



THAI SOLAR ENERGY PLC

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CORPORATES

Company Rating: BBB-Outlook: Stable

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RATIONALE

TRIS Rating affirms the company rating on Thai Solar Energy PLC (TSE) at "BBB-" with a "stable" rating outlook. The rating reflects reliable cash flows from TSE's renewable power portfolio and a record streak in the sound operations of its operating power plants. The rating also embeds our expectation of TSE's recovering financial strength after its largest solar project, "Onikoube", begins generating electricity. Conversely, the rating is tempered by the company's investment risks in the Onikoube project and currently high financial leverage.

KEY RATING CONSIDERATIONS

Reliability of earnings from solar power

TSE's robust cash generation is backed by multi-year power purchase agreements (PPAs) with creditable utility off-takers. The low operational risks of solar farms and proven operational records also underpin the company's earnings reliability of the solar projects.

TSE's solar farms remain the primary source of cash generation. At the end of June 2022, TSE's power portfolio had a 322.3 megawatt (MW) installed capacity, of which 175.3 MW (54% of total installed capacity) was operational. Solar power constituted about 92% of total installed capacity, while biomass power made up the remainder. We expect TSE's power generating capacity will reach its full potential in 2023, when the 147-MW Onikoube project starts operation.

Most of TSE's cash flow is derived from a pool of solar farms owned by Thai Solar Renewable Co., Ltd. (TSR), a joint venture between TSE and Global Power Synergy PLC (GPSC). Commencing commercial operations in 2013-2014, TSR's solar farms have an installed capacity of 104.8 MW and receive an adder of THB6.5 per kilowatt-hour (kWh) on top of the base tariff over a 10-year period. TSE holds a 60% share in TSR. In assessing TSE's financial leverage and earnings, we include the respective assets, liabilities, and financial performance of TSR in TSE's consolidated accounts, in proportion to TSE's equity stake in TSR.

In all, TSE's power portfolio brought in THB1.45-THB1.55 billion per annum in earnings before interest, taxes, depreciation, and amortization (EBITDA) over the past two years. On a proportionate basis, TSR represents 55%-60% of TSE's total EBITDA.

Steady operations of power assets

The operating performance of TSE's power plants remains smooth and commensurate with our forecasts. Total power output in the first half of 2022 was 210 gigawatt-hours (GWh), a 5.1% decline year-on-year (y-o-y). The drop in output resulted from the divestment of all operating Japanese solar farms with a total installed capacity of 28.54 MW from the fourth quarter of 2021 to the first quarter of 2022. Currently, TSE's only remaining investment in Japan is the Onikoube project. TSE's revenue of THB1.15 billion for the first half of 2022 represented a decline of 9.4% y-o-y, reflecting a shrinking power portfolio. Likewise, its EBITDA of THB724 million in the first half of 2022 was a 15% drop y-o-y.





Expansion through acquiring operating solar projects

We hold the view that the renewable power market has become increasingly challenging, given the cut-off of incentive tariffs, acute bidding competition, repeated delays in public projects, and softening returns on investment. The new Feed-in Tariff (FiT) for solar power, which the government recently approved, is relatively low at THB2.17 per kWh with a 25-year PPA life. Thai renewable power companies have been leaning towards investments outside Thailand, seeking private PPAs, or acquiring operating projects.

TSE continues to expand through the acquisition of operating solar farms, a growth strategy which has been implemented over several years. In June 2022, TSE announced the acquisition of an 8-MW operating solar project, "Soilcrete Technology", in Nakorn Sawan province. The project receives a FiT of THB5.66 per kWh and started operation in late 2015. The acquisition of the entire project equity is estimated to be THB482 million, and the transaction is expected to be completed in the third quarter of 2022.

Investment risk in the Onikoube project

We view the Onikoube project as remaining a significant risk. This is considered the huge investment in the one single project worth about JPY51 billion (equivalent to THB13.8 billion) and accounting for 60%-70% of TSE's total assets. The project is primarily funded by debts, resulting in a heavy debt load for TSE during the development period. Its plant efficiency is likely to be lower than its initial design, given the shrinking areas available for solar installation. This was because TSE had to modify project layouts in 2019 so that the company could skip Environmental Impact Assessment (EIA) and submitted its grid application within the new deadline set by the Ministry of Economy, Trade and Industry (METI) of Japan.

The project is scheduled to commence commercial operation in December 2022. The construction risk has been lowered as installations of key project components have been completed. We estimate the project will bring meaningful cash flows, given its high tariff rate of JPY36 per kWh.

Adders for core solar farm project to be offset by the Onikoube project

The adders for TSR's solar projects will start to be phased out during 2023-2024. We expect TSE's overall EBITDA to contract by THB0.6-THB0.65 billion per year. However, the negative effect from the expired adder should be offset by the anticipated new earnings stream from the Onikoube project, estimated to provide an annual EBITDA of THB0.8-THB0.9 billion. Moreover, the impact from adder expiration should also be cushioned by the fuel adjustment charge (Ft) which has been increasing since the beginning of this year.

Financial leverage expected to improve in 2023

We expect that earnings from Onikoube will be a key factor in the turnaround of TSE's financial strength. In our base case, we project EBITDA will rise to THB2.1 billion in 2023 from THB1.5 billion in 2022, before levelling out at between THB1.6-THB1.7 billion when TSR's adders have all ended. We estimate TSE's outstanding debt will reach its peak in 2022 and its capital spending should be moderate with an average of THB1 billion per year over the next few years. The company is likely to continue to seek acquisition opportunities and participate in bidding for new solar power plants, biomass, or waste-to-energy power plants.

We forecast the debt to EBITDA ratio to reach near 10 times in 2022 before declining to below 8 times in 2023-2024. We project the debt to capitalization to stay at around 68% over the forecast period. We view that TSE divesting part of its stake in the Onikoube project remains possible, which will materially help ease the debt load pressure.

Liquidity remains manageable

TSE's manageable liquidity profile is backed by project financing structure, for which loan repayment schedules are designed to match cash flows from the respective power projects. The company has two debenture issues due over the next 12 months, totaling THB3.45 billion, which will need to be refinanced. We believe that TSE will be able to refinance the maturing debentures, backed by the lower completion risk of the Onikoube project, good record of fund raising in the debt market, as well as strong support from its main relationship bank.

Capital structure

At the end of June 2022, TSE's total debt, excluding lease liability, as reported in its financial statement was THB11.8 billion. The debt included about THB8.1 billion of priority debt which was composed entirely of secured loans. This means the ratio of priority debt to total debt was 69%. As its priority debt ratio is more than the threshold of 50%, we view TSE's unsecured creditors as being significantly disadvantaged with respect to the priority of claims against TSE's assets.





BASE-CASE ASSUMPTIONS

- Total operating revenues of about THB2.3 billion in 2022, to soar to a peak of THB3 billion in 2023 when the Onikoube project starts operation.
- EBITDA margin (EBITDA as a percentage of total operating revenue) of around 63%-65% during 2022-2024.
- Total capital expenditure (CAPEX) amounting to about THB7.5 billion during 2022-2024.
- Dividend payout ratio of 20%-30% during 2022-2024.

RATING OUTLOOK

The "stable" outlook embeds our expectation that TSE's power portfolio will continue to deliver sound performance and render healthy cash flows. Furthermore, we expect the Onikoube project to progress as planned without considerable cost overruns. Over the course of project development, we expect TSE will prudently manage its liquidity, and that the company will not engage in any investments that significantly weaken its financial profile.

RATING SENSITIVITIES

A rating upgrade could emerge if we see TSE's capital structure strengthens considerably, as measured by the debt to EBITDA ratio remaining below 8 times for a sustained period. This could occur from the satisfactory performance of the Onikoube project or a divestiture of part of its stake in the Onikoube project or new equity raising.

Downward rating pressure could develop if TSE's financial profile deteriorates further, which could result from aggressive debt-funded investments or the Onikoube project performing significantly lower than expected.

COMPANY OVERVIEW

TSE is an investment holding company, established in 2008, to primarily focus on developing renewable power projects. The company was listed on the Market for Alternative Investment (MAI) in October 2014. TSE's shares were moved to trade on the Stock Exchange of Thailand (SET) in May 2019.

At the end of June 2022, the company had an installed capacity of about 322.3 MW and total contracted capacity of 278.2 MW. The equity installed capacity was 280.3 MW. All projects were in operation, except the Onikoube project, a large-scale solar power plant in Japan.

TSE's core power project, comprising ten solar farms, is operated by TSR, a 60:40 joint venture (JV) between TSE and GPSC. The project's installed capacity is 104.8 MW with a contracted capacity of 80 MW. The project is a centerpiece of profitmaking, generating over 60% of TSE's EBITDA in 2021. TSE is constructing the Onikoube project with an installed capacity of 147 MW and a contracted capacity of 133 MW. The project is scheduled to commence operations in the fourth quarter of 2022.





KEY OPERATING PERFORMANCE

Table 1: Power Project Portfolio as of 30 Jun 2022 Installed **Equity** Hold **Contracted** Commercial Capacity Installed Tariff **Project/Country** by TSE Status Capacity **Operating** (MW) Capacity (%) (MW) date (MW) 1. Thailand Solar Jul-13-TSR (SSE1) 60 62.9 80 Operating 104.8 Adder THB6.5 Jun14 Sep14 -100 FiT T<u>HB6.16</u> Solar rooftop Aug15 Operating 14 14 14 SLC (Prajuabkirikhan) 100 Operating FiT THB5.66 Dec 16 Dec 15 INS (Ang Thong) 100 Operating 2 2 2 FIT THB5.66 5 5 5 Dec 16 100 FIT THB5.66 BSS (Ayuthaya) Operating 100 9.7 9.7 8 Mar 13 SSP (Ang Thong) Operating Adder THB8.0 SFT (Krabi) 100 Fit THB4.12 Dec 18 Operating 5 BPT (Prachinburi) 100 Operating 8 8 8 Private PPA May 21 <u>Biomass</u> FiT THB4.24 + premium Mar18 BSW 6 100 Operating 6 4.6 THB0.3 (8 years) FiT THB4.24 + premium Aug-Oct-18 OSW 1 & 2 100 19.8 19.8 17.6 Operating THB0.3 (8 years) 145.2 175.3 175.3 2. Japan 100 147.0 147.0 133.0 FiT JPY36 Q4 2022 Onikoube Developing Total capacity 322.3 280.3 278.2

Source: TSE





FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS*

Unit: Mil. THB

		Year Ended 31 December			
	Jan-Jun	2021	2020	2019	2018
	2022				
Total operating revenues	1,158	2,461	2,441	2,297	1,481
Earnings before interest and taxes (EBIT)	486	952	912	958	666
Earnings before interest, taxes, depreciation,	724	1,541	1,478	1,463	1,088
and amortization (EBITDA)					
Funds from operations (FFO)	451	1,030	1,025	1,221	800
Adjusted interest expense	244	492	450	238	283
Capital expenditures	1,898	1,816	2,756	446	2,304
Total assets	19,422	20,762	20,407	17,362	16,352
Adjusted debt	12,170	12,842	12,820	10,249	10,233
Adjusted equity	6,170	6,349	5,919	5,632	4,915
Adjusted Ratios					
EBITDA margin (%)	62.6	62.6	60.5	63.7	73.5
Pretax return on permanent capital (%)	4.5**	4.7	5.0	5.8	4.5
EBITDA interest coverage (times)	3.0	3.1	3.3	6.1	3.8
Debt to EBITDA (times)	8.6**	8.3	8.7	7.0	9.4
FFO to debt (%)	7.1**	8.0	8.0	11.9	7.8
Debt to capitalization (%)	66.4	66.9	68.4	64.5	67.6

^{*} Consolidated financial statements

Note: All figures and financial ratios are adjusted by including TSR's financial performance (80-MW solar farm projects) on proportionate basis instead of equity method.

RELATED CRITERIA

- Corporate Rating Methodology , 15 July 2022
- Key Financial Ratio and Adjustments for Corporate Issuers, 11 January 2022
- Issue Rating Criteria, 15 June 2021

^{**} Annualized with 12 months trailing





Thai Solar Energy PLC (TSE)

Company Rating:

Rating Outlook:

Stable

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