SUSTAINABILITY
REPORT 2024

BANPU

SMARTER ENERGY FOR SUSTAINABILITY

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ABOUT THIS REPORT

Banpu Public Company Limited (Banpu) published an annual sustainability report to provide a comprehensive overview of the Company's sustainability performance in environmental, social, and governance (ESG) aspects. The 2024 Sustainability Report was released on May 16, 2025, and is available on the Company's website. This report has been prepared with reference to the GRI Standards 2021, supplemented with additional indicators from the GRI12: Coal Sector 2022 and G4 Electric Utility Sector Supplement. This report demonstrates the Company's ongoing commitment to the Sustainable Development Goals (SDGs) and the United Nations Global Compact (UNGC), as well as addressing the expectations of stakeholders.

Reporting Boundary

The report covers the period from January 1 to December 31, 2024, aligning with the Company's 2024 Financial Report. It includes performance data on 24 sustainability topics, of which 13 have been identified as material topics. These topics are reported from business entities in which Banpu holds a greater than 50% ownership and has management control. These entities include:

- Mining business: Indonesia, Australia, and Mongolia
- Gas business: the U.S.
- Thermal power business: China and the U.S.
- Renewable power business: China, Japan, Vietnam, and Australia
- Energy storage system business: China
- Solar rooftop and floating business: Thailand
- Energy effciency business: Thailand

This report excludes performance data from entities where Banpu holds less than 50% of shares (either directly or indirectly) and does not directly participate in their management. In such cases, Banpu's involvement is limited to oversight through the Board of Directors. Examples include mining business in China and thermal power business in Thailand and Lao PDR.

Reporting Assurance

This report has been independently verified by a third party to ensure its reference to the GRI Standards 2021. LQRA (Thailand), a reputable assurance provider, was entrusted with this task following a thorough selection process overseen by the Company's procurement committee and subsequently endorsed by the Sustainability Committee. The assurance scope covers the following:

- Environmental aspects: Energy, Water, GHG emissions, Air emissions, and Waste data
- Social aspect: Occupational health & safety data
- Governance aspect: Compliance data

Further details and the independent assurance statement can be found on page 169-172.

Restatement of Information

To ensure consistency and comparability across reporting periods, this report comprises a restatement of GHG emissions inventory and energy data for the past three reporting years. This restatement was necessary due to a change in calculation methodology, as detailed on page 84. For transparency, all restated figures have been independently verified by a third party to confirm accuracy and reliability. The independent assurance statement is available on page 169-172.

Contact Details

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Website: www.banpu.co.th

MESSAGE FROM ESG COMMITTEE

TOGETHER, WE ARE SHAPING A LEGACY THAT BALANCES PROSPERITY WITH PURPOSE, AND WE LOOK FORWARD TO FURTHERING THIS MISSION IN THE YEARS AHEAD.

Mr. Piriya Khempon
Chairman of the Environment,
Social and Governance Committee

At Banpu, we remain steadfast in our commitment to creating long-term value for our shareholders and conducting business with social responsibility while safeguarding the environment. This balance is at the heart of our sustainability journey and reflects our responsibility to future generations.

Guided by the United Nations Sustainable Development Goals (SDGs), we continue to integrate sustainability into our corporate strategy. Our efforts are focused on addressing critical global challenges, from climate action and resource efficiency to fostering inclusive growth and ethical governance. We believe that aligning our operations with these goals not only strengthens our resilience but also contributes meaningfully to a more sustainable future.

The ESG Committee, a sub-committee of the Board of Directors, plays a pivotal role in overseeing the Company's policies, targets, and performance on ESG matters. We are committed to identifying and managing ESG risks, enhancing stakeholder engagement, and ensuring transparent and credible public disclosures. With the extensive experience of our Board of Directors and the expertise of our management team, I am confident that we are well-positioned to navigate the complexities of the evolving ESG landscape and drive meaningful progress toward sustainability.

On behalf of the ESG Committee, I extend our sincere gratitude to all our stakeholders–shareholders, employees, partners, customers, and communities–for your continued support and collaboration with Banpu. Your trust and engagement are invaluable as we work collectively to build a resilient and sustainable enterprise. Together, we are shaping a legacy that balances prosperity with purpose, and we look forward to furthering this mission in the years ahead.

Together, we will continue to build a future where business success and positive impact go hand in hand.

MESSAGE FROM CEO

> TOGETHER, WE WILL LEAD THE ENERGY TRANSITION, SET NEW BENCHMARKS, AND ENSURE A BETTER, **MORE SUSTAINABLE WORLD FOR GENERATIONS TO COME.**

Sinon Vongkusolkit
Chief Executive Officer and
Chairman of the Sustainability Committee

As we reflect on the achievements of 2024, I am filled with optimism and pride in the progress we have made together as a company. Our commitment to innovation, technology, and sustainability has never been stronger, and I am excited to share our vision for the years to come.

This year, I am proud to announce our new strategy, "Energy Symphonics," which will guide our business toward 2030 and beyond, reinforcing our role as a leader in the energy transition. This strategy embodies our synchronized approach to addressing the world's growing energy needs while ensuring a sustainable energy transition. "Energy Symphonics" is more than a strategy—it is our promise to tackle the energy trilemma, balancing Energy Security, Energy Equity, and Energy Sustainability. Through this approach, we aim to deliver reliable, affordable, and sustainable energy solutions that benefit both people and the planet.

Our dedication to sustainability is unwavering, and we are proud to reaffirm our commitment to the Ten Principles of the United Nations Global Compact (UNGC) and to support the Sustainable Development Goals (SDGs), with a particular focus on seven goals that align directly with our business vision: Affordable and Clean Energy (Goal 7), Responsible Consumption and Production (Goal 12), Climate Action (Goal 13), Clean Water and Sanitation (Goal 6), Decent Work and Economic Growth (Goal 8), Life on Land (Goal 15), and Partnerships for the Goals (Goal 17). These goals are not just aspirations, they are integral to our strategy and our responsibility as a global corporate citizen.

This year, Banpu is proud to celebrate 11 consecutive years of being a member of the Dow Jones Best-in-Class Indices, previously known as DJSI member. We have also maintained an A rating in the MSCI ESG Ratings Assessment since 2019. This remarkable achievement reflects our unwavering dedication to the highest standards of environmental, social, and governance (ESG) practices.

As part of our journey toward sustainability, I am thrilled to share our commitment to achieving Net Zero by 2050. This milestone is supported by actionable steps, including interim targets to reduce our greenhouse gas emissions by at least 20% and decrease coal-related earnings to less than 50% of our consolidated EBITDA by 2030. These goals are ambitious, but they are essential as we play our part in shaping a sustainable future.

None of this would be possible without the unwavering support of our stakeholders—our employees, partners, customers, investors, and communities. Your trust and collaboration inspire us to push boundaries and pursue excellence. Together, we can create a future where energy is not only a source of power but also a force for positive change. Thank you for being part of this transformative journey.

The future is filled with opportunity and responsibility. As Banpu moves forward, "Energy Symphonics" will drive us to innovate, collaborate, and inspire. Together, we will lead the energy transition, set new benchmarks, and ensure a better, more sustainable world for generations to come.

With gratitude and optimism,

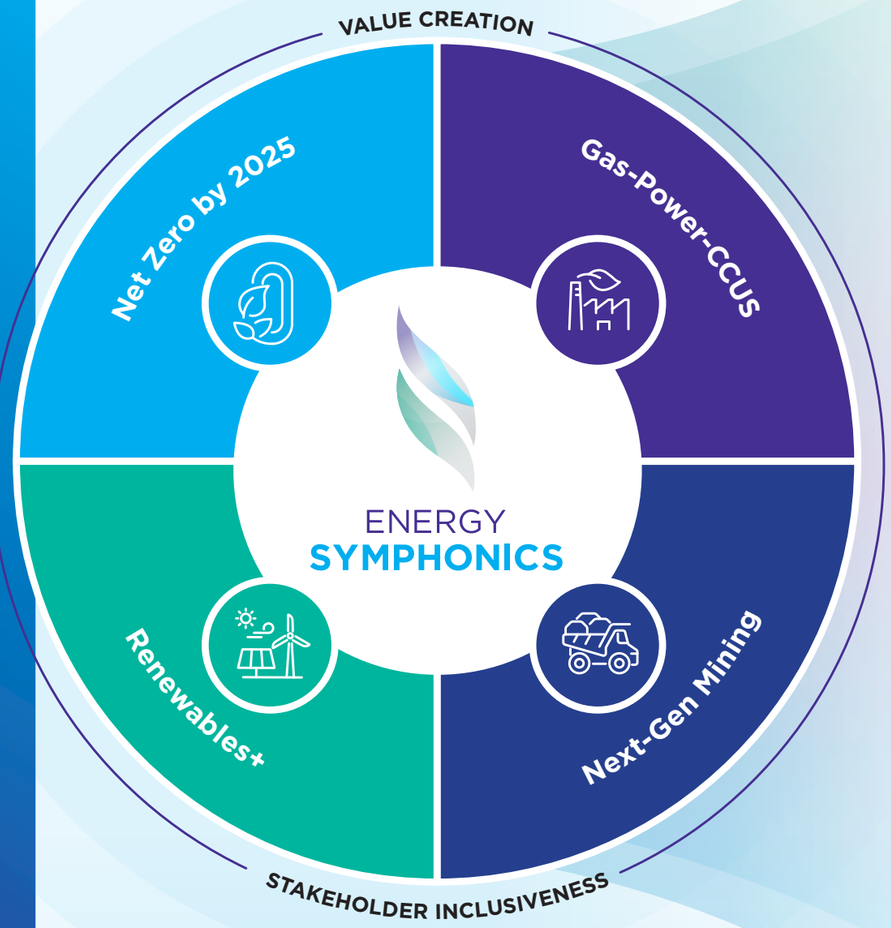
OUR WAY IN SUSTAINABILITY

VISION

The Asian energy company at the heart of innovation, technology, and sustainability

MISSION

- Build sustainable value for all our stakeholders as a trusted partner, with emphasis on care for the earth and society
- Promote innovation, synergy, sustainability, and integration across the energy supply chain, between conventional and new energy technologies
- Foster our corporate values, operational excellence, and uphold Banpu's reputation for integrity, professionalism and best practices



ENVIRONMENT	**Net Zero**	Implement GHG reduction initiatives to reduce Scope 1 and 2 emissions across all business units and invest in verified carbon offset projects to neutralize unavoidable residual emissions
	Biodiversity Net Gain	Implement site-specific biodiversity management plans for all major operations and establish stakeholder partnerships to ensure a net-positive impact on biodiversity by the end of each project lifecycle
	Water Stewardship	Conduct water risk assessments at all operational sites and implement water management plans to ensure zero negative impact on local water ecosystems and surrounding communities
	Zero Waste	Leverage waste reuse and recycling, and explore circular economy partnerships across the supply chain to minimize direct disposal of waste to landfills towards zero
SOCIAL	**Employer of Choice**	Cultivate an inclusive, purpose-driven workplace culture through the "Banpu Heart" and leverage actionable feedback loops to enhance employee retention and engagement
	Talent Development	Implement a data-driven learning management system to identify skill gaps and develop personalized development plans linked to emerging business needs and ESG priorities
	Workplace Safety	Instill a proactive safety culture by embedding the 3-Zero target into leadership accountability, employee training, and contractor management systems
	Human Rights	Conduct human rights due diligence across operations and supply chains, and enforce a zero-tolerance policy on violence and harassment with clear grievance mechanisms accessible to all stakeholders
GOVERNANCE	**ESG-Linked KPIs**	Incorporate ESG performance metrics into the annual performance evaluation and short- and long-term incentive plans across all levels, from top executives to all employees
	Digital Transformation	Deploy user-centric digital tools, automation, and AI-driven analytics for decision-making across business processes to improve operational efficiency and reduce emissions
	Cyber Resilience	Strengthen cybersecurity measures through independent cybersecurity audits, penetration testing, awareness training, and regularly test the cyber incident response plan
	Sustainable Supply Chain	Integrate ESG criteria into supplier onboarding, evaluation, and auditing processes, with a focus on collaborating with critical suppliers to improve their ESG performance over time

SUSTAINABLE DEVELOPMENT GOALS
UN GLOBAL COMPACT
OHCHR
ILO
OECD
ICMM International Council on Mining & Metals
AccountAbility
IFC
COSO
GRI
IFRS®
TCFD
TNFD
ESRS

OUR MISSION → OUR STRATEGY → OUR PRIORITY → OUR COMMITMENT

PATHWAY TO NET ZERO

2006
SUSTAINABILITY POLICY
Announced the first policy

2008

SUSTAINABILITY COMMITTEE
Established management-level committee focused on sustainability

2014

SOLAR POWER
First renewable power investment in Japan

2016

79 MW SOLAR
Power plants in China

2020
BANPU NEXT
Established flagship company for Energy Technology Business

38 MW WIND FARM
Power plants in Vietnam

2021

ESG COMMITTEE
Established board-level committee focused on ESG

167 MW SOLAR
Power plants in Australia

2022
35 MW SOLAR
Power plant in Vietnam

1 GWH BATTERY PLANT
JV in Thailand

CLIMATE CHANGE REPORT
Published first TCFD report

2023
CCUS PROJECT
First CO_2 injection project in the U.S.

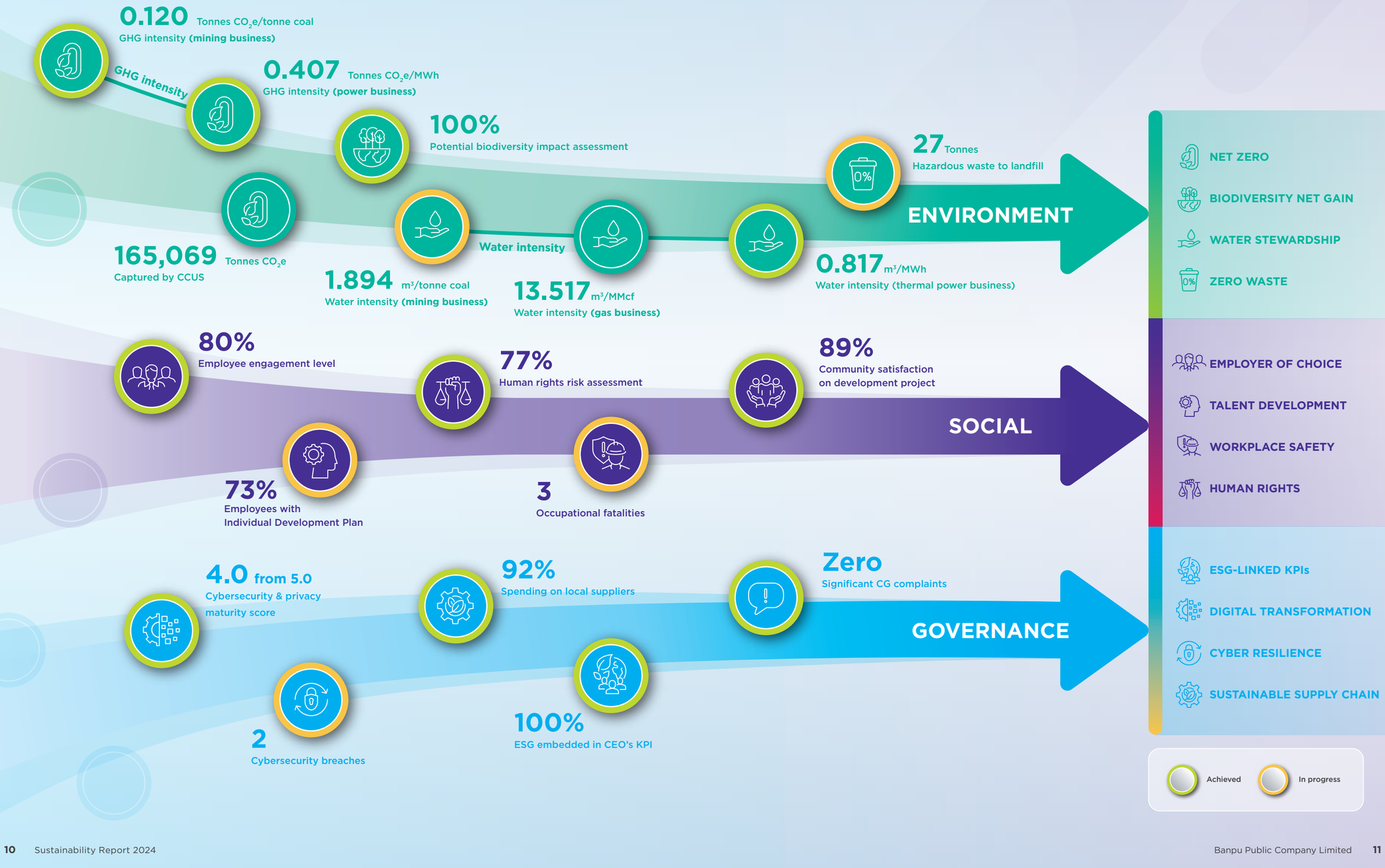
2024
ENERGY SYMPHONICS
Announced "Energy Symphonics" strategy with Net Zero target

2030
>20% EMISSIONS REDUCTION
Reduce at least 20% of GHG emissions scope 1 & 2

<50% EBITDA FROM COAL
Reduce coal-related earnings to less than 50% of consolidated EBITDA

2050
NET ZERO

ROAD TO SUSTAINABILITY



YEAR IN REVIEW

COLLABORATING WITH SVOLT

OVER **20,000** BATTERY UNITS

27 February, Banpu NEXT established a strategic partnership with SVOLT, enhancing localization in lithium battery assembly, energy storage systems, battery cell production, and other related businesses. The factory produces and delivers over 20,000 battery units for electric vehicles (EVs) to customers in Thailand, meeting market demand in 2024.

ENERGY TRANSITION PLATFORM IN JAPAN

3 October, Banpu NEXT has signed a share subscription agreement (SSA) to acquire a 33.33% stake in Amp Co, marking an investment in a leading energy transition platform in Japan. The investment supports Amp Co's plan to develop over 300 MW of solar farm projects and an additional 800 MW of solar and wind energy projects.

BATTERY ASSEMBLY PLANT WITH DURAPOWER

22 November, Banpu NEXT and Durapower, operating under a joint venture (JV), officially opened a battery assembly plant in Thailand, marking a significant step in the commercial electric vehicle transition. The plant aims to deliver high-performance batteries using semi-automated intelligent production technology, with a capability of assembling over 15,000 battery units annually, meeting the growing demand for electric vehicles in the region.

15,000 BATTERY UNITS

"ENERGY SYMPHONICS": STRATEGY TO NET ZERO

15 November, Mr. Sinon Vongkusolkit, CEO announced the new strategy **"Energy Symphonics"** to drive the Company's business towards 2030 with an emphasis on a sustainable energy transition, addressing 3 critical goals: Energy Security–defining as reliable and consistent energy supply, Energy Equity–ensuring affordable and accessible energy for all, and Energy Sustainability–minimizing environmental impact. To deliver on these goals, the new strategy outlines 4 key missions: Net Zero by 2050 and Decarbonization, Gas-Power-CCUS, Renewables+ and Next-Gen Mining.

PONDER, NEW SOLAR POWER PLANT

19 August, BKV-BPP Ponder Solar has commenced commercial operations (COD) of the Ponder Solar Power Plant, with a capacity of 2.5 megawatts (MW), located in Denton, Texas. This meets the needs of electricity consumers seeking power from clean energy sources.

BKV POSITIONED FOR CCUS EXPANSION

27 September, BKV has announced the closing of its initial public offering (IPO), raised USD 253.8 million of proceeds from the IPO, less underwriting discounts and commissions. BKV expects to use the proceeds from the IPO to repay certain indebtedness, growth capital expenditures and other general corporate purposes, which may include the expansion of BKV's carbon capture, utilization, and sequestration (CCUS) business.

SUSTAINABILITY IN ACTION

ESG SUMMIT 2024

To address emerging ESG challenges, Banpu hosted the ESG Summit 2024 on October 9 under the theme “Net Zero Roadmap and AI in Sustainability.” Attended by the ESG committee and senior executives, the summit explored decarbonization strategies and the integration of AI in sustainability efforts.

This year, the Company introduced a new target, net zero emissions by 2050, with interim milestones for 2030. The event also emphasized the importance of social and governance dimensions, highlighting initiatives to enhance employee safety and uphold robust governance practices.

SUSTAINABILITY PULSE

To strengthen awareness of global sustainability trends, Banpu launched a series of knowledge-sharing sessions, "Sustainability Pulse" for the Board of Directors, executives, and relevant teams.

In 2024, three key sessions were conducted:
- Green Taxonomy (February 6)
- IFRS Sustainability Disclosure Standard (February 23)
- Transition Finance (May 27)

These sessions significantly promoted internal understanding of global trends, international framework, disclosure requirements, and emerging ESG expectations.

BOARD COMPETENCY DEVELOPMENT

To support strategic oversight in a dynamic ESG landscape, Banpu enhances the competencies of our board members through a well-structured board competency development program throughout the year. These sessions are crafted to equip our board members with critical skills and insights aligned with evolving business landscape and the Company's long-term sustainability objectives.

Green Taxonomy	7
IFRS Sustainability Disclosure Standard	4
Transition Finance	6
Economic Update and Climate Change from Financiers' Viewpoint	12
Battery Energy Storage Business	7
Global Trends and Thailand Implementation on Climate Change	7
How Laws Adapt to AI's Impact on Organizations	4
Cybersecurity and AI Tech Awareness	8
Digital Risk Awareness	5
The Board's Roles in Climate Governance	4
PwC Thailand Audit Committee Seminar	2
Audit Committee Forum – Navigating the New Global Internal Audit Standard	2
NCSA Cyber Clinic 2024	2
AI for All	2
ESG Summit 2024	9

SUSTAINABILITY NEWSLETTER

To foster ESG awareness among employees, the Company launched an internal Sustainability Newsletter. This newsletter provides employees with comprehensive ESG knowledge through user-friendly infographics.

In 2024, the theme was "ESG in Supply Chain," highlighting how sustainability is integrated into day-to-day operations. Additionally, an interactive quiz with prizes further encouraged employee engagement and the learning process.

SUSTAINABILITY SLOGAN CAMPAIGN

In 2024, Banpu organized a Global Sustainability Slogan Competition to engage employees in shaping the Company’s sustainability efforts by creating a slogan for both internal and external communication. The competition was divided into 2 phases:
- Phase 1 – Idea Submission (September 9-30): 91 participants from 6 countries
- Phase 2 – Popular Vote (October 10 - November 11): 975 votes from 8 countries

This campaign reinforced employee ownership of the Company’s sustainability journey and underscores our commitment to integrating ESG values into our corporate culture.

SUSTAINABILITY EDUCATIONAL VIDEO

To deepen understanding of sustainability-related topics, the Corporate Sustainability Department produced educational videos for dissemination.

Last year, 2 video sets were produced:
- Business and Human Rights
- Banpu’s Commitment to SDGs

These videos were initially released at the Bangkok office and will be translated into local languages and rolled out across all countries via the learning management system (LMS).

ABOUT BANPU

Banpu is committed to developing sustainable energy solutions by addressing the Energy Trilemma while striving to achieve Net Zero emissions by 2050. Driven by our vision to be “The Asian energy company at the heart of innovation, technology, and sustainability”, we have embedded ESG principles into our operations across 3 core businesses: Energy Resources, Energy Generation, and Energy Technology in multiple countries. Our actions are supported by a robust governance framework and validated through various external sustainability recognitions. Together, these efforts underscore our ongoing journey under the “Energy Symphonics” strategy, as we move steadily toward our Net Zero target.

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OUR BUSINESS

Banpu is well-positioned as "an International Versatile Energy Provider". We offer the best energy solutions by leveraging our expertise in providing integrated energy solutions and linking strong networks in nine strategic countries for sustainable benefits of all investors and stakeholders.

ENERGY RESOURCES

Mining Business

The Company operates both open-pit and underground mining in Indonesia, Australia, China, and Mongolia. Key customers are the industrial and utility sectors in Asia and Europe. Additionally, the Company continues to explore the feasibility of investing in strategic minerals that are crucial for energy transition.

Gas Business

The Company operates natural gas properties, primarily located in 2 regions: the Barnett Shale in Texas and the Marcellus Shale in Northeastern Pennsylvania (NEPA) to serve domestic customers. Additionally, the Company focused on commercializing large-scale Carbon Capture Utilization and Sequestration (CCUS) to deliver low-carbon gas solutions.

ENERGY GENERATION

Thermal Power Business

The thermal power plants with high-efficiency low-emissions (HELE) technology provide reliable electricity and heat to serve the industrial sector as well as household consumers in China, Thailand, the U.S., and Lao PDR.

Renewable Power Business

The Company provides electricity generated from solar and wind to serve the clean energy markets. The current production operates in China, Japan, Australia, and Vietnam, while various projects are under development.

ENERGY TECHNOLOGY

Solar Rooftop & Floating Business

The Company specializes in providing one-stop solar rooftop solutions and installation for industries and large businesses that seek sustainable and environmentally friendly energy solutions. Presently, our operations span across Thailand, China, Japan, Indonesia, and Vietnam.

Energy Storage System Business

The Company specializes in developing energy storage solutions for multiple purposes, incorporating innovative lithium-ion batteries with high safety standards and environmental friendliness.

Energy Efficiency Business

The Company offers comprehensive consultation services on customized energy management systems for organizations, covering the development process, construction, and on-site management.

E-mobility Business

The Company offers electric vehicles and EV fleet management services based on the Mobility-as-a-Service (MaaS) concept to support modern-day commuting.

Energy Trading Business

The Company secures an electricity supply to a pool of committed clients, captures arbitrage opportunities, and looks to expand further into liberalized markets.

BUSINESS VALUE CHAIN

INPUTS → BUSINESS ACTIVITIES → OUTCOMES → IMPACT

INPUTS

FINANCIAL
- **7,698 Million USD** Total liabilities
- **4,701 Million USD** Total equity

MANUFACTURED
- **12,399 Million USD** Total assets

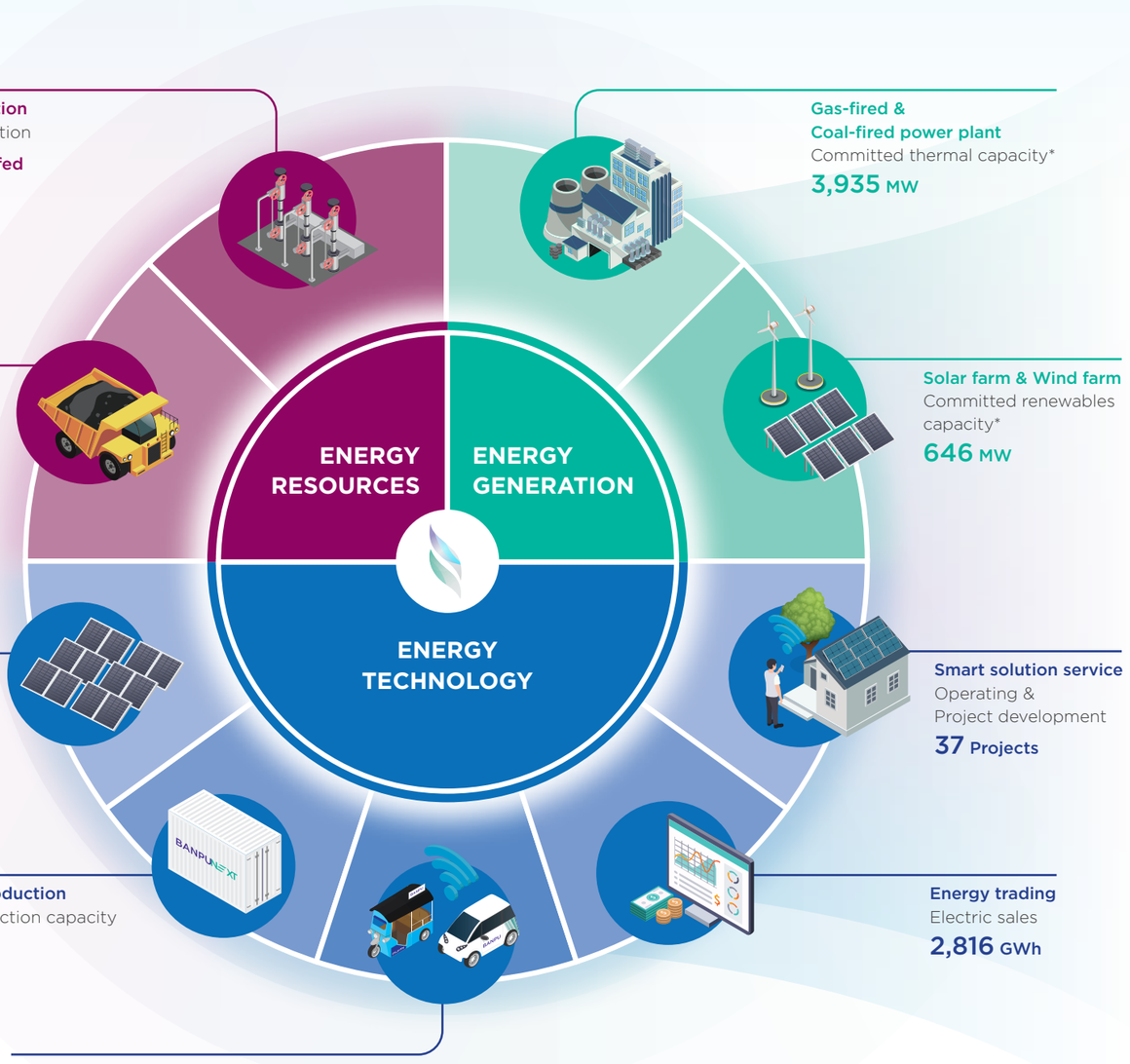
INTELLECTUAL
- **650 USD** Average cost of training

HUMAN
- **6,013** Total employees
- **33.9** Average hours of training

SOCIAL AND RELATIONSHIP
- **5 Million USD** Total CSR spend
- **2,941** Total suppliers

NATURAL
- **65,759 TJ** Total energy consumption
- **10,897 ML** Total water withdrawal
- **32,779 Hectares** Total land disturbed

BUSINESS ACTIVITIES



Gas extraction
Net production
788 MMcfed

Coal extraction
Sales volume
37.2 Mt

Gas-fired & Coal-fired power plant
Committed thermal capacity*
3,935 MW

Solar farm & Wind farm
Committed renewables capacity*
646 MW

Solar rooftop & floating service
Capacity*
272 MW

Smart solution service
Operating & Project development
37 Projects

Battery production
Total production capacity
3.0 GWh

Energy trading
Electric sales
2,816 GWh

EV fleet management
EV Market expansion

Car sharing service	E-Bike rentals	Chargers
976 Units	**50** Units	**512** Units

* Equity-based

OUTCOMES

FINANCIAL
- **5,148 Million USD** Revenues
- **1,330 Million USD** EBITDA
- **0** Non-compliance cases

MANUFACTURED
- **0.11** Tier-1 process safety event rate

INTELLECTUAL
- **3** Patents granted

HUMAN
- **3** Fatalities
- **80%** Employee engagement level
- **4.8%** Turnover rate

SOCIAL AND RELATIONSHIP
- **0** Human rights issues
- **0** Community complaints
- **89%** Community satisfaction level
- **99%** Customer satisfaction rate

NATURAL
- **9.0 Million tonnes** of GHG emissions
- **2,910 TJ** Renewable energy sold
- **98%** Non-hazardous waste reused & recycled
- **1,160 tonnes** Hazardous waste to landfill
- **112%** Revegetation against plan

IMPACT

Employee
Customer
Supplier
Contractor
Business Partner
Shareholder
Capital Provider
Government & Regulator
Investor and Investment Analyst
Media, NGOs, and Academic Institution
Local Community

MAP OF OPERATIONS

CHINA

Mining
2 Coal Mines

Thermal Power
1 Coal-fired Power Plant
3 Combined heat & Power Plants

Renewable Power
7 Solar Power Plants

Solar Rooftop

Energy Storage System
1 Battery Plant

MONGOLIA

Mining
2 Coal Mines

LAO PDR

Thermal Power
1 Coal-fired Power Plant

VIETNAM

Renewable Power
1 Solar Power Plant
2 Wind Power Plants

Solar Rooftop

JAPAN

Renewable Power
19 Solar Power Plants

Energy Storage System
1 Battery Farm

Solar Rooftop

Energy Trading

THAILAND

Thermal Power
1 Coal-fired Power Plant

Solar Rooftop & Floating

Energy Storage System
2 Battery Plants

Energy Efficiency

E-mobility

INDONESIA

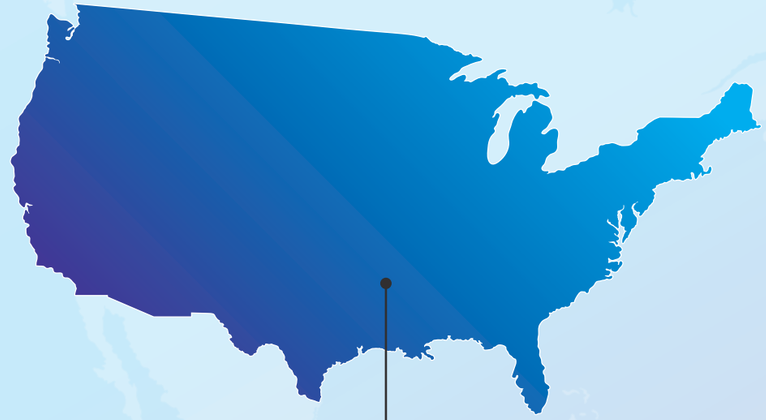
Mining
7 Coal Mines

Solar Rooftop

AUSTRALIA

Mining
9 Coal Mines

Renewable Power
2 Solar Power Plants



UNITED STATES OF AMERICA

Gas
2 Shale Gas Operations

Thermal Power
1 Gas-fired Power Plant

Renewable Power
1 Solar Power Plant

ENERGY RESOURCES

- Mining
- Gas

ENERGY GENERATION

- Thermal Power
- Renewable Power

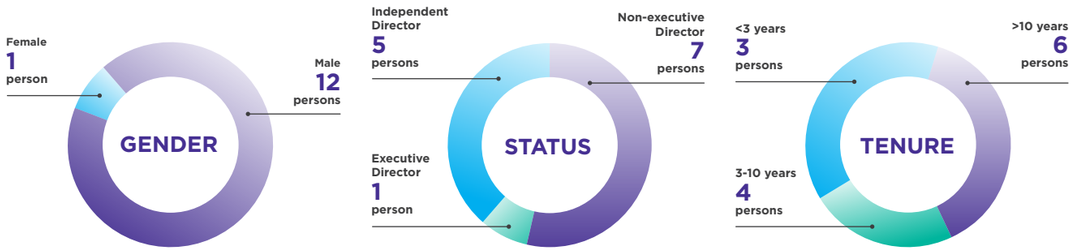
ENERGY TECHNOLOGY

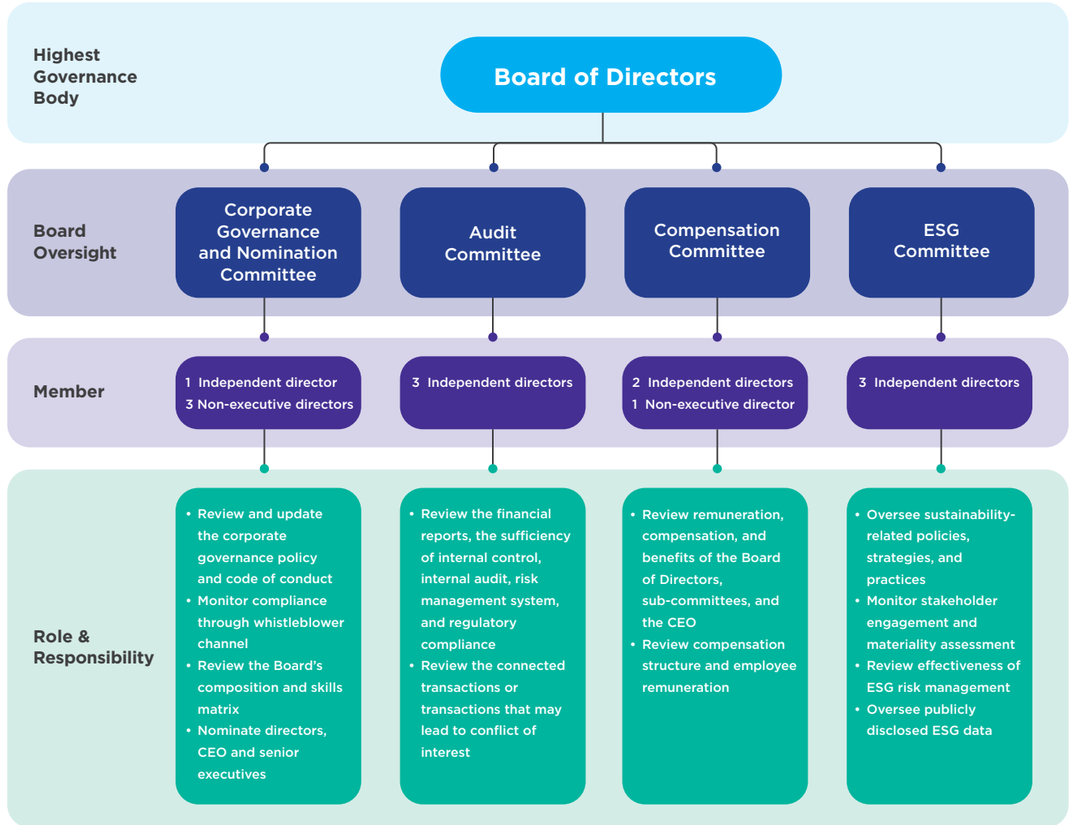
- Solar Rooftop & Floating
- Energy Storage System
- Energy Efficiency
- E-mobility
- Energy Trading

GOVERNANCE STRUCTURE

Information as of 31 December 2024

The Board of Directors of Banpu Public Company Limited is a one-tier system with 4 sub-committees. The primary role of the Board of Directors is to ensure that the Company's activities are in full compliance with all relevant laws, the Company's objectives and regulations, and shareholder resolutions. They are also responsible for oversight, examination, and evaluation of both the Company's performance and that of the CEO and senior executives. The Company's practices for the Board of Directors are regularly refined to ensure alignment with the business landscape and the principles of good corporate governance. The board structure consists of a strategic blend of independent directors, non-executive directors, and executive directors. For integrity and balance of the Board's power, in instances where the Chairman of the Board does not qualify as an independent director, a "Lead Independent Director" shall be appointed to ensure a balanced agenda setting for board meetings.





BOARD MEMBERS

1. **MR. CHANIN VONGKUSOLKIT**
Age: 72
Chairman of the Board of Directors
Appointed Date: 28 April 2016
Director
Appointed Date: 16 May 1983
Senior Executive Officer
Appointed Date: 10 April 2015

2. **MR. TEERANA BHONGMAKAPAT**
Age: 68
Lead Independent Director
Appointed Date: 22 February 2023
Independent Director
Appointed Date: 5 April 2012
C M

3. **MR. PIRIYA KHEMPON**
Age: 66
Independent Director
Appointed Date: 8 April 2020
C M

4. **MR. PICHAI DUSDEEKULCHAI**
Age: 63
Independent Director
Appointed Date: 4 April 2019
M M

5. **MR. TEERAPAT SANGUANKOTCHAKORN**
Age: 59
Independent Director
Appointed Date: 3 April 2019
M M

6. **MRS. WATANAN PETERSIK**
Age: 63
Independent Director
Appointed Date: 4 April 2023
M

7. **MR. ANON SIRISAENGTAKSIN**
Age: 72
Director
Appointed Date: 19 April 2016
Executive Advisor
Appointed Date: 1 April 2014
C

8. **MR. BUNTOENG VONGKUSOLKIT**
Age: 68
Director
Appointed Date: 3 April 2014
C

9. **MR. METEE AUAPINYAKUL**
Age: 71
Director
Appointed Date: 16 May 1983
Advisor
Appointed Date: 1 January 2014

10. **MR. ONGART AUAPINYAKUL**
Age: 68
Director
Appointed Date: 29 July 1983
Advisor
Appointed Date: 1 January 2017
Executive Officer
Appointed Date: 8 January 2001

11. **MR. VERAJET VONGKUSOLKIT**
Age: 60
Director
Appointed Date: 1 June 2010
M

12. **MR. SARAYUTH SAENGCHAN**
Age: 62
Director
Appointed Date: 2 April 2022
M

13. **MR. SINON VONGKUSOLKIT**
Age: 34
Director
Appointed Date: 2 April 2024
Chief Executive Officer
Appointed Date: 2 April 2024

Corporate Governance and Nomination Committee | Audit Committee | Compensation Committee | Environmental, Social, and Governance Committee | C - Chairman | M - Member

BOARD SKILLS MATRIX

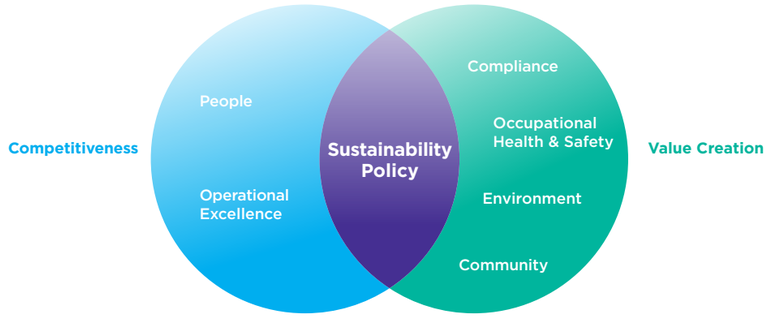
	Board of Directors	Finance/ Accounting	Marketing/ Logistic	Management	Technical/ Engineer	Business Relation	Economic	Strategic/ International	Mining	Power	Oil & Gas	Technology
		Skill										
1.	Mr. Chanin Vongkusolkit	●	●	●		●	●	●	●	●		
2.	Mr. Teerana Bhongmakapat	●		●	●	●	●	●				
3.	Mr. Piriya Khempon			●		●	●	●				
4.	Mr. Pichai Dusdeekulchai	●		●		●		●				
5.	Mr. Teerapat Sanguankotchakorn			●	●	●						●
6.	Ms. Watanan Petersik	●		●		●	●	●				
7.	Mr. Anon Sirisaengtaksin			●	●	●		●			●	
8.	Mr. Buntoeng Vongkusolkit		●	●		●		●				
9.	Mr. Metee Auapinyakul			●		●		●		●		
10.	Mr. Ongart Auapinyakul			●	●	●		●	●			
11.	Mr. Verajet Vongkusolkit	●		●		●	●			●		
12.	Mr. Sarayuth Saengchan	●			●	●	●	●				
13.	Mr. Sinon Vongkusolkit	●		●		●	●	●				●

POLICY & COMMITMENTS

POLICY GOVERNANCE

Banpu introduced our first Sustainability Policy and adopted environmental, social, and governance (ESG) principles in 2006. The Sustainability Policy serves as a comprehensive framework that shapes our practices and strategic directions. It was revised in 2016 to strengthen our sustainability initiatives, incorporate international best practices, and respond to emerging challenges. The policy was approved by the Sustainability Committee, chaired by the CEO, and formally endorsed by the Board of Directors.

Sustainability Policy



The Sustainability Policy is designed to fulfill two key missions: enhancing competitiveness and creating value for stakeholders. The Company recognizes that competitiveness lies in the strength of our internal capabilities and resilience through “People” and “Operational Excellence”. In addition, the Company is committed to broader societal and environmental stewardship by generating tangible, long-term value for all stakeholders. This is achieved through a steadfast commitment to “Compliance” with laws and regulations, a strong emphasis on “Occupational Health and Safety”, safeguarding the “Environment”, and creating sustainable values for our host “Community”. These approaches ensure that our business growth aligns with environmental and social sustainability, particularly in the communities where we operate.

One of the key policies that reinforces our sustainability efforts is the “Code of Conduct”, which applies universally across all organizational activities. This Code of Conduct sets forth clear ethical guidelines that all employees, contractors, and business partners must adhere to, grounded in the principles of integrity, transparency, and accountability. Additionally, the “Supplier Code of Conduct” has been developed as a benchmark for current and prospective suppliers to ensure that they operate the business in alignment with Banpu’s standards and expectations.

SUSTAINABILITY POLICY

Code of Conduct | **Supplier Code of Conduct**

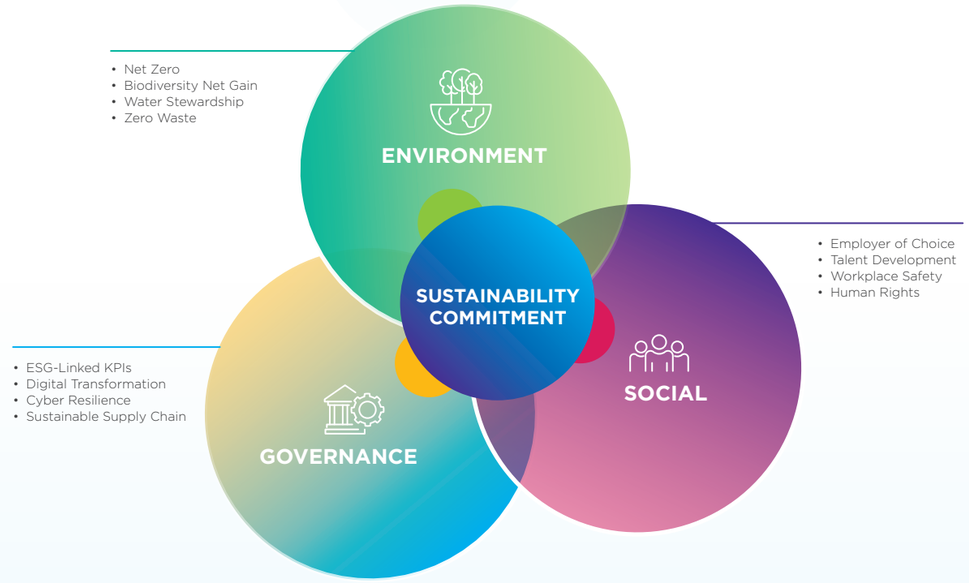
ENVIRONMENT
- Climate Change Policy
- Environmental Policy
- Biodiversity Policy
- Waste Management Policy
- Water Management Policy

SOCIAL
- Human Rights Policy
- Human Resources Management Policy
- Occupational Health and Safety Policy
- Corporate Philanthropy Policy
- Community Engagement Policy

GOVERNANCE
- Anti-Corruption Policy
- Whistleblowing Policy
- Business Continuity Policy
- Information and Cybersecurity Policy
- Sustainability Supply Chain Policy

SUSTAINABILITY COMMITMENT

Our commitment to sustainability is central to the business, integrated into every aspect of our operations, from day-to-day decisions to long-term strategic planning. We recognize that addressing sustainability challenges is crucial for building a resilient business and contributing to the well-being of the planet and the communities we serve. Our sustainability agenda also embraces the Just Transition principle, ensuring that the shift to sustainable energy delivers equitable benefits across all communities. As part of our ongoing commitment, we focus on creating value for our stakeholders, minimizing our environmental impact, fostering social responsibility, and upholding the highest standards of corporate governance. We ensure accountability by setting clear, achievable targets, tracking progress, and adhering to responsible and sustainable business practices.



Banpu is committed to achieving Net Zero by 2050, driving decarbonization through solutions such as gas-fired power with CCUS, battery energy storage systems, and carbon credits. We are dedicated to addressing environmental challenges and minimizing our footprint, with a strong focus on fostering a circular economy by eliminating direct disposal of waste to landfills and increasing the recycling rate of non-hazardous waste. Biodiversity protection is a priority, with a goal of achieving a net-positive impact by the end of each project lifecycle.

As an employer of choice, Banpu nurtures a corporate culture that promotes employee engagement, inclusion, and mutual respect. We uphold human rights with a zero-tolerance policy on violence and harassment, guided by the United Nations Guiding Principles on Business and Human Rights (UNGPs). We are committed to ensuring a safe and healthy workplace through the 3-Zero Target: Zero Incidents, Zero Repeats, and Zero Compromises.

In line with international standards and best practices, we integrate ESG performance metrics into performance evaluations across all organizational levels, including the supplier journey, to drive accountability and continuous improvement. We drive digital innovation by deploying user-centric digital tools and AI to improve operational efficiency and reduce emissions.

SUSTAINABILITY RECOGNITIONS

With a long-term commitment to ESG and a solid corporate sustainability governance, the Company has been recognized by several leading sustainability rating agencies nationally and globally.

International Recognitions

S&P Global

The Company has been recognized as a member of Dow Jones Best-in-Class Indices, previously known as DJSI member since 2014.

MSCI ESG RATINGS A

CCC | B | BB | BBB | A | AA | AAA

The Company received a rating of A (on a scale of AAA-CCC) in the MSCI ESG Ratings Assessment since 2019.

CDP

The Company received a rating of C for Climate Change and a rating of B- for Water Security from CDP.

National Recognitions

SET AWARDS 2024

The Company received the Highly Commended Sustainability Awards in Sustainability Excellence from the Stock Exchange of Thailand.

THAILAND CORPORATE EXCELLENCE AWARDS 2024

The Company received Thailand Corporate Excellence Awards 2024 in Sustainability Excellence from Thailand Management Association.

SET AAA ESG Ratings 2024

The Company received a rating of AAA in the SET ESG Ratings from the Stock Exchange of Thailand.

CAC CERTIFIED

The Company has been a certified member of Thai Private Sector Collective Action Against Corruption (CAC) since 2015.

The Company received an excellent CG rating in the Corporate Governance Report of Thai Listed Companies since 2017.

The Company received a 5 coins rating on the annual general meeting checklist from the Thai Investors Association.

SUSTAINABILITY GOVERNANCE

Banpu places a strong emphasis on sustainability governance by fully integrating Environmental, Social, and Governance (ESG) principles into our operations. To oversee and drive these efforts, the Company has established an ESG Committee, responsible for ensuring regulatory compliance, managing ESG-related risks, and aligning initiatives with global sustainability trends. This governance structure supports Banpu's commitment to responsible business practices and creating long-term stakeholder value in rapidly evolving global landscape.

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BOARD GOVERNANCE

Recognizing the importance of Environmental, Social, and Governance (ESG) factors in ensuring operational integrity and driving long-term value creation, appointed by the Board of Directors, the Company has established an ESG Committee dedicated to overseeing ESG-related matters, ensuring that the Company's operations align with its core values and the long-term interests of stakeholders.

ESG Committee Charter

Board Level

Board of Directors

ESG Committee

Chairperson: Independent Director
Composition & Qualifications: At least 3 directors, including individuals with ESG knowledge and experience.
Terms: 3 years
Committee Secretary: Head of Global Corporate Sustainability
Meeting Frequency: Quarterly
Reporting Line: Board of Directors
Roles and Responsibilities

- Oversee ESG-related policies, strategies, and practices, including targets and performance
- Monitor emerging ESG risks that could impact the Company's operations, financial performance, or stakeholder relationships
- Review ESG risk management process and outcomes to ensure effective management systems are in place
- Monitor stakeholder engagement and materiality assessment to ensure key ESG topics are properly identified, prioritized, and managed
- Ensure accuracy, quality, and transparency of public ESG disclosures

Management Level

Sustainability Committee

- **Climate Change Committee**
- **Supply Chain Committee**
- **Human Rights Committee**

SUSTAINABILITY COMPETENCY DEVELOPMENT

To strengthen the Board of Directors' ability in overseeing and driving sustainable development, the directors are encouraged to pursue continuous learning to ensure their skills and knowledge remain at the forefront of industry and global trends. The Company supports this through various internal and external training programs designed to keep the Board well-informed on industry developments, ESG trends, and best practices.

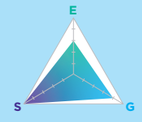
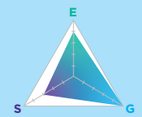
BOARD PERFORMANCE EVALUATION

The Corporate Governance and Nomination Committee is responsible for reviewing the methodology and criteria used to evaluate the Board's performance. This diligent process is conducted annually and involves a structured self-assessment by each member of the Board. The evaluation spans the Board as a collective entity, sub-committees, and individual directors. The results from these assessments are thoroughly discussed to identify areas for improvement and ensure alignment with the best interests of the Company and shareholders.

BOARD REMUNERATION

The Compensation Committee reviews and refines the remuneration structure for the Board. This includes determining fair and competitive compensation that aligns with the directors' roles, duties, and responsibilities within the broader job market and industry standards. The remuneration of the Board includes a structured compensation package comprising a monthly retainer and meeting allowances. Additionally, to align the interests of the directors with those of shareholders, an annual bonus for the directors is directly linked to the dividend payouts. Importantly, all remuneration is subject to shareholder approval at the annual general meeting.

ESG KNOWLEDGE AND EXPERIENCE MATRIX

	Background & Experience	ESG Governance	
MR. PIRIYA KHEMPON	• Holds advanced degrees in political science and international relations • **2019-Present**: Director, Saha Pathana Inter-Holding Plc. • **2017-2019:** Ambassador Extraordinary and Plenipotentiary of Thailand to the People's Republic of China • **2015-2017:** Deputy Permanent Secretary for Foreign Affairs, Office of the Permanent Secretary, Ministry of Foreign Affairs	• Background in international relations and high-level public service roles–such as Ambassador to China and Deputy Permanent Secretary at the Ministry of Foreign Affairs–equips him with a deep understanding of cross-cultural engagement and sustainable development.	
MR. PICHAI DUSDEEKULCHAI	• **2022-Present:** Independent director, Kijcharoen Engineering Electric Plc. • **2020-Present:** Independent Director, Land and Houses Bank Plc. • **2020-Present:** Independent Director, LH Financial Group Plc. • **2018-2018:** General Manager & Deputy Country Head of Thailand, Sumitomo Mitsui Banking Corporation • **2002-2018:** Head of Business Promotion, Sumitomo Mitsui Banking Corporation	• Over 20 years in banking and on various audit, risk, and governance committees across listed companies, allowing him to actively oversee ESG risk management frameworks, including sustainable finance, anti-money laundering, and climate governance.	
MR. TEERAPAT SANGUANKOTCHAKORN	• Holds advanced degrees in information processing and electrical engineering. • **2018-Present:** Chairman of the Audit Committee, Thai PBS • **2018-Present:** Board of Governors, Thai PBS • **2004-Present:** Associate Professor, Telecommunications Field of Study, School of Engineering and Technologies, Asian Institute of Technology	• Recognized expert in cybersecurity and artificial intelligence, underpinned by over two decades of experience in engineering, technology, and governance, he brings strategic foresight in managing ESG risks related to cybersecurity, AI ethics, and digital transformation.	

BOARD OF DIRECTORS NOMINATION

The Corporate Governance and Nomination Committee is responsible for setting nomination criteria and reviewing the qualifications of the candidates. The tenure of independent directors must not exceed 9 years or 3 consecutive terms. Additionally, directors shall serve a term of 3 years and must not hold more than 5 external directorships in other listed companies. In the nomination process, the Company values diversity in the board structure and assesses candidates across a range of factors, including independence, experience, skill, expertise, gender, nationality, age, and religion. A board skills matrix is used to evaluate candidates to ensure benefits to the Company and the expectations of stakeholders. After the screening process, nominated individuals are proposed to the Board for approval before being proposed to shareholders at the annual general meeting.

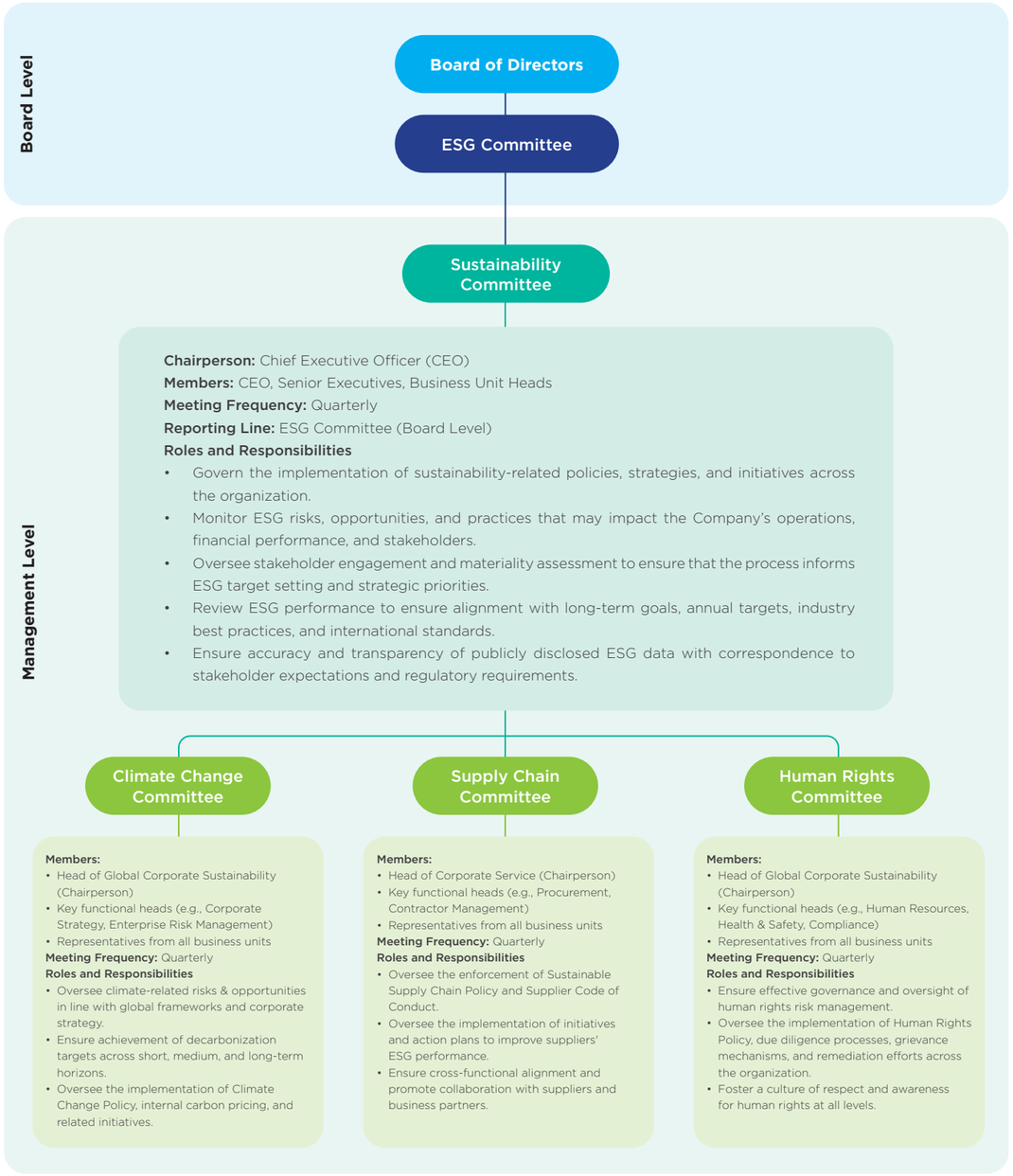
CONFLICT OF INTEREST MANAGEMENT

The Board of Directors is steadfast in ensuring that the decision-making processes remain unbiased and focused on the best interests of the organization and its stakeholders. The directors, executives, or employees are prohibited from engaging in activities that directly compete with the Company or transactions that may lead to a conflict of interest with the Company. If such a transaction is unavoidable, the Board of Directors shall ensure that the transaction is carried out with transparency and fairness similar to transactions carried out with unrelated parties. An employee with a vested interest in a transaction must abstain from the approval process. If a transaction is considered a connected transaction according to the announcement of the Stock Exchange of Thailand, the Board of Directors must make sure that the relevant rules and procedures for disclosure regarding connected transactions by listed companies are strictly complied with.

MANAGEMENT GOVERNANCE

The Company believes that strong governance is the foundation of sustainable business operations. To lead this effort, the Company has established a "Sustainability Committee", a strategic group chaired by the CEO and comprised of senior executives and business unit heads from all countries where we operate. In addition, 3 sub-committees: Climate Change Committee, Human Rights Committee, and Supply Chain Committee, have been established to drive ESG transformation across the organization, ensuring that sustainability is not only a goal but a core part of how we operate.

Management Governance

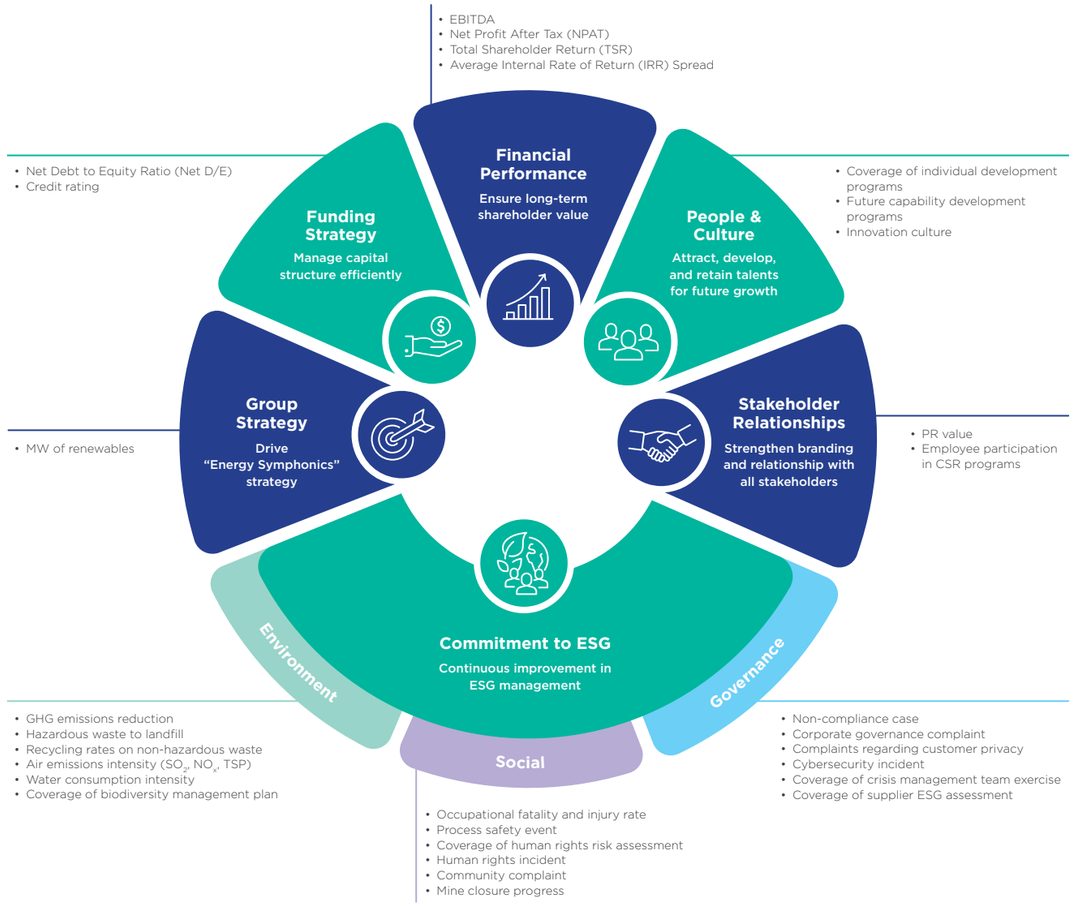


CEO PERFORMANCE EVALUATION AND VARIABLE COMPENSATION

The CEO's Key Performance Indicators (KPIs) are established under the oversight of the Board of Directors, with the Compensation Committee playing a vital role in reviewing and recommending these metrics. These KPIs guide the evaluation of the CEO's annual performance and are directly linked to variable compensation, ensuring alignment with the Company's strategic goals and long-term shareholder value. These indicators are assessed annually and benchmarked against industry peers to ensure competitive and responsible financial stewardship. Performance outcomes are reviewed by the Compensation Committee and approved by the Board.

The CEO's performance scorecard is divided into 6 key areas: Group Strategy, Funding Strategy, Financial Performance, People & Culture, Stakeholder Relationships, and Commitment to ESG. Each category contributes to the CEO's overall performance with specific weightings. For example, financial performance metrics account for 20%, and ESG-related KPIs contribute 15%. The financial metrics used to evaluate the CEO's performance are focused on capital efficiency and return-based indicators, such as Total Shareholder Return (TSR), Average Internal Rate of Return (IRR) Spread, and Net Debt to Equity Ratio (Net D/E).

The ESG component of the CEO's KPIs includes a focused set of performance indicators across environmental, social, and governance dimensions. These KPIs are selected based on materiality assessments and their alignment with sustainability objectives. Key ESG indicators include measurable outcomes in environmental impact (e.g., GHG emissions reduction), social performance (e.g., workplace safety), and governance (e.g., cybersecurity breach).



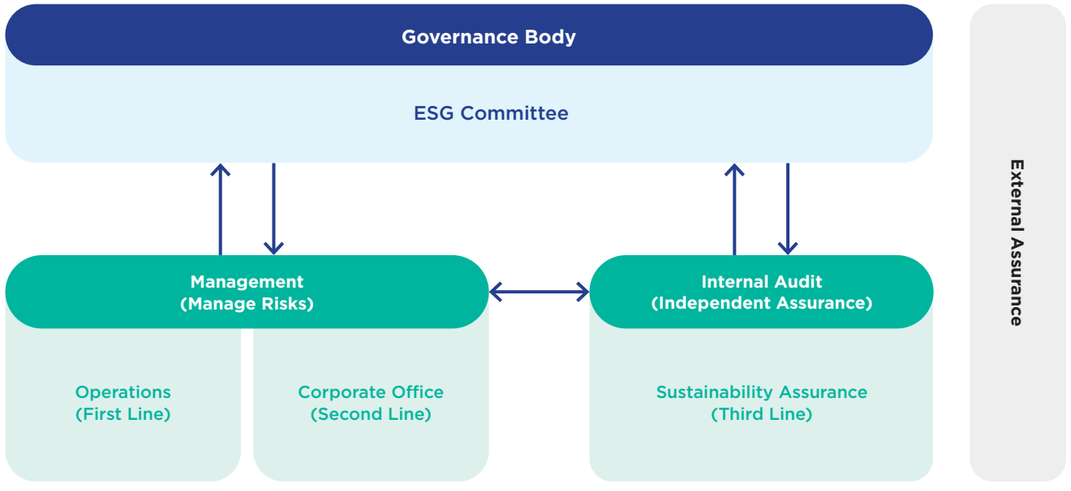
The variable compensation of senior executives, such as Chief Operating Officer (COO) and Chief Financial Officer (CFO), is directly tied to performance outcomes against the KPIs. This pay-for-performance approach ensures that remuneration and incentives are performance-driven and aligned with long-term business objectives.

SUSTAINABILITY ASSURANCE

Sustainability assurance is a crucial process that enhances the credibility, reliability, and transparency of Banpu's sustainability practices. It involves the evaluation of the Company's sustainability processes, data, and disclosures to ensure that the information presented is accurate, comprehensive, and aligned with recognized international standards and frameworks. This assurance process not only helps build trust with stakeholders but also supports Banpu in achieving our long-term sustainability goals.

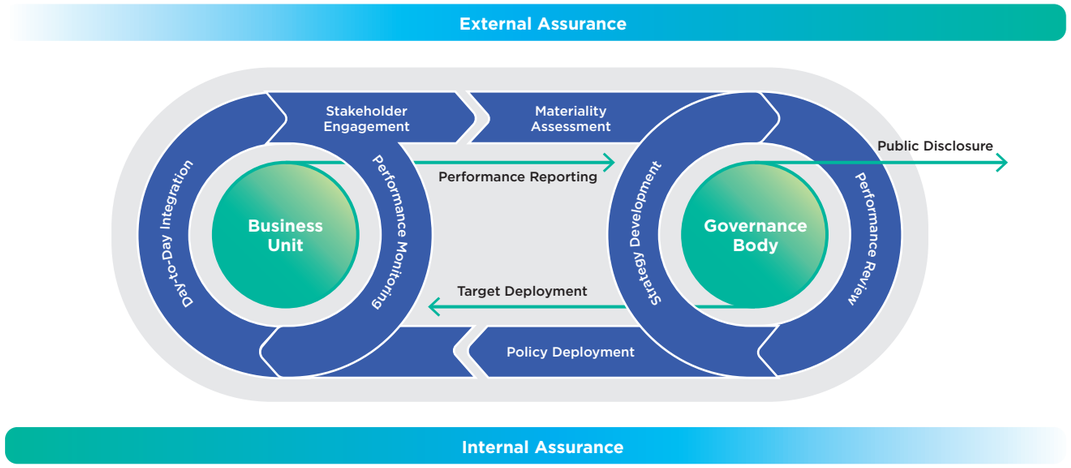
THREE LINES OF DEFENSE IN ESG MANAGEMENT

Banpu adopts the Three Lines of Defense model, a widely recognized framework for managing Environmental, Social, and Governance (ESG) risks. This approach helps ensure effective governance, accountability, and continuous improvement across all levels of ESG management.



1. **First Line of Defense: Operations**
   Operational Departments are responsible for the day-to-day management of ESG topics within their respective areas. This includes identifying ESG risks and opportunities, ensuring compliance with internal policies and external regulations, and integrating ESG considerations into business operations.
2. **Second Line of Defense: Corporate Office**
   Specialized Functions at the Corporate Office provide oversight and support to the first line. This includes establishing ESG-related policies, offering training and capacity building, and facilitating communication between strategic oversight and operational execution. The second line ensures that ESG-related policies, standards, and targets are effectively communicated and understood across the organization.
3. **Third Line of Defense: Sustainability Assurance**
   Sustainability Assurance Department conducts quality assurance reviews (QAR) to evaluate the effectiveness of ESG management and control processes. This function independently assesses the adequacy and effectiveness of both the first and second lines through audits, process reviews, and recommendations for improvements.

In addition to internal assurance, Banpu engages independent third-party auditors to conduct external assurance. These auditors assess the sustainability data and disclosures in accordance with internationally recognized standards, further enhancing the credibility and transparency of Banpu's sustainability performance disclosed to the public.



SUSTAINABILITY PROCESS ASSURANCE

Sustainability process assurance focuses on evaluating the effectiveness and consistency of the Company's sustainability management processes.

- Internal Assurance: Conducted annually by the Sustainability Assurance Function and relevant internal functions to ensure alignment with policies, standards, and procedures established by the Corporate Office.
- External Assurance: Performed by third-party auditors following international standards such as ISO, AA1000, and GRI to validate that processes meet recognized benchmarks.

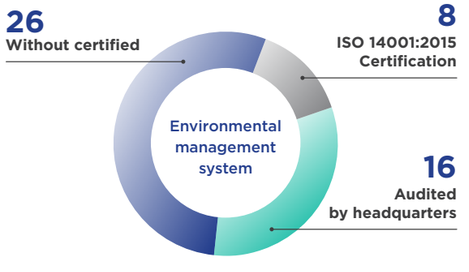
SUSTAINABILITY DATA ASSURANCE

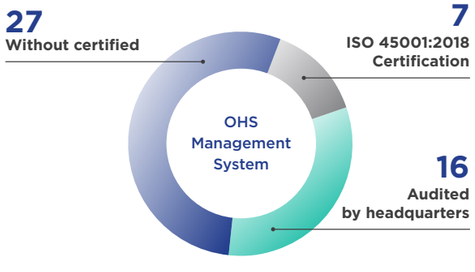
Sustainability data assurance focuses on verifying the accuracy, completeness, and reliability of the data disclosed to stakeholders.

- Internal Assurance: Conducted annually by the Sustainability Assurance Function to ensure that data is collected and reported in line with both GRI Standards and internal controls.
- External Assurance: Overseen by the Corporate Sustainability Function, which engages independent third-party assurance providers to verify the data disclosed in the sustainability report regarding its compliance with GRI Standards.

MANAGEMENT SYSTEM CERTIFICATION

The Company maintains environmental and occupational health and safety (OHS) management systems across all business units, with annual internal audits conducted by specialists from headquarters. In addition, the Company engages third parties to conduct independent assessments in selected business units. These certifications are in accordance with ISO 14001:2015 for environmental management and ISO 45001:2018 for OHS management.





STAKEHOLDER ENGAGEMENT

The Company deeply values the perspectives of all stakeholders, recognizing that their insights are crucial for enhancing management practices and operational efficiency. To ensure responsiveness to stakeholder interests, Banpu applies the stakeholder analysis standard developed based on the international AA1000 Stakeholder Engagement Standard (AA1000SES). The Company's stakeholder engagement is guided by three core principles — inclusivity, materiality, and responsiveness. Engagement results from each business unit are meticulously analyzed at a corporate level, under the diligent supervision of the Sustainability Committee and the ESG Committee. This process ensures alignment with Banpu's sustainability objectives and responsiveness to stakeholder expectations. Further details on engagement methods and stakeholder issues are provided on pages 136-137 of this report.

Stakeholder Engagement

PROCESS OF STAKEHOLDER ANALYSIS

IDENTIFY STAKEHOLDERS → DEFINE LEVELS OF THE COMPANY'S IMPACTS ON STAKEHOLDERS → DEFINE LEVELS OF STAKEHOLDERS' INFLUENCE ON THE COMPANY → CATEGORIZE STAKEHOLDERS → PRIORITIZE STAKEHOLDERS

Employee
The skills, dedication, and well-being of employees are fundamental to the Company's productivity, innovation, and overall organizational success.

Government and Regulator
Compliance with regulatory requirements is critical to maintain our license to operate, avoid legal risks, and ensure public trust.

Customer
Customer satisfaction and loyalty are key drivers of demand for our energy solutions and are central to our sustainability and success.

Investor
Investor confidence fuels the Company's ability to explore new opportunities, scale operations, and ensure sustainable performance.

Supplier
The Company relies on suppliers for high-quality materials and services, which are critical to operational efficiency, product quality, and maintaining a resilient supply chain.

Investment Analyst
Analysts shape market perception and influence company valuations, which can positively impact the Company's reputation, investor interest, and capital access.

Contractor
The expertise and performance of contractors directly influence the Company's ability to complete projects and deliver products and services on time and within budget.

Media
Media plays a key role in shaping public perception and brand image by communicating the Company's achievements and sustainability efforts to a broader audience.

Business Partner
Collaborations with business partners help the Company expand our capabilities, enter new markets, and strengthen our competitive edge.

NGOs
Partnerships with NGOs help the Company address social and environmental challenges while enhancing our social license to operate.

Shareholder
The financial investments and continued confidence of shareholders provide essential support for the Company's operations, growth, and long-term stability.

Academic institution
Collaborations with universities and research institutions drive innovation, support technological advancements, and the Company's sustainability objectives.

Financial Capital Provider
Access to the necessary capital from banks and other financial institutions enables the Company to pursue our strategic goals and maintain financial health.

Local Community
Engaging with local communities ensures mutual benefits, supports development programs, and helps address concerns, fostering trust and goodwill.

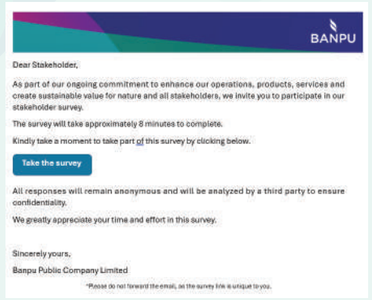
2024 STAKEHOLDER SURVEY

Banpu recognizes the importance of engaging with stakeholders to ensure that their needs, expectations, and concerns are effectively identified and properly managed. The stakeholder survey is conducted annually to assess satisfaction levels, gather expectations, and understand their perspectives on key sustainability issues.

In 2024, Banpu engaged a third-party firm (NielsenIQ) to conduct the survey. All stakeholder information was treated with strict confidentiality and disclosed only to a third party under legally binding agreements. All responses were anonymized and used solely for research and data analysis, with no names or identifiable details included in the final reports presented to the Company.

Throughout 2024, stakeholders highlighted several challenges and priority areas. The top 5 issues identified were greenhouse gas emissions, community engagement, air emissions & waste, supplier management, and economic distribution.

These insights are the key input in the 2025 materiality assessment, helping the Company identify improvement areas, enhance stakeholder satisfaction, and strengthen long-term stakeholder relationships.


BANPU

Dear Stakeholder,

As part of our ongoing commitment to enhance our operations, products, services and create sustainable value for nature and all stakeholders, we invite you to participate in our stakeholder survey.

The survey will take approximately 8 minutes to complete.

Kindly take a moment to take part of this survey by clicking below.

Take the survey

All responses will remain anonymous and will be analyzed by a third party to ensure confidentiality.

We greatly appreciate your time and effort in this survey.

Sincerely yours,

Banpu Public Company Limited

*Please do not forward the email, as the survey link is unique to you.

Method	• Self-completion online survey • Paper-based survey
Coverage	4 Businesses across 7 Countries • Mining: Thailand, Indonesia, Mongolia • Gas: the U.S. • Power: Thailand, China, Vietnam, Japan • Energy Technology: Thailand
Stakeholder Group	• Customer • Business partner (e.g., joint ventures) • Supplier • Service provider (e.g., contractor, consultant) • Financial capital provider (e.g., bank) • Investor and investment analyst • Media, NGOs, and academic institution • Government & regulator • Local Community
Language	7 (English, Thai, Indonesian, Mongolian, Japanese, Chinese, Vietnamese)
Survey Period	19 August - 4 September 2024

948 Total Stakeholders Invited

34% Response Rate

9.4/10 Overall Satisfaction

9.5/10 Professionalism Level

9.5/10 Engagement Level

MATERIALITY ASSESSMENT

The material topics are prioritized through a structured assessment standard, which was developed based on the international frameworks, including GRI Standards and AA1000 AccountAbility Principles Standard (AA1000APS). This approach covers evaluating governance, environmental and social topics for their impact not only on the Company but also on the broader spectrums of natural, social, and human capitals. The material topics are reviewed and approved annually by management through the Sustainability Committee and the Board of Directors through the ESG Committee to ensure relevance and accuracy.

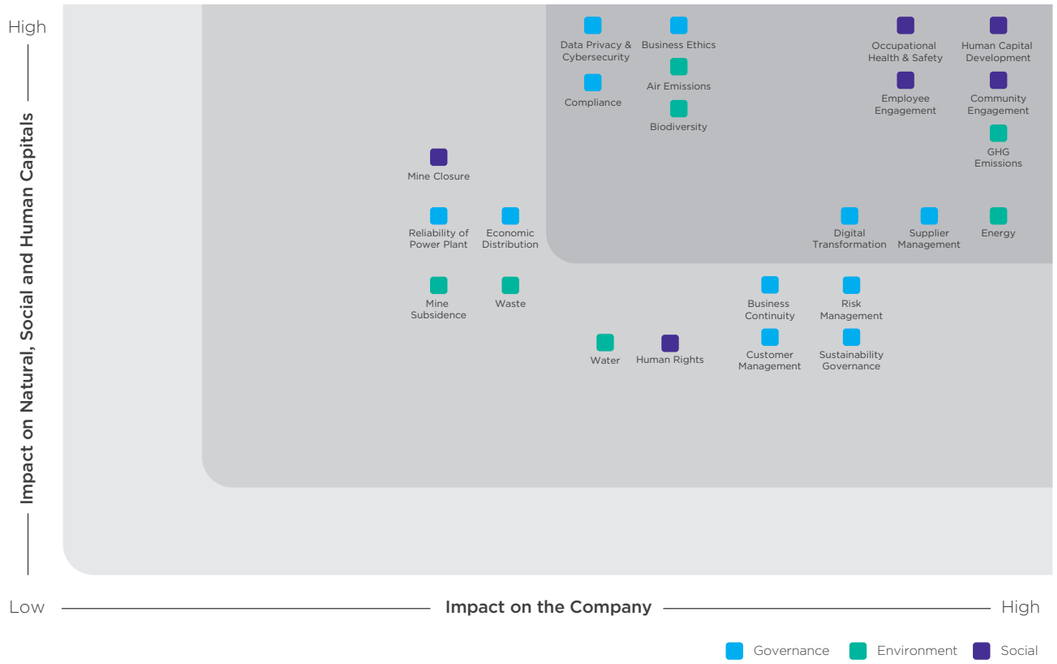
Materiality Assessment

MATERIALITY ASSESSMENT PROCESS

In 2022, the Company conducted a comprehensive materiality assessment, incorporating global trends, peer benchmarks, and insights from senior executives across business units. The assessment resulted in 24 significant topics, with 13 identified as material to the Company for the 2022-2024 period.

In 2024, an internal panel discussion was performed and reaffirmed 24 significant and 13 material topics. To enhance relevance and clarity for stakeholders, the Company streamlined the process by renaming and grouping related topics, resulting in a more focused list of 19 sustainability topics for reporting. Key updates include merging “Compliance” with “Risk Management”, integrating “Mine Subsidence” into “Mine Closure & Rehabilitation”, combining “Energy” under “Process Improvement & Innovation” and embedding “Cybersecurity” into “Business Resilience & Continuity”.

MATERIALITY MATRIX



MATERIAL TOPICS IMPACT ASSESSMENT

Material Topic	Impact Details	Impact to Capital			Value Chain Impact			Sustainability Topic in the Report	Key Action Taken	GRI Standards
		NATURAL	SOCIAL	HUMAN	UPSTREAM	ORGANIZATION	DOWNSTREAM			
Compliance	Regulatory compliance avoids fines, sanctions, or loss of operating licenses.		●			●		Compliance & Risk Management	Adhere to evolving regulations, minimize legal risks, and ensure stakeholder confidence across all operations.	2-27
Business Ethics	Ethical practices safeguard reputation and preserve stakeholder trust.		●			●		Business Ethics	Promote transparency, fairness, and responsible practices across all decision-making levels.	205, 206
Digital Transformation	Improving efficiency, agility, and innovation enables the Company to adapt to future market demands.		●		●	●		Digital Transformation	Deploy digital tools to optimize performance, increase efficiency, and enhance data-driven decision-making across operations.	-
Data Privacy & Cybersecurity	Breaches can compromise stakeholder trust and business continuity.		●	●	●	●	●	Business Resilience & Continuity	Safeguard data through robust cybersecurity measures to ensure resilience and stakeholder trust.	-
Supplier Management	Poor supplier practices can lead to reputational and operational risks.	●	●	●	●	●		Supplier Management	Apply robust supplier management standards and ensure responsible sourcing throughout the supply chain.	204, 308, 414
GHG Emissions	Controlling GHG emissions through strict regulations is a global priority.	●	●		●	●	●	Climate Change	Set net zero target, invest in low-carbon technologies and process improvements to reduce GHG emissions and align with global climate goals.	305
Energy	Energy consumption impacts operating costs and emissions.	●	●		●	●	●	Process Improvement & Innovation	Optimize energy use through efficiency management programs, and clean energy adoption to support cost control and decarbonization.	302
Biodiversity	Land use and resource extraction can degrade ecosystems and affect species, especially in mining operations.	●	●		●	●		Biodiversity	Commit to a net positive impact, conduct biodiversity impact assessment, and implement biodiversity management plan.	304
Air Emissions	Pollutants from operations harm health and ecosystems, as well as attract regulatory and public concern.	●	●		●	●	●	Air Emissions	Minimize air emissions through state-of-the-art technology and robust control systems.	305
Employee Engagement	Engaged employees enhance productivity and competitive advantages.			●		●		Employee Engagement	Foster a high-trust culture through feedback, inclusion, and recognition initiatives, and harmonize diverse backgrounds through corporate culture “Banpu Heart”.	202, 401, 402, 405
Human Capital Development	Attracting and retaining talents affects productivity and strategic success.			●		●		Talent Management & Development	Invest in employee development programs and customize learning & development roadmap to grow internal talent and ensure workforce adaptability.	404
Occupational Health & Safety	Accidents and illnesses reduce morale and affect the Company’s reputation.		●	●	●	●		Occupational Health & Safety	Embed safety culture with rigorous protocols, training, and performance monitoring across all operations.	403
Community Engagement	Building trust with local stakeholders avoids conflict and ensures social license to operate.		●	●	●	●		Community & Society	Foster trust and shared value through active community engagement programs as well as support local employment,	411, 413

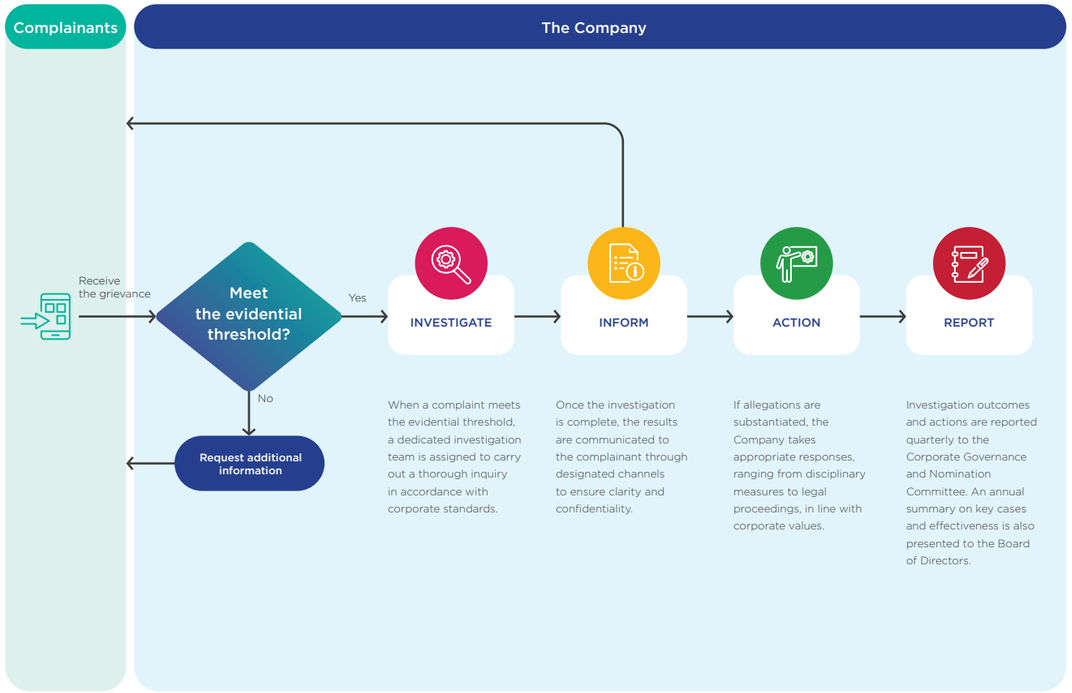
GRIEVANCE MANAGEMENT

The Company is committed to upholding transparency, accountability, and ethical conduct through a robust grievance mechanism that ensures all concerns related to corporate behavior are addressed fairly, effectively, and in a timely manner.

The grievance system has been implemented across the Banpu group, providing accessible and confidential channels for all stakeholders to raise concerns regarding any aspect of the Company's operations. To support continuous improvement, stakeholders are also invited to provide feedback on the grievance process through the annual stakeholder survey.

Whistleblowing Policy

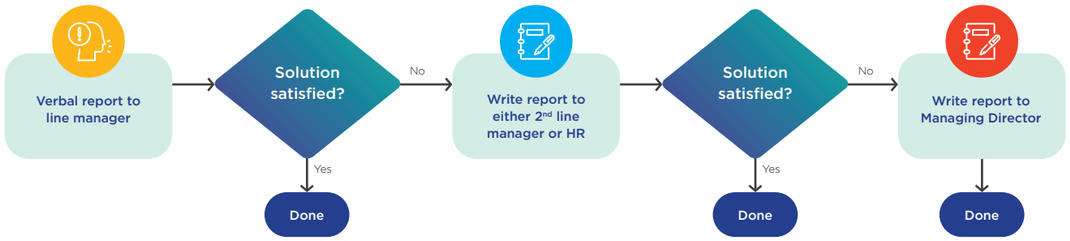
GRIEVANCE HANDLING PROCESS



In addition to the centralized corporate grievance mechanisms, local grievance channels are in place at the site level to enable community members and other local stakeholders to raise concerns more easily. Employees across the Banpu group also have access to a dedicated internal reporting system, ensuring they can confidentially report concerns or misconduct without fear of retaliation.

EMPLOYEES GRIEVANCE GUIDELINES

The Company is committed to fostering a positive, respectful, and transparent workplace. To support this, a structured grievance process has been established for employees to report unfair treatment, disciplinary actions, benefit denials, or other work-related concerns.



Verbal
Employees should initially report concerns to their immediate supervisor, who is responsible for reviewing and resolving the issue within 3 working days. The outcome must be communicated to both the employee and the next-level supervisor.

Written
If unsatisfied, the employee may submit a written grievance within 5 working days of receiving the initial decision. Upon receiving the complaint, the supervisor must provide a written response within 15 working days and escalate as needed.

Appeal
If the grievance remains unresolved, the employee may appeal to the Managing Director via HR within 7 working days of receiving the supervisor's response.

WHISTLEBLOWERS SAFEGUARDS

The Company is committed to protecting the rights and safety of individuals who report violations or participate in investigations, offering protections that include, but are not limited to:

- **Retaliation Protection:** No unfair treatment, harassment, or retaliation against employees, temporary staff, or outsourced personnel for reporting violations or cooperating in investigations.
- **Confidentiality Assurance:** Identity of the whistleblower and details of the report are kept strictly confidential, unless disclosure is mandated by law or necessary for legal proceedings.
- **Confidentiality Breach Penalties:** Unauthorized disclosure of a whistleblower's identity or report content is subject to disciplinary action, including potential legal consequences.

COMPLAINT CHANNELS

Company has set up various complaint channels to enable stakeholders to report concerns across all areas effectively.

Letter:
Corporate Governance Division
Banpu Public Company Limited,
27th Floor, Thanapoom Tower,
1550 New Petchburi Road,
Makkasan, Ratchathewi, Bangkok 10400

Website:
https://www.banpu.co.th/complaint/

Email:
GNCchairman@banpu.co.th
GNCsecretariat@banpu.co.th

VOLUNTARY COMMITMENTS

As part of Banpu's commitment to delivering "Smarter Energy for Sustainability," the Company has voluntarily embraced global best practices and industry-leading standards to continuously enhance our sustainability performance. This proactive approach ensures that sustainability is deeply integrated into the Company's operations, enabling Banpu to not only meet but exceed stakeholder expectations while contributing meaningfully to a more sustainable future.

REPORTING & DISCLOSURE FRAMEWORK

Banpu publishes our sustainability report based on GRI Standards and assures alignment through third-party verification to ensure transparency and accountability.

Banpu discloses sustainability-related financial information aligned with IFRS Sustainability Disclosure Standards to enhance comparability with global reporting practices.

Banpu applies TCFD recommendations to our climate-related risks and opportunities disclosure and integrates climate strategy into business planning and investment communication.

Banpu adopts TNFD framework in our biodiversity and ecosystems management practices and targets a net-positive impact on biodiversity across our operations.

Banpu aligns ESRS S3 on affected communities to address social impacts, enhance engagement, and improve reporting on stakeholder well-being.

GLOBAL GOALS & PRINCIPLES

Banpu integrates the United Nations Sustainable Development Goals (SDGs) into our long-term corporate strategies and supports the global sustainability agenda.

Since 2020, Banpu has committed to the 10 principles of UN Global Compact (UNGC) and submits our Communication on Progress (CoP) annually.

Banpu is committed to upholding human rights by aligning operations with the principles outlined by the Office of the United Nations High Commissioner for Human Rights (OHCHR), the International Bill of Human Rights, and the UN Guiding Principles on Business and Human Rights (UNGPs).

Banpu is committed to upholding the principles set forth by the International Labor Organization (ILO) in our operations to ensure fair labor practices, safe working conditions, and workers' rights across all operations.

SUSTAINABILITY BENCHMARK & RATING

Banpu has used insights from S&P Global Corporate Sustainability Assessment to benchmark ESG performance and refine our corporate sustainability strategy since 2014.

Banpu had responded to CDP on climate since 2010 and extended to water and forests in 2017 and 2019, respectively, to strengthen environmental governance and risk management.

Banpu aligns our strategies, policies, and disclosures with MSCI ESG Ratings to ensure sustainable growth and long-term value creation for all stakeholders.

Banpu adopts FTSE Russell ESG Scores to strengthen the transparency and enhance accountability of sustainability reporting to our stakeholders.

Banpu participates in EcoVadis assessments to benchmark and improve sustainability practices across our operations and supply chain.

INTERNATIONAL STANDARDS & GUIDELINES

Banpu aligns our practices and policies with the OECD Guidelines for Multinational Enterprises to ensure transparency, accountability, and ethical behavior across business activities.

Banpu applies ICMM mining principles to our ESG management standards, especially in mine subsidence, mine closure, and community resettlement.

Banpu adopts AA1000 AccountAbility Principles Standard (AA1000APS) and AA1000 Stakeholder Engagement Standard (AA1000SES) to our stakeholder engagement and materiality assessment frameworks.

Banpu adopts IFC Performance Standard on Environmental and Social Sustainability to ESG risk management across our operations and project lifecycle.

Banpu integrates the COSO ERM framework into our enterprise risk management and strategic decision-making process.

BANPU AND SDGs

BANPU COMMITMENT 2030 SUSTAINABLE DEVELOPMENT GOALS

Move towards a circular economy by minimizing direct disposal waste to zero

6 CLEAN WATER AND SANITATION

- Zero hazardous waste to landfill
- <0.130 kg/MWh of non-hazardous waste disposal intensity for thermal power business
- <0.146 kg/tonne of non-hazardous waste disposal intensity for mining business

Support Just Transition by ensuring the benefits of sustainable energy are shared

7 AFFORDABLE AND CLEAN ENERGY

- >50% of consolidated EBITDA from non-coal related businesses by 2030
- Accelerate renewables business across Asia-pacific region and beyond

Respect and uphold human rights as defined by UN Guiding Principles

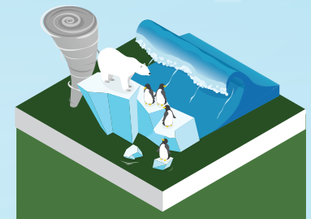
8 DECENT WORK AND ECONOMIC GROWTH

- Zero occupational fatalities
- Zero process safety events
- 100% of business units assessed for human rights impact

Ensure sustainable consumption with responsible use of natural resources

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

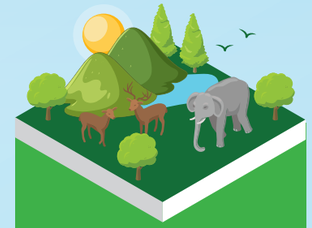
- 100% recycling rate on non-hazardous waste
- 5% energy intensity reduction from 2019 by 2025 for mining business



Proactive on climate-related initiatives to reduce GHG emissions at all business units

13 CLIMATE ACTION

- Achieve Net Zero emissions by 2050
- 20% GHG emissions (scope 1&2) reduction from 2023 by 2030



Partner with stakeholders to ensure net gains for biodiversity at the end of project lifetime

15 LIFE ON LAND

- Net positive impact on biodiversity upon closure of the project
- 100% of business units assessed for potential biodiversity impact

Collaborate with stakeholders for achieving all other Sustainable Development Goals

17 PARTNERSHIPS FOR THE GOALS

- Embed SDGs into all community development projects
- 100% of tier-1 supplier assessed for ESG risks

GOVERNANCE

Strong governance is the foundation of Banpu's success, ensuring transparency, ethical business practices, and sustainable value creation. Through digital transformation, the Company enhances efficiency, while sustainable supply chains reinforce responsible sourcing and reduce environmental impact. Banpu's supplier code of conduct upholds the highest standards across our operations. Additionally, ESG performance evaluation serves as a key driver for continuous improvement, ensuring accountability, transparency, and long-term value for all stakeholders.

50 Compliance & Risk Management
54 Business Ethics
58 Economic Distribution
62 Process Improvement & Innovation
66 Business Resilience & Continuity
70 Digital Transformation
74 Supplier Management
78 Customer Stewardship

COMPLIANCE & RISK MANAGEMENT

SIGNIFICANCE & COMMITMENT

Banpu operates within a complex business environment that requires strict compliance with a broad spectrum of permits, licenses, laws, and regulations. Regulatory compliance is embedded in day-to-day operations to prevent fines, sanctions, and reputational risks. To support sustainable growth and ensure long-term resilience, we integrate ESG factors into our risk management framework. This approach enables the Company to mitigate potential negative impacts while capturing emerging opportunities and aligns with global sustainability goals.

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Number of significant non-compliance	0	0	0
• Number of significant fines	0	0	0
• Number of significant non-monetary sanctions	0	0	0
Total amount of significant fines (USD)	0	0	0
Coverage of ESG issues in the enterprise risk management	98%	100%	100%

MANAGEMENT APPROACH

The Company's risk management process is designed to systematically identify, assess, mitigate, and monitor risks, while fostering a strong culture of risk awareness across the organization. This process ensures alignment with the Company's strategic objectives, stakeholder expectations, and sustainability commitments. Environmental, Social, and Governance (ESG) factors are fully embedded within the broader Enterprise Risk Management (ERM) framework, with governance oversight provided by the Board of Directors and the ESG Committee. The framework consists of 5 key elements: risk identification, risk assessment, risk mitigation, monitoring and reporting, and risk awareness.

Management Approach

To ensure regulatory compliance in a complex business environment, the Company has also implemented a dedicated Regulatory Compliance Risk Management System, aligned with ISO 37301:2021. This structured process, referred to as the Regulatory Compliance Risk Management Cycle, is under the supervision of the Audit Committee. As part of this system, the Compliance Obligations List (COL) is routinely updated and newly developed when new business units are established.

Additionally, the Company promotes risk and compliance awareness through training programs, e-newsletters, and employee engagement activities across all levels of the organization. As part of its improvement efforts, an internal audit of the risk management process is conducted every 2 years to ensure effectiveness and adherence to best practices. The next internal audit is scheduled for 2025.

YEAR IN REVIEW

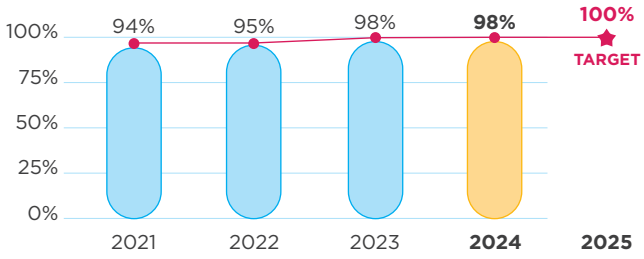
In 2024, the Company strengthened compliance efforts by updating COLs and conducting annual compliance verification. With a robust governance system, no significant fines or sanctions were incurred. In terms of ESG risk management, the Company identified 6 high-priority ESG risks: changes in laws and regulations, insufficient talent pipeline, inability to execute sustainable growth strategy, failure to achieve emission reduction targets, supply chain disruption, and cyber threats. In addition, 2 emerging risks were recognized: competitive disadvantages arising from advancements in AI and economic downturn affecting the achievement of ESG goals. To address these risks, robust mitigation plans were integrated into the corporate risk management framework.

TARGETS AND PROGRESS

The Company evaluates coverage of ESG risk management by assessing the effectiveness of current controls and mitigation plans across all identified material ESG issues. These risks are mapped to the ERM framework, with progress monitored through quarterly reports submitted to relevant governance bodies. While comprehensive mitigation plans are in place for the majority of ESG risks, the current ERM framework does not yet fully integrate supplier management, which accounts for 2% of ESG issues. To address this gap, the Company is actively enhancing supplier management practices by establishing clear supplier ESG standards, refining ESG criteria for supplier selection, and conducting ESG performance evaluations to ensure all suppliers operate in alignment with the Company's Supplier Code of Conduct. As a result of robust ESG and compliance practices, the Company incurred neither significant fines nor non-monetary sanctions to date.

Significant non-compliance

Coverage of ESG risk management



MANAGEMENT OF ESG RISK

	Societal	Economic	Environment
Risk Item	Human Capital Capability	Cybersecurity & Personal Data Protection	Climate Change
Risk Appetite	• Commit to maintaining a sufficient leadership pipeline for all N-1 and critical N-2 positions. • Commit to maintaining and deploying a highly motivated, diverse, talented, and empowered workforce to ensure alignment with business direction • Strive to develop a global career track towards opportunities across countries	• Commit to providing safe and reliable IT systems and processes, ensuring the protection of information, as well as compliance with applicable laws and regulations • Commit to ensuring adequate security controls following the international information security standard to ensure the confidence of interested parties	• Commit to managing the transition and physical climate-related risks, both current and future scenarios, and managing the risks and opportunities associated with the strategic commitment to achieve the net-zero target as planned
Likelihood	Medium	Medium	Medium
Impact	High	High	High
Mitigation Action	• Align organizational structure with business needs for agility and efficiency • Allocate 5% of the salary budget for training and development • Develop a corporate learning framework to address competency gaps • Implement the Banpu Global Leadership Program for cross-cultural collaboration • Strengthen key professional skills and cultivate a growth mindset with digital capabilities • Use the Success Factor system for succession planning in critical roles	• Adopt ISO/IEC 27001 Standards by establishing cybersecurity policies to prevent threats • Appoint Global Information Security Officer (GISO) to oversee cybersecurity and ensure data protection compliance • Strengthen cyber oversight by conducting vulnerability assessments and enhancing Cyber-Physical Systems (CPS) • Conduct cyber drills by performing annual response and recovery exercises • Set up Security Operation Center (SOC) to monitor and respond to cyber threats in real-time • Enforce Data Privacy Policies by safeguarding sensitive information to build trust	• Set targets to achieve Net Zero by 2050, reduce emissions by 20%, and cut coal-related EBITDA to below 50% by 2030 • Set up the Climate Change Committee to monitor changes in related policies and regulations • Embed climate change management as one of the KPIs for the CEO and senior management • Disclose Climate Change Report following the TCFD framework • Expand investments in renewable energy and related business (e.g., CCUS)

ESG RISK MANAGEMENT FRAMEWORK

The enterprise risk management (ERM) framework is implemented across the organization. To ensure alignment with the Company's strategic objectives, stakeholder expectations, and sustainability commitments, ESG factors are fully integrated into the ERM framework, with governance oversight provided by the Board of Directors and the ESG Committee. The process consists of 5 key elements: identification, assessment, mitigation, monitoring & reporting, and risk awareness.

Risk Management

1. **Identify Risks:** ESG risks are identified across operational, environmental, social, and governance dimensions. This involves stakeholder engagement, expert consultation, and external trend monitoring to anticipate emerging challenges and opportunities.
2. **Assess Risks:** Risks are evaluated using a risk matrix to analyze and assess both likelihood and impact. The results are visualized through a risk map to prioritize the risks that may have significant impacts and enable targeted risk response planning.
3. **Mitigate Risks:** Tailored risk management plans are developed for high-priority risks. These include operational improvements, policy updates, and proactive measures to minimize potential impacts and leverage business opportunities.
4. **Monitor and Report Risks:** Risk profiles are continuously monitored, with regular updates to the Risk Management Committee, Audit Committee, ESG Committee, and the Board of Directors. This ensures that responses remain aligned with governance and organizational priorities.
5. **Promote Risk Awareness:** Risk awareness is fostered across the organization through training, internal communications, and stakeholder engagement. This encourages proactive risk management and alignment with ESG objectives.

RISK INTEGRATION INTO PRODUCT & SERVICE DEVELOPMENT

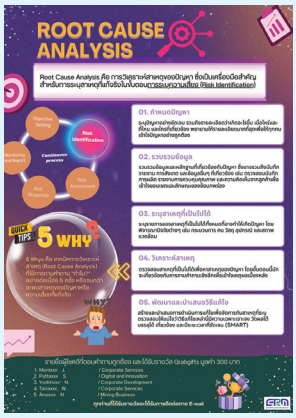
Banpu integrates risk criteria into product and service development by embedding risk assessments into the investment decision-making process. The comprehensive ESG due diligence is conducted to assess environmental and social impacts, regulatory compliance, and mitigation measures for high-risk areas identified in the risk profile. This approach ensures alignment with sustainability principles, financial targets, and regulatory requirements while impact analysis and mitigation plans proactively manage risks and drive long-term value creation.

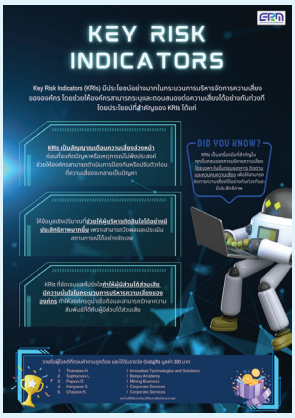
MANAGEMENT OF EMERGING RISKS

	Risk of Competitive Disadvantages Arising from Advancements in Artificial Intelligence (AI)	Risk of Economic Downturn Affecting the Achievement of ESG Goals
Category	Economic	Environment
Description	The rapid evolution of Artificial Intelligence (AI) challenges businesses in integrating it with traditional workflows, managing cultural shifts, and ensuring responsible AI use. Failure to adapt may significantly reduce operational efficiency and competitiveness.	Global economic slowdown driven by inflation, geopolitical tensions, and trade disruptions poses challenges for businesses in achieving ESG goals, particularly due to high initial investment costs of sustainability projects and long-term financial returns.
Impact	• Reduced operational efficiency and competitiveness. • Higher risks of ethical and safety issues in AI implementation • Challenges in cultural adaptation within the organization	• Difficulty in achieving ESG goals • Reduced funding for sustainable projects due to cost-cutting measures • Supply chain inefficiencies impacting business continuity
Mitigation Action	• Develop and implement an Enterprise AI strategy • Assign dedicated AI teams to align innovation with organizational goals • Implement Generative AI policies with clear guidelines and governance • Enhance workforce skills through AI-focused training programs	• Establish ESG-focused committees for strategy and monitoring • Integrate sustainability into the "Energy Symphonics" strategy • Prioritize ESG risks and align new investments with strategic goals • Optimize processes using digital and AI technologies for efficiency

RISK CULTURE

The Company promotes a robust risk management culture by incorporating risk considerations into key decision-making forums and embedding risk management practices into employee training programs. Risk workshops are organized to enhance employees' understanding and strengthen their risk assessment capabilities. In addition, communication materials and engagement activities are developed to encourage active employee participation in risk-related initiatives, fostering greater awareness, ownership, and engagement.





BOARD EXPERTISE IN ESG RISK MANAGEMENT

The Board and the ESG Committee comprise members with diverse and extensive expertise in managing ESG risks, derived from diverse backgrounds in governance, environmen, and corporate social responsibility. Their experience provides the Company with the strategic oversight necessary to navigate complex ESG challenges and drive sustainability initiatives.

To ensure governance excellence, Banpu prioritizes continuous capacity-building initiatives for both the Board and the ESG Committee. This includes structured knowledge-sharing sessions and collaborations with external thought leaders, enabling directors to remain well-informed about the evolving ESG landscape and its implications. In 2024, the Board and ESG Committee participated in targeted initiatives to deepen their capabilities and understanding of ESG-related risks and opportunities. Key focus areas included "Digital Risk Awareness" and "Cybersecurity and AI Tech Awareness."

Through these ongoing efforts, Banpu's leadership reaffirms our commitment to proactive ESG risk management, reinforcing organizational resilience, and creating sustainable value for all stakeholders.

REGULATORY COMPLIANCE MANAGEMENT

Banpu manages regulatory compliance risk through a structured process known as the "Regulatory Compliance Risk Management Cycle," aligned with ISO 37301:2021. The Cycle consists of 4 elements.

Compliance Management

1. **Identification:** Regulatory compliance risk identification is a deliberate, systematic process designed to identify and document regulatory compliance risk. These include obligations arising from laws, regulations, permits, and other legal requirements.
2. **Assessment:** Regulatory compliance risk assessment is an essential part of the framework. It enables risk owners to gain a comprehensive understanding of their exposure to compliance risk associated with business activities.
3. **Reporting:** Regulatory compliance risk reporting allows corporate compliance and local compliance teams to track the Company's exposure to compliance risks across the group. To make appropriate business decisions, it is therefore essential that the reporting is done in a timely, accurate, and complete manner.
4. **Monitoring:** Monitoring is an ongoing process that serves both predictive and detective functions. It enables early identification and correction before escalating into non-compliance events. It also verifies that the controls throughout the Cycle are functioning as intended. Monitoring enhances the accuracy, efficiency, and effectiveness of the Cycle by identifying potential or actual control failures.

BUSINESS ETHICS

SIGNIFICANCE & COMMITMENT

Business ethics stands at the heart of stakeholder trust and long-term business success. For Banpu, operating business by adhering to ethical practices is not only for maintaining a strong corporate reputation but also forms the foundation of stakeholder confidence. The Company is committed to upholding the highest standards of corporate governance and ethical conduct.

Corporate Governance Policy and Code of Conduct

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Number of significant corporate governance complaints	0	0	0
Proportion of significant corporate governance complaints resolved through a dispute mechanism	NA*	100%	100%

* No significant corporate governance complaints

MANAGEMENT APPROACH

The Company implements a Corporate Governance Policy and Code of Conduct aligned with international standards, including the ASEAN Corporate Governance Scorecard, OECD Guidelines, and the Corporate Governance principles of Thai listed companies according to the Securities and Exchange Act, the Securities and Exchange Commission (SEC), and the Stock Exchange of Thailand (SET). These policies are regularly reviewed and updated to ensure continued alignment with evolving regulations and global best practices.

Management Approach

Recognizing the importance of conflicts of interest management, the Code of Conduct strictly prohibits board members, executives, and employees from using their positions for personal gain or engaging in transactions that could conflict with the Company's interests. To reinforce this commitment, we have implemented the formal Anti-Corruption Policy, which explicitly prohibits direct or indirect involvement in any form of corruption by directors, management, and employees. Each year, the Company conducts a comprehensive corruption risk assessment across all business units, including subsidiaries and joint ventures, with results submitted to the Risk Management Committee.

To further embed ethical conduct in the organizational culture, the Company integrates ethical behavior into the employee compensation framework, linking it directly to the behavioral component of the annual performance review. To strengthen employee awareness, we have introduced a structured communication framework across business operations.

YEAR IN REVIEW

In 2024, Banpu successfully renewed its membership in the Thai Private Sector Collective Action Against Corruption (CAC) for the third consecutive term, reaffirming its commitment to ethical business practices. The Anti-Corruption Policy was also revised to align with the latest CAC guidelines. Moreover, a series of awareness and communication activities was launched under the theme "CG Whistle Guard." These activities were organized across the group, with particular focus on the mining business in Indonesia.

CG Whistle Guard

TARGETS AND PROGRESS

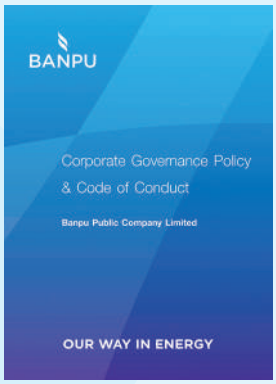
Banpu is firmly committed to conducting business with transparency, integrity, and strong corporate governance. This commitment is measured through 3 key indicators that reflect the effectiveness of governance practices and ethical oversight across the organization: Number of significant corporate governance complaints—reflecting stakeholder trust in and utilization of the Whistleblower Policy as a channel for reporting misconduct, Code of Conduct Compliance Index—assessing employee awareness and adherence to ethical standards across the organization, and coverage of business units assessed for corruption risks—preventing potential corruption risks to the Company.

Number of significant corporate governance complaints

Coverage of business units assessed for corruption risks

CORPORATE GOVERNANCE POLICY

Banpu has established the “Corporate Governance Policy and Code of Conduct” for directors, management, and employees at all levels since 2002, reinforcing our commitment to responsible, honest, transparent, and ethical business practices. This policy serves as a foundation for building stakeholder confidence and strengthens the Company's competitiveness on a global level. It provides clear and practical guidance on key issues such as conflict of interest management, stakeholder engagement, anti-corruption, and whistleblowing.



The Company reviews this policy annually to ensure its alignment with evolving business environments, legal and regulatory requirements, and evolving corporate governance best practices. The Board of Directors has assigned the Corporate Governance and Nomination Committee to conduct an initial review of the policy before submitting the updated policy to the Board of Directors for approval. To ensure consistent understanding, the Company conducts regular communication and training programs for directors, management, and employees at all levels.

To assess the effectiveness of the Corporate Governance Policy, the Company monitors and evaluates its implementation using the annual employee engagement survey, focusing on the “Committed” dimension of the corporate culture. Results, segmented by employee level and work location, indicate a satisfactory level of understanding and alignment with the Corporate Governance Policy across the organization.

ANTI-CORRUPTION POLICY

Banpu is committed to conducting business with integrity, adhering to ethical standards and good corporate governance. To reinforce this commitment, we have implemented the formal Anti-Corruption Policy that explicitly prohibits direct or indirect involvement in any form of corruption by directors, management, and employees. The policy clearly defines roles, responsibilities, and control measures to ensure that all business activities associated with corruption risks are thoroughly assessed, monitored, and transparently conducted.

Anti-Corruption Policy

CAC CERTIFIED

To foster awareness and compliance, the policy and practices have been regularly communicated internally, ensuring all employees are informed about appropriate practices. As part of this effort, we also issued the formal “No Gift Policy Letter” to external stakeholders, requesting their cooperation in refraining from offering gifts to the Board, management, and employees.

BUSINESS ETHICS LINKED TO EMPLOYEE REMUNERATION

Banpu emphasizes the importance of adherence to the Corporate Governance Policy and Code of Conduct by integrating ethical behavior into the employee compensation framework. Annual compensation is determined based on 2 key factors: performance outcomes and behavior alignment.

The annual performance evaluation is structured with 70% weight on Key Performance Indicators (KPIs), measuring employees' actual performance against goals, and 30% on behavioral alignment with the corporate culture, "Banpu Heart." Within this behavioral component, the "Committed" dimension defines behavioral characteristics that reflect business ethics, emphasizing the principle of "Do the right things, always." This criterion reinforces the expectation that all employees act with integrity, accountability, and professionalism in their roles.

The results of the performance evaluation serve as the basis for determining annual compensation adjustments and as a guide for employee personal development plans, ensuring that both capability-building and value-driven culture are sustained across the organization.

CORRUPTION RISK ASSESSMENT

Each year, the Company conducts a comprehensive corruption risk assessment across all business units, including subsidiaries and joint ventures. The assessment results are submitted to the Risk Management Committee for oversight and continuous improvement. These assessments are designed to identify potential vulnerabilities and guide the implementation of preventive measures tailored to business-specific contexts. Based on the 2024 assessment, key corruption risks included reputation risk from gifts to key stakeholders and reputation risk from benefits to government officials.

Key Corruption Risks and Mitigation Measures

	Reputation risk from gifts to key stakeholders	Reputation risk from benefits to government officials
Description	Accepting and offering gifts during occasions (i.e., New Year, organizational reshuffles, or retirements) may lead to perceptions of undue influence or favoritism	Provision of improper benefits during permit and license application processes could result in operational delays or legal repercussions
Impact	Bias or jeopardize business opportunities	Operational delays or suspension of business activities
Mitigation Action	• Announced stakeholder relations management policy • Reinforced anti-corruption policy • Deployed corporate standards for accepting and offering gifts, hospitality, or other similar forms of reward • Adherence to the No Gift Policy	• Reinforced anti-bribery and corruption policy and the Code of Conduct • Established standard procedures for permit and license management and obligation fulfillment & monitoring • Rigorous document verification to ensure compliance and avoid unnecessary delays

CG WHISTLE GUARD

Banpu launched the "CG Whistle Guard" initiative to strengthen employee awareness and engagement around corporate governance. Designed as a communication framework, this initiative supports key activities, including internal email campaigns, communication channels, and CG Day events. It specifically promotes understanding of the Whistleblower Policy as a key mechanism to prevent misconduct and reinforce the broader impact of ethical behavior in safeguarding the Company's integrity and employee trust.

As part of this initiative, the Company delivered 2 internal email communications and 3 CG news updates through the "Friday News" internal broadcast. To ensure effective communication across its global workforce, all materials were localized into the respective languages of each country. These efforts encouraged all employees to uphold the CG Policy and Code of Conduct, reinforcing Banpu's ongoing commitment to transparency, accountability, and ethical business practices.

CG DAY 2024

CG Day 2024 was held to promote corporate governance awareness and reinforce the "Adhere to Integrity and Ethics" behaviors among employees at all levels. Designed as a hybrid event, the format reflected Banpu's commitment to inclusivity and adaptability to modern work practices. Highlights activities included a vision-sharing session by senior management and a keynote address by Asst. Prof. Dr. Torplus Yomnak on the theme "Strengthening Integrity: Anti-Corruption Reform for Effective Governance." The event aligned closely with the Company's core values, inspiring employees to embrace ethical conduct as an essential foundation of Banpu's long-term success.

ECONOMIC DISTRIBUTION

SIGNIFICANCE & COMMITMENT

Banpu believes that business success should be measured not only by profitability but also by its ability to create and distribute economic value among all stakeholders. As a responsible corporate citizen, the Company is committed to sharing economic value with related stakeholders. Economic distribution is embedded as a core element for the Company, ensuring that the benefits of growth are shared equitably with employees, local communities, suppliers, governments, and investors.

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Dividends payout (USD million)	105	-	-
Ratio of dividend payout to net profits	NA*	≥50%	≥50%

* The Company recorded a net loss.

MANAGEMENT APPROACH

The Company's commitment to equitable economic value distribution is embedded in the day-to-day business operations and reflects our role as a good corporate citizen in every country where we operate. Beyond compliance with applicable laws and regulations, the Company demonstrates this commitment through the payments of taxes and fees, the promotion of local employment, and the spending on local products or services where possible.

Management Approach

The Company aims to pay dividends of approximately 50% of its consolidated net profit, after deduction of all reserves required by governing laws and the Company itself. However, the actual dividend payout ratio is subject to the Company's cash flow, investment plans, and other relevant considerations deemed appropriate by management.

In addition, Banpu is dedicated to corporate philanthropy that aligns with the core values and supports sustainable development. The Company's corporate philanthropy policy ensures that all contributions are ethical, transparent, and focused on high-impact areas such as education, health, economic development, environmental conservation, arts and culture, social welfare, and emergency relief.

To ensure transparency and accountability, the Company applies international frameworks across practices, such as applying the London Benchmarking Group (LBG) framework as a guideline for the classification of community investment. Moreover, the economic value distributed data and transfer pricing documents for intra-group transactions are independently verified by third parties and made available to related stakeholders.

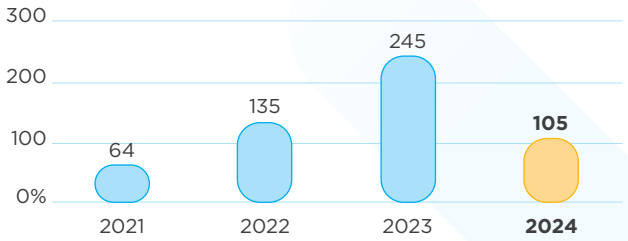
YEAR IN REVIEW

In 2024, Banpu reported a total sales revenue of USD 4,818 million and distributed USD 105 million in dividends to shareholders. In line with its commitment to inclusive economic growth, the Company continued to share economic value across key stakeholder groups, including employees, governments, local communities, and suppliers.

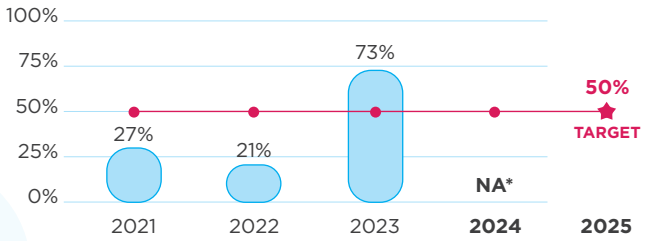
TARGETS AND PROGRESS

The Company aims to pay dividends of approximately 50% of its consolidated net profit, after deducting statutory and internal reserves. Despite facing challenges and recording a net loss in 2024, Banpu demonstrated resilience and commitment to delivering value to our shareholders by paying dividends in the amount of USD 105 million.

Dividends payout (USD million)



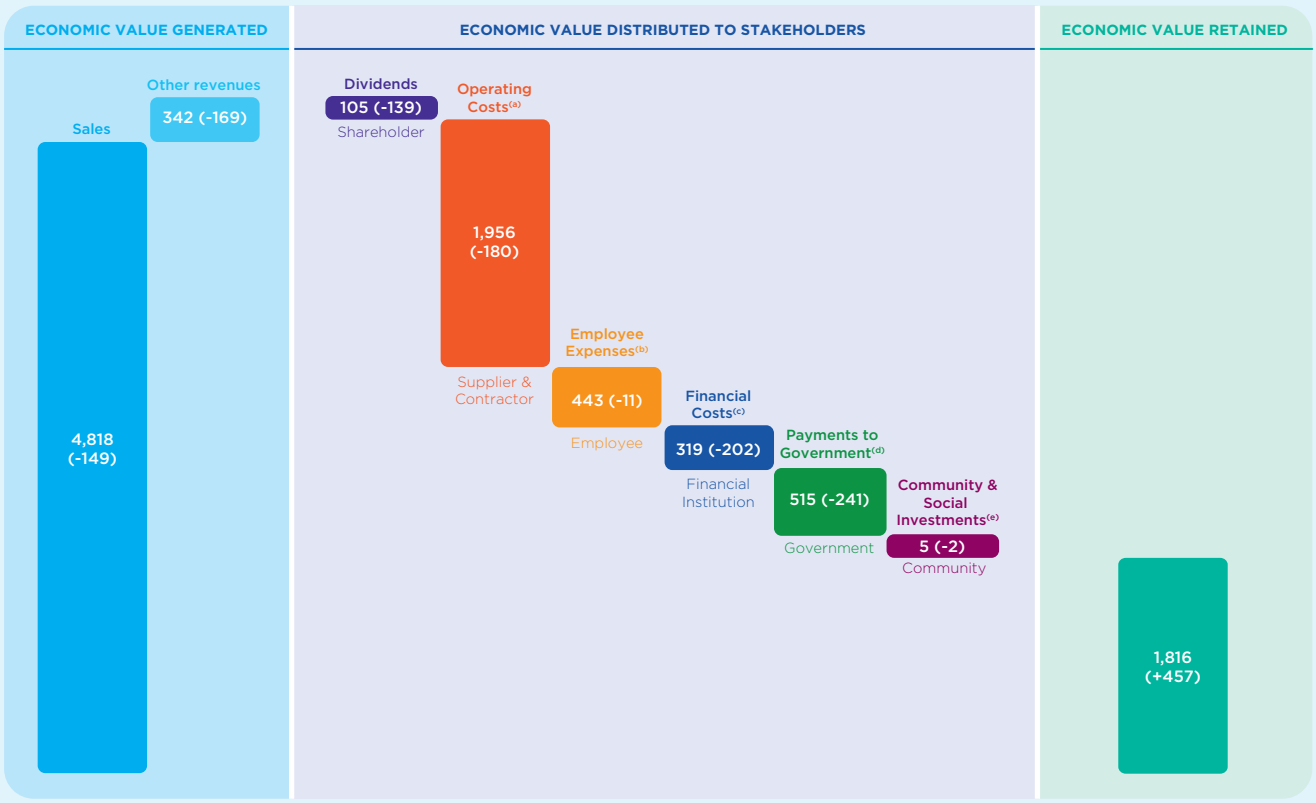
Ratio of the dividend payout to net profits



* The Company recorded a net loss.

ECONOMIC VALUE DISTRIBUTION

The Company is committed to generating and distributing economic value to stakeholders through various channels. These efforts ensure sustainable growth, foster innovation, and contribute to long-term profitability. By doing so, Banpu ensures that our success is shared across the value chain and reinforces our role as a responsible corporate citizen. The key channels through which economic value is distributed include operating costs to suppliers & contractors, remuneration and other benefits provided to employees, interest and financial expenses to financial institutions, royalty fees and taxes paid to the government, and community development expenses supporting local communities.



Units: USD million

(a) Include contractor costs, fuel costs, and all other operating costs
(b) Include remuneration and benefits, provident fund contributions, employee development expenses
(c) Include interest and financial expenses
(d) Include royalty fee, corporate income tax, local maintenance tax, property tax, specific business tax, and other taxes and payment to the government
(e) Include community development expenses, corporate social responsibility activities, and land compensation

PUBLIC POLICY INFLUENCE

To demonstrate transparency and accountability in engagement with public policy and industry advocacy, the Company discloses all monetary contributions made to political campaigns, lobbying efforts, trade associations, and other relevant groups whose primary role is to influence legislation or political outcomes. In 2024, the Company allocated a total of USD 413,000 to organizations whose primary role is to influence public policy or legislative activities. This includes USD 7,000 for lobbying and interest representation, and USD 406,000 in membership fees and contributions to trade associations and tax-exempt groups such as industry associations and chambers of commerce. No contributions were made to political parties, political campaigns, or other political interest groups, and no expenses were incurred for the setup or operation of Political Action Committees (PACs).

In addition, the Company made USD 2.34 million in charitable donations and sponsorships, reflecting its broader commitment to sustainable development and community well-being. All contributions undergo internal governance review to ensure alignment with corporate values, ethical standards, and stakeholder expectations.

2024 Three Largest Contributions

Name of Organization	Objective	Amount (USD)
Mining Trade Association Australia	Support industry-wide policy dialogue and standards development	380,779
Change Fusion Institute Under Foundation for Thailand Rural Reconstruction Movement Under Royal Patronage	Engage in public advocacy and social enterprise development	145,885
The Thai Bond Market Association	Engage in financial market regulation and policy development	63,867

INDIRECT ECONOMIC IMPACT ASSESSMENT

Banpu places economic distribution at the core of our sustainability strategy, recognizing that business success extends beyond profitability and is reflected in the positive economic impact created for stakeholders. In addition to direct contributions such as taxes, employment, and local procurement, the Company actively considers indirect economic impacts–the broader consequences of the business activities. These impacts include:

- **Job Creation:** Beyond direct employment, Banpu's operations can stimulate job opportunities in related industries and local enterprises.
- **Local Economic Growth:** By sourcing locally and investing in community projects, Banpu contributes to local economic development.
- **Infrastructure Development:** Investments in infrastructure generate long-term benefits by enhancing access to services and enhancing quality of life for local communities.

By focusing on both direct and indirect economic impacts, Banpu ensures that our operations support not only immediate stakeholders but also contribute to the long-term, inclusive growth of the regions where we operate.

TAX MANAGEMENT

Being a responsible corporate citizen in every country where we operate is the Company's top priority. In addition to compliance with applicable laws and regulations, the Company demonstrates a strong commitment to transparency through the disclosure of tax payments. Moreover, the transfer price for intra-group service transactions is conducted based on principles of transparency and fairness to ensure the appropriate and equitable benefit to the host countries. For transparency, all tax-related information is disclosed to relevant stakeholders in accordance with international best practices and in alignment with local regulatory requirements.

Tax Management Approach

Transfer Pricing Guidebook

CORPORATE PHILANTHROPY

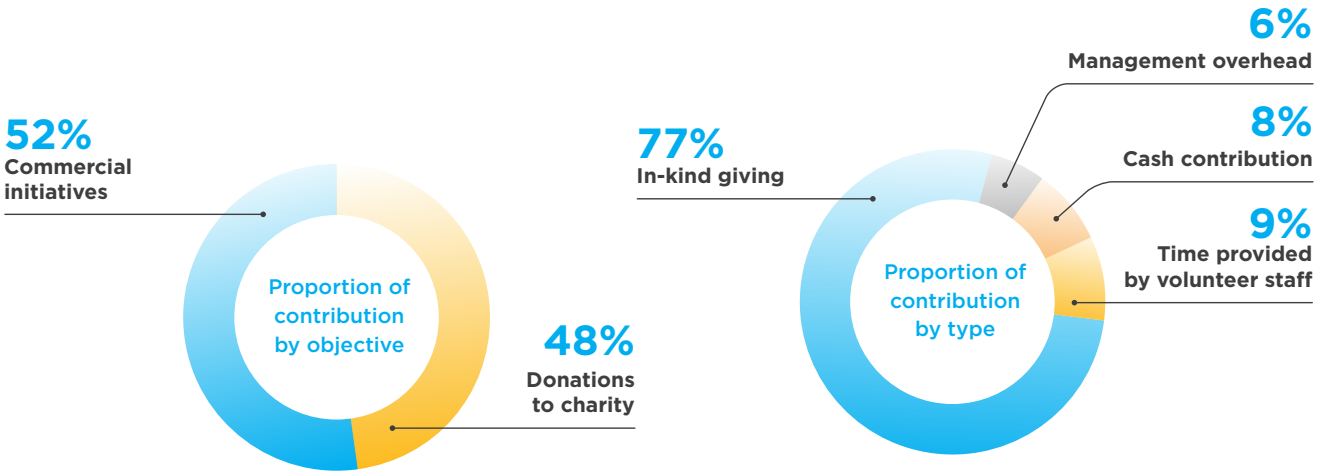
Banpu's corporate philanthropy is dedicated to creating societal value while fostering sustainable business growth. Our initiatives span a wide range of impact areas, including education, health, economic development, environmental conservation, arts and culture, social welfare, and emergency relief.

Corporate Philanthropy Policy

To ensure integrity and effectiveness, we have established a Corporate Philanthropy Policy that aligns with our corporate values. The policy includes key performance indicators to track progress and ensure continuous improvement. Through these efforts, Banpu aims to deliver lasting positive impacts on societies and the environment, ensuring that our business practices contribute to a better world for all.

CORPORATE COMMUNITY AND SOCIAL INVESTMENT

The Company places great importance on supporting and investing in community and social development as part of our commitment to inclusive and sustainable growth. The objective is to balance the value created across stakeholders. To ensure a clear direction on community investment, the Company has applied the London Benchmarking Group (LBG) framework as a guideline in categorizing community investments.



PROCESS IMPROVEMENT & INNOVATION

SIGNIFICANCE & COMMITMENT

Energy is a cornerstone of economic growth and community well-being, yet the rising global demand presents challenges in maintaining supply balance and controlling cost. To address these issues, the Company places strong emphasis on maximizing energy efficiency by optimizing the operational processes to enhance system reliability and contribute to long-term energy security.

PERFORMANCE OVERVIEW

		2024	Target 2024	Target 2025
Total energy consumption intensity				
• Mining business (GJ/tonne coal)	✗	0.530	≤0.433	≤0.428
• Thermal power business (GJ/MWh)	✓	2.48	≤2.84	≤2.84
Availability Factor (AF)				
• Combined heat and power plants	✓	94.15%	≥90%	≥90%
• Combined cycle gas turbine plants	✓	88.53%	≥85%	≥85%
Forced Outage Factor (FOF)				
• Combined heat and power plants	✓	0%	<5.0%	<5.0%
• Combined cycle gas turbine plants	✓	0.77%	<2.5%	<2.5%
Overall Efficiency (OE)				
• Combined heat and power plants	✓	84.24%	≥75.0%	≥75.0%
• Combined cycle gas turbine plants	✓	48.10%	≥47.7%	≥47.7%

MANAGEMENT APPROACH

Given the diverse nature of Banpu's operations, the Company adopts tailored energy conservation strategies suited to each business type and regional context. In Indonesia's open-pit mining operations, initiatives focus on enhancing transportation energy efficiency, including replacing haul trucks with conveyor systems, optimizing fuel-efficient routes, and transitioning to electric vehicles. In contrast, Australia's underground mining operations emphasize electricity efficiency, deploying automated control systems to optimize coal cutting and conveying speeds and conducting regular equipment maintenance to maintain peak performance.

Management Approach

Banpu also operates two key power generation technologies: Combined Heat and Power (CHP) and Combined Cycle Gas Turbine (CCGT), each contributing to both energy efficiency and business resilience. CHP plants enhance fuel utilization by producing electricity and thermal energy simultaneously and are further optimized through the exploration of alternative fuels such as biomass co-firing to lower emissions. CCGT plants, serving the merchant market, offer operational flexibility and help stabilize revenue by ensuring a reliable power supply during peak demand. Together, these technologies form an integral part of Banpu's strategy to ensure efficient, flexible, and sustainable energy generation across its portfolio.

YEAR IN REVIEW

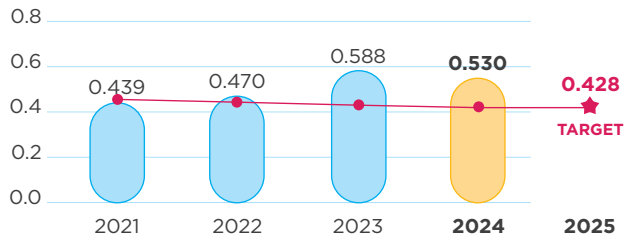
In 2024, the Company continued to explore initiatives to reduce energy consumption and enhance efficiency. Key efforts included improving boiler efficiency by installing low-emission equipment that contributes to both energy savings and emission reduction and introducing a digital management platform to oversee and optimize mining activities, which enables real-time decision-making.

TARGETS AND PROGRESS

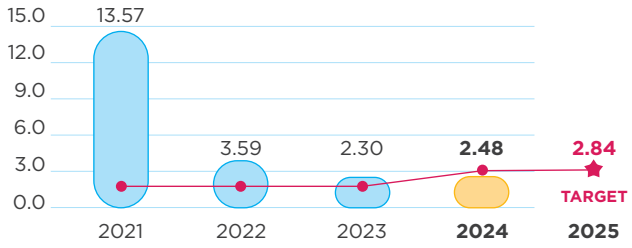
Although the energy consumption intensity remains slightly above the target, the Company successfully reduced energy consumption intensity from 0.588 to 0.530 GJ/tonne of coal for the mining business. The improvement reflects ongoing efforts to enhance efficiency in mining operations. The Company will continue to closely monitor the progress of energy reduction initiatives to ensure that the long-term target will be met.

For thermal power business, in response to business growth and increased power generation capacity to ensure energy security and meet rising consumer demands, the energy consumption intensity for 2024 reached 2.484 GJ/MWh, a slight increase from the previous year. Despite this, the performance remained within the target, supported by strong implementation of energy reduction programs throughout our operations.

Total energy consumption intensity
Mining business (GJ/tonne coal)



Total energy consumption intensity
Thermal power business (GJ/MWh)

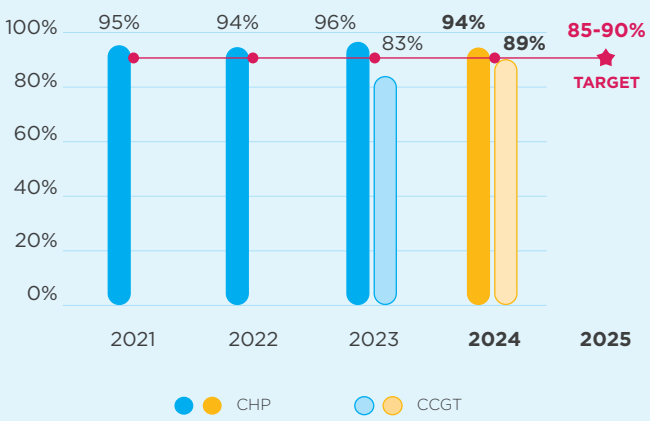


POWER PLANT RELIABILITY MANAGEMENT

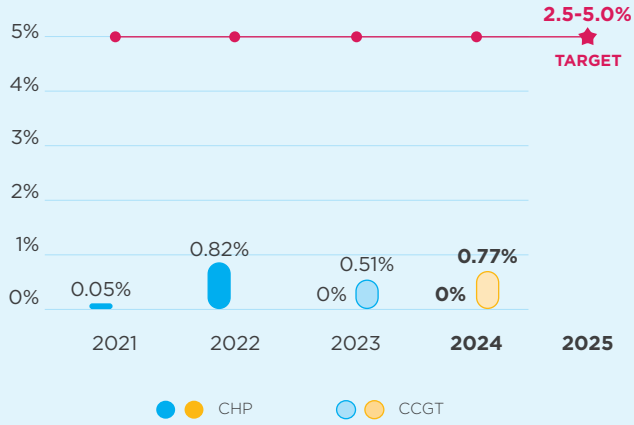
As an energy provider, power plant reliability is critical to ensuring a stable and efficient energy supply for our customers. To ensure this, the Company employs key performance indicators such as Availability Factor (AF) to measure the percentage of time power plants are capable of producing electricity, Forced Outage Factor (FOF) to track unplanned shutdowns, and Overall Efficiency (OE) to evaluate the effectiveness of energy conversion from fuel to electricity.

By continuously monitoring these metrics, Banpu identifies performance gaps, enhances maintenance strategies, and ensures optimal operation of both thermal and renewable power assets. This data-driven approach not only improves reliability but also supports long-term energy security and cost efficiency.

Availability Factor (AF)



Forced Outage Factor (FOF)



FLUE GAS HEAT RECOVERY PROJECT AT ZOUPING

With carbon emissions allowances for coal-fired power plants becoming increasingly stringent, reducing coal consumption while maintaining stable operational performance has become a crucial priority.

In response, Zouping Power Plant launched a project to enhance boiler efficiency by installing a new low-pressure economizer between the air preheater and the electric stationary precipitator (ESP). In this system, high-temperature (145°C) flue gas flows through the economizer, reducing the temperature to 115°C, to heat up the water from 85°C to 104°C then before returning to the deaerator of the feedwater system of the boiler.

Location	China
Project Duration	2024-Present
Impact on Natural Capital	• Reduced 2,242 tonnes of coal consumption per year • Saved 30,000 tonnes of water consumption per year • Reduced 5,829 tonnes CO_2e per year

ENERGY MANAGEMENT

Given the diversity of operations, the Company adopts tailored energy conservation strategies across each business sector to maximize efficiency and system reliability.

Energy

- Open-pit mining: Focusing on transportation efficiency through the use of conveyor belts, optimized haul routes, and a transition to electric vehicles to reduce fuel consumption and emissions.
- Underground mining: Prioritizing electricity efficiency via automated control systems and routine equipment maintenance to maintain highest working efficiency.
- Renewable energy and solar rooftop operations: Enhancing fuel efficiency by optimizing travel and maintenance schedules.
- Combined Heat and Power (CHP) Plant: Leveraging co-generation and the use of alternative fuels to improve overall energy utilization.
- Combined Cycle Gas Turbine (CCGT) plants: Offering flexible, high-efficiency electricity generation to meet variable demand.

INNOVATION SYMPHONICS: SHAPING THE PATH TO SUSTAINABLE GROWTH

At Banpu, innovation extends beyond adopting new technologies, it thrives on collaboration and creativity. Through the UnBox iDeas program, employees engage in an agile, well-supported environment that encourages experimentation, develops end-to-end solutions, tackles operational challenges, and explores business opportunities. This hands-on approach fosters learning, feedback sharing, and an entrepreneurial mindset. Participants also grow into Subject Matter Experts and internal facilitators, promoting knowledge transfer and sustaining innovation culture.

To support and steer innovation efforts, we have established the Banpu Innovation Group Committee, which plays a significant role in governing and driving innovation within the Company. This Committee helps define sustainable innovation themes that are aligned with the organization's strategy, set evaluation criteria, and create reward systems to encourage employee participation in innovation projects.

The key events such as the "Thailand Innovation Awards" and "Banpu Global Innovation Awards" serve as platforms for employees across global networks to showcase their creative and innovative ideas to top management and global colleagues fostering a healthy competitive spirit while helping to build a global innovation community.

Banpu Global Innovation Awards	
Participants	754 people
Coverage	13% of FTEs
Project Duration	2012 – Present
Outcome	21 Get Real Projects 10 Ideate Topics
Impact Value	USD 197 million

Examples of initiatives driving sustainable growth included Decarbonization with Barnett Zero by BKV and Infinite Café Powered by Banpu NEXT.

1. **Barnett Zero by BKV** – the U.S.: A decarbonization initiative aimed at reducing carbon emissions from natural gas production. This project supports Banpu's strategy to achieve carbon neutrality by 2030.

2. **Infinite Cafe Powered by Banpu NEXT** – Thailand: A showcase of a Net-Zero society, the cafe runs entirely on 100% clean solar power and battery energy storage. Integrated with a digital platform, it monitors carbon savings and supports smart waste management.

At Banpu, innovation drives our sustainability and growth. By evolving practices, fostering borderless collaboration, and empowering people through our "Innovation Symphonics", we stay confident on capability to create long-term value for society and environment.

BUSINESS RESILIENCE & CONTINUITY

SIGNIFICANCE & COMMITMENT

The Company is committed to ensuring resilience and sustainability by embedding business continuity into the core business strategy, enabling the Company to mitigate risks, recover quickly from disruptions, and maintain stable operations across various scenarios. This encompasses the protection of both physical and digital assets, which is increasingly critical in today's digital era. With robust business continuity and cybersecurity measures in place, the Company safeguards critical assets while ensuring organizational agility and preparedness for future challenges.

Business Continuity Policy

Information and Cybersecurity Policy

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Coverage of CMT and IMT exercise	80%	≥85%	100%
Coverage of BCP exercise for critical business functions	73%	≥47%	≥64%
Number of cybersecurity breaches	2	0	0
Number of IT infrastructure incidents	1	0	0
Percentage of IT and IoT assets securely managed by security operation center	70%	≥90%	-
Cybersecurity & privacy maturity score	4.0	≥2.5	-

MANAGEMENT APPROACH

The Company's business continuity management system, aligned with ISO 22301:2019, focuses on identifying critical business functions, conducting business impact analyses, developing Business Continuity Plans (BCPs), and carrying out regular BCP testing and exercises. To enable effective crisis response, the Company has established dedicated crisis and emergency management teams across four levels: corporate, country, site, and front-line levels. Specialized teams such as the Crisis Communication and Disaster Recovery Teams provide additional support during critical situations. The system's effectiveness is reviewed annually through audits and management reviews, ensuring continuous improvement in preparedness and response.

Management Approach

To complement physical continuity, the Company implemented the Information and Cybersecurity Policy, aligned with the ISO/IEC 27001 framework. This policy governs both Information Technology (IT) and Operational Technology (OT), with a focus on ongoing vulnerability identification, third-party risk management, and cybersecurity awareness. To ensure that cybersecurity is effectively managed, the Company has appointed a Global Information Security Officer (GISO) to oversee data privacy and cybersecurity strategy. Additionally, the Information Security Management System (ISMS) Committee has been established to ensure that the related policies and practices are effectively implemented across business functions.

YEAR IN REVIEW

In 2024, the Company conducted BCP testing and exercises at both the corporate and country levels in Thailand, Australia, China, and Vietnam. The business continuity policy was reviewed to ensure alignment with strategic goals and operational requirements. A key milestone was achieved in Vietnam, where a subsidiary officially launched its business continuity management system.

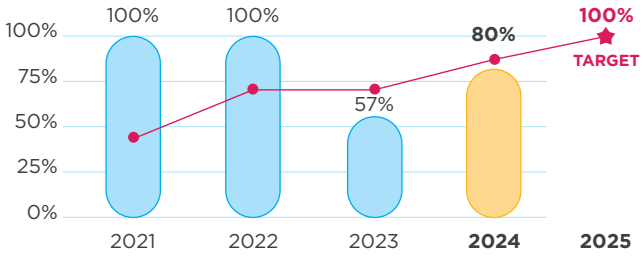
Additionally, the Company strengthened digital governance by deploying an AI Governance Policy to ensure responsible and ethical AI use and elevated its cybersecurity program to the Security Behavior and Cultural Program (SBCP) to foster a security-conscious mindset across all employees.

TARGETS AND PROGRESS

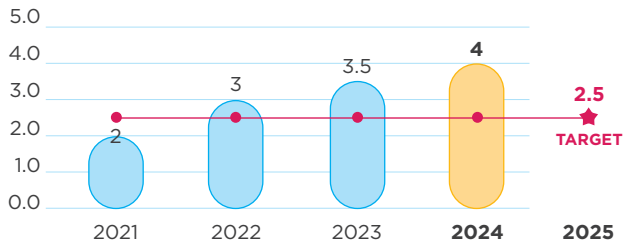
In 2024, coverage of Crisis Management Team (CMT) and Incident Management Team (IMT) exercises reached 80%, falling short of the target due to the absence of an annual IMT exercise in Indonesia. The Company remains committed to extending CMT and IMT exercises to 100% coverage across business units by 2025.

Meanwhile, the coverage of Business Continuity Plan (BCP) exercises for critical business functions achieved 73%, surpassing the target. This success was attributed to business units conducting BCP exercises more frequently than required.

Coverage of CMT and IMT exercise



Cybersecurity & privacy maturity score



On the cybersecurity front, 2 incidents occurred:

- In Bangkok, Thailand, a compromised privileged account was used to terminate servers within a financial application, leading to an IT infrastructure incident. Immediate action was taken to deactivate the account, and systems were fully restored from backups with no data loss or leakage.
- In Jakarta, Indonesia, a ransomware attack was swiftly contained, preventing further infection. No data was damaged or lost. The investigation revealed that the root cause was a compromised user ID.

To further strengthen digital resilience, the Company prioritized third-party risk management, resulting in a significant boost in cybersecurity and privacy maturity score. In parallel, the Company emphasizes a robust people and workforce strategy, focusing on workforce planning and skills development to ensure adaptability and future readiness.

BCP EXERCISE: CYBER INCIDENT SCENARIO

In 2024, the Company conducted a BCP exercise at the head office in Bangkok, focusing on a cyber incident scenario involving the Crisis Management Team (CMT). The exercise was part of a BCM refresher workshop, which included a briefing on global business risk trends for 2024-2025, reinforcing roles and responsibilities of CMT, a review of the activation process, and a hands-on simulation exercise to test the response capabilities of the CMT.

The simulated scenario involved a widespread cyber-attack, highlighting potential disruptions to people, the environment, and assets, and revealing the strategic difficulties and reputational implications of such incidents.

The exercise was highly successful, achieving several key outcomes, including efficient activation and notification of the team, effective initial briefings and log-keeping, strong information gathering and fact establishment, clear task allocation and response objectives, accurate identification of stakeholders, and confirmation of priorities with clear directives.

CYBERSECURITY & AI GOVERNANCE

The Company has implemented an Information and Cybersecurity Policy aligned with ISO/IEC 27001, covering both Information Technology (IT) and Operational Technology (OT) systems. Oversight is provided by the Global Information Security Officer (GISO) and the Information Security Management System (ISMS) Committee to ensure consistent policy enforcement and risk management across all business functions.

Data Privacy
Cybersecurity

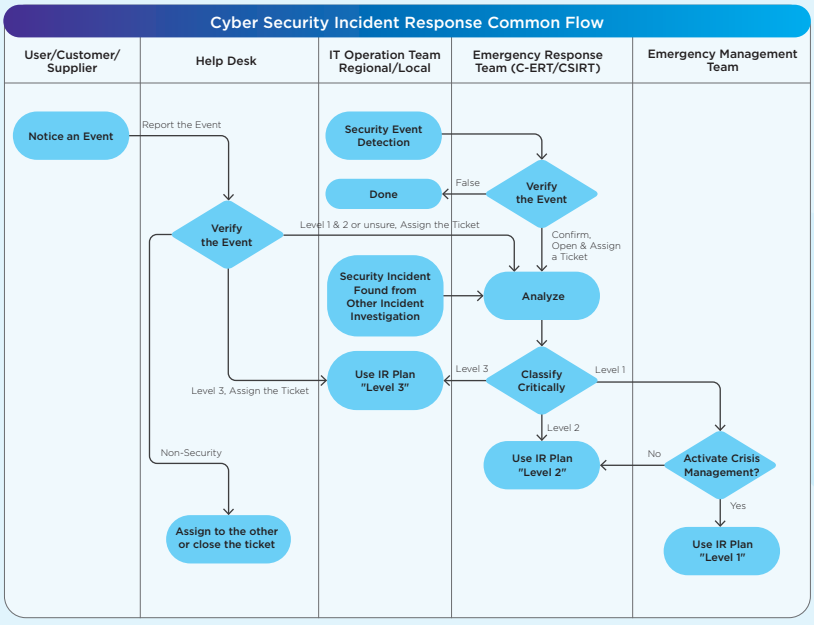
To further enhance digital governance, the Company introduced an AI Governance Policy outlining the ethical and responsible use of AI. Additionally, the launch of the Security Behavior and Cultural Program (SBCP) fosters a security-conscious culture across the organization. Looking ahead, the Company continues to strengthen cybersecurity and AI governance through 3 key areas:

1. **Responsible AI Governance:** Deployment of an AI Governance Policy with clear principles for the ethical and responsible use of AI technologies across business operations
2. **Unified Digital Governance Framework:** Establishment of a unified governance framework that integrates IT, OT, and AI technologies under a single oversight structure
3. **Adoption of Global Standards:** Implementation of the latest international standards, including ISO 42001:2023 AI Management System (AIMS) and ISO 27001:2022 Information Security Management System (ISMS)

Together, these initiatives reflect Banpu's commitment to building a resilient, secure, and ethical digital governance in support of long-term business sustainability.

CYBER INCIDENT MANAGEMENT

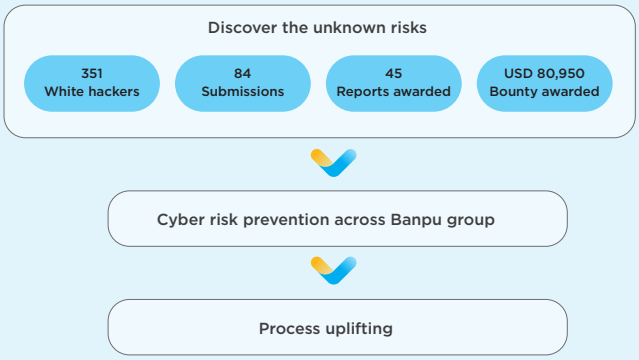
Banpu strengthens our cybersecurity capabilities by enhancing the cyber incident management framework to ensure a structured, timely, and effective response to potential threats. This practical guideline defines a comprehensive process covering identification, containment, investigation, mitigation, recovery, and reporting of cyber incidents. These measures are designed to minimize operational impact, protect critical assets, ensure regulatory compliance, and support continuous improvement in the Company's cyber resilience.



The framework is designed to ensure seamless coordination among relevant teams during cybersecurity events. It addresses emerging cyber threat scenarios such as third-party risks in the digital supply chain and AI model poisoning. The guidelines emphasize effective detection, analysis, escalation, and resolution of incidents, and reinforce Banpu's commitment to proactive risk management and secure operations across business units.

RESILIENT BUSINESS OPERATIONS BY BUG BOUNTY PROGRAM

In 2024, The Company continued the “Self-Hacking” initiative through collaboration with a regional white hackers community, under the "Bug Bounty Program." This program is a key part of Banpu’s ongoing efforts to strengthen cybersecurity resilience across all digital services. Partnering with a dedicated group of ethical hackers, the Company enables 24/7 vulnerability assessments under clearly defined rules of engagement and a robust data protection agreement, ensuring the highest standards of security and compliance throughout the program.



Location	Australia, China, Indonesia, Thailand, and the U.S.
Project Duration	2022-Present
Impact on the Company	• Proactive vulnerability detection before they can be exploited • Cost-effective security, without the need for a full-time internal team • Quick response to emerging threats
Impact on Natural, Social, and Human Capitals	• Built external trust by demonstrating a proactive, transparent approach to cybersecurity • Reduced the potential impact of cyber incidents

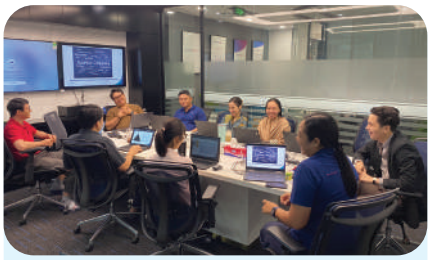
BUSINESS CONTINUITY MANAGEMENT

The Company’s Business Continuity Management (BCM) system encompasses identifying critical business functions, conducting business impact analysis, developing Business Continuity Plans (BCPs), and conducting BCP tests and exercises. Dedicated crisis and emergency management teams have been structured across four levels: corporate (Crisis Management Team), country (Incident Management Team), site (Emergency Management Team), and front-line (Emergency Response Team) to ensure effective response.

In 2024, Banpu strengthened our BCM framework across all operating countries, emphasizing resilience and preparedness. Key activities included IMT exercises in Australia, China, and Vietnam and CMT exercises at the head office in Thailand.

Australia: IMT conducted a train-car collision drill, while Springvale's ERT demonstrated exceptional readiness by winning a national rescue competition.

China: Successfully maintained its ISO 22301:2019 certification and conducted a country-level IMT exercise, simulating a cyber-attack scenario to test response capabilities.



Vietnam: Hosted business continuity training to introduce BCM fundamentals and conducted an IMT drill simulating a solar plant blackout to assess incident response capabilities.

DIGITAL TRANSFORMATION

SIGNIFICANCE & COMMITMENT

Digital transformation is a strategic priority for the Company, serving as a catalyst for continual productivity improvement, operational efficiency, and digital business initiatives. This multifaceted endeavor requires a strategic vision, a culture of digital innovation, and the simultaneous pursuit of business opportunity and adaptability. Despite the challenges involved, the benefits–including enhanced competitiveness, improved customer experience, and long-term value for stakeholders–make it a compelling imperative for businesses in today's digital landscape.

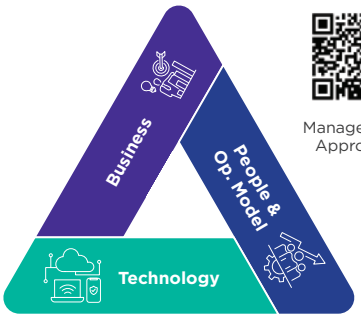
PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Number of digital self-service adoption cases*	75	-	-
Number of digitally enabled business process cases	202	-	-
Reliability and availability of digital infrastructure services	99.9%	-	-

* Number of self-service information discovery and coding tool adoption

MANAGEMENT APPROACH

The Triple-Transformation Framework has been developed, encompassing business, people & operating model, and technology. With strong leadership support across all levels, this framework emphasizes embedding digital capabilities throughout the organization.



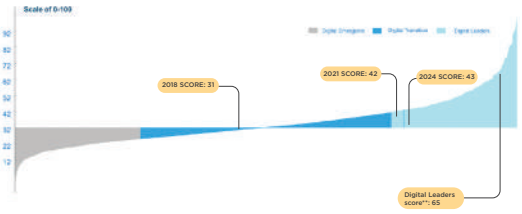
Management Approach

To monitor progress along the digital transformation journey, key performance indicators have been established, including the growth in digital self-service adoption, digital-enabled business processes, and reliability of digital infrastructure services. In addition, a digital maturity assessment was conducted with external verification to monitor our progress and benchmark our performance against peers across 6 dimensions: strategy, organization & talent, agile delivery & culture, technology, data, and adoption & scaling.

To ensure responsible and ethical use of Artificial Intelligence (AI), Banpu has established AI Policy. This serves as a foundation for ensuring data privacy, transparency, and compliance with global standards. Supporting this effort, the Artificial Intelligence Steering Committee (AISC) was appointed to oversee AI initiatives, ensuring they align with corporate strategy and ethical regulations.

YEAR IN REVIEW

In the first half of 2024, the third digital maturity assessment was conducted. This assessment was designed upon the insights gained from previous evaluations in 2018 and 2021. The findings affirmed that the Company continues to rank among the global peer leaders in the industry. Nevertheless, progress since 2021 has been consistent rather than transformative, revealing opportunities for further development to bridge the gap with the average performance of industry leaders.

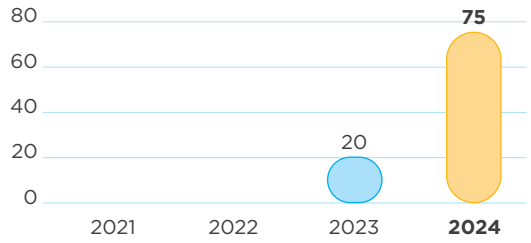


TARGETS AND PROGRESS

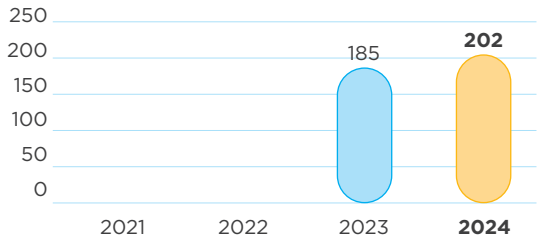
In 2024, the number of digital self-service adoption cases increased to 75, marking a significant year-over-year improvement. This is driven by user demand for enhanced task management through low-code platforms, self-service reporting, and other automation technologies.

Similarly, the number of digitally enabled business process cases grew to 202, facilitated through Banpu's IT service management. This highlights strong user-driven momentum in advancing the process, demonstrating both the Company's culture of innovation and ongoing digital transformation.

Number of digital self-service adoption cases (case)



Number of digitally enabled business process cases (case)



AI POLICY AND GOVERNANCE

Recognizing the transformative potential of Artificial Intelligence (AI) in driving business innovation, AI Policy was announced in 2024. Endorsed by the CEO, this policy addressed key principles, including data privacy, cybersecurity, bias mitigation, intellectual property and copyright, transparency, and accuracy in AI-generated content. This initiative underscores the Company's commitment to aligning with diverse global regulations and promoting the responsible use of AI technologies across its business operations, ensuring that AI technologies are deployed transparently, ethically, and securely.

AI Policy

Governance of AI at Banpu involves a comprehensive framework that includes regular updates to the board and oversight by the dedicated Artificial Intelligence Steering Committee (AISC). This committee ensures that AI initiatives align with the corporate strategy while adhering to ethical and regulatory standards.

AI SECURITY AWARENESS FOR EMPLOYEES

To enhance AI awareness across the organization, the Company launched a quarterly AI awareness program that keeps employees informed about the latest AI developments, best practices, emerging trends, and related cyber threats.

Delivered via e-newsletters, the program reinforces key knowledge and promotes responsible behavior, equipping employees to recognize and appropriately respond to potential AI-related risks, ultimately helping to minimize the likelihood of security incidents.

BANPU DIGITAL LEADERSHIP PROGRAM

In 2024, Banpu Digital Academy partnered with the University of New South Wales (UNSW), to co-create the Banpu Digital Leadership Program, designed to accelerate the realization of value from Banpu's digital transformation by continuously evolving leadership capabilities in alignment with the demands of the digital era. Participants in the program gain vital skills to:

- Assess the business impacts of technology
- Distinguish meaningful trends from hype
- Effectively engage with global teams and collaborate in digital environments
- Solve problems online while adopting safe online behaviors to mitigate cybersecurity risks
- Build a personal digital toolkit to address modern business challenges and excel in their roles

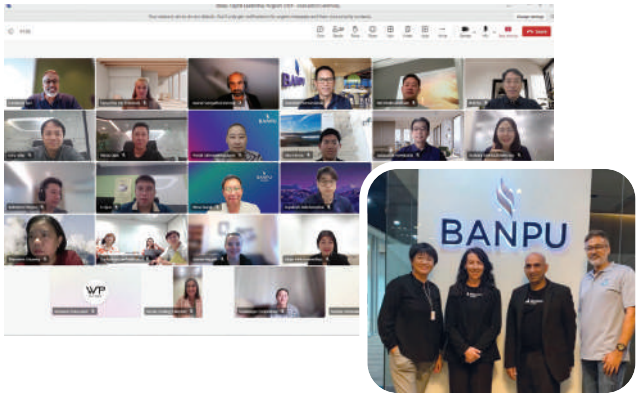
The course structure is designed to be impactful and practical, focusing on creating a digital mindset, digital toolset, and digital skillsets. A key component is the capstone project that integrates formal learning into a real-world, practical, on-the-job group project, ensuring that knowledge gained translates into tangible business outcomes.

Participants	30 employees
Coverage	0.6% of FTEs
Total Learning Hours	1,500 hrs.
Average Learning Hours	50 hrs./person

BANPU DIGITAL ACADEMY – FOSTERING DIGITAL SAVVY FOR ALL EMPLOYEES

Since its inception in 2018, the Banpu Digital Academy has been a cornerstone in driving the Company's digital transformation journey. To enhance digital awareness and capabilities, Banpu embedded digital fluency across all levels of the organization, facilitating employee development through curated learning paths available on the online learning platform.

In 2024, employees collectively completed over 2,985 learning hours, focusing on essential digital and technology skills, including Data Science, Artificial Intelligence (AI), ChatGPT, Data Visualization, and DevOps. Through these initiatives, Banpu reaffirms our commitment to fostering a culture of innovation, equipping employees with the tools and knowledge to lead and thrive in the digital era.



Participants	245 employees
Coverage	4.9% of FTEs
Courses Register	511 courses
Total Learning Hours	2,985 hrs.
Average Learning Hours	12.18 hrs./person

ESG SUMMIT: NAVIGATING DATA PRIVACY & CYBER SECURITY IN THE AI ERA

At the 2024 ESG Summit, Banpu introduced the session "Navigating Data Privacy and Cybersecurity in the AI Era." The session explored how AI enhances user experiences through personalization, while also raising significant concerns about privacy and cybersecurity due to extensive data collection. The discussion emphasized the risks associated with improper data handling, such as data misuse, surveillance, and more sophisticated cyberattacks, as AI is increasingly exploited. The session provided the management and employees with valuable insights on how to manage AI-related risks responsibly.

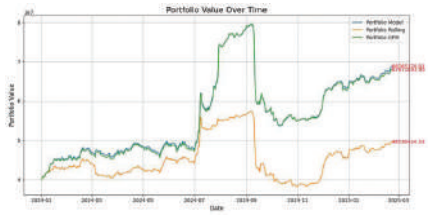
AI ADOPTION IN BANPU

AI is addressed as one of the key levers to pursue the Energy Symphonics Strategy toward 2030, supporting the Company's goals to increase operational efficiency, reduce costs, generate new revenue streams, and minimize environmental impact. AI plays a vital role across various business domains:

- Next-Gen Mining: Integrating AI and automation to optimize revenue across the mining supply chain
- Energy Trading: Enhancing decision-making with AI-driven forecasting and analysis tools
- E-Mobility Logistics: Enabling new revenue streams through a business-sharing model
- Talent Management: Improving accuracy in identifying high-potential talent and improving performance management processes

Ongoing executive sponsorship and strategic development of AI initiatives continue to drive transformation in areas such as coal supply chain optimization, energy price trend analysis, and productivity improvement in the modernized workplace, delivering tangible business value across the group.

Project Name	Coal Supply Chain Optimization
Purpose	To recommend optimal coal delivery plans and enhance production plan reliability
Benefits	• Increase potential revenue • Improve penalty costs
Location	Australia
Project Status	Go-live and underway to expand to other mine sites



Project Name	AI-Assisted Energy Trading
Purpose	To forecast electricity prices and support decision-making for short-term trading opportunities
Benefits	• Increase short-term trading revenue • Provide traders with potential market opportunities
Location	Japan
Project Status	Under benefit evaluation

Project Name	AI-Assisted Talent Management
Purpose	To retain the high-potential staff and enhance performance management with AI assistance
Benefits	• Retain top talent and reduce reliance on external hiring • Increase efficiency in performance management process • Optimize process time for ranking, calibration, and performance discussion
Location	Thailand
Project Status	Go-live at Banpu NEXT and enhancement phase in progress

SUPPLIER MANAGEMENT

SIGNIFICANCE & COMMITMENT

Supply chain management plays an important role in driving the Company forward, as efficient supplier management not only reduces the risks of business interruption but also enhances operational efficiency. The Company is committed to promoting ESG principles across the supply chain, ensuring that environmental, social, and governance considerations are integrated into procurement practices and supplier engagement.

Sustainable Supply Chain Policy

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Proportion of spending on local suppliers	92%*	≥50%	≥50%
Proportion of critical tier-1 suppliers assessed for ESG risks	-**	-	100%

* Data from mining business in Indonesia and Australia, head office in Thailand, and business in China
** Data collection system under standardization

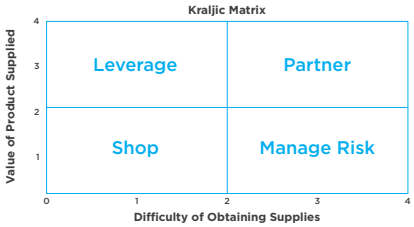
MANAGEMENT APPROACH

The Company announced the Sustainable Supply Chain Policy and published the Supplier Code of Conduct to ensure that all suppliers operate in alignment with ESG principles. The Company's supplier management system is developed in alignment with international standards, such as ISO 20400. The Supply Chain Committee has been established to oversee supplier management, with a focus on strategic direction, performance monitoring, and capacity building across the supply chain.

Management Approach

Supplier Code of Conduct

The Kraljic Matrix method is employed for supplier segmentation process, prioritizing strategic and critical suppliers. This tool evaluates procurement value, interdependency, operational impact, and associated risks. More importantly, the Company promotes local procurement by seeking to source goods and services from suppliers in the countries where we operate.



As part of the long-term strategy, Banpu is systematically embedding ESG criteria into supplier standards. The approach includes conducting preliminary ESG risk assessment for all critical suppliers prior to the procurement, integrating ESG criteria into the supplier selection and onboarding process, and conducting annual ESG assessments for critical suppliers. Suppliers identified as high ESG risk are required to implement preventive measures and undergo comprehensive audits. The Company is committed to conducting annual audits to ensure ongoing compliance and proactively address emerging issues.

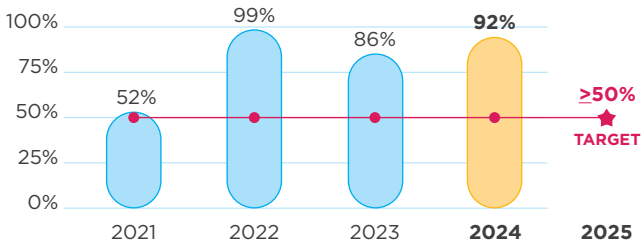
YEAR IN REVIEW

In 2024, the Company established the Supply Chain Committee as the formal governance body responsible for overseeing the integration of ESG into supplier management practices. The Supplier Code of Conduct was revised to clearly define ethical, social, and environmental expectations for all suppliers. This updated framework goes beyond regulatory requirements, aligning with international sustainable procurement best practices. Moreover, the Company continues conducting a comprehensive supplier segmentation analysis. This year, we have successfully implemented this practice within our business operations in China.

TARGETS AND PROGRESS

The proportion of spending on local suppliers has reached 92%, significantly surpassing the target of at least 50%. This achievement reflects data from key operations, including mining business in Indonesia and Australia, the head office in Thailand, and business operations in China. The results reflect the Company's strong commitment to supporting local economies and promoting sustainable supply chain.

Proportion of spending on local suppliers



REVISED SUPPLIER CODE OF CONDUCT

The Company first introduced the Supplier Code of Conduct in 2019. In 2024, a revised version was developed with official implementation schedule for 2025. The updated Supplier Code of Conduct ensures stronger alignment with global ESG frameworks while enhancing corporate practices in sustainable supply chain management. The revised Supplier Code of Conduct consists of 8 key elements:

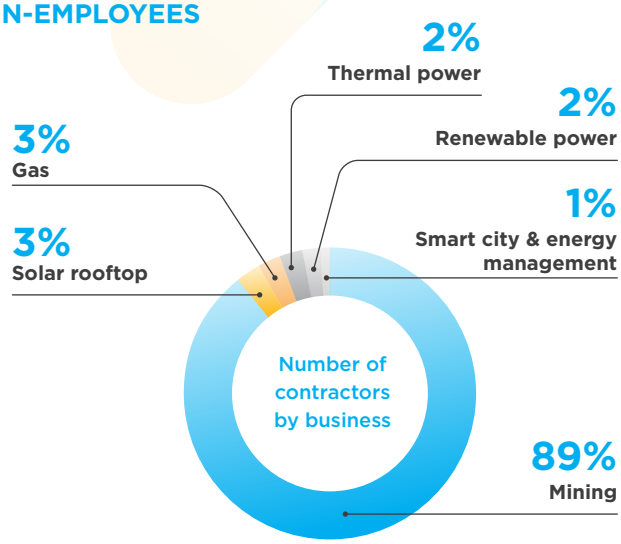
1. **Compliance:** Adherence to all applicable laws and international standards (UNGPs, ILO, OECD)
2. **Business Ethics:** Promoting Integrity, fair competition, anti-corruption, conflict of interest avoidance, and intellectual property protection
3. **Labor and Human Rights:** Prohibiting forced labor, child labor, and discrimination while ensuring fair wages, safe working conditions, and workers' rights
4. **Environment:** Managing GHG emissions, energy efficiency, pollution, waste, biodiversity, and water resources responsibly
5. **Safety & Security:** Ensuring workplace safety, emergency preparedness, and data protection
6. **Community & Society:** Respecting local communities and the rights of vulnerable groups
7. **Monitoring & Reporting:** Maintaining accurate compliance records and taking corrective actions
8. **Supply Chain Management:** Promoting sustainable procurement, grievance mechanisms, and supplier compliance

By implementing this Supplier Code of Conduct, the Company ensures that suppliers uphold responsible business practices, fostering long-term partnerships based on trust, transparency, and shared commitment to sustainability.

CONTRACTORS, THE MOST COMMON TYPE OF NON-EMPLOYEES

The Company has established a systematic approach to classify workers who are not employees, categorizing them as contractors, suppliers, or visitors. Among these, contractors represent the primary segment, contributing to various operational activities across the organization, including construction, operations, and maintenance.

In 2024, the total number of contractors at year-end was 23,147, with an average of 22,077 over the course of the year. The Company primarily tracks contractor workforce data using headcount to ensure consistency and accuracy. However, an exception applies to the mining business in Australia, where Full-Time Equivalent (FTE) is used for more precise workforce tracking.



SUPPLIER RISK ASSESSMENT

Banpu Power, the Company's subsidiary, conducts quarterly supplier risk assessments as part of its oversight responsibilities for the Risk Management Committee and Audit Committee. In 2024, key high-priority risks include:

- Inability of suppliers to deliver coal or natural gas in accordance with the required price, quality, and delivery timelines
- Machinery part shortages due to procurement delays
- Operation and maintenance (O&M) contractors failing to meet plant reliability, safety, and quality expectations

Supply Chain Risk	Risk Mitigation Measure
Inability of suppliers to deliver coal or natural gas in accordance with required price, quality, and delivery timelines	• Use of the IRIS application for real-time monitoring • Establishment of long-term sales contracts or forward purchase agreements • Expansion of coal storage capacity to buffer against supply disruptions
Machinery part shortage due to procurement delays	• Maintain inventory of critical spare parts at power plant sites • Conduct site visits to supplier facilities for proactive issue resolution and timeline tracking
Operation & maintenance (O&M) contractor failing to meet plant reliability, safety, and quality expectations	• Provide targeted training programs to improve contractor competency • Implement a Safety and Occupational Health Management System (OHSMS) to ensure performance alignment with operational standards

SUSTAINABLE PROCUREMENT: REDUCING WASTE AND CARBON FOOTPRINTS

At Banpu, sustainability is at the heart of our procurement strategy. We carefully select suppliers and products that align with our environmental goals, such as reducing waste and minimizing carbon footprints.

A prime example is our partnership with Lenovo, which has successfully reduced packaging waste by over 70%, demonstrating a strong commitment to sustainability. In line with this, we prioritize efficient bulk packaging, such as packing multiple laptops in a single box, to minimize material use and transportation. In addition, we also select products with a CO_2 Offset Service label, supporting climate action projects like reforestation and renewable energy. In 2024, we piloted this new bulk packaging approach with an initial batch of 158 units.

Through initiatives like these, Banpu is leading by example, making smarter procurement decisions that reduce waste, support climate action, and contribute to a more sustainable future.

Location	Bangkok head office, Thailand
Project Duration	July 2024-Present
Impact on the Company	• Strengthened the Company's reputation for eco-friendly business • Reduced waste management costs
Impact on Natural Capital	• Reduced 70% in packaging waste from 107 to 32 kg from the initial batch • Avoided 79 tonnes CO_2 from carbon offset service

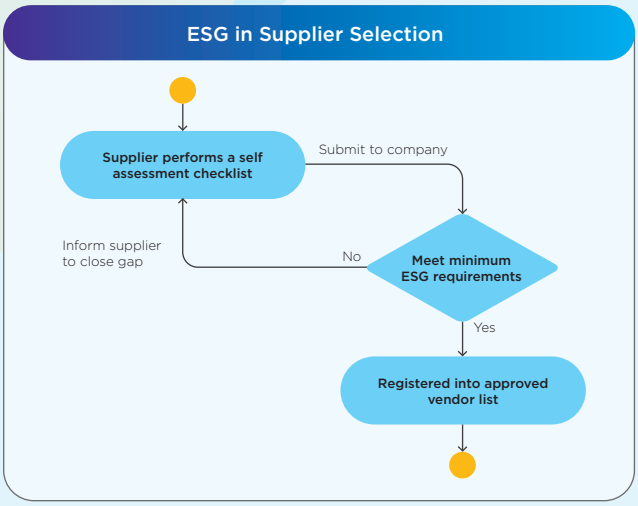
ESG INTEGRATION IN SUPPLIER SELECTION AND EVALUATION

The Company has embedded ESG criteria into the supplier selection and evaluation process to ensure that all suppliers operate in alignment with ESG principles. These ESG standards reinforce the Company's commitment to sustainable procurement, while also mitigating supply chain risks.

Two key standards are being established: ESG in Supplier Selection and ESG in Supplier Evaluation. Each standard includes a structured checklist that suppliers must complete to assess their ESG compliance before engagement and after service delivery. The results from these assessments will play a crucial role in future procurement decisions, ensuring that suppliers continuously uphold responsible and sustainable practices.

ESG IN SUPPLIER SELECTION:

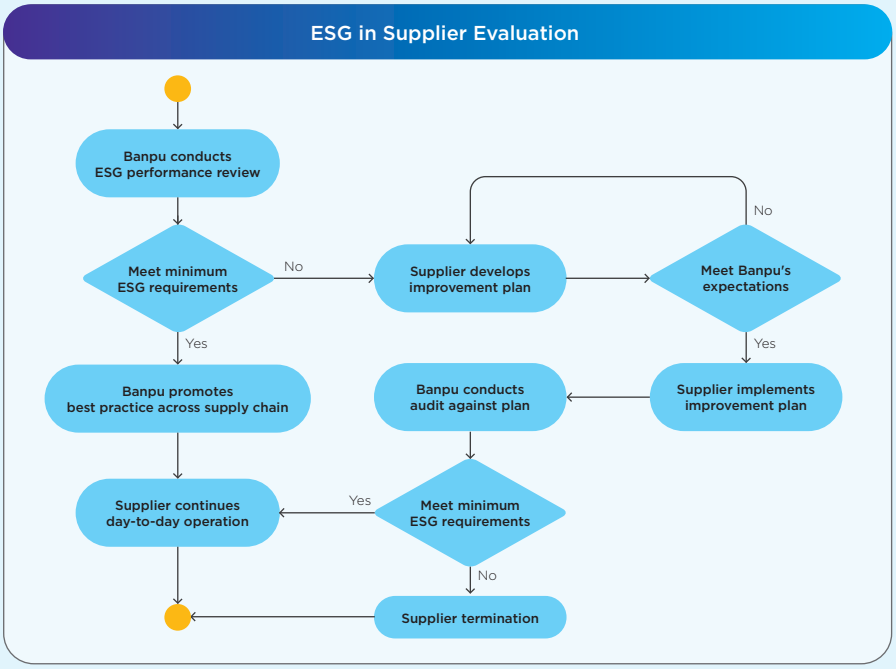
The Company has refined the supplier selection process by integrating best practices from subsidiaries and industry peers to develop a "pre-qualification checklist". The criteria include social aspects such as health & safety and community impact, environmental aspects such as waste management, and governance aspects such as business ethics. While a self-assessment questionnaire serves as a tool for suppliers to evaluate their ESG performance, with scores evaluated based on evidence-supported responses. The results influence the vendor screening and selection process, ensuring qualified suppliers are selected.



ESG IN SUPPLIER EVALUATION:

Simultaneously, ESG in supplier evaluation is designed to assess supplier performance during and after the service delivery. The evaluations are conducted by the Company and, where necessary, the third-party auditors, using a combination of desk-based and onsite assessments. This process is crucial for identifying actual or potential negative ESG impacts, ensuring compliance with ESG standards, and fostering continuous improvements in supplier practices. This is essential for the Company to identify, monitor, and address impacts, including the potential termination of suppliers that fail to meet minimum ESG requirements.

In 2024, Banpu Next, the Company's subsidiary in Thailand, initiated implementing the ESG in supplier evaluation and actively enhancing effectiveness while simultaneously developing a robust internal implementation standard.



CUSTOMER STEWARDSHIP

SIGNIFICANCE & COMMITMENT

The Company places the utmost importance on understanding and fulfilling customer needs, firmly believing that long-term success is built on consistently delivering satisfaction through products and services. This customer-centric approach goes beyond meeting expectations—it's about exceeding them and ensuring every interaction adds value and reinforces trust.

PERFORMANCE OVERVIEW

		2024	Target 2024	Target 2025
Customer satisfaction rate	✓	99%*	≥90%	≥90%
Coverage of customers surveyed	✓	100%*	≥90%	≥90%
Number of complaints regarding customer privacy	✓	0	0	0
Number of complaints regarding safety and environmental issues from the use of products	✓	0	0	0

* Includes data of Mining, Thermal power, Solar rooftop, and Energy trading businesses only

MANAGEMENT APPROACH

Management Approach

The Company is deeply committed to delivering products and services that not only meet but exceed the customer expectations, as clearly outlined in our Code of Conduct. Recognizing that customer trust is paramount, we have developed standardized management practices across our business units to support this commitment. Additionally, a Material Safety Data Sheet (MSDS) is available upon request. Safety and environmental issues related to product usage are also identified and managed with specific measures. Technical support is also provided to ensure efficient product use with zero risk to safety and the environment. Customer privacy is also a top priority. We collect only the necessary personal data, such as names and email addresses, and handle it in a lawful, fair, and secure manner. Customers are granted full rights to access, correct, and delete their data in line with applicable legal requirements.

Customer satisfaction surveys are regularly conducted. Beyond surveys, individual interviews are also performed to gain deeper insights into the specific issues and expectations. Our approach is tailored by business context, and we provide various channels for customers to raise their concerns, including telephone, email, and website. The complaint management system is established to ensure prompt and efficient responses, with a standard operating procedure that includes responding to the customer by the next business day.

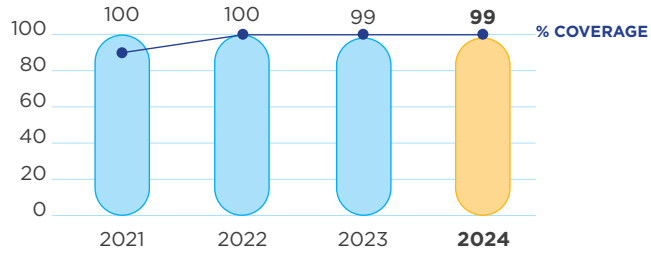
YEAR IN REVIEW

The Company achieved outstanding results in customer & product stewardship. Through diligent efforts and strategic initiatives, we were able to maintain high standards of service and product quality throughout our operations. In 2024, customer satisfaction surveys were conducted by a third party across key businesses, including Mining, Thermal power, Solar rooftop, and Energy trading.

TARGETS AND PROGRESS

Customer satisfaction surveys are carried out annually across key businesses. In 2024, surveys were conducted for the Mining, Thermal power, Solar rooftop, and Energy trading businesses, with a 99% satisfaction rate and zero complaints regarding product and service delivery, customer privacy, or safety and environmental issues associated with the use of products.

Customer satisfaction rate



Number of complaints regarding customer privacy

CUSTOMER RELATIONSHIP MANAGEMENT

The Company takes a tailored approach to customer relations to ensure alignment with customer needs and expectations across each business context. Beyond regular satisfaction surveys, we engage through various channels–ranging from in-depth interviews and on-site visits to knowledge-sharing sessions, quarterly performance updates, and open house events.

Business	Example of Customer Relationship Approaches
Mining	• Customer satisfaction survey • Regular customer site visit • Knowledge-sharing session • Quarterly performance report • Open house event
Thermal power	• Customer satisfaction survey • Regular customer site visit • Technical support
Renewable power	• Knowledge-sharing sessions • Performance reports
Solar rooftop	• Customer satisfaction survey • Technical support • Returns on investment evaluation report • 24-hour customer service
Energy trading	• Customer satisfaction survey

CUSTOMER SATISFACTION SURVEY AT MINING BUSINESS

In 2024, the Company conducted a customer satisfaction survey with the coal customers. The feedback was overwhelmingly positive, showcasing high satisfaction with the quality of coal, professionalism, and the level of engagement from the Company. The customers also emphasized the importance of continually enhancing products and services. This valuable feedback affirms the Company's commitment to being a reliable and responsible supplier.

Customer satisfaction rate **100%**

ENVIRONMENT

Banpu is committed to fostering a sustainable future through proactive environmental initiatives. As part of the journey toward Net Zero emissions by 2050, the Company is actively reducing GHG emissions across all business units while offsetting any residual emissions. Aligned with circular economy principles, Banpu also strives for zero waste, minimizing the direct disposal of waste to landfills. Additionally, the Company aims to achieve a net-positive impact on biodiversity by collaborating with stakeholders to ensure net gains for biodiversity by the end of closure stage. These commitments underscore Banpu's dedication to environmental stewardship and sustainable growth.

82 Climate Change
88 Water
92 Biodiversity
96 Air Emissions
98 Waste

CLIMATE CHANGE

SIGNIFICANCE & COMMITMENT

Climate change is a critical global issue, prompting international cooperation to cease the escalation of global average temperature by restraining the amount of greenhouse gas emissions through the implementation of stringent regulations in each country. As an energy producer, Banpu is committed to achieving Net Zero emissions by 2050. This commitment is reinforced by the corporate strategy "Energy Symphonics", which harmonizes innovation, technology, and sustainability to guide Banpu's transition toward a low-carbon, resilient energy future.

Climate Change Policy

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
GHG emissions intensity reduction*			
• Mining business	-10%	-5%	-7%
• Power business	-40%	-16%	-20%
GHG emissions intensity**			
• Mining business (tonne CO_2e/tonne coal)	0.117	≤0.124	≤0.137
• Power business (tonne CO_2e/MWh)	0.407	≤0.570	≤0.540

* Against the Business-As-Usual (BAU)
** Target calculated from the BAU as of December 2019

MANAGEMENT APPROACH

Climate change risks are fully integrated into the Company's enterprise risk management, reflecting the strategic importance of a proactive climate response. To reinforce accountability, climate change management has been designated as a key performance indicator for the CEO and senior executives in relevant business units.

Management Approach

A dedicated Climate Change Committee has been established to oversee the implementation and performance of the Company's climate strategy, which focuses on four measures: Mitigation of emissions, Climate-related adaptability, Participation in a low-carbon society, and Participation in a climate change community.

MITIGATING EMISSIONS → BEING ADAPTIVE → BEING A PART IN A LOW-CARBON SOCIETY → PARTICIPATING IN A CLIMATE CHANGE COMMUNITY

YEAR IN REVIEW

In 2024, Banpu set both interim and long-term targets in line with the Paris Agreement goal of limiting global temperature increases to below 1.5°C. To meet these targets, decarbonization has been fully integrated into our strategic planning, emphasizing climate-related risks and opportunities within our business strategy.

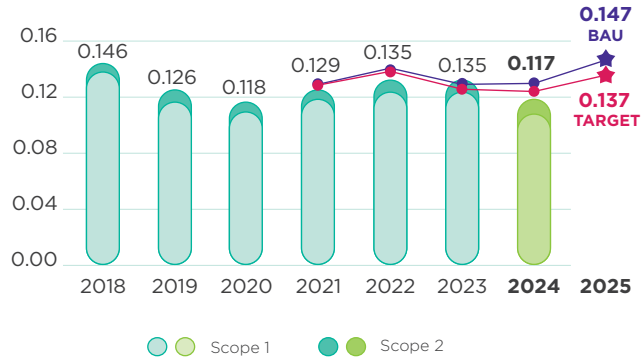
The Banpu Innovation Program now includes decarbonization criteria, focusing on projects that contribute to emissions reduction and the generation of carbon credits. In parallel, we are actively exploring and evaluating several initiatives across the organization, such as improving boiler energy efficiency, utilizing methane (CH_4) for energy, and installing solar photovoltaic systems for internal use. In addition, we have expanded our GHG Scope 3 emissions disclosure to cover 7 categories across the group.

TARGETS AND PROGRESS

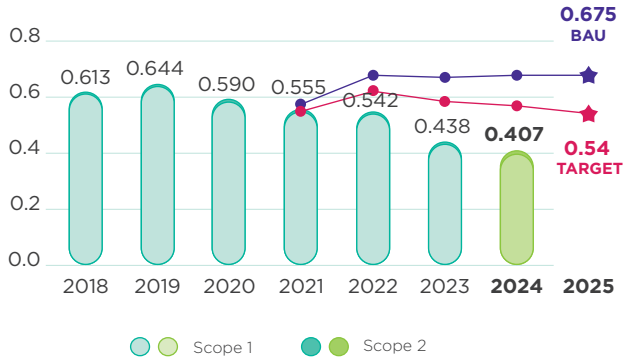
GHG emissions intensity was 0.117 tonnes CO_2e/tonne coal, which is a significant reduction from the previous year. This represents 10% reduction compared to the business-as-usual (BAU) scenario, enabling the Company to achieve the target. The decrease is attributed to various initiatives implemented throughout the year. These efforts will be sustained and expanded to ensure continued progress.

For power business, the GHG emissions intensity was 0.407 tonnes CO_2e/MWh, representing 40% reduction from the BAU. The achievement reflects the Company's proactive strategy to continuously increase the proportion of electricity generated from renewable energy and alternative energy sources, alongside ongoing initiatives in energy efficiency within the thermal power plants.

GHG emissions intensity
Mining business (tonnes CO_2e/tonne coal)



GHG emissions intensity
Power business (tonnes CO_2e/MWh)



TRANSITION PLAN

To achieve our Net Zero 2050 target, Banpu has developed a comprehensive low-carbon transition plan. This includes setting clear GHG emissions targets, implementing specific activities, and ensuring transparent progress tracking for continuous improvement.

Set clear targets

- **Target:** Align targets with limiting global warming to 1.5°C, as outlined in the Paris Agreement.
- **Scope coverage:** Current targets cover Scope 1 and 2 emissions to comprehensively address direct and indirect emissions. Scope 3 will be fully disclosed by 2026 and its target will be set accordingly.

Implement specific activities

- **Technological innovation:** Prioritize to invest for renewable energy, carbon capture, utilization, and storage (CCUS), and energy-efficient technologies.
- **Energy efficiency:** Enhance energy efficiency in operations and facilities to reduce electricity consumption.

Monitor and report progress

- **Transparency:** Regularly report progress against GHG emissions targets to stakeholders and the public.
- **Continuous improvement:** Continuously monitor climate-related developments and update strategies to ensure they remain effective and resilient.

BANPU'S JOURNEY TO NET ZERO

The journey to Net Zero is a comprehensive and ambitious effort to reduce GHG emissions as close to zero as possible. Banpu has identified 3 key steps to this transition: calculating emissions across all scopes (Scope 1, 2, and 3), setting targets, and developing decarbonization pathways.

Calculating emissions: To understand our current baseline, Banpu has comprehensively calculated and disclosed Scope 1 and 2 emissions from assets under our operational control. We are currently in the process of estimating Scope 3 emissions, with a commitment to fully calculate and disclose the top three emission sources by 2026.

Setting target: To align with global efforts to limit global warming to 1.5°C, Banpu has committed to becoming a Net Zero emissions company by 2050. As part of our interim goal, we commit to reducing GHG emissions by at least 20% by 2030, using 2023 as the base year.

Developing decarbonization pathway: A crucial aspect of achieving Net Zero is the implementation of effective decarbonization plans. This requires operational improvements, adopting new technologies, and ongoing performance monitoring. Banpu has incorporated our decarbonization plan into the annual business strategy workshops. In addition, these initiatives are overseen by the Climate Change Committee on a quarterly basis.

RESTATEMENT OF GHG EMISSIONS INVENTORY

As part of our ongoing commitment to transparency and accuracy in reporting, Banpu has undertaken a comprehensive review of GHG emissions inventory. This review identified the need to restate our Scope 1 and Scope 2 emissions to exclude emissions from contractors over whom we have no direct control over their operations.

Previously, our Scope 1 and 2 emissions included both emissions from direct operations and those from contractor activities. However, in alignment with the Greenhouse Gas Protocol's guidance on defining organizational boundaries, emissions from entities not under direct operational control have now been moved to Scope 3.

Scope		GHG Emissions (tonne CO_2e)		
		2021	2022	2023
Scope 1	Original	6,990,528	8,507,328	8,368,915
	Adjusted	6,382,738	7,858,694	7,518,815
Scope 2	Original	248,633	269,336	244,948
	Adjusted	248,617	269,296	244,930
Scope 3 (Category 1)	Original	0	0	0
	Adjusted	607,806	648,674	850,118

This adjustment resulted in a reduction in our reported Scope 1 & 2 emissions and a corresponding increase in Scope 3 emissions, providing a more accurate representation of Banpu's operational footprint. The table beside summarizes the impact of this restatement on our emissions inventory across the past three reporting years.

Moving forward, our GHG emissions reports will consistently reallocate emissions from contractors to Scope 3. Banpu remains committed to working collaboratively with contractors to encourage emissions reduction, and progress on these efforts will be reported separately under Scope 3 emissions.

CLIMATE SCENARIO ANALYSIS ALIGNED WITH TCFD RECOMMENDATIONS

The Task Force on Climate-related Financial Disclosures (TCFD) framework recommends that organizations disclose the actual and potential impacts of climate-related risks and opportunities on their business strategy and financial planning, within a defined strategic boundary. In alignment with these recommendations, Banpu has conducted a comprehensive assessment of climate-related risks and opportunities using 4 climate scenarios:

1. **Announced Pledge Scenario**
2. **Net Zero Emissions (NZE) by 2050**
3. **Representative Concentration Pathway (RCP) 8.5 – High-emissions scenario**
4. **Representative Concentration Pathway (RCP) 2.6 – Low-emissions scenario**

These scenarios help Banpu evaluate a range of possible future climate conditions and their potential impacts on our business operations, strategic direction, and resilience planning. Additional information is available in the Climate Change Report 2024.

Driver	Risk Rating									Metrics Used to Assess Climate-Related Risks and Opportunities
	Energy Resources			Energy Generation			Energy Technology			
	ST	MT	LT	ST	MT	LT	ST	MT	LT	
Carbon pricing mechanism	LM	LM	LM	L	L	LM	L	L	L	• GHG emissions reduction Scope 1 & 2
Stigmatization	H	H	LM	L	LM	LM	L	L	L	• Increase in non-coal business
Drought	L	LM	H	LM	LM	LM	L	L	L	• Water consumption reduction
Heavy precipitation	LM	MH	MH	L	L	L	L	LM	MH	• Water stress area assessment
Wildfire	L	LM	LM	L	L	L	L	L	L	• Coverage of CMT/IMT exercise
Developing/Expanding low carbon goods and services	MH	MH	MH	H	H	H	LM	H	H	• Increase in non-coal business
Participation in carbon market	-	-	-	LM	LM	LM	LM	MH	MH	

H MH LM L — Risk

L LM MH H — Opportunity

ST = Short Term
MT = Medium Term
LT = Long Term
H = High
LM = Low to Medium
MH = Medium to High
L = Low

OPPORTUNITY UNDER EMISSION TRADING SCHEME (ETS) IN CHINA

Launched in 2021, China's Emission Trading Scheme (ETS) marks a pivotal move in cutting the nation's carbon emissions. The scheme distributes emission allowances based on the power plants' generation output, with benchmark criteria that vary by fuel type and technology. It also enables companies to trade these allowances, granting them the right to emit a specific amount of carbon dioxide.

As of 2024, our Combined Heat and Power (CHP) Plants in China (Tangshan Banpu Heat and Power Co., Ltd., Shijiazhuang Chengfeng Cogen Co., Ltd., and Zouping Peak CHP Co., Ltd.) have emitted less GHG than their allocated allowances. This surplus allows them to sell a total of 292,047 CEAs (Chinese Emission Allowances) in 2024, generating approximately USD 3.86 million in revenue.

Location	China
Project Duration	2021-Present
Impact on the Company	Earned USD 3.86 million in 2024
Impact on Natural Capital	Reduced 292,047 tonnes CO_2

LIST OF REDUCTION OF GHG AND ENERGY CONSUMPTION INITIATIVES

To support our Net Zero journey, Banpu has implemented several GHG emissions reduction initiatives across our business operations. For each initiative, emissions reductions are quantified by comparing actual performance against a baseline scenario, reflecting conditions prior to the implementation of these initiatives.

No.	Country	Initiative	Starting Year	GHG Emissions Reduction (tonne CO_2e)	Energy Consumption Reduction (GJ)
1	Indonesia	Fuel switching, from biodiesel B30 to B35 in transportation and machinery	2023	34,094	37,699
2	Indonesia	Solar PV Installation at Trubaindo Mine for internal electricity use	2023	1,701	-
3	Australia	Implementing a gas power plant that uses methane (CH4) captured from underground mining operations as fuel	2023	66,963	-
4	China	Waste heat recovery from flue gas of boiler at combined heat and power plants to reduce fuel consumption	2024	1,348	12,717
5	China	Installing high-efficiency fans at combined heat and power plants to reduce electricity use and operational emissions	2024	102	128

REDUCING EMISSIONS THROUGH GAS-TO-ENERGY INITIATIVE

Mandalong, an underground coal mine in Australia, is characterized by its complex and large-scale emissions profile. These emissions mainly come from three ventilation fans that expel air from the mine. This air carries gases released from the coal extraction process and older, sealed areas. To manage inseam gas content, the site uses a gas drainage system, which plays a crucial role in maintaining mine safety and production efficiency.

Since 2014, Mandalong has operated a flare plant with two flares to burn off excess gases and an overpressure freevent stack for safety. Building on this foundation, in September 2023, a new 8 MW power station, owned by EDL, was commissioned. This facility utilizes gas from the drainage system to generate electricity for the mine, with surplus power fed into the local grid. This initiative not only reduces Scope 1 emissions and improves environmental performance but also benefits local communities and businesses.

Location	Australia
Project Duration	October 2023-Present
Impact on the Company	• 70% reduction in flare plant emissions, from 296,000 to 75,000 tonnes CO_2e • Saved AUD $300,000/month of safeguard cost from reduced site emissions • Saved AUD $182,000/month of electricity cost
Impact on Natural, Social, and Human Capitals	• Reduced load on the electricity grid • Created 5 permanent local jobs during operation

BARNETT ZERO, THE FIRST CARBON CAPTURE AND SEQUESTRATION (CCS) PROJECT OF BANPU

The Barnett Zero Project is a Carbon Capture and Sequestration (CCS) initiative led by BKV, a subsidiary in the U.S., and EnLink Midstream. It is one of the first commercial CCS projects in the U.S., aiming to reduce CO_2 emissions from natural gas production in the Barnett Shale region of Texas.

The project captures CO_2 waste from natural gas processing facilities and injects it into underground wells for permanent geological storage. This process is expected to reduce GHG emissions by approximately 183,000 tonnes CO_2 annually, contributing to significant progress in the transition to lower-carbon energy solutions.

Location	The U.S.
Project Duration	November 2023-Present
Impact on Natural Capital	165,069 tonnes CO_2 sequestered in 2024

SCOPE 1 AND 2 EMISSIONS SOURCES

The Company has undertaken an analysis to identify the sources of GHG emissions for each business. The analysis covers GHG emissions Scope 1 and Scope 2.

Business	Key Activity	GHG Source (Scope 1)											GHG Source (Scope 2)
		Diesel	Biodiesel	Gasoline	Coal	Methane	Explosive	HFCs	SF_6	$CaCO_3$	Waste Gas	Natural Gas	Electricity Imported
Mining	Electricity generation		●		●				●				
	Coal extraction	●	●				●						●
	Coal hauling	●	●										●
	Coal processing												●
	Coal seam & stockyard					●							
	Barging		●										
	Supporting activities	●	●	●				●					●
Thermal power	Boiler	●			●						●	●	
	Coal stockyard					●							
	Air quality control									●			●
	Substation								●				
	Auxiliary system												●
	Supporting activities	●		●				●					●
Renewable power	Auxiliary system												●
	Supporting activities	●		●									●
Solar rooftop	Auxiliary system												●
	Supporting activities	●		●									
Energy efficiency	Energy efficiency unit	●	●					●					●

WATER

SIGNIFICANCE & COMMITMENT

Water is a vital resource for both communities and industry. Inefficient water management can lead to serious consequences, from environmental degradation and water scarcity to conflicts with local communities, and ultimately affect the Company's credibility. the Company is therefore committed to responsible water stewardship, recognizing water as a shared resource that must be managed sustainably and equitably.

Water Management Policy

PERFORMANCE OVERVIEW

		2024	Target 2024	Target 2025
Water consumption intensity				
• Mining business (m^3/tonne coal)	✗	1.894	≤1.556	≤1.554
• Gas business (m^3/MMcf)	-	13.517	-	-
• Thermal power business (m^3/MWh)	✓	0.817	≤0.917	≤0.917
• Renewable power business (m^3/MWh)	-	3.826	-	-

MANAGEMENT APPROACH

The Company has established a robust water management framework, underpinned by a comprehensive database that tracks water consumption and maintains a water balance across the business units. Each year, the Company conducted a water risk and impact assessment to shape site-specific water management plans. These plans align with the water management hierarchy, including elimination, reduction, and reuse/recycle, and address all phases of the water lifecycle: withdrawal, consumption, and discharge. Minimum discharge limits are also set for each operation to ensure full regulatory compliance. In addition, the Company collaborates closely with government agencies, water users, local communities, employees, and other stakeholders to promote efficient and sustainable water use. These efforts reflect the Company's commitment to minimizing water-related impacts on the environment and protecting stakeholder interests.

Management Approach

YEAR IN REVIEW

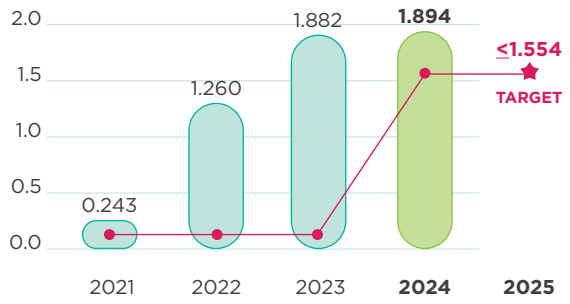
In 2024, the Company advanced water stewardship efforts by implementing site-specific Water Management Plans (WWPs) and Trigger Action Response Plans (TARPs) at the mining operations in Australia to manage water discharges effectively. These measures support reductions in water consumption and better control over water-related risks. To reinforce this progress, the water management standard was updated. The revision focused on minimizing dependency on natural water sources, improving internal water processes, and providing clearer guidance for site-level risk and impact assessments to further improve mitigation measures.

TARGETS AND PROGRESS

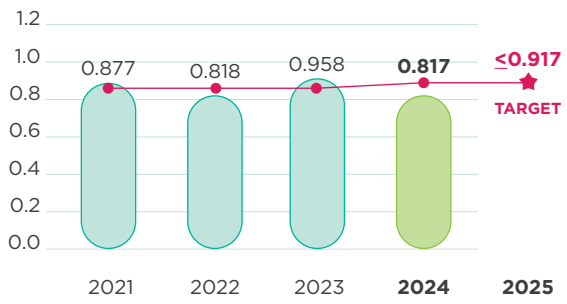
In 2024, the Company did not meet the water consumption intensity target for mining business, which was 1.894 m3/tonne coal. The shortfall was primarily due to the significant amount of water evaporation from void areas. To address this, the Company has developed and implemented a combined water management and void area management plan, particularly at sites with significant impact.

Anyway, the thermal power business met the target at 0.817 m^3/MWh. The Company continues to seek opportunities to enhance operational efficiency and water management systems.

Water consumption intensity
Mining business (m^3/tonne coal)



Water consumption intensity
Thermal power business (m^3/MWh)



WATER-RELATED RISK MANAGEMENT

Banpu actively manages water-related risks by conducting annual water risk and impact assessments across self-operated assets, focusing on water quantity, water quality, and water availability to identify potential risks and prepare for management plans and mitigation measures.

This water-related risk assessment employs internationally recognized tools and standards, such as the World Resource Institute (WRI)'s Aqueduct Tools, to assess exposure to water-stressed areas and applies ISO 14046 to evaluate water footprint of a product. Additionally, advanced tools like GoldSim are used to simulate groundwater flow and site water balance for underground mines throughout their life cycle.

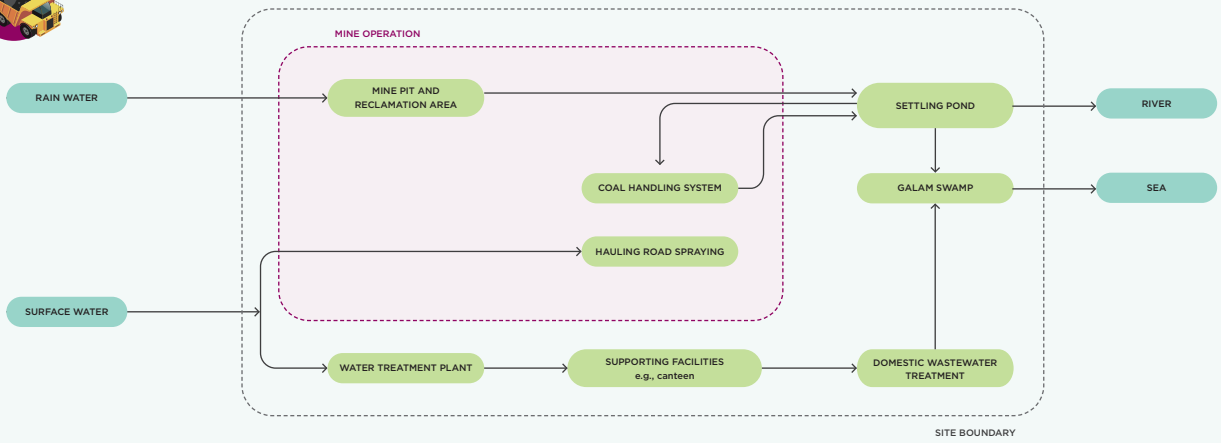
In addition, we actively collaborate with stakeholders, particularly government agencies, local communities, and other stakeholders, through various channels such as public meetings and engagement surveys. This ensures real-time awareness of water-related issues and regulatory changes. We also steward water as a shared resource with local communities and other water users in its sector, as well as enhance inspection of water management practices and sediment control in underground mining.

1. Evaluate risk, impact, and opportunities
2. Review applicable laws and regulations
3. Seek water improvement initiative
4. Conduct at pilot-scale and pilot sites
5. Monitor and evaluate performance
6. Re-assess risks and impacts

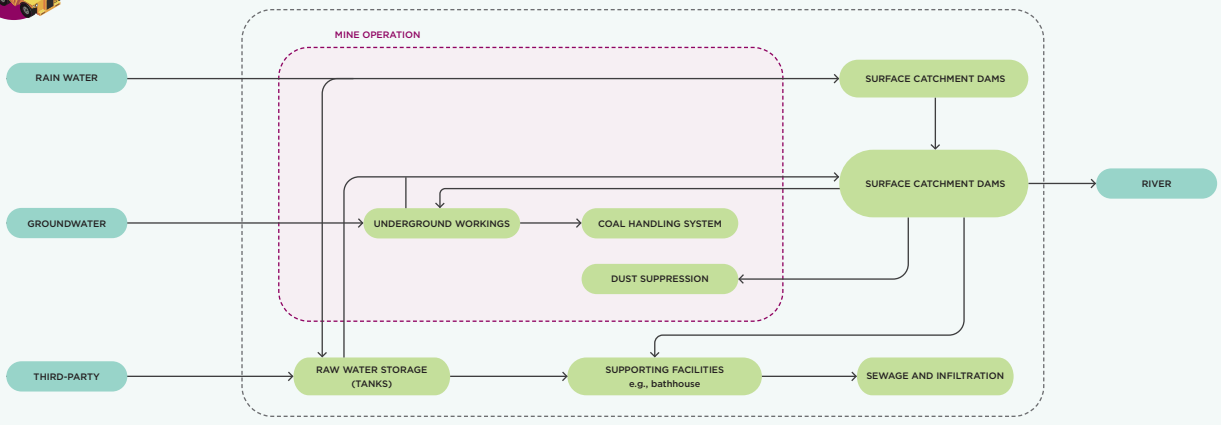
WATER FLOW DIAGRAM

To enhance performance effectiveness and build stakeholder confidence in water accounting, the Company has developed a water flow diagram for each business unit. These diagrams provide a clear and transparent view of the entire water lifecycle within operations, including tracing water from its withdrawal sources through consumption activities to its final discharge destinations. This structured approach helps ensure accuracy in water reporting, supports internal management, and strengthens external trust in the Company's water stewardship practices.

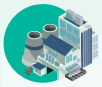
Open-pit mining in Indonesia

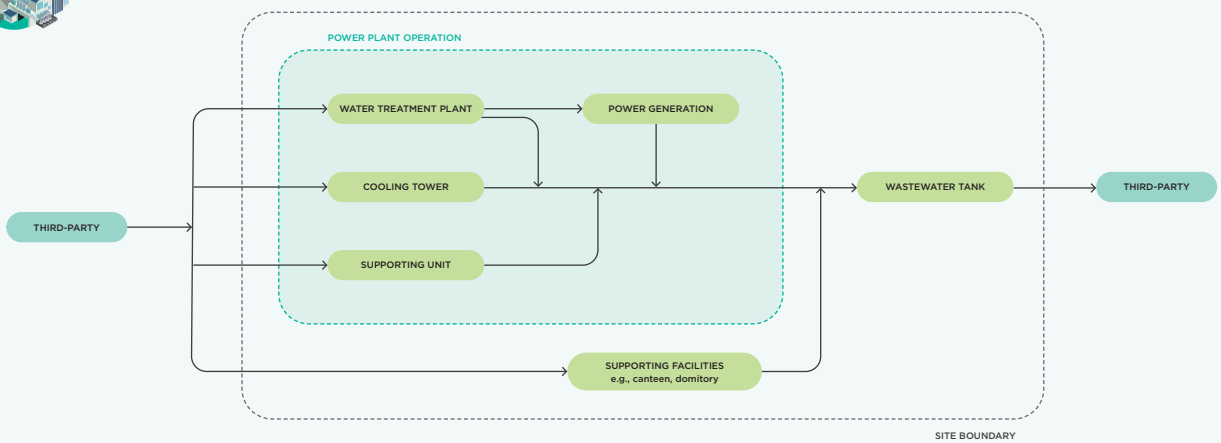


Underground mining in Australia



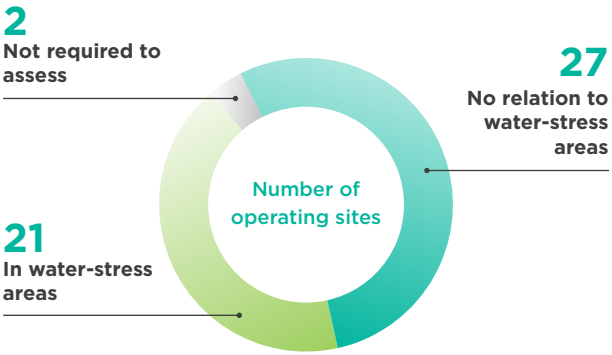
Thermal power operation in China

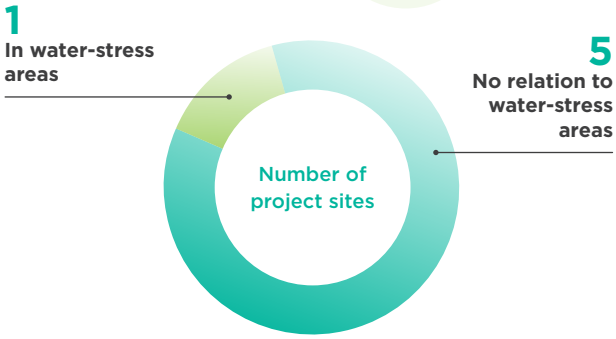




WATER-STRESSED AREAS IDENTIFICATION

Water-stressed area identification is one of the critical parts of the Company's water risk assessment. In 2024, the assessment revealed that 41% of operating sites are located in areas classified as water-stressed. By understanding the specific risk associated with each location, the Company can strategically prioritize management plans to address potential water scarcity, ensuring the water use remains sustainable and safeguarding the local communities and ecosystems.





WATER REDUCTION INITIATIVE IN CHINA

Following the shutdown of groundwater wells, Zhengding Power Plant in China shifted its water source from groundwater to surface water, leading to increased water withdrawal costs. To optimize operations and reduce electricity generation costs, the plant launched an innovation program focused on reducing water consumption and recovering waste heat. This process involved internal workshops, water quality analysis, and project planning. As a result, the plant constructed the water recovery pipelines and installed pumps at the chemical plant and cooling tower to recirculate and reuse blowdown water within the operational process.

Location	China
Project duration	2023
Impact on the Company	• Saved USD 150,000 in operating costs • Saved USD 211,000 in water cost
Impact on Natural, Social, and Human Capitals	Reduced 290,000 m^3 of water withdrawal in 2023

BIODIVERSITY

SIGNIFICANCE & COMMITMENT

Recognizing the environmental challenges associated with operations such as open-pit mining, the Company places a high priority on managing and mitigating impacts on ecosystems and biodiversity. The Company commits to achieving a net positive impact on biodiversity by the end of each project lifecycle, ensuring long-term ecological restoration and contributing to sustainable environmental stewardship.

Biodiversity Policy

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Proportion of business units assessed for potential biodiversity impact	100%	100%	100%
Proportion of business units assessed for biodiversity value*	100%	100%	100%

* Only for business unit(s) currently operating and identified as having high potential for biodiversity impact

MANAGEMENT APPROACH

The Company has established a biodiversity policy that reflects the commitment to avoid or minimize adverse impacts on biodiversity resulting from the operational activities. In alignment with the International Union for Conservation of Nature (IUCN) guidelines, the Company conducts biodiversity impact assessments for all operational sites. These assessments include evaluating whether sites are located in or adjacent to the protected or high-biodiversity wilderness areas.

Management Approach

In the case where impact is identified as high or critical, the Company conducts a biodiversity value assessment aligned with the Convention on Biological Diversity (CBD) framework. To avoid or mitigate risks, a site-specific biodiversity management plan (BMP) is developed, based on the mitigation hierarchy: avoid, reduce, restore, regenerate, and transform. To enhance effectiveness of biodiversity efforts, the Company has partnered with external agencies, including government bodies, academic institutions, and consulting firms.

The Company also conducts surveys to identify vulnerable and native species, especially those listed in the IUCN Red List to ensure adequate protection measures are in place. To reinforce transparency and accountability, the Company engaged external agencies, including government authorities or independent auditors, to verify biodiversity impact assessments and review the biodiversity management plan.

YEAR IN REVIEW

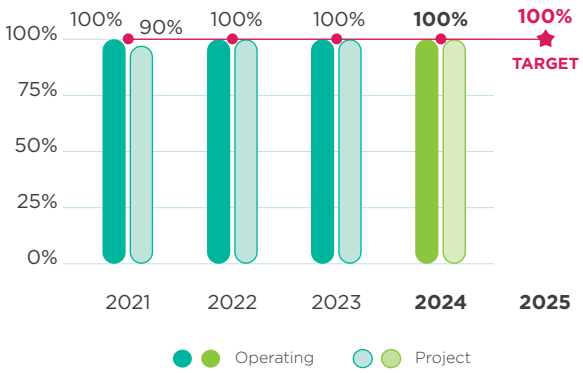
In 2024, the Company conducted biodiversity impact assessments across all operations. Each site followed a site-specific biodiversity management plan, with all planned activities successfully implemented and monitored for effectiveness. Key actions included the execution of reclamation plans, mine subsidence management, threatened species survey, and biodiversity offset measures. In addition, biodiversity value assessments were conducted following national laws and regulations.

In Indonesia, the Company partnered with external agencies, including academic and research institutions, to carry out a Plant Diversity Study and Nature Forest Ecology within the concession areas.

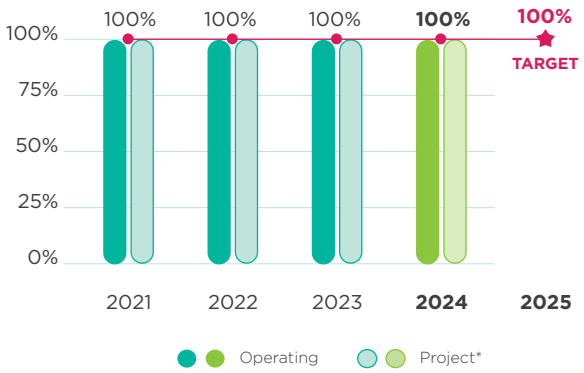
TARGETS AND PROGRESS

As part of the commitment, the Company has set a target to conduct biodiversity impact assessments across all business units and to perform biodiversity value assessments for sites identified as having high or critical biodiversity impact. In 2024, biodiversity impact assessments were carried out across all business units, and biodiversity value assessments were completed for 4 sites and 1 project that were classified as high potential impact, in alignment with the Company's strategic conservation goals.

Proportion of business units assessed **for biodiversity impact**



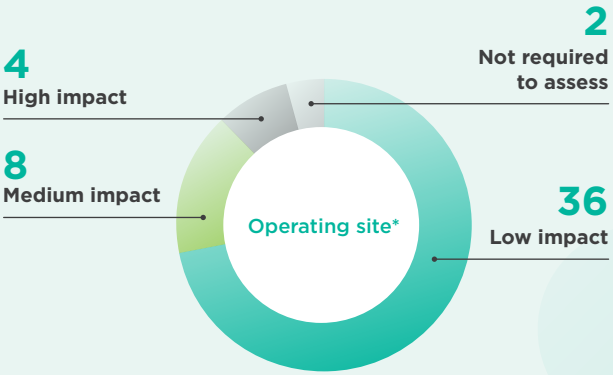
Proportion of business units assessed **for biodiversity value***

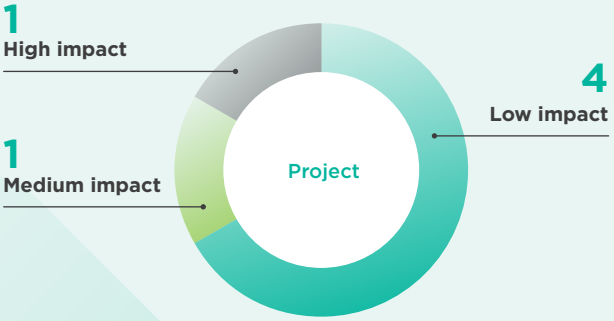


* For business unit(s) identified as high potential of biodiversity impact only

BIODIVERSITY IMPACT ASSESSMENT

In 2024, through the biodiversity impact assessment process, the Company identified 4 operational sites and 1 project site classified as high potential biodiversity impact. For each of these 5 sites, the Company conducted biodiversity value assessment and subsequently developed the site-specific biodiversity management plans to mitigate risks.





* Operating sites included the site with care and maintenance.

BIODIVERSITY MANAGEMENT PLAN IN INDONESIA

All open-pit mine sites are required to develop a site-specific Biodiversity Management Plan (BMP) based on national regulatory requirements and mitigation hierarchy. The targets of these plans are developed in the form of biodiversity index achievement, ecosystem health ratings, and variety of local plant species in the reclamation area.

The baseline data on biodiversity, including local plant species, fast-growing native plants, epiphyte, and ethnobotany, has been monitored since the pre-operational phase. The land management and reclamation plan has been developed in accordance with environmental impact assessment (EIA) and is designed to reduce the potential negative impacts on biodiversity.

	Example of Site-Specific BMP for Open-Pit Mine
Management Area	• Reduce and minimize impact in accordance with the permits obtained • Decrease erosion and sedimentation while increase soil fertility • Execute land reclamation and revegetation as per approved plans • Utilize conservation area as germplasm source • Collect seeds and conduct natural extraction of endemic local plants • Develop documentation of wildlife diversity
Reclamation Activities	• Prepare and update biodiversity inventories and ecological study reports for both flora and fauna • Cover void with overburden material and utilize for revegetation activity • Restore areas by planting valuable native plants • Conduct training and workshops for employees and local communities

BIODIVERSITY MANAGEMENT PLAN IN AUSTRALIA

The site-specific BMP is a sub-plan of the Northern Region BMP, which all underground mine sites are required to develop based on regulatory requirements and the mitigation hierarchy. The baseline data have been collected since the pre-operational phase, covering both terrestrial and aquatic ecology. This includes ecological communities, threatened ecological communities, habitat values, groundwater dependent, threatened flora and fauna species, and riparian areas.

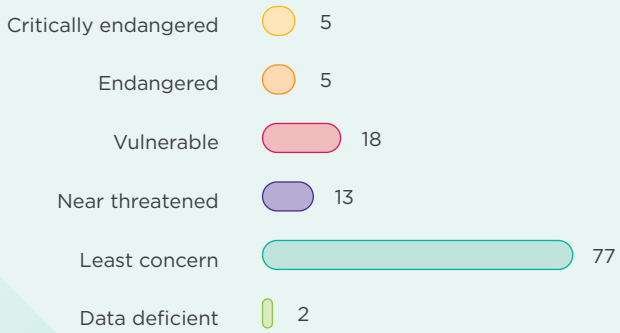
The BMP identified several key management types to drive outcomes that support biodiversity conservation. These include offset areas, operational areas, native vegetation and areas of biodiversity significance, minimizing impact of threatened flora, fauna species and habitat security, weed management, pest management, and bushfire management. Moreover, site-specific management measures are provided tailored to each location's ecological context.

	Example of Site-Specific BMP for Open-Pit Mine
Management Area	• Minimize biodiversity impact in accordance with the permits obtained • Implement weed and pest management • Apply bushfire management
Reclamation Activities	• Conduct flora and fauna pre-clearance survey • Rehabilitate temporarily disturbed areas (e.g., drill sites) to support regeneration • Manage remaining native vegetation to minimize impacts on other threatened flora and fauna species
Habitat Security	• Re-use plant material removed from the disturbance areas • Implement weed control programs to prevent weed infestations and to maintain bushland condition

IUCN RED LIST

Each year, the Company annually identifies the types of species that may inhabit areas surrounding the operations, alongside assessing the level of threat these species might face, particularly with reference to the IUCN Red List. This information forms the foundation for crafting strategies aimed at minimizing the impact of operations on local wildlife and ecosystems.

Number of species listed in IUCN Red List
Mining business in Indonesia



ARBORETUM 30 GEMILANG AND ARBORETUM KANAHUANG PROJECT

The Arboretum Project has been established by Indominco Mine in Indonesia. This project is a multi-functional initiative designed to enhance biodiversity conservation and provide additional value through scientific research, education, tourism, and recreational activities. The Indominco Arboretum is divided into several zones, each serving different functions.

In 2024, to enhance the biodiversity value of these conservation areas, the Company continually conducted flora and fauna monitoring and updated species inventories. Key biodiversity-related activities included:

- Inventory updates for Lepidoptera (moths and butterflies), Odonata (dragonflies), Herpetofauna (reptiles and amphibians), Mammal, and Avifauna (birds)
- Tree labeling and tree adoption programs

The biodiversity value of the site was assessed using the Diversity Index (H′), with the following outcomes: Lepidoptera H′ = 3.23, Odonata H′ = 2.46, Herpetofauna H′ = 2.17, Mammal H′ = 2.59, and Avifauna H′= 3.74.

Location	Indonesia
Project Duration	2021-Present
Impact on the Company	• Strengthen engagement with external stakeholders, including government agencies, local communities, and academic institutions
Impact on Natural, Social, and Human Capitals	• Enhanced biodiversity value within the conservation area

AIR EMISSIONS

SIGNIFICANCE & COMMITMENT

Air pollutant emissions, particularly from thermal power plants, are a significant concern due to their impacts on human health and the environment in surrounding communities. With increasingly stringent laws and regulations, the Company is committed to preventing and minimizing these impacts by improving process efficiency, advancing air pollution management technologies to ensure business growth alongside the well-being of the community and society.

PERFORMANCE OVERVIEW

		2024	Target 2024	Target 2025
SO_2 emissions intensity				
• Mining business (g/tonne coal)*	✓	14.81	≤30	≤30
• Thermal power business (g/MWh)**	✓	8.89	≤33.6	≤33.6
NO_x emissions intensity				
• Mining business (g/tonne coal)	-	20.24	-	-
• Thermal power business (g/MWh)**	✓	30.46	≤55.5	≤55.5

* From non-point source
** From point source

MANAGEMENT APPROACH

The Company prioritizes pollution control at the source across all operations. In open-pit mining, measures include regular maintenance of generators and vehicles, water spraying on roads and coal stockpiles, vehicle speed controls, and optimized dust suspension via advanced route planning and water spraying systems. For underground mines, specific air quality management and mitigation measures are developed, supplemented by real-time dust monitoring. The third-party ambient air quality monitoring is conducted regularly across mining areas and surrounding communities to ensure compliance.

Management Approach

In thermal power business, the Company applied engineering controls such as circulating fluidized beds and advanced air quality control systems, including electrostatic precipitators, sulfur dioxide, and nitrogen oxide trapping. Continuous emissions monitoring at the stack ensures emissions remain within regulatory limits.

In gas business, emissions are minimized beyond legal requirements, with strict monitoring of hazardous air pollutants to maintain environmental compliance.

In the energy storage system business, emission monitoring focuses on key parameters, including total non-methane hydrocarbons and volatile organic compounds, with third-party verification to ensure regulatory adherence.

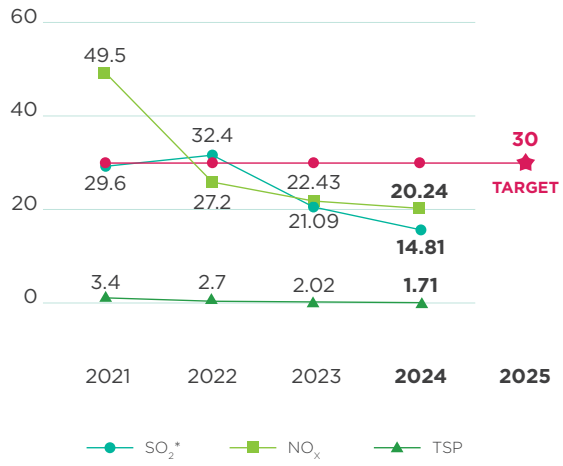
YEAR IN REVIEW

In 2024, a new digital control system was deployed across the thermal power business in China to improve operational efficiency, leading to a reduction in environmental risks and community complaints related to air emissions. De-NO_x catalyst replacements were completed at all thermal power plants in China, while new emission targets were established for thermal power business in the U.S. to strengthen emission quality and control. In mining, the Company has developed a genset inventory checklist at mine sites in Indonesia to track monitoring frequency and results in order to ensure compliance and improve data accuracy.

TARGETS AND PROGRESS

With a strong commitment to ongoing monitoring and continuous improvement, the Company has successfully maintained air emissions intensity at a stable and consistently low level, fully aligned with regulatory requirements, and significantly below the targets. In addition to tracking key pollutants such as sulfur dioxide (SO_2), nitrogen oxides (NO_X), and total suspended particulates (TSP), the Company also monitor hazardous air pollutants (HAPs), volatile organic compounds (VOCs), and ammonia (NH_3) to ensure minimal impact to the environment.

Air emissions intensity
Mining business (g/tonne coal)



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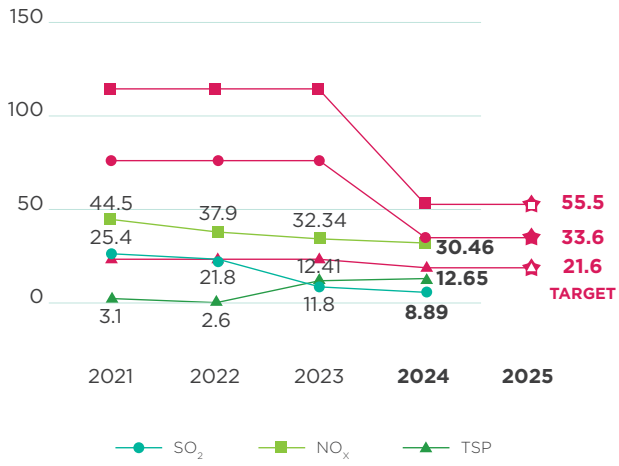
Air emissions intensity
Thermal power business (g/MWh)**



DIGITAL TWINS, THE BOOSTER OF CHP GREENER & SMARTER

As operations at Luannan Power Plant became increasingly complex, leading to several issues. One of the challenges is that the heavy reliance on individual operator experience for adjusting operational parameters. To solve the issue, the Company collaborated with a technology firm to develop a comprehensive digital system utilizing Client, Edge, Cloud, Big Data, and AI technologies. This new system can enhance overall operational efficiency by optimizing oxygen level in the combustion process, enhancing boiler efficiency and significantly reducing emissions. Compared to 2022, air emissions loading was reduced by 17%, 19%, and 16% for NO_X, SO_X, and PM, respectively.

Location	Luannan Power Plant, China
Project duration	2023
Impact on the Company	• Reduced air emission treatment agents (SO_X & NO_X) by 580 tonnes or USD 26,290 in 2023 • Saved 8,658 tonnes of coal, equivalent to a cost saving of USD 1,323,150 in 2023
Impact on Natural, Social, and Human Capitals	• Reduction in air emissions loading compared to 2022 - NO_X 17% - SO_X 19% - PM 16% • Enhanced team expertise in digital twin and AI technology • Minimized environmental and community impacts

WASTE

SIGNIFICANCE & COMMITMENT

Waste, especially hazardous waste, is a significant focus for the Company as improper handling can pose serious risks to the environment, employee health, corporate reputation, and license to operate. Recognizing these risks, the Company is committed to preventing and minimizing waste impacts by improving process efficiency, applying industry best practices and advanced technology, and ensuring strict compliance with laws and regulations.

Waste Management Policy

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Hazardous waste to landfill (tonne)	1,160	0	0
Waste diverted from disposal (tonne)	897,355	-	-
• Hazardous waste	3,420	-	-
• Non-hazardous waste	893,935	-	-
Waste directed to disposal (tonne)	18,657	-	-
• Hazardous waste	2,035	-	-
• Non-hazardous waste	16,623	-	-

MANAGEMENT APPROACH

The Company strictly follows the waste management hierarchy: prevention & minimization, reuse, recycling, other recovery operations, and disposal. Our waste management policy and standard, developed in line with international best practices and local regulations, serve as the foundation for implementation across all operations, focusing on maximizing resource utilization, minimizing waste directed to disposal, and reducing environmental impacts from incineration or landfilling.

Management Approach

PREVENTION & MINIMIZATION → REUSE → RECYCLING → OTHER RECOVERY OPERATIONS → DISPOSAL

For externally managed waste, the Company engages only government-authorized agencies to ensure compliance with the least environmental impact in waste transportation and disposal. Waste process flow mapping across the value chain provides a comprehensive view of waste generation and management, supporting strategic planning and decision-making. Internal waste volumes are systematically measured, while external waste volumes are recorded through third-party reports to uphold transparency and accountability. This comprehensive approach reinforces the Company's commitment to sustainable waste management and environmental stewardship.

YEAR IN REVIEW

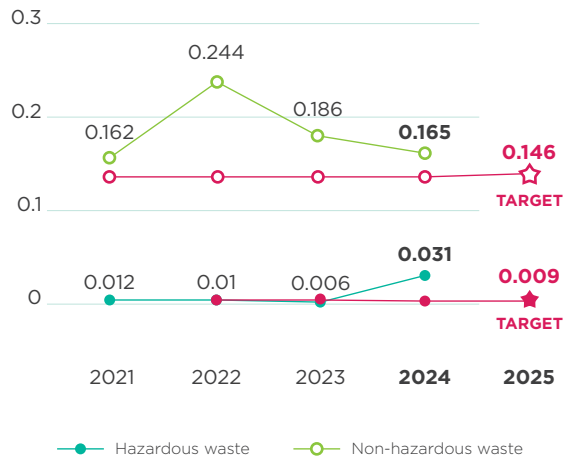
In 2024, the Company strengthened waste management efforts by updating the Waste Policy and related manuals, as well as implementing several initiatives to improve efficiency. Key improvements included enhanced non-hazardous waste management in Indonesia to address significant waste impacts, renovation of slag handling system in China to boost resource recovery, and development of a process flow for underground mining operations in Australia to strengthen internal waste management and improve data collection accuracy. Additionally, new waste reduction targets for thermal power business in the U.S. were set.

TARGETS AND PROGRESS

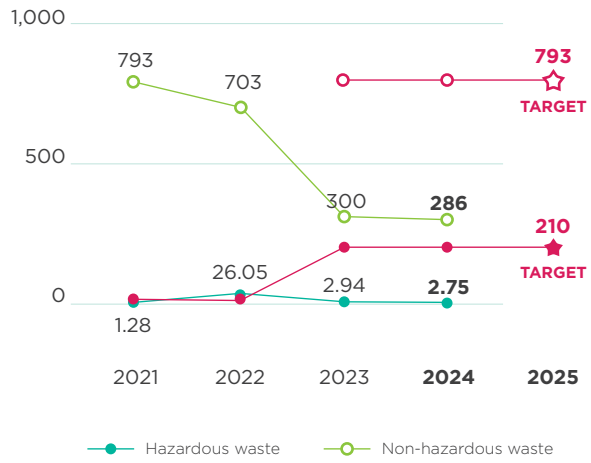
The Company has set clear waste management targets covering both hazardous and non-hazardous wastes. Targets include hazardous and non-hazardous wastes directed to disposal intensity for mining business and hazardous waste directed to disposal for thermal power business.

In 2024, the thermal power business achieved its waste directed to disposal target. However, mining business exceeded targets for both hazardous and non-hazardous waste. This was primarily due to new categorization in waste disposal reporting to align with GRI Standards. Some non-hazardous waste, such as food waste and used tires, was disposed of in authorized mine areas and through legally authorized waste processors.

Waste directed to disposal intensity
Mining business (kg/tonne coal)



Waste directed to disposal
Thermal power business (tonne)



MINERAL WASTE MANAGEMENT

Mineral waste generated from mining operations, including overburden, waste rock, and tailings, can cause significant environmental risks to soil and water if improperly managed. The Company has developed and implemented a dedicated risk assessment and waste management standard specific to mineral waste to prevent and minimize impacts. The standard covers the full lifecycle from pre-mining through the post-mining stages.

Mineral Waste

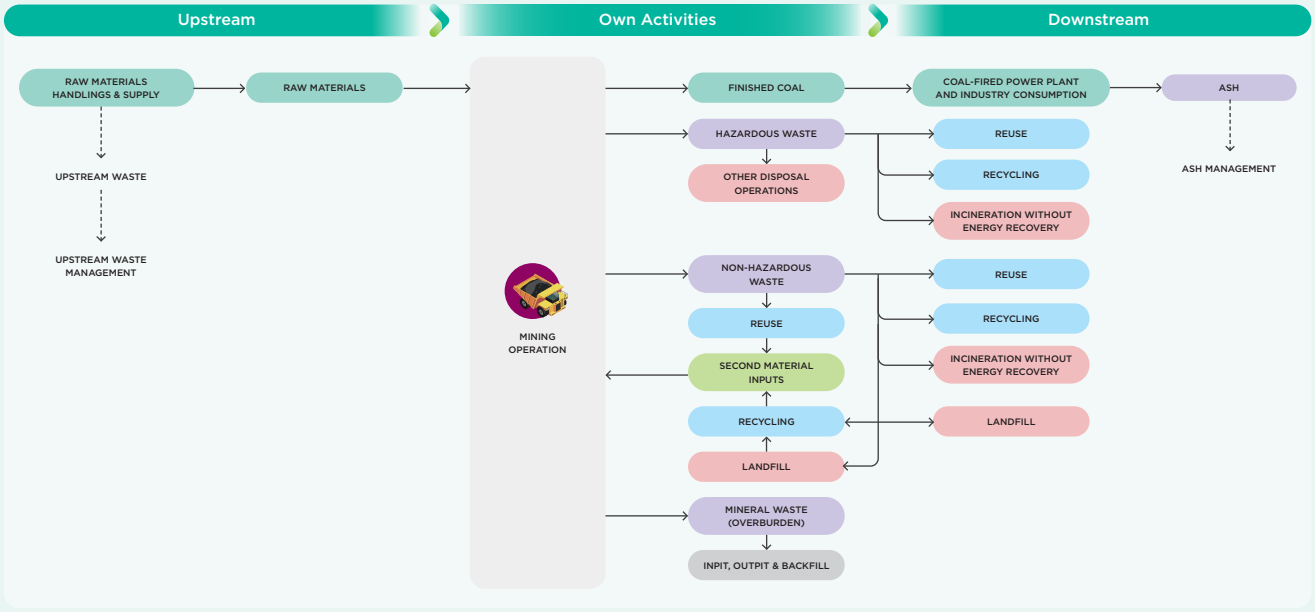
In the event of a tailings spill incident, sites are required to immediately activate spill response and emergency plans. Additionally, all incidents are reported and investigated following established procedures under environmental incident classification protocols to ensure timely mitigation and continuous improvement.

- Spill Response & Emergency Plans
- Incident Reporting

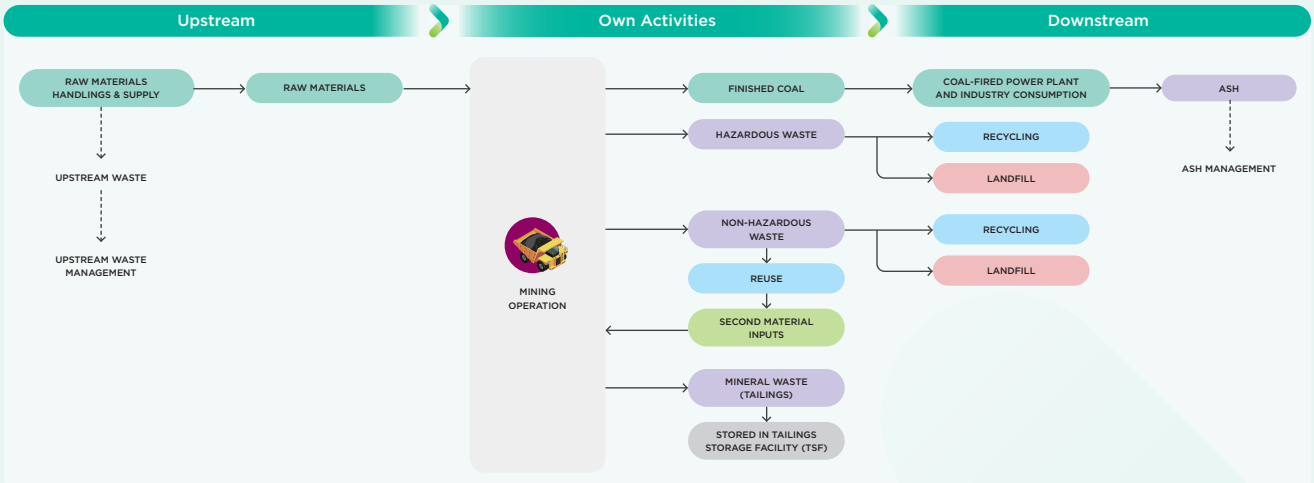
WASTE PROCESS FLOW

Banpu has introduced the waste process flow framework that maps waste generation across the value chain: upstream, own operations, and downstream. This mapping identifies waste generation points and enables strategic planning to enhance circularity measures by identifying opportunities for waste prevention. Potential waste is basically reused, recycled, or recovered as secondary material. Residual waste is properly treated or disposed by incineration, qualified landfills, and other disposal methods.

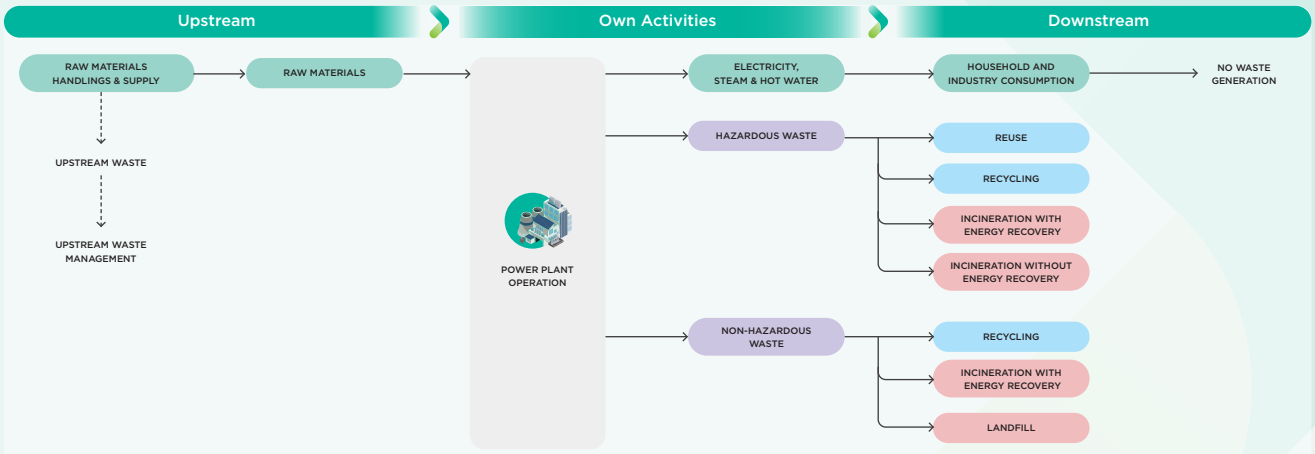
Open-pit mining in Indonesia



Underground mining in Australia



Thermal power operation in China



WASTE-TO-PRODUCT INITIATIVE IN INDONESIA

In response to challenges in offsite landfill of non-hazardous waste at Jorong Mine, the Company initiated the Waste-to-Product Projects by integrating 3R principles (Reduce, Reuse, Recycle) to transform different waste streams into valuable products and reduce landfill dependency. Initiatives included converting paper and plastic waste into construction materials, using food waste and used cooking oil for fertilizer and soap production. Additionally, new facilities were built to support waste management operations.

Location	Jorong Mine, Indonesia
Project duration	2018-Present
Impact on the Company	• Reduced disposal cost by USD 3,985 and saved USD 500 in fuel consumption in 2023 • Achieved zero food waste to landfill since 2023 • Recognized a green level rating in the PROPER Award from the Ministry of Environment
Impact on Natural, Social, and Human Capitals	• Diverted 9.4 tonnes of waste from landfill in 2023 • Strengthened collaboration and knowledge-sharing on waste management technology • Enhanced environmental awareness and technical skills among employees • Supported community development with bricks and paving blocks donation

SLAG HANDLING RENOVATION IN CHINA

Zouping Power Plant faced challenges managing slag and wastewater due to inefficient transportation and treatment processes. The long distance between boilers and dewatering bins, along with the need for multiple supporting equipment, resulted in high power consumption, increased labor demands, substantial maintenance costs, and risks of wastewater leakage. To address these issues and improve slag treatment efficiency, the plant constructed a new slag silo located between the boilers to mitigate storage constraints and reduce transportation distance. In addition, the slag conveyor system was upgraded to transport and dewater slag simultaneously.

Location	Zouping Power Plant, China
Project duration	2023
Impact on the Company	• Improved slag dewatering process efficiency • Reduced power consumption by 290,481 KWh in 2023 • Saved USD 15,830 in electricity costs, USD 2,560 in maintenance costs, and USD 2,377 in labor costs in 2023
Impact on Natural, Social, and Human Capitals	• Lowered the risk of wastewater leakage by eliminating liquid transportation processes • Strengthened technical knowledge and team communication

SOCIAL

People are at the heart of Banpu's commitment to creating positive societal impacts. As an employer of choice, the Company fosters employee engagement through "Banpu Heart", empowering employees with purpose-driven values. By embedding a safety-first mindset across all operations and supply chains, Banpu strives to achieve the 3-Zero target. Additionally, the Company also promotes lifelong learning, leveraging data-driven programs to upskill employees and future-proof our workforces. Through these initiatives, progress is propelled forward, reflecting Banpu's belief that "an industry will be strong only when developed in tandem with society and environmental responsibility."

104 Employee Engagement
110 Talent Management & Development
114 Occupational Health & Safety
118 Human Rights
122 Community & Society
126 Mine Closure & Rehabilitation

EMPLOYEE ENGAGEMENT

SIGNIFICANCE & COMMITMENT

Human capital is at the heart of sharpening the Company's competitive advantage. The engagement of employee directly mirrors in their work efficiency and achievements. At the same time, navigating workforce diversity presents both challenges and opportunities. Banpu is committed to providing equal opportunities to all employees, regardless of race, nationality, language, culture, or gender. The Company believes that fostering a robust corporate culture is key to managing diversity effectively, strengthening employee engagement, and ultimately driving organizational productivity and success.

Human Resources Management Policy

PERFORMANCE OVERVIEW

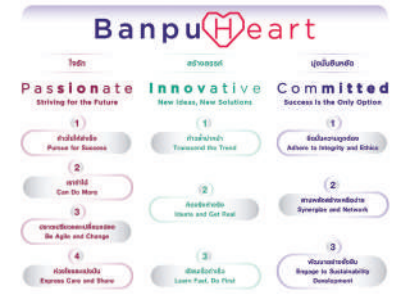
	2024	Target 2024	Target 2025
Level of employee engagement ✓	80%	>80%	>80%
Total turnover rate	4.8%	-	-
Female to male remuneration ratio	0.97	-	-

MANAGEMENT APPROACH

Under the "One Banpu, One Goal" principle, the Company aspires to develop employees into professionals with a shared vision and collaborative goals. With a commitment to providing equal opportunities to all employees, we foster a sense of unity through a diverse and inclusive workplace. This commitment is embodied in the corporate culture "Banpu Heart" which comprises 3 core values: Passionate, Innovative, and Committed, along with 10 key behaviors that guide daily actions.

Management Approach

"Banpu Heart" is embedded throughout the employee lifecycle, from recruitment and on-boarding to development and performance evaluation. Since 2012, the Company has engaged a third-party provider to conduct annual employee engagement and corporate culture surveys. The survey is offered in the local language of all countries where we operate to ensure thorough understanding and genuine feedback.



YEAR IN REVIEW

In 2024, Banpu continued to strengthen the diverse business ecosystem by promoting unity through the "Banpu Heart" culture. Cross-functional collaboration and localized, generationally inclusive activities were emphasized across all countries. Key highlights included 'The Stories of Banpu People: Voices of Dedication', a documentary project showcasing employees' real-life experiences, linking Banpu Heart's 10 key behaviors of Banpu Heart to tangible business goals. Additionally, Banpu Change Leaders (BCLs) network expanded globally, leading culture-focused workshops and promoting short films that spotlighted internal role models.

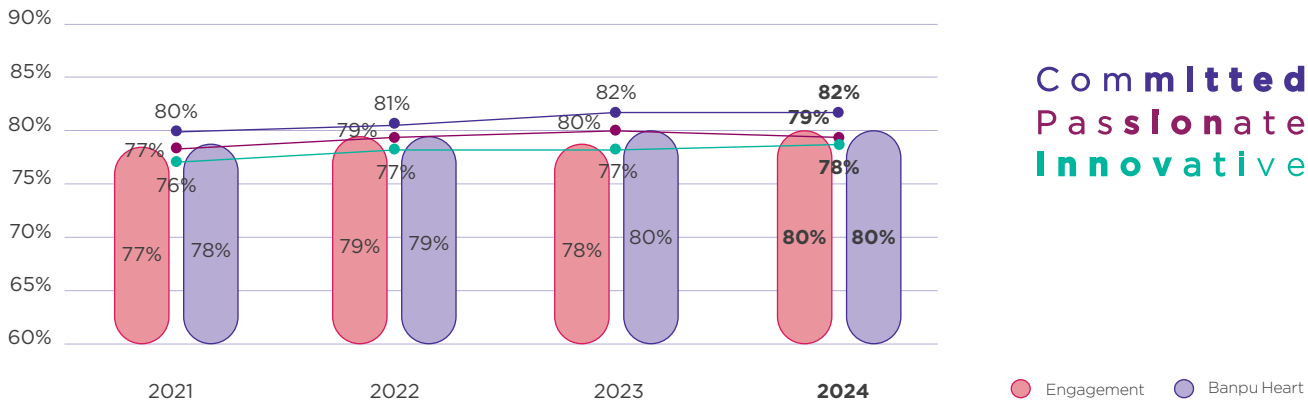
Bottom-up culture-building activities were also prioritized, shaped by employee interests and feedback. Programs such as the 'Boost Me Up' series supported holistic well-being, addressing physical, mental, and emotional health. Throughout these initiatives, Banpu's management maintained close communication to align diverse roles with the Company's Energy Symphonics Strategy.

TARGETS AND PROGRESS

The Company measures employee engagement through 2 key indicators: Employee Engagement Level and Banpu Heart Score. In 2024, both indicators reached 80%, reflecting the strength and consistency of Banpu's corporate culture, which is built on the following core values:

- **Passionate:** Level of enthusiasm and motivation employees bring to accomplish their department goals.
- **Innovative:** Ongoing improvement in transforming ideas into results through effective resource management.
- **Committed**: Strong teamwork and solutions-focused collaboration for the shared and sustainable outcomes.

Banpu Heart Journey: Historical Comparison
Committed drives stability, Passion needs rejuvenation, and Innovation shows growth



HUMAN RESOURCES MANAGEMENT POLICY

The Company has updated its Human Resource Management Policy to ensure alignment with the evolving business environment and changes in laws & regulations in each country. Emphasis has been placed on non-discrimination and anti-harassment policies. To prevent discrimination and harassment, the Company has established guideline that covers various aspects across the employee lifecycle, including recruitment & selection, training & development, performance management, employee compensation, and transfer & exit processes. Additionally, the grievance mechanism for addressing any incidents of discrimination or harassment has been developed and communicated to all employees.

Human Resources Management Policy

EMPLOYEE VOICE

Banpu fosters a culture of open and inclusive communication by providing diverse and effective employee feedback channels. These platforms support transparent dialogue, address concerns, strengthen trust, and improve workplace practices based on employee input. Key channels include:

- **Employee Engagement Survey:** Conducted annually to measure employee satisfaction and engagement level. Survey results are analyzed to guide improvement initiatives and strategy formulation.
- **Focus Group Discussion:** In-depth discussions designed to engage employees in meaningful conversations, allowing them to share their opinions, diverse perspectives, and experiences.
- **Welfare Committee Meeting:** Serving as a formal communication channel between employees and management, enabling the submission and review of proposals related to employee welfare and benefits.
- **Open Dialogue:** Motivating employees to freely express their opinions on crucial matters, fostering a culture of openness and mutual respect.

EMPLOYEE HEALTH & WELL-BEING PROGRAMS

Banpu places strong importance on employee health and well-being in every country where we operate, aiming to foster a positive and fulfilling work environment. A range of initiatives has been implemented to address physical health, mental well-being, and work-life balance, aligned with local contexts and employee needs.

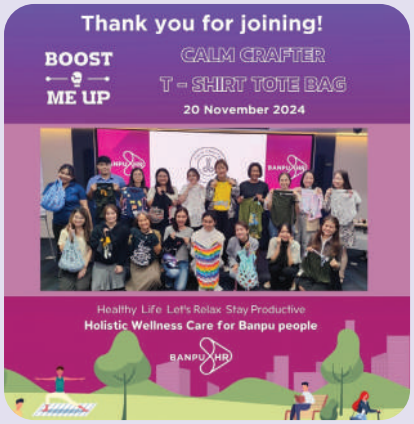
Life @Banpu

Flexible Work Environment

- **Work anywhere and flexible time policy:** Empowering employees with autonomy to manage their schedules and work styles for the desired results.
- **Flexible welfare:** Allowing employees to customize health insurance plans based on their ages and needs, offering a range of benefits to support employee lifestyles, including expenses related to family, relaxation, and quality of life enhancements.
- **Career path sessions:** Providing guidance on career development to align individual aspirations with organizational goals.

Physical Health

- **Sports and music clubs:** Promoting engagement and work-life balance.
- **Maternity and paternity support:** Extending maternity leave up to 98 days and paternity leave to 5 days with full pay, with additional support including cash gifts for childbirth and breastfeeding facilities.
- **Fitness program:** Providing fitness facilities and exercise classes, both online and on-site, for employees to support physical well-being.
- **Massage services:** Providing office syndrome massage services by visually impaired individuals (supporting hiring of disabilities under the Empowerment of Persons with Disabilities Act).



Mental Health

- **Employee assistance program:** Providing confidential psychological services, to help employees tackle personal issues and stress.
- **"Boost Me Up":** Series addressing comprehensive well-being through sessions on various topics such as mindfulness, health, financial literacy, and social contribution.
- **Additional health benefits:** Offering flu vaccinations, online medical consultations, and on-site physical therapy & dental care services.

Besides, the subsidiaries in each country tailor health and well-being initiatives to fit local needs and regulations:

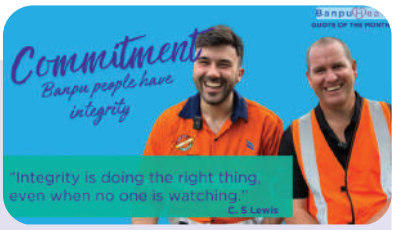
- **Mongolia:** Maternity leave extends to 120 days (60 days pre-birth and 60 days post-birth, 140 days for twins).
- **Japan:** Offering 98 days of maternity leave and 28 days of paternity leave.
- **China:** Promoting physical activities such as badminton and football clubs.
- **Australia:** Providing employee assistance program service for all employees.
- **The U.S.:** Supporting breast-feeding facilities and allowing PTO (Paid Time Off) donations for their colleagues dealing with medical emergencies for up to 12 weeks of paid leave.

BANPU HEART ACTIVITIES

In 2024, the Company organized a variety of activities to instill the 10 key behaviors of Banpu Heart and harmonize personal values with the business objectives. These activities are designed to enable employees to embody organizational culture and apply work values with flexibility, collaboration, and unity across diverse team.

- **Banpu Change Leaders (BCLs) reinforcement:** Elevating the network of BCLs, who are committed to fostering a global corporate culture ecosystem by promoting cultural integration across business units. In Thailand, BCLs designed activities to ensure employees' deep understanding of the corporate culture. These included script interviews and storytelling projects that featured employees from different departments working under shared values, being role models for others despite differences.
- **Workshops and training sessions under the Bottom-Up Culture Building Policy:** Strengthening teamwork and unity despite differences among colleagues.

- **Country-specific Banpu Heart activities:** Customized initiatives tailored to resonate with local cultures while reinforcing the core principles of Banpu Heart.



Banpu Heart Activities in Australia

Banpu Heart and
Local Community Activity in China

Banpu Heart Sports Club in Indonesia

PERFORMANCE MANAGEMENT SYSTEM

To promote fairness and support the alignment between individual efforts and organizational goals, Banpu has implemented a structured performance management system. This system ensures that performance-based remuneration reflects each employee's contributions and responsibilities. Performance evaluations are conducted twice a year and are categorized into four types: Management by objectives, Multidimensional performance appraisal, Team-based performance appraisal, and Agile conversations.

Management by objectives	The Company's performance management system consists of two sets of KPIs: work-related KPIs, which account for 70%, and behavior-based KPIs, which account for 30%. The behavior-based KPIs are measured by actions that demonstrate the corporate culture "Banpu Heart". The Company promotes employees' involvement in developing their own plans and KPIs by aligning their goals with those of the Company and their teams. Besides, the Company specifically assigned Leadership KPIs to middle management and above levels.
Multidimensional performance appraisal	The Company provides a 360-degree feedback process where colleagues, subordinates, and direct supervisors can evaluate work-related behaviors. The outcomes gained from these evaluations are utilized to provide opportunities for enhancing knowledge and skills.
Team-based performance appraisal	The Company has adopted a "Calibration" process across the organization. This approach is designed to ensure that performance outcomes are accurately aligned with the goals of respective departments and contribute to the broader organizational strategy.
Agile conversations	The Company encourages employees to have a discussion session with their supervisors at least twice annually to share opinions about performance, goals, and self-development strategies. The mentoring program serves as additional communication channels for self-development. This initiative involves discussions with senior executives, who are not their direct supervisors, to gain diverse perspectives and enrich their professional growth through experience, knowledge, and skills enhancement.

BUILDING AN INCLUSIVE WORKPLACE THROUGH EMPLOYMENT OF PERSONS WITH DISABILITIES

Banpu is committed to building an inclusive workplace by extending employment opportunities for Persons with Disabilities (PWDs). Since 2017, we have collaborated with the Social Innovation Foundation to support community-based employment for PWDs, contributing to local development and aligning with the Empowerment of Persons with Disabilities Act. We also supported the Empowerment of Persons with Disabilities Fund.

In 2018, we expanded this initiative internally by launching "Healing Hands: Office Syndrome Relief Massage" project. This program integrates health promotion and social inclusion by employing visually impaired massage therapists to provide massage services for employees at our office. In 2022, we welcomed an employee with autism whose talent in designing communication materials has brought unique value to our team. We continue to support their skill development, both personal growth and organizational contribution.

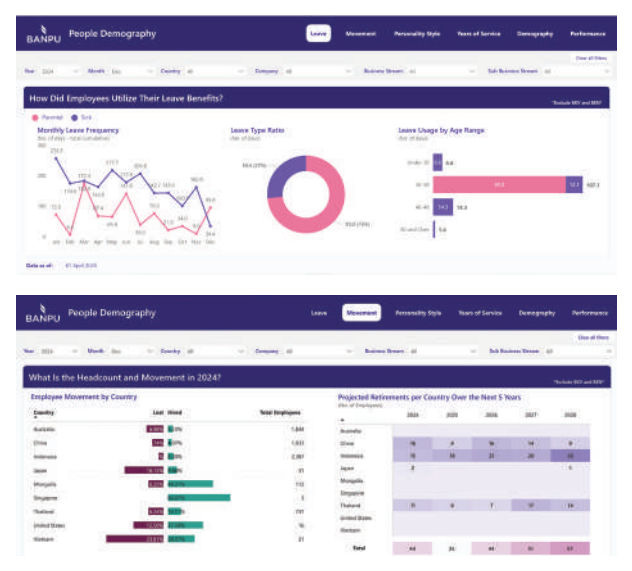
These efforts have nurtured a culture of empathy and empowerment, reinforcing our commitment to diversity, equity, and inclusion (DEI), while enhancing employee well-being and advancing sustainable development goals.

DRIVING TRANSFORMATION THROUGH HR DIGITAL ECOSYSTEM

Banpu embarked on a technology transformation journey in 2023 to embrace more automated work processes. In 2024, the focus shifted toward enhancing the employee experience and leveraging data-driven analytics to strengthen collaboration, data analytics, and employee well-being across the organization in alignment with the strategic vision of the HR Digital Ecosystem.

In 2024, Banpu launched **"People Insight"**, a centralized database designed to support dashboard development and advanced HR analytics. This platform consolidates selected data from multiple systems into a single, accessible database for the following purposes:

- **Enhancing comprehensive analysis and strategic insight:** for instance, examining the relationship between employee engagement, promotion rates, and company performance.
- **Empowering data-driven decision-making:** management gains timely and user-friendly access to key information through the Strategic HR Dashboard, available on both mobile and desktop devices. Access rights are carefully controlled to ensure responsible data use.
- **Supporting employee planning:** by providing real-time access to relevant HR data, reducing dependency on formal data requests, and supporting more effective planning and timely task execution.



DEVELOPMENT AND APPLICATION OF ARTIFICIAL INTELLIGENCE (AI)

Recognizing the transformative role of AI in shaping the future of work, Banpu began integrating AI technologies in 2024 to enhance HR decision-making, employee support, and operational efficiency.

- **AI-Based Bias Screening:** A pilot project was launched in one subsidiary to evaluate the use of AI in detecting and reducing bias in employee capability assessments. Based on the results, the Company plans to expand this initiative to other subsidiaries in 2025.
- **Skill Set Mapping:** AI tools are used to analyze market data and industry best practices to identify essential skill sets for each job role. This serves as a foundation for designing targeted capability development programs and workforce planning.
- **AI Chatbot:** A generative AI-powered chatbot was developed to offer employees 24/7 access to HR-related information. In 2024, relevant data such as welfare and group insurance was integrated into the system to provide employees on frequently asked topics. Employee feedback was gathered to enhance the chatbot's responsiveness and accuracy.

TALENT MANAGEMENT & DEVELOPMENT

SIGNIFICANCE & COMMITMENT

Employees are Banpu's most valuable asset. Attracting and retaining top talent through strategic human capital development is thus a cornerstone of our long-term strategy. Banpu is committed to advancing its leadership development initiatives by integrating digital and AI-driven tools to equip leaders for today's challenges and drive tomorrow's innovations. This approach not only strengthens our competitive advantage but also reinforces the Company's ability to succeed in a complex, fast-paced business environment.

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Proportion of high critical positions with successor identified	78%	100%	100%
Proportion of employees with individual development plan	73%	≥98%	100%
Proportion of open positions filled by internal candidates	5%	-	-

MANAGEMENT APPROACH

The human capital development plan is strategically formulated, aligned with both identified competency gaps and the Company's long-term business goals. Specific training roadmaps are developed for each job level and function, and are reviewed and updated annually to ensure relevance in a dynamic business environment. The individual development plans (IDPs) are tailored to each employee, based on the competency requirements of their roles and personal competency profiles, covering both technical and leadership skills.

Management Approach

To sustain a strong leadership pipeline, Banpu has deepened its coaching culture through programs such as "Engaging Leader," "Great Coach," and "HiCoach." These initiatives are designed to empower leaders at all levels with coaching mindsets and practical tools for talent development. In addition, the Company launched the "Banpu Global Leadership Program" to nurture the next generation of leaders across 3 levels:

- Business Leader: Equips senior leaders to deliver business value, lead diverse teams, integrate sustainability into business strategy, and navigate the complexities of the global energy landscape.
- First-Line Leader: Builds foundation skills in leadership, communication, and innovation for newly appointed managers.
- Future Leader: Prepares high-potential talent through cross-functional project experience, mentorship, and involvement in strategic decision-making.

These programs are designed to foster diversity, inclusion, and cross-functional networking, laying the foundation for strengthened international cooperation across the group. To assess the return on employee development investment, the Company adopts international best practices and standardized evaluation methodologies, like the Kirkpatrick model, to measure learning effectiveness and long-term impact.

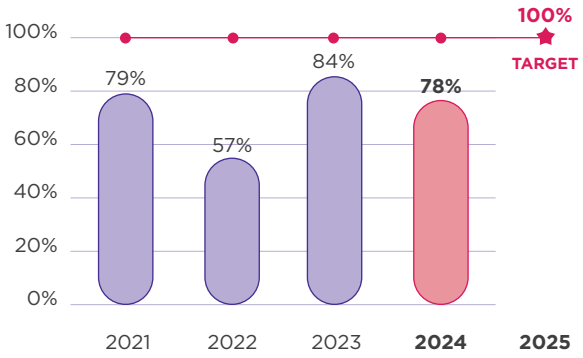
YEAR IN REVIEW

In 2024, Banpu demonstrated remarkable progress in advancing our strategic vision of becoming a lifelong learning organization, with a focus on leadership development and global collaboration as key drivers of sustainable success. A key achievement was strengthening three Banpu Academy campuses in Australia, Indonesia, and Vietnam. These campuses were strengthened to harness local expertise, foster regional collaboration, and deliver learning programs tailored to each market's unique needs.

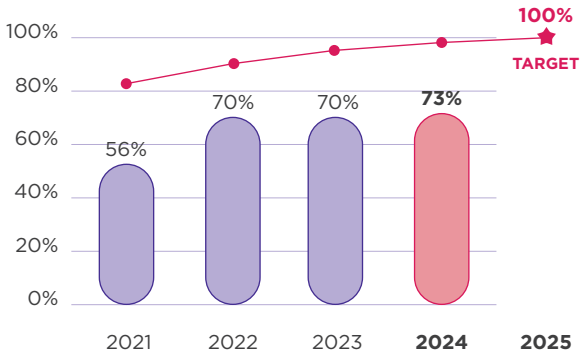
TARGETS AND PROGRESS

Banpu measures the effectiveness of our employee development strategy through key indicators, including the proportion of high-critical positions with successors identified and the proportion of employees with individual development plan. These metrics demonstrate progress toward our 2025 targets and support the development of a robust talent pipeline, which is critical to sustaining our long-term competitive advantage. Additionally, we monitor average training hours per employee and the percentage of employees receiving regular performance and career development reviews. This comprehensive approach reflects our commitment to continuous learning, leadership development, and workforce readiness.

Proportion of high critical positions with successor identified



Proportion of employees with individual development plan



BORDERLESS LEARNING FOR A GLOBAL WORKFORCE

At Banpu, we are committed to fostering a culture of self-directed, lifelong learning through our e-learning platforms, which offer a broad spectrum of educational resources for both professional and personal development.

In 2024, we further expanded our e-learning offerings with over 12,000 training classes accessible globally to enable a flexible, on-demand learning environment. Since the platform's expansion in 2019, employee participation in self-directed learning has significantly increased from 15% in 2019 to substantially higher levels today.

This year, we tailored content more closely to better align with the specific needs of energy industry, introducing specialized modules in essential business and leadership skills, energy management, sustainability, and technological advancements. This holistic approach ensures that our employees enhance both their technical and leadership capabilities while fostering well-being and personal growth.

By continuously updating our e-learning content to include both local and global perspectives, we ensure that our employees stay updated with the latest international best practices and are equipped to stay at the forefront of industry developments.

Participants	1,146 employees
Coverage	20% of FTEs
Project Duration	2019-Present
Business Benefits	• Enhance employee skill set • Deliver cost-effective learning solutions
Outcome & Impact	• Rise in self-learning engagement from only 15% in 2019

BANPU GLOBAL LEADERSHIP PROGRAM

The Banpu Global Leadership Program is designed to develop a new generation of leaders by equipping them with essential skills, from personal effectiveness to strategic acumen for the complex challenges of today's dynamic business environment and enhance Banpu's competitive edge. The program is structured around 3 core challenges:

- Leadership Excellence: Cultivates ethical behavior, resilience, and adaptability to promote integrity and accountability.
- Strategic Business Acumen: Enhances skills in strategic planning, financial literacy, and market analysis, ensuring that decision-making is aligned with global sustainability goals.
- Agile and Collaborative Workforce: Promotes collaborative exchange of innovative ideas and best practices across business units and regions, enhancing adaptability and fostering continuous improvement.

In 2024, the program featured 2 highlight activities, including Banpu Future Leader and Banpu Business Leader.

- Banpu Future Leader: Introduced a 'Shark Tank' style learning application project, challenging participants to apply entrepreneurial thinking by crafting new business proposals for Banpu. Post-program, three projects were selected and transitioned into real business opportunities, demonstrating the program's practical impact and entrepreneurial spirit.
- Banpu Business Leader: Delivered through a cutting-edge blended learning approach, combining traditional learning methods with insights from global energy experts, business simulations, VR technology, and visits to high-growth companies. This comprehensive approach enhances the strategic capabilities of our senior leaders.

These leadership development programs are a critical part of Banpu's broader strategy to build a resilient, future-ready leadership pipeline that can lead with confidence through the complexities of the global energy transition. By continuously evolving the Banpu Global Leadership Program to reflect the shifting business environment and sustainability imperatives, Banpu reaffirms our commitment to being a leader not only in the energy sector but also in sustainable business practices globally.

Participants	835 employees
Coverage	14% of FTEs
Project Duration	2010-Present
Business Benefits	• Ensure readiness of potential successors for critical positions • Strengthen effectiveness of succession planning and high-potential management
Outcome & Impact	• 100% of critical positions are internally filled by participants of the program • 85% of high-potential candidates are developing their capability in the program • 3 Projects transition from ideas to real business opportunities

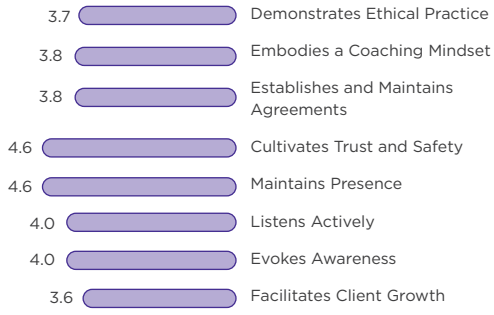
HICOACH: ADVANCING COACHING CULTURE AT BANPU

HiCoach is a key part of Banpu Engaging Leader Program, organized for the 6th consecutive year to reinforce the coaching culture across the organization. Based on the basic coaching foundation "Great Coach" program, which equips team leaders with basic coaching principles, HiCoach takes coaching through real practice application.

Structured as a cross-functional program, HiCoach matches coaches with coachees from different functions to maximize organizational learning and benefits across the organization. A distinctive feature of the program is the involvement of external mentors, who are certified professional coaches accredited by the International Coaching Federation (ICF). These mentors provide guidance and feedback throughout the program.

In 2024, the evaluation conducted by ICF-certified mentors revealed that 95% of Banpu Coaches achieved a proficient level of coaching competency. The 8-dimensional assessment showed a strong performance in 2 ICF Core Competencies: Cultivating Trust & Safety and Maintaining Presence. Furthermore, the survey indicated that HiCoach has made a significant impact on the development of leadership competencies, particularly in Execution and Deliverables.

Core-coaching competencies



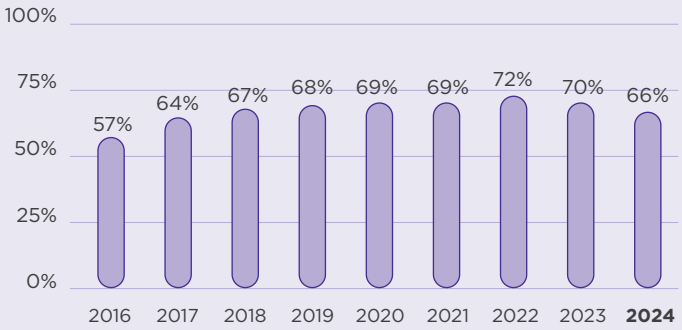
Participants	116 coaches and 119 coachees
Coverage	3.5% of FTEs
Project Duration	2019-Present
Business Benefits	• Promote coaching culture • Develop coaching skills among supervisors • Promote cross-functional collaboration
Outcome & Impact	• 95% of Banpu Coaches achieved a proficient level of coaching competency

BANPU ENGAGING LEADER PROGRAM

In response to insights from the 2014 employee engagement survey, the Company launched the "Banpu Engaging Leader" course in 2015 at the head office in Thailand. The training aims to raise employee engagement levels by enhancing managerial influence. Over the ongoing program of a decade, the program has delivered measurable results, with engagement levels at the head office increasing significantly from 57% in 2016 to 66% in 2024. Building on the success of Banpu Engaging Leader, the initiative evolved into the comprehensive "Banpu Engaging Leader Program," which is now implemented across all business units to ensure a consistent approach to employee engagement company-wide.

Additionally, the Company introduced the "Leader and Manager as a Coach" program. This initiative standardizes the coaching framework across our global operations, enhancing leadership effectiveness and sustaining high engagement levels throughout the organization.

Level of employee engagement



Participants	315 employees
Coverage	4.8% of FTEs
Project Duration	2015-Present
Business Benefits	Enhance employee engagement level
Outcome & Impact	Level of employee engagement increased from 57% to 66%

OCCUPATIONAL HEALTH & SAFETY

SIGNIFICANCE & COMMITMENT

The Company recognizes that robust Occupational Health and Safety (OHS) management is essential for safeguarding the health and well-being of employees and their families. Any shortcomings in this area can have far-reaching impacts, from individual harm and reputational risks to the organization. As part of our unwavering commitment to sustainability, the Company commits to creating a safe and secure work environment for everyone, ensuring that safety remains a fundamental aspect of our operations.

OHS Policy

PERFORMANCE OVERVIEW

		2024	Target 2024	Target 2025
Number of fatalities				
• Employees	✗	1	0	0
• Non-employees	✗	2	0	0
Lost time injury frequency rate				
• Employees	✓	1.44	≤2.16	≤1.99
• Non-employees	✗	0.24	≤0.15	≤0.14

MANAGEMENT APPROACH

The Company has established a dedicated Occupational Health and Safety Department to ensure compliance with regulatory requirements across all operating regions, adherence to safety protocols, and alignment with the internal standards. Our OHS management system is further strengthened by integrating ISO 45001, reflecting our commitment to international best practices. At the heart of our approach lies the cultivation of a strong safety culture built on three core pillars: strengthening safety management systems, enhancing safety competencies, and promoting safety awareness. This culture underpins our OHS Policy and drives our ambitious "3 Zeroes" targets—Zero Incidents, Zero Repeats, and Zero Compromise—ensuring a safe and sustainable working environment for all.

Management Approach

YEAR IN REVIEW

In 2024, the Company advanced significant safety initiatives across all business units to reinforce a safe working environment and cultivate a robust safety culture. Key efforts included strengthening safety performance through the Fatal Risk and Maintenance of Competence programs in Australia, adopting digital safety training and intelligent monitoring systems in China, developing and executing a strategic plan to reduce fatalities and elevate safety culture in Indonesia, and enhancing workplace safety through comprehensive risk management initiatives in Thailand and Vietnam.

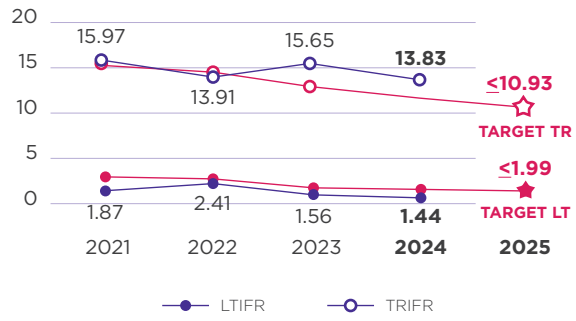
Despite these initiatives, the Company deeply regrets 3 fatalities: a contractor foreman struck by an excavator bucket while overseeing dozer repair, a collision between a mining truck and a light vehicle resulting in a contractor fatality, and an employee lost in a light vehicle accident caused by driver distraction.

TARGETS AND PROGRESS

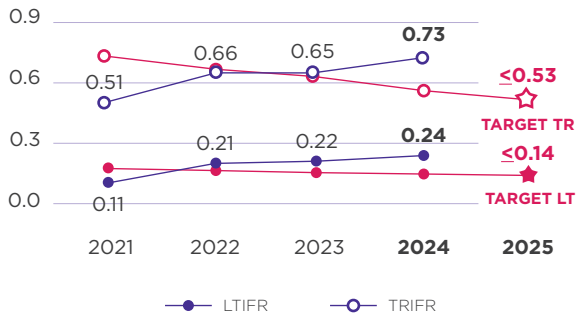
In 2024, the Lost Time Injury Frequency Rate (LTIFR) for employees was 1.44, meeting the target, while non-employees recorded a rate of 0.24, falling short of the set goals. The Total Recordable Injury Frequency Rates (TRIFR) were 13.83 for employees and 0.73 for non-employees, with neither group meeting the respective targets.

Injury type analysis highlighted that employees primarily experienced muscle and ligament injuries, impact injuries, and open wounds. Contractors, on the other hand, were mostly affected by impact injuries, grazes or open wounds, and muscle and ligament injuries. Further investigation revealed that the most common contributing factors include slips, trips, falls, as well as being pinched or pulled by objects, and overexertion.

Safety records
Employees (person/million man-hour)



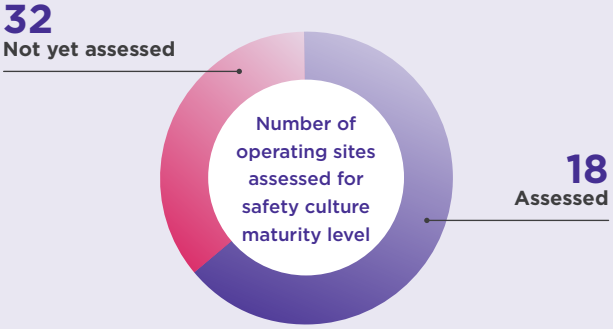
Safety records
Non-employees (person/million man-hour)



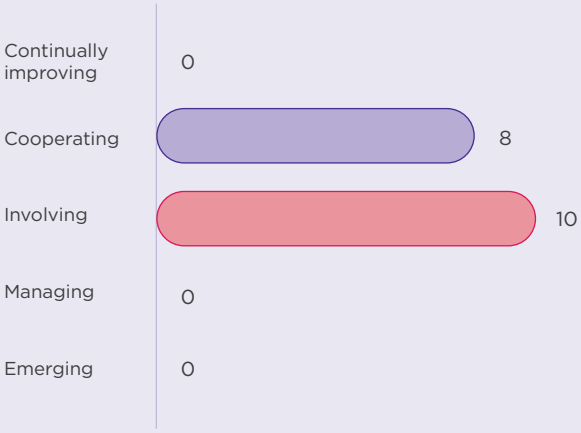
SAFETY CULTURE MATURITY LEVEL ASSESSMENT

Since 2018, the Company has systematically assessed safety culture maturity across operational sites. The findings play a key role in strengthening safety culture within our work environment. In 2024, the Company extended the assessment to include 3 solar power plants in China—Jinshan, Huineng, and Hui'en—for the first time. All three sites achieved the "Involving" level, demonstrating our continued progress in promoting safety across our operations.

With this expansion, the total number of operations assessed has increased to 18 sites across four countries. The Company is committed to further broadening assessment coverage and advancing the maturity levels to ensure a consistent, high standard of safety awareness and proactively mitigating potential incidents across all operations.



Number of operating sites
by maturity level



SAFETY EXCELLENCE THROUGH FATAL RISK AND MAINTENANCE OF COMPETENCE PROGRAMS

Centennial, a subsidiary in Australia, has undertaken initiatives focusing on critical safety risk management and maintaining up-to-date skills for statutory officials, reinforcing workplace safety and regulatory adherence.

The Fatal Risk Program identifies and mitigates potential fatalities through a dashboard that monitors and tracks risk reduction and flags early failure warning signs. Key functions include assessing and improving critical controls, verifying their completion, and addressing deficiencies with actionable insights. This real-time risk analysis enhanced safety measures and supported decision-making.

The Maintenance of Competence (MOC) Program ensures Centennial's statutory officials retain their Practicing Certificates (PC) by meeting regulatory competency requirements through tailored training. In partnership with Mines Rescue (RTO), the program develops competency-based modules, integrates Fatal Risk Program elements, and tracks progress via Pulse Training Records. The program mitigates non-compliance risks, strengthens safety expertise, and supports business continuity by ensuring statutory officials stay current with required skills and knowledge.

ADVANCING SAFETY MEASURES WITH DIGITAL TRAINING AND SMART MONITORING

In 2024, three Combined Heat Power (CHP) plants in China launched a digital safety training platform to overcome traditional constraints, such as logistical challenges, accessibility, and ensure up-to-date safety knowledge, including regulatory changes and lessons learned from major accidents. The platform provides mobile-friendly access to training modules, exams, task management, and real-time performance tracking to flexibly access training materials and complete requirements across sites. Alongside this, smart helmets equipped with real-time video, audio, safety alarm, and lighting alerts were introduced for high-risk tasks, such as high-voltage work and boiler start-ups.

Digital Training	
Location	China
Project duration	2024
Participants	6,570
Impact on the Company	• 100% training coverage across 31 safety topics with a total of 2,798 training hours • Ensure compliance

Smart Monitoring	
Location	China
Project duration	2024
Tasks monitored	161
Impact on the Company	• 144 hazards identified with 22 resolved • Enabling to monitor contractors' activities

SAFETY ALIGNMENT AND FOCUSED ENHANCEMENT REVIEW

In 2024, Trubaindo Mine and Barinto Mine in Indonesia initiated the Safety Alignment and Focused Enhancement Review (SAFER) program. The program involved a comprehensive review of safety principles, management interviews, on-site assessment, and the development of a robust safety improvement plan. Workshops were organized with a focus on fostering a proactive safety culture, such as the Safety Leadership Workshop and Mining Safety Basic Skills Training.

Through regular management safety visits, leadership underscored accountability, engaged directly with frontline teams, and identified systemic issues. These actions resulted in measurable improvements in safety metrics, compliance with related regulations and standards, as well as reinforced the safety integration into operational processes. Leadership actively fostered a culture of safety excellence, resulting in the implementation of safety improvement plans.

By embedding safety into operational practices and fostering a culture of continuous improvement, SAFER laid the groundwork for long-term safety excellence and the well-being of employees and contractors across both mine sites.

STRENGTHENING SAFETY PERFORMANCE IN THAILAND

In Thailand, Banpu NEXT emphasizes the importance of safety for contractors, subcontractors, and relevant stakeholders by implementing the Safety Contractor Management Procedure, which focuses on communication of safety protocols, supervision, inspection, and competency evaluation. In 2024, the Company completed safety performance evaluations across 25 construction projects.

Additionally, Banpu NEXT EcoServe has continued its leadership commitment activities, Management Safety Visits, involving 30 executives and employees across 20 operating sites. These ongoing activities provide opportunities for on-site discussion, issue resolution, and knowledge-sharing, fostering a deeper understanding of safety practices. The combination of visible leadership, clear communication, and hands-on involvement further underscores the Company's commitment to embedding safety into everyday operations.

HUMAN RIGHTS

SIGNIFICANCE & COMMITMENT

The Company adheres to the highest standards of human rights, strictly prohibiting any form of violence, discrimination, harassment, exploitation, or abuse within the operations. The Company recognizes a responsibility to respect the rights of individuals and acknowledge the potential impacts our actions may have on stakeholders. The Company commits to operating business strictly adhering to international frameworks based on the International Bill of Human Rights, the UN Guiding Principles on Business and Human Rights (UNGPs), ILO Declaration on Fundamental Principles and Rights at Work, the United Nations Global Compact (UNGC), OECD Due Diligence Guidelines for Responsible Business Conduct and applicable labor laws in all countries where we operate. The Company respects freedom, equality, and human dignity for all, regardless of gender, race, religion, ethnicity, or skin color. This respect extends across the value chain, covering employees, suppliers, contractors, customers, communities, and vulnerable groups, namely, children, women, the disabled, indigenous peoples, migrant workers, and the elderly.

Human Rights Policy

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Coverage of business units assessed for human rights risks*	77%	≥70%	≥90%
Number of significant human rights incidents	0	0	0

* Assessment conducted at least once in every 3 years

MANAGEMENT APPROACH

The Company consistently prioritizes and protects human rights across all business units and through our business relationships. Our commitment is demonstrated through numerous initiatives that uphold and maintain human dignity throughout our operations, productions, and services. We have embedded human rights into a management system, formulating comprehensive policies and conducting human rights due diligence to ensure our activities do not infringe upon the rights of individuals, communities, and stakeholders. Human rights principles are woven into all aspects of our operations and integrated into our decision-making processes, policies, and practices. The Company has established the human rights due diligence manual that serves as a framework for identifying, assessing, and mitigating human rights risks across our business supply chain. To support this commitment, we maintain various grievance mechanisms to address concerns from both internal and external stakeholders.

Management Approach

YEAR IN REVIEW

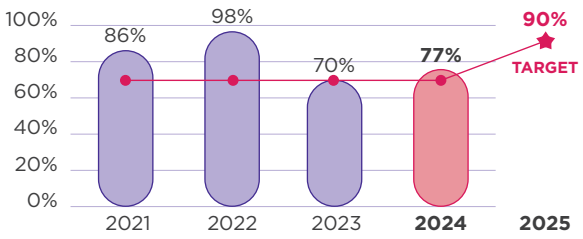
In 2024, the Company conducted a comprehensive human rights risk assessment of the mining business in Indonesia. The findings revealed that while most identified human rights issues posed low to medium risks, 6 issues were classified as high-impact risks. In response, the Company proactively developed and implemented targeted mitigation plans to address potential adverse impacts and prevent recurring incidents.

Additionally, Banpu Australia, a subsidiary in Australia, published its third Modern Slavery Statement in 2024. This demonstrates our commitment to recognizing modern slavery risks that may occur both directly and indirectly across our supply chain. Following through risk assessments for its local and international suppliers, Banpu Australia determined that the risk of modern slavery violations within its supply chain was low.

TARGETS AND PROGRESS

The Company recognizes the significance of human rights risk assessment in ceasing, preventing, and mitigating potential and actual human rights impacts. To uphold the highest standards of human rights, the Company conducts regular human rights risk assessments every 3 years, ensuring effective management of potential and actual impacts from our operations, production, and services. The Company commits to increasing the percentage of human rights risk assessment coverage across all sites, with a target of reaching 90% by 2025. Additionally, the Company plans to extend the human rights training programs to enhance knowledge and understanding of human rights practices while maintaining our goal of zero human rights incidents across all operational areas.

Coverage of business units assessed for human rights risks



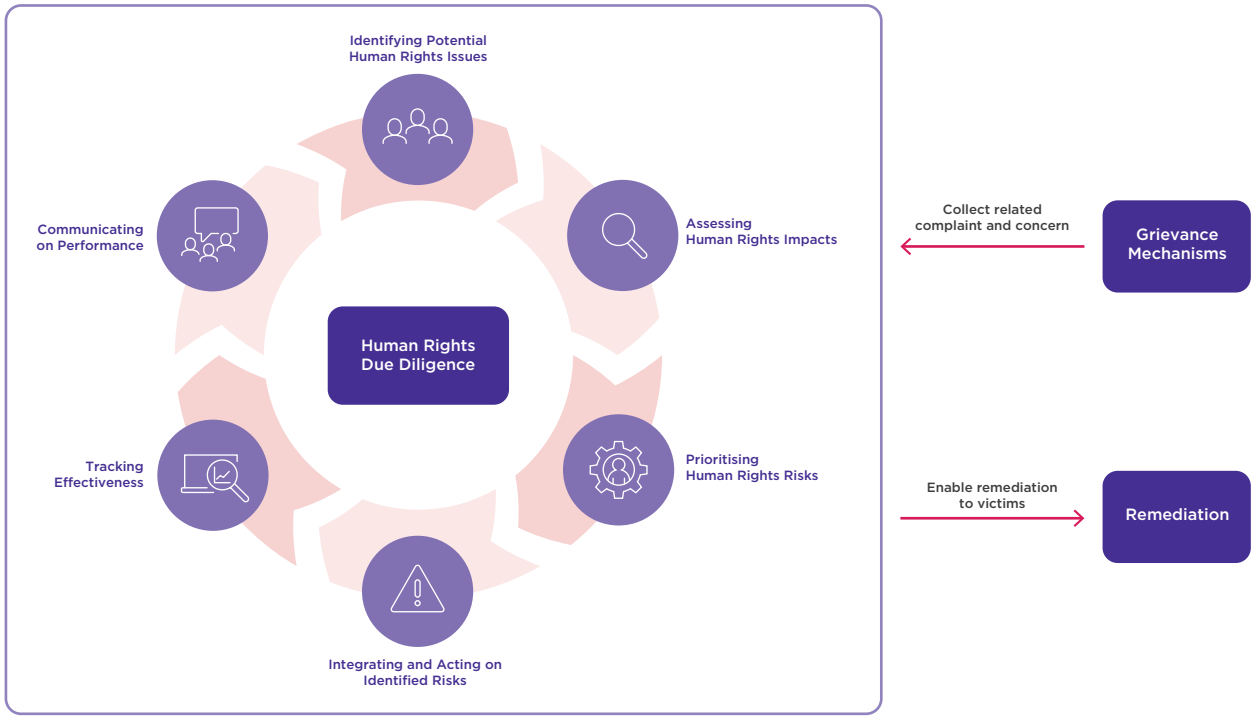
Number of significant human rights incidents

HUMAN RIGHTS DUE DILIGENCE

The Company has updated a comprehensive human rights due diligence manual, which is a crucial process aimed at ceasing, preventing, and managing potential and actual human rights risks and their impacts. This manual provides a structured framework that includes identifying issues, assessing impacts, prioritizing risks, monitoring effectiveness, and ensuring clear communication.

Human Rights Due Diligence Manual

The Company provides safe and accessible grievance mechanism channels for internal and external rights-holders to raise their concerns or complaints regarding potential human rights violations. In cases where a violation cannot be prevented, we are committed to providing appropriate remediation to affected individuals. We aim to address the root causes of human rights violations and prevent future human rights risks from recurring.



HUMAN RIGHTS PRINCIPLES IN BANPU

Equality, Non-discrimination, and Security of Person	Labor Rights	Housing, Land Acquisition and the Environment	Community and Cultural Rights
• Right to Life, Liberty and Security • Right to Equality, Non-Discrimination and Inclusion • Freedom from Violence, Conflict, Harassment and Bullying • Freedom from Interference with Privacy • Freedom from Bribery and Corruption • Right to Complain	• Prevention of human trafficking, forced labor, and child labor • Freedom of association and rights to collective bargaining • Occupational health and safety	• Right to Adequate Housing and Livelihoods • Right to Relocation • Right to a clean and healthy environment	• Right to participate in the cultural life of community • Respect indigenous people

HUMAN RIGHTS RISK AND IMPACT ASSESSMENT IN INDONESIA

In 2024, as part of our ongoing human rights due diligence efforts, the Company conducted a comprehensive human rights risk assessment as part of due diligence for our mining business in Indonesia. The assessment involved thorough data collection, including workshops, a self-assessment questionnaire, and document-based research, to identify potential human rights issues. Each issue is assessed for impact to evaluate its severity and likelihood of occurrence. The findings highlighted 6 critical risks that need to be prioritized as the highest across all or most of the sites. These include working conditions, occupational health & safety, data privacy protection, environmental health and safety, internal grievance mechanisms, and supply chain management or business partner relationships. Following this impact assessment, we developed a targeted mitigation plan for each identified risk to effectively address and reduce its potential negative consequences.

Human Rights Principle	Human Rights Issue	Rights-holder/ Vulnerable Group	Mitigation Plan
Labor rights	Working conditions	Employees and workers, third-party labor, employees with chronic diseases, migrant employees and workers, elderly employees and workers, women, workers with disabilities	• Engaging in labor rights communication with relevant rights-holders to ensure compliance with legal requirements and enhance overall performance • Conducting assessments to ensure that third-party labors and vulnerable groups receive equal treatment and rights as fully outlined in the Company's policy • Developing training programs for management, employees, workers, and contractors, including third-party labor at the site to raise awareness and promote effective response
	Occupational health & safety		
	Data privacy protection		
Environment	Environmental health & safety	Employees and workers, local communities, contractors, women, children, elderly individuals, people with disabilities	• Establishing two-way communication with key rights-holders such as local community leaders to collectively identify needs, concerns, and expectations • Conducting a comprehensive assessment of policies and processes to engage with affected rights-holders, identify actual impacts and root causes
Grievance mechanisms	Internal grievance mechanisms	Employees and workers, women, children, elderly individuals, people with disabilities, migrant workers	• Developing awareness campaigns and training to educate employees, workers, and vulnerable groups about the available grievance channels. Use various formats such as workshops, seminars, and informational brochures to ensure that rights-holders are aware and know how to use the channel effectively
Value chain	Supply chain management or business partner relationships	Third-party labor, women, young, elderly individuals, people with disabilities	• Conducting assessment of current policies, processes, and business practice for third-party risk assessment throughout the entire third-party engagement lifecycle • Incorporating ESG criteria into supplier selection • Communicating the supplier code of conduct to contractors

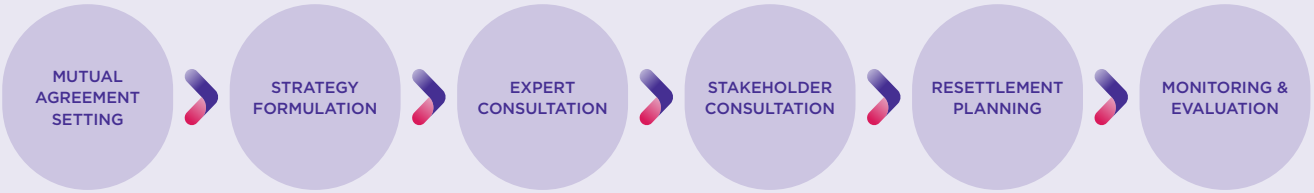
HUMAN RIGHTS TRAINING AND WORKSHOP

The Company has taken significant steps to improve human rights within our operations through comprehensive training and workshops. In training, our employees have developed a deep knowledge and understanding of human rights foundation, international standards, and their respective business roles. We then conducted workshops where key internal stakeholders collaborated to identify human rights issues in their specific operational and local contexts. This collaborative approach was essential for obtaining accurate and detailed information, which would then be used to assess and prioritize human rights risks across the Company's operations. We integrate human rights into every aspect of our operations by fostering a culture of respect and responsibility, prioritizing inclusivity, and directly engaging with stakeholders in the communities where we operate.

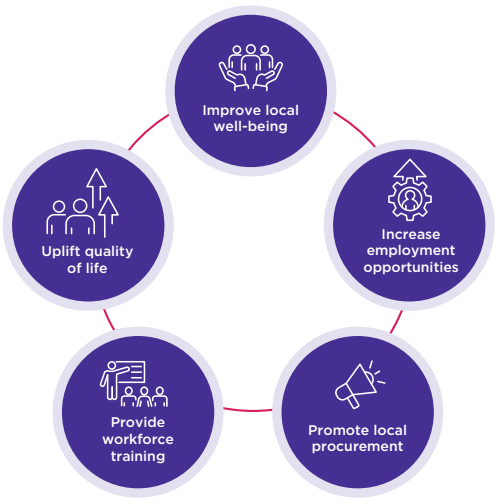
RESETTLEMENT MANAGEMENT

Banpu aligns our resettlement management with international standards, including those from the International Finance Corporation (IFC) and the International Council on Mining & Metals (ICMM). We ensure fair and transparent processes, providing compensation, housing, and livelihood restoration. We explore alternatives to improve or restore the livelihoods and living standards of affected communities, particularly vulnerable groups. This is achieved through consultation, fair compensation, targeted support, and rigorous monitoring.

Resettlement



Our Resettlement Action Plans (RAPs) are tailored to community needs, and we follow a strict protocol of 6 key measures: mutual agreement setting, strategy formulation, expert consultation, stakeholder consultation, resettlement planning, and monitoring & evaluation. We continuously monitor the resettlement process to ensure that the commitments made are met and that any issues are promptly addressed through grievance redress mechanisms. By prioritizing the well-being of affected communities, we aim to create long-term, sustainable benefits, aligning our operations with our broader sustainability goals.



INDIGENOUS PEOPLES MANAGEMENT

At Banpu, we are dedicated to respecting the rights and culture of indigenous peoples. We have established an Indigenous Peoples' Engagement Guideline, which includes a preliminary assessment to identify nearby indigenous communities and a comprehensive data collection process to understand their culture, beliefs, and traditions.

Indigenous Peoples

For each project, we develop a Cultural Heritage Management Plan to preserve indigenous cultural heritage and protect their rights. Through the Community Consultative Committee (CCC), we empower local communities, including indigenous representatives, by improving well-being, creating employment opportunities, promoting local procurement, providing workforce training, and uplifting quality of life. Our approach ensures that our operations align with international standards and deliver mutual benefits for indigenous communities.

COMMUNITY & SOCIETY

SIGNIFICANCE & COMMITMENT

Banpu is committed to creating sustainable values and building trust by actively engaging with communities through proactive efforts. Guided by our Community Engagement Policy and Corporate Philanthropy Policy, the Company supports initiatives that enhance community well-being and societal sustainability, both within and beyond business operations.

Community Engagement Policy

Corporate Philanthropy Policy

PERFORMANCE OVERVIEW

		2024	Target 2024	Target 2025
Number of significant community complaint issues	✓	0	0	0
Proportion of operations with social impact assessment				
• Operational sites	✗	12%	≥80%	≥90%
• Projects	✗	50%	≥80%	≥90%
Proportion of operations with community perception surveys				
• Operational sites	✗	10%	≥60%	≥80%
• Projects	✗	0%	≥60%	≥80%

MANAGEMENT APPROACH

Adhering to ESG principles, the Company balances business growth with sustainable value creation for all stakeholders. The Environmental and Social Impact Assessment (ESIA) has been a core part of the project development process since its inception and continues to be conducted whenever significant changes occur during implementation. The assessment results are shared with local communities to ensure early involvement from the outset. A community complaint management standard has been implemented, with regular reports to the SD and ESG Committees for oversight and accountability.

Management Approach

To strengthen engagement, the Community Consultative Committee (CCC), comprising representatives from the community, vulnerable groups, government, and the Company, has been established. In addition, each business unit has a dedicated community engagement function, tailored to local contexts to ensure meaningful development outcomes.

YEAR IN REVIEW

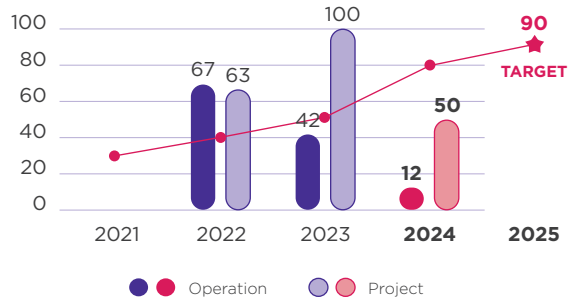
In 2024, the Company strengthened community engagement through 5 CCC meetings in Indonesia and 13 mining group-level subcommittee meetings in Australia, with no significant complaints recorded. To enhance community projects, satisfaction surveys across 5 mine sites in Indonesia recorded an 89% “Very Satisfied” rating. Additionally, the Social Return on Investment (SROI) framework was applied to 100% of community engagement projects in Indonesia to assess and enhance their social impact across business units.

TARGETS AND PROGRESS

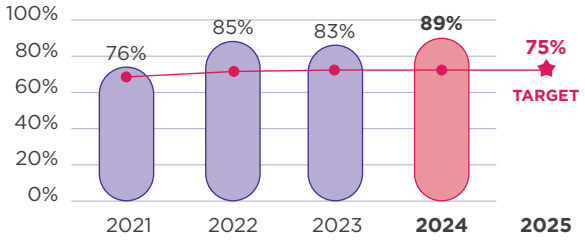
To ensure a comprehensive understanding of potential social impacts from our business operations, Social Impact Assessments (SIA) are conducted across all business units from the beginning of each project. This approach enables the Company to effectively adapt to changes and maintain strong stakeholder engagement. In 2024, the proportion of operations with SIA stood at 12% for operational sites and 50% for projects under development.

In the meantime, for the mining business in Indonesia, the Company continues to conduct annual community satisfaction surveys to evaluate the effectiveness of community engagement programs and monitor overall community satisfaction levels. In line with this commitment, the average community satisfaction survey was 89% in 2024.

Coverage of social impact assessment



Average community satisfaction level



* Mining business in Indonesia only

SOCIAL RETURN ON INVESTMENT

To measure the impact of community engagement efforts, the Company uses the Social Return on Investment (SROI) framework, evaluating 12 community development programs across 4 mine sites in Indonesia. In addition, a "Maturity Measurement" approach is applied to assess the sustainability of these programs across 6 dimensions: change, inclusion, organization, cooperation, influence, and sustainability. As of 2024, this comprehensive assessment has been implemented at 80% of the mines in Indonesia.

Example of SROI in community development programs

Year	Program	Country	SROI
2024	Industry Standard Welding Training	Indonesia	1 : 2.60
2023	Sasirangan Eco-Print Program	Indonesia	1 : 2.05
2022	Organic Fertilizer Development Program	Indonesia	1 : 2.67
2021	Electricity for Community Health Center	Indonesia	1 : 1.17
2020	Fish Cracker	Indonesia	1 : 1.38

BKV EDUCATION SUPPORT

In 2024, BKV collaborated with Pascual LeDoux Academy, providing funding and volunteer support to the Denver Public School Education Foundation for advanced education initiatives. This effort aligns with its theory of change framework, CLASS (Community Leads and Students Succeed), a strategic initiative aimed at improving student and school outcomes, covering four quadrants: student and academic growth, life skills and social-emotional learning, family engagement and support, and educator leadership development across Denver Public Schools.

Location	The U.S.
Project Duration	2023-Present
Participants	250 persons
Impact on the Company	Employee volunteerism & corporate reputation
Impact on Natural, Social, and Human Capitals	• Social impact through education and building learning communities • Enhancing the well-being of low-income children • Enabling greater access to education • Supporting teachers to improve teaching effectiveness

EMPOWERING COMMUNITIES THROUGH COMPUTER LITERACY PROGRAM

Trubaindo Mine assists LPK Media Citra Mandiri, a community-based computer training center in Kampung Payang, by supplying essential facilities and instructors. The computer literacy program offers free courses in Microsoft Word, Excel, and PowerPoint, and has been enthusiastically received by the local community.

In 2024, Trubaindo contributed additional resources, including a micro-optic device and a projector, with plans to introduce English language courses in the future. By the year-end, 627 participants had completed the training, with 19 still actively enrolled, some now employed in businesses and government agencies. To ensure the program's long-term success, LPK works with the local Education and Culture Agency to formalize the center's registration.

Location	Indonesia
Project Duration	2016-Present
Participants	627 Persons
Impact on the Company	Enhanced brand awareness and reputation
Impact on Natural, Social, and Human Capitals	• Strengthening cooperation and trust within the community by uniting local residents around shared educational goals • Enhanced career opportunities of participants by equipping them with essential computer skills

INCOME GENERATION INITIATIVE

In Vietnam, the Company is dedicated to strengthening relationships with communities near the operations. As part of this effort, an income-generating project was launched to create job opportunities for local people surrounding the El Wind Mui Dinh Wind Power Plant and Nhon Hai Solar Power Plant. The project involves hiring local residents for grass-cutting work, which helps clear roads, improves safety by reducing accident risks, and fosters positive relationships within the community.

Location	Vietnam
Project Duration	2022-Present
Participants	6 Persons
Impact on the Company	• Cost savings • Enhancing brand reputation and visibility
Impact on Natural, Social, and Human Capitals	• Created local employment opportunities • Offered valuable skills in landscaping and maintenance • Enhanced community safety by reducing accident risks • Fostered positive relationships and promoted a sense of unity

PARTNERSHIP SCHOOL PROJECT: DEVELOPING EQUAL AND INCLUSIVE EDUCATION

Since 2019, Banpu has partnered with the Ministry of Education in the Partnership School Project, supporting 3 schools in Roi Et, Maha Sarakham, and Khon Kaen provinces. The project aims to elevate education quality in rural schools, providing students with access to high-quality education near home, and fostering greater educational equality. This initiative focuses on 6 main aspects: modern management, building strong organizational culture, enhancing teaching skills, developing students from early childhood through secondary education, promoting life and vocational skills, and creating sustainable support networks. As a result, student performance has improved, local community confidence in the schools has strengthened, and the schools have become role models, with teachers actively sharing best practices with others.

Location	Thailand
Project Duration	2019-2024
Participants	3 Schools
Impact on the Company	Enhanced brand image & reputation
Impact on Natural, Social, and Human Capitals	• 100% of the three supported schools have been recognized as role model schools, demonstrating active and innovative teaching practices • Students scored 5.5% above national average in the academic year 2023 National Reading (RT) test • Students scored 35.9% above national average in the academic year 2023 National Test (NT)

MINE CLOSURE & REHABILITATION

SIGNIFICANCE & COMMITMENT

Banpu is committed to responsible mining and sustainable practices. Recognizing that all mining operations eventually reach the end of their lifecycle, the Company commits to developing mine closure and rehabilitation plans from the project inception and closely monitoring them through to the end of mine life to ensure sustainable ecosystems and stakeholder trust throughout the asset lifecycle.

PERFORMANCE OVERVIEW

	2024	Target 2024	Target 2025
Proportion of mines with mine closure plan ✓	93%	100%	100%
Progress of revegetation against plan[a] ✓	112%	≥90%	≥90%
Progress of mine closure activity against plan[b] ✓	100%	≥90%	≥90%
Number of reports related to mine subsidence[b]	24	-	-
Proportion of mines with subsidence management plan[b]	100%	-	-
Progress of subsidence management activities against plan[b] ✓	100%	≥90%	≥90%

[a] For open-pit mine only
[b] For underground mine only

MANAGEMENT APPROACH

The Company upholds a rigorous mine closure standard aligned with the International Council on Mining & Metals (ICMM) guidelines and applied across all business units. For each site, mine closure and rehabilitation plans are grounded in an Environmental Impact Assessment (EIA) and a Social Impact Assessment (SIA) conducted prior to project commencement to ensure that community needs are addressed and potential negative impacts are mitigated.

Management Approach

Throughout the mining lifecycle, mine closure and rehabilitation activities, covering both environmental and social dimensions, are closely monitored and reviewed quarterly by the Mine Closure Committee. These efforts aim to ensure long-term ecosystem stability and community livelihood, in line with closure plans and best practices.

Subsidence is a known risk in underground mining. Inefficient subsidence management can pose significant environmental and safety threats, including land deformation, hydrologic disruptions, and damage to infrastructures and surrounding residences. To address and mitigate these risks, the Company explores and applies advanced subsidence management technologies to protect both the environment and nearby communities.

YEAR IN REVIEW

All mine closure and rehabilitation activities have progressed as planned, including void management, Acid Mine Drainage (AMD) management, and biodiversity monitoring program. In Indonesia, Embalut Mine, which transitioned into the closure stage in 2022 after 14 years of operations, continued to support 27 community development projects that directly benefit 10,090 individuals in 2024. These projects focused on income generation, health improvement, and social & cultural development, reflecting the specific needs of the community during and after mining operations.

TARGETS AND PROGRESS

In alignment with the designed mine closure plan, the mine closure and rehabilitation activities have progressed as planned. Specific targets covering environmental, social, and governance dimensions are set and monitored.

At Embalut, mine closure activities demonstrated strong progress across ESG dimensions. In environmental management, all key targets were met or exceeded, with 449 hectares reclaimed and 281 hectares of void areas closed. Critical environmental safeguards were all maintained at 100%. On the social front, the community development programs benefited 3,486 individuals across various categories. Governance performance was equally robust, with zero non-compliance cases. This progress was shared with local stakeholders to reflect the Company's commitment to a responsible and transparent mine closure process.

Dimension	Indicator	2024	Target 2024
Environment	Land management (ha)		
	• Disturbed area	863	862
	• Reclamation area	449	413
	• Void area closed	281	243
	AMD management	100%	100%
	Biodiversity management	100%	100%
Social	Number of beneficiaries on community development programs		
	• Community institution	1	1
	• Education	0	0
	• Health	1,326	1,260
	• Income generation	74	68
	• Economic self-reliance	392	376
	• Social & culture	1,609	465
	• Environment	84	49
	• Infrastructure	0	0
Governance	Compliance		
	• Number of non-compliance	0	0
	• Effluent quality compliance	100%	100%

COVERAGE OF MINE CLOSURE PLAN

As of 2024, all 19 mines under Banpu Group have established mine closure and rehabilitation plans. Of these, 12 mines remain in active operation, 6 are in project development and care & maintenance phase, and 1 site – Embalut Mine in Indonesia, is currently in the closure and rehabilitation phase.

Mine Type	Country	Status
Open-pit	Indonesia	6 Operating
		1 Project development
		1 Closure & rehabilitation
	Mongolia	1 Operating
		1 Project development
Underground	Australia	5 Operating
		2 Care & maintenance
		2 Project development

100%

of Mines under Banpu Group have mine closure and rehabilitation plans in place.

19
Managed in total

6
Inactive

12
In active

1
Mine closure & rehabilitation phase

Budget	USD 79,000
Number of beneficiaries	148 households
Number of projects	6 projects
SROI	1 : 2.92

EMBALUT RICE REVIVAL PROJECT

Launched in 2021, the post-mining program at Embalut Mine has converted 74 hectares of former mining land into productive rice fields. This initiative was shaped through participatory consultations, responding to concerns from residents in the first ring of the community development area about livelihoods once the community development and empowerment program concluded. Since 2023, the program has produced over 120 tonnes of rice, including 23 tonnes of the fourth harvest in September 2024. By enhancing local welfare and creating new employment opportunities, the program has improved local economy and supports food self-sufficiency. With direct benefits reaching 148 households, the program promotes sustainable community development and contributes to national food security. This initiative stands as a model for sustainable post-mining land use and long-term community empowerment.

REHABILITATION MANAGEMENT

In alignment with the International Council on Mining and Metals (ICMM) principles, Banpu adopts a progressive rehabilitation approach for open-pit mining to ensure sustainable post-mining land use and ecosystem restoration. Rehabilitation is carried out continuously throughout the mine's life, with revegetation efforts focused on restoring the ecosystems in ex-mining areas by planting native species with economic value. Overburden materials are used to backfill voids, reducing void areas in compliance with the regulatory requirements. Ongoing biodiversity monitoring is performed to ensure rehabilitation effectiveness. In addition, watershed rehabilitation obligations are fulfilled and officially handed over to the government authorities.

For underground mining, Banpu requires all sites to develop and implement a Rehabilitation Management Plan (RMP) that outlines risk assessment, planning, and implementation measures to eliminate, minimize, and mitigate environmental impacts. A key component of this plan is the revegetation program, which includes planting native trees and shrubs in line with long-term completion criteria. This approach emphasizes establishing low-maintenance, self-sustaining ecosystems across rehabilitation and forest areas. All activities are carried out under the standard mining lease conditions and reported annually to ensure regulatory compliance and environmental integrity.

MINE SUBSIDENCE MANAGEMENT

Mine Subsidence presents a significant challenge in underground mining due to its potential to damage infrastructures, disrupt hydrologic systems, and compromise miner safety if not properly managed. At Banpu, we address this through a proactive, data-driven subsidence management plan. The process begins with mine subsidence risk assessments and surface impact analysis, conducted as part of the subsidence impact assessment report. These assessments consider impacts on both constructed features to prevent horizontal movements and natural features, with a particular focus on fauna, flora, and critical habitats such as seagrass beds.

Vertical subsidence impacts are evaluated based on panel extraction designs to ensure movement remains within allowance limits. Banpu applied conservative mine design practices, incorporating stable, long-life pillars with optimal width-to-height ratio and high safety factors. The assessment results are integrated with a geological model to formulate the subsidence management plan. For example, the Point Hatteras Extraction Plan serves as a blueprint for the subsidence management plan of Airly Mine, using sophisticated modeling techniques to predict and plan for potential impacts. Besides, this plan also includes an evaluation of surface environment impacts, covering watercourses, native bushland, steep slopes, and archaeological heritage items.

To ensure effective subsidence management, we conduct regular risk assessments and update the subsidence management plan as part of routine operations. Regular monitoring was conducted using a network of surface crack stations and bathymetric surveys that track both vertical and horizontal ground movement. These real-time data are compared against model predictions, allowing for continual refinement of subsidence models and further optimizing the subsidence management plan. Performance indicators are established to monitor infrastructure integrity, ecosystem health, and safety. Underground panel surveys and “as-built” verifications are also conducted to ensure mining activities align with approved mine designs, while geotechnical hazard mapping strengthens underground safety protocols.

The subsidence monitoring programs are formally reviewed at least every 3 years or sooner if triggered by stakeholder concerns, changes in management requirements, unexpected impacts, or the need for additional actions. An annual subsidence management report is prepared, incorporating monitoring data and environmental performance to ensure ongoing protection of dependent ecosystems.

In the event that monitoring reveals significant trigger conditions such as exceeding thresholds, we immediately activate the incident response measures. These include notifying and engaging stakeholders through the Community Consultative Committee (CCC), investigating to identify root causes, and implementing corrections to address non-compliance and corrective actions to prevent recurrence. Findings are documented in the annual subsidence management report. This structured and transparent approach not only safeguards the environment and surrounding communities but also reinforces Banpu’s commitment to responsible and sustainable mining practices.

ADDITIONAL INFORMATION

Banpu believes that transparency and collaboration drive our commitment to sustainable development. This additional disclosure highlights our commitment to strengthening accountability, ensuring the credibility and accuracy of our sustainability data, and providing valuable insights to support our sustainability journey. By upholding the highest standards of data integrity and disclosure, Banpu fosters trust with stakeholders and strengthens our dedication to continuous improvement. Together, these efforts reinforce our commitment to moving forward responsibly toward a sustainable future.

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LIST OF BUSINESS

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ENERGY RESOURCES

As of 31 December 2024

Mining Business

Country	Scope	Name	Type	Status	Production volume		Ownership
					100% basis	Equity-based	
Indonesia	✓	Indominco	open-pit coal mine	operating	7.4 Mt	4.8 Mt	65.14%
	✓	Trubaindo	open-pit coal mine	operating	2.9 Mt	1.9 Mt	65.14%
	✓	Bharinto	open-pit coal mine	operating	8.5 Mt	5.5 Mt	65.14%
	✓	Jorong	open-pit coal mine	operating	0.2 Mt	0.1 Mt	65.14%
	✓	GPK	open-pit coal mine	operating	1.1 Mt	0.7 Mt	65.14%
	✓	TIS	open-pit coal mine	operating	0.2 Mt	0.1 Mt	65.14%
	-	NPR	open-pit coal mine	project development	-	-	65.14%
China	✓	Gaohe	underground coal mine	operating	9.5 Mt	4.3 Mt	45%
	✓	Hebi	underground coal mine	operating	1.1 Mt	0.4 Mt	40%
Australia	✓	Airly	underground coal mine	operating	0.9 Mt	0.9 Mt	100%
	✓	Clarence	underground coal mine	operating	0.9 Mt	0.9 Mt	100%
	✓	Mandalong	underground coal mine	operating	2.0 Mt	2.0 Mt	100%
	✓	Myuna	underground coal mine	operating	0.9 Mt	0.9 Mt	100%
	✓	Springvale	underground coal mine	operating	2.8 Mt	2.8 Mt	100%
	✓	Angus Place	underground coal mine	care & maintenance	-	-	100%
	✓	Newstan	underground coal mine	care & maintenance	-	-	100%
	-	Inglenook	underground coal mine	project development	-	-	100%
	-	Neubecks	open-pit coal mine	project development	-	-	100%
Mongolia	-	Unst Khudag	coal mine	project development	-	-	100%
	✓	Tsant Uul	coal mine	operating	-	-	100%

Gas Business

Country	Scope	Name	Type	Status	Production capacity		Ownership
					100% basis	Equity-based	
The U.S.	✓	Marcellus	shale gas production	operating	117 MMcfed	88 MMcfed	75.51%
	✓	Barnett	shale gas production	operating	671 MMcfed	507 MMcfed	75.51%
	✓	Barnett Zero	carbon capture, utilization and storage	operating	165,059 tCO_2[(a)]	124,636 tCO_2[(a)]	75.51%
	✓	Cotton Cove	carbon capture, utilization and storage	project development	40,000 tCO_2[(a)]	30,204 tCO_2[(a)]	75.51%

[(a)] Carbon sequestration amount

ENERGY GENERATION

Thermal Power Business

Country	Scope	Name	Type	Status	Production capacity		Ownership
					100% basis	Equity-based	
Thailand	✓	BLCP	coal-fired power plant	operating	1,434 MW	717 MW	50%[b]
Lao PDR	✓	HPC	coal-fired power plant	operating	1,878 MW	751 MW	40%[b]
China	✓	Zhengding	combined heat & power plant	operating	139 MW	139 MW	100%[b]
	✓	Luannan	combined heat & power plant	operating	246 MW	246 MW	100%[b]
	✓	Zouping	combined heat & power plant	operating	233 MW	163 MW	70%[b]
	✓	SLG	coal-fired power plant	operating	1,320 MW	396 MW	30%[b]
The U.S.	✓	Temple I	gas-fired power plant	operating	768 MW	768 MW	100%
	✓	Temple II	gas-fired power plant	operating	755 MW	755 MW	100%

[b] Banpu Power's ownership (78.66% share is held by Banpu)

Renewable Power Business

Country	Scope	Name	Type	Status	Production capacity		Ownership
					100% basis	Equity-based	
China	✓	Jinshan	solar power plant	operating	28.95 MW	28.95 MW	100%
	✓	Huineng	solar power plant	operating	21.51 MW	21.51 MW	100%
	✓	Haoyuan	solar power plant	operating	20.00 MW	20.00 MW	100%
	✓	Hui'en	solar power plant	operating	19.70 MW	19.70 MW	100%
	✓	Deyuan	solar power plant	operating	51.64 MW	51.64 MW	100%
	✓	Xingyu	solar power plant	operating	10.30 MW	10.30 MW	100%
	✓	Jixin	solar power plant	operating	25.22 MW	25.22 MW	100%
Vietnam	✓	El Wind Mui Dinh	wind power plant	operating	37.60 MW	37.60 MW	100%
	✓	Nhon Hai	solar power plant	operating	35.00 MW	35.00 MW	100%
	-	Vinh Chau	wind power plant	project development	80.00 MW	80.00 MW	100%
Japan	✓	Olympia - Hitachi Omiya	solar power plant	operating	2.00 MW	0.80 MW	40%
	✓	Olympia - Hitachi Omiya 2	solar power plant	operating	2.00 MW	0.80 MW	40%
	✓	Olympia - Ozeno Sato Katechina	solar power plant	operating	2.00 MW	0.80 MW	40%
	✓	Olympia - Sakura 1	solar power plant	operating	2.00 MW	0.80 MW	40%
	✓	Olympia - Sakura 2	solar power plant	operating	2.00 MW	0.80 MW	40%
	✓	Hino	solar power plant	operating	3.50 MW	3.50 MW	100%
	✓	Awaji	solar power plant	operating	7.90 MW	7.90 MW	100%
	✓	Nari Aizu	solar power plant	operating	20.46 MW	20.46 MW	100%
	✓	Mukawa	solar power plant	operating	17.00 MW	15.81 MW	93%
	✓	Kurokawa	solar power plant	operating	18.90 MW	18.90 MW	100%
	✓	Tenzan	solar power plant	operating	1.96 MW	1.96 MW	100%
	✓	Muroran 1	solar power plant	operating	1.73 MW	1.73 MW	100%
	✓	Muroran 2	solar power plant	operating	1.63 MW	1.63 MW	100%
	✓	Takeo II	solar power plant	operating	1.00 MW	1.00 MW	100%
	✓	Yamagata	solar power plant	operating	20.00 MW	20.00 MW	100%
	✓	Yabuki	solar power plant	operating	7.00 MW	7.00 MW	100%
	✓	Shirakawa	solar power plant	operating	10.00 MW	10.00 MW	100%
	✓	Kesennuma	solar power plant	operating	20.00 MW	20.00 MW	100%
	✓	Nihonmatsu	solar power plant	operating	12.00 MW	12.00 MW	100%
Australia	✓	Beryl	solar power plant	operating	110.90 MW	110.90 MW	100%
	✓	Manildra	solar power plant	operating	55.90 MW	55.90 MW	100%
The U.S.	✓	Ponder	solar power plant	operating	2.5 MW	2.5 MW	100%

ENERGY TECHNOLOGY

Energy Storage System Business

Country	Scope	Name	Type	Status	Production capacity		Ownership
					100% basis	Equity-based	
China	✓	Durapower	battery manufacturing plant	operating	1.0 GWh	0.7 GWh	65.10%
Thailand	✓	DP NEXT	battery assembly plant	operating	1.0 GWh	0.7 GWh	70%
	✓	SVOLT Thailand	battery manufacturing plant	operating	2.0 GWh	0.8 GWh	40%
Japan	-	Iwate Tono	battery farm	project development	58.0 MWh	43.5 MWh	79.90%

Solar Rooftop & Floating Business

Country	Scope	Name	Type	Status	Production capacity		Ownership
					100% basis	Equity-based	
Thailand	✓	Banpu NEXT	solar rooftop	operating	47.74 MW	47.74 MW	100%
				project development	8.26 MW	8.26 MW	
			solar floating	operating	16.00 MW	16.00 MW	
				project development	32.00 MW	32.00 MW	
	✓	Banpu NEXT Ecoserve	solar rooftop	operating	2.07 MW	2.07 MW	100%
Vietnam	✓	Solar Esco	solar rooftop	operating	79.43 MW	39.00 MW	49.10%
				project development	28.81 MW	14.15 MW	
Indonesia	✓	PT. Cahaya Power Indonesia	solar rooftop	operating	9.22 MW	7.78 MW	79.50%
				project development	10.69 MW	8.50 MW	
	✓	PT. Centra Multi Suryanesia Aset	solar rooftop	operating	3.84 MW	2.50 MW	65%
				project development	37.59 MW	24.43 MW	
Japan	✓	Banpu Japan K.K.	solar rooftop	operating	0.80 MW	0.80 MW	100%
				project development	2.84 MW	2.84 MW	
China	✓	Shijiazhuang Chengfeng New Energy	solar rooftop	operating	22.70 MW	22.70 MW	100%
				project development	43.40 MW	43.40 MW	

Energy Efficiency Business

Country	Scope	Name	Type	Status	Project	Ownership
					100% basis	
Thailand	✓	Banpu NEXT Ecoserve	energy efficiency	operating & project development	37 projects	100%

E-Mobility Business

Country	Scope	Name	Type	Status	Service capacity		Ownership
					100% basis	Equity-based	
Thailand	✓	Urban Mobility Tech	electric vehicle fleet	operating	830 units	379 units	45.61%
	✓	Evolt	chargers	operating	512 units	119 units	23.31%
	✓	Haupcar	car sharing	operating	146 EV cars	30 EV cars	20.63%
	✓	Banpu NEXT	e-bike rental	operating	50 e-bikes	50 e-bikes	100%

Energy Trading Business

Country	Scope	Name	Type	Status	Electricity sales	Ownership
					100% basis	
Japan	✓	Banpu Power Trading G.K.	energy trading	operating	2,816 GWh	100%

REPORTING BOUNDARY

Sustainability Topic	Mining business			Gas business	Thermal power business		Renewable power business					Energy storage system business			Solar rooftop & floating business	Energy efficiency business
	Indonesia	Australia	Mongolia	The U.S.	China	The U.S.	China	Japan	Vietnam	Australia	The U.S.	China	Japan	Thailand	Thailand	Thailand
Compliance & Risk Management	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Business Ethics	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Economic Distribution	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Process Improvement & Innovation	●	●	NR	●	●	●	●	●	●	●	○	●	○	○	○	○
Business Resilience & Continuity	●	●	NR	○	●	○	●	○	◐	○	○	○	○	○	●	●
Digital Transformation	●	●	NR	○	●	○	●	○	○	○	○	○	○	●	●	●
Supplier Management	●	●	NR	○	◐	○	◐	○	○	○	○	○	○	○	○	○
Customer Stewardship	●	●	NR	○	●	○	●	●	●	●	○	○	○	○	●	●
Climate Change	●	●	NR	●	●	●	●	●	●	●	○	●	○	○	○	●
Water	●	◐	NR	●	●	●	●	○	●	●	○	◐	○	○	○	●
Biodiversity	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○
Air Emissions	●	●	NR	●	●	●	NR	NR	NR	NR	NR	●	○	○	●	●
Waste	●	●	NR	●	●	●	●	●	●	●	○	●	○	○	●	●
Employee Engagement	●	●	●	○	●	○	●	●	●	●	○	○	○	●	●	●
Talent Management & Development	●	●	●	○	●	○	●	●	●	●	○	●	●	●	●	●
Occupational Health & Safety	●	●	●	●	●	●	●	○	●	●	○	●	○	○	●	●
Human Rights	●	●	○	○	●	○	●	●	●	●	○	○	○	○	○	○
Community & Society	●	●	●	◐	NR	○	●	NR	●	○	NR	NR	NR	NR	NR	NR
Mine Closure & Rehabilitation	●	●	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

● Covers both management approach and performance data
◐ Covers management approach but partially covers performance data
○ Covers only management approach
NR Not significant or not relevant to such business

Remarks:
This report excludes the business entities that the Company holds less than 50% of shares and does not have management control as listed below:
- Mining business in China
- Thermal power business in Thailand and Lao PDR
- Solar rooftop & floating business in Vietnam
- E-Mobility business in Thailand

For business entities that the Company holds a greater than 50% of shares and has management control as listed below, the data collection system is under standardization.
- Energy storage system business in Japan
- Solar rooftop & floating business in Indonesia, Japan and China
- Energy trading business in Japan

STAKEHOLDER & MATERIALITY MATTERS

Stakeholder	Engagement Channel	Stakeholder's Issue	Sustainability Topic
Employee	• Internal communication • Labor unions and welfare committee • Whistleblower channel • Employee engagement survey • Townhall meeting	• Business direction	• Our Business
		• Responsible business practices	• Business Ethics
		• Happiness in the workplace • Fair compensation, welfare, and benefits • Career opportunities	• Employee Engagement
		• Capability development	• Talent Management & Development
		• Safety in the workplace	• Occupational Health & Safety
Customer	• Customer satisfaction survey • Whistleblower channel • Customer visit • Annual maintenance plan and emergency drill • Stakeholder engagement survey	• Quality and price of product • On-time product delivery	• Customer Stewardship
		• Social and environmental impact from the use of product	• Customer Stewardship • Climate Change
		• Availability of products and services	• Process Improvement & Innovation
		• Personal data breaches • Use of customer data	• Human Rights • Business Resilience & Continuity
Supplier	• Occasional supplier meeting • Stakeholder engagement survey	• Transparent procurement process and fair compensation	• Business Ethics
		• Future business opportunity	• Supplier Management
		• Personal data breaches	• Human Rights • Business Resilience & Continuity
Contractor	• Annual contractor meeting • Stakeholder engagement survey	• Transparent procurement process and fair compensation	• Business Ethics
		• Safety in the workplace	• Occupational Health & Safety
		• Energy consumption reduction	• Process Improvement & Innovation
		• Future business opportunity	• Supplier Management
Business Partner	• Board meeting at subsidiaries and associated companies • Annual report and sustainability report • Annual maintenance plan and emergency drill • Stakeholder engagement survey	• Business transparency	• Business Ethics
		• Operational performance and business growth	• Year in Review
		• Business continuity	• Business Resilience & Continuity
Shareholder	• Annual general meeting of shareholders • Annual report and sustainability report • Whistleblower channel • Public information on the website	• Qualification of Board of Directors and managements	• Governance Structure • Board Governance • Management Governance
		• Business transparency	• Business Ethics
		• Risk & opportunity management	• Compliance & Risk Management • Business Resilience & Continuity
		• Research & development for competitive advantage	• Digital Transformation
		• Operational performance and business growth	• Year in Review

Stakeholder	Engagement Channel	Stakeholder's Issue	Sustainability Topic
Capital Provider	• Analyst meeting • Annual report and sustainability report • Stakeholder engagement survey	• Business transparency	• Business Ethics
		• Operational performance and business growth	• Year in Review
Government & Regulator	• Occasional government visit • Support governmental initiatives and activities • Response to request for data disclosure • Annual report and sustainability report • Public information on the website • Stakeholder engagement survey	• Value creation for economy, society, and environment	• Board Governance • Management Governance
		• Business ethics • Data transparency and disclosure	• Business Ethics
		• Regulatory compliance	• Compliance & Risk Management
		• Responsible consumption of natural resources	• Process Improvement & Innovation • Water
		• Supply chain management	• Supplier Management • Customer Stewardship
		• Social and environmental impact from operational activities	• Climate Change • Water • Air Emissions • Waste • Biodiversity • Mine Closure & Rehabilitation
		• Driving SDGs into practices	• Banpu and SDGs
Investor and Investment Analyst	• Investor roadshow • Opportunity Day organized by the Stock Exchange of Thailand • Annual report and sustainability report • Public information on the website • Stakeholder engagement survey	• Qualification of Board of Directors and managements	• Governance Structure
		• Business transparency	• Business Ethics
		• Value creation for economy, society and environment	• Board Governance • Management Governance
		• Risk & opportunity management	• Compliance & Risk Management • Business Resilience & Continuity
		• Operational performance and business growth	• Year in Review
Media, NGOs, and Academic Institution	• Response to request for data disclosure • Public information on the website • Media activity and event • Stakeholder engagement survey	• Value creation for economy, society and environment	• Board Governance • Management Governance
		• Business transparency	• Business Ethics
		• Transparent performance disclosure	• Report Assurance
		• Regulatory compliance	• Compliance & Risk Management
		• Social and environmental impact from operational activities	• Climate Change • Water • Air Emissions • Waste • Community & Society
Community	• Community consultative committee • Community satisfaction survey • Whistleblower channel • Community development officers • Public information on the website • Stakeholder engagement survey	• Social and environmental impact from operational activities	• Community & Society • Air Emissions • Waste
		• Community safety and residential safety	• Community & Society
		• Respect for community rights	• Human Rights • Community & Society
		• Community well-being and economic distribution	• Economic Distribution • Community & Society

PERFORMANCE DATA

ECONOMIC PERFORMANCE

	2021	2022	2023	2024
Revenues (USD million)	4,124	7,693	5,083	5,148
EBITDA[a] (USD million)	1,778	3,916	1,487	1,330
Net profit (USD million)	304	1,162	160	(24)
Gross profit margin	42.0%	53.0%	27.9%	24.2%
Interest coverage ratio	5.8	9.4	2.5	2.7
Net debt to equity ratio	1.31	0.74	0.90	0.79

[a] Earnings before interest, taxes, depreciation, and amortization

TAX PAYMENT - BY COUNTRY

	2021	2022	2023	2024
Indonesia				
• Net profit before tax (USD million)	621	1,545	644	495
• Income tax (USD million)	(146)	(345)	(144)	(119)
• Income tax paid (USD million)	(61)	(213)	(399)	(137)
• Income tax rate	25%	22%	22%	22%
China				
• Net profit before tax (RMB million)	51	205	69	(99)
• Income tax (RMB million)	(19)	1	(43)	(95)
• Income tax paid (RMB million)	(42)	(2)	(18)	(29)
• Income tax rate	0-25%	0-25%	12.5-25%	25%
Australia				
• Net profit before tax (AUD million)	(290)	246	322	(299)
• Income tax (AUD million)	-	(78)	102	86
• Income tax paid (AUD million)	-	-	-	-
• Income tax rate	30%	30%	30%	30%
The U.S.				
• Net profit before tax (USD million)	-	433	(49)	(9)
• Income tax (USD million)	-	(53)	24	4
• Income tax paid (USD million)	-	(7)	(4)	(0.4)
• Income tax rate	-	30%	21%	21%
Banpu[a]				
• Net profit before tax (USD million)	690	2,144	490	208
• Income tax (USD million)	(198)	(521)	(119)	(97)
• Income tax paid (USD million)	(84)	(260)	(454)	(163)
• Income tax rate	0-30%	0-30%	0-30%	10-30%

[a] Consolidated

CONTRIBUTIONS TO EXTERNAL ORGANIZATIONS & ASSOCIATIONS

	2021	2022	2023	2024
Lobbying or interest representation (USD thousand)	0	0	185	7
Political party or political interest (USD thousand)	0	0	0.8	0
Trade association or tax-exempt groups (USD thousand)	630	440	565	406
Charitable contributions and sponsorship (USD thousand)	1,735	2,460	2,124	2,341
Other contributions (USD thousand)	0	0	0	0

SUSTAINABILITY TAXONOMY[a]

	2021		2022		2023		2024	
	USD million	%	USD million	%	USD million	%	USD million	%
Revenue	-	-	-	-	5,083	-	5,148	-
• Taxonomy-eligible	-	-	-	-	243	5%	397	8%
• Taxonomy-aligned	-	-	-	-	0	0%	0	0%
• Not taxonomy-eligible	-	-	-	-	4,840	95%	4,751	92%
Capital Expenditure	-	-	-	-	4,602	-	4,280	-
• Taxonomy-eligible	-	-	-	-	368	8%	256	6%
• Taxonomy-aligned	-	-	-	-	0	0%	0	0%
• Not taxonomy-eligible	-	-	-	-	4,235	92%	4,024	94%
Operational Expenditure	-	-	-	-	388	-	379	-
• Taxonomy-eligible	-	-	-	-	29	7%	20	5%
• Taxonomy-aligned	-	-	-	-	0	0%	0	0%
• Not taxonomy-eligible	-	-	-	-	359	93%	359	95%

[a] Refers to EU taxonomy for sustainable activities

GOVERNANCE STRUCTURE

	2021	2022	2023	2024
Board of Directors	13	13	13	13
• Independent Director	5	5	5	5
• Non-executive Director	7	7	7	7
• Executive Director	1	1	1	1
Board of Directors - by gender				
• Male	12	12	11	12
• Female	1	1	2	1
Board of Directors - by tenures				
• >10 years	3	4	5	6
• 3-10 years	7	7	6	4
• <3 years	3	2	2	3
Average tenures of Board of Directors	13.3	13.6	14.08	14.78

GOVERNANCE MANAGEMENT

	2021	2022	2023	2024
Number of meetings				
• Board of Directors	13	12	12	12
• Corporate governance and nomination committee	9	11	6	8
• Audit committee	9	9	9	9
• Compensation committee	5	6	6	8
• ESG committee	3	4	4	4
Meeting attendance				
• Board of Directors	99%	99%	99%	97%
• Corporate governance and nomination committee	100%	100%	100%	94%
• Audit committee	100%	100%	100%	96%
• Compensation committee	100%	100%	95%	100%
• ESG committee	100%	100%	100%	100%
Performance assessment[a]				
• Group	4.85	4.91	4.62	4.68
• Individual (average)	4.67	4.76	4.59	4.56
• Corporate governance and nomination committee	4.99	4.84	4.93	4.72
• Audit committee	4.90	4.75	4.75	4.75
• Compensation committee	4.70	4.70	4.84	4.84
• ESG committee	4.60	4.33	3.93	4.29

[a] In the range of 0 to 5

COMPLIANCE

	2021	2022	2023	2024
Significant socioeconomic non-compliance	0	0	0	0
• Number of significant fines[a]	0	0	0	0
• Total amount of significant fines (USD)	0	0	0	0
• Number of significant non-monetary sanctions[b]	0	0	0	0
Fines paid - for instance occurred in current reporting period	0	0	0	0
• Number of significant fines[a]	0	0	0	0
• Amount of significant fines (USD)	0	0	0	0
Fines paid - for instance occurred in previous reporting periods	0	0	0	0
• Number of significant fines[a]	0	0	0	0
• Amount of significant fines (USD)	0	0	0	0
Number of significant environmental non-compliance	1	1	0	0
• Effluent discharge limits	0	0	0	0
• Air emissions standards	0	0	0	0
• Others	1	1	0	0
Number of significant environmental incidents[c]	1	1	0	0
Total costs from water-related incidents (USD)	0	0	0	0
Spills[d]				
• Number of significant spills	0	0	0	0
• Total amount of significant spills (liter)	0	0	0	0

[a] Refers to the international best practices of the fine or potential fine that is greater than USD 10,000
[b] Refers to the instances where breaches of law and regulation lead to criminal prosecution regardless the imposition of fines
[c] Refers to internal definition with criteria such as any damage to widespread area or potential fines that are greater than USD 10,000
[d] Includes Tailings storage facility (TSF) failure and spillage in any damage to widespread area >5 km

RISK MANAGEMENT

	2021	2022	2023	2024
Coverage of ESG risk management	94%	95%	98%	98%
Coverage of Board of Directors with risk management training	-	-	100%	100%
• Independent Director	-	-	100%	100%
• Non-executive Director	-	-	100%	100%
• Executive Director	-	-	100%	100%
Coverage of employees with risk awareness training	-	-	100%	100%
• Senior management	-	-	100%	100%
• Middle management	-	-	100%	100%
• Junior management	-	-	100%	100%
• Staff and supervisor	-	-	100%	100%

SUSTAINABILITY GOVERNANCE

	2021	2022	2023	2024
Coverage of ESG risks considered by Audit committee	100%	100%	100%	100%
Coverage of ESG topics considered by ESG committee	100%	100%	100%	100%
Coverage of material ESG topics in corporate targets	100%	100%	100%	100%
Coverage of material ESG topics embedded in CEO's KPI and deployed to senior management	100%	86%	86%	100%

BUSINESS ETHICS

	2021	2022	2023	2024
Number of significant corporate governance complaints	2	0	0	0
• Corruption and bribery	0	0	0	0
• Discrimination or harassment	0	0	0	0
• Customer privacy data	0	0	0	0
• Money laundering or insider trading	0	0	0	0
• Conflict of interest	0	0	0	0
• Others	2	0	0	0
Number of significant corporate governance complaints	2	0	0	0
• Corruption and bribery	0	0	0	0
• Fraud, embezzlement, theft	0	0	0	0
• Dishonesty for own and other benefit	0	0	0	0
• Dangers to health and safety or the environment	0	0	0	0
• Intentional act causing harm or loss to the Company	0	0	0	0
• Significant breaches of the Code of Conduct	2	0	0	0
• Assistance in wrongdoing[a]	0	0	0	0
• Others[b]	0	0	0	0
Proportion of significant corporate governance complaints resolved through a dispute mechanism	100%	NA[c]	NA[c]	NA[c]
Number of confirmed incidents of corruption	0	0	0	0
• Incidents in which employees were dismissed or disciplined	0	0	0	0
• Incidents in which contracts with business partners were terminated or not renewed	0	0	0	0
Public legal cases regarding corruption	0	0	0	0
Number of legal actions pending or completed	0	0	0	0
• Legal actions regarding anti-competitive behavior	0	0	0	0
• Legal actions regarding violations of anti-trust and monopoly legislation	0	0	0	0
Fines regarding antitrust/anti-competitive practices				
• Number of fines	0	0	0	0
• Amount of fines (USD)	0	0	0	0

[a] Against the law, rules and regulations, corporate governance policy and code of conduct including concealing or assisting in concealing once they have occurred
[b] Includes discrimination, harassment, and conflict of interest
[c] No significant complaints

ANTI-CORRUPTION PRACTICES

	2021	2022	2023	2024
Coverage of business units assessed for corruption risks	-	-	100%	96%
Coverage of employees with anti-corruption policy communication	-	-	100%	100%
• Senior management	-	-	100%	100%
• Middle management	-	-	100%	100%
• Junior management	-	-	100%	100%
• Staff and supervisor	-	-	100%	100%
Coverage of business partners with anti-corruption policy communication	-	-	100%	100%
• Supplier	-	-	100%	100%
• Contractor	-	-	100%	100%
• Joint venture	-	-	100%	100%
Coverage of employees with anti-corruption awareness training	-	-	100%	100%
• Senior management	-	-	100%	100%
• Middle management	-	-	100%	100%
• Junior management	-	-	100%	100%
• Staff and supervisor	-	-	100%	100%

ECONOMIC DISTRIBUTIONS

	2021	2022	2023	2024
Ratio of the dividend payout to net profits	28%	21%	73%	NA[g]
Economic value generated (USD million)	4,307	7,059	4,967	4,818
• Sales	4,033	7,059	4,967	4,818
• Other revenues	274	576	243	342
Economic value distributed (USD million)	2,474[h]	3,682[h]	4,119[h]	3,343
• Shareholder[a]	64[h]	135	245[h]	105
• Supplier and contractor[b]	1,362	1,679	2,136	1,956
• Employee[c]	380	400	454	443
• Financial Institution[d]	167	282[h]	521[h]	319
• Government[e]	496	1,177	756	515
• Community[f]	5	9	7	5
Economic value retained (USD million)	1,833[h]	3,953[h]	1,091[h]	1,816
Community & social investment - by objective				
• Donations to charity	34%	26%	32%	48%
• Community investments	59%	68%	57%	0%
• Commercial initiatives	7%	6%	11%	52%
Community & social investment - by type				
• Cash contribution	87%	75%	35%	8%
• Time provided by volunteer staff	1%	4%	9%	9%
• Management overhead	11%	18%	17%	6%
• In-kind giving	1%	3%	39%	77%
Community investment – by dimension				
• Economic development & income generation	15%	24%	28%	27%
• Social & cultural promotion	14%	32%	26%	20%
• Infrastructure development	13%	7%	6%	14%
• Education development	9%	18%	21%	20%
• Health and sanitation development	47%	17%	14%	13%
• Environmental conservation	2%	2%	5%	6%

[a] Dividends
[b] Includes contractor costs, fuel costs, and all other operating costs
[c] Includes remuneration and benefits, provident fund contributions, and employee development expenses
[d] Includes interest and financial expenses
[e] Includes royalty fee, corporate income tax, local maintenance tax, property tax, specific business tax, and other additional taxes and payment to government
[f] Includes community development expenses, corporate social responsibility activities and land compensation
[g] The Company recorded a net loss
[h] Adjusted from previous report

RELIABILITY OF POWER PLANTS

	2021		2022		2023		2024	
	CHP	CCGT	CHP	CCGT	CHP	CCGT	CHP	CCGT
Efficiency rate								
• Electricity generation[a]	203	-	184	-	168	7,121	151	7,094
• Steam production[b] (kg/GJ)	37.96		37.23		37.31		37.73	
Availability factor	95.05%	-	94.00%	-	95.98%	82.68%	94.15%	88.53%
Overall efficiency	77.47%	-	79.78%	-	84.06%	47.92%	84.24%	48.10%
Planned outage								
• Frequency (case)	20	-	14	-	17	5	21	4
• Duration (hour/case)	229	-	427	-	296	436	318	1,426
Unplanned outage								
• Frequency (case)	4	-	1	-	0	5	0	17
• Duration (hour/case)	427	-	72	-	NA[c]	13.34	NA[c]	20.08
Unplanned outage factor	0.05%	-	0.82%	-	0%	0.51%	0%	0.77%

[a] g/KWh for CHP and btu/KWh for CCGT
[b] Applicable only for CHP
[c] No unplanned outages

BUSINESS RESILIENCE & CONTINUITY

	2021	2022	2023	2024
Coverage of CMT/IMT exercise	100%[h]	100%	57%	80%
Coverage of BCP exercise for critical business functions	7%[i]	11%	49%	73%
Number of business interruptions	0	0	0	0
• Operational failure[a]	0	0	0	0
• Environmental incident[b]	0	0	0	0
• Safety & health incident[c]	0	0	0	0
• Community & social disruption[d]	0	0	0	0
• Supply chain disruption[e]	0	0	0	0
• Security incident[f]	0	0	0	0
• Legal & regulatory[g]	0	0	0	0
• Others	0	0	0	0

[a] Includes equipment breakdown, utility outage, and ICT system outage
[b] Includes tailings storage facility failure, chemical spill, uncontrolled emissions, severe weather, and natural disaster
[c] Includes worker injury, fire, explosion, and pandemic-related disruption
[d] Includes protest or access blockade and community grievance escalation
[e] Includes critical supplier failure, logistics bottleneck, and material unavailability
[f] Includes cyberattack, physical security breach, and sabotage
[g] Includes suspension of operations due to legal injunction
[h] The real activation of CMT/IMT is considered as a BCP exercise
[i] The real execution of BCP for critical business functions is considered as a BCP exercise

DATA PRIVACY & CYBERSECURITY

	2021	2022	2023	2024
Number of cybersecurity breaches	0	1	0	2
Number of IT infrastructure incidents	1	1	0	1
% of IT and IoT assets securely managed by security operation center	30%	60%	70%	70%
Cybersecurity & privacy maturity score[a]	2.0	3.0	3.5	4.0

[a] In the range of 1 to 5

DIGITAL TRANSFORMATION

	2021	2022	2023	2024
Number of digital self-service adoption cases[a]	-	-	20	75
Number of digital-enabled business process cases	-	-	185	202
Reliability and availability of digital infrastructure services	-	-	99.9%	99.9%

[a] Number of self-service's information discovery and coding tool adoption

SUPPLIER MANAGEMENT

	2021[c]	2022[d]	2023[e]	2024
Number of suppliers				
• All suppliers	1,978	909	935	2,941
• Critical suppliers	733	462	874	872[f]
Proportion of suppliers assessed for ESG risks				
• All critical tier-1 suppliers	6%	64	84%	-[b]
• New critical tier-1 suppliers	-[b]	-[b]	1%	-[b]
Proportion of spending on local suppliers[a]	52%	99%	86%	92%
Proportion of contracts that include ESG clauses	-[b]	-[b]	-[b]	-[b]

[a] Supplier that operates in the areas of business operations
[b] Data collection system under standardization
[c] Includes data of mining business in Indonesia and Australia and solar rooftop business in Thailand only
[d] Includes data of mining business in Indonesia only
[e] Includes data of mining business in Indonesia and Australia, and gas business in the U.S. only
[f] Includes data of mining business in Indonesia, head office in Thailand, and thermal power & renewable power business in China only

CUSTOMER STEWARDSHIP

	2021	2022	2023	2024
Number of complaints				
• Customer privacy	0	0	0	0
• Safety and environmental issues from the use of products	0	0	0	0
• Product and service information & labeling and marketing communications	0	0	0	0
Total number of identified leaks, thefts, or losses of customer data	-	-	0	0
Proportion of customer complaints resolved in a timely manner	NA[a]	NA[a]	NA[a]	NA[a]
Customer satisfaction				
• Customer satisfaction rate	100%[b]	100%[b]	99%[c]	99%[c]
• Coverage of customers surveyed	89%[b]	100%[b]	100%[c]	100%[c]

[a] No complaints
[b] Includes data of thermal power business in China only
[c] Includes data of mining, thermal power, solar rooftop, and energy trading businesses only

MANAGEMENT SYSTEM COVERAGE

	2021		2022		2023		2024	
	Site	%	Site	%	Site	%	Site	%
Environmental management system								
• Covered by management system	-	-	-	-	43	100%	50	100%
• Internally audited by specialists from headquarters	-	-	-	-	17	40%	16	32%
• Audited by third-party	-	-	-	-	7	16%	7	14%
• With ISO 14001:2015 certification	-	-	-	-	8	19%	8	16%
OHS management system								
• Covered by management system	-	-	-	-	43	100%	50	100%
• Internally audited by specialists from headquarters	-	-	-	-	17	40%	16	32%
• Audited by third-party	-	-	-	-	7	16%	0	0%
• With ISO 45001:2018 certification	-	-	-	-	7	16%	8	14%

PRODUCTION

	2021	2022	2023	2024
Finished coal (tonnes)	27,803,045	25,270,108	23,540,287	27,034,046
Gas sold (MMcf)	-	-	296,640	312,278
Electricity sold (MWh)				
• Renewable	539,641	752,763	855,297	808,201
• Conventional fuel	1,178,967	2,899,628	6,540,164	8,292,698
Steam sold (MWh)	3,529,044	3,406,515	3,708,691	3,585,321
Heat sold (MWh)	1,325,845	1,366,146	1,294,400	1,326,178
Installed capacity (MW)				
• Combined heat and power (CHP) plant	618	618	618	618
• Combined cycle gas turbine (CCGT) plant	768	768	1,523[a]	1,523
• Solar power plant	791	790	525	525
• Wind power plant	118	118	118	118

[a] Includes data from both Temple I and Temple II, with Temple II completely acquired on July 10, 2023

GHG EMISSIONS

	2021[g]	2022[f] [g]	2023[g]	2024
GHG emissions[a] [b] (tonnes CO_2e)	2,984,014	8,221,384	7,767,905	9,050,006
• Scope 1	2,746,820	7,952,088	7,521,574	8,796,574
• Scope 2[c]	237,194	269,296	245,548	253,432
• Scope 3	58,323,393	51,085,740	48,855,843	48,592,607
GHG emissions Scope 2 (tonnes CO_2e)				
• Location-based	237,194	269,296	245,548	251,485
• Market-based	237,194	269,296	245,548	253,432
GHG emissions intensity[a] [b]				
• Mining business[e] (tonnes CO_2e/tonne coal)	0.129	0.136	0.135	0.117
• Gas business (tonnes CO_2e/MMcf)	-	-	-	3.547
• Power business[d] (tonnes CO_2e/MWh)	0.555	0.632	0.438	0.407
• Solar rooftop business (tonnes CO_2e/MWh)	0.002	0.001	0.001	0.001
GHG emissions intensity[b] [d] (tonnes CO_2e/MWh)				
• Electricity generation	0.507	0.324	0.274	0.270
• Steam & heat generation	0.572	0.338	0.176	0.145
GHG emissions[b] (tonnes CO_2e) - included biogenic CO_2	3,078,328	2,922,345	7,818,440	9,112,679
• Scope 1 (Biogenic CO_2)	94,314	42,132	51,317	62,674
SF_6 emissions (tonnes CO_2e)	241	865	441	116
GHG Scope 3 emissions - by category (tonnes CO_2e)	58,323,393	51,085,740	48,855,843	48,592,607
• Category 1 - Purchased goods and services	-	-	-	925,068[h]
• Category 2 - Capital goods	-	-	-	255,693[j]
• Category 3 - Energy-related activities beyond scope 1&2	-	-	-	1,092,748[j]
• Category 4 - Upstream transportation and distribution	-	-	-	-
• Category 5 - Waste generated in operations	-	-	-	-
• Category 6 - Business travel	-	-	-	611[h]
• Category 7 - Employee commuting	-	-	-	-
• Category 8 - Upstream leased assets	-	-	-	51[k]
• Category 9 - Downstream transportation and distribution	-	-	-	-
• Category 10 - Processing of sold products	-	-	-	-
• Category 11 - Use of sold products	-	-	-	36,315,088[m]
• Category 12 - End-of-life treatment of sold products	-	-	-	-
• Category 13 - Downstream leased assets	-	-	-	-
• Category 14 - Franchises	-	-	-	-
• Category 15 - Investments	-	-	-	10,003,347[j]
Proportion of electricity generated[d]				
• Conventional fuel	73%	95%	95%	96%
• Renewable energy	27%	5%	5%	4%

Note: In this report, 5 gases are discussed due to their relationship with normal operational activities, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), and sulfur hexafluoride (SF_6). To determine the GHG emissions, the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) was used on Global Warming Potential (GWP). The emission factors were derived from the revised edition of the Corporate Accounting and Reporting Standards and if applicable, the specific emission factors taken from the regional guidelines were used.

[a] Excludes biogenic CO_2
[b] Scope 1 & 2
[c] Scope 2 (market-based)
[d] Includes thermal power business and renewable power business
[e] Includes Scope 3 (Category 1)
[f] Excludes 2 coal projects in Indonesia
[g] Adjusted from previous report
[h] Includes mining business in Indonesia only
[j] Includes thermal power business only
[k] Includes mining business, solar rooftop & floating business in Thailand, and the head office
[m] Includes mining business only

ENERGY

	2021[d]	2022[b][d]	2023[d]	2024
Total energy consumption (TJ)	19,597	39,543	55,107	65,759
• Within the organization	12,946	32,941	46,187	55,774
• Outside of the organization	6,651	6,602	8,920	9,985
Renewable energy consumption (TJ)[e]				
• Renewable fuel	756	738	811	944
• Electricity purchased	0	0	0	2
• Electricity self-generated	1,987	2,779	3,186	3,099
Non-renewable energy consumption (TJ)[e]				
• Non-renewable fuel	32,755	58,481	85,380	100,726
• Electricity purchased	1,112	1,273	1,444	1,447
• Steam, heat and cooling	0	0	0.15	0
Energy consumption - by source[e]				
• Coal	27,491	24,796	26,853	25,583
• Diesel	2,093	2,187	16,246	2,014
• Natural gas	0	28,510	41,707	73,007
• Waste gas	2,613	2,836	494	0
• Palm oil	756	738	775	944
• Electricity (from non-renewable fuel)	1,112	1,273	1,444	1,447
• Methane	503	0	0	0
• Solar	1,832	2,497	2,825	2,790
• Wind	155	282	361	309
• Others[a]	55	152	116[c]	124[c]
Renewable energy sold (TJ)[e]				
• Electricity	1,943	2,710	3,079	2,910
Non-renewable energy sold (TJ)[e]				
• Electricity	4,244	10,439	23,545	29,854
• Steam	12,705	12,263	13,351	12,907
• Heat	4,773	4,918	4,660	4,774
Total energy consumption intensity				
• Mining business (GJ/tonne coal)	0.44	0.47	0.59	0.53
• Thermal power business (GJ/MWh)	13.57	3.59	2.30	2.48
• Renewable power business (GJ/MWh)	0.07	0.10	0.12	0.12

Note: Energy conversion factors used in this report are derived primarily from the Corporate Accounting and Reporting Standards, which are developed based on international guidelines such as GHG Protocol. Where applicable, specific conversion factors from regional or country-specific guidelines have been incorporated.

[a] Includes gasoline, petroleum-based oil, petroleum-based grease, LPG, activated carbon, ethanol, propane, biomass, and electricity from renewable fuel
[b] Excludes 2 coal projects in Indonesia
[c] Includes total non-renewable fuel in gas business in the U.S.
[d] Adjusted from previous report
[e] Energy consumption within the organization

WATER RISK ASSESSMENT

	2021		2022		2023		2024	
	Operating	Project	Operating	Project	Operating	Project	Operating	Project
Number of business units							50	6
• Pre-assessed for water-related impact	-	-	-	-	-	-	50	6
• Identified as having potential for water-related impact	-	-	-	-	-	-	48	6
• Assessed for water-stressed area	-	-	-	-	-	-	48	6
• Located in water-stressed area	-	-	-	-	-	-	21	1

WATER

	2021		2022[a]		2023		2024	
	Freshwater	Other water	Freshwater	Other water	Freshwater	Other water	Freshwater	Other water
Water withdrawal (ML)								
• from all areas	1,218,394	1,260	255,232	3,051	284,806	13,338	308,107	10,897
• from water-stressed area	6,908	0	24,486	1,856	36,476	5,770	41,057	3,350
Water withdrawal - from all areas (ML)								
• Surface water	1,187,140	0	223,222	3	252,804	22	274,360	44
• Groundwater	26,486	0	28,640	0	29,380	0	29,079	0
• Seawater	0	1,260	0	1,191	0	1,138	0	944
• Produced water	0	0	0	0	0	2,815	0	2,925
• Third-party water	4,768	0	3,370	1,857	2,622	9,363	4,667	6,984
Water withdrawal - from water-stressed area (ML)								
• Surface water	17	0	797	0	5,415	0	7,716	0
• Groundwater	2,711	0	21,287	0	29,097	0	28,872	0
• Seawater	0	0	0	0	0	0	0	0
• Produced water	0	0	0	0	0	2,796	0	2,901
• Third-party water	4,180	0	2,402	1,856	1,964	2,975	4,469	449
Third-party water withdrawal - from water-stressed area (ML)								
• Surface water	3,182	0	2,402	1,599	1,592	2,975	3,937	449
• Groundwater	1	0	1	0	1	0	1	0
• Seawater	0	0	0	0	0	0	0	0
• Produced water	0	0	0	0	0	0	0	0
• Reclaimed water[b]	997	0	0	258	371	0	531	0
Water discharge (ML)								
• to all areas	1,206,532	1,037	265,343	37,209	185,527	9,178	197,388	44,663
• to water-stressed area	1,606	0	19,516	1,230	32,272	1,383	793	32,573
Water discharge - to all areas (ML)								
• Surface water	1,194,438	0	252,525	34,224	169,461	6,923	197,260	26,765
• Groundwater	0	0	0	0	99	0	0	74
• Seawater	0	1,037	0	2,407	0	1,262	0	939
• Third-party water	12,094	0	12,818	579	15,676	993	128	16,885
Pollutant load - to surface water (tonnes)								
• COD	11[d]	0[d]	4	15	0	15	14	3
• TDS	0[d]	0[d]	139	791	0	954	645	203
• TSS	13[d]	0[d]	9,374	1,812	15,912	2,392	1,506	92
• Oil & Grease	0[d]	0[d]	0	1	0	1	0	0
• Fe	0[d]	0[d]	99	40	143	14	26	3
Pollutant load - to groundwater (tonnes)								
• COD	-	-	-	-	0	0	0	0
• TDS	-	-	-	-	0	0	0	0
• TSS	-	-	-	-	0	0	0	0
• Oil & Grease	-	-	-	-	0	0	0	0
• Fe	-	-	-	-	0	0	0	0
Pollutant load - to seawater (tonnes)								
• COD	0[c]	0[c]	0	0	0	0	0	0
• TDS	0[c]	0[c]	0	0	0	0	0	0
• TSS	0[c]	0[c]	1	1	0	3	0	0
• Oil & Grease	0[c]	0[c]	0	0	0	0	0	0
• Fe	0[c]	0[c]	0	0	0	0	0	0
Pollutant load - to third-party water (tonnes)								
• COD	0[c]	54[c]	5	32	2	28	1	33
• TDS	0[c]	1,556[c]	114	1,374	68	1,673	64	2,389
• TSS	0[c]	33[c]	1	19	1	28	2	49
• Oil & Grease	0[c]	0[c]	0	0	0	0	0	0
• Fe	0[c]	0[c]	0	0	0	0	0	0

[a] Excludes coal logistics activity, 2 offices and 2 coal projects in Indonesia
[b] From wastewater treatment plant of the third-party
[c] Data of Jun-Dec 2021 from thermal power business only

WATER (CONTINUED)

	2021	2022	2023	2024
Water consumption (ML)				
• All areas	12,085	36,698	59,935	66,380
• Water-stressed areas	5,302	5,596	8,591	11,041
Freshwater consumption (ML)				
• All areas	11,862	-10,111[b]	99,279	110,719
• Water-stressed areas	5,302	4,970	4,204	40,264
Water consumption intensity				
• Mining business (m^3/tonne coal)	0.243	1.260	1.882	1.894
• Gas business (m^3/MMcf)	-	-	15.440	13.522
• Thermal power business (m^3/MWh)	0.877	0.818	0.958	0.817
• Renewable power business (m^3/MWh)	0.044	0.100	3.388	3.826
Change in water storage (ML)				
• All areas	-[a]	-80,968	43,795	10,573
• Water-stressed areas	-[a]	-80,968	0	0

[a] Data collection system under standardization
[b] Water discharge is more than water withdrawal due to the change in water storage

AIR EMISSIONS

	2021	2022[d]	2023	2024
Air emissions load (tonnes)				
• SO_2	977	947	634	544
- Non-point source	683	645	469	400
- Point source	294	302	165	144
• NO_x	1,644[a]	910[a]	901	1,236
• PM_{10}[b]	255[a]	331[a]	302	261
• TSP[a]	112	84	191	218
• HAP[c]	0.0091[g]	0.0079[g]	0.0082[g]	93
• VOC	-	-	-	384
• NH_3	-	-	-	4.60
SO_2 (non-point source) intensity				
• Mining business (g/tonne coal)	24.5	25.5	19.92	14.81
• Gas business (g/MMcf)	-	-	-	-
• Thermal power business (g/MWh)	-	-	-	-
SO_2 (point source) intensity				
• Mining business (g/tonne coal)	5.1	6.9	1.17	0.92
• Gas business (g/MMcf)	-	-	-	5.64
• Thermal power business (g/MWh)	25.4	21.8	11.88	8.89
NO_x intensity				
• Mining business (g/tonne coal)	49.5[a]	27.2[a]	22.43	20.24
• Gas business (g/MMcf)	-	-	-	915.97
• Thermal power business (g/MWh)	44.5[a]	37.9[a]	32.34[a]	30.46
PM_{10} intensity				
• Mining business (g/tonne coal)	9.2	13.1	12.84	9.65
• Gas business (g/MMcf)	-	-	-	-
• Thermal power business (g/MWh)	-	-	-	-
TSP intensity				
• Mining business[a] (g/tonne coal)	3.4	2.7	2.02	1.71
• Gas business (g/MMcf)	-	-	-	15.59
• Thermal power business[a] (g/MWh)	3.1	2.6	12.41	12.65
Ozone-depleting substances (Kg CFC-11e)				
• ODS Consumption	108	9	32	39
• ODS imported	0	0	0	0
• ODS exported	0	0	0	0

[a] Point source only
[b] Includes mining business in Australia only
[c] Includes Mercury, Benzene, Ethylbenzene, Formaldehyde, n-Hexane, Toluene, Xylene, 2,2,4-Trimethylpentane, and Methanol
[d] Excludes coal logistics activity, 2 offices, and 2 coal projects in Indonesia
[e] Includes mining business in Australia, gas business in the U.S., and energy storage system business in China only
[f] Includes thermal power business in China only
[g] Includes Mercury from thermal power business only

BIODIVERSITY

	2021		2022		2023		2024	
	Operating	Project[a]	Operating	Project[a]	Operating	Project[a]	Operating	Project[a]
Number of business units	42	10	41	10	42	8	50	6
• Assessed for biodiversity impact	42	9	41	10	42	8	48	6
• Identified as high potential of biodiversity impact	42	2	41	2	42	8	9	1
• Assessed for biodiversity value	7	4	7	4	7	3	9	1
• Required biodiversity management plan[b]	7	2	7	2	7	1	9	1
• With biodiversity management plan[b]	7	NA[c]	7	NA[c]	7	NA[c]	13	NA[c]
Business unit(s) in relation to protected area	4	3	4	3	4	2	6	0
• In the area	1	0	1	0	1	0	1	0
• Adjacent to	1	1	1	1	1	1	2	0
• Containing portions	2	2	2	2	2	1	3	0
Business unit(s) in relation to high biodiversity wilderness area	3	1	3	1	3	1	3	1
• In the area	3	1	3	1	3	1	3	1
• Adjacent to	0	0	0	0	0	0	0	0
• Containing portions	0	0	0	0	0	0	0	0
Area (hectares)	78,288	11,831	75,315	16,891	80,299	11,211	288,063	66,277
• Assessed for biodiversity impact	78,288	11,831	75,315	16,891	80,299	11,211	288,063	66,624
• Assessed for biodiversity value	46,031	5,103	46,031	5,103	46,031	4,483	50,314	200
• With biodiversity management plan	46,031	NA[c]	46,031	NA[c]	46,031	NA[c]	43,327	NA[c]
• Biodiversity offset area	5,623	NA[c]	5,623	NA[c]	22,154	NA[c]	85,009	NA[c]
Areas in relation to protected area (hectares)	26,825	4,903	26,825	4,903	26,825	4,283	31,108	0
• In the area	24,121	0	24,121	0	24,121	0	24,121	0
• Adjacent to	436	854	436	854	436	854	1,290	0
• Containing portions	2,268	4,049	2,268	4,049	2,268	3,429	5,697	0
Areas in relation to high biodiversity wilderness area (hectares)	19,206	200	19,206	200	19,206	200	19,206	200
• In the area	19,206	200	19,206	200	19,206	200	19,206	200
• Adjacent to	0	0	0	0	0	0	0	0
• Containing portions	0	0	0	0	0	0	0	0
Proportion of business units								
• Assessed for biodiversity impact	100%	90%	100%	100%	100%	100%	96%	100%
• Assessed for biodiversity value	17%	44%	17%	40%	17%	38%	100%	100%
• With biodiversity management plan[b]	100%	NA[c]	100%	NA[c]	100%	NA[c]	100%	NA[c]
IUNC Red List[b]								
• Critically endangered		-		3		5		5
• Endangered		-		6		5		5
• Vulnerable		-		17		18		18
• Near threatened		-		13		13		13
• Least concern		-		81		77		77
• Data deficient		-		0		2		2

[a] Under project development and construction, including mine(s) with care & maintenance status
[b] For business unit(s) identified as high potential of biodiversity impact only
[c] No implementation required for business unit(s) in project development stage

WASTE

	2021			2022[a]			2023			2024		
	Onsite	Offsite	Total	Onsite	Offsite	Total	Onsite	Offsite	Total	Onsite	Offsite	Total
Waste generated (tonnes)			790,559			806,522			3,864,992			917,477
• Hazardous waste			2,585			2,642			4,501			5,534
• Non-hazardous waste			787,974			803,880			3,860,491			911,942
Waste diverted from disposal (tonnes)			780,678			802,394			777,003			897,355
• Hazardous waste	578	1,686	2,263	629	1,748	2,377	760	2,403	3,164	18	3,402	3,420
- Preparation for reuse	0	270	270	0	221	221	0	66	66	0	312	312
- Recycling	578	1,416	1,994	629	1,527	2,156	760	2,337	3,097	18	3,090	3,108
- Other recovery operations	0	0	0	0	0	0	0	0	0	0	0	0
• Non-hazardous waste	290	778,125	778,415	421	799,596	800,017	476	773,364	773,840	1,355	892,580	893,935
- Preparation for reuse	227	418,597	418,824	333	137	470	412	27,653	28,065	1,277	189,160	190,437
- Recycling	63	359,528	359,591	88	799,458	799,547	64	745,711	745,774	78	703,420	703,499
- Other recovery operations	0	0	0	0	0	0	0	0	0	0	0	0
Waste directed to disposal (tonnes)			5,653			7,164			3,084,838			18,657
• Hazardous waste	0	333	333	0	268	268	0	1,307	1,307	670	1,364	2,035
- Incineration (with energy recovery)	0	1	1	0	2	2	0	3	3	0	3	3
- Incineration (without energy recovery)	0	179	179	0	188	188	0	128	128	0	201	201
- Landfilling	0	153	153	0	78	78	0	1,176	1,176	0	1,160	1,160
- Other disposal	0	0	0	0	0	0	0	0	0	670	0	670
• Non-hazardous waste	1,759	3,562	5,321	1,543	5,353	6,896	3,067,124	16,407	3,083,531	3,421	13,202	16,623
- Incineration (with energy recovery)	0	72	72	0	228	228	0	187	187	0	201	201
- Incineration (without energy recovery)	0	0	0	0	0	0	2	0	2	0	0	0
- Landfilling	1,759	3,490	5,249	1,543	5,125	6,668	1,836	16,220	18,057	1,875	13,001	14,875
- Other disposal[b]	0	0	0	0	0	0	3,065,286	0	3,065,286	1,546	0	1,546
Hazardous waste directed to disposal intensity												
• Mining business (kg/tonne coal)		0.012			0.010			0.006			0.031	
• Gas business (kg/MMcf)		-			-			3.838			3.628	
• Thermal power business (kg/MWh)		0			0.004			0.0003			0	
• Renewable power business (kg/MWh)		0			0.001			0.022			0.001	
• Solar rooftop business (kg/MWh)		-			-			0.040			0	
Non-hazardous waste directed to disposal intensity												
• Mining business (kg/tonne coal)		0.162			0.244			0.186			0.165	
• Gas business (kg/MMcf)		-			-			10.379			37.861	
• Thermal power business (kg/MWh)		0.131			0.120			0.026			0.022	
• Renewable power business (kg/MWh)		0.022			0.039			0.019			0.029	
• Solar rooftop business (kg/MWh)		-			-			0			0.011	
Proportion of hazardous waste reused & recycled		87%			90%			71%			63%	
Proportion of non-hazardous waste reused & recycled		99%			99%			20%			98%	

[a] Excludes 2 offices and 2 coal projects in Indonesia
[b] Includes deep injection of produced water

MINERAL WASTE

	2021	2022	2023	2024
Overburden[a]				
• Amount (million BCM)	176	179	219	226
• Amount (million dry tonnes)	-	-	470	485
Overburden in-pit backfilled[a]				
• Amount (million BCM)	-	-	210	215
• Proportion of in-pit backfilled	81%	92%	96%	95%
Tailings (dry tonnes)	598,071	591,091	599,356	683,459
Progress of in-pit backfilling against plan[a]	100%	94%	112%	108%
Proportion of mines with acid mine drainage management plan[b]	100%	100%	100%	100%
Number of tailings facilities				
• Active facilities	3	3	4	4
• Inactive facilities[c]	2	2	9	9
• Planned facilities	0	0	0	0
Number of tailings facilities				
• High risk	-	-	2	2
• Medium risk	-	-	0	0
• Low risk	-	-	9	9
Number of significant tailings spills	0	0	0	0

[a] For open-pit mine only
[b] For business unit(s) identified as potential acid mine drainage issue
[c] Includes facilities in care maintenance or closed

LAND MANAGEMENT

	2021	2022	2023	2024
Disturbed area (hectare)				
• Total land owned at year end	92,775	93,106	93,106	91,996
• Total disturbed area at year end	25,283	23,946	28,712	32,779
• Newly disturbed area during the year	557	680	659	889
Rehabilitated area (hectare)				
• Total rehabilitated area at year end	14,841	14,272	14,750	15,327
• Newly rehabilitated area during the year	825	699	362	484
• Total area disturbed and not yet rehabilitated	10,443	9,674	13,962	17,453
Progress of land management				
• Total disturbed area to total land own	27%	26%	31%	36%
• Total rehabilitated area to total disturbed area	59%	60%	51%	47%

EMPLOYEE[a]

	2021	2022	2023		2024	
			Person	%	Person	%
Total employees	5,488	5,538	5,704	-	6,014	-
Employee - by gender[b]						
• Male	85.2%	85.5%	4,853	85.1%	5,054	84.0%
• Female	14.8%	14.5%	851	14.9%	960	16.0%
Employee - by nationality						
• Thai	10.1%	11.5%	697	12.2%	760	12.6%
• Indonesian	42.5%	42.0%	2,209	38.7%	2,049	34.1%
• Chinese	17.1%	16.7%	957	16.8%	951	15.8%
• Australian	28.3%	28.0%	1,740	30.5%	1,723	28.7%
• Mongolian	1.4%	1.2%	53	0.9%	112	1.9%
• Japanese	0.2%	0.3%	23	0.4%	21	0.3%
• Vietnamese	0.2%	0.2%	12	0.2%	12	0.2%
• American	0.1%[d]	0.1%[d]	5[d]	0.1%[d]	374	6.2%
• Others	0.2%	0.2%	8	0.1%	11	0.2%
Employee - by age						
• Under 30	9.5%	11.3%	683	12.0%	659	11.0%
• 30-39	35.0%	33.9%	1,934	33.9%	1,952	32.5%
• 40-49	34.6%	34.8%	1,933	33.9%	2,070	34.4%
• Over 50	20.8%	20.0%	1,154	20.2%	1,332	22.2%
Employee - by type						
• Permanent	83.4%	71.4%	5,157	90.4%	6,013	100%
• Temporary	16.6%	28.6%	547	9.6%	0	0%
Management[c] - by age						
• Under 30	-	44	7	0.9%	5	0.6%
• 30-39	-	1,052	143	18.5%	166	18.8%
• 40-49	-	2,531	367	47.5%	412	46.7%
• Over 50	-	1,911	773	33.1%	299	33.9%
Senior Management - by nationality						
• Thai	-	-	73	46.5%	65	44.8%
• Indonesian	-	-	28	17.8%	12	8.3%
• Chinese	-	-	26	16.6%	29	20.0%
• Australian	-	-	19	12.1%	16	11.0%
• Mongolian	-	-	2	1.3%	4	2.8%
• Japanese	-	-	5	3.2%	0	0.0%
• Vietnamese	-	-	2	1.3%	0	0.0%
• American	-	-	2[d]	1.3%[d]	16	11.0%
• Others	-	-	0	0.0%	3	2.1%
Senior Management - by gender[b]						
• Male	-	-	135	86.5%	121	83.4%
• Female	-	-	21	13.5%	24	16.6%

[a] Number of persons at year-end
[b] Gender at birth
[c] Includes middle and senior managements
[d] Includes thermal power business only

FEMALE EMPLOYEE

	2021	2022	2023		2024	
			Person	%	Person	%
%Female - by business						
• All business	14.8%	14.5%	851	14.9%	960	16%
• Revenue-generating business	-	-	675	11.8%	337	5.6%
• Enabling functions	-	-	176	3.1%	623	10.4%
• STEM-related positions[a]	-	-	237	4.2%	214	3.6%
%Female - by level						
• Total management[b]	26.2%	28.1%	223	28.8%	257	29.1%
• Senior management	-	16.1%	21	13.5%	24	16.6%
• Middle management	-	30.6%	202	32.7%	233	31.6%
• Junior management	-	24.6%	227	21.3%	268	26.9%
• Staff and supervisor	-	8.3%	401	10.4%	435	10.5%

[a] Science, technology, engineering and mathematics
[b] Includes middle and senior managements

NEW EMPLOYEE

	2021	2022	2023		2024	
			Person	%	Person	%
Total new employees	299	1,020	553	9.7%	494	8.2%
New employee - by age						
• Under 30	-	-	212	31.0%	184	27.9%
• 30-39	-	-	218	11.3%	182	9.3%
• 40-49	-	-	79	4.1%	76	3.7%
• Over 50	-	-	43	3.8%	52	3.9%
New employee - by gender[a]						
• Male	249	871	460	9.5%	374	7.4%
• Female	50	149	93	10.9%	111	11.6%
New employee - by nationality						
• Thai	52	164	106	15.2%	107	14.1%
• Indonesian	56	613	115	5.2%	107	5.2%
• Chinese	44	70	78	8.2%	46	4.8%
• Australian	135	155	239	13.7%	105	6.1%
• Mongolian	2	0	4	7.5%	71	63.4%
• Japanese	6	9	3	13.0%	3	14.3%
• Vietnamese	3	7	4	33.3%	6	50.0%
• American	1[a]	2[a]	2[a]	40.0%[a]	46	12.3%
• Others	-	-	2	25.0%	3	27.3%

[a] Gender at birth
[b] Includes thermal power business only

EMPLOYEE PERFORMANCE REVIEW

	2021	2022	2023		2024	
			Person	%	Person	%
Coverage of employees with regular performance review - by level			5,704	100%	6,013	100%
• Senior management	-	-	156	100%	145	100%
• Middle management	-	-	617	100%	737	100%
• Junior management	-	-	1,064	100%	998	100%
• Staff and supervisor	-	-	3,867	100%	4,133	100%
Coverage of employees with regular performance review - by gender[a]						
• Male	-	-	4,853	100%	5,054	100%
• Female	-	-	851	100%	960	100%

[a] Gender at birth

LOCAL EMPLOYMENT[a]

	2021	2022	2023	2024
Local employment (all levels)				
• Thailand	98.7%	97.9%	87.1%	98.1%
• Indonesia	97.7%	97.7%	99.9%	97.4%
• China	99.0%	99.4%	99.8%	99.3%
• Australia	99.8%	99.5%	99.4%	99.5%
• Mongolia	90.7%	92.6%	98.1%	91.7%
• Japan	77.8%	66.7%	95.7%	76.9%
• Vietnam	66.7%	78.6%	100%	85.7%
• The U.S.	-	20.0%[b]	100%[b]	98.7%
Local employment (senior management level)				
• Thailand	94.1%	91.8%	58.9%	93.8%
• Indonesia	100%	59.1%	100%	70.6%
• China	25.0%	57.1%	96.2%	85.3%
• Australia	80.0%	90.0%	89.5%	88.9%
• Mongolia	0%	33.3%	100%	0%
• Japan	100%	80.0%	80.0%	0%
• Vietnam	0%	50.0%	100%	0%
• The U.S.	-	0%[b]	0%[b]	88.9%

[a] Born and live in that particular country
[b] Includes thermal power business only

REMUNERATION

	2021		2022		2023		2024	
	Base salary	Total remuneration	Base salary	Total remuneration	Base salary	Total remuneration	Base salary	Total remuneration
Female to male base salary ratio - Group level	-	-	-	-	0.46	0.60	0.69[a]	0.97[a]
• Senior and middle management	-	-	-	-	0.55	0.64	0.69	1.01
• Junior management	-	-	-	-	0.46	0.63	0.65	0.81
• Staff and supervisor	-	-	-	-	0.38	0.44	0.74	1.10
Female to male base salary ratio - Thailand	-	-	-	-	0.59	0.60	0.86	0.92
• Senior and middle management	-	-	-	-	0.55	0.56	0.90	0.98
• Junior management	-	-	-	-	0.75	0.75	0.77	0.82
• Staff and supervisor	-	-	-	-	1.16	1.12	0.83	0.82
Female to male base salary ratio - Indonesia	-	-	-	-	6.89	6.96	0.86	0.77
• Senior and middle management	-	-	-	-	5.91	6.36	0.81	0.69
• Junior management	-	-	-	-	1.67	0.88	0.94	0.94
• Staff and supervisor	-	-	-	-	9.58	9.66	1.35	1.17
Female to male base salary ratio - China	-	-	-	-	1.17	1.09	1.18	1.10
• Senior and middle management	-	-	-	-	1.10	0.98	1.33	1.28
• Junior management	-	-	-	-	1.19	1.09	0.93	0.82
• Staff and supervisor	-	-	-	-	0.92	0.94	1.09	1.04
Female to male base salary ratio - Australia	-	-	-	-	1.06	1.08	0.85	0.77
• Senior and middle management	-	-	-	-	0.72	0.76	1.06	1.09
• Junior management	-	-	-	-	2.40	2.13	0.70	0.42
• Staff and supervisor	-	-	-	-	0.83	0.78	0.67	0.60
Female to male base salary ratio - The U.S.	-	-	-	-	1.18	1.19	0.48[a]	0.41[a]
• Senior and middle management	-	-	-	-	NA[a]	NA[a]	NA[b]	NA[b]
• Junior management	-	-	-	-	0.83	0.91	1.07	0.97
• Staff and supervisor	-	-	-	-	NA[a]	NA[a]	0.79	0.79

[a] Excludes gas business in the U.S.
[b] No female employees

EMPLOYEE TURNOVER

	2021	2022	2023		2024	
			Person	Rate	Person	Rate
Total turnover	7.3%	5.7%	2,332	40.9%	287	4.8%
Voluntary turnover	4.3%	4.0%	1,768	31.0%	287	4.8%
Turnover - by country						
• Thailand	8.7%	11.5%	190	27.3%	39	5.7%
• Indonesia	5.3%	1.2%	1,202	54.4%	76	3.6%
• China	6.6%	5.2%	136	14.2%	24	2.5%
• Australia	9.2%	10.0%	739	42.5%	110	6.4%
• Mongolia	8.1%	15.0%	41	77.4%	9	7.4%
• Japan	55.6%	13.5%	16	69.6%	5	19.2%
• Vietnam	33.3%	36.1%	8	66.7%	5	35.7%
• The U.S.	-	-	0[b]	0[b]	19	5.0%
Turnover - by age						
• Under 30	-	0.8%	202	29.6%	39	5.9%
• 30-39	-	2.0%	901	46.6%	81	4.1%
• 40-49	-	0.9%	691	35.7%	55	2.7%
• Over 50	-	1.9%	538	46.6%	112	8.4%
Turnover - by gender[a]						
• Male	-	4.6%	2,028	41.8%	232	4.6%
• Female	-	1.1%	304	35.7%	55	5.7%
Turnover - by level						
• Senior management	-	0.2%	11	7.1%	8	5.5%
• Middle management	-	0.8%	127	20.6%	35	4.7%
• Junior management	-	0.9%	568	53.4%	69	6.9%
• Staff and supervisor	-	3.7%	1,626	42.0%	175	4.2%

[a] Gender at birth
[b] Includes thermal power business only

PARENTAL LEAVE[a]

	2021	2022	2023	2024
Employee who were entitled to parental leave	5,488	5,538	5,704	6,014
• Female	-	-	851	960
• Male	-	-	4,853	5,054
Employee who took parental leave	143	58	62	80
• Female	-	-	30	29
• Male	-	-	32	51
Employee who returned to work in the reporting period	-	-	53	79
• Female	-	-	22	23
• Male	-	-	31	56
Employee who returned to work after the reporting period	-	-	5	8
• Female	-	-	4	8
• Male	-	-	1	0

[a] Gender at birth

COLLECTIVE BARGAINING AGREEMENTS

	2021	2022	2023		2024	
			Person	%	Person	%
Employee who are members of labor unions[a]	-	-	3,439	60%	3,561	59%
Employee covered by collective bargaining agreements	72%	65%	4,911	86%	3,829	64%

[a] There are labor unions in Indonesia, Australia, and China only

HIRING

	2021	2022	2023	2024
Proportion of open positions filled by internal candidates	29%	26%	25%	5%
Cost per hire (USD/FTE)	-	-	-	518

EMPLOYEE ENGAGEMENT

	2021	2022	2023	2024
Employee engagement level	74%	79%	78%	80%
• Thailand	69%	72%	70%	66%
• Indonesia	73%	79%	79%	83%
• China	93%	96%	91%	92%
• Australia	40%	49%	73%	NA[a]
• Mongolia	50%	52%	63%	78%
• Japan	31%	47%	65%	52%
• Vietnam	-	82%	86%	60%

[a] No survey in 2024

CORPORATE CULTURE

	2021	2022	2023	2024
Level of alignment between employee behavior and the corporate culture	78%	79%	80%	80%
• Thailand	73%	78%	78%	72%
• Indonesia	73%	75%	78%	80%
• China	95%	92%	91%	91%
• Australia	72%	75%	87%	NA[a]
• Mongolia	75%	69%	75%	85%
• Japan	57%	72%	67%	66%
• Vietnam	-	67%	70%	58%

[a] No survey in 2024

TALENT MANAGEMENT & DEVELOPMENT

	2021	2022	2023	2024
Proportion of high critical positions with successor identified	79%	57%	84%	78%
Proportion of employees with individual development plan	56%	70%	70%	73%
Employee attending leadership development programs (cumulative)	817	919	1,024	1,137
Employee attending leadership development programs (annual)				
• Business leader	0	28	0	25
• First line leader	26	28	35	25
• Future leader[a]	28	29	30	24
• Engaging leader[a]	0	17	40	39
Success of leadership development programs[b]				
• Business leader	87%	92%	98%	92%
• First line leader	84%	86%	74%	81%
• Future leader[a]	82%	86%	77%	85%
• Engaging leader[a]	90%	90%	91%	85%

[a] Data covers only employee in Thailand
[b] % Applied learning according to the program evaluation

TRAINING

	2021	2022	2023	2024
Average cost of training - by nationality (USD)	-	568	1,379	650
• Thai	850	940	8,576	2,689
• Indonesian	115	194	519	269
• Chinese	227	209	231	189
• Australian	1,100	1,157	1,186	426
• Mongolian	111	100	77	404
• Japanese	-	-	8,973	941
• Vietnamese	-	-	410	643
• American	-	-	-	-
• Other[a]	-	-	-	-
Average cost of training - by level (USD)				
• Senior management	620	2,092	18,838	4,210
• Middle management	735	871	3,223	1,969
• Junior management	629	546	1,034	716
• Staff and supervisor	458	568	502	216
Average cost of training - by program (USD)				
• Technical/functional	-	414	528	358
• Leadership	-	154	850	292
Average hours of training - by nationality	-	22.9	31.4	33.9
• Thai	29.7	24.3	44.1	37.7
• Indonesian	9.4	14.1	19.6	18.2
• Chinese	28.5	36.9	49.9	43.6
• Australian	25.0	25.4	41.2	85.1
• Mongolian	14.0	12.0	1.7	3.2
• Japanese	-	-	46.6	10.7
• Vietnamese	-	-	30.3	62.7
• American	-	-	-	-
• Other[a]	-	-	-	-
Average hours of training - by level				
• Senior management	11.6	22.7	53.0	25.7
• Middle management	19.1	23.4	37.4	33.5
• Junior management	20.6	19.7	27.2	37.0
• Staff and supervisor	21.1	23.7	30.7	33.4
Average hours of training - by program				
• Technical/functional	-	18.0	20.0	7.9
• Leadership	-	4.9	11.4	26.0

[a] Includes Singaporean and Laos

OCCUPATIONAL HEALTH & SAFETY

	2021[d]		2022[e]		2023		2024	
	Employee	Non-employee[c]	Employee	Non-employee[c]	Employee	Non-employee[c]	Employee	Non-employee[c]
Total number of workers[a]	21,841		31,949		25,353		28,874	
	4,781	17,060	5,238	26,711	5,477	19,876	5,770	23,104
Number of hours worked	54,207,231		52,144,381		56,720,971		65,792,092	
	9,080,183	45,127,048	9,562,762	42,581,619	10,287,000	46,433,972	11,134,213	54,657,879
Workers covered by OHS management system	21,841		21,731		25,163		28,917	
	4,781	17,060	5,238	16,493	5,287	19,876	5,770	23,147
Coverage of workers covered by OHS management system	100%		68%		99%		100%	
	100%	100%	100%	62%	97%	100%	100%	100%
Workers covered by OHS management system that has been internally audited	20,055		17,746		18,874		21,732	
	4,244	15,811	4,321	13,425	4,256	14,618	2,223	19,509
Coverage of workers covered by OHS management system that has been internally audited	92%		56%		74%		75%	
	89%	93%	82%	50%	78%	74%	39%	84%
Workers covered by OHS management system that has been audited or certified by third-party	12,359		13,660		12,114		17,749	
	2,043	10,316	2,203	11,457	2,179	9,935	2,342	15,407
Coverage of workers covered by OHS management system that has been audited or certified by third-party	57%		43%		48%		61%	
	43%	60%	42%	43%	40%	50%	41%	67%
Number of fatalities from work-related injury	1		1		1		3	
	0	1	1	0	0	1	1	2
Fatality rate (person/million man-hour)	0.02		0.02		0.02		0.05	
	0.00	0.02	0.10	0.00	0.00	0.02	0.09	0.04
Number of recordable work-related injuries	168		161		191		194	
	145	23	133	28	161	30	154	40
Total recordable injury frequency rate (TRIFR) (person/million man-hour)	3.10		3.09		3.37		2.95	
	15.97	0.51	13.91	0.66	15.65	0.65	13.83	0.73
Number of lost time injury	22		32		26		29	
	17	5	23	9	16	10	16	13
Lost time injury frequency rate (LTIFR) (person/million man-hour)	0.41		0.61		0.46		0.44	
	1.87	0.11	2.41	0.21	1.56	0.22	1.44	0.24
Number of high-consequence work-related injuries	2		1		2		0	
	2	0	0	1	0	2	0	0
High-consequence work-related injury frequency rate (person/million man-hour)	0.04		0.02		0.04		0.00	
	0.22	0.00	0.00	0.02	0.00	0.04	0.00	0.00
Tier-1 process safety event[b]	2		2		4		7	
Tier-1 process safety event rate[b] (case/million man-hour)	0.04		0.04		0.07		0.11	
Number of fatalities as a result of work-related ill health	0		0		0		0	
	0	0	0	0	0	0	0	0
Number of total recordable work-related ill health	0		0		0		0	
	0	0	0	0	0	0	0	0
Number of lost day	7,055		7,067		6,814		21,382	
	948	6,107	6,850	217	313	6,501	9,150	12,232

[a] Number of persons at year-end
[b] Refers to internal definition with criteria such as fatality, catastrophic damage to ecosystems, or property damage >100,000 USD
[c] Includes other workers who are not employees but work for the Company (e.g., contractors, sub-contractors)
[d] Excludes employees & contractors of renewable power business in Japan, Vietnam, and Australia
[e] Excludes employees & contractors of renewable power business in Japan and Vietnam

HUMAN RIGHTS

	2021	2022	2023	2024
Number of operations assessed for human rights risks[a]	36	33	30	30
• Thailand	1	1	1	1
• Indonesia	5	5	5	5
• China	10	10	10	10
• Australia	5	5	0	0
• Japan	15	12	12	12
• Vietnam	0	0	2	2
• The U.S.	0	0	0	0
Coverage of operations assessed for human rights risks[a]	86%	98%	77%	77%
• Thailand	100%	100%	100%	100%
• Indonesia	100%	100%	100%	100%
• China	100%	100%	100%	100%
• Australia	100%	100%	0%	0%
• Japan	100%	100%	100%	100%
• Vietnam	0%	0%	100%	100%
• The U.S.	0%	0%	0%	0%
Coverage of business units with risk management plans[b]	NA[c]	NA[c]	100%	100%
Number of operations with risk management & mitigation plans[b]	NA[c]	NA[c]	30	30
• Thailand	NA[c]	NA[c]	1	1
• Indonesia	NA[c]	NA[c]	5	5
• China	NA[c]	NA[c]	10	10
• Australia	NA[c]	NA[c]	0	0
• Japan	NA[c]	NA[c]	12	12
• Vietnam	NA[c]	NA[c]	2	2
• The U.S.	NA[c]	NA[c]	0	0
Coverage of operations with risk management & mitigation plans[b]	NA[c]	NA[c]	100%	100%
• Thailand	NA[c]	NA[c]	100%	100%
• Indonesia	NA[c]	NA[c]	100%	100%
• China	NA[c]	NA[c]	100%	100%
• Australia	NA[c]	NA[c]	NA[e]	NA[e]
• Japan	NA[c]	NA[c]	100%	100%
• Vietnam	NA[c]	NA[c]	100%	100%
• The U.S.	NA[c]	NA[c]	NA[e]	NA[e]
Number of significant human rights incidents	0	0	0	0
• Forced labor	0	0	0	0
• Human trafficking	0	0	0	0
• Child labor	0	0	0	0
• Freedom of association	0	0	0	0
• Right to collective bargaining	0	0	0	0
• Equal remuneration	0	0	0	0
• Discrimination and harassment	0	0	0	0
• Others	0	0	0	0
Proportion of significant human rights complaints resolved through a dispute mechanism	NA[d]	NA[d]	NA[d]	NA[d]
Number of operations with significant human rights risks	0	0	0	0
• Forced labor	0	0	0	0
• Human trafficking	0	0	0	0
• Child labor	0	0	0	0
• Freedom of association	0	0	0	0
• Right to collective bargaining	0	0	0	0
• Equal remuneration	0	0	0	0
• Discrimination and harassment	0	0	0	0
• Others	0	0	0	0

[a] Only operating site
[b] For business unit(s) identified as high human rights risks only
[c] No business units with high human rights risks
[d] No significant issues
[e] No assessments

COMMUNITY ENGAGEMENT

	2021		2022		2023		2024	
	Operation	Project	Operation	Project	Operation	Project	Operation	Project
Total number of business units	-	-	21	8	43	8	50	6
Social Impact Assessment (SIA)								
• Proportion of operations with SIA	-	-	67%	63%	42%	100%	12%	50%
• Proportion of operations with SIA report publicly disclosed	-	-	33%	25%	16%	50%	12%	50%
• Number of operations with significant actual and potential negative impacts	-	-	1	0	1	0	12	5
Community Consultation (CC)								
• Number of operations required CC	-	-	17	2	21	7	23	5
• Proportion of operations required CC	-	-	81%	25%	49%	88%	46%	83%
• Proportion of operations with CC committee	-	-	48%	38%	33%	75%	22%	33%
• Proportion of operations with CC committee that includes vulnerable groups	-	-	48%	38%	33%	75%	20%	33%
• Number of CC committee meetings	-	-	44	0	52	3	78	2
Community complaints								
• Total number of significant issues	-	-	3	-	0	0	0	0
• Proportion of issues resolved through dispute mechanism	-	-	33%[c]	-	NA[a]	NA[a]	NA[a]	NA[a]
• Total number of significant complaints	-	-	97	-	0	0	0	0
• Proportion of complaints resolved through dispute mechanism	NA[a]	-	92%[c]	-	NA[a]	NA[a]	NA[a]	NA[a]
Community engagement								
• Proportion of operations with stakeholder mapping	-	-	81%	-	49%	75%	42%	50%
• Proportion of operations with stakeholder engagement plans	-	-	81%	-	49%	75%	42%	50%
• Proportion of operations with community perception surveys	-	-	48%	-	23%	0%	10%	0%
• Community perception level	-	-	Satisfied	-	Satisfied	NA[d]	NA[d]	NA[d]
• Proportion of operations with formal local community dispute mechanism	-	-	100%	-	100%	100%	52%	83%
Community development[b]								
• Proportion of operations with community development programs	-	-	57%	-	28%	-	26%	-
• Proportion of annual stakeholder satisfaction survey	-	-	50%	-	12%	-	10%	-
• Average stakeholder satisfaction level	76%	-	85%	-	83%[e]	-	89%[e]	-

[a] No significant complaints
[b] There are community development activities at mining business in Indonesia and renewable power business in China only
[c] Completely resolved in 2023
[d] No perception survey conducted
[e] Only for mining business in Indonesia

INDIGENOUS PEOPLES

	2021	2022	2023	2024
Total number of violations	0	0	0	0
Proportion of violations resolved through a dispute mechanism	NA[a]	NA[a]	NA[a]	NA[a]

[a] No violations

RESETTLEMENT

	2021	2022	2023	2024
Number of resettlements	0	0	0	0
Number of people physically or economically displaced and compensation	-	-	0	0
Number of significant resettlement complaints	0	0	0	0
Proportion of significant resettlement complaints resolved through a dispute mechanism	NA[a]	NA[a]	NA[a]	NA[a]

[a] No significant complaints

MINE CLOSURE & REHABILITATION

	2021	2022	2023	2024
Number of mines				
• Mining phase	12	9	10	12
• Care & maintenance status	-	2	2	2
• Mine closure phase	7	14	14	1
• Post closure phase	-	-	-	0
Mine closure plan				
• Number of mines with mine closure plan	19	19	20	14
• Proportion of mines with mine closure plan	100%	100%	77%	93%
Progress of revegetation against plan[a]	100%	98%	114%	112%
Progress of mine closure activity against plan[b]	100%	96%	100%	100%

[a] For open-pit mine only
[b] For underground mine only

MINE SUBSIDENCE[a]

	2021	2022	2023	2024
Number of mines				
• Required subsidence management plan	5	5	5	7
• Implemented subsidence management plan	5	5	5	7
Number of reports related to mine subsidence	0	0	0	0
Proportion of mines with subsidence management plan	100%	100%	100%	100%
Progress of subsidence management activities against plan	100%	100%	100%	100%

[a] For underground mine only

SDGs CONTRIBUTION MATRIX

Sustainability Topic	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Compliance & Risk Management																○	
Business Ethics																○	
Economic Distribution								○									
Process Improvement & Innovation								○				●	○				
Business Resilience & Continuity								○								○	
Digital Transformation								○									
Supplier Management								●								○	
Customer Stewardship																○	
Climate Change							●						●				
Water						●						○					
Biodiversity															●		
Air Emissions			○									●					
Waste						●						○					
Employee Engagement								○		○							
Talent Management & Development								○									
Occupational Health & Safety								●									
Human Rights								●									
Community & Society		○								○	○						●
Mine Closure & Rehabilitation															●		

● Direct Contribution
○ Indirect Contribution

UN GLOBAL COMPACT COP INDEX

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			G3	34	G5		G10	-	G13	1
			G3.1	34	G5.1	-	G11	-		
					G6	42-43				
					G6.1	42-43				
Human Rights & Labour	HR/L1	120	HR/L2	118	HR/L3	120,114	HR/L2.3	105	HR/L5	118
	HR/L1.1	120	HR/L2.1	118	HR/L4	120,114	HR/L6	154		
			HR/L2.2	105	HR/L4.1	120,114	HR/L7	157		
					HR6	154				
Environment			E1	82, 88, 92, 96, 98	E2	82, 88, 92, 96, 97	E5	145	E16	98
			E1.1	82, 88, 92, 96, 99	E3	82, 88, 92, 96, 98	E5.1	145		
					E3.1	82, 88, 92, 96, 99	E6	145		
					E3.1.1	82, 88, 92, 96, 100	E6.1	145		
					E3.1.2	82-83, 88-89, 92-93, 96-97, 101-102	E7	84		
					E4	82, 88, 92, 96, 100	E8	62		
							E9	12-13		
							E10	40		
							E11	147		
							E12	-		
							E13	151		
							E14	148		
							E15	98		
Anti-Corruption			AC1	56	AC1.2	56	AC5	141	AC3	56
			AC1.1	56	AC4	56,141			AC5.1	56
			AC2	56	AC4.1	141			AC5.2	56
									AC6	0

GRI INDEX

Statement of use	Banpu has reported the information cited in this GRI content index for the period January 1 to December 31, 2024 with reference to the GRI Standards.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard (s)	Coal Sector, G4 Electric Utilities Sector

NA: Not Applicable
IU: Information unavailable/incomplete

GRI Standards	Disclosure		Sector	Page	Omission			External Assurance
					Requirement	Reason	Details	
2: General Disclosure 2021	2-1	Organizational details		1, 18-19				
	2-2	Entities included in the organization's sustainability reporting		132-135				
	2-3	Reporting period, frequency and contact point		1				
	2-4	Restatements of information		1, 84				
	2-5	External assurance		169-171				
	2-6	Activities, value chain and other business relationships		18-21				
	2-7	Employees		152				
	2-8	Workers who are not employees		75				
	2-9	Governance structure and composition		24				
	2-10	Nomination and selection of the highest governance body		33				
	2-11	Chair of the highest governance body		25				
	2-12	Role of the highest governance body in overseeing the management of impacts		32				
	2-13	Delegation of responsibility for managing impacts		32				
	2-14	Role of the highest governance body in sustainability reporting		32				
	2-15	Conflicts of interest		33				
	2-16	Communication of critical concerns		42-43				
	2-17	Collective knowledge of the highest governance body		33				
	2-18	Evaluation of the performance of the highest governance body		33				
	2-19	Remuneration policies		33				
	2-20	Process to determine remuneration		33				
	2-21	Annual total compensation ratio		-	a,b,c	IU		
	2-22	Statement on sustainable development strategy		2-5				
	2-23	Policy commitments		26-27				
	2-24	Embedding policy commitments		26				
	2-25	Processes to remediate negative impacts		42-43				
	2-26	Mechanisms for seeking advice and raising concerns		43			-	
	2-27	Compliance with laws and regulations		140				Yes
	2-28	Membership associations		-				
	2-29	Approach to stakeholder engagement		38, 136-137				
	2-30	Collective bargaining agreements		155				
	EU1	Installed capacity, broken down by primary energy source and by regulatory regime		144				
	EU2	Net energy output broken down by primary energy source and by regulatory regime		-				
3: Material Topics 2021	3-1	Process to determine material topics		40				
	3-2	List of material topics		40-41				

GRI Standards	Disclosure		Sector	Page	Omission			External Assurance
					Requirement	Reason	Details	
Business Ethics								
205: Anti-corruption 2016	3-3	Management of material topics	12.20.1	54				
	205-1	Operations assessed for risks related to corruption	12.20.2 12.20.5 12.20.6	141				
	205-2	Communication and training about anti-corruption policies and procedures	12.20.3	141				
	205-3	Confirmed incidents of corruption and actions taken	12.20.4	141				
206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices		141				-
Digital Transformation								
	3-3	Management of material topics		70				
Supplier Management								
204: Procurement Practices 2016	3-3	Management of material topics		74				
	204-1	Proportion of spending on local suppliers	12.8.6	143				
308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria		-	a	IU	In process of development and will be disclosed in SD Report 2025	
	308-2	Negative environmental impacts in the supply chain and actions taken		-	a, b, c, d, e	IU	In process of development and will be disclosed in SD Report 2025	
414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	12.15.8 12.16.3 12.17.3	-	a	IU	In process of development and will be disclosed in SD Report 2025	
	414-2	Negative social impacts in the supply chain and actions taken	12.15.9	-	a, b, c, d, e	IU	In process of development and will be disclosed in SD Report 2025	
Customer Stewardship								
418: Customer Privacy 2016	3-3	Management of material topics		78				
	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data		144				
Economic Distribution								
201: Economic Performance 2016	3-3	Management of material topics	12.8.1 12.21.1	58				
	201-1	Direct economic value generated and distributed	12.8.2 12.21.2	142				
	201-2	Financial implications and other risks and opportunities due to climate change	12.2.2	84				
	201-3	Defined benefit plan obligations and other retirement plans		-		IU		
	201-4	Financial assistance received from government	12.21.3	-	a,b,c	IU		
203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	12.8.4	142				
	203-2	Significant indirect economic impacts	12.8.5	122-125				
207: Tax 2019	207-1	Approach to tax	12.21.4	59	a	IU		
	207-2	Tax governance, control, and risk management	12.21.5	-	a	IU		
	207-3	Stakeholder engagement and management of concerns related to tax	12.21.6	-	a	IU		
	207-4	Country-by-country reporting	12.21.7	138	b	IU		
		Reporting on payments to governments	12.21.8	-		NA		
415: Public Policy 2016	415-1	Political contributions	12.22.1 12.22.2	138				

GRI Standards	Disclosure		Sector	Page	Omission			External Assurance
					Requirement	Reason	Details	
Process Improvement & Innovation								
302: Energy 2016	3-3	Management of material topics		62				Yes
	302-1	Energy consumption within the organization		146			Data excluded mining business in Mongolia, renewable business in the U.S., e-mobility business because data is under standardization and will be disclosed in SD Report 2025.	Yes
	302-2	Energy consumption outside of the organization		146	b,c	NA		
	302-3	Energy intensity		146			Data excluded mining business in Mongolia, renewable business in the U.S., e-mobility business because data is under standardization and will be disclosed in SD Report 2025.	Yes
	302-4	Reduction of energy consumption		85	d	IU		Yes
	302-5	Reductions in energy requirements of products and services		-	a,b,c	IU	In process of development and will be disclosed in SD Report 2025	
	EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime		142				
	EU30	Average plant availability factor by energy source and by regulatory regime		142				
Business Resilience & Continuity								
	3-3	Management of material topics		66				
Compliance & Risk Management								
	3-3	Management of material topics		50				
		Critical incidents	12.13.3	140				
		Significant spills	12.13.2	140				Yes
Climate Change								
305: Emissions 2016	3-3	Management of material topics	12.2.1	82				Yes
	305-1	Direct (Scope 1) GHG emissions	12.1.5	145			Data excluded mining business in Mongolia, renewable business in the U.S., and e-mobility business because data is under standardization and will be disclosed in SD Report 2025.	Yes
	305-2	Energy indirect (Scope 2) GHG emissions		145	b	NA	Data excluded mining business in Mongolia, renewable business in the U.S., e-mobility business because data is under standardization and will be disclosed in SD Report 2025.	Yes
	305-3	Other indirect (Scope 3) GHG emissions		145	b,c,d,e	IU	Include only category 1, 2, 3, 6, 8, 11, and 15.	Yes
	305-4	GHG emissions intensity		145			Data excluded e-mobility business because data is under standardization and will be disclosed in SD Report 2025.	Yes
	305-5	Reduction of GHG emissions	12.2.3 12.2.4	85	d,e	IU		Yes

GRI Standards	Disclosure		Sector	Page	Omission			External Assurance
					Requirement	Reason	Details	
Air Emissions								
305: Emissions 2016	3-3	Management of material topics	12.4.1	96				Yes
	305-6	Emissions of ozone-depleting substances (ODS)		148				Yes
	305-7	Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	12.4.2	148				Yes
Waste								
306: Waste 2020	3-3	Management of material topics		98				Yes
	306-1	Waste generation and significant waste-related impacts	12.6.2	100				Yes
	306-2	Management of significant waste related impacts	12.6.3	98				Yes
	306-3	Waste generated		150				Yes
	306-4	Waste diverted from disposal		150				Yes
	306-5	Waste directed to disposal		150				Yes
		Mineral waste	12.6.4 12.6.5 12.6.6	151				
		Tailings facilities	12.13.1 12.13.4	151				
Biodiversity								
304: Biodiversity 2016	3-3	Management of material topics	12.5.1	92				
	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	12.5.2	149				
	304-2	Significant impacts of activities, products and services on biodiversity	12.5.3	-	a,b	IU		
	304-3	Habitats protected or restored	12.5.4	95	c,d	IU		
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	12.5.5	149				
Water								
303: Water and Effluents 2018	3-3	Management of material topics	12.7.1	88				Yes
	303-1	Interactions with water as a shared resource	12.7.2	88				Yes
	303-2	Management of water discharge related impacts	12.7.3	88				Yes
	303-3	Water withdrawal	12.7.4	147				Yes
	303-4	Water discharge	12.7.5	147			Data excluded pollutant load of mining business in Australia and energy storage system business in China and will be disclosed in SD Report 2025	Yes
	303-5	Water consumption	12.7.6	148				Yes

GRI Standards		Disclosure	Sector	Page	Omission			External Assurance
					Requirement	Reason	Details	
Employee Engagement								
202: Market Presence 2016	3-3	Management of material topics	12.15.1	104				
	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	12.19.1	-	a,b,c,d	IU		
	202-2	Proportion of senior management hired from the local community	12.19.2	153				
401: Employment 2016	401-1	New employee hires and employee turnover	12.15.2	153-154				
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	12.15.3	106				
	401-3	Parental leave	12.15.4 12.19.4	155				
402: Labor/ Management Relations 2016	402-1	Minimum notice periods regarding operational changes	12.3.2 12.15.5	-	a, b	IU		
405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	12.19.6	152				
	405-2	Ratio of basic salary and remuneration of women to men	12.9.7	154				
Talent Management & Development								
404: Training and Education 2016	3-3	Management of material topics		110				
	404-1	Average hours of training per year per employee	12.15.6 12.19.5	156				
	404-2	Programs for upgrading employee skills and transition assistance programs	12.3.3 12.15.7	111-113				
	404-3	Percentage of employees receiving regular performance and career development reviews		153				
Occupational Health & Safety								
403: Occupational Health & Safety 2018	3-3	Management of material topics	12.14.1	114				Yes
	403-1	Occupational health and safety management system	12.14.2	114				Yes
	403-2	Hazard identification, risk assessment, and incident investigation	12.14.3	114			Information available on website: http://qr.banpu.com/OHS-M	Yes
	403-3	Occupational health services	12.14.4	114				Yes
	403-4	Worker participation, consultation, and communication on occupational health and safety	12.14.5	114				Yes
	403-5	Worker training on occupational health and safety	12.14.6	114				Yes
	403-6	Promotion of worker health	12.14.7	114				Yes
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	12.14.8	114				Yes
	403-8	Workers covered by an occupational health and safety management system	12.14.9	157				Yes
	403-9	Work-related injuries	12.14.10	157				Yes
	403-10	Work-related ill health	12.14.11	157				

GRI Standards	Disclosure		Sector	Page	Omission			External Assurance
					Requirement	Reason	Details	
Human Rights								
406: Non-discrimination 2016	3-3	Management of material topics	12.12.1 12.16.1 12.17.1	118				
	406-1	Incidents of discrimination and corrective actions taken	12.19.8	158				
407: Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	12.18.2	158				
408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	12.16.2	158				
409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	12.17.2	158				
410: Security Practices 2016	410-1	Security personnel trained in human rights policies or procedures	12.12.2	-	a,b	IU	In process of development and will be disclosed in SD Report 2025	
Community & Society								
413: Local Communities 2016	3-3	Management of material topics	12.9.1 12.10.1 12.10.2 12.11.1	122				
	413-1	Operations with local community engagement, impact assessments, and development programs	12.9.2	159				
	413-2	Operations with significant actual and potential negative impacts on local communities	12.9.3 12.9.4	159				
	EU22	Number of people physically or economically displaced and compensation, broken down by type of project		159				
411: Rights of Indigenous Peoples 2016	411-1	Incidents of violations involving rights of indigenous peoples	12.11.2 12.11.3 12.11.4	159				
Mine Closure & Rehabilitation								
	3-3	Management of material topics	12.3.1	126				
		Closure and rehabilitation	12.3.4 12.3.5 12.3.6	-		IU	In process of development and will be disclosed in SD Report 2026	

REPORT ASSURANCE

LRQA Independent Assurance Statement

Relating to Banpu Public Company Limited's Sustainability Report for the calendar year 2024

This Assurance Statement has been prepared for Banpu Public Company Limited in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

LRQA was commissioned by Banpu Public Company Limited (Banpu) to provide independent assurance on its Sustainability Report 2024 ("the report") against the assurance criteria below to a moderate level of assurance and materiality of the professional judgement of the verifier using Accountability's AA1000AS v3 for type 2 assurance.

Our assurance engagement covered Banpu's global operations and activities and specifically the following requirements:

- Confirming that the report is
  - adhering to the AccountAbility Principles (AA1000AP (2018)) [a]
  - referring to the GRI Standard 2021[b]
  - referring to GRI 12 Coal Sector Standard 2022, GRI 11 Oil & Gas Sector Standard 2021 and GRI Electric Utilities sector disclosures.
- Evaluating the reliability of data and information for only the selected indicators listed below: [c, (1)]
  - GRI 2-27 Compliance with law and regulations
  - GRI 302-1 Energy consumption within the organization (2016)[(2)]
  - GRI 302-3 Energy intensity (2016) [(2)]
  - GRI 302-4 Reduction of energy consumption (2016) [(2)]
  - GRI 303-1 Interactions with water as a shared resource (2018)
  - GRI 303-2 Management of water discharge-related impacts (2018)
  - GRI 303-3 Water withdrawal (2018) [(3)]
  - GRI 303-4 Water discharge (2018) [(3)]
  - GRI 303-5 Water consumption (2018) [(3)]
  - GRI 305-1 Direct (Scope 1) GHG emissions (2016[(2)] and restatement of this data during year 2021-2023
  - GRI 305-2 Energy indirect (Scope 2) GHG emissions (2016) [(2)] and restatement of this data during year 2021-2023
  - GRI 305-3 Other indirect (Scope 3) GHG emissions (2016) [(2)] and restatement of this data during year 2021-2023
  - GRI 305-4 GHG emissions intensity (2016) [(2)]
  - GRI 305-5 Reduction of GHG emissions (2016) [(2)]
  - GRI 305-6 Emissions of ozone-depleting substances (2016) [(4)]
  - GRI 305-7 Nitrogen Oxides (NOx), Sulfur Oxides (SOx) and other significant air emissions (2016) [(4)]
  - GRI 306-1 Waste generation and significant waste-related impacts (2020)
  - GRI 306-2 Management of significant waste related impacts (2020)
  - GRI 306-3 Waste generated (2020) [(5)]
  - GRI 306-4 Waste diverted from disposal (2020) [(5)]
  - GRI 306-5 Waste directed to disposal (2020) [(5)]
  - GRI 403-1 to 403-7 management disclosure Occupational Health and Safety (2018)
  - GRI 403-8 Workers covered by an occupational health and safety management system (2018)
  - GRI 403-9 Work-related injuries (2018) [(6)]
  - GRI 403-10 Work-related ill health (2018) [(6)]
  - Lost time injury frequency rate (LTIFR) and injury severity rate (ISR) [(6)]
  - Tier-1 Process safety event rate[(6)]
  - Environmental incident
  - GRI 306-3 Significant spill (2016)

Note:

1. *Banpu's reporting boundary excludes performance data from entities where Banpu hold less than 50% of shares (either directly or indirectly) and does not directly participate in their management. In such cases, Banpu Involvement is limited to oversight through the Board of Directors. Examples include mining business in China and thermal power business in Thailand and Lao PDR.*

[a] *https://www.accountability.org/*
[b] *https://www.globalreporting.org/*
[c] *GHG quantification is subject to inherent uncertainty.*

2. *Banpu's reporting boundary and our scope of verification related to energy consumption and GHG emissions excludes performance data of mining business in Mongolia, renewable power business in USA, energy storage system business in Japan and Thailand and e- mobility business.*
3. *Banpu's reporting boundary and our scope of verification for water excludes performance data of mining business in Mongolia, renewable power business in USA and Japan, energy storage system business in Japan and Thailand and solar rooftop business in Thailand.*
4. *Banpu's reporting boundary and our scope of verification for air emission and emissions of ODS excludes performance data of mining business in Mongolia, renewable energy business in every country, and energy storage system business in Japan and Thailand.*
5. *Banpu's reporting boundary and our scope of verification for waste excludes performance data of mining business in Mongolia, renewable power business in USA and energy storage system business in Japan and Thailand.*
6. *Banpu's reporting boundary and our scope of verification for occupational health and safety excludes performances data of renewable power business in USA and Japan, energy storage system business in Japan and Thailand.*

LRQA's responsibility is only to Banpu. LRQA disclaims any liability or responsibility to others as explained in the end footnote. Banpu's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by and remains the responsibility of Banpu.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that Banpu has not, in all material respects:

- Met the requirements above, except for some omissions in the reported data. However, the omission is clearly stated in the GRI content index within the report i.e. Pollutants load of discharged water of mining business in Australia (Centennial) and energy storage system business in China (Durapower) are excluded from GRI 303-4.
- Disclosed reliable performance data and information for the selected indicators above.
- Covered all the issues that are important to the stakeholders and readers of this report.

The opinion expressed is formed on the basis of a moderate level of assurance and at the materiality of the professional judgement of the verifier.

Note: The extent of evidence-gathering for a moderate assurance engagement is less than for a high assurance engagement. Moderate assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a moderate assurance engagement is substantially lower than the assurance that would have been obtained had a high assurance engagement been performed.

LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing Banpu's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through interviews with Banpu's Health, Safety, Environmental and Community Engagement Division team, who is responsible for identifying stakeholder groups and the processes for stakeholder engagement.
- Reviewing documents and associated records i.e. Banpu group stakeholder engagement survey report and its summary & analysis results.
- Reviewing Banpu's process for identifying and determining material issues to confirm that the right issues were included in their report. We did this by researching the global focus of sustainability issues within Banpu's relevant business sector, determining the GRI Sector Standard which is most relevant to Banpu's businesses and benchmarking reports written by Banpu and its peers to ensure that sector specific issues were included for comparability. We also tested the filters used in determining material issues to evaluate whether Banpu makes informed business decisions that may create opportunities that contribute towards sustainable development.
- Auditing Banpu's data management systems to confirm that there were no significant errors, omissions, or misstatements in the report. We did this by reviewing the effectiveness of data handling procedures, and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the report.
- Verifying data and information onsite for a selection of Banpu's subsidiary companies (i.e. Ecoserve : LMC- Chillers OM in Thailand, Solar PV floating power plant at LK Rubber Industrial City Hub in Thailand, Zhengding (ZD) Combined Heat & Power plant & Solar Roof Top Business (ZD new energy) in China, Jinshan (JS) Solar Farm in China, PT. Indominco Mandiri Coal Mine (IMM), Bontang Coal Terminal Port(BoCT) & its solar and coal fire power plant in Indonesia, Temple I & Temple II Thermal Power plant in USA, Barnett site of Gas business in USA, and Myuna Mine Site in Australia.)
- Verifying data and information remotely, via online meetings, for a selection of Banpu's subsidiary companies' sites (i.e. Durapower (Energy Storage Business) in Shanghai, Nepa site of Gas business in USA, and Beryl's solar farm in Australia.)
- Verifying aggregated data, via desktop review, for all selected performance indicators at a corporate level.

***Note**: LRQA did not verify the data back to its original sources, nor did it assess the accuracy and completeness of the data reported by individual locations.*

Observations

Further observations and findings, made during the assurance engagement, are:

- Stakeholder inclusivity:
  We are not aware of any key stakeholder groups that have been excluded from Banpu's stakeholder engagement process. Banpu's sustainability strategy, and the content of this report, have been informed by the views and expectation of stakeholders. However, we believe that in addition to using a third-party service to gather stakeholders' views and expectations, Banpu should also collect from each business any information, or opinions, they may receive locally from talking with their stakeholders. Banpu should also consider improving their process for engaging with vulnerable groups. By enhancing stakeholder engagement processes and ensuring that all 'voices' are heard; Banpu may determine additional material issues that require management.
- Materiality:
  Banpu has established criteria for determining which issue is material by considering stakeholders' views and expectations, as well as global sustainability trends, sector standards and peers' sustainability strategies. These material issues have then been prioritised, used to set strategy, and influenced performance disclosures.
- Responsiveness:
  Banpu has established and implemented processes for responding to concerns from various stakeholder groups. We believe that these communication processes are effective in explaining Banpu's aim in contributing towards sustainable development. However, in future reports, pollutants load of discharged water from the mining business in Australia and energy storage systems business in China should be included. This will add to Banpu's responsiveness in addressing water related impacts.
- Impact:
  Banpu has implemented processes to measure, evaluate and manage impact(s) relevant to its material issues.
- Reliability:
  Data management systems are established and centralised for the collection and calculation of data associated with the selected performance indicators. However,
  - establish a documented instruction for data flow, data monitoring and reporting for the new Nepa site e.g. instruction for estimating surface water volume and counting actual worked hours.
  - carry out more vigorous and systematic internal verifications across all Business Units (BU), and at the corporate level, to improve the reliability of reported data and information.
  - include within the Scope 1 GHG emissions, those emissions from spontaneous combustion at Indonesia's Coal Mine BU.
  - Include, within the Scope 2 GHG emissions, the cool air acquired from the lessor at the corporate head-office building and other BU office buildings in Bangkok. (Although these sources of emission might not be material, its inclusion would enhance the completeness of this data).
  - Ensure, for consistency, that the approach for selecting the heating value used by Upstream Natural Gas when calculating energy consumption and GHG emissions at Barnette site of Gas BU in USA is the same as that applied by Mid-Stream Natural Gas. Likewise use heating values from representative gas samples for each midstream and upstream station instead of using average heating values to further enhance the accuracy of reported data.
  - The gas business in USA (BKV) should analyse results, or request TDS analysis of the surface water and ground water received from a private entity, to ensure that it accurately reports this water withdrawal in the correct category i.e. as freshwater or other water.
  - Ensure that the approach for monitoring lost time, and number of hours worked for non-employee workers is consistency applied across all BUs. This would enhance the reliability and accuracy of work-related injury rate and LTIFR of non-employee workers' reported data.

LRQA's standards, competence and independence

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

The report verification is the only work undertaken by LRQA for Banpu and as such does not compromise our independence or impartiality.

Paveena Hengsritawat
LRQA Lead Verifier

Dated: 14 May 2025

On behalf of LRQA Group Limited.
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FEEDBACK SURVEY

Please provide your feedback by scanning the QR Code or sending an email to **sustainability@banpu.co.th**

1. Which of the following groups best describes you?

- O Employee
- O Customer
- O Supplier
- O Contractor
- O Business partner
- O Shareholder
- O Financial capital provider
- O Government and regulator
- O Investor
- O Investment analyst
- O Media
- O NGOs
- O Academic institution
- O Community

2. How did you receive this report?

- O Annual general meeting
- O Company's website
- O Company's employee
- O Seminar
- O Other (Please specify.....)

3. What is your reason for reading this report?

- O To acknowledge the Company's business
- O For investment decision-making
- O For research and education purposes
- O For sustainability report preparation guideline
- O Other (Please specify.....)

4. Which section in the report interests you the most?

- O About Banpu
- O Sustainability Governance
- O Governance
- O Environment
- O Social
- O Additional Information

5. Are there any additional topic(s) that report should be covered?

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6. Satisfaction on the Sustainability Report 2024

Content completeness & appropriate	O High	O Medium	O Low	O Need improvement
Content easy to understand	O High	O Medium	O Low	O Need improvement
Attractive infographic	O High	O Medium	O Low	O Need improvement
Overall satisfaction	O High	O Medium	O Low	O Need improvement

7. Additional suggestions or comments

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Thank you for your opinion and feedback.

BANPU | INTERNATIONAL VERSATILE ENERGY PROVIDER

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Sustainability Report 2024