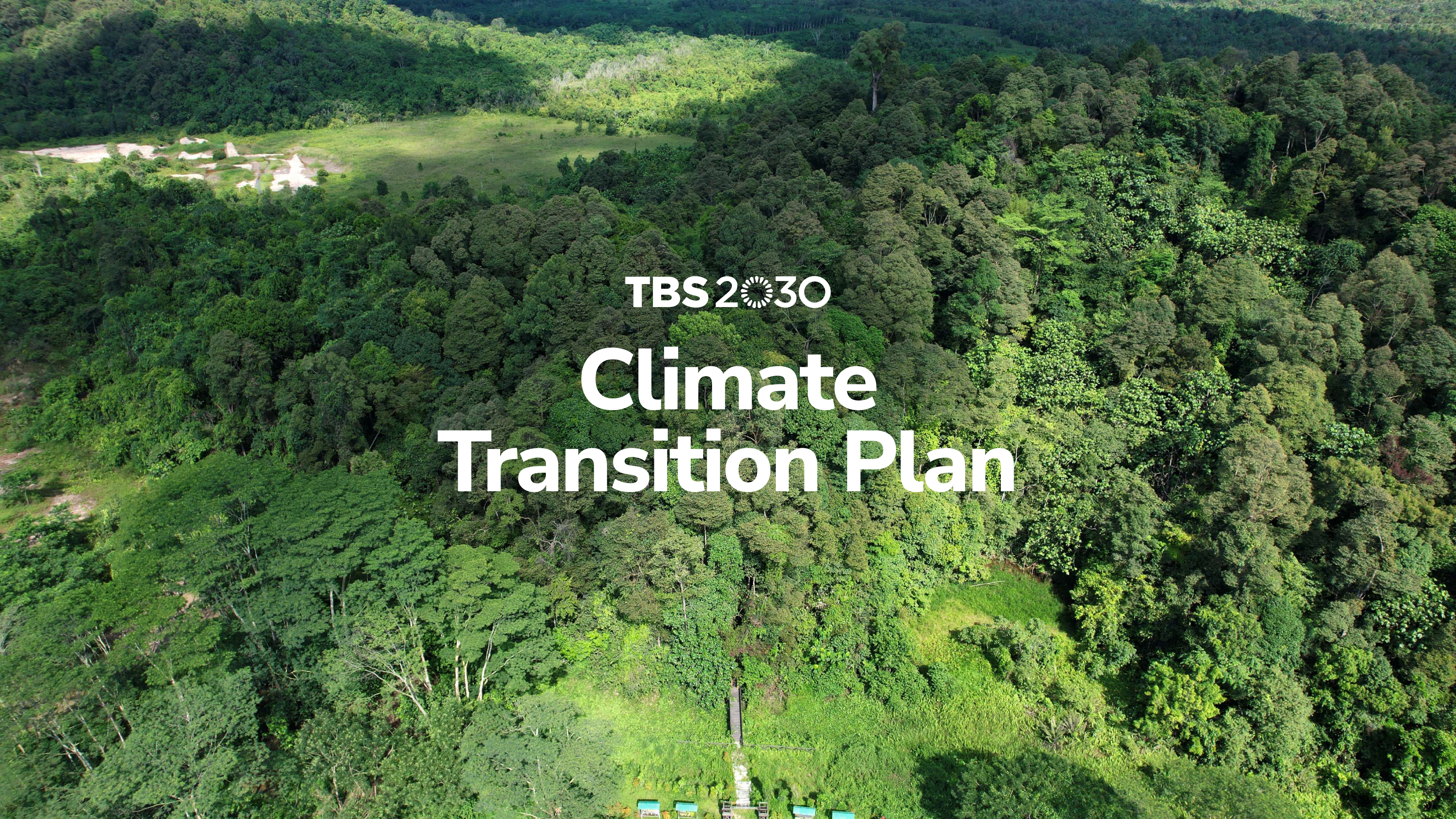


An aerial photograph of a vast, dense tropical forest. The canopy is a rich green, with some lighter patches indicating different tree species or a clearing. In the upper left, there's a small, open, sandy area. At the bottom center, a small cluster of buildings with blue roofs is visible, surrounded by a cleared area and a path leading into the forest.

TBS 2030

Climate Transition Plan



Table of Content

I. CEO Foreword	3
II. About This Climate Transition Plan	4
III. Executive Summary	5
1. TBS Energi Utama and Our Climate Strategy.....	6
About The Company.....	7
Strategic Rationale for Transition	9
TBS2030: Our Roadmap to a Better Society	10
2. Emission Reduction Target & Performance.....	11
Emission Reduction Targets	12
Performance Snapshot: Current Emissions and Intensity	12
Methodology for GHG Accounting	14
Preparing for Scope 3 Measurement.....	14
3. Strategic Levers for Low-Carbon Transformation.....	15
Divestment of High-Emission Businesses	18
Waste Management Drives Regional Circular Economy Platform	20
Renewable Energy Builds the Foundation for Clean Growth	24
Electric Vehicles Accelerate Low Emission Mobility	26
Operational Decarbonization Reduces Emissions at the Source	30
Carbon Credits & Renewable Energy Certificates (RECs).....	31

4. TBS’s Transition Roadmap and Carbon Projections to 2030 and Beyond	32
5. Financing the Transition	37
Revenue Composition Shift: From Fossil Legacy to Green Growth	37
Capital Allocation: Financing the Pivot from Coal Legacy to Low-Carbon Growth ..	40
Financial Resilience During Transition	43
Use of Divestment Proceeds	44
Taxonomy Alignment	44
6. Governance, Risk Management & Monitoring	45
Oversight Structure.....	46
Integration of Climate Risk and Opportunities	48
Risks to the Decarbonization Journey	55
Climate Metrics	56
GHG Assurance and Audit.....	58
Executive Remuneration	58
Alignment with Global and National Sustainability Frameworks	58
7. Appendix	59
ESRS E1-1: Transition Plan for Climate Change Mitigation Index	59
Transition Pathway Initiative Index	59
GHG Emission Intensity Scope 1+2 (FY 2024)	60
8. Definition of Key Terms.....	61

CEO Foreword

The path toward a low-carbon future is one that demands not just ambition, but action. At PT TBS Energi Utama Tbk, we have embraced this challenge by taking decisive steps to future-proof our business, support national climate goals, and contribute meaningfully to global decarbonization efforts.

This Climate Transition Plan builds on the TBS2030 strategy we launched in 2022, which marked a clear pivot toward three low-carbon growth pillars: waste management, renewable energy, and electric mobility. Our roadmap aligns with Indonesia's Net Zero 2060 target and our own ambition to reach carbon neutrality by 2030, embedding sustainability at the core of our investment and operational decisions.

Sustainability today is embedded at the core of how we allocate capital and shape our business strategy. Our recent progress underscores the impact of this strategy. In 2024, emissions from our coal mining operations declined by 10.49%. Although our power plant emissions rose temporarily as output increased, we expect a significant reduction in annual emissions once the full effect of our coal-fired power plant divestment is reflected, amounting to an estimated 85% decrease when comparing full-year emissions before and after the transaction.

We are also scaling up new solutions. In February 2024, we signed a 25-year Power Purchase Agreement with PLN Batam to develop a floating solar power plant in Batam, in partnership with PLN Nusantara. Meanwhile, our electric vehicle platform Electrum is helping to accelerate the shift to clean transport, particularly in Indonesia's two-wheeler segment. Electrum's progress was marked by a US\$15 million blended finance facility, the first of its kind in Indonesia's sustainable transportation sector, secured through the support of ADB, DBS Bank, and the Australian Climate Finance Partnership. In parallel, we continued to strengthen our position in the waste management sector through the acquisition of Cora Environment (Formerly Sembcorp Environment), Singapore's largest integrated waste management company. Alongside Asia Medical Enviro Services (AMES) and ARAH, this platform now enables TBS to deliver end-to-end waste solutions across Indonesia and Singapore, aligning waste circularity with our decarbonization goals.

Climate change presents mounting risks, not only from physical impacts such as extreme weather, but also from financial pressures linked to shifting markets and evolving policy landscapes. In response, we conducted a climate risk assessment in 2024 to identify material transition and physical risks across our operations. These insights are

now informing our enterprise risk management strategy, which is closely overseen by our ESG Committee to ensure our actions remain aligned with TBS2030.

To maintain transparency and accountability, we have implemented a Greenhouse Gas Emissions Data Management Guideline, aligned with OJK (Indonesia's Financial Services Authority) regulations and ISO 14064. In 2024, we completed our first third-party limited assurance of Scope 1 and 2 emissions and energy use across all subsidiaries, an important step in tracking our progress and identifying opportunities for efficiency.

Looking ahead, we aim to invest up to US\$600 million in low-carbon businesses by 2030. We are not only building a diversified and resilient portfolio in Indonesia, we are setting the stage to grow across the region.

This transformation is made possible by the dedication of our people and the trust of our stakeholders. Together, we are building a more inclusive, sustainable, and climate-resilient future, one investment, one innovation, and one milestone at a time.

Dicky Yordan
President Director
PT TBS Energi Utama Tbk





About This Climate Transition Plan

This Climate Transition Plan outlines PT TBS Energi Utama Tbk's strategic approach to achieving carbon neutrality by 2030, while also laying the foundation for a long-term, low-carbon business model beyond 2030. It serves as a roadmap to decarbonize the company's operations and portfolio, guiding both near-term actions and long-term investment priorities. The plan builds on TBS2030 – our sustainability strategy launched in 2022 – and sets out clear commitments, milestones, and governance mechanisms to support the company's transformation into a sustainability-driven enterprise.

This document is intended for a broad set of stakeholders including investors, lenders, regulators,

ESG rating agencies, and internal decision-makers. It is designed to support:

- Access to sustainable finance mechanisms (e.g., green bonds, concessional loans, blended finance).
- Investor and shareholder communications on TBS's decarbonization strategy and risk management approach.

This plan covers all operations under TBS Energi Utama's operational control, including subsidiaries in Indonesia and Singapore. This Climate Transition Plan is a living document and will be updated periodically to reflect material changes in the business, evolving regulatory requirements, and new sustainability disclosures.

Executive Summary

PT TBS Energi Utama Tbk is at a pivotal moment in its transformation journey. As climate risks intensify and energy systems evolve globally, we are reshaping our portfolio to align with Indonesia's Net Zero 2060 target and our own ambition to reach carbon neutrality by 2030. Building on the momentum of our TBS2030 strategy, this Climate Transition Plan sets out a clear pathway for transformation—anchored in responsible divestment, strategic reinvestment, and operational decarbonization to create long-term value and resilience.

In 2024, we took a major step by divesting from our coal-fired power plant subsidiaries, a move expected to reduce our total emissions by approximately 85% and significantly lower our exposure to carbon pricing and stranded asset risk. We have also announced our intention to phase out coal mining operations in 2027. While coal mining will cease in 2027, the Group will continue coal trading. These decisions are not only financially strategic but also climate-driven, while unlocking capital to be reinvested into scalable, lower-emission businesses with long-term value potential.

Our focus is on three core growth pillars: waste management, renewable energy, and electric vehicles. Through acquisitions in Indonesia and Singapore, including Asia Medical Enviro Services (AMES), ARAH, and CORA (formerly SembEnviro), we are building

a regional waste platform that delivers end-to-end solutions across medical, industrial, and municipal waste segments. In renewable energy, our subsidiary PT Energi Baru TBS is progressing a pipeline of solar, hydro, wind, and biomass projects, with key projects coming online in 2025. Meanwhile, our EV joint venture Electrum is rapidly scaling Indonesia's two-wheeler electric mobility ecosystem, supported by the country's first blended finance facility for sustainable transport, in partnership with ADB, DBS, and Australian Climate Finance Partnership (ACFP).

Achieving carbon neutrality requires operational change beyond portfolio shifts. In our mining and palm oil operations, we are driving efficiency and circular practices such as biomass utilization and composting. These efforts are supported by enhanced monitoring systems and third-party limited assurance of our GHG methodology, aligned with OJK and ISO 14064 standards. In 2024, we completed our first independent assurance of Scope 1 and 2 emissions across all subsidiaries.

Our financing strategy reflects this transition. We plan to invest up to US\$600 million in low-carbon businesses by 2030, with increasing portions of our CapEx aligned to Indonesia's green taxonomy. EBITDA from non-coal segments is rising steadily and is expected to form the majority of our earnings

by the end of the decade. Our approach includes mobilizing sustainable finance, from green bonds to concessional capital, while maintaining disciplined returns and risk-adjusted performance.

Governance of the transition is overseen by the ESG Committee, with execution driven across business units and supported by dedicated teams in sustainability and risk management. In 2024, we completed a climate risk assessment covering physical and transition risks across our portfolio, which now informs enterprise risk planning and investment decisions. We also recognize key challenges ahead, including policy uncertainty, scalability constraints in new businesses, and data limitations for Scope 3 emissions. These are actively managed through scenario analysis, internal coordination, and stakeholder engagement.

This Climate Transition Plan is both a commitment and a blueprint, one that positions TBS to lead in a rapidly changing energy landscape. We are not only reducing emissions, but actively reshaping our portfolio to capture long-term growth in renewables, electric mobility, and the circular economy. Our journey continues with clear purpose: to build a resilient, future-ready business that delivers enduring value for our stakeholders and generations to come.



This Climate Transition Plan is both a commitment and a blueprint, designed to drive emissions reductions, unlock new growth, and ensure resilience in a decarbonizing economy.



TBS Energi Utama and Our Climate Strategy

About The Company

PT TBS Energi Utama Tbk is a publicly listed Indonesian energy company committed to long-term sustainability and a low-carbon transformation. Our business spans coal mining, palm oil, renewable energy, electric vehicles (EVs), and waste management. Through the TBS2030 roadmap, we are reshaping our portfolio to align with Indonesia's Net Zero 2060 target and our own ambition to achieve carbon neutrality by 2030.

Originally focused on fossil-based operations, we are now undertaking a structured transition toward future-oriented sectors. In 2024, we began the process of divesting from coal-fired power plant assets, while internally aligning on a plan to phase out coal mining operations in 2027. Coal mining will cease in 2027, although coal trading activities will continue. This distinction matters because financial reporting currently groups both mining and trading revenues under a single category. Capital is being reallocated to climate-aligned businesses with stronger growth potential and lower emissions profiles.

We are also building a regional waste platform through the acquisitions of Asia Medical Enviro Services (AMES) in Singapore, Arah Environmental (ARAH) in Indonesia, and most recently, Cora Environment, formerly Sembcorp Environment (SembEnviro), Singapore's largest integrated waste management company. These acquisitions strengthen our presence in the medical, hazardous, municipal, and industrial waste segments, enabling us to offer end-to-end solutions across Southeast Asia.

Our renewable energy portfolio is growing through flagship projects such as a 46 MWp floating solar plant in Batam and a 2x3 MW facility in Lampung. In the EV space, our Electrum joint venture with Gojek is rapidly scaling an integrated two-wheeler ecosystem, including battery-swapping infrastructure across Greater Jakarta.

With a clear transition roadmap, strong financial performance, and a growing base of sustainable assets, TBS is positioning itself as a key contributor to Indonesia's lower carbon transition.

TBS is positioning itself as a key contributor to Indonesia's lower carbon transition.

Through the TBS2030 roadmap, we are reshaping our portfolio to align with Indonesia's Net Zero 2060 target and our own ambition to achieve carbon neutrality by 2030.

What We Do

Subsidiaries and Value Chain

Electric Vehicles

TBS and GoTo Group launched Electrum in 2021. By 2024, we reached 4,161 EV bikes on the road and 269 BSS across Jakarta.

Waste Management

The TBS waste management sector operates in both Indonesia and Singapore. In Indonesia, integrated waste management is operated by ARAH, AEI, GAL, SAL, and SNE, while in Singapore, medical waste management is handled by Asia Medical Enviro Services (AMES) and the recently acquired Cora Environment.

Renewable Energy

In 2020, TBS, through its subsidiary PT Toba Bara Energi (TBAE), developed a 2x3 MW mini hydro power plant in Lampung and a wind power plant in East Nusa Tenggara as part of its strategic efforts to support the clean energy transition. In 2024, TBS partnered with PT PLN Nusantara Power to develop Batam's first floating solar power plant with capacity of 46 MWp, which is expected to contribute significantly to the national renewable energy mix.

Coal Mining and Trading

TBS operates three adjacent mines—ABN, IM, and TMU—within a 7,087-hectare concession in Kutai Kartanegara, East Kalimantan.

Palm Oil Plantations

TBS expanded into the palm oil sector by acquiring PKU and established a 30-ton-per-hour palm oil mill.



Strategic Rationale for Transition

TBS Energi Utama's transformation is driven by the urgent need to adapt to a rapidly evolving global landscape shaped by the energy transition. As the world accelerates toward decarbonization, fossil-based sectors face rising pressure from physical climate risks, evolving regulations, shifting market dynamics, and increasing investor expectations. These trends pose fundamental challenges to long-term business viability, demanding a strategic realignment toward more sustainable, resilient models.

Our response is not solely about mitigating risks. It is equally about capturing new opportunities. The transition to a low-carbon economy opens pathways for growth in sectors that offer stronger long-term potential and lower emissions intensity. By reallocating capital toward renewable energy, electric mobility, and integrated waste management, TBS is laying the groundwork for a future-facing business portfolio aligned with national climate targets.

This Climate Transition Plan outlines the next chapter of our journey. It reflects a broader corporate commitment to environmental stewardship, inclusive development, and transparent governance.

TBS 2030: Our Roadmap to a Better Society

The strategic transition underway at TBS is anchored in our broader sustainability roadmap, *Towards a Better Society 2030* (TBS2030), launched in November 2022. While this Climate Transition Plan focuses mainly on the environmental dimension, TBS2030 embodies a holistic commitment that weaves together environmental stewardship, social equity, and strong governance.

TBS2030 sets a clear carbon neutrality target by 2030, aligned with Indonesia's Net Zero 2060 ambition. It embeds the principle of a just transition, supporting workforce empowerment, climate resilience, and transparent operations. It also provides the strategic foundation for our pivot from fossil-based assets to future-facing businesses such as renewable energy, integrated waste management, and electric mobility.

At the heart of the roadmap are three mutually reinforcing pillars:

- Trusted Partners
- Empowered People
- Thriving Environment

More detail on TBS2030 including progress across social and governance priorities is available in our latest Sustainability Report and at www.tbsenergi.com.

TBS2030 Pillars



Emission Reduction Target & Performance





Emission Reduction Targets

TBS Energi Utama has committed to achieving carbon neutrality by 2030, positioning this target as a core pillar of its climate transition strategy. This goal covers direct emissions from owned or controlled sources (Scope 1) and indirect emissions from purchased electricity (Scope 2).

Performance Snapshot: Current Emissions and Intensity

In 2024, PT TBS Energi Utama’s total Scope 1 and 2 GHG emissions reached 1,691,895 tCO₂e. This was primarily driven by higher output from coal-fired power plant operations, which remained the dominant source of emissions. Mining operations and palm oil production were the next largest contributors, while emissions from new business segments, i.e. waste management, electric vehicles, and corporate offices, remained comparatively modest.

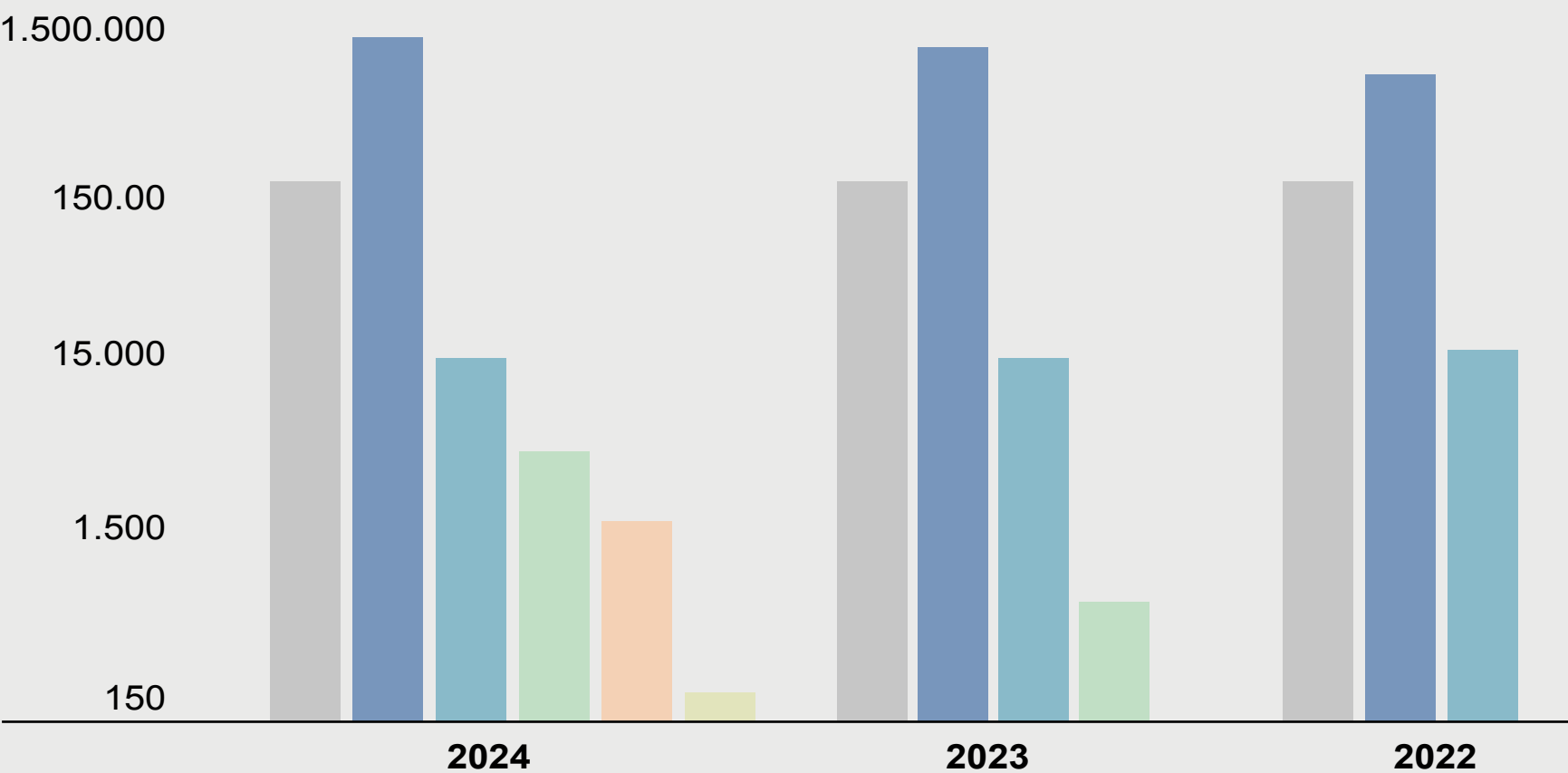
Emissions from the waste sector were calculated following TBS’s acquisition of multiple waste management entities, with operational data covering the August to December 2023 period. Emissions reporting for the electric vehicle segment and TBS Holding began in 2024. All 2024 GHG data were independently assured by a third-party.

Despite the rise in total emissions, emissions intensity improved across several core sectors. In coal mining and power generation, operational efficiency measures helped reduce emissions per unit of output. In the palm oil segment, intensity also declined, driven by improved energy practices.

1,691,895 tCO₂e

TBS total Scope 1 and 2 GHG emissions (2024)

TBS Historic Carbon Footprint (2022 - 2024)



Sources (tCO2eq)	2024	2023	2022
Coal	203,878	227,772	187,953
Power Plant	1,459,224	1,379,273	1,159,755
Palm Oil	17,703	19,195	23,078
Waste Mgmt.	8,570	1,030	
Electric Vehicle	2,310		
TBS Holding	210		
Total Scope 1&2	1,691,895	1,627,270	1,370,786

Sources	Unit	2024	2023	2022
Coal Mining	tCO2eq/ton coal	0.07	0.07	0.075
Power Plant	tCO2eq/MWh produced	1.18	1.17	1.2
Palm Oil	tCO2eq/ton CPO	2.65	2.57	3.63
Waste Management	tCO2eq/ton waste incinerated	0.82	0.74	N/A
Electric vehicle	tCO2eq/km traveled	0.000055	N/A	N/A
TBS Holding	tCO2eq/MWh consumed	0.88	N/A	N/A

Looking ahead, emissions are expected to decline sharply following the divestment of our two coal-fired power plant subsidiaries. This single transaction alone is projected to reduce TBS’s total annual emissions by approximately 85% when comparing full-year emissions before and after the divestment, excluding emissions that may result from acquisitions made in 2025. In parallel, the broader transition, including the 2024 CFPP divestment and the planned phase-out of coal mining, is expected to significantly reduce future carbon-related financial

risks, with a third-party assessment by Engie Impact estimating cumulative avoided carbon costs for TBS of over US\$3.8 billion through 2050.

These developments underscore the material impact of strategic divestment and portfolio rebalancing. TBS’s efforts to pivot toward lower-emission businesses, including waste, renewable energy, EVs, are expected to continue reshaping the company’s emissions profile and long-term sustainability performance.

EMISSIONS REDUCTION:

85%

decrease in total annual emissions compared full-year emissions before vs. after the CFPP divestment.



Methodology for GHG Accounting

PT TBS Energi Utama Tbk (TBS) adopts a rigorous and science-based approach to greenhouse gas (GHG) accounting as part of its commitment to credible and transparent climate transition planning. The company adheres to the Greenhouse Gas Protocol, the global standard for corporate GHG inventories, and implements methodologies derived from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the 2019 Refinement. Emission factors are selected from credible sources, such as IPCC, national databases, or equipment-specific data, and are reviewed periodically to ensure accuracy and relevance.

In October 2024, TBS introduced a comprehensive GHG Data Management Guideline to strengthen data accuracy, consistency, and regulatory alignment across all business units. This initiative reflects the company’s broader sustainability governance and supports compliance with national regulations, including OJK Regulation No. 51/POJK.03/2017. Key features of the guideline include:

Defined roles, responsibilities, and control mechanisms:

The guideline establishes a structured approach to data management, calculation methodologies, and validation procedures at the business unit level.

Version control and traceability:

It ensures systematic handling of data revisions, approvals, and version retention to maintain audit readiness.

Alignment with international standards:

The framework integrates principles from the GHG Protocol and ISO 14064-1, promoting consistency with global best practices.



TBS follows a standardized approach to account for carbon credits and offsets, ensuring gross emissions are reported separately from reductions.

TBS defines its organizational boundaries for GHG accounting using the operational control approach, ensuring that all facilities under its operational authority are included in Scope 1 and Scope 2 reporting. Scope 1 covers direct emissions from owned or controlled sources, while Scope 2 captures indirect emissions from purchased energy.

TBS also applies a clear and standardized approach to accounting for carbon credits and offsets, in line with GHG Protocol guidance on market-based instruments. Emissions are reported separately from any reductions achieved through offsets or credit retirements, preserving clarity and integrity in disclosures.

To reinforce the credibility of its GHG data, TBS engages KAP Purwantono, Sungkoro & Surja (a member firm of Ernst & Young Global Limited) to conduct limited assurance over its Scope 1 and Scope 2 emissions, as well as total energy consumption. This third-party verification is conducted in accordance with ISAE 3000 and ISAE 3410 standards, and supports compliance with SEOJK No. 16/2021 G.1 as well as disclosure expectations under GRI 2-5.

Preparing for Scope 3 Measurement

TBS Energi Utama acknowledges the importance of Scope 3 emissions and is preparing to begin calculations. At present, complete data from value chain partners is not yet available to support a comprehensive and accurate inventory. Measuring these emissions will help TBS identify reduction opportunities, align with global best practices, and support its long-term sustainability goals. As the company shifts toward waste management, renewable energy and electric mobility, understanding its full emissions profile is essential for maintaining climate accountability. In FY2025, TBS has initiated Scope 3 calculations through deeper engagement with stakeholders to establish baseline data for future disclosure, beginning with Category 7 (employee commuting).



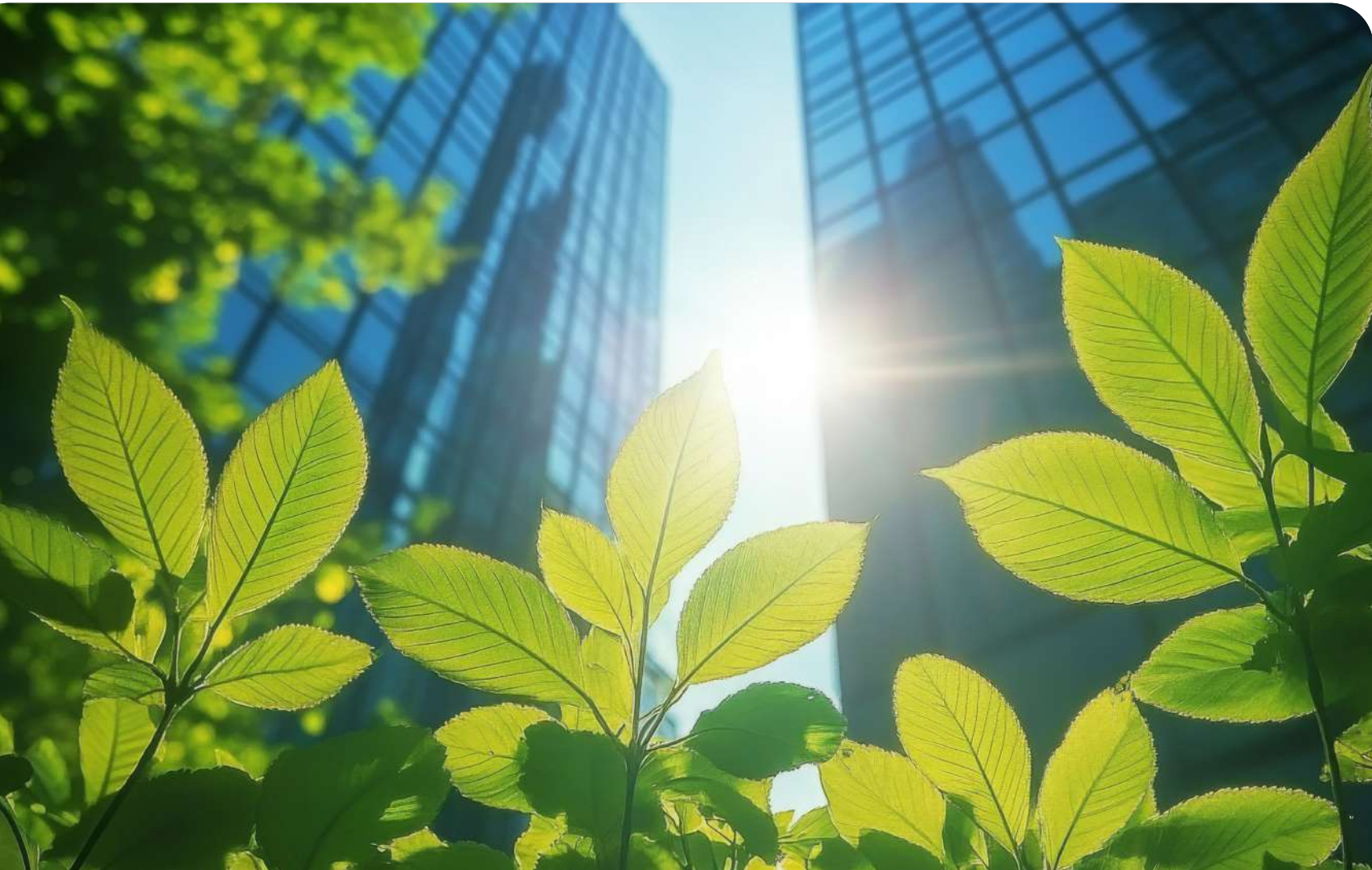
Strategic Levers for Low-Carbon Transformation



TBS Energi Utama’s climate transition is guided by a set of strategic levers that include, but are not limited to, divestment from fossil fuel-based assets, investment in low-carbon businesses, and operational decarbonization.

The journey began with the divestment of coal-based assets, including coal-fired power plants (CFPPs) and mining operations, as part of our commitment to achieve carbon neutrality by 2030. The capital unlocked from these divestments is being reinvested into future-focused business pillars: integrated waste management, renewable energy, and electric vehicles. These pillars are not only aligned with national climate goals and global sustainability trends but also position TBS to capture long-term value in regulated, low-emissions sectors.

In parallel, we are implementing operational decarbonization measures across our remaining legacy businesses, including process optimization in mining and emissions reduction in palm oil. These efforts are supported by enabling systems in governance, policy, capacity building, and data, ensuring the transition is both effective and accountable. Together, these levers form the foundation of our transformation into a sustainable, low-carbon enterprise.



Legacy Fossil-Based Assets

-  **Coal-Mining**
-  **Coal-Fired Power Plants (CFPP)**

*Transformation from
Fossil-based Business*



**A Business Comitted
to Sustainability**

- TBS2030**
- Waste Management**
- Renewable Energy**
- Electric Vehicle**

To a Lower-Carbon Business

Milestones on Our Path to a Low-Carbon Future



Divestment of High-Emission Businesses

TBS Energi Utama is executing a structured and responsible exit from coal-based operations as part of its commitment to achieve carbon neutrality by 2030 under the TBS2030 roadmap.

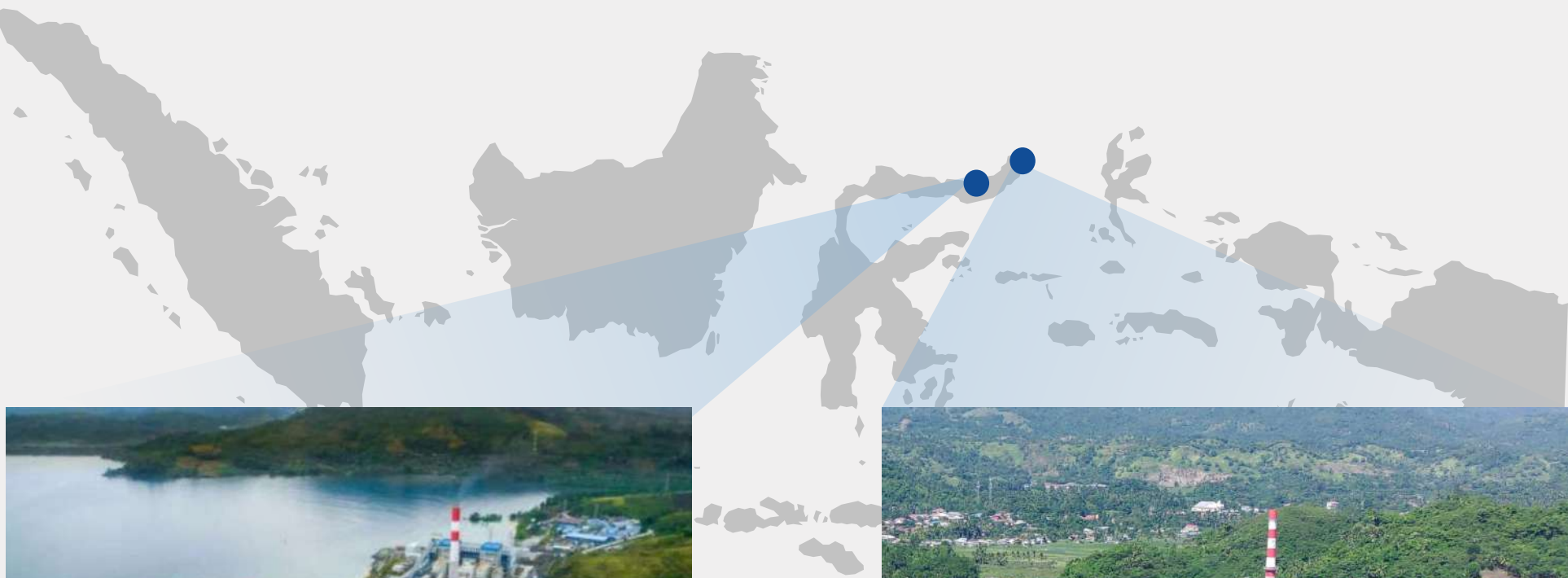
Historical Divestment: Paiton Energy

In 2021, TBS divested its indirect (5%) stake in PT Paiton Energy, one of Indonesia’s largest independent power producers.

Divestment from 200 MW Coal-Fired Power Plant Assets

In 2024, TBS initiated the divestment of its entire shareholding in two coal-fired power plants: PT Minahasa Cahaya Lestari (MCL) and PT Gorontalo Listrik Perdana (GLP), with a combined capacity of 200 megawatts. Although the transaction was concluded in 2024, the divestment will take effect in TBS’s financial and emissions reporting starting in 2025. This move is projected to reduce the company’s annual carbon emissions by approximately 1.46 million tonnes of CO₂e, representing a decrease of more than 85% in total annual emissions. The proceeds are being reallocated to investments in renewable energy, electric vehicles, and integrated waste management, in alignment with Indonesia’s green taxonomy and the nation’s broader transition toward sustainable economic development.

Asset Summary



PT Gorontalo Listrik Perdana
CFPP Subalgut 1

Location	Gorontalo
Capacity	2 x50 MW
Technology	Subcritical
COD	December 2021
Ownership TBS	80% Direct Ownership



PT Minahasa Cahaya Lestari
CFPP Sulut 3

Location	North Sulawesi
Capacity	2 x50 MW
Technology	Subcritical
COD	December 2021
Ownership TBS	90% Through TBAE



Planned Exit from Coal Mining in 2027

TBS has announced plans to phase out its coal mining operations in 2027, aligning with the natural depletion of reserves (mine-out) and its strategic shift toward sustainable energy solutions. The company operates three mining subsidiaries, PT Adimitra Baratama Nusantara (ABN), PT Trisensa Mineral Utama (TMU), and PT Indominco (IM), which collectively produced 2.9 million tons of coal in 2024. The planned cessation of these operations will further reduce TBS’s carbon footprint and support its transition to a low-carbon business model, with the effect of this exit reflected in the steep emissions reduction shown in the projection graph on page 33.

Responsible Divestment

As part of our decarbonization strategy, TBS applies a responsible divestment approach to ensure that our exit from fossil-based assets is aligned with climate goals, national energy reliability, and value creation. The 2024 divestment of our 200 MW CFPP portfolio illustrates how this principle is operationalized through the following considerations:



Strategic reinvestment:

Proceeds from the transaction are being allocated to waste management, renewable energy and electric mobility, fully aligned with our transition roadmap and Indonesia’s green taxonomy.



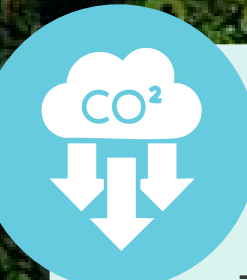
Buyer credibility:

The acquiring party was selected based on proven operational expertise and a demonstrated commitment to responsible CFPP management and climate alignment.



Energy reliability:

The transaction was structured to avoid disruption to electricity supply in the affected regions, with safeguards in place to ensure operational continuity.



Emission impact:

The divestment substantially lowers TBS’s Scope 1 and 2 emissions. As TBS does not supply coal to the divested assets, Scope 3 exposure related to these assets is also effectively neutralized.



Assessment of alternatives:

Options such as decommissioning and carbon capture were evaluated, but were found to be technically or financially unviable given the current infrastructure and regional energy needs.



Waste Management Drives Regional Circular Economy Platform

Waste management is emerging as a strategic growth sector across Southeast Asia, driven by rapid urbanization, industrial activity, and evolving environmental regulations. In Indonesia alone, hazardous and toxic waste (classified as B3 in Indonesia) reached 67.94 million tons in 2024, with only 46.30 million tons processed and the remainder stockpiled in temporary storage. Medical waste surged to over 403,000 tons, while EV-related infrastructure waste, including lithium-ion batteries, introduces additional complexity to already strained systems. Yet infrastructure capacity remains limited, with only 1,012 licensed B3 waste handlers nationwide.



Advancing Efforts Toward an Integrated Regional Waste Management Platform

TBS is pursuing cross-country acquisitions to develop capabilities needed to **support waste management in Indonesia**



Limited Waste Management Infra

Southeast Asia generates **> 150 Mn of waste ton/ Yr1** and is expected to double by 2030 with **minimum infrastructure** across many countries



High Logistics and Collection Costs

Fragmented waste collection and a lack of supporting infrastructure result in high costs



Limited Waste Value Creation

Informal and unlicensed waste operators result in minimal waste value and contribute to landfill accumulation

Expanding organic and inorganic business ventures to enhance and build **waste management capabilities**

Public-Private Sector Alliance

Partnering with the private and public sectors to **establish effective waste management systems**

Efficient and Diversified Fleet

Utilizing an efficient fleet supported by a **decentralized waste management system**

Waste-to-Energy and Recycling Facilities

Implementing **circular economy** principles through the development of **recycling and material recovery facilities**



67.94
million tons

Indonesia hazardous and toxic waste (classified as B3) in 2024

1,012

licensed B3 waste handlers nationwide

Recognizing this gap, both the Indonesian and Singaporean governments have introduced ambitious policy frameworks to scale sustainable waste treatment. In Indonesia, national targets aim to reduce total waste generation by 30% and ensure 70% of waste is responsibly managed by 2025. These goals are backed by regulations such as Presidential Regulation No. 27/2020 on Waste Management and Ministry of Environment Regulation (Permen LHK) No. 9/2024, which establish stricter standards for waste handling, treatment, and private sector participation. In parallel, Singapore's Zero Waste Master Plan promotes circular economy solutions through incentives for recycling, waste-to-energy (WTE) technologies, and reduced landfill use.

TBS's platform is well positioned to address these evolving needs. With operations spanning Indonesia and Singapore, we are equipped to respond to rising waste complexity and volume. The platform supports national waste targets and creates cross-border synergies, for example, by applying Singapore's WTE expertise in Indonesian markets while leveraging Indonesia's scale to drive long-term growth.

As a business segment, waste management offers both environmental and financial benefits. It provides a high-EBITDA, low-emission alternative to fossil fuel operations, helping shift our portfolio toward sustainability.

TBS's Expansion into Waste Management

In response to this sectoral demand and aligned with its TBS2030 decarbonization strategy, TBS Energi

Utama has made waste management a cornerstone of its business transformation. The company is building a regionally integrated waste platform through targeted acquisitions and infrastructure development across Indonesia and Singapore. This strategy not only diversifies revenue streams but also contributes significantly to carbon intensity reduction.

TBS has Established an Integrated Waste Management Platform Across the Waste Value Chain

TBS began its foray into waste with the acquisition of Asia Medical Enviro Services (AMES) in August 2023. AMES, a market leader in Singapore's medical waste sector with approximately 45% market share, operates two incinerators with a combined capacity of 14 tons per day. This acquisition positioned TBS to enter the biomedical waste segment, an area projected to grow rapidly due to the expansion of healthcare infrastructure.

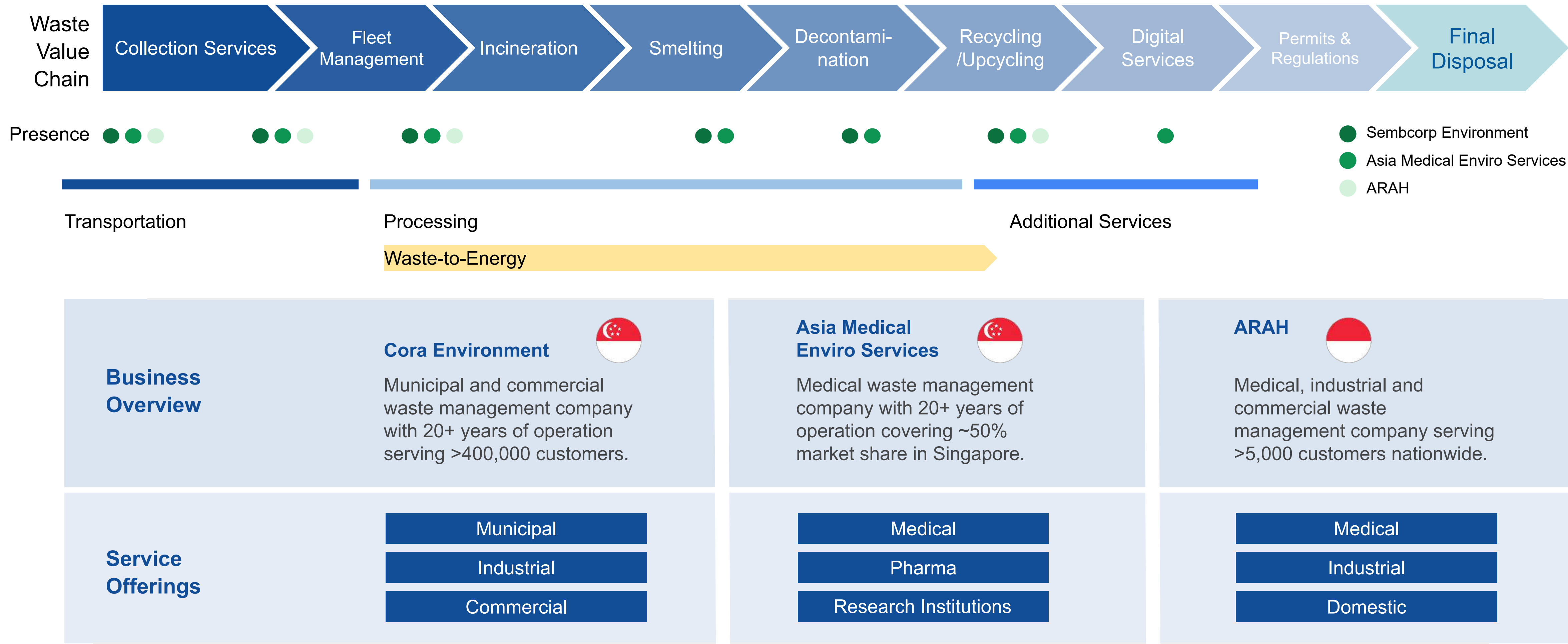
In late 2023, TBS completed the full acquisition of Arah Environmental (ARAH), a domestic waste management company in Indonesia with capabilities in medical, domestic, hazardous (B3), and electronic waste. With operations spanning 15 provinces and over 5,000 customers, ARAH brought scale to TBS's waste business. Key facilities include the Polokarto plant, which has an installed capacity of 21 tons per day, and the GAI Cibugis facility with 18 tons per day. These sites strengthen the group's ability to handle complex waste streams efficiently and at scale.

TBS entered waste sector by acquiring AMES, Singapore's medical waste market leader,

with approximately **45%**
market share
in August 2023.



TBS has Established an Integrated Waste Management Platform Across the Waste Value Chain



EBITDA Growth Projection after Cora Environment acquisition is expected to increase from

US\$4.6 million in 2024
to **US\$50 million**
by end-2025.

Acquisition of Cora Environment and Platform Integration

TBS's most significant move came in November 2024, with the signing of a Share Purchase Agreement to acquire 100% of Cora Environment, Singapore's largest integrated waste management company. With more than 400,000 customers and operations covering municipal, industrial, and commercial waste, Cora Environment adds scale, credibility, and circular economy capability to TBS's platform. Cora Environment also brings waste-to-energy infrastructure, positioning TBS to support emission reductions beyond its operational footprint. The business began contributing to TBS's consolidated financials in Q1 2025.

The Cora Environment acquisition is expected to boost the waste segment's EBITDA from US\$4.6 million in 2024 to US\$50 million by end-2025.

Through the acquisitions of AMES, ARAH, and Cora Environment, TBS is actively consolidating the waste management value chain. The group now operates across the collection, processing, recycling, and energy recovery stages of waste treatment. The platform offers comprehensive solutions to industrial, healthcare, and municipal customers across the region.

Strategic Contribution to Decarbonization

The waste management segment plays a dual role in TBS's decarbonization pathway. First, it provides a high-EBITDA, low-emission alternative to fossil fuel businesses, helping TBS shift its portfolio toward sustainability. In 2024, waste management revenues reached US\$13.1 million, an increase of over 312% year-on-year. This growth reflects both rising demand for sustainable waste services and the Company's execution capabilities.

In addition to emissions reduction, the platform also enhances TBS's climate resilience by reducing dependency on fossil-based sectors.

Waste management revenues in 2024 reached

US\$13.1 million,
an increase of over
312% year-on-year.

Waste services are supported by recurring, regulated contracts, ensuring a steady revenue base regardless of commodity cycles.

This financial stability aligns with TBS's strategy to build long-term value through environmental impact.

Forward Outlook

With continued investment, integrated service offerings, and strategic partnerships, TBS aims to become the regional leader in sustainable waste management. The platform will serve not only as a source of long-term earnings but also as a meaningful contributor to TBS's carbon neutrality target.



Renewable Energy Builds the Foundation for Clean Growth

Macro Context: National Energy Landscape and Policy Shifts

Indonesia holds an estimated more than 3,600 GW of renewable energy potential, yet the current energy mix remains dominated by fossil fuels¹. The government has committed to Net Zero Emissions (NZE) by 2060 and is accelerating the clean energy transition through Presidential Regulation No. 112/2022, which limits the construction of new coal-fired power plants and prioritizes low-emission power sources. Indonesia also aims to install 115 GW of solar capacity by 2060², including large-scale floating solar projects.

Indonesia targets

115_{GW}

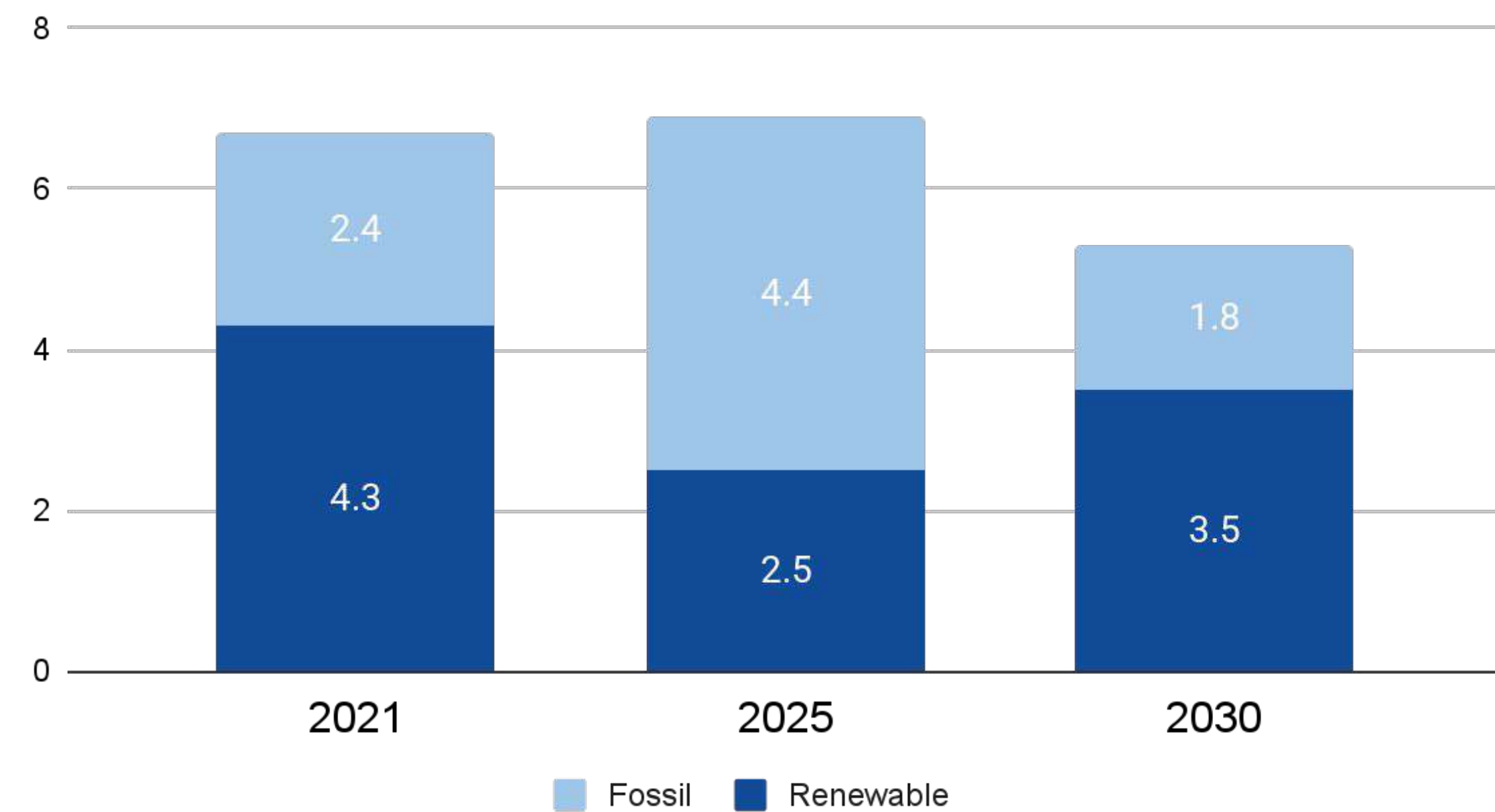
of solar capacity by 2060

¹ Sulaiman, Stefano. 2024. "Indonesia's President Urges Developed Nations to Invest in Green Economy." *Reuters*, September 5.

² International Energy Agency & Ministry of Energy and Mineral Resources, Republic of Indonesia. (2022). *An Energy Sector Roadmap to Net Zero Emissions in Indonesia*. IEA.

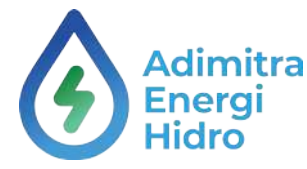
Opportunities Across Indonesia

Capacity expansion plans in Indonesia (in GW)



- Indonesia Installed Capacity in 2024 is at 93 GW (85% Fossil Fuel, 15% NRE)
- NRE penetration remains low, totaling 13 GW out of >3,600 GW potential capacity
- PLN has allocated a total of 46 GW of NRE capacity in the latest RUPTL for 2025-2034

TBS Renewable Energy Projects



Mini Hydro Power Plant Lampung

IN OPERATION

Capacity

6 MW

PPA Term

25 years

Hydro Power Plant

Domestic (Pipeline)
ADVANCED DEVELOPMENT



Commercial
Operations Date

Q1 2025

Potential Emissions
Reduction

288k
tCO2e p.a.



Floating Solar PV Batam

UNDER CONSTRUCTION

Capacity

46 MWp

PPA Term

25 years

Floating Solar PV

Domestic (Pipeline)
ADVANCED DEVELOPMENT



Under Construction

Potential Emissions
Reduction

120k
tCO2e p.a.

TBS's Renewable Energy Strategy

Our clean energy transition is anchored in PT Energi Baru TBS (EBT), the Company's dedicated renewable energy subsidiary, which manages a pipeline of projects across solar, wind, hydro, and biomass. Development is focused on projects with high feasibility and strong alignment with national policy targets.

Two cornerstone projects are set to begin operations in 2025:

- **Mini-Hydro Power Plant (PLTM), 2x3 MW, Lampung**
Developed by PT Adimitra Energi Hidro (AEH), the project has completed construction and begun commercial operations in early 2025.
- **Tembesi Floating Solar Power Plant (PLTS), 46 MWp, Batam**
Developed via joint venture PT Nusantara Tembesi Baru Energi (NTBE) with PLN Nusantara Renewables (PLN NR), this project has achieved financial close and is expected to generate 60 GWh annually.

All operating projects are structured under Take-or-Pay Power Purchase Agreements (PPAs), providing revenue certainty.

Future Growth

In addition to project development across Java, Sumatra, and NTT, the company is exploring further opportunities in Eastern Indonesia and high-demand export zones such as Batam. TBS will continue to pursue a combination of greenfield development, brownfield acquisition, and partnership models to grow its renewable portfolio.

Electric Vehicles Accelerate Low Emission Mobility

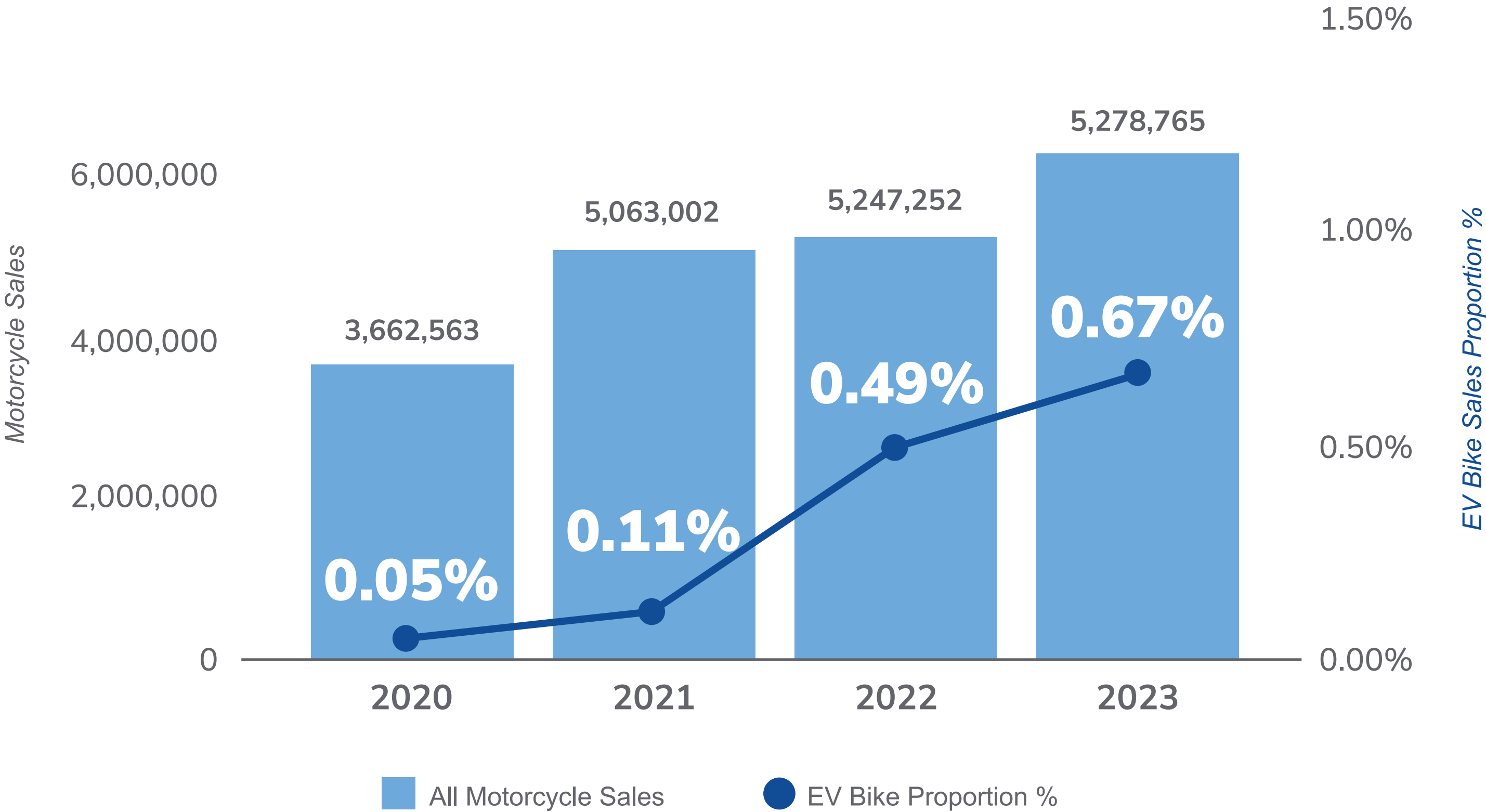
EV Momentum and Policy Push in Indonesia

Indonesia’s transition to low-emission transportation is gaining momentum, with the government targeting the conversion of 13 million motorcycles and 2 million cars to electric by 2030. This ambition is backed by Presidential Regulation No. 79/2023 and Presidential Instruction No. 7/2022, which mandate the use of battery electric vehicles (BEVs) across central and regional agencies and offer incentives including import duty exemptions, tax relief, electricity subsidies for EV charging, and direct purchase subsidies. As of November 2024, a total of 195,084¹ electric vehicles had been registered in Indonesia, with electric motorcycle ownership doubling year-over-year². The government’s broader push for electrification aligns with its NDC targets to reduce emissions by 31.89% (domestic efforts) or up to 43.20% (with international support) by 2030³.

Despite the low baseline EV penetration (~1% of 2W sales in 2024), the compound growth trajectory is robust. National projections estimate a 67% annual growth rate for electric motorcycle sales until 2030⁴. However, key structural barriers continue to slow adoption: high upfront costs, limited range and charging infrastructure, and gaps in aftersales service. Recognizing these, the Government has stepped up efforts to address market frictions with fiscal tools and policies that create enabling conditions for ecosystem players to scale.

¹ “Hingga November 2024, 195 Ribu Kendaraan Listrik Terdaftar di SRUT Kemenhub,” *Antara News*, February 18, 2025, <https://www.antaranews.com>.
² Ministry of Environment and Forestry, Republic of Indonesia. (2022, September). *Enhanced Nationally Determined Contribution of the Republic of Indonesia*. UNFCCC
³ Ministry of Environment and Forestry, Republic of Indonesia. *Updated Nationally Determined Contribution (NDC) of Indonesia – Enhanced NDC Submission to the UNFCCC*, 2022. <https://unfccc.int/documents/619180>.
⁴ Eastspring Indonesia Equity Team. 2024. *Indonesia’s Electric Vehicle Value Chain Opportunities* (July 2024), 1.

Motorcycle Sales in Indonesia (2020-2030)



By Q1 2025

5,100+ Electrum
units were on the road**Strategy and Positioning: Electrum as a Catalyst**

In response to both market opportunity and national policy direction, TBS Energi Utama has prioritized electric mobility as a key strategic lever in its low-carbon transformation. Through Electrum, TBS is building an EV ecosystem.

This venture reflects a broader reallocation of capital from legacy fossil fuel assets into green mobility, forming a core part of the company's carbon neutrality roadmap for 2030. Electrum aims to serve both business-to-business (B2B) and retail markets, supporting commercial fleet decarbonization while cultivating mass market appeal for electric two-wheelers.

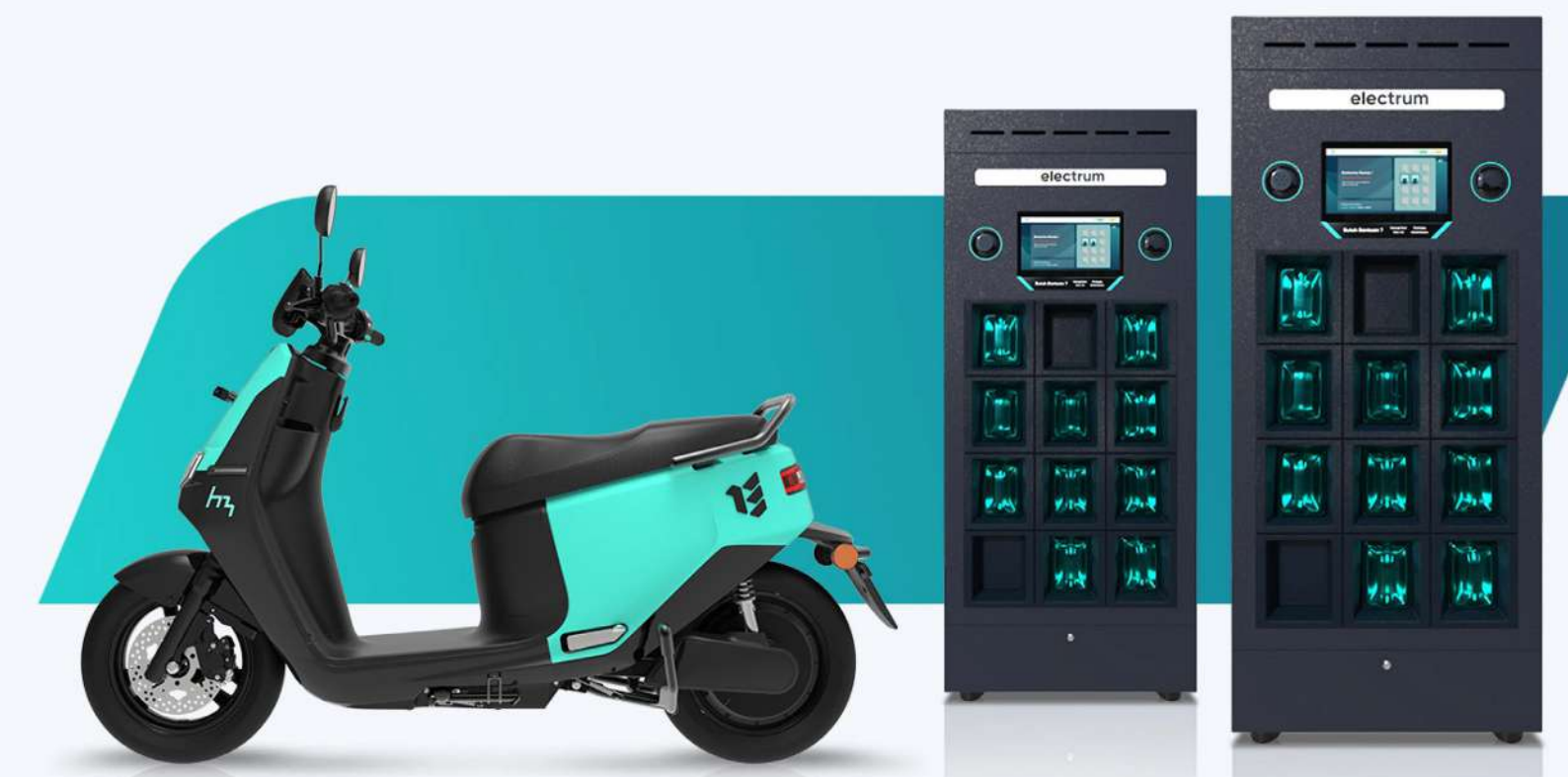
In 2024, Electrum also secured US\$15 million in blended financing from the Asian Development Bank (ADB), DBS Bank, and the Australia Climate Finance Partnership (ACFP), marking the first joint funding facility for sustainable transportation in Indonesia. This transaction not only provides catalytic capital for scaling operations but also affirms investor confidence in Electrum's alignment with climate transition finance principles and global ESG expectations.

Key Assets and Milestones

Since its establishment in 2021, Electrum has launched three flagship electric motorcycles: the H5, H3, and H3i. The H3 model is tailored for B2B use, while the H3i caters to retail consumers. These products incorporate battery-swapping technology and boast improved range (up to 65 km) and performance (up to 90 km/h for the H5).

As of Q1 2025, over 5,100 Electrum units were on the road, supported by 310 Battery Swap Stations (BSS) in Jabodetabek and major convenience store chains. The BSS network, a key differentiator for Electrum, enables more than 15,000 swaps daily, supporting over 380,000 kilometers of clean mobility daily.

Electrum provides additional benefits to driver partners with data indicating a 25% earnings increase for Gojek drivers using Electrum bikes. In addition, Electrum H3i's home-charging capability has been designed to attract broader consumer segments who may not rely on BSS infrastructure.

310
Battery Stations**15,000+**
daily battery swaps**380,000+**
kilometers for clean mobility

TBS EV Ecosystem

Electrum has achieved substantial progress in driving the adoption of electric vehicles in 3M 2025.

Our strength lies in our ecosystem

		
Business Segments	Electric 2-Wheelers Cutting edge E2W's developed specifically for the Indonesian consumer landscape	Battery Swapping Infrastructure Closed loop battery swapping infrastructure to mitigate range anxiety and improve usability
	Service Offerings	Battery Subscription
Direct Sales		
Bike Rental		
Customer Segments	Electrum's ecosystem is optimized for both B2C and B2B riders with specialized product offerings and commercial scheme to maximize value	

Electrum's E2W lowers carbon emissions while increasing partner drivers' earnings

Products

Electrum H5 Max Speed 90 km/h Max Range 60 km		Electrum H3/H3i Max Speed 65 km/h Max Range 65 km	
--	--	--	--

Operational Highlights

Operational Metrics			Social & Environment Impacts
 >5,100 E2W Units	 >310 BSS Units	 >10K Batteries	25% Increased Earning for Partner Driver
 >15K Battery Swap Daily	 >380K Km Daily Distance Covered		>20 Ton Emission CO2 Avoided per Day
			as of 31 st March 2025

Market Traction and Projections

Electrum is poised to scale rapidly. Strategic partnerships with major players like Grab unlock fleet deployment opportunities across ride-hailing and e-commerce logistics sectors, enabling Electrum to leverage demand aggregation at scale.

From a financial perspective, revenue from TBS's EV business grew significantly, rising from US\$217,990 in 2023 to US\$6.47 million in 2024, driven by higher motorcycle sales and BSS-related services. This segment is expected to become a significant contributor to TBS's future cash flows, with high EBITDA potential linked to infrastructure scale-up and operational efficiency.

Emissions Impact and National Alignment

Electrum's current fleet emits over 20 tons less CO₂ per day compared to conventional internal combustion engine (ICE) motorcycles. As Indonesia tightens its carbon regulations and enters into a more mature phase of its carbon pricing regime, having a scalable low-emission transport business positions TBS advantageously for both compliance and climate leadership.

Electrum also directly supports the government's broader energy transition targets, as outlined in Presidential Regulation 112/2022, by reducing dependency on fossil fuel vehicles and leveraging Indonesia's nickel reserves for battery localization and industry development.

From a financial perspective, revenue from
TBS's EV business grew significantly

rising from
US\$217,990 in 2023
to **US\$6.47** million
in 2024





Operational Decarbonization Reduces Emissions at the Source

TBS is actively reducing emissions within its operational footprint through targeted decarbonization initiatives across coal mining, palm oil, and other business units. These efforts focus on improving energy efficiency, minimizing process emissions, and integrating circular practices, ensuring that day-to-day operations contribute meaningfully to the company's broader climate goals. This operational focus complements our strategic pivots at the portfolio level, reinforcing a comprehensive transition toward a low-carbon enterprise.

Coal Mining: Optimizing Operations While Preparing for Just Transition

Although coal remains part of our current energy mix, TBS is actively managing its climate impact. Our coal mining operations have initiated a structured decarbonization program that includes:

- Process efficiency improvements to reduce fuel consumption in material handling, overburden removal, and hauling activities.
- Progressive land rehabilitation and closure planning, integrating emission reduction objectives into post-mining land use.
- Internal emissions benchmarking to monitor site-level performance and guide best practice replication across locations.

In line with our long-term strategy, we are preparing for a just and managed phase-out of coal assets in 2027, ensuring that local communities, workers, and environmental obligations are integrated into our transition.

Palm Oil: Closing the Loop with Circular Solutions

PT Perkebunan Kaltim Utama (PKU), our palm oil subsidiary, has embedded decarbonization into daily operations through both waste-to-energy and emissions efficiency approaches:

Circular biomass

utilization: PKU reuses palm kernel shells and fiber to fuel biomass boilers, making palm oil mills energy self-sufficient and reducing diesel use.

Waste valorization: Empty fruit bunches and other non-hazardous waste are repurposed into compost and organic soil enhancers, reducing methane emissions from open decomposition.

Scope 1 & 2 emissions reduction: PKU achieved a 7.77% reduction in Scope 1 and 2 GHG emissions in 2024, compared to the previous year.

Certification alignment: These actions have supported compliance with ISPO standards and helped improve the environmental score of our palm oil supply chain.



Other Emission Management Actions Across the Group

Beyond these sectoral efforts, TBS is also piloting the integration of renewable electricity and electric vehicles at operational sites to lower Scope 2 emissions and reduce fossil fuel dependence in logistics and transportation.

These initiatives are designed to evolve with technology availability, economic feasibility, and policy developments, positioning TBS as a resilient, forward-looking operator in a decarbonizing economy.

Carbon Credits & Renewable Energy Certificates (RECs)



TBS applies a structured approach to carbon credit and REC procurement, built around Local Impact and High Integrity.

While TBS's primary focus is on deep, direct emissions reductions across its business portfolio, the use of carbon credits and Renewable Energy Certificates (RECs) forms a complementary strategy, helping bridge the gap to carbon neutrality where abatement is currently limited or cost-prohibitive. TBS applies a structured approach to carbon credit and REC procurement, built around the following guiding principles:

Local Impact: Prioritize credits and RECs from Indonesia to align with our operational footprint and national climate priorities.

High Integrity: Select only high-quality credits from projects with strong third-party verification, robust methodologies, and measurable social and environmental co-benefits.

Action to Date

TBS has already begun leveraging the voluntary carbon market to support its climate goals. In 2024, the company participated in Indonesia's inaugural international carbon trading, retiring SRN-registered carbon credits through its Singapore-based subsidiary, AMES, to offset Scope 2 emissions from the PLTGU Blok 3 PJB Muara Karang project. This milestone not only marked Indonesia's entry into international carbon markets, but also laid the groundwork for future offsets across other business units.

Regulatory Context: Indonesia's National Carbon Market (SRN)

TBS's participation in carbon markets also reflects alignment with Indonesia's emerging national carbon market architecture. The Sistem Registri Nasional Pengendalian Perubahan Iklim (SRN PPI) serves as the central registry for both compliance and voluntary

carbon credit activities in Indonesia, as established under Presidential Regulation No. 98/2021. All carbon credit issuances, transfers, and retirements involving Indonesian projects are recorded through the SRN system to ensure national accounting consistency and alignment with Indonesia's Nationally Determined Contribution (NDC).

Where applicable, TBS prioritizes carbon credit procurement that is registered under the SRN platform, ensuring transparency, traceability, and alignment with national climate policy. The company's inaugural carbon credit retirement in 2024 was conducted under this framework, reflecting TBS's commitment to operate within both international and national-level governance structures as Indonesia's carbon market matures.

Next Steps

TBS is currently planning to offset electricity-related emissions (Scope 2) from Electrum's battery swapping stations through high-integrity RECs and carbon credits. These offsets will support near-term decarbonization of EV operations while renewable electricity procurement solutions are scaled.

In parallel, TBS is exploring the development of in-house carbon credit projects that could yield long-term strategic value. This includes potential initiatives in nature restoration (e.g., mangrove reforestation, peatland protection).

Alignment with Global Best Practice

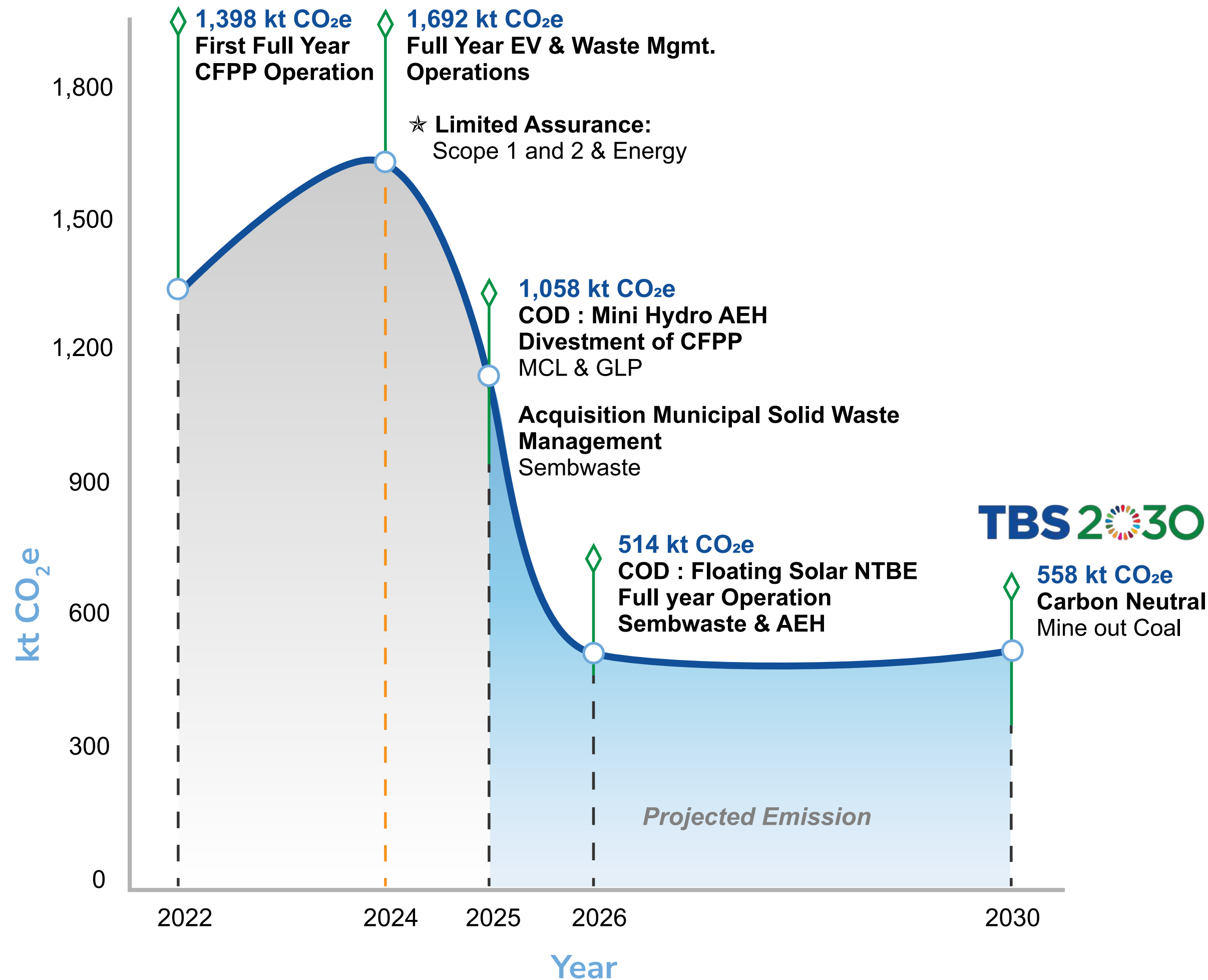
TBS's approach aligns with the Voluntary Carbon Market Integrity Initiative (VCMI) and ISO Net Zero Guidelines, which advocate for the use of carbon credits as a complement, not substitute, for direct reductions. Accordingly, TBS will apply carbon credits and RECs only to residual emissions that remain after abatement options that are practical and ready for implementation have been pursued.

TBS's Transition Roadmap and Carbon Projections to 2030 and Beyond

TBS Energi Utama's emissions outlook reflects a strategic transformation, from a fossil-based portfolio to one anchored in low-carbon businesses. While the expansion of waste management, clean energy, and electric mobility has introduced new operational emissions, these business lines operate at much lower carbon intensity. The Group remains committed to achieving carbon neutrality by 2030 through a phased transition, underpinned by clear emission reductions and supported by credible offsets for residual emissions.

TBS Scope 1 & 2 Emissions Projection (Until 2030)

The carbon projection follows four distinct phases:



“
The Group remains committed to achieving carbon neutrality by 2030 through a phased transition, underpinned by clear emission reductions and supported by credible offsets for residual emissions.



Emissions by year (tCO₂e):

2022	2024	2025	2026	2030
1,398,263	1,691,895	1,057,963	513,805	558,353

2022–2024

Peak Emissions and Business Model Expansion

During this period, total Scope 1 and 2 emissions rose from 1.40 million tCO₂e in 2022 to a peak of 1.69 million tCO₂e in 2024. This increase was driven by the full operation of legacy fossil-based assets, notably coal-fired power plants. At the same time, TBS expanded its clean business portfolio, including electric vehicles and waste management, which introduced only minimal additional emissions. 2024 also marked the start of limited assurance for Scope 1 and 2 emissions, reinforcing transparency and data integrity.

2025–2026

Structural Shift and Rapid Decline

This period is projected to see a significant drop in emissions, down to 1.06 million tCO₂e in 2025, and further to 0.51 million tCO₂e by 2026. The anticipated decline is primarily driven by the divestment of coal-fired power assets, alongside the expected operationalization of lower-carbon businesses such as municipal waste management and renewable energy assets. This would represent the steepest decarbonization step in TBS's transition and set a new emissions baseline for the years ahead.

2027–2029

Operational Efficiency and Consolidation

With coal mining activities projected to wind down by 2027, TBS focuses on consolidating its low-carbon operations and enhancing emissions performance. While emissions are expected to remain relatively stable during this period, a modest increase from 2026 levels reflects the expansion of renewable energy infrastructure. The Group continues to optimize operations across its EV, waste, and clean energy platforms while advancing new green projects aligned with its carbon neutrality goal.

2030

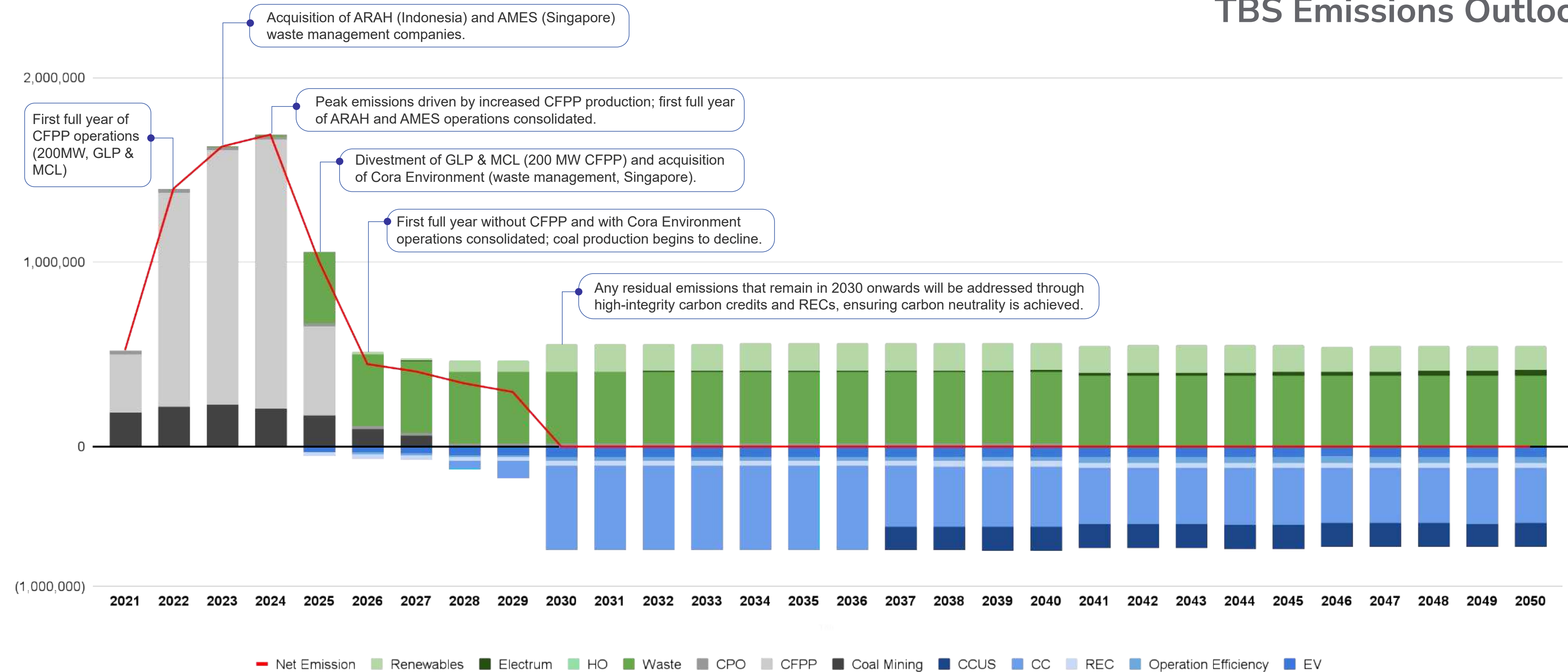
Carbon Neutral Milestone

By 2030, TBS projects gross Scope 1 and 2 emissions at approximately 0.56 million tCO₂e. Residual emissions at this level will be neutralized through verified renewable energy certificates (RECs) and high-quality carbon credits. This milestone marks the full decarbonization of TBS's legacy operations and the emergence of a diversified, future-ready low-carbon portfolio.

Long-Term Emissions Trajectory to 2050

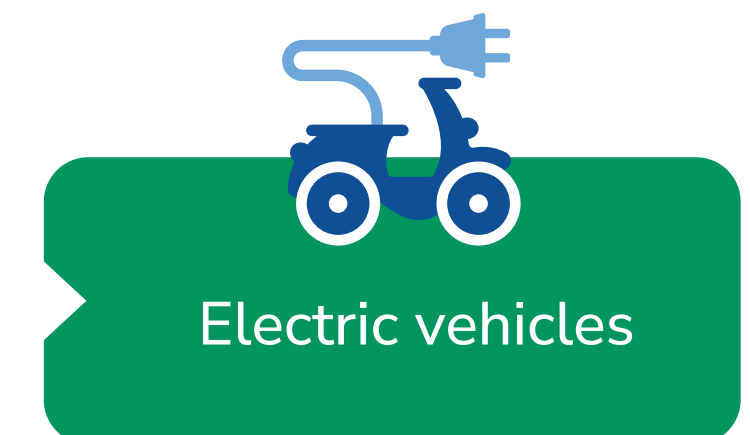
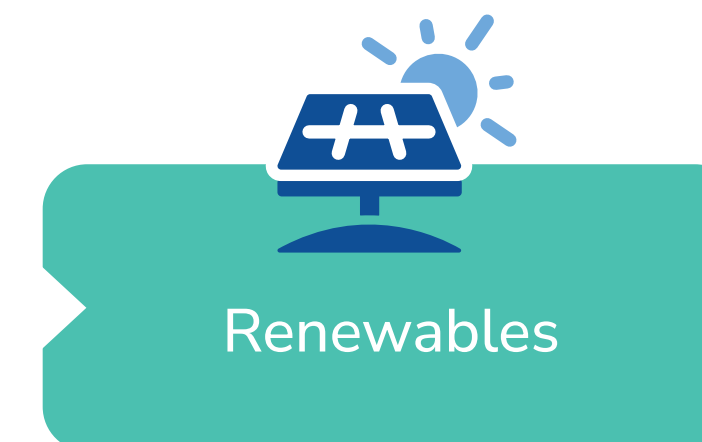
TBS Energi Utama's decarbonization strategy extends well beyond 2030, with a forward-looking emissions pathway that emphasizes sustained low-carbon operations, offset integration, and climate resilience. As illustrated in the figures below, our updated outlook reflects a decisive break from legacy forecasts and reinforces our long-term alignment with Indonesia's net-zero ambitions.

TBS Emissions Outlook



Sector-Level Emissions Outlook Up to 2050: Pathways Across Mining, Power, EV, Waste & More

Our sector-level outlook above highlights the structural shift in TBS's business model. Post-2030, emissions from legacy fossil segments, including CFPP and coal mining, are fully phased out. The emissions profile is instead dominated by:



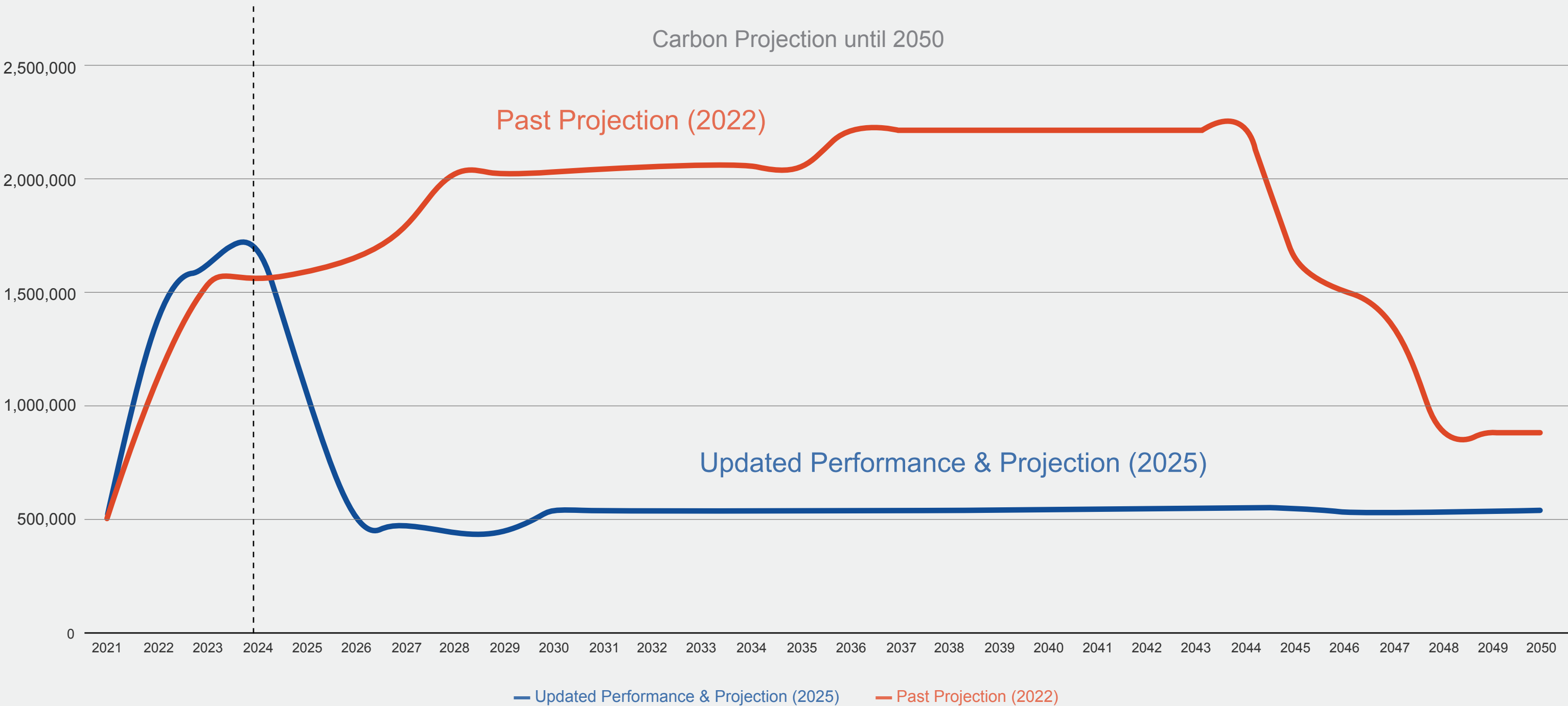
Residual emissions are concentrated in operational footprints, but these are fully offset through certified carbon credits (CC) and renewable energy certificates (RECs), resulting in carbon neutrality by 2030.

Our 2025 emissions outlook marks a significant improvement from the 2022 baseline projection as illustrated in the chart below. The original forecast had anticipated a steady rise in emissions, surpassing 2 million tCO₂e annually and remaining elevated through 2044 before beginning to decline. In contrast, our updated trajectory reflects a more ambitious decarbonization pathway, peaking in 2024, then falling sharply following the divestment of our coal-fired power plants. From 2026 onward, emissions are projected to stabilize at around 500,000 tCO₂e annually. This divergence in the trajectory of up to over 1.5 million tCO₂e per year avoided is a result of concrete business actions.



Revisiting Our Carbon Pathway: Updated Absolute Emission Forecast Based on Execution to Date

A transformative shift in business strategy has significantly lowered our projected emissions -- as shown by the stark contrast between our 2021 projection and our updated 2025 forecast.





Financing the Transition

Revenue Composition Shift: From Fossil Legacy to Green Growth

TBS Energi Utama's financial evolution reflects a deliberate transformation of its business model, one that aligns capital generation with the company's sustainability ambition. Since launching the TBS2030 roadmap in 2022, we have taken measurable steps to shift our revenue base away from fossil fuels and toward fast-growing, low-carbon businesses. The trajectory from 2022 to 2030 illustrates how our climate strategy is not just aspirational; it is already influencing how we earn, allocate capital, and create value.

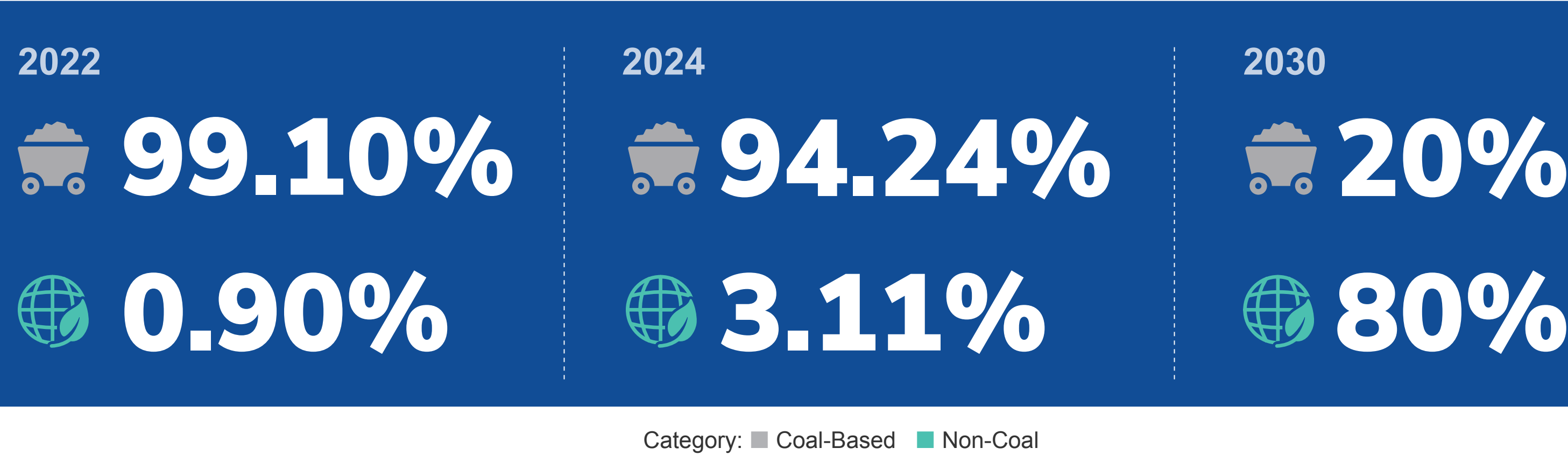
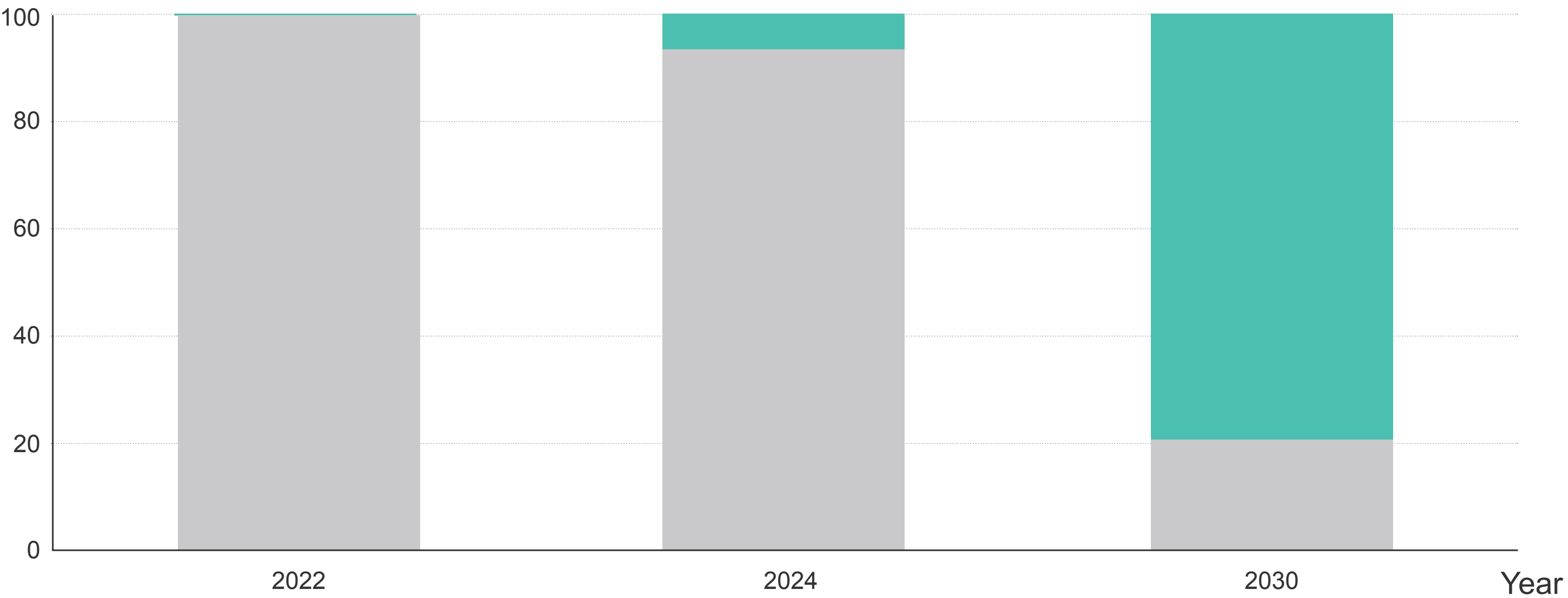
2022 Baseline: A Fossil-Focused Starting Point

The year 2022 marked the beginning of TBS2030 and served as a baseline from which progress could be measured. At this time, our consolidated revenue totaled US\$635.8 million, with over 99% derived from coal-based businesses. Collectively, over 99% of TBS’s earnings were tied to high-emission assets.

At the same time, lower-carbon businesses such as electric mobility, renewable energy, and waste management had yet to contribute meaningfully to the topline. Electrum was still in its pilot phase, renewable energy projects had not yet reached commercial operation date, and our waste platform had not been acquired. At this stage, TBS’s earnings profile reflected that of a traditional energy company: profitable, cash-generating, but structurally exposed to long-term transition risks.



Revenue Composition (%): Coal-Based vs Non-Coal Businesses (2022-2030)



2024 Progress: Early Diversification Underway

By 2024, TBS had begun to materially diversify its revenue base. Consolidated revenue stood at US\$445.6 million, down from 2022, largely due to declining coal prices. Despite this contraction in topline, profitability improved significantly, with Adjusted EBITDA rising 34% year-on-year to US\$131 million, reflecting stronger capital efficiency as the company shifted from volume-driven growth to a more resilient, quality-focused model.

Coal-based businesses remained the largest contributor to revenue at 94%, though its share continued to decline, with no further investment directed toward expansion. The electric vehicle segment recorded US\$6.5 million in revenue, supported by Electrum's early rollout of approximately 4,000 electric motorbikes and 269 battery-swapping stations. Renewable energy had not yet begun generating revenue, though key projects, including a 46 MWp floating solar plant in Batam and a mini-hydro facility in Lampung, were under development.

Waste management contributed US\$13.1 million, though this figure did not yet reflect the full potential of the business. TBS had finalized the acquisition of Cora Environment, Singapore's largest municipal waste operator, but the financial consolidation will only take effect from 2025. Likewise, the company's coal-fired power plant (CFPP) divestment was completed in 2025, though its financial impact was still included in 2024 results. Both structural changes will begin to reshape the group's financial profile more materially from 2025 onward.

While green businesses still represented a modest share of revenue in 2024, they laid the foundation for a broader transformation already in motion. This early

shift was supported by disciplined reinvestment of legacy coal cash flows and expanded access to sustainable finance, including the successful close of Indonesia's first blended climate finance facility with ADB, DBS Bank, and the Australian Climate Finance Partnership. Beginning in 2025, the combined effects of the CFPP divestment and full integration of Cora Environment will mark an inflection point, shifting TBS's revenue mix away from coal and unlocking stronger contributions from its waste, renewable energy, and EV businesses.

2030 Outlook: Green Becomes the Growth Engine

By 2030, TBS anticipates a complete transformation of its revenue mix, with consolidated revenue expected to nearly double from 2024 levels. This growth will be driven entirely by low-carbon business lines:



Electric vehicles are projected to contribute approximately **35–40%** of total revenue, reflecting the scaled deployment of electric two-wheelers, nationwide battery-swapping infrastructure, and a maturing business model.



Waste management is expected to account for around **30–35%**, supported by the continued development of a regional platform through ARAH, SBT, and Cora Environment.



Renewable energy is projected to contribute about **8–10%**, driven by the operation of solar, mini-hydro, and other utility-scale clean energy assets.

At the same time:



Coal-based revenue is projected to fall to **20–22%** by 2030, reflecting the phase-out of coal mining operations by 2027. Remaining revenue will stem from trading activity, which is not part of TBS's forward-looking capital allocation or climate strategy.

CFPP revenue remains at **0%**, following the divestment completed in 2024.

In total, nearly 80% of TBS's projected 2030 revenue will be sourced from non-coal businesses, reflecting full alignment between the Group's earnings profile and its climate transition commitments.

Revenue Composition as a Signal of Strategic Alignment

TBS's revenue shift from over 98% coal-based in 2022 to nearly 80% non-coal by 2030 is a measurable, strategic response to global decarbonization trends. It reduces exposure to transition risk, enhances access to sustainable financing, and aligns with investor preferences for resilient, forward-looking business models. Most importantly, it demonstrates that TBS's climate ambition is fully embedded into how we operate, invest, and grow.



By 2030, TBS's projected

80% source revenue from non-coal businesses.

Capital Allocation: Financing the Pivot from Coal Legacy to Low-Carbon Growth

PT TBS Energi Utama Tbk's transition to a low-carbon business model is not only visible in our strategy and targets, it is embedded in how we allocate capital. From 2022 to 2025, TBS has undergone a marked shift in capital expenditure (CapEx) and investment priorities, moving away from coal and toward renewable energy, electric mobility, and waste management. This shift signals the company's intent to align financial flows with climate goals, national taxonomy requirements, and investor expectations for a credible, bankable transition.

From Coal-Dominant to Climate-Focused Investment

TBS's capital allocation profile has undergone a meaningful shift. In 2022, more than 80 percent of total capital expenditure was directed to coal-related activities, primarily mine development and the completion of CFPP assets. This reflected the Company's legacy structure as an integrated coal and power business.

By 2023, the transition began to take shape. Capital deployment started to reflect the ambitions of the TBS2030 roadmap, with a deliberate pivot away from fossil fuel assets and into climate-aligned businesses. This included:

1.

The full acquisition of AMES in Singapore (August 2023) and ARAH in Indonesia (December 2023), establishing a regional waste management platform

2.

Early-stage project preparation for renewable energy projects under PT Energi Baru TBS (EBT), including solar and mini-hydro

3.

Continued development of supporting infrastructure for the electric vehicle ecosystem

These investments contributed to a major milestone: for the first time, 61% of total CapEx was allocated to non-coal businesses, surpassing coal investments which made up only 39 percent of total capital expenditure, with no capital allocated to the expansion of new mines. This transition is reflected in the 2023 investing cash flow breakdown, where coal investments totaled approximately US\$32.5 million, while non-coal investments reached US\$51.9 million.



In 2023, non-coal investments
(US\$51.9 million)
surpassed coal investments
(US\$32.5 million)

2024: A Repositioning Year for Strategic Realignment

In 2024, overall CapEx contracted to US\$23.8 million, reflecting a deliberate slowdown as TBS entered a transitional year. This was not due to a pullback in climate ambition, but rather a disciplined pause across the portfolio as the company prepared for two major structural shifts: the divestment of its coal-fired power plants and the acquisition of Cora Environment in Singapore.

TBS adopted a capital-light stance during this period to preserve flexibility while completing due diligence and commercial structuring for these transactions. Despite the lower investment volume, 75% of CapEx was directed to non-coal businesses, primarily for EV infrastructure and upgrades to waste facilities. Coal-related CapEx was limited to maintenance and minor operational support.

This explains why 2024 shows lower absolute CapEx. Rather than indicating a slowdown, it was a purposeful bridge year that prepared TBS for the scale-up of investments in 2025. During this period, the Group concentrated on completing major transactions and laying the groundwork for large-scale execution of lower-carbon initiatives. The scale-up materialized immediately, with Q1 2025 CapEx alone exceeding the combined total of the previous three years.

In 2024, **75% of CapEx** was directed to **non-coal** businesses, primarily for EV infrastructure and upgrades to waste facilities.

2025: A Structural Inflection Point

The first quarter of 2025 marked a pivotal moment. CapEx surged to US\$277.2 million, driven by the US\$265 million acquisition of Cora Environment, Singapore’s largest integrated waste management company. As a result:

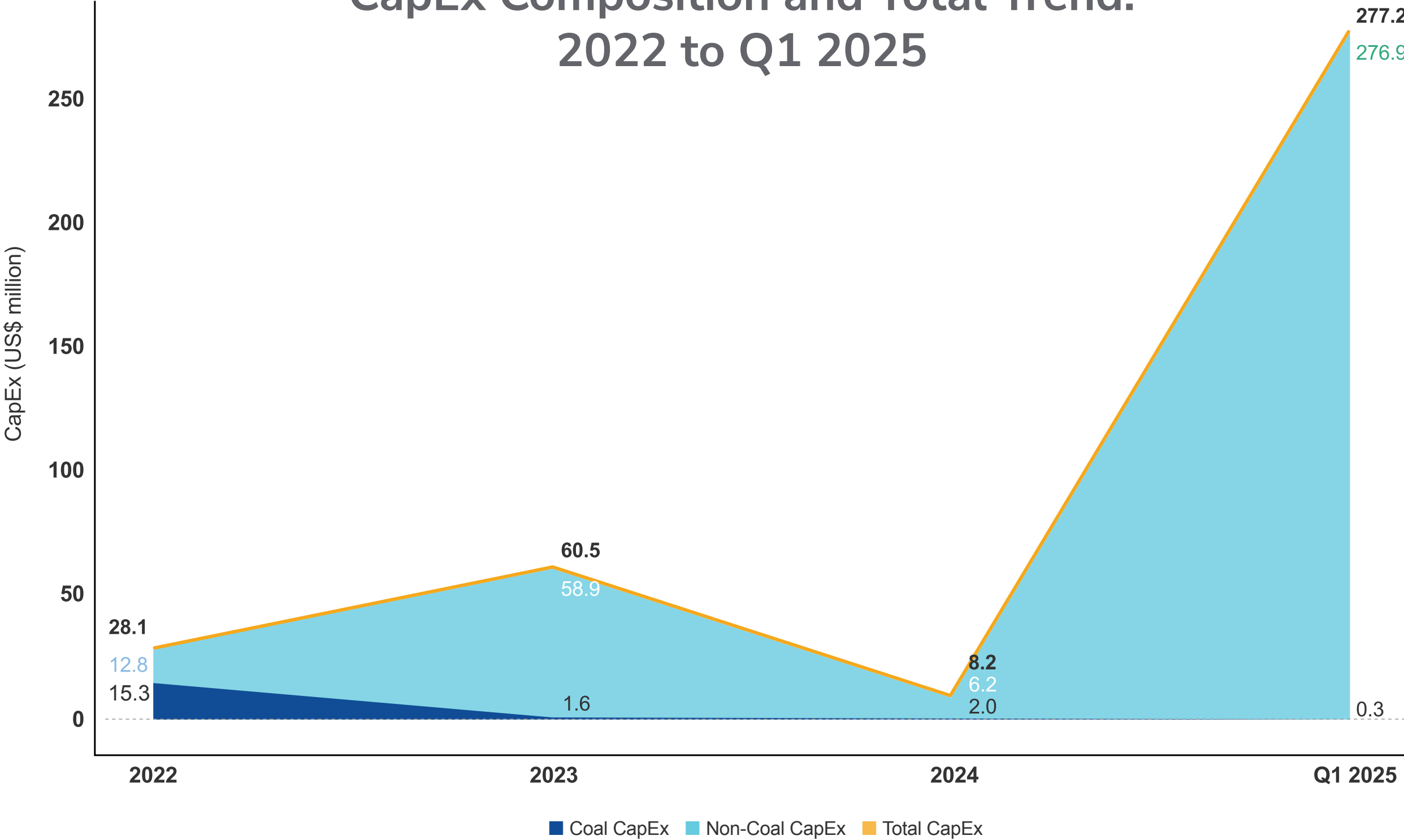
- 99.9% of Q1 2025 CapEx was directed to non-coal businesses
- The remaining 0.1% was allocated solely to operate existing mines during the transition, with no capital directed to coal expansion
- The total value of non-coal CapEx in Q1 2025 alone (US\$276.9 million) exceeded the combined non-coal CapEx of 2022, 2023, and 2024

This CapEx distribution demonstrates that climate-aligned businesses are now the financial core of TBS’s growth.

Between 2022 and Q1 2025, coal-related CapEx fell by 98.1% in absolute terms, while non-coal CapEx rose by more than thirty times. In proportional terms, non-coal investment jumped from just 45% of CapEx in 2022 to 99.9% in Q1 2025, reflecting a structural transformation in how the Group deploys capital.

Driven by the acquisition of Cora Environment in Q1 2025, CapEx surged to **US\$277.2 million.**

CapEx Composition and Total Trend: 2022 to Q1 2025



CapEx Transition Snapshot: 2022 vs Q1 2025

Year	Total CapEx (US\$)	Coal CapEx	Non-Coal CapEx	% Coal	% Non-Coal
2022	28.1 million	15.3 million	12.8 million	55%	45%
2023	60.5 million	1.6 million	58.9 million	3%	97%
2024	8.2 million	2 million	6.2 million	25%	75%
Q1 2025	277.2 million	0.3 million	276.9 million	0.1%	99.9%



Transition Credibility for Financial Stakeholders

This reallocation of capital provides lenders, investors, and development finance institutions (DFIs) with tangible evidence of TBS's strategic commitment and financial discipline. It reinforces:

- Alignment with Indonesia's Green Taxonomy, particularly in sectors such as renewable energy, electric vehicles, and waste circularity
- Eligibility for sustainable finance instruments, including green bonds, transition loans, and blended finance, based on clear use-of-proceeds criteria
- Reduced exposure to transition risk, particularly in light of carbon pricing, tightening ESG standards, and shifting investor mandates
- Improved capital efficiency, as evidenced by EBITDA gains in low-carbon segments, which are increasingly driving Group-level profitability



A New Capital Strategy to 2030

Looking ahead, TBS commits to allocating over 90% of CapEx to climate-aligned businesses through 2030. Our investment pipeline includes:

- Renewable energy projects under PT EBT, including solar PV, mini-hydro, hydro and wind installations
- Waste-to-Energy (WTE) infrastructure, logistics expansion, and facility upgrades across Cora Environment, AMES, and ARAH
- Expansion of the EV ecosystem, including battery R&D, digital fleet management systems, and regional deployment

This capital reallocation is not just environmental. It is financially strategic. These sectors offer higher capital productivity, recurring revenue models, and lower emissions intensity, positioning TBS for sustained value creation in a decarbonizing economy.



Financial Resilience During Transition

TBS's climate transition strategy has been designed with both environmental integrity and financial resilience in mind. As the Group gradually reallocates capital away from fossil fuels and into clean energy, electric mobility, and waste solutions, it continues to maintain stable profitability, demonstrating a measured, responsible approach to growth.

Since initiating its sustainability journey in 2022, TBS has deliberately phased down its reliance on coal while investing in the infrastructure needed to scale future-ready businesses. Even as legacy earnings decline, the Group sustains healthy operating margins, reflecting prudent cost management, operational discipline, and early returns from its clean business units.

Looking ahead, the profitability mix will evolve. Earnings contributions will increasingly come from electric mobility and waste sectors driven by sectors offering recurring revenue, scalable impact, and long-term value. While the transition requires near-term reinvestment and portfolio reshaping, TBS remains on track to build a financially robust, low-carbon business that can support growth, meet obligations, and create sustained stakeholder value.

The group's continued ability to generate stable returns throughout its decarbonization journey signals the strength of its diversified model and reinforces investor confidence in the credibility and viability of its climate strategy.



Use of Divestment Proceeds

The divestment of TBS's coal-fired power plant (CFPP) assets marks a pivotal step in the group's strategy to accelerate its transition toward sustainable business operations and achieve carbon neutrality by 2030. In line with this shift, the proceeds from the CFPP transaction are being strategically redeployed to strengthen the company's balance sheet and fund long-term growth in climate-aligned sectors.

Proceeds are being allocated to:

- **Capital structure optimization:** Enhancing TBS's financial position to support future investments while maintaining balance sheet resilience throughout the transition.
- **Investment in low-carbon growth platforms:** Redirecting capital into TBS's core sustainable businesses, including renewable energy, waste management, and electric mobility, which form the backbone of its future business model.
- **Advancement of the renewable project pipeline:** Accelerating the development of solar, wind, and mini-hydro projects to expand the group's clean energy portfolio and support its decarbonization goals.

Through disciplined use of divestment proceeds, TBS is reducing its exposure to fossil-based assets and scaling businesses that reinforce its financial strength, operational agility, and climate resilience.



Taxonomy Alignment

TBS Energi Utama is not subject to the EU Taxonomy Regulation (EU) 2020/852, as it is not incorporated or listed in the European Union. However, the company recognizes the importance of taxonomy-aligned disclosures in supporting transparent, comparable, and credible sustainability reporting. Where feasible, TBS references EU Taxonomy criteria, including those related to climate change mitigation, in its assessment of capital allocation, particularly for renewable energy, electric vehicles, and waste management.

Going forward, TBS will continue to enhance its internal alignment with internationally recognized green taxonomies, including the EU Taxonomy and Indonesia's Green Taxonomy, to ensure its investment decisions and sustainable financing practices remain consistent with global sustainability standards and investor expectations.





Governance, Risk Management and Monitoring



Oversight Structure

ESG Committee's Role in Climate Transition Oversight

Established in 2023, the ESG Committee is chaired by an Independent Commissioner, and includes an independent expert and the SVP of Sustainability. The Committee provides professional and independent oversight of TBS Energi Utama's climate transition, ensuring strategic alignment with the company's TBS2030 decarbonization goals and broader transformation roadmap.

Beyond its advisory role to the Board of Directors on ESG matters, the Committee helps steer the transition from fossil-based operations to low-carbon businesses by:

- **Guiding transition strategy:** Reviews and supports major business shifts, such as divestment from coal, investment in renewables, waste, and EVs, to ensure coherence with the TBS2030 carbon neutrality commitment.
- **Monitoring transition progress:** Tracks performance against climate-related KPIs, including emissions reduction, green CapEx allocation, and EBITDA share from low-carbon businesses.
- **Ensuring disclosure and accountability:** Oversees the quality and transparency of TBS's climate disclosures, including the Climate Transition Plan, TCFD reporting, and alignment with ISSB, CDP, and OJK (Indonesia's Financial Services Authority) standards.

- **Builds organizational capacity:** Equips teams to deliver on decarbonization initiatives, including support for ERM integration, just transition planning, and sustainability-linked financing.

By focusing on transition governance, the ESG Committee helps ensure that climate ambition is translated into measurable business transformation, anchoring TBS's long-term value creation in a low-carbon economy.

Business Unit Responsibilities in Transition Execution

TBS's climate transition relies on decentralized execution across Business Units, each of which is accountable for implementing decarbonization strategies aligned with their business models and risk profiles. Business Units (BUs) play a frontline role in the transition, adapting operations, identifying investment needs, and driving emissions reductions and climate resilience.

For instance, the coal BU focuses on continuously enhancing the efficiency of our operations and optimizing key processes to reduce the overall emissions generated by our activities, while the palm oil BU integrates circular economy solutions such as biomass reuse. Each BU monitors progress through key indicators such as energy intensity, emissions, and reports performance to the Sustainability team.

Close collaboration with corporate functions ensures that localized actions remain aligned with the broader transition trajectory, enabling consistent delivery against the TBS2030 carbon neutrality target.

Sustainability Team's Role in Transition Strategy & Coordination

The Sustainability Team serves as the central coordinator of TBS's climate transition, responsible for guiding implementation across the organization. The team manages core systems for GHG accounting and emissions assurance, currently covering Scope 1 and 2, with efforts underway to integrate Scope 3.

Beyond emissions data management, the team collaborates with BUs to identify decarbonization levers such as energy efficiency, renewables, and offsets, and provides technical support to operationalize these initiatives. The team also leads the preparation of sustainability-linked finance materials, develops transition-aligned policies, and coordinates investor-facing ESG communications.

To build internal capacity, the Sustainability Team delivers targeted training on transition topics, engages with stakeholders on corrective action plans (e.g. for green loans), and ensures that emerging climate risks and opportunities are integrated into strategic decision-making processes.

Role of Risk Management and Internal Audit in Supporting Transition Resilience

The Risk Management Team supports the climate transition by integrating physical and transition risks into enterprise-level planning. Using the ERM framework, the team identifies and monitors risks, such as carbon pricing exposure or regulatory shifts, that may affect the feasibility or pace of transition efforts.

The team works closely with Sustainability and BUs to design appropriate mitigation responses, supports compliance with audit standards for emissions data, and contributes to decision-making on transition-aligned investments. By ensuring that material climate risks are addressed proactively, the Risk Management Team helps preserve the resilience and credibility of TBS's long-term transition plan.

Using the ERM framework, the team identifies and monitors risks, such as carbon pricing exposure or regulatory shifts, that may affect the feasibility or pace of transition efforts.

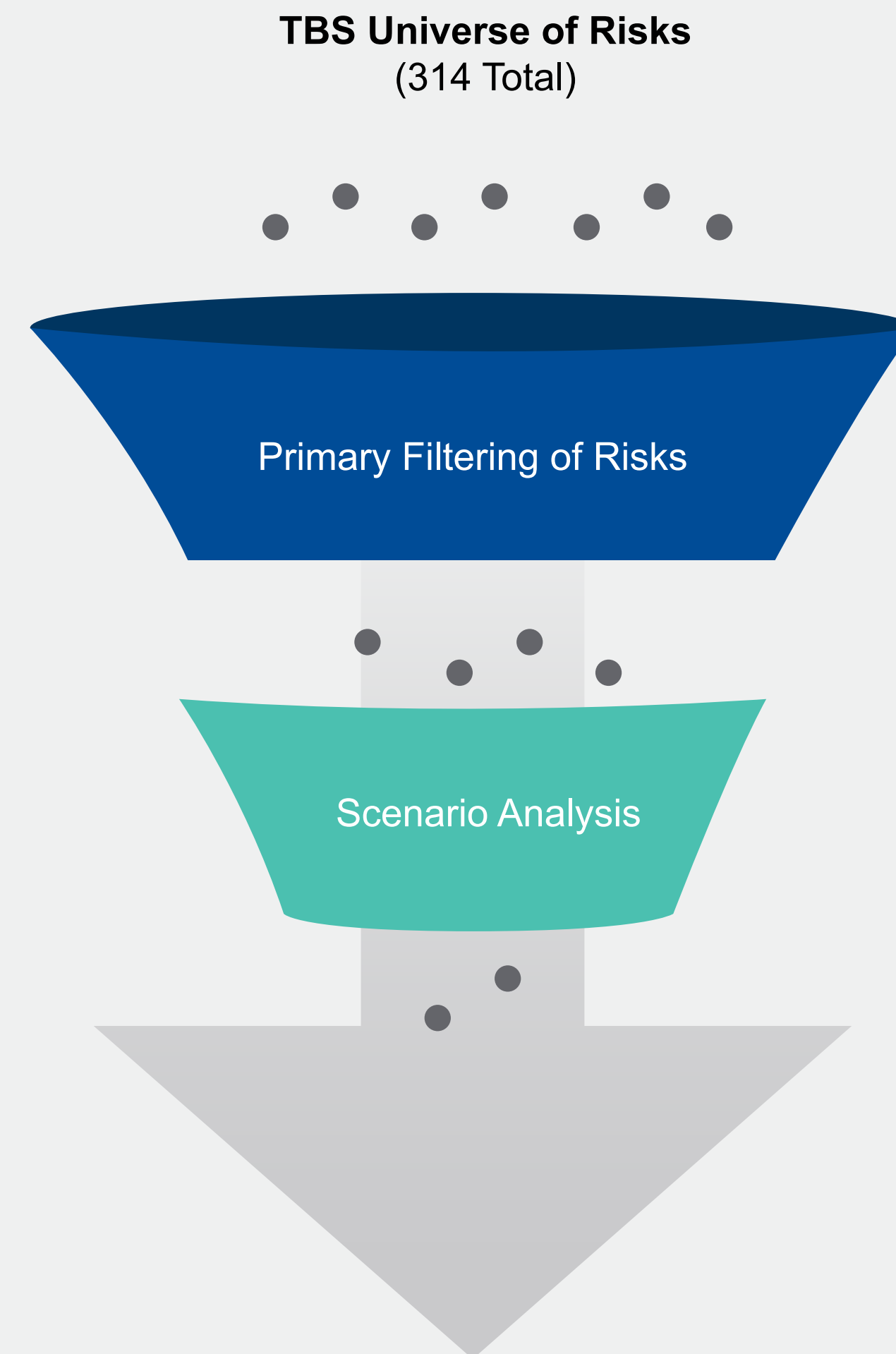


Integration of Climate Risk and Opportunities

Climate change presents a complex set of risks and opportunities that shape both the long-term trajectory and near-term operations of PT TBS Energi Utama Tbk. To ensure resilience and inform the company's transition planning, TBS conducted a comprehensive climate risk and opportunity assessment in early 2024, aligned with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and IFRS Sustainability standards.

The objective was not only to identify material exposures across the business, but also to integrate climate considerations into enterprise risk management and capital planning processes. The assessment covered a wide range of climate-related drivers, including regulatory changes, technological shifts, physical hazards, and reputational pressures, and was applied across TBS's full operational portfolio at the time: renewable energy, electric vehicles, waste management, coal mining, palm oil, and coal-fired power plants (CFPPs). Although the CFPP business has since been divested, with operational and financial separation effective from 2025, its inclusion in the 2024 risk analysis reflects the company's then-active exposure and helps contextualize the transition decisions documented in this plan.

TBS employed a structured and tiered methodology, screening 314 potential climate-related risks. These were prioritized based on financial materiality, operational disruption potential, and strategic relevance. The outcome was a refined list of high-priority risks that informed scenario analysis, investment decisions, and risk mitigation strategies. This process not only highlighted the urgency of transitioning away from high-emission assets, but also reinforced the importance of scaling resilient, low-carbon businesses in line with the TBS2030 roadmap.



Refining Risk Focus: 314 Identified, Material Climate Risks Prioritized For Action

1**Identify Full Universe of Risks (314 Total)**

Assessment of peers, academic literature, and sector/national reports to identify full universe of potential risks to TBS.

2**Preliminary Filtering to Identify Potential Impact on TBS**

Assesses risks based on their potential to affect operations, reputation, or financial performance.

3**Analyze Risk Across 3 Climate Change Scenarios**

How each risk could play out under different levels of temperature rise: 1.5°C, 2°C, and 4°C.

4**Prioritize Material Risks for Management**

Material risks identified, along with necessary measures to manage them.

Exploring Future Climate Pathways: Scenario-Based Strategy Resilience

The results of this prioritization process shaped the structure of the subsequent assessment.

Key climate risks were analyzed under three climate change scenarios, allowing TBS to model the timing and severity of financial impacts under each future pathway:



Scenario 1, Speedy Net Zero (SNZ) - SSP1-2.6: This scenario assumes global temperatures rise below 2 C by 2100, in line with the Paris Agreement.

This scenario aligns with the global effort to limit temperature rise to below 2 C, requiring swift and aggressive climate action. Under SNZ, TBS previously faced significant transition risks in the short term, especially from carbon taxes and stricter emissions reporting related to its coal and CFPP operations. These risks were expected to peak by 2030 as regulatory and financial pressures intensified. However, following the sale of CFPP assets in 2024, TBS has significantly reduced its exposure to these transition risks.

In this scenario, TBS's transition away from high-carbon business units will continue to be crucial to maintaining its competitiveness. The completed CFPP divestment, alongside investments in renewable energy, EV and waste management will help TBS capitalize on the opportunities presented by a low-carbon economy.

2-3



Scenario 2, Slow and Steady (S&S) - SSP2-4.5:

A moderate scenario where temperatures rise between 2°C and 3°C by 2100 due to limited mitigation efforts.

The Slow and Steady scenario envisions a more gradual transition to a low-carbon economy, with decarbonization effort picking up speed after 2040. Under this scenario, both physical and transition risks become more material by the mid-to long-term.

Carbon picking mechanisms will still affect TBS's operations, but the financial impact is spread over a longer time horizon. The sale of TBS's coal-fired power plants (CFPP) in 2024 will mitigate some of these transition risks, reducing exposure to carbon taxes and regulatory pressures.

Physical risks, such as extreme heat and higher heavy rainfall, also materialize more significantly in this scenario, particularly for coal mining and palm oil operations. TBS's resilience in this scenario depends on its ability to manage these physical risks while continuing to transition its business model toward lower carbon businesses.



>3

Scenario 3, Hot House World (HHW) - SSP5-8.5: A worst-case scenario with temperatures rising over 3°C by 2100, reflecting minimal action to mitigate emissions.

In the Hot House World scenario, global climate action is insufficient to curb temperature rises, leading to catastrophic physical risk by 2050. TBS is particularly vulnerable to higher heavy rainfall, extreme heat, and fire weather in this scenario, especially in its coal mining and palm oil operations. However, the earlier sale of CFPP's will help shield the company from some of the transition risks associated with high-carbon assets.

Under this scenario, the resilience of TBS's strategy depends heavily on its ability to adapt to extreme physical risks. The company has already begun implementing flood defenses and fire management systems, but further investments in resilience will be necessary if global climate action remains weak.

We use the following approach for scenario analysis:

01 Select Climate Scenarios

- Select IPCC-aligned climate scenarios from leading climate literature
- Following ISSB guidance, scenarios are selected to test a wide range of futures (covering both extremes)

02 Identify Evolution of Risk Drivers

- Identify risk drivers which affect key climate risks selected for scenarios analysis
- Reference defined scenario narratives and model projections, to identify how each risk driver will evolve under selected scenarios over the short (<2040), medium (<2060), and long term (>2060)

03 Assess Impact of Drivers on Key Risks

- Translate risk driver evolution into impact on TBS' key climate risks
- Re-map key risks on risk heatmap based on changes to likelihood and severity vs. baseline assessment
- Visualize change in materiality of key risks over 3 scenarios x 3-time horizons to support risk management

Scenarios are useful to test possible future outcomes under a specific set of conditions. Businesses, governments, and investors alike utilize scenario analysis to understand what to expect and plan multiple strategy pathways. This methodology enables TBS to:



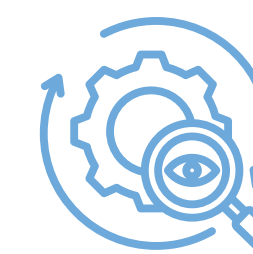
Identify **possible future threats or opportunities**



Define **trigger points** to set contingency plans in motion



Validate strategy against a set of scenarios



Continuous monitoring and strategy adjustment

Climate Risk Exposure: Physical and Transition Risks



TBS's climate risk assessment categorizes risks into two primary types: physical risks, which stem from the direct impacts of climate change, and transition risks, which arise from the global shift toward a low-carbon economy. Each risk type varies in its drivers, timing horizons, and business unit exposure, and is closely linked to the global climate scenario in play.

Physical risks include:

- **Acute risks**, such as extreme rainfall, flooding, fire weather, and heatwaves, all of which can cause immediate operational disruption and damage. These are most severe under the *Hot House World* scenario, where warming exceeds 3°C and physical climate impacts escalate.

- **Chronic risks**, such as shifting rainfall patterns and rising temperatures, which unfold gradually over time but can significantly reduce agricultural yields and increase land degradation.

Transition risks emerge from evolving policies, market trends, and stakeholder expectations under scenarios with stronger climate action. These risks are particularly acute under the *Speedy Net Zero* (<2°C) and *Slow and Steady* (2-3°C) scenarios. Key drivers include:

- Regulatory measures like carbon pricing and mandatory emissions disclosures
- Financial pressure from investors and banks tightening ESG requirements
- Technology disruption from cheaper renewables and EVs
- Market shifts away from carbon-intensive products like coal



Top Climate Risks TBS is Facing According to The Climate Risk Assessment Result

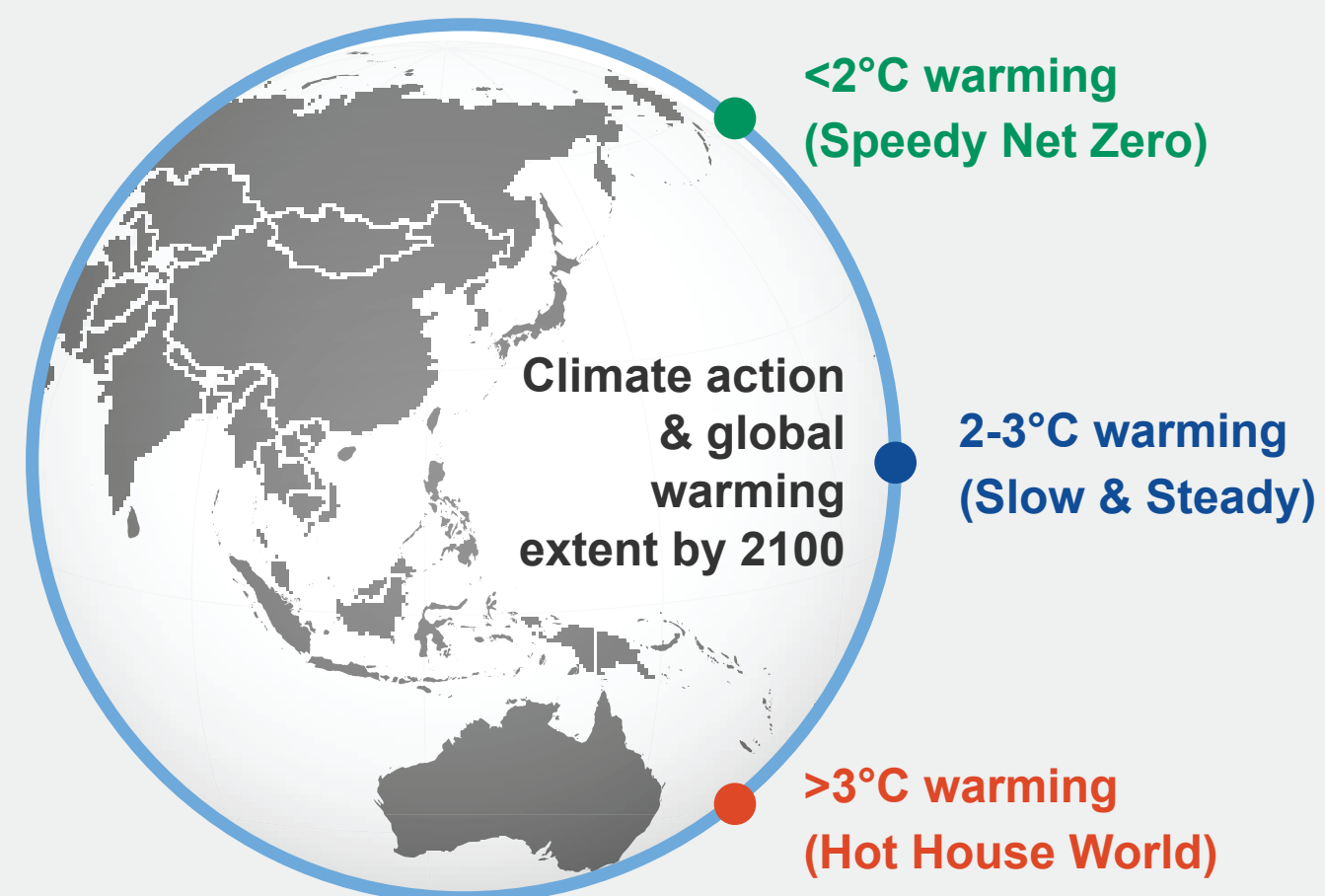
Sector	Hazard	Risk Type	Risk Category	Risk Description
Coal 	Higher heavy rainfall	Operational	Physical	Operational interruptions due to heavy precipitation
	Emissions reporting	Reputational	Transition	Public scrutiny from not calculating, reporting, and managing Scope 3 requirements
CFPP 	Higher heavy rainfall	Operational	Physical	Operational interruptions due to heavy precipitation
	Sustainable finance policies	Financial	Transition	Reduced capital access and increased cost of debt due to policies discouraging coal investments
	Carbon cost	Financial	Transition	Increased tax obligations due to CFPP coverage by carbon tax policies (e.g., ETS)
Palm Oil 	Fire weather	Financial	Physical	Plantation damage and production loses due to fires
		Reputational	Physical	Increased litigation against TBS due to increased incidents of local fires — with potential blame attributed to TBS

Strategic implications for TBS Beyond Immediate Term (2026+) According to The Climate Risk Assessment Result

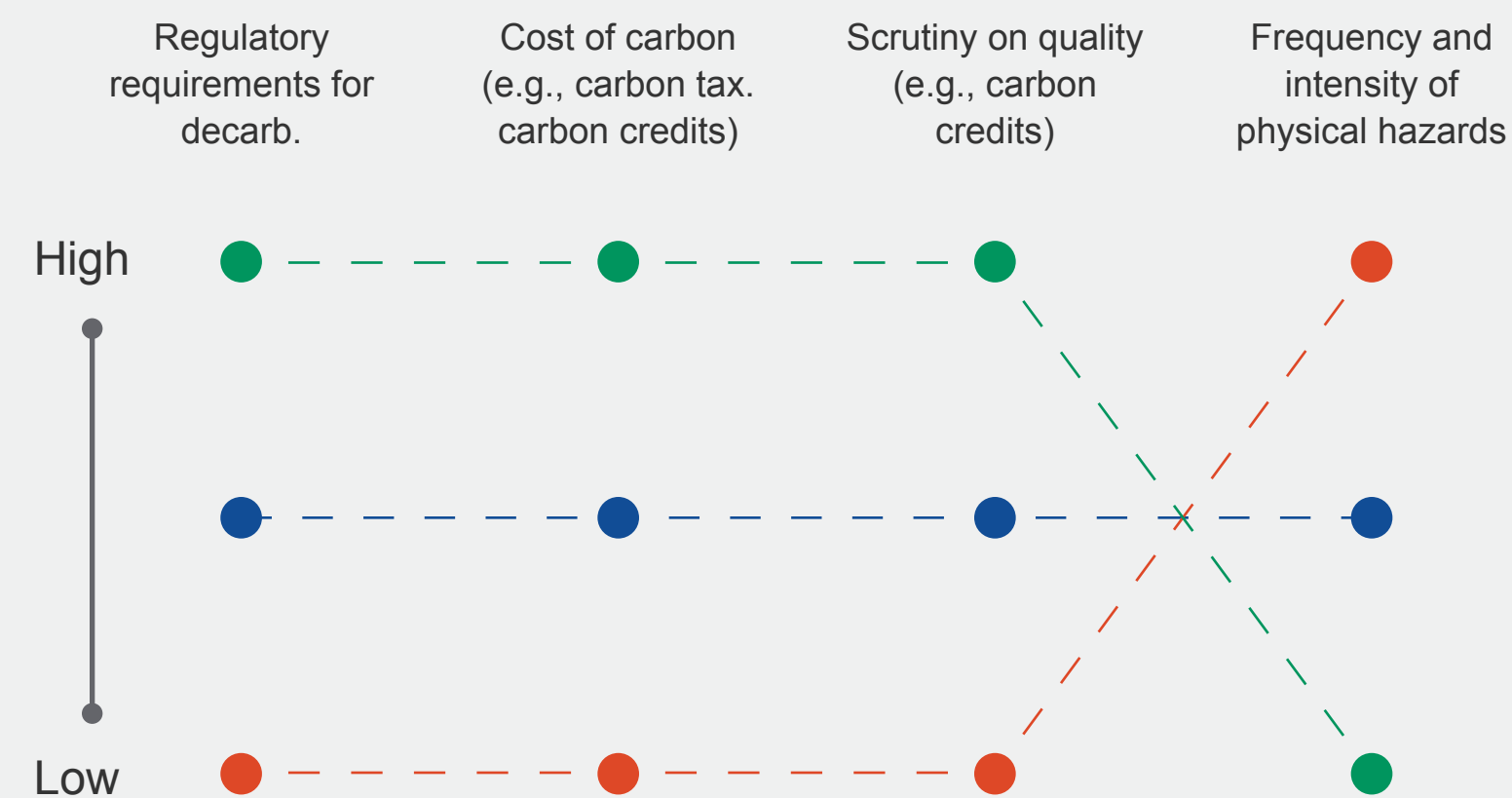
HAZARD	RISK TYPE	RISK DESCRIPTION	COAL	CFPP	PALM OIL	RE	EV	WASTE
Carbon costs	Financial	Increased taxes from evolving policies & increased costs of decarb. measures	✓	✓	✓	✓	✓	✓
Extreme heat	HSE	Worker / employee injuries from heat stress	✓	✓	✓	✓	✓	✓
Higher heavy rainfall	Financial	Asset damage due to flooding and operational disruption	✓	✓		✓	✓	
River flood	Financial	Asset damage due to river flooding				✓	✓	
Coastal flood	Financial	Asset damage due to coastal subsidence		✓			✓	
Fire weather	Financial	Plantation damage and production losses	✓		✓			
Fire weather	Reputational	Increased litigation against TBS due to perceptions of increasing local fire risks			✓			
Geopolitics & protectionism	Operational	Mineral supply disruption due to price volatility from fluctuating supply					✓	

Impact of Scenarios on TBS' Climate Risks

Risks vary significantly according to the evolution of climate change scenarios; to best prepare, TBS needs to reduce emissions to minimise transition risks and prepare for adaptation against physical risks.



Key Trade-Offs on the Long-Term



TBS' Climate Risks

>3°C warming: Physical risks dominate TBS' climate risk profile and materialize by mid-term; low to no transition risks exceeding TBS' risk appetite

2-3°C warming: Physical risks dominate TBS' climate risk profile and materialize in the long-term; some transition risks materialize in mid/long term

<2°C warming: Transition risks dominate TBS' climate risk profile until 2030; lower number of physical risks

Opportunities from Climate Action

As TBS Energi Utama advances its decarbonization efforts, the company's 2024 climate risk and opportunity assessment identified a broad set of opportunities across both legacy and emerging business lines. These are not just external developments, but strategic levers that can unlock financial value, strengthen investor confidence, and accelerate progress toward the TBS2030 goals.

The assessment showed that climate-related opportunities span concessional capital, policy incentives, public perception, and demand-side growth. Each opportunity aligns with specific segments of the company's portfolio:



Coal Mining

While TBS plans to phase out coal mining by 2027, the assessment identified financial opportunities related to just transition mechanisms. An estimated US\$20 million in funding may be available to support mine closure, land rehabilitation, and the conversion of existing sites into renewable energy hubs. These measures can help reduce closure costs, preserve asset value, and reinforce the company's commitment to a responsible transition.



Coal-Fired Power Plants (CFPPs)

The divestment of CFPPs in 2024 marked a key emissions-reduction milestone and created pathways for climate-aligned financing. The assessment confirmed that this move enhances the company's sustainability positioning and may open access to concessional financing under frameworks such as the Just Energy Transition Partnership (JETP) and Indonesia's Green Taxonomy. The early retirement of coal assets, recognized by OJK and international coalitions like GFANZ, strengthens investor interest and signals transition credibility.



Electric Vehicles (EVs)

Electric mobility emerged as one of the most strategically advantaged sectors. In 2024, Electrum secured a US\$15 million blended finance facility from the Asian Development Bank (ADB), DBS Bank, and the Australian Climate Finance Partnership (ACFP). This structure combined development and commercial capital to scale the deployment of electric motorbikes and battery-swapping stations, while meeting ADB's high standards for environmental and social governance.

Several enabling factors were identified, including reduced operating costs through VAT exemptions, customs relief, and public infrastructure support. The sector also benefits from rising demand and favorable policy signals. Additional value is expected from new business models, such as battery-as-a-service and vehicle-to-grid integration. Together, these factors improve Electrum's commercial viability and reinforce TBS's position in Indonesia's low-carbon transport transition.



Renewable Energy

The assessment confirmed strong growth potential in clean energy, with opportunities concentrated in solar, wind, and mini-hydro projects. In addition to securing revenue through long-term power purchase agreements, the company may benefit from green bond issuance, the sale of renewable energy certificates, and eventual access to voluntary and compliance carbon markets.

Taken together, these opportunities reinforce TBS's transition strategy. They guide how capital is allocated, strengthen stakeholder confidence, and position the company for leadership in a rapidly evolving low-carbon economy. By integrating these insights into financial planning and business development, TBS is better prepared to capture value, hedge against risk, and support Indonesia's sustainability agenda.

Role in Strategy and Investment Decisions

Climate risks have had a direct influence on strategic planning and investment decisions. The 2024 divestment from CFPPs was



Waste Management

Waste was validated as a high-growth, low-emission sector. Investments in AMES, ARAH, and Cora Environment enable integrated services that align with emerging regulations on circular economy practices and landfill diversion. These platforms also offer access to sustainable finance linked to emissions reduction in the waste sector.

informed by transition-related risks such as regulatory tightening, rising carbon costs, and the declining long-term competitiveness of coal.

Today, climate-related risks and opportunities play a material role in shaping TBS's direction. Through early risk identification, strengthened governance, and disciplined investment in waste management, renewable energy, and electric mobility, the company is advancing a transition plan grounded in both impact and financial resilience. The path to 2030 will require continued agility and innovation, and this opportunity assessment forms a key foundation for informed action.

Risks to the Decarbonization Journey

TBS Energi Utama recognizes that achieving carbon neutrality by 2030 involves more than managing exposure to climate-related risks, it also requires addressing a set of internal and strategic challenges that could slow or complicate the company's transition efforts. These challenges reflect the practical realities of implementing large-scale change across multiple business lines and operating environments.



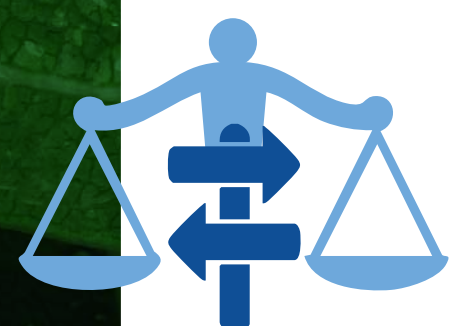
Delays in project execution:

Slower-than-expected progress in divesting from carbon-intensive assets or deploying renewable energy projects may impact emissions reduction timelines.



High upfront costs and financing barriers:

Significant capital is required to transition into low-carbon businesses. Delays or gaps in accessing appropriate financing could pose short- to medium-term risks to implementation.



Policy and regulatory uncertainty:

Shifts in government policy, such as changes in carbon pricing, renewable energy subsidies, or permitting processes, could affect the viability and scheduling of planned initiatives.



Scalability constraints in new business lines:

Expanding the EV and waste management businesses may be constrained by technological limitations, market readiness, or ecosystem maturity, slowing diversification into lower-carbon revenue streams.



Challenges in scope 3 data collection:

Incomplete or inconsistent emissions data from suppliers and value chain partners may affect the company's ability to fully track and manage its Scope 3 footprint.



Locked-in emissions from legacy assets:

A further challenge stems from locked-in emissions associated with long-lived or high-emitting assets, such as coal mining infrastructure and palm oil processing facilities. Although TBS has divested from coal-fired power plants and committed phase out coal mining in 2027, emissions from these operations remain material in the interim. Similarly, legacy energy systems in palm oil mills and waste infrastructure continue to contribute to residual Scope 1 and 2 emissions, which cannot be fully abated in the short term.

TBS is actively working to anticipate and overcome these barriers through strategic planning, flexible capital allocation, and collaboration across business units. Continuous learning and iterative adjustments to the decarbonization roadmap will be key to maintaining progress in the face of these evolving challenges.

Climate Metrics

To guide its transition to carbon neutrality by 2030, TBS Energi Utama has adopted a set of forward-looking metrics and decision-useful indicators. These metrics form the foundation of its climate monitoring framework. They support transparency, accountability, and alignment with strategic goals. They also help ensure TBS can respond effectively to financial and operational risks as the low-carbon transition accelerates.

1. GHG Emissions

TBS monitors absolute Scope 1 and Scope 2 greenhouse gas (GHG) emissions across all business units as a primary metric of climate performance. This metric provides a clear view of the company's direct emissions profile (Scope 1) and emissions from purchased electricity (Scope 2), forming the basis of its decarbonization tracking framework. Data is collected in accordance with the GHG Protocol and ISO 14064-1 standards and is assured by a qualified third-party auditor.

2. Carbon Intensity

To assess decarbonization progress in relation to business growth, TBS monitors carbon intensity, defined as tCO₂e per unit of production or revenue. This metric is key to ensuring that emissions fall even as operations scale. As the company continues reallocating capital toward lower-carbon businesses, carbon intensity is expected to decline steadily. FY 2024 carbon intensity performance can be seen on page 60.

3. Carbon Costs and Exposure

TBS actively monitors the financial cost of carbon as a core transition metric, particularly as carbon pricing instruments such as carbon taxes and emissions trading schemes (ETS) gain momentum globally and in Indonesia. Internal scenario modeling under a net-zero pathway revealed that, had CFPP operations continued, future carbon costs could have grown substantially. By divesting from its CFPP subsidiary, TBS expects to materially reduce its exposure to such costs, freeing up capital for mitigation and climate-aligned investments.

The company also tracks trends in the voluntary carbon market. Fluctuations in credit pricing, driven by regulatory shifts and demand dynamics, may impact the long-term cost efficiency of offset strategies. By integrating carbon cost considerations into financial planning, TBS aims to safeguard value and ensure readiness for increasingly stringent carbon pricing regimes.



Internally-Drive Carbon Costs

Purchase of **environment attribute certificates** (such as carbon credits for Scope 1 and RECs for Scope 2) for residual carbon emissions to meet **Internal Climate Targets**

Cost of carbon credits for residual Scope 1 emissions



Cost of RECs¹ for residual Scope 2 emissions

Residual Scope 1 emissions (tCO₂e)



Carbon credit prices (\$/tCO₂e)

Electricity consumed (MWh)



REC prices (\$/MWh)

Externally-Drive Carbon Costs

The carbon price represents an **externally imposed market of policy cost of carbon** to deter companies from emitting carbon

Carbon price² on residual Scope 1 emissions



Carbon price² on residual Scope 2 emissions

Residual Scope 1 emissions (tCO₂e)



Carbon prices (\$/tCO₂e)

Residual Scope 1 emissions (tCO₂e)



Carbon prices (\$/tCO₂e)



The cost of residual carbon highlights the **magnitude of financial risk** (i.e., impact on bottom line) a company faces from **residual carbon based on its climate transition plan**



The cost of residual carbon is **affected by 2 key drivers**:

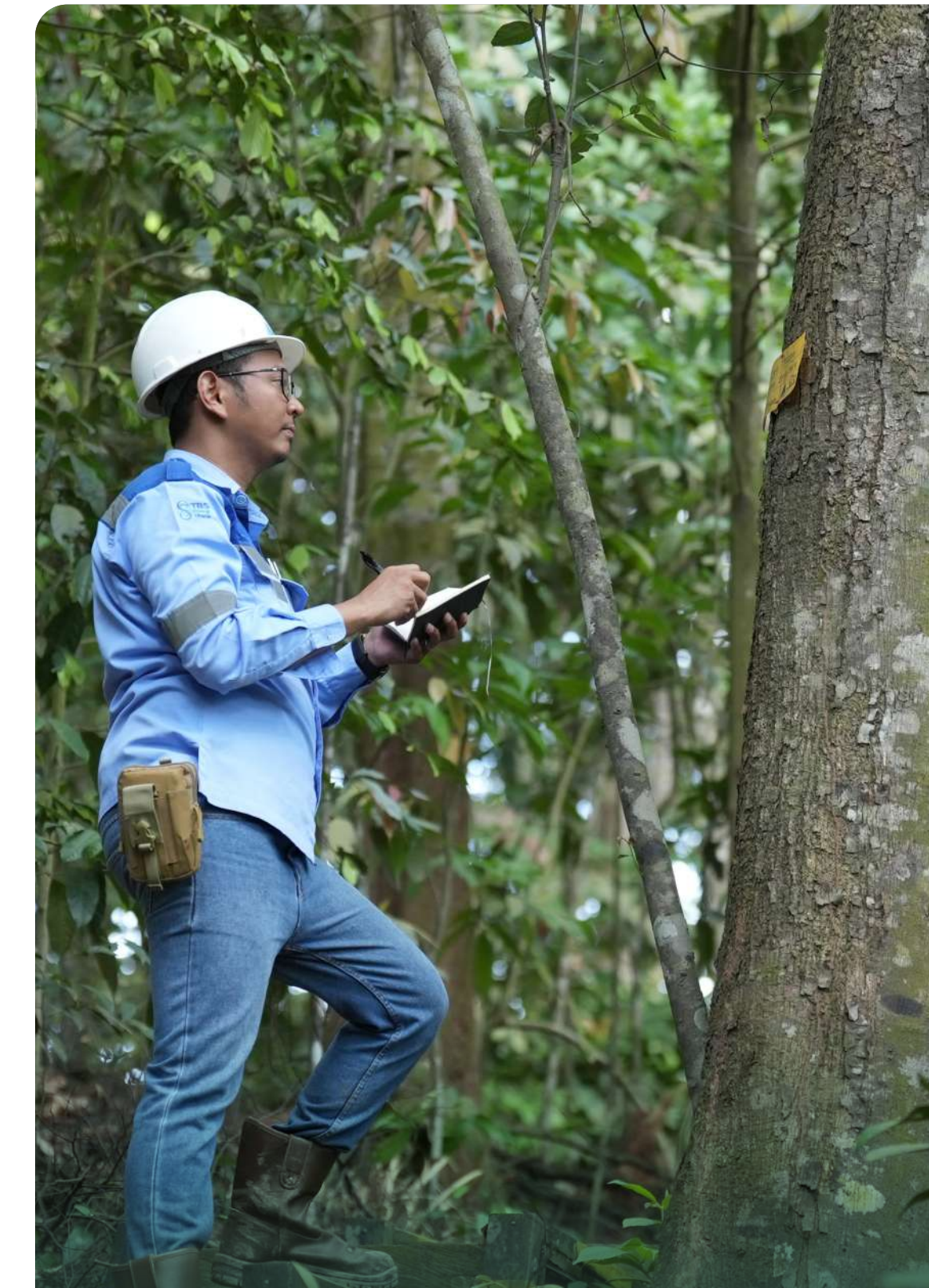
1. **Internal drivers** (i.e., corporate target and ambitions)
2. **External drivers** (e.g., jurisdictional carbon tax, market-based cost of carbon credits)



The cost allows companies to **assess the main drivers of financial risk** (e.g., cost of carbon credits vs. carbon tax) and therefore identify potential mitigation measures that can be weaved into the climate transition plan



For TBS, the cost of residual carbon can also be seen as a **high-level quantification of climate risks related to carbon credits, RECs, and externally-drive carbon costs** (e.g., carbon tax)



Notes: 1. The carbon price is a monetary value assigned to a ton of CO₂ emissions and may materialize in different forms (e.g., direct and indirect carbon taxations, low-emissions fuel mandates, etc.) (Source: NGFS). 2. Assumes renewable energy via Renewable Energy Certificates as they are generally utilised for Scope 2 emissions and have a more modellable price; TBS should consider all other direct solutions for costs.

GHG Assurance and Audit

To ensure transparency and accuracy in its climate disclosures, PT TBS Energi Utama Tbk engaged an independent third party to conduct limited assurance over its 2024 GHG emissions data. The assurance covered key indicators, including Energy, Scope 1 and Scope 2 emissions, as disclosed in the company's Sustainability Report.

The verification was performed by KAP Purwantono, Sungkoro & Surja, in accordance with internationally recognized standards:

- **ISAE 3000** – Assurance Engagements Other than Audits or Reviews of Historical Financial Information

- **ISAE 3410** – Assurance Engagements on Greenhouse Gas Statements

These standards were adopted as part of the professional guidelines issued by the Indonesian Institute of Certified Public Accountants (IAPI). The assurance process involved analytical review, recalculation of performance metrics, and sample-based checks to validate the integrity of the reported data.

The assurance provider concluded that nothing came to their attention to suggest that the GHG data was not, in all material respects, prepared and presented in accordance with the applied criteria.

TBS references international best practices to guide its Climate Transition Plan.

Executive Remuneration

As of the 2024 reporting year, TBS Energi Utama does not yet formally link climate-related key performance indicators (KPIs) to executive remuneration.

TBS recognizes that aligning executive compensation with climate performance is increasingly expected under international frameworks such as the EU's ESRS E1 and the Transition Pathway Initiative (TPI). This remains an area for potential future development as the company continues to strengthen its climate governance and disclosure practices.

Alignment with Global and National Sustainability Frameworks

TBS Energi Utama ensures that its climate and sustainability disclosures are aligned with both international best practices and domestic regulatory requirements, strengthening transparency and building stakeholder confidence.

In 2024, TBS released its first standalone TCFD report, structured around the four pillars, Governance, Strategy, Risk Management, and Metrics & Targets, to provide investors with a comprehensive view of the company's climate-related risks and opportunities. These disclosures are further reinforced through the company's annual response to the CDP Climate Change questionnaire, where TBS continues to improve the quality of its reporting through enhanced emissions data, scenario analysis, and risk evaluation.

TBS's TCFD-aligned approach also reflects growing alignment with the ISSB's IFRS S2 standards, particularly in areas such as climate

governance, decarbonization targets, and transition planning. As ISSB becomes more widely adopted in Indonesia, TBS is positioning itself for deeper integration.

Although not subject to the EU Corporate Sustainability Reporting Directive (CSRD), TBS references ESRS 1E to improve its climate disclosures, particularly regarding the structure of its transition plan, the use of science-based metrics, and executive accountability.

TBS also adheres to the GRI Standards 2021, including GRI 302 (Energy), GRI 305 (Emissions), and GRI 201 (Economic Performance), to ensure consistent, stakeholder-focused reporting that reflects material ESG impacts.

On the national front, TBS complies with SEOJK No. 51/POJK.03/2017, which mandates disclosure across five sustainability aspects and nine principles. TBS's annual Sustainability Report includes performance data, strategy, and progress in line with this regulation from the Financial Services Authority (OJK).

By integrating these frameworks, TBS produces disclosures that are both globally relevant and locally compliant, ensuring credibility, comparability, and alignment with evolving stakeholder expectations.

Paris-Aligned Benchmark Exclusion

TBS Energi Utama is not subject to the EU Benchmark Regulation (Regulation (EU) 2016/1011) or the delegated regulations related to EU Paris-aligned Benchmarks, as the company is headquartered and listed outside the European Union. Nonetheless, TBS references international best practices, including those embedded in EU-aligned frameworks such as the Paris-aligned Benchmark methodology, to guide the development of its Climate Transition Plan and support transparency for global stakeholders.

Appendix

ESRS E1-1: Transition Plan for Climate Change Mitigation Index

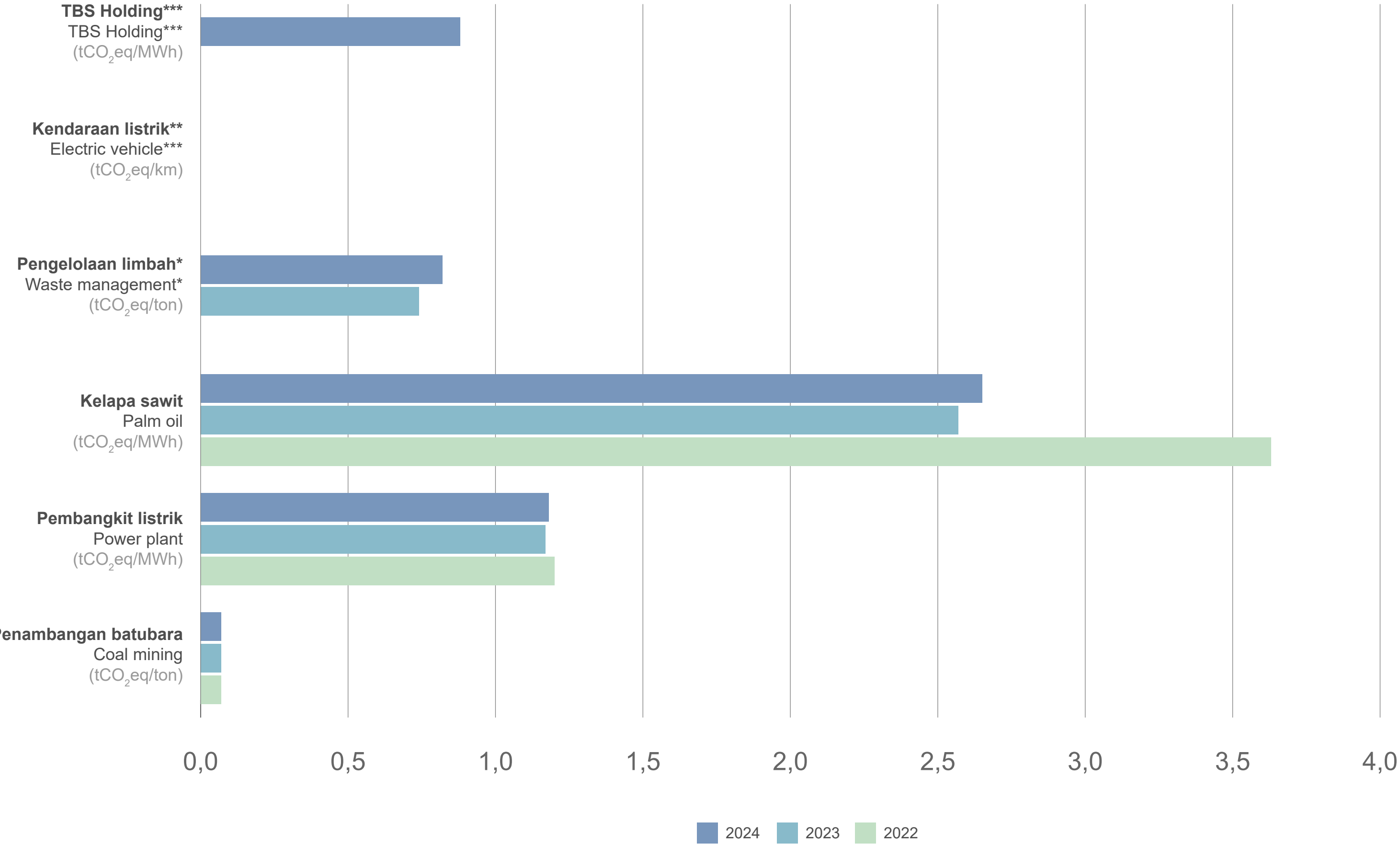
Ref.	Requirement	Page(s)
13	The undertaking shall disclose its transition plan for climate change mitigation.	15-31
15(a)	Explanation of how the GHG emission reduction targets are compatible with limiting global warming to 1.5°C in line with the Paris Agreement.	11-14, 32-34
15(b)	Description of the decarbonisation levers identified, key actions planned, including changes in products/ services and adoption of new technologies.	15-30
15(c)	Identification of climate change mitigation actions, investments, and funding supporting the implementation of the transition plan.	15-30, 35-38
15(d)	Qualitative assessment of potential locked-in GHG emissions from existing assets/products, including alignment of reduction targets and key transition risks; explanation of mitigation actions.	31-34, 52-54
15(e)	Explanation of the undertaking's objective for aligning its economic activities with the EU Taxonomy (EU 2020/852), including relevant revenues, CapEx, and OpEx plans.	37-44
15(f)	Disclosure of whether or not the undertaking is excluded from the EU Paris-aligned Benchmarks.	58
15(g)	Explanation of how the transition plan is embedded in and aligned with the undertaking's business strategy and financial planning, and whether it is subject to oversight.	37-44, 46-47
15(h)	Explanation of the undertaking's progress in implementing the transition plan.	32-36

Transition Pathway Initiative Index

Level	Key Questions	Page(s)
0: Unaware	1. Does the company acknowledge climate change as a significant issue for the business?	3-5
	2. Does the company recognise climate change as a relevant risk and/or opportunity for the business?	5, 48
1: Acknowledging Climate Change	3. Does the company have a policy (or equivalent) commitment to action on climate change?	10
	4. Has the company set greenhouse gas emission reduction targets?	11-14
	5. Has the company published information on its Scope 1 & 2 greenhouse gas emissions?	12-13
2: Building Capacity	6. Has the company nominated a board member or a board committee with explicit responsibility for oversight of climate change policy?	46
	7. Has the company set quantitative targets for reducing its greenhouse gas emissions?	10-14
3: Integrating into Operational Decision Making	8. Does the company report on Scope 3 emissions?	14
	9. Has the company had its operational (Scope 1 & 2) greenhouse gas emissions data verified?	58
	10. Does the company support domestic and international efforts to mitigate climate change?	31, 58
	11. Does the company have a process to manage climate-related risks?	48-55
4: Strategic Assessment	12. Does the company disclose materially important Scope 3 emissions?	14
	13. Has the company set long-term quantitative targets for reducing its greenhouse gas emissions?	10, 32-35
	14. Does the company's remuneration for senior executives incorporate climate change performance?	58
	15. Does the company incorporate climate risks and opportunities in their strategy?	6–10, 48–54
	16. Does the company undertake climate scenario planning?	48-49
	17. Does the company disclose an internal price of carbon?	-
	18. Does the company disclose actions necessary to meet its emissions-reduction targets?	15-31
	19. Does the company quantify the key elements of its emissions reduction strategy and the proportional impacts of each action in achieving its targets?	13, 33-36
5: Transition Planning & Implementation	20. Does the company's transition plan clarify the role that will be played by offsets and/or negative emissions technologies?	14, 31, 36
	21. Does the company commit to phasing out capital expenditure on carbon intensive assets or products?	18–19, 37–42
	22. Does the company align future capital expenditures with its long-term decarbonisation goals and disclose how the alignment is determined? (Note: one of the most material elements of a transition plan)	37-42
	23. Does the company ensure consistency between its climate change policy and the positions taken by trade associations of which it is a member?	-

Appendix

GHG Emission Intensity Scope 1+2 (FY 2024)



Business Sector	Unit	2024	2023	2022
Coal mining	tCO ₂ eq/ton	0.07	0.07	0.075
Power plant	tCO ₂ eq/MWh	1.18	1.17	1.2
Palm oil ¹	tCO ₂ eq/ton	2.65	2.57	3.63
Waste management ²	tCO ₂ eq/ton	0.82	0.74	N/A
Electric vehicle ³	tCO ₂ eq/km	0.000055	N/A	N/A
TBS Holding ⁴	tCO ₂ eq/MWh	0.88	N/A	N/A

- Notes:**
- 1. In the calculation of GHG emissions in the palm oil sector is carried out on crude palm oil (CPO) production activities in palm oil mills
 - 2. The calculation for waste management is based solely on the December 2023 period, following TBS's acquisition of Arah, GAI, and SAL in 2023. Additionally, the data from AMES covers the period from August to December 2023.
 - 3. The GHG emission intensity Scope 1+2 calculation from the electrical vehicle sector started in 2024.
 - 4. The GHG emission intensity Scope 1+2 calculation from TBS Holding started in 2024.

Definition of Key Terms

Term	Definition
TBS2030	PT TBS Energi Utama Tbk's strategic roadmap launched in 2022 to achieve carbon neutrality by 2030 and support a just, inclusive transition aligned with Indonesia's Net Zero 2060 target.
Carbon Neutrality	A state where net greenhouse gas (GHG) emissions are reduced to zero, typically through a combination of emissions reductions and the use of carbon credits to offset remaining emissions.
Scope 1 Emissions	Direct GHG emissions from sources owned or controlled by the company (e.g., combustion in boilers, vehicles).
Scope 2 Emissions	Indirect GHG emissions from the generation of purchased electricity, heat, or steam consumed by the company.
Scope 3 Emissions	All other indirect emissions occurring in the value chain of the company, including upstream and downstream activities such as purchased goods, logistics, and product use.
GHG Protocol	A globally recognized standard for corporate GHG accounting and reporting, used as the foundation for TBS's emissions inventory.
Operational Control Approach	A boundary-setting method where a company accounts for 100% of emissions from operations over which it has authority to implement policies and practices.
Carbon Credits	Tradable certificates representing one tonne of CO ₂ e avoided or removed from the atmosphere, used to offset emissions where direct abatement is not feasible.
Renewable Energy Certificates (RECs)	Instruments that certify the environmental attributes of electricity generated from renewable sources and can be used to offset Scope 2 emissions.
Divestment	The process of selling or exiting ownership in high-emissions assets, such as coal-fired power plants, to reduce carbon exposure and reallocate capital to sustainable businesses.
Just Transition	A strategic approach ensuring that the shift to a low-carbon economy is fair, inclusive, and equitable for workers, communities, and affected stakeholders.
CapEx Alignment	The degree to which capital expenditures are directed toward green, low-emissions assets or activities, based on taxonomy-aligned criteria.
Green Share	The portion of total CapEx or revenue that is allocated to activities classified as environmentally sustainable under national or international taxonomies.
Residual Emissions	The remaining GHG emissions after all economically and technically feasible abatement measures have been implemented.
Internal Carbon Price	A notional cost applied internally by a company to assess the financial impact of carbon emissions and incentivize low-carbon decision-making.
ESG Committee	A governance body at TBS providing independent oversight of environmental, social, and governance matters, including climate transition planning.

Term	Definition
Electrum	TBS's joint venture with Gojek focused on building an electric two-wheeler ecosystem in Indonesia, including electric motorbikes and battery swapping stations.
Floating Solar (PLTS)	A solar photovoltaic system installed on a body of water, reducing land use pressure and improving energy yield through cooling effects.
Waste-to-Energy (WTE)	Technologies that convert non-recyclable waste into usable forms of energy, such as electricity or heat, contributing to circular economy goals.
Blended Finance	A financing structure that combines concessional funding (e.g., from development banks) with commercial capital to de-risk and scale sustainable investments.
Green Taxonomy	A classification system that defines environmentally sustainable economic activities. TBS references both Indonesia's Green Taxonomy and the EU Taxonomy.
Carbon Intensity	The volume of GHG emissions (in CO ₂ e) per unit of economic output or production, used to assess decarbonization progress relative to business growth.
Limited Assurance	A third-party verification process that provides moderate confidence in the accuracy of reported sustainability data, such as GHG emissions.
Climate Scenario Analysis	A forward-looking assessment tool used to test how different climate futures (e.g., 1.5°C, 3°C scenarios) may affect a company's risks, opportunities, and financial outlook.
Transition Risks	Business risks arising from the shift to a low-carbon economy, including policy changes, market shifts, technology disruption, and reputational pressures.
Physical Risks	Climate-related hazards such as extreme weather events, floods, and long-term temperature changes that may disrupt operations and asset performance.
Taxonomy Alignment	The extent to which a company's investments and activities are consistent with classification systems defining environmentally sustainable activities.
Energy Intensity	A measure of energy consumption relative to output or revenue, often used alongside carbon intensity to assess operational efficiency.
CDP	Formerly known as the Carbon Disclosure Project, a global disclosure system for environmental impacts used by TBS to report climate-related data to investors.
ISSB / IFRS S2	International Sustainability Standards Board's climate disclosure standards under IFRS S2, which guide companies on material climate-related financial disclosures.
TCFD	Task Force on Climate-related Financial Disclosures; a framework used to guide TBS's climate governance, risk assessment, and transition planning disclosures.



TBS 2030