

# THAI SOLAR ENERGY PLC

No. 191/2023  
29 September 2023

## CORPORATES

**Company Rating:** BBB-  
**Outlook:** Stable

**Last Review Date:** 07/09/22

### Company Rating History:

Date	Rating	Outlook/Alert
30/09/20	BBB-	Stable
26/09/19	BBB	Negative
08/02/16	BBB	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 continues to reflect the reliability of cash flows from the company’s renewable power portfolio and a streak of sound operations of its operating power plants. Conversely, the rating is tempered by the company’s concentration risk in its power portfolio. The rating is also weighed down by its currently high financial leverage and the tendency of its financial strength to recover slowly due to potential sizeable investments in the near future.

## KEY RATING CONSIDERATIONS

### Solar portfolio remains primary source of stable cash generation

The “Onikoube” project, TSE’s long-awaited solar farm project in Japan, commenced commercial operation in May 2023. The project has an installed capacity of 147 megawatts (MW), with a high tariff of JPY36 per kilowatt-hour (kWh) and a long Power Purchase Agreement (PPA) life of 17 years.

With the Onikoube project came onstream, TSE’s power portfolio currently holds up to 459.2 MW in installed capacity, of which 330.3 MW is operational. Solar power constitutes about 94% of total installed capacity, while biomass power makes up the rest.

In all, TSE’s power portfolio has brought in around THB1.5 billion per annum in earnings before interest, taxes, depreciation, and amortization (EBITDA) over the past four years. Across TSE’s power portfolio, Thai Solar Renewable Co., Ltd. (TSR) has continued to contribute the bulk of TSE’s cash flows. A joint venture (JV) between TSE and Global Power Synergy PLC (GPSC), TSR owns and operates a pool of solar farms, with a combined installed capacity of 104.8 MW. TSR receives an adder of THB6.5 per kWh on top of the base tariff over a 10-year period.

TSE holds a 60% equity interest 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. On a proportionate basis, TSR represents 55%-60% of TSE’s total EBITDA.

### Onikoube project helps sustain long-term cash flow

TSE’s strong cash flow base is likely to sustain over the long-term, following the commercial commencement of the Onikoube project. The project has begun the sale of electricity, coinciding with the phase-out of adder benefits of TSR, which will span from the second half of 2023 through the first half of 2024.

We anticipate that cash flows from the Onikoube project should adequately offset the lost earnings from the adder phase-out. After the complete expiration of adder in the latter half of 2024, TSE is expected to maintain its baseline of EBITDA at around THB1.5-THB1.6 billion annually, similar to the current level, with the Onikoube project contributing 50%-60% of the total.

### Smooth performances support cash flow stability

Overall operations of TSE’s existing power projects remained in line with our forecast, despite commencement of the Onikoube project being delay. In the first half of 2023, TSE achieved a total power output of 227 gigawatt-hours (GWh), an 8.1% year-on-year (y-o-y) increase, driven by the commencement

of operations at the Onikoube project. TSE's revenue for the same period reached THB1.37 billion, reflecting growth of 19% y-o-y. This increase could result from upward fuel adjustment charge (Ft) and new revenue from the Onikoube project. Also, TSE's EBITDA in the first half of 2023 surged to THB900 million, marking a significant 24% y-o-y increase.

### **Concentration risk in power portfolio**

The Onikoube project is a large and single project which accounts for 32% of TSE's total installed capacity, exposing TSE to a concentration risk. Despite the low operation risk of solar farm, we view the short operation track record and possible impacts due to significant modifications in plant layout as still posing significant downside risks on the plant performance. Substantial underperformance of the Onikoube project could cause material impact on TSE's future earnings. In addition, the sizable project cost of about JPY52 billion (or about THB13.6 billion), with a large portion financed by debt, leaves TSE saddled with a debt-heavy capital structure.

### **Financial turnaround hindered by potential investments**

We view that TSE's debt burden, relative to its cash flows, may remain at a high level over the next 2-3 years. This is based on the likelihood of TSE continually pursuing new debt-funded investments, which could slow its financial recovery, compared with our previous rating assessment.

In April 2023, TSE was awarded seven solar projects under the state 5.2-gigawatt renewable power scheme, all of which will secure long-term 88.7-MW contracted capacity and sell electricity to state-run utilities. These projects are expected to have 128.9-MW installed capacity and are scheduled to be up and running in 2030. Due to the distanced date of commercial commencement, we do not incorporate the respective outlays in our base-case forecast.

In the next few years, TSE is likely to focus on growth in Thailand. The company is exploring new solar private PPAs, as well as pursuing acquisitive growth. Added to that, TSE is also engaging in a feasibility study in a waste-to-energy (WTE) project, which carries relatively higher execution risks and may require significant investment of about THB2.2 billion, in our view.

We still view the increasingly intensified competition as having put significant downward pressure on earnings. The prospect of high-profit projects looks limited. In addition, acquisitions of operating projects generally render lower returns than developing green-field projects.

### **Financial leverage prone to stay high**

In our base-case forecast, we assume TSE will spend a total of THB3.8 billion in capital expenditures (CAPEX) and investments during 2023-2025. We expect TSE to gross THB1.9 billion in EBITDA in 2023, before trending downward to about THB1.6 billion in 2025 given the full impact of adder expiration. We forecast the company's net debt to EBITDA ratio to remain surrounding 8 times during the forecast period. The debt to capitalization ratio will remain high at about 70%. We also forecast its funds from operations (FFO) to be THB1.0-THB1.3 billion per year during 2023-2025, with the FFO to debt ratio in the 7%-9% range.

In our view, the establishment of JV to share debt burden and divestment in a stake in the Onikoube project continues to be a debt management strategy that effectively restores TSE's credit strength.

### **Liquidity remains manageable**

With the inclusion of TSR on a proportionate basis, we assess TSE's liquidity as adequate over the next 12 months from June 2023. Its loan payment is supported by steady operation of existing power plants. TSE had total cash and cash equivalents of THB0.9 billion as of June 2023. We forecast FFO in the next 12 months of about THB1.3 billion. These sources of funds should be sufficient to cover short-term and long-term debts coming due, totaling THB1.1 billion.

### **Debt structure**

At the end of June 2023, TSE's total debt, excluding lease liability, as reported in its financial statement was THB14 billion. The debt included about THB10 billion of priority debt which was composed entirely of secured loans. This means the ratio of priority debt to total debt was 72%, suggesting that TSE's unsecured creditors are significantly disadvantaged to its priority debt holders with respect to claims against the company's assets.

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**BASE-CASE ASSUMPTIONS**

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- Total operating revenues of about THB2.8-TH2.9 billion in 2023 and gradually decline to THB2.6 billion in 2025.
- EBITDA margin (EBITDA as a percentage of total operating revenue) of around 60%-67% during 2023-2025.
- Total CAPEX and investment amounting to about THB3.8 billion during 2023-2025.
- Dividend payout ratio of 30% during 2023-2025.

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**RATING OUTLOOK**

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The “stable” outlook reflects our expectation that TSE’s power portfolio will continue to deliver decent performance and render sound cash flows. Additionally, we expect the Onikoube project to perform in alignment with the forecast. We also expect TSE’s investment outlays will not materially differ from our assumptions. As such, the company’s earnings and financial leverage should be in line with our base-case estimates.

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**RATING SENSITIVITIES**

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We could raise the company rating 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. Conversely, we could take a negative rating action if TSE’s financial profile deteriorates further, which could result from aggressive debt-funded investments or the Onikoube project performing significantly lower than expected.

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**COMPANY OVERVIEW**

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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.

TSE’s core power project, comprising 10 solar farms, is operated by TSR, a 60:40 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 profit-making, generating over 60%-70% of TSE’s EBITDA during 2019-2022.

TSE was awarded seven solar projects, with a combined 88.7 MW in contracted capacity, under Thai renewable energy program in April 2023. These projects are scheduled to commence operation in 2030. The Onikoube project, the latest solar power plant in Japan with 147 MW installed capacity, achieved commercial operating date in May 2023. At the end of August 2023, TSE had an installed capacity of about 459.2 MW and total contracted capacity of 374.9 MW.

KEY OPERATING PERFORMANCE

Table 1: Power Project Portfolio at End of Aug 2023

Project/Country	Held by TSE (%)	Status	Installed Capacity (MW)	Contracted Capacity (MW)	Equity Installed Capacity (MW)	Equity Contracted Capacity (MW)	Tariff	Commercial Operating Date
<b>1. Thailand</b>								
<b>Solar</b>								
TSR (SSE1)	60	Operating	104.8	80	62.9	48	Adder (THB6.5)	Jul-13-Jun-14
Solar rooftop	100	Operating	14	14	14	14	FiT (THB6.16)	Sep-14 – Aug-15
SLC (Prajub Khiri Khan)	100	Operating	1	1	1	1	FiT (THB5.66)	Dec-16
INS (Ang Thong)	100	Operating	2	2	2	2	FiT (THB5.66)	Dec-15
BSS (Ayutthaya)	100	Operating	5	5	5	5	FiT (THB5.66)	Dec-16
SSP (Ang Thong)	100	Operating	9.7	8	9.7	8	Adder (THB8.0)	Mar-13
MARS (Krabi)	100	Operating	5	5	5	5	Fit (THB4.12)	Dec-18
STF (Prachinburi)	100	Operating	8	8	8	8	Private PPA	May-21
SCT (Nakhon Sawan)	100	Operating	8	8	8	8	FiT (THB5.66)	Dec-15
Solar (6 projects)	100	Developing	90.6	73.7	90.6	73.7	FiT (THB2.1679)	2030
Solar + Battery storage	100	Developing	38.3	15	38.3	15	FiT (THB2.8331)	2030
<b>Biomass</b>								
BSW	100	Operating	6	4.6	6	4.6	FiT (THB4.24) + premium (THB0.3) (8 years)	Mar-18
OSW 1 & 2	100	Operating	19.8	17.6	19.8	17.6	FiT (THB4.24) + premium (THB0.3) (8 years)	Aug-Oct-18
			<b>312.2</b>	<b>241.9</b>	<b>270.3</b>	<b>209.9</b>		
<b>2. Japan</b>								
Onikoube	100	Operating	147.0	133.0	147.0	133.0	FiT (JPY36)	May-23
<b>Total capacity</b>			<b>459.2</b>	<b>374.9</b>	<b>417.3</b>	<b>342.9</b>		

Source: TSE

## FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS\*

Unit: Mil. THB

	Jan-Jun 2023	-----Year Ended 31 December -----			
		2022	2021	2020	2019
Total operating revenues	1,420	2,299	2,461	2,441	2,297
Earnings before interest and taxes (EBIT)	594	943	952	912	958
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	899	1,506	1,541	1,478	1,463
Funds from operations (FFO)	553	987	1,030	1,025	1,221
Adjusted interest expense	296	445	492	450	238
Capital expenditures	930	3,009	1,798	2,756	446
Total assets	22,562	21,387	20,762	20,407	17,362
Adjusted debt	13,868	13,789	12,842	12,820	10,249
Adjusted equity	6,276	6,443	6,349	5,919	5,632
<b>Adjusted Ratios</b>					
EBITDA margin (%)	63.3	65.5	62.6	60.5	63.7
Pretax return on permanent capital (%)	5.3**	4.6	4.7	5.0	5.8
EBITDA interest coverage (times)	3.0	3.4	3.1	3.3	6.1
Debt to EBITDA (times)	8.3**	9.2	8.3	8.7	7.0
FFO to debt (%)	7.9**	7.2	8.0	8.0	11.9
Debt to capitalization (%)	68.8	68.2	66.9	68.4	64.5

\* Consolidated financial statements

\*\* Annualized with 12 months trailing

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 Ratios and Adjustments for Corporate Issuers, 11 January 2022
- Issue Rating Criteria, 15 June 2021

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Thai Solar Energy PLC (TSE)

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<b>Company Rating:</b>	BBB-
<b>Rating Outlook:</b>	Stable

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**TRIS Rating Co., Ltd.**

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