



PADAENG INDUSTRY PLC

No. 16/2019 8 February 2019

CORPORATES

Company Rating: Outlook:

BBB-Stable

RATIONALE

TRIS Rating assigns the company rating on Padaeng Industry PLC (PDI) at "BBB-". The rating reflects the company's stable earnings from its existing power projects and sufficient liquidity. However, the rating is partly offset by PDI's short track records in the power business, high execution risks of its metal recycling project, and expected rising leverage in the near future.

KEY RATING CONSIDERATIONS

Strategic move to green business

PDI is a holding company, investing in renewable power projects and ecofriendly businesses. The company has decided to shift away from volatile zinc business since 2014 and has undergone massive changes, including closures of its long-established Mae Sod mine, zinc smelter, and roaster plant as well as discharge of hundreds of workers. At the same time, the company also started acquisitions of solar power projects in Thailand and Japan.

Country Group Holdings PLC (CGH), the major shareholder, has played key roles in PDI's business transformation from zinc mining and trading to sustainable businesses. CGH recruits a new management team, carries out cost-cutting measures, and also revisits potential projects in which PDI planned to invest.

As PDI is undergoing a major transition, TRIS Rating views that its business direction or investment area remains uncertain and may be changed in the future, depending on the strategy of the new management team.

Stable cash flow from the power portfolio

PDI's strategic move to green business will cover renewable energy, metal recycling, and waste management. Currently, only the renewable energy business can generate incomes. The renewable energy business is likely to be the centerpiece of PDI's business in the next few years.

The rating reflects stable earnings from its existing solar power portfolio. PDI currently owns nine operating solar farms with total installed capacity of 49.3 megawatts (MW). These comprise seven solar farms in Thailand (36.3 MW) and two solar projects in Japan (13 MW).

We expect PDI's power portfolio will deliver steady earnings, backed by multiyear power purchase agreements (PPA) with financially strong off-takers and the low operational risk of solar farms. The plant operations have performed satisfactorily. Majority of the projects achieved output based on a 50% probability of energy production (P50) or even higher. The solar power projects should generate earnings before interest, tax, depreciation, and amortization (EBITDA) of about Bt430 million per annum.

Short track record in the power business

PDI's short track record in the power business weighs down the rating. PDI has looked for growth in other types of renewable projects, particularly biomass power plants which are more complex than solar farms. Meanwhile, the management has no track record in executing more complicated renewable power projects. PDI's experience is limited to the development of solar power projects.

TRIS Rating also recognizes disadvantages of PDI's late entry into the

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renewable power business. The company is likely to acquire operating projects from exiting owners or explore new projects abroad. The acquisitions of existing projects generally bring in less attractive returns than greenfield projects, while investments abroad could expose the company to higher country, regulatory, and counterparty risks. Further, the tariff scheme for new renewable power projects in Thailand will become smaller, possibly due to competitive bidding and changes in supportive tariffs.

High execution risk from metal recycling project

PDI founded a joint-venture (JV) with Carbon Reduction Technology AS (CRT), a recycling company from Norway, to develop a metal recycling project under PDI-CRT Co., Ltd. (PDI-CRT). The project is designed to extract valuable metal from steel dusts which is a by-product of the steel making process.

In our opinion, the project's execution risk is high due in large part to unfamiliar technology. PDI-CRT will be the first project in Asia to use ultra-high-temperature (UHT) technology, supported by ScanArc Plasma Technology AB (ScanArc), the technology owner from Sweden. Given the minimal expertise in this area, the company tends to lean on the technology supplier in terms of operation and knowledge transfers. ScanArc's capability of committing long-term operational assistance is in question as its financial profile is very weak. The project has been long delayed as PDI is striving to seek additional strategic partners in a bid to expand the variety of raw materials and raise the financial reliability of the project.

Expected rise of leverage

Going forward, PDI's financial profile is likely to weaken in the near-to-intermediate term, considering its investment plan to add a 200-MW power production capacity to its portfolio. TRIS Rating views that the projects that could possibly come off in the next few years will include a biomass power plant in the Southern part of Thailand, a medium solar farm in Japan, and a large solar power plant in Thailand. The combined capacity of these three renewable power projects will be about 125 MW. For solar farms in Thailand, PDI will collaborate with Canadian Solar Inc, a Chinese solar panel supplier, to develop the solar project once the company successfully acquires new PPAs in the future.

Under the base-case scenario, we assume that the company invests in all of the above-mentioned renewable power projects, plus PDI-CRT, in order to assess the highest possible level of outstanding debts. We estimate that PDI will spend about Bt8.0-Bt8.5 billion over the next 2-3 years. The outstanding debt will rise significantly as the solar power projects will be primarily funded by debt with approximately 70%-80% of total project costs. PDI's debt to capitalization ratio is forecast to surge to 60%-62% over the next three years from its current low level of 15.4% as of September 2018. The ratio of funds from operations (FFO) to debt should drop substantially to below 15% over the same period.

Large cash on hand supports liquidity

We view PDI has adequate liquidity as the sources of funds can cover the uses of funds over the next 12 months. The company's sources of funds consist of cash and cash equivalents of approximately Bt2.2 billion and estimated FFO of Bt360 million. The uses of funds over the same period includes debt repayments of about Bt220 million.

TRIS Rating also views that PDI has sufficient amount of reserve and liquidity to handle reforestation and rehabilitation expenses, as well as the pending litigations related to cadmium contamination, in the company's mining areas.

BASE-CASE ASSUMPTION

- TRIS Rating assumes the zinc business will completely cease in the first quarter of 2019 and PDI's studied power projects will be executed.
- We expect PDI's revenue will drop to Bt1.16 billion in 2019 but will rise to Bt1.5 billion in 2021.
- The operating margin (operating income before depreciation and amortization as a percentage of total operating revenues) will shift to over 60%-70% because of the high profitability of solar power projects.





RATING OUTLOOK

The "stable" outlook reflects our expectation that PDI's existing solar farms will operate smoothly and deliver stable cash flows over the long term. The company's leverage is expected to rise from the funding of new investment opportunities. We expect PDI will be prudent in selecting new investment projects, particularly those carrying high risks. TRIS Rating does not expect PDI to aggressively outbid other companies in acquiring new projects, which would eventually undercut return on investment.

RATING SENSITIVITIES

PDI's rating upside would materialize if the company succeeds in executing new projects, which would lead to enlarged cash flow and improved diversification of its investment portfolio, while the sound financial profile is maintained.

On the contrary, the rating and/or outlook could be revised downward if PDI's financial leverage exceeds our forecast or its liquidity is weaker than our forecast. Investment missteps which will cause substantial losses could also trigger a rating downgrade.

COMPANY OVERVIEW

PDI was founded in 1981 to engage in zinc mining and production. The company produced high-grade zinc metal and value-added zinc alloys. PDI's zinc mine was located in Mae Sod district, Tak province. PDI also owned a smelter located in Muang district of Tak province, and a roaster plant in Rayong province. PDI was the sole producer of high-grade zinc in Southeast Asia with an annual production capacity of 110,000 metric tons of zinc metal and alloys.

In 2014, PDI announced its plan to shut its zinc business after 33 years of operation. This crucial decision took into account a number of issues, including the depletion of zinc resources at its Mae Sod zinc mine, the remote likelihood of the government in granting new concessions, and strong opposition by environmentalists. PDI also wanted to move away from the volatility in global zinc prices and shrinking domestic demand.

PDI's mine ceased operation in 2016. The company proceeded with its rehabilitation plan and converted the mine into an abundant forest before returning it to the Royal Forest Department. The zinc smelter in Tak produced only zinc metal and alloys until the end of 2017. The roaster plant in Rayong was also closed in 2017.

PDI currently is an investment holding company, focusing on three main businesses: renewable energy, metal recycling, and waste management. Since 2014, the company has reorganized its business structure and grouped into three main companies, PDI Energy Co., Ltd., PDI Materials Co., Ltd., and PDI Eco Co., Ltd.

PDI Energy is investing in renewable power projects. PDI Materials will produce value-added materials from recycling complex industrial waste. PDI Eco, in collaboration with Dowa Eco System Co., Ltd., will co-invest in the treatment of industrial waste in Tak province.

The company entered the renewable energy business through acquiring two Japanese solar farms and the 6.3-MW Mae Ramat solar farm in 2016. In 2017, the company acquired six operating solar projects with total installed capacity of 30 MW from Symbior Element Pte. Ltd.

As of December 2018, the company had nine solar farm operating projects with total installed capacity of about 49.3 MW. The major shareholder is CGH, holding 25% stake in PDI's total shares.





KEY OPERATING PERFORMANCE

Table 1: Power Project Portfolio as of December 2018

Project/Country	Held by PDI (%)	Status	Installed Capacity (MW)	Contracted Capacity (MW)	Tariff	
Thailand						
<u>Solar</u>						
PDI Mae Ramat	100	Operating	6.3	6.3	Adder Bt6.5	
ATCE1 (Prachinburi)	100	Operating	8.0	8.0	FIT Bt5.66	
ATCE2 (Prachinburi)	100	Operating	8.0	8.0	FIT Bt5.66	
ATCE3 (Prachinburi)	100	Operating	3.0	3.0	FIT Bt5.66	
ATCE4 (Samutsakhon)	100	Operating	6.0	6.0	FIT Bt5.66	
ATCE5 (Samutsakhon)	100	Operating	4.0	4.0	FIT Bt5.66	
PPS (Khon Kaen)	100	Operating	1.0	0.99	Adder Bt8	
			36.3	36.3		
Overseas (Japan)						
<u>Solar</u>						
Nanao	100	Operating	2.27	2.27	FIT JPY32	
Nagota	100	Operating	10.73	10.73	FIT JPY36	
			13.0	13.0		
Grand total			49.3	49.3		

Source: PDI

FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS*

Unit: Bt million

			Year Ended 31 December			
	Jan-Sep 2018	2017	2016	2015	2014	
Total operating revenues	3,773	6,317	5,283	4,882	5,619	
Operating income	132	1,153	1,259	572	844	
Earnings before interest and taxes (EBIT)	6	962	486	82	519	
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	131	1,129	1,224	590	848	
Funds from operations (FFO)	74	993	1,142	306	785	
Adjusted interest expense	58	35	11	42	12	
Total assets	7,147	7,596	5,793	5,105	5,550	
Adjusted debt	371	78	0	0	83	
Adjusted equity	4,680	5,084	4,017	3,581	3,325	
Adjusted Ratios						
Operating income as % of total operating revenues (%)	3.5	18.3	23.8	11.7	15.0	
Pretax return on permanent capital (%)	5.4	16.5	10.3	1.7	10.9	
EBITDA interest coverage (times)	2.3	32.4	111.0	14.1	72.0	
Debt to EBITDA (times)	0.7	0.1	0.0	0.0	0.1	
FFO to debt (%)	97.9	1,273.5	N.M.	N.M.	949.0	
Debt to capitalization (%)	7.3	1.5	0.0	0.0	2.4	

^{*} Consolidated financial statements

Note: The figures and financial ratios since 2016 are adjusted by including financial performance of Green Brilliant GK (13-MW solar farm projects in Japan) on consolidation basis, instead of initial recognition as long-term investments.

RELATED CRITERIA

- Key Financial Ratios and Adjustments, 5 September 2018
- Rating Methodology Corporate, 31 October 2007





Padaeng Industry PLC (PDI)

Company Rating: BBB-

Rating Outlook: Stable

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