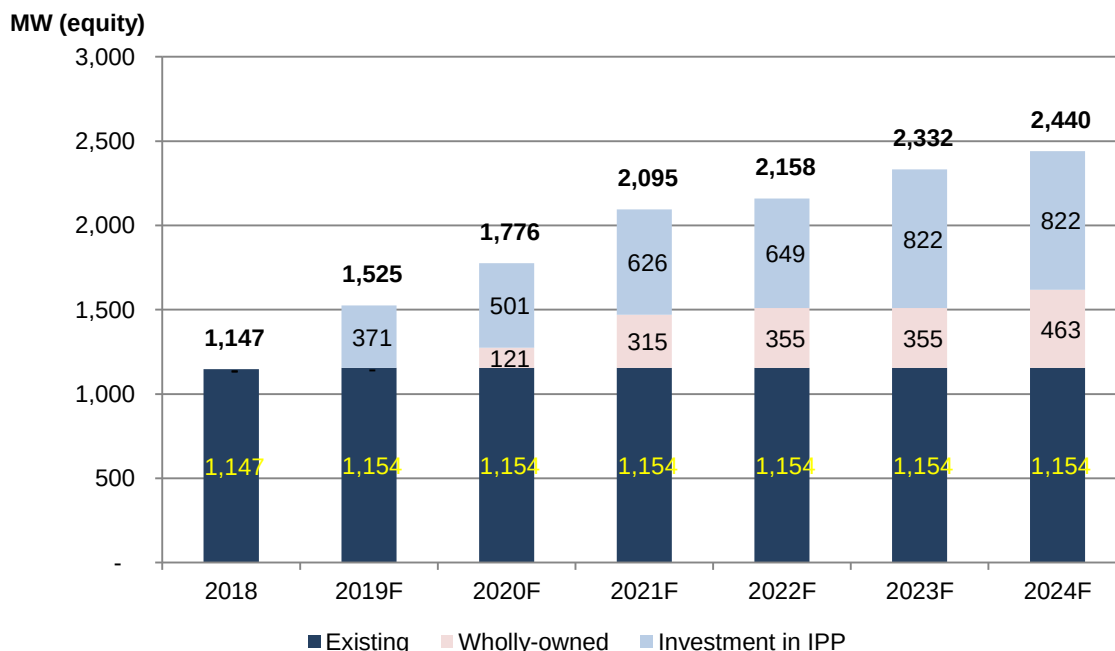
As of March 2019, EDL held a 75% stake in EDL-Gen. EDL-Gen owns and operates hydropower assets developed by EDL. EDL-Gen also invests in the IPP hydropower projects previously held by EDL. Each of EDL-Gen's power generating asset operates under a PPA and concession covering 30 years.

As of March 2019, EDL-Gen's aggregate equity capacity was 1,152 MW, divided into 619 MW from its wholly owned 10 hydropower plants and 533 MW from its equity investments in seven IPPs and one solar power project.

EDL-Gen's PORTFOLIO
EDL-Gen's Hydro Power Portfolio, as of Mar 2019

	Plant	EDL-Gen's Stake (%)	Location	Acquired Year	COD	Installed Capacity (MW)	Equity Capacity (MW)
Wholly-owned							
1	Nam Ngum 1	100	Vientiane	2010	1971	155	155
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
Total wholly-owned						619	619
Investment							
11	Theun-Hinboun	60	Bolikhamxai	2012	1998	500	300
12	Houay Ho	20	Attapeu	2012	1999	152	30
13	Nam Lik 1-2	10	Vientiane	2012	2010	100	10
14	Nam Ngum 2	25	Vientiane	2012	2011	615	154
15	Nam Ngum 5	15	Vientiane	2015	2012	120	18
16	Solar power	60	Vientiane	2017	2017	28	17
17	Nam Long	20	LuangNam Tha	2018	2013	5	1
18	Nam Beng	10	Oudomxay	2018	2016	34	3
Total investment						1,554	533
Total						2,173	1,152

Source: EDL-Gen

EDL-Gen's Growth Plan


Source: EDL-Gen

FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS*

Unit: Kip million

	Jan-Mar 2019	-----Year Ended 31 December -----			
		2018	2017	2016	2015
Total operating revenues	286,743	1,163,906	1,245,535	1,252,246	863,957
Operating income	246,146	946,793	1,051,065	1,075,955	692,158
Earnings before interest and taxes (EBIT)	261,576	1,083,422	1,026,593	819,900	752,932
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	361,748	1,438,909	1,390,299	1,232,918	881,524
Funds from operations (FFO)	200,998	834,238	868,609	1,017,557	731,326
Adjusted interest expense	160,750	604,671	505,747	166,251	110,244
Capital expenditures	129,926	226,917	987,895	756,108	499,649
Total assets	23,074,420	21,995,528	19,619,193	18,729,565	11,968,372
Adjusted debt	12,229,402	11,852,585	8,377,012	2,160,325	1,253,741
Adjusted equity	8,738,178	8,796,226	9,208,819	9,186,402	9,104,228
Adjusted Ratios					
Operating income as % of total operating revenues (%)	85.84	81.35	84.39	85.92	80.11
Pretax return on permanent capital (%)	5.38 **	5.36	6.16	6.34	7.49
EBITDA interest coverage (times)	2.25	2.38	2.75	7.42	8.00
Debt to EBITDA (times)	8.40 **	8.24	6.03	1.75	1.42
FFO to debt (%)	6.83 **	7.04	10.37	47.10	58.33
Debt to capitalization (%)	58.33	57.40	47.64	19.04	12.10

* Consolidated Financial Statement

** Annualized with trailing 12 months

FINANCIAL STATISTICS (TRANSLATED INTO THAI BAHT)

Unit: Bt million

	Jan-Mar 2018	-----Year Ended 31 December -----			
		2018	2017	2016	2015
Total operating revenues	1,147	4,656	4,982	5,009	3,456
Operating income	985	3,787	4,204	4,304	2,769
Earnings before interest and taxes (EBIT)	1,046	4,334	4,106	3,280	3,012
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	1,447	5,756	5,561	4,932	3,526
Funds from operations (FFO)	804	3,337	3,474	4,070	2,925
Adjusted interest expense	643	2,419	2,023	665	441
Capital expenditures	520	908	3,952	3,024	1,999
Total assets	92,298	87,982	78,477	74,918	47,873
Adjusted debt	48,918	47,410	33,508	8,641	5,015
Adjusted equity	34,953	35,185	36,835	36,746	36,417

* Exchange rate at 250 Kip/Baht

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

EDL-Generation Public Company (EDL-Gen)

Company Rating:	BBB+
Issue Ratings:	
EDLGEN19DA: Bt1,500 million senior unsecured debentures due 2019	BBB+
EDLGEN21DA: Bt2,000 million senior unsecured debentures due 2021	BBB+
EDLGEN24DA: Bt3,000 million senior unsecured debentures due 2024	BBB+
EDLGEN257A: Bt1,443.1 million senior unsecured debentures due 2025	BBB+
EDLGEN237A: Bt4,078.1 million senior unsecured debentures due 2023	BBB+
EDLGEN217A: Bt3,810.1 million senior unsecured debentures due 2021	BBB+
EDLGEN287A: Bt1,897.9 million senior unsecured debentures due 2028	BBB+
EDLGEN307A: Bt809.8 million senior unsecured debentures due 2030	BBB+
EDLGEN337A: Bt1,621.2 million senior unsecured debentures due 2033	BBB+
EDLGEN247A: Bt1,660.7 million senior unsecured debentures due 2024	BBB+
EDLGEN311A: Bt1,093.4 million senior unsecured debentures due 2031	BBB+
EDLGEN227A: Bt1,085.5 million senior unsecured debentures due 2022	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

TRIS Rating Co., Ltd.

Silom Complex Building, 24th Floor, 191 Silom Road, Bangkok 10500, Thailand Tel: 0-2098-3000

© Copyright 2019, 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 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