

# EARTH TECH ENVIRONMENT PLC

No. 212/2023  
26 October 2023

## CORPORATES

**Company Rating:** BB+  
**Outlook:** Stable

**Last Review Date:** 18/04/23

### Company Rating History:

Date	Rating	Outlook/Alert
18/04/23	BBB-	Alert Negative
31/10/22	BBB-	Stable

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## RATIONALE

TRIS Rating downgrades the company rating on Earth Tech Environment PLC (ETC) to “BB+” with a “stable” outlook, from “BBB-”. At the same time, we remove the CreditAlert with a “negative” implication that was placed on ETC.

The company rating on ETC reflects our view of the company as a “core” subsidiary of Better World Green PLC (BWG), the company rating on which is concurrently downgraded to “BB+/stable”. In effect, the revision of the company rating follows the same rating action on BWG. The downgrade also reflects ETC’s aggressive investment plan and substantial exposure to risks associated with the development phase of its new waste-to-energy (WTE) projects.

The company rating on ETC is at the same level as its stand-alone credit profile (SACP) of “bb+”, which reflects its stable revenue generation, backed by long-term power purchase agreements (PPAs) with the Provincial Electricity Authority of Thailand (PEA, rated “AAA/stable”). Conversely, the SACP is weighed down by the likelihood of a rise in financial leverage, comparatively small power portfolio, and weakened operating performance.

## KEY RATING CONSIDERATIONS

### Major investments ahead

The rating downgrade comes in view of a potential surge in ETC’s financial leverage, given the likelihood of the company amassing more debt in the future. In April 2023, ETC was awarded 10 new industrial WTE projects as part of the quota of 100 megawatts (MW) under bidding for PPAs offered by the Energy Regulatory Commission (ERC). Each of ETC’s proposed WTE projects would have an installed capacity of 9.9 MW and a contracted capacity of 8.0 MW. The estimated total project cost for these new WTE projects is expected to range from THB16.0-THB18.0 billion, which is higher than our initial estimation.

We assess the company’s financial capacity to be insufficient to undertake all 10 projects. To carry through the projects, we believe ETC would need to seek investment partners or invest in fewer projects to reduce its total investment outlay. In our base-case forecast, we assume formation of a partnership would be the most probable scenario. We assume the company’s investment exposure will be equivalent to five new WTE projects or 40 MW of contracted capacity. We expect the company to incur capital expenditures totaling THB8.0-THB9.0 billion during 2024-2026. All new WTE projects are required to commence commercial runs in the second half of 2026. Therefore, the downgrade of the rating also reflects the imminent execution risks associated with the projects, including the risks of delays in project construction, cost overruns, and operational risks.

### A rise in financial leverage

While the company has retained most of the THB1.5-billion proceeds from the 2020 initial public offering (IPO), it has issued a total of THB1.2 billion in debentures during 2022-2023 to prepare funding for the new investments. For the new WTE projects, we expect the project companies to secure long-term project loans, with repayment schedules matching the project cash flows. The funding options are still under negotiation. However, for now, we conservatively assume the lender will require a parental guarantee, a condition

similar to that imposed on ETC's existing project loans. In assessing ETC's financial risk profile, we consolidate the assets, loans, and earnings of the new WTE projects into its accounts, in proportion to its potential guarantee exposure. We anticipate that project financing loans, totaling THB5.6-THB6.3 billion, will be added to ETC's total debt.

In view of the ambitious investment plan, we expect a material deterioration in ETC's financial risk profile. We assume project construction will start around mid-2024. We forecast the net debt to peak at THB8.4-THB9.1 billion by the end of 2026. Over the course of project development, the debt to capitalization ratio could reach nearly 80% while the ratio of debt to earnings before interest, taxes, depreciation and amortization (EBITDA) may soar to above 20 times. However, the leverage ratio would likely decrease gradually following the commencement of commercial operations of each new plant in the second half of 2026. This decline in leverage would depend on successful completion of the development phase lasting about two years from mid-2024, which carries construction risk. Notwithstanding our base-case forecast, we note that ETC's financial leverage level eventually will be subject to the final financing structure and ETC's net exposure to the projects.

From a long-term business risk perspective, we expect the investments to have a positive impact due to the increased scale of operations and earnings, as well as enhanced diversification.

### **Stable revenues, but fuel price risk**

ETC owns and operates three industrial WTE power plants under the Very Small Power Producer (VSPP) scheme. It holds PPAs with PEA with total contracted capacity of 16.5 MW on a non-firm basis. We assess the counterparty risk as minimal. The three plants sell electricity under the Feed-in-Tariff (FiT) scheme, with a premium of THB0.70 per kilowatt-hour (kWh) for the first eight years. The PPAs help minimize the market risk and enhance the predictability of revenues.

Nevertheless, earnings from the power plants remain susceptible to fuel price risk, given the absence of an effective pass-through mechanism. ETC secures the Solid Recovered Fuel (SRF) feedstocks for its power plants almost entirely through long-term supply agreements with BWG, its parent company. BWG possesses abundant raw material supplies for SRF production, mitigating the risk of supply scarcity.

Impacted by surging diesel prices in the first half of 2022, BWG incurred a significant rise in the cost of SRF production and transportation. As a result, ETC's fuel cost per unit of electricity sold (THB/kWh) increased by 25% in 2022 due to the higher price of SRF supplied by BWG. ETC's fuel cost per unit continued to rise by 36% in the first half of 2023, as a result of a change in the blend of SRF by BWG during the period.

### **Operational risk suppresses profitability**

ETC's operational risk arises from its smaller scale of operations compared with its peers and the aforementioned fuel price risk. The company's small and concentrated portfolio could lead to weaker negotiating power with vendors and a lack of economies of scale. An operational disruption at one of its three plants could significantly impact the company's overall earnings and debt serviceability.

In the first half of 2023, ETC's overall electricity sales decreased to 52 gigawatt-hours (GWh), a 10.8% year-on-year (y-o-y) decline. This decline was primarily attributed to unplanned maintenance, caused by the temporary changes in BWG's fuel blending. This unplanned maintenance had an adverse impact on revenue generation and resulted in the company incurring additional operating and maintenance costs. The 8.0-MW power plant in Kaeng Khoi, Saraburi Province achieved a healthy availability factor of 83.3% in the first half of 2023, up from 81.8% during the same period in 2022. However, significant curtailments in the Kaeng Khoi Grid resulted in a 19.5% y-o-y decrease in electricity sales from the plant during the first half of 2023.

As a result, we anticipate that the margins on electricity revenues will further tighten in 2023. EBITDA in 2022 decreased to THB318 million, from THB370 million in 2021. We forecast that EBITDA will further decrease to approximately THB260-THB300 million in 2023, indicating a contraction in ETC's EBITDA margin to about 33%-38%. This compares with 49.4% in 2021 and 40.6% in 2022. The squeezed margin highlights a mismatch in the fuel-cost pass-through mechanism and significant operational risk.

### **Excess liquidity to deplete**

The proceeds from the 2020 IPO and the 2022-2023 debenture issuances for the expansion of investment have bolstered ETC's liquidity. We evaluate that ETC's current liquidity position is more than sufficient to cover its financial obligations over the next 12 months. The company's sources of liquidity at the end of June 2023 comprised cash on hand, including restricted cash deposits, of THB2.2 billion and total undrawn bank credit facilities of THB68 million. We forecast ETC will generate funds from operations (FFO) over the following 12 months of THB150-THB180 million. These should be sufficient to cover maintenance capital expenditures and debts coming due over the same period, totaling THB540 million. Looking ahead, we expect ETC's ample cash reserves will be used up for the development of the new WTE projects.

## A “core” subsidiary of BWG

We view ETC as a “core” subsidiary of BWG. BWG has significant control over ETC in terms of operations, finance, and business development functions. The power portfolio under ETC helps BWG create a WTE value chain drawing on its abundant raw materials for SRF production. ETC’s power portfolio contributed about two-thirds of BWG’s EBITDA in 2020-2022, having surpassed the contribution from waste management operations. In addition, the more stable earnings from the power business largely help offset the volatile nature of earnings from the waste management business. The importance of ETC to BWG will likely grow in the coming years, following the expansion of ETC’s power portfolio.

BWG’s ownership in ETC could be further diluted by ETC’s capital increases through the company’s private placement plan. However, we expect BWG will ultimately maintain control over ETC and provide strong financial support in times of need.

## Debt structure

At the end of June 2023, ETC’s total debt, excluding lease liabilities, stood at THB1.98 billion. ETC’s priority debt was THB788 million, comprising all debts owed by its subsidiaries. The priority debt to total debt ratio was 40%. ETC may encounter significant refinancing risk as its two debenture issues, totaling THB1.2 billion, will mature in 2025-2026—during the development phase but prior to the expected commencement of operations of the new power plants.

## BASE-CASE ASSUMPTIONS

- Overall availability factors of the existing plants in the range of 86%-88% during 2023-2025.
- EBITDA margin of around 33%-38% during 2023-2025.
- New investment equivalent to five new 9.9-MW WTE power plants, with a project cost of about THB1.6-THB1.8 billion each.
- Recognition of power sales revenues from the new power plants to start in the second half of 2026.
- Capital expenditure for the new industrial WTE power plants totaling THB8.0-THB9.0 billion during 2024-2026, equivalent to five new WTE projects, plus a budget for uncommitted investment of THB300-THB400 million.
- Project financing structure with a debt-to-equity ratio of about 2.33 times.
- Capital structure has yet to incorporate a potential fresh capital injection from a private placement of new shares.

## RATING OUTLOOK

The “stable” outlook reflects our expectation that any rise in ETC’s financial leverage and level of new investments will remain in line with our projections. We also expect the operating performance of the existing plants to recover, starting from the second half of 2023. Besides, we expect BWG to maintain its controlling interest over ETC despite the possibility of a dilution in its ownership due to ETC’s private placement of new shares. Furthermore, we expect ETC will remain a core subsidiary of BWG.

## RATING SENSITIVITIES

According to TRIS Rating’s “Group Rating Methodology”, the rating on ETC will move in tandem with that on BWG. Any change in the rating on BWG will result in the same change to the rating on ETC. Moreover, we could lower the rating on ETC if we view the company’s status within BWG Group has weakened materially. For instance, a material dilution in parental control and support from BWG could act as a trigger.

An upward revision to the SACP is limited, taking into account the investment outlays at hand. On the contrary, we could lower the SACP if ETC’s operating performance falls drastically short of our estimates or the company elects to pursue more aggressive debt-financed investments beyond our expectations. A lower SACP could also result from any issues that jeopardize the viability of the projects, such as significant cost overruns or serious delays in the commencement of operations.

## COMPANY OVERVIEW

Established in 2004, ETC is a subsidiary of BWG—a leading provider of industrial waste management services. In 2020, ETC was listed on the Market for Alternative Investment (MAI) and later moved to the Stock Exchange of Thailand (SET). Currently, BWG has an effective shareholding of 47.6% in ETC.

ETC and its subsidiaries produce electricity from industrial waste for sale to the PEA under the FiT tariff structure. In all, ETC has total installed capacity of 20.4 MW and total contracted capacity of 16.5 MW. The fuel feedstock for each of the company’s three plants is secured by long-term SRF purchase agreements with its parent, BWG.

ETC pioneered the industrial WTE business in Thailand. ETC’s first power plant started commercial runs in March 2017. Located in Kaeng Khoi Industrial Estate, the plant has installed capacity of 9.4 MW. The second project is owned and operated

by ETC's subsidiary, Recovery House Co., Ltd. (RH). Located in Nakornluang Industrial Estate, the power plant commenced operations in September 2019, with 7-MW installed capacity. ETC's third power project is owned by AVA Grand Energy Co., Ltd. (AVA). Located in Phichit Industrial Estate, the 4-MW power plant started operations in December 2019.

In April 2023, ETC announced that it had been awarded 10 new industrial WTE projects with an aggregate capacity of 80 MW under the VSPP scheme. These projects are currently undergoing funding negotiations and are in the early phases of development.

**Table 1: ETC's Power Portfolio as of 30 Jun 2023**

Projects in Operation	Plant Type	Installed Capacity (MW)	Contracted Capacity (MW)	ETC Holding (%)	PPA Term (Year)	Expiry Year
1. ETC PP	Industrial WTE	9.4	8.0	100.0	20	2037
2. RH PP	Industrial WTE	7.0	5.5	94.9	20	2039
3. AVA PP	Industrial WTE	4.0	3.0	97.0	20	2039
<b>Total</b>		<b>20.4</b>	<b>16.5</b>			

Source: ETC

## KEY OPERATING PERFORMANCE

**Table 2: ETC's Plant Performance Statistics**

	Unit	Jan-Jun 2023	Year Ended 31 December			
			2022	2021	2020	2019
<b>Waste-to-Energy VSPP power plants</b>						
ETC PP – Net output	GWh	23.5	55.1	51.7	49.3	56.6
ETC PP – Availability factor	%	83.3	87.5	86.3	87.4	90.1
RH PP – Net output	GWh	18.1	40.0	39.8	39.1	* n.a.
RH PP – Availability factor	%	75.0	91.3	91.3	89.1	* n.a.
AVA PP– Net output	GWh	10.5	20.6	22.9	20.6	* n.a.
AVA PP– Availability factor	%	73.5	82.3	89.5	83.7	* n.a.

\* Not available as a full-year record

Source: ETC

**FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS \***

Unit: Mil. THB

	Jan-Jun 2023	-----Year Ended 31 December -----			
		2022	2021	2020	2019
Total operating revenues	369	783	749	673	370
Earnings before interest and taxes (EBIT)	63	201	259	282	113
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	120	318	370	388	190
Funds from operations (FFO)	66	254	301	303	105
Adjusted interest expense	52	63	69	85	78
Capital expenditures	287	76	98	96	429
Total assets	5,137	4,552	3,970	4,025	2,596
Adjusted debt	0	0	0	0	1,422
Adjusted equity	2,908	2,899	2,762	2,569	893
<b>Adjusted Ratios</b>					
EBITDA margin (%)	32.58	40.62	49.38	57.64	51.30
Pretax return on permanent capital (%)	2.68 **	4.90	6.71	8.83	4.84
EBITDA interest coverage (times)	2.32	5.04	5.38	4.55	2.42
Debt to EBITDA (times)	0.00 **	0.00	0.00	0.00	7.48
FFO to debt (%)	n.m. **	n.m.	n.m.	n.m.	7.36
Debt to capitalization (%)	0.00	0.00	0.00	0.00	61.41

\* Consolidated financial statements

\*\* Annualized with trailing 12 months

n.m. = Not measurable

**RELATED CRITERIA**

- Group Rating Methodology, 7 September 2022
- Corporate Rating Methodology, 15 July 2022
- Key Financial Ratios and Adjustments for Corporate Issuers, 11 January 2022

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**Earth Tech Environment PLC (ETC)**

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<b>Company Rating:</b>	BB+
<b>Rating Outlook:</b>	Stable

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**TRIS Rating Co., Ltd.**

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