

The background of the entire page is a photograph of a woman with long, light-colored hair tied in a ponytail, seen from behind. She is looking out over a landscape with rolling hills and several wind turbines under a bright, hazy sky at sunset or sunrise. Overlaid on this image are several thin, concentric circles in shades of blue and yellow, centered around the text "SMARTER ENERGY FOR SUSTAINABILITY".

SMARTER
ENERGY FOR
SUSTAINABILITY

**SUSTAINABILITY REPORT
2023**

EXECUTIVE SUMMARY



ABOUT THIS REPORT

Banpu Public Company Limited (Banpu) has annually published a sustainability report to provide a comprehensive overview of the Company's sustainability performance in the aspects related to environment, social, and governance. The 2023 Sustainability Report was published on April 5th, 2024, on the Company's website. This report has been prepared with reference to the GRI Standards 2021 and incorporated additional indicators from the GRI 12: Coal sector 2022 and the G4 electric utility sector disclosures. This report demonstrates the Company's commitment in response to the Sustainable Development Goals (SDGs) and the United Nations Global Compact (UNGC), as well as addressing the needs and expectations of stakeholders.

Reporting Boundary

The report scope encompasses the period from January 1st to December 31st, 2023, coinciding with the 2023 Financial Report. The performance covers 24 sustainability topics, with 13 identified as material topics from business entities in which Banpu holds a greater than 50% of total shares 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
- Solar rooftop and floating business: Thailand
- Smart cities and energy management business: Thailand

However, the boundary of this report does not cover Durapower, the energy storage system business in China, since the data collection system is under standardization.

This report excludes the performance of the business entities that Banpu holds less than 50 percent of either direct or indirect investment and does not directly participate in their management; in other words, only supervision through their Board of Directors. Examples of such entities are mining business in China and thermal power business in Thailand and Lao PDR.

Reporting Assurance

This report undergoes an independent verification process 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 managed by the Company's procurement committee and subsequently endorsed by senior management. The assurance scope includes:

- Environmental aspects: Water and Waste data
- Social aspect: Occupational health & safety data

Additional information and the independent assurance statement are available on page 38-40.

Contact Details

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Website: www.banpu.co.th

MESSAGE FROM ESG COMMITTEE

“

**Our actions are aimed
at creating a sustainable future
wherein we thrive economically,
uphold environmental
preservation and champions of
social responsibility.**

”



It is a great privilege to welcome you to our Sustainability Report 2023, a testament to our relentless sustainability integrated into the fabric of our operations. In my capacity as the Chairman of the Environmental, Social, and Governance (ESG) Committee, I am honored to share with you the strides we are making in harmonizing shareholder returns with a profound positive impact on natural, social, and human capitals.

This year has underscored the importance of resilience and adaptability. Emerging risks, notably supply chain disruptions and the escalating impacts of climate change, have presented formidable challenges. However, our commitment to navigating these complexities is unwavering. We are recalibrating our strategies to address these and other emerging risks head-on, ensuring our operations are sustainable and forward-thinking.

Central to our mission is our commitment to supporting the United Nations Sustainable Development Goals (SDGs). These goals guide our efforts in making meaningful contributions to global challenges, ranging from climate action to social equity and economic development. Our actions are aimed at creating a sustainable future wherein we thrive economically, uphold environmental preservation and champions of social responsibility.

The ESG Committee plays a pivotal role in steering the Company towards this sustainable horizon. Through strategic recommendations, rigorous oversight of our ESG targets and practices, and diligent monitoring of ESG risks, we are laying the groundwork for a resilient and responsible business model. Our efforts extend to bolstering stakeholder engagement and ensuring the credibility of our materiality assessment process, thereby reinforcing our commitment to transparency and accountability in all our ESG endeavors.

With the collective wisdom of our Board of Directors and the expertise of our management team, I am confident in our trajectory toward sustainability. It is a journey marked by careful consideration of the ramifications of our actions, underpinned by a commitment to not only our immediate stakeholders but also to future generations.

I extend my sincere gratitude for your enduring trust and support as we navigate these complex times. Together, we are forging the path toward a sustainable future, driven by innovation, responsibility, and an unwavering commitment to our shared values.

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

MESSAGE FROM CEO

“

Together, we will continue to make a difference, ensuring that Banpu not only grows but thrives, contributing to a sustainable future for all.

”



As I step into the CEO role at Banpu, I am both honored and excited to lead our company into its next chapter. Having worked closely with our esteemed management team and my predecessor, I have witnessed firsthand the remarkable journey of Banpu over the years. Our commitment to sustainability, our achievements in the energy sector, and our dedication to the communities we serve have laid a strong foundation for the future. I am confident that together, we will drive Banpu beyond its historic achievements, embracing challenges as opportunities to innovate and excel.

Our longstanding commitment to the Ten Principles of the United Nations Global Compact (UNGC) and the Sustainable Development Goals (SDGs) remains at the core of our mission. These commitments are not just part of our business strategy but integral to our identity and vision for the future. I am dedicated to further aligning our long-term goals with the SDGs, ensuring that our growth is not only sustainable but also contributes positively to the global agenda for a better world.

This decade-long journey with the Dow Jones Sustainability Indices (DJSI) reflects our enduring commitment to the highest environmental, social, and governance (ESG) standards. This recognition is a collective achievement, and I extend my heartfelt gratitude to every member of the Banpu family for their dedication and hard work. In the spirit of innovation, I am eager to explore new opportunities that will propel

Banpu forward. Our “Greener & Smarter” strategy will continue to guide us. Still, with an eye toward the horizon, we will seek out pioneering technologies and practices that can redefine what it means to be an international versatile energy provider. Our commitment to reducing our environmental footprint, enhancing energy efficiency, and promoting clean energy sources will be unwavering.

The challenges we face, such as climate change and resource scarcity, demand bold actions and a visionary approach. I believe that we can turn these challenges into our greatest achievements by fostering a culture of innovation, technology, and sustainability. Our dedication to transparency and accountability will continue, as will our efforts to engage with all stakeholders in meaningful and impactful ways.

In this regard, I extend my deepest gratitude to the Banpu family, our partners, and stakeholders for your trust and support. Your dedication and commitment are the driving forces behind our success. Together, we will continue to make a difference, ensuring that Banpu not only grows but thrives, contributing to a sustainable future for all.

As we move forward, I am filled with optimism and determination. The path ahead is one of transformation and growth, guided by our principles and fueled by our collective ambition. Banpu has a bright future, and I am privileged to lead us on this journey.

A stylized signature in black ink, consisting of a series of loops and a long horizontal stroke.

Sinon Vongkusolkrit
Chief Executive Officer and
Chairman of the Sustainability Committee
2 April 2024

OUR WAY IN SUSTAINABILITY

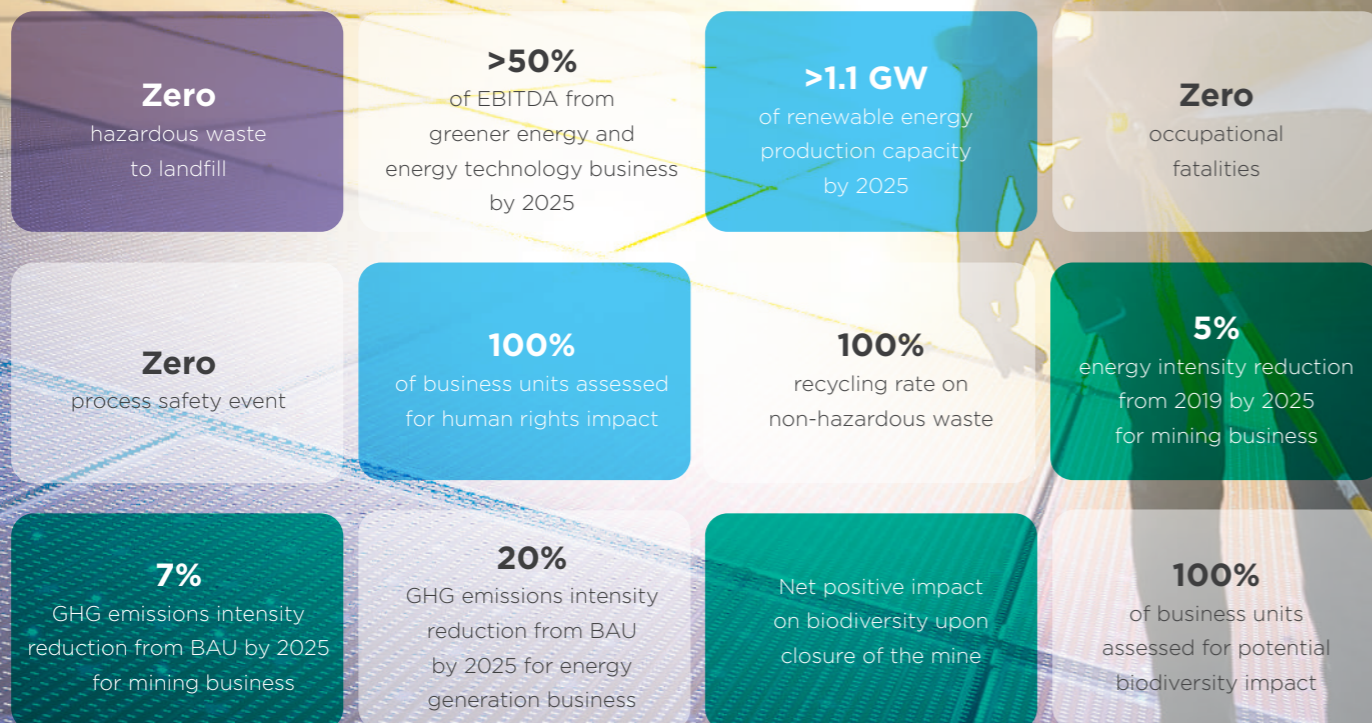
VISION

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

KEY SUSTAINABILITY TARGETS



SUSTAINABILITY IN FOCUS 2023-2025

Banpu commits to delivering “Smarter Energy for Sustainability” and creating a better living for all through its sustainable operations across 3 aspects — environment, social and governance (ESG), under the Greener & Smarter strategy.

ENVIRONMENT



Decarbonization

Reduce GHG emissions at all business units and remove any residual emissions by offsetting



Zero waste

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



Net-positive impact on biodiversity

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

SOCIAL



Employer of choice

Strengthen employee engagement level to top quartile through corporate culture “Banpu Heart”



Safe and healthy workplace

Instill a safety culture at all operational levels across supply chain to achieve 3-Zero target



People capability development

Build a lifelong learning organization through data-driven learning & development program

GOVERNANCE



Digital transformation

Pursue step-change improvement through user-centric digital solution deployment



Sustainable supply chain

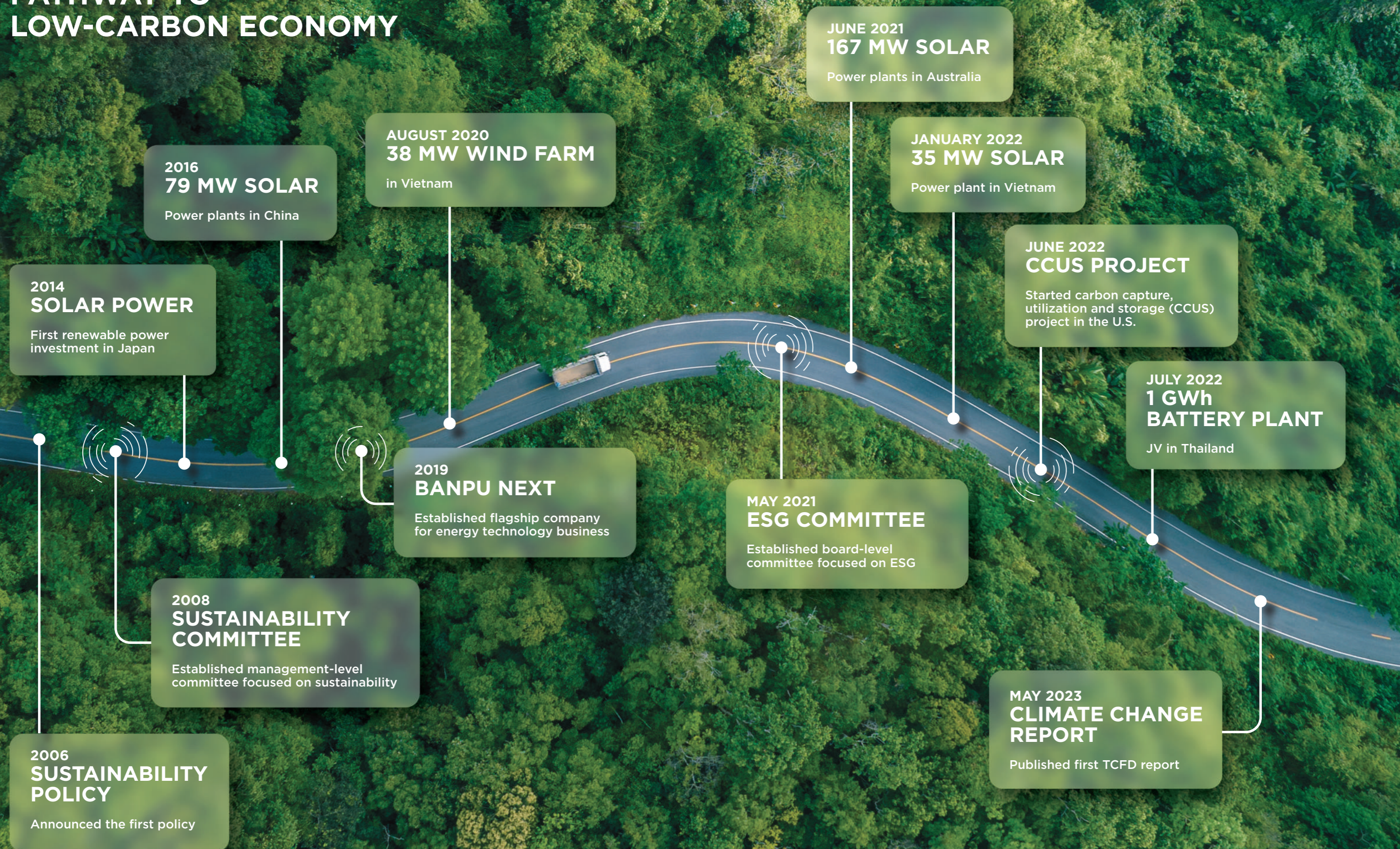
Integrate ESG across supplier lifecycle management, especially critical suppliers



ESG in performance evaluation

Embed ESG as part of individual KPIs, from top executives to frontline managers

PATHWAY TO LOW-CARBON ECONOMY



YEAR IN REVIEW

**23
FEB**

BPIN Investment Co., Ltd. (BPINI), a wholly owned subsidiary of Banpu NEXT Co., Ltd. (Banpu NEXT), has increased its shareholding in Durapower Holdings Pte. Ltd. (Durapower), an associated company, from 47.68% to 65.10%, and Durapower has become a subsidiary of Banpu, with the transaction value of USD 70 million as part of strategy to scale up its energy storage system business.

**18
APR**

Banpu NEXT invested 14.20% shares in Oyika Pte. Ltd. (Oyika), a Singapore start-up that offers battery swap solutions and Battery-as-a-Service (BaaS) to expand its services and network of battery swapping stations in Southeast Asia with a total investment value of USD 8.75 million.

**28
APR**

Banpu Japan K.K. (BJP), a wholly owned subsidiary of Banpu NEXT invested in energy storage system business by developing a large-scale battery farm project in Tono City, Iwate Prefecture, Japan, with a total capacity of 58 MWh, the project will be developed on approximately 3,000 square meters of land, which expected for commercial operation date in 2025. The project also being supported by the government's subsidy program aims to provide partial or full financial support to accelerate its cleaner energy transitions to achieve its decarbonization target.

**13
MAR**

BPINI, invested 4.55% shares in Green Li-on Pte. Ltd., a Singapore-based lithium-ion battery recycling technology company with a total investment value of USD 8.0 million.

**10
JUL**

Temple Generation Intermediate Holdings II, LLC, a subsidiary of Banpu Group, has entered into a purchase and sale agreement to acquire 100% interest in CXA Temple 2, LLC which owns Temple II Gas-fired power plant (Temple II) that is situated adjacent to Temple I Gas-fired power plant (Temple I) in Texas, the U.S. The total investment amount is USD 460 million. The transaction was successfully completed on 10 July 2023. Temple II is a combined-cycle power plant with a generating capacity of 755 MW, which has been in commercial operation date since August 2015.

**17
AUG**

BKV announced final investment decision (FID) for its development in Carbon Capture, Utilization and Storage (CCUS) project in the U.S. The 2 projects consist of Barnett Zero Project with an average sequestration rate of up to approximately 210,000 tonnes CO₂ per year, expected total investment of around USD 29-34 million and Cotton Cove Project with an average sequestration rate of up to approximately 80,000 tonnes CO₂ per year, expected total investment of around USD 14-24 million.

**25
SEP**

BNSP Smart Tech Co., Ltd. (BNSP), a joint venture between Banpu NEXT and SP Group, had won the tender to design, build, own and operate an innovative district cooling system in Zone C of the Government Complex Commemorating His Majesty The King's 80th Birthday Anniversary, 5th December 2007 (Government Complex Center Zone C) in Thailand. When completed in 2024, the district cooling system will operate a total cooling capacity of up to 14,000 Refrigeration Tons (RT), providing sustainable cooling covering a total gross floor area of 660,000 square meters to provide reliable and energy-efficient chilled water to the network of buildings within the complex.

**11
OCT**

Banpu NEXT has entered into Share Subscription Agreement (SSA) for the investment of 40% shares of SVOLT Energy Technology (Thailand) Co., Ltd. (SVOLT Thailand) with the investment amount of THB 750 million from SVOLT Energy Technology (Hongkong), which shall retain a majority 60% ownership interest. SVOLT Thailand is mainly positioned as a module pack factory, with business scope including research, processing, and sales of lithium-ion battery technology; import and export of goods; import and export agency; technical services, development, consultation, exchange, and transfer; and information consulting services. The factory has a capacity of 60,000 sets and is expected to deliver within the first quarter of 2024, serving key clients, including GWM and Hozon. The transaction was successfully completed on 30 October 2023.

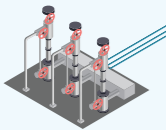
OUR BUSINESS

ENERGY RESOURCES



1. Mining Business

The Company operates both open-pit and underground mining in Indonesia, Australia, and China. 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 such as lithium and copper, to enhance its synergy for clean energy solutions.



2. Gas Business

The Company specializes in operating and developing natural gas and natural gas liquid (NGL) properties, primarily located in 2 regions: the Barnett Shale in the Fort Worth Basin of Texas (Barnett) and the Marcellus Shale in the Appalachian Basin of Northeastern Pennsylvania (NEPA). The product is transferred via the national gas pipeline network to serve domestic customers. Additionally, the Company focused on commercializing large-scale Carbon Capture Utilization and Sequestration (CCUS) through its dedicated business unit, dCarbon Ventures.

ENERGY GENERATION



3. Thermal Power Business

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



4. 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 project development.

ENERGY TECHNOLOGY



5. Solar Rooftop & Floating Business

The Company specializes in providing turnkey installation services for solar power generation systems, offering a range of solar solutions, including rooftop, carport, and floating solar installations. These services cater to both retail and business customers seeking sustainable and environmentally friendly energy solutions. Presently, our operations extend across Thailand, China, Japan, Indonesia, and Vietnam.

6. Energy Storage System

The Company specializes in developing energy storage systems tailored for electric vehicles and stationary applications. This includes energy storage system management to meet various customer needs, incorporating innovative lithium-ion batteries with high safety standards and environmental friendliness.



7. Smart Cities & Energy Management

The Company offers comprehensive energy solutions to enhance business efficiency and optimize the energy management of buildings and cities through an evaluation and analysis of energy consumption.



8. E-Mobility

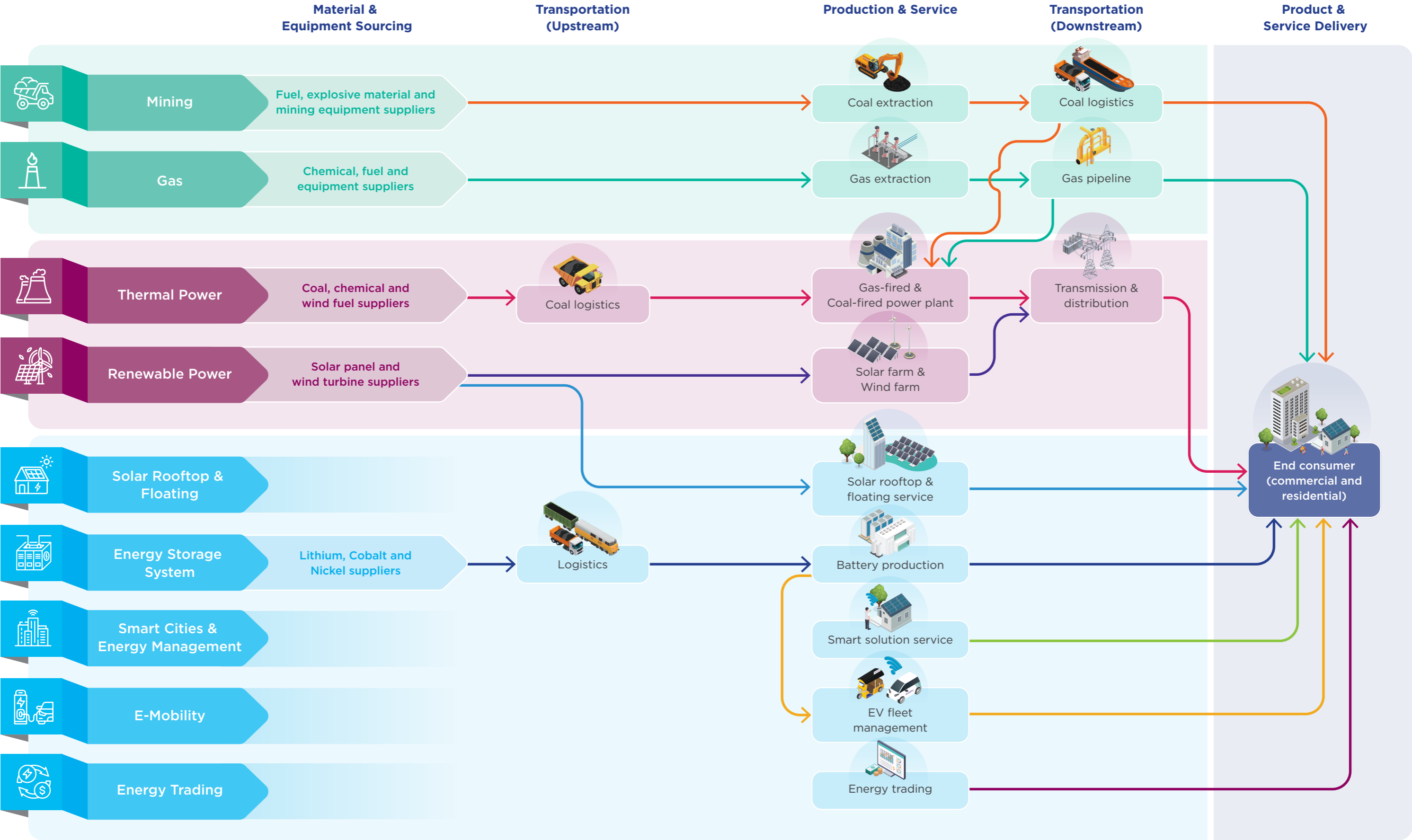
The Company offers EV fleet management linked to a digital platform to support logistic and transportation partners, as well as customizable EV-related services based on the Mobility-as-a-Service (MaaS) concept.



9. Energy Trading

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

BUSINESS VALUE CHAIN



MAP OF OPERATIONS



UNITED STATES OF AMERICA

- Gas
- 2 Shale Gas Operations
- Thermal Power
- 2 Gas-fired Power Plants
- Renewable Power
- 1 Solar Power Plant

ENERGY RESOURCES

- Mining
- Gas

ENERGY GENERATION

- Thermal Power
- Renewable Power

ENERGY TECHNOLOGY

- Solar Rooftop & Floating
- Energy Storage System
- Smart Cities & Energy Management
- E-mobility
- Energy Trading

GOVERNANCE STRUCTURE

Information as of 2 April 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.

GENDER



Male
12
persons

Female
1
persons

STATUS



**Non-executive
Director**

7
persons

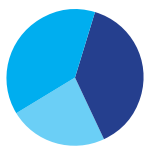
**Independent
Director**

5
persons

**Executive
Director**

1
person

TENURE



>10 years

5
persons

3-10 years

5
persons

<3 years

3
persons

	MEMBER	ROLE & RESPONSIBILITY
Corporate Governance and Nomination Committee	1 Independent director 3 Non-executive directors	<ul style="list-style-type: none"> Review and update the Corporate Governance Policy (CG Policy) and Code of Conduct Monitor compliance through whistleblower channel Review the Board's composition and skills matrix Nominate directors, CEO and senior executives
Audit Committee	3 Independent directors	<ul style="list-style-type: none"> Review the financial reports, the sufficiency of internal control, internal audit, risk management system, and regulatory compliance Review the connected transactions or transactions that may lead to conflicts of interests
Compensation Committee	3 Independent directors 1 Non-executive director	<ul style="list-style-type: none"> Review remuneration, compensation, and benefits of the Board of Directors, sub-committees, and the CEO Review compensation structure and employee remuneration
Environmental Social and Governance Committee	3 Independent directors	<ul style="list-style-type: none"> Oversee the Company's policies and practices, as well as targets and performance with respect to ESG matters Review and monitor stakeholder engagement and materiality assessment process Review and monitor management practice of major ESG risks Oversee the Company's public disclosures in relation to ESG matters

BOARD MEMBERS

MR. CHANIN VONGKUSOLKIT
Age: 71
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



1.

MR. TEERANA BHONGMAKAPAT
Age: 67
Lead Independent Director
Appointed Date: 22 February 2023
Independent Director
Appointed Date: 5 April 2012
Chairman of the Audit Committee
Appointed Date: 30 April 2014
Member of the Compensation Committee
Appointed Date: 30 April 2014



2.

MR. PIRIYA KHEMPON
Age: 65
Independent Director
Appointed Date: 8 April 2020
Chairman of the Environment, Social and Governance Committee
Appointed Date: 1 May 2021
Member of the Corporate Governance and Nomination Committee
Appointed Date: 1 May 2020



3.

MR. PICHAI DUSDEEKULCHAI
Age: 62
Independent Director
Appointed Date: 4 April 2019
Member of the Audit Committee
Appointed Date: 25 April 2019
Member of the Environment, Social and Governance Committee
Appointed Date: 1 May 2021



5.

MR. TEERAPAT SANGUANKOTCHAKORN
Age: 58
Independent Director
Appointed Date: 3 April 2019
Member of the Compensation Committee
Appointed Date: 25 April 2019
Member of the Environment, Social and Governance Committee
Appointed Date: 1 May 2021



6.

MRS. WATANAN PETERSIK
Age: 62
Independent Director
Appointed Date: 4 April 2023
Member of the Audit Committee
Appointed Date: 1 May 2023



7.

MR. ANON SIRISAENGTAKSIN
Age: 71
Director
Appointed Date: 19 April 2016
Chairman of the Corporate Governance and Nomination Committee
Appointed Date: 1 May 2022
Executive Advisor
Appointed Date: 1 April 2014



8.

MR. BUNTOENG VONGKUSOLKIT
Age: 67
Director
Appointed Date: 3 April 2014
Chairman of the Compensation Committee
Appointed Date: 25 April 2019



9.

MR. METEE AUAPINYAKUL
Age: 70
Director
Appointed Date: 16 May 1983
Advisor
Appointed Date: 1 January 2014



10.

MR. ONGART AUAPINYAKUL
Age: 67
Director
Appointed Date: 29 July 1983
Advisor
Appointed Date: 1 January 2017
Executive Officer
Appointed Date: 8 January 2001



11.

MR. VERAJET VONGKUSOLKIT
Age: 59
Director
Appointed Date: 1 June 2010
Member of the Corporate Governance and Nomination Committee
Appointed Date: 1 June 2010



12.

MR. SARAYUTH SAENGCHAN
Age: 61
Director
Appointed Date: 2 April 2022
Member of the Corporate Governance and Nomination Committee
Appointed Date: 1 May 2022



13.

MR. SINON VONGKUSOLKIT
Age: 33
Chief Executive Officer
Appointed Date: 2 April 2024
Director
Appointed Date: 2 April 2024



15.

BOARD SKILLS MATRIX

		SKILL										
		Finance/ Accounting	Marketing/ Logistic	Management	Technical/ Engineer	Business Relation	Economic	Strategic/ International	Mining	Power	Oil & Gas	Technology
1.	Mr. Chanin Vongkusolkrit	•	•	•		•	•	•	•	•		
2.	Mr. Teerana Bhongmakapat	•		•	•	•	•	•				
3.	Mr. Piriya Khempon			•		•	•	•				
4.	Mr. Suthad Setboonsarng ^(a)			•		•	•	•				
5.	Mr. Pichai Dusdeekulchai	•		•		•		•				
6.	Mr. Teerapat Sanguankotchakorn			•	•	•						•
7.	Mrs. Watanan Petersik ^(b)	•		•		•	•	•				
8.	Mr. Anon Sirisaengtaksin			•	•	•		•			•	
9.	Mr. Buntoeng Vongkusolkrit		•	•		•		•				
10.	Mr. Metee Auapinyakul			•		•		•		•		
11.	Mr. Ongart Auapinyakul			•	•	•		•	•			
12.	Mr. Verajet Vongkusolkrit	•		•		•	•			•		
13.	Mr. Sarayuth Saengchan	•			•	•	•	•				
14.	Mrs. Somruedee Chaimongkol ^(c)	•		•		•		•	•	•		
15.	Mr. Sinon Vongkusolkrit ^(d)	•		•		•	•	•				•

^(a) Mr. Suthad Setboonsarng resigned as director, effective 4 April 2023.

^(b) Mrs. Watanan Petersik was appointed as a director, effective 4 April 2023, and a member of the Audit Committee, effective 1 May 2023.

^(c) Mrs. Somruedee Chaimongkol resigned as director, effective 2 April 2024.

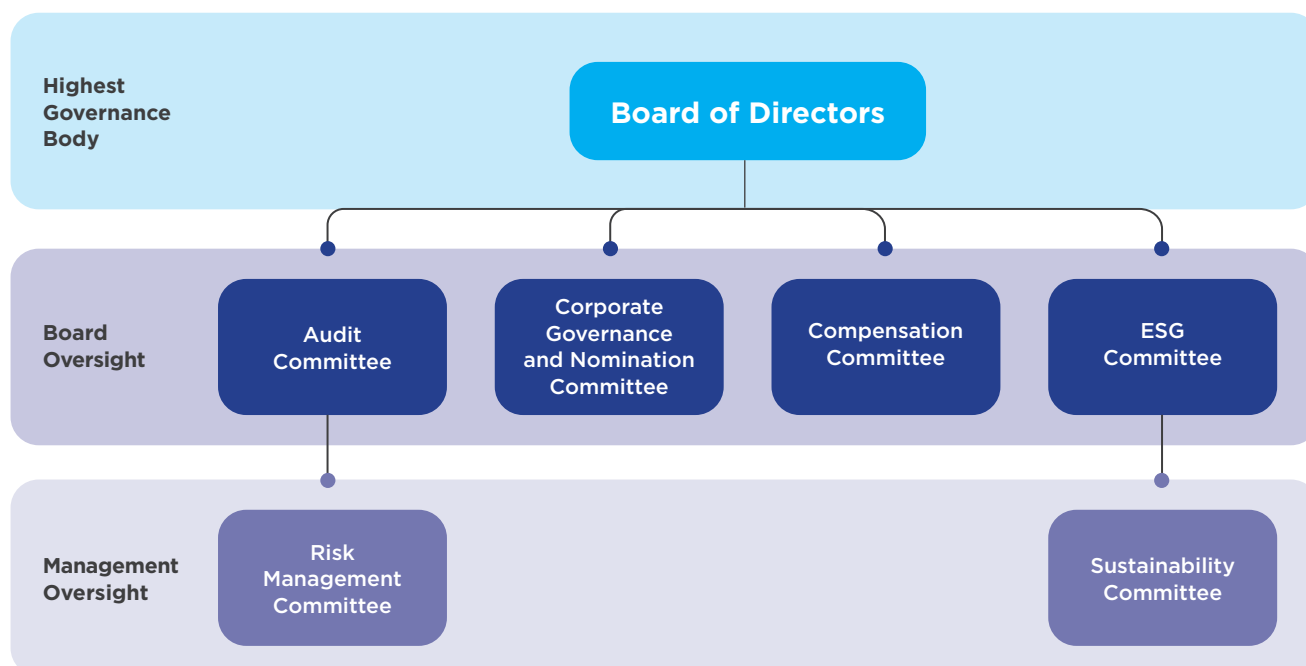
^(d) Mr. Sinon Vongkusolkrit was appointed as a CEO and a director, effective 2 April 2024.

SUSTAINABILITY GOVERNANCE



ESG Committee Charter

Recognizing the importance of Environmental, Social, and Governance (ESG) factors on both operational legitimacy and long-term value creation, appointed by the Board of Directors, the Company has established an ESG Committee dedicated to overseeing and managing ESG-related issues, aligning the operations with both the Company's values and the long-term interests of stakeholders.



ESG COMMITTEE

Composition, Qualifications, and Term: ESG Committee comprises at least 3 Board-appointed directors, including an independent director as chairman. Each member is selected based on their knowledge and experiences in ESG matters, with a term office lasting 3 years. The head of the Global Corporate Sustainability department served as the Committee's secretary.

Meeting and Reporting: Meetings convened at least quarterly, with the presence of at least two members required for a quorum. The Committee reports its activities and outcomes to the Board of Directors at least once a year.

Duties and Responsibilities:

- **ESG Oversight:** Oversee policies and practices, as well as targets and performance concerning ESG aspects
- **ESG Risk Management:** Review and monitor ESG risk management process and outcomes as well as oversee the effectiveness of ESG management systems
- **Stakeholder Engagement and Materiality Assessment:** Review and monitor stakeholder engagement and materiality assessment process to ensure insights are incorporated into strategic decision-making
- **ESG Disclosure:** Review and oversee the Company's public ESG disclosures

BOARD OF DIRECTORS NOMINATION

The Corporate Governance and Nomination Committee is responsible for setting nomination criteria and reviewing the qualifications of the candidates. In general, the tenure of independent directors must not exceed 9 years or 3 consecutive terms, and 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 places importance on the diversity of the board structure. Several aspects are taken into consideration when each candidate is assessed, including independence, experience, skill, expertise, gender, nationality, age, and religion. The attributes of the candidates are assessed using the board skills matrix to ensure benefits to the Company and the expectations of stakeholders. After the screening process, the Corporate Governance and Nomination Committee will nominate the candidate for the Board's approval to propose the candidate director to be elected by shareholder's approval in the annual general meeting.

BOARD OF DIRECTORS PERFORMANCE EVALUATION

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

REMUNERATION OF THE BOARD OF DIRECTORS

The Board of Directors delegated the Compensation Committee to review and refine the remuneration structure and system for the Company's directors. 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 of Directors includes a structured compensation package comprising a monthly salary and allowances for each meeting attended. Additionally, to align the interests of our directors with those of shareholders, annual bonuses for the directors are directly linked to the dividends distributed to shareholders. Importantly, the final approval for the payment of the Board of Directors' remuneration rests with shareholders during the annual shareholders' meeting.

CONFLICT OF INTEREST MANAGEMENT

The Board of Directors holds steadfast to ensure that the decision-making processes remain unbiased and focused on the best interests of the organization and its stakeholders. The Board of Directors shall not allow any board, management, or employee to seek personal gain from, or to engage 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. Any employee having an interest in any transaction must not take part in its 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.

SUSTAINABILITY COMPETENCY DEVELOPMENT

The Company prioritizes continuous learning and development for the directors to ensure their skills and knowledge remain at the forefront of industry and global trends. Throughout the year, the directors have participated in a diverse range of programs.

Program	Number of directors
Carbon Capture Utilization & Storage (CCUS) and future opportunity to Banpu	8
Cybersecurity & Privacy Awareness	10
Direction of World and Thai economy	3
Cybersecurity & Privacy Awareness #2	7
ESG Risks and Trends in Power Business	5
ESG Summit	6
Sustainability Transformation Xponential	1

POLICY & COMMITMENTS



Sustainability Policy

POLICY GOVERNANCE

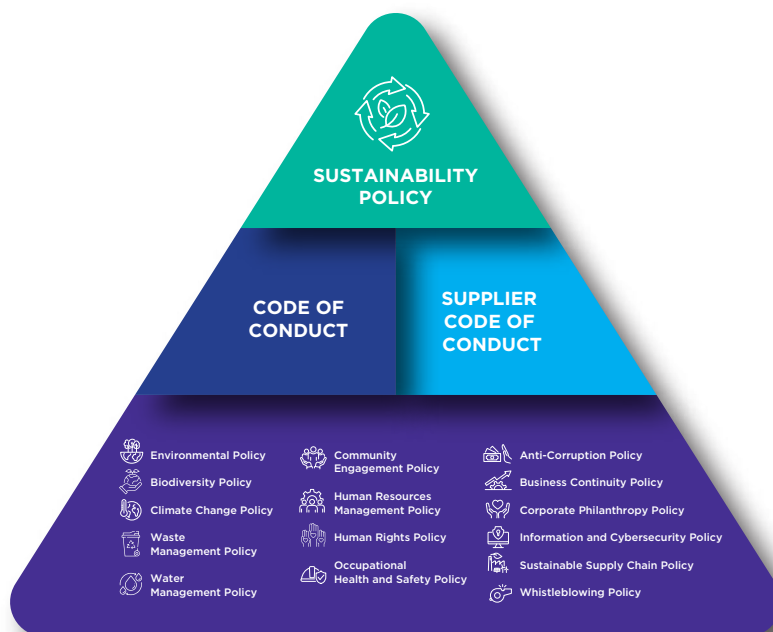
Since 2006, Banpu has been at the forefront of integrating sustainability into its core operations, guided by the first “Sustainability Policy”. The policy has been revised in 2016. This commitment has not only been approved by the Sustainability Committee, chaired by the CEO, but also has been endorsed by the Board of Directors.

The Sustainability Policy is structured in 2 key focused areas – Internal and external – to ensure comprehensive sustainability integration. The internal strategy zeroes in on underpinning the Company’s competitiveness by enhancing internal capabilities and resilience through 2 main pillars: People and Operational Excellence. People imply a commitment to respecting employees’ rights through fair treatment and engagement. Besides, the Company pursues operational excellence through innovation and continuous improvement across the supply chain. This approach elevates the products and services and strengthens the customer relationships.



Externally, the commitment emphasizes broader societal and environmental stewardship by generating tangible value for all stakeholders. This is achieved through a steadfast commitment to compliance with laws and regulations, putting priority on occupational health and safety for both employees and business partners, ensuring business growth is in harmony with environmental protection, and creating sustainable values for the community we operate in.

In addition, the Sustainability Policy serves as a cornerstone for a suite of corporate policies. This includes the Code of Conduct, which is applied across organizational activities, and the Supplier Code of Conduct, which is crucial for the comprehensive implementation of the entire supply chain, particularly with contractors and suppliers. Furthermore, Human Right Due Diligence (HRDD) highlights the Company’s commitment to promoting and safeguarding rights within the Company’s business relationships.



VOLUNTARY COMMITMENTS

Banpu has supported and applied a number of global initiatives and international best practices to improve its sustainability performance.



As a UN Global Compact (UNGC) member, the Company embeds ten UNGC principles into its strategies and annually submits the Communication on Progress (CoP) to UNGC.



Banpu has aligned its long-term corporate strategies with the United Nations Sustainable Development Goals (SDGs).



Banpu has been invited to participate in S&P Global Corporate Sustainability Assessment since 2014. The Company has used the assessment result as a guide to formulate a corporate sustainability strategy and improve ESG performances.



Banpu has participated in CDP climate change questionnaires since 2010 and extended to water security and forests questionnaires in 2017 and 2019 respectively. The findings have been used to enhance the Company's environmental management system.



Banpu publishes sustainability reports referring to the GRI Sustainability Reporting Standards. The report is also annually assured by an external party in its alignment with the GRI Standards.



Banpu has adopted AA1000 Accountability Principles Standard (AA1000APS) and AA1000 Stakeholder Engagement Standard (AA1000SES) to create its stakeholder engagement and materiality assessment frameworks.



Banpu assures accuracy of data in its sustainability reports using the International Standard on Assurance Engagements (ISAE) 3000 issued by the International Federation of Accountants (IFAC).



Banpu has adopted IFC Performance Standard on Environmental and Social Sustainability for ESG risk management.



Banpu has developed the corporate governance standard in accordance with OECD Guideline for Multinational Enterprises.



Banpu has followed TCFD recommendations in reporting its climate change management practices.



Banpu has adopted ICMM's mining principle to define ESG management standards of the mining business, in particular, mine subsidence, mine closure, and community resettlement.



Banpu has adopted IFRS Sustainability Disclosure Standards developed by the International Financial Reporting Standards (IFRS) for its disclosure of sustainability-related financial information.

STAKEHOLDER & MATERIALITY MATTERS

STAKEHOLDER ENGAGEMENT

The Company deeply values the perspectives of all stakeholders, recognizing that their insights are crucial for enhancing the Company's management practices and operational efficiency. To ensure responsiveness to all stakeholders' interests, the Company applies the stakeholder analysis standard developed based on the international AA1000 Stakeholder Engagement Standard (AA1000SES). Three principles — inclusivity, materiality, and responsiveness — underpin the stakeholder engagement framework. Results from each business unit are meticulously analyzed at a corporate level, with the diligent oversight of the Sustainability Committee and the ESG Committee.



Stakeholder Engagement

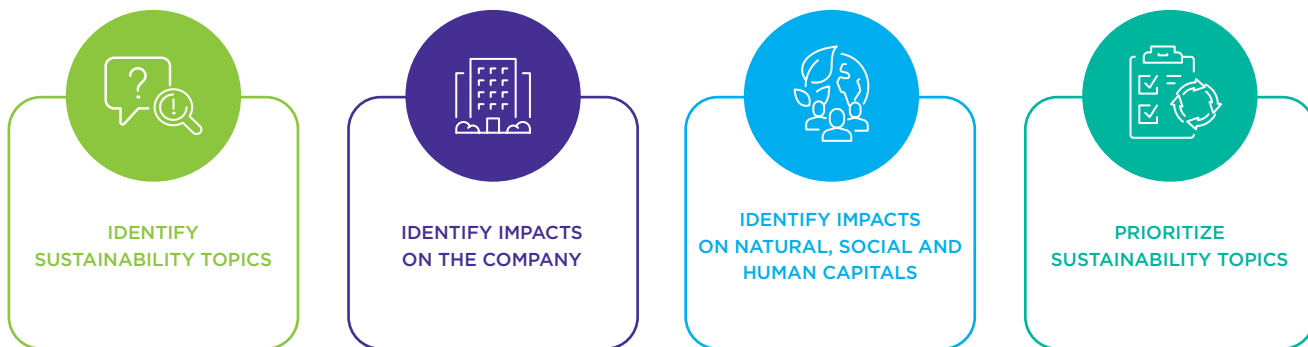
MATERIALITY ASSESSMENT

The material topics are assessed and prioritized through the corporate management standard, which was developed based on the internationally recognized GRI Standards and AA1000 AccountAbility Principles Standard (AA1000APS). This approach covers evaluating governance, environmental and social aspects for their impacts not only on the Company but also on the broader spectrums of natural, social and human capitals. The relevance and accuracy of these material topics are ensured through an annual review and approval process undertaken by the Sustainability Committee and the ESG Committee.



Materiality Assessment

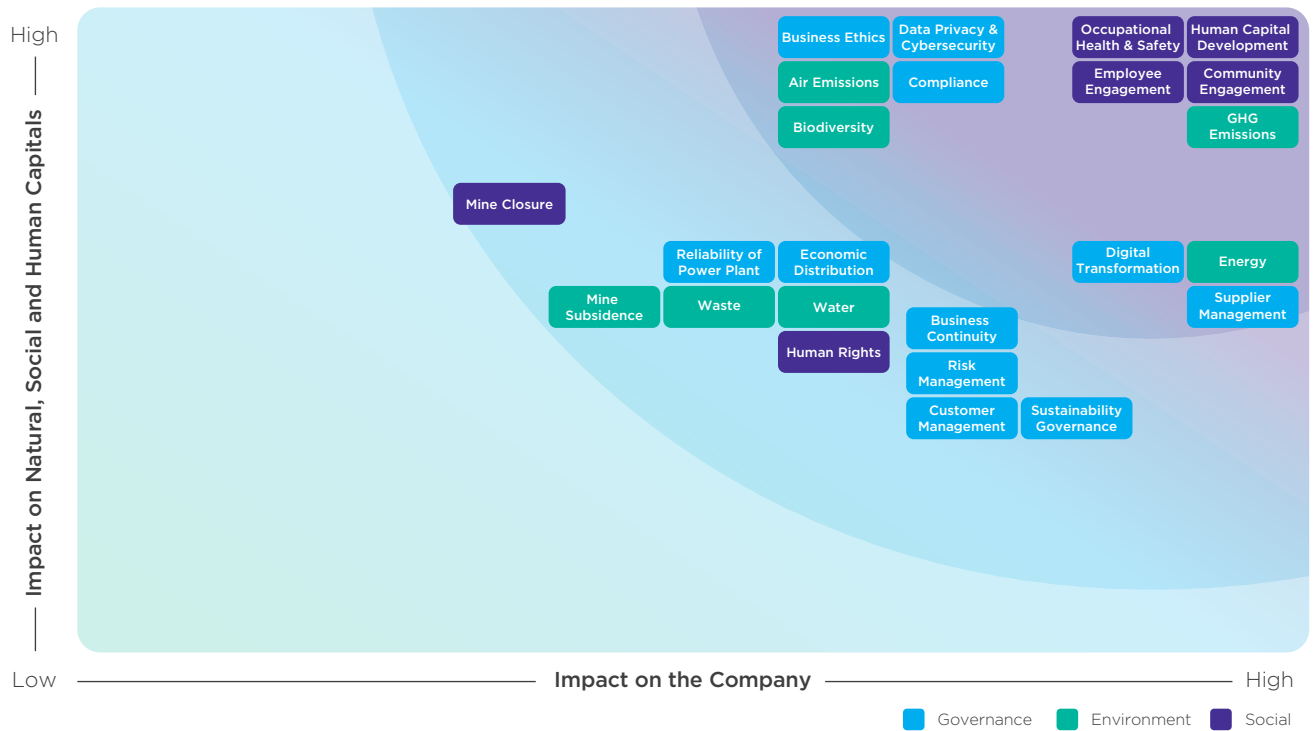
PROCESS OF MATERIALITY ASSESSMENT



RE-VALIDATION OF MATERIAL TOPICS

In 2022, the Company conducted a comprehensive materiality assessment, blending insights from global trends, industry peers, and the valuable perspectives of senior executives across the business units. Material topics derived from the assessment have been used for the 2022-2023 period. In 2023, the internal panel discussion was performed to refine the focus areas, notably combining "Community Development" with "Community Engagement" to streamline our approach. The outcome of this thorough process encapsulates 24 significant topics, with 13 identified as material to our operations and stakeholders.

MATERIALITY MATRIX



IMPACT BOUNDARY OF MATERIAL TOPICS

MATERIAL TOPIC	IMPACT BOUNDARY									
	Employee	Business Partner	Community	Contractor	Financial Capital Provider	Customer	Government & Regulator	Investor & Investment Analyst	Shareholder	Supplier
Business Ethics	●	●		●	●		●	●	●	●
Digital Transformation									●	
Supplier Management				●			●			●
Compliance							●			
Data Privacy & Cybersecurity						●				●
GHG Emissions						●	●			
Energy				●			●			
Air Emissions			●				●			
Biodiversity							●			
Employee Engagement	●									
Human Capital Development	●									
Occupational Health & Safety	●			●						
Community Engagement			●							

GRIEVANCE MANAGEMENT

The Company is firmly committed to sustainability, which includes maintaining a transparent and accountable process for addressing grievances related to corporate conduct. To ensure that any complaints related to corporate behavior are addressed properly, the Company has established a comprehensive grievance mechanism. This system not only upholds our integrity but also fosters a culture of ethical behavior across all levels of the organization.



Whistleblowing Policy

- **Investigation Process:** Upon receiving a complaint or information that meets the evidential threshold necessary to warrant further action, a dedicated investigation team is formed. This team conducts a thorough investigation following the corporate fraud management manual.
- **Informing the Complainant:** Once the investigation is completed, the complainant will be informed of the outcomes. This communication is carried out through designated channels to ensure clarity and confidentiality.
- **Taking Action:** If an allegation is substantiated, the Company will take appropriate action depending on the severity and nature of the misconduct. Actions may range from internal disciplinary measures to legal proceedings, ensuring that misconduct is addressed decisively and in alignment with corporate values.
- **Reporting to Governance Bodies:** The outcomes of all investigations, along with subsequent actions, are reported to the Corporate Governance and Nomination Committee quarterly. Additionally, an annual report is presented to the Board of Directors, summarizing the overall effectiveness of the grievance mechanism and any significant cases or trends.



INVESTIGATE



INFORM



ACTION



REPORT

PROTECTION OF WHISTLEBLOWERS

The Company firmly protects the rights and safety of individuals who report violations or participate in investigations. Protections include, but are not limited to:

- No unfair treatment or retaliation against employees, temporary staff, or outsourced personnel for reporting violations or cooperating with investigations
- Confidentiality of the whistleblower's identity and the details of the report, unless disclosure is mandated by law or necessary for legal proceedings
- Enforcement of penalties for unauthorized disclosure of confidential information

COMPLAINT CHANNELS

The Company has established several complaint channels to allow all stakeholders to report concerns across all areas.

✉ Letter:

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

🌐 Website:

<https://www.banpu.com/corporate-governance/whistleblowing/>

@ Email:

GNCchairman@banpu.co.th
GNCsecretariat@banpu.co.th

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.

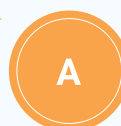
INTERNATIONAL RECOGNITIONS

Member of **Dow Jones Sustainability Indices**

Powered by the S&P Global CSA

The Company has been recognized as a Dow Jones Sustainability Indices (DJSI) member since 2014.

MSCI ESG RATINGS



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

NATIONAL RECOGNITIONS



The Company received the Sustainability Awards of Honor in Sustainability Excellence from the Stock Exchange of Thailand since 2017.



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



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.

PARTNERSHIP

For forty years, the Company has adhered to ESG principles, balancing business growth with sustainable value creation for all stakeholders. Committed to enduring communities, the Company actively supports philanthropic endeavors in line with the corporate philanthropy policy, underscoring dedication to community and society sustainability.



Corporate Philanthropy Policy

EDUCATION

PARTNERSHIP SCHOOL

The Company has actively partnered with the Ministry of Education and various private sector entities, dedicating efforts to bolster educational infrastructure across schools. This collaboration focuses on enhancing school administration, boosting academic performance, and equipping students with essential future-ready skills. The Company has extended support to 3 schools in Khon Kaen, Maha Sarakham, and Roi Et provinces.

In 2023, to ensure these improvements are sustainable, the Company has concentrated on several key activities over the year. These include elevating academic and innovation standards, advancing technology and IT infrastructure, improving English language proficiency, developing vocational and life skills, fostering a learning community, and laying down strategies for the continuity of learning skills.



HEALTH



BANPU TABLE TENNIS CLUB

Banpu Table Tennis Club (BTTTC) was founded in early 2008, marking the commitment to nurturing Thai table tennis talent. The support encompasses daily training, sponsorship for national and international competitions, and organizing various activities to cultivate score values such as morality, ethics, discipline, harmony, and the volunteer spirit of the club members.

In 2023, a standout event was “Youth Camp for Dreaming of Uttaradit’s Table Tennis, Away from Drugs” held in Uttaradit Province. This inspirational camp attracted 65 youths who were coached by 30 experienced trainers. This initiative proved to be engaging and received favorable feedback from the local community.

92 Members
68 Athletes
11 Coaches
13 General members
9 Training centers

Achievements since its establishment

- 3 National athletes competing in the SEA Games
- 9 National junior athletes
- 8 National junior youth athletes
- 2 Professional athletes in the Republic of Poland

SOCIAL WELFARE

EMPOWERMENT OF PEOPLE WITH DISABILITIES

The Company acknowledges the significance of inclusivity and empowerment for people with disabilities by employing visually impaired masseurs and facilitating direct donations to the fund to empower persons with disabilities. Additionally, the Company collaborates with government agencies to create employment opportunities for persons with disabilities to work in communities.



ECONOMIC DEVELOPMENT



B.HACK 2023 AND B.CONNXT

B.Hack 2023 and B.Connxt are business case competitions organized by fourth-year students from Chulalongkorn School of Integrated Innovation (SCII), under the supervision of the Company. The events aim to inspire young entrepreneurs from various universities to tackle global challenges through innovation.

B.Hack 2023: Decoding Sustainability

In early 2023, B.Hack engaged 150 students across 38 teams in the “Decoding Sustainability” theme. After an intensive selection and coaching process, 20 finalist teams were chosen, culminating in a pitch presentation on April 1, 2023.



B.Connxt: Decentralization

Later in the year, B.Connxt adopted the theme of “Decentralization” which took place in November 2023. Initially attracting 59 ideas from 180 participants, the event was narrowed down to 11 finalists after rigorous grooming. Winners were awarded 50,000 THB, with second and third places receiving 30,000 THB and 20,000 THB, respectively.

EMERGENCY RELIEF

COLD RELIEF EFFORTS IN NORTHERN THAILAND

In January 2023, the northern region experienced harsh winter conditions, deeply affecting the local residents. The Company collaborated with local government authorities and the “Help Keeper, Volunteer People” group in donating 2,000 sweaters, with a total value of 500,000 THB, to communities across Tha Song Yang District in Tak Province, as well as Fang and Mae Chaem Districts in Chiang Mai Province.



ENVIRONMENT

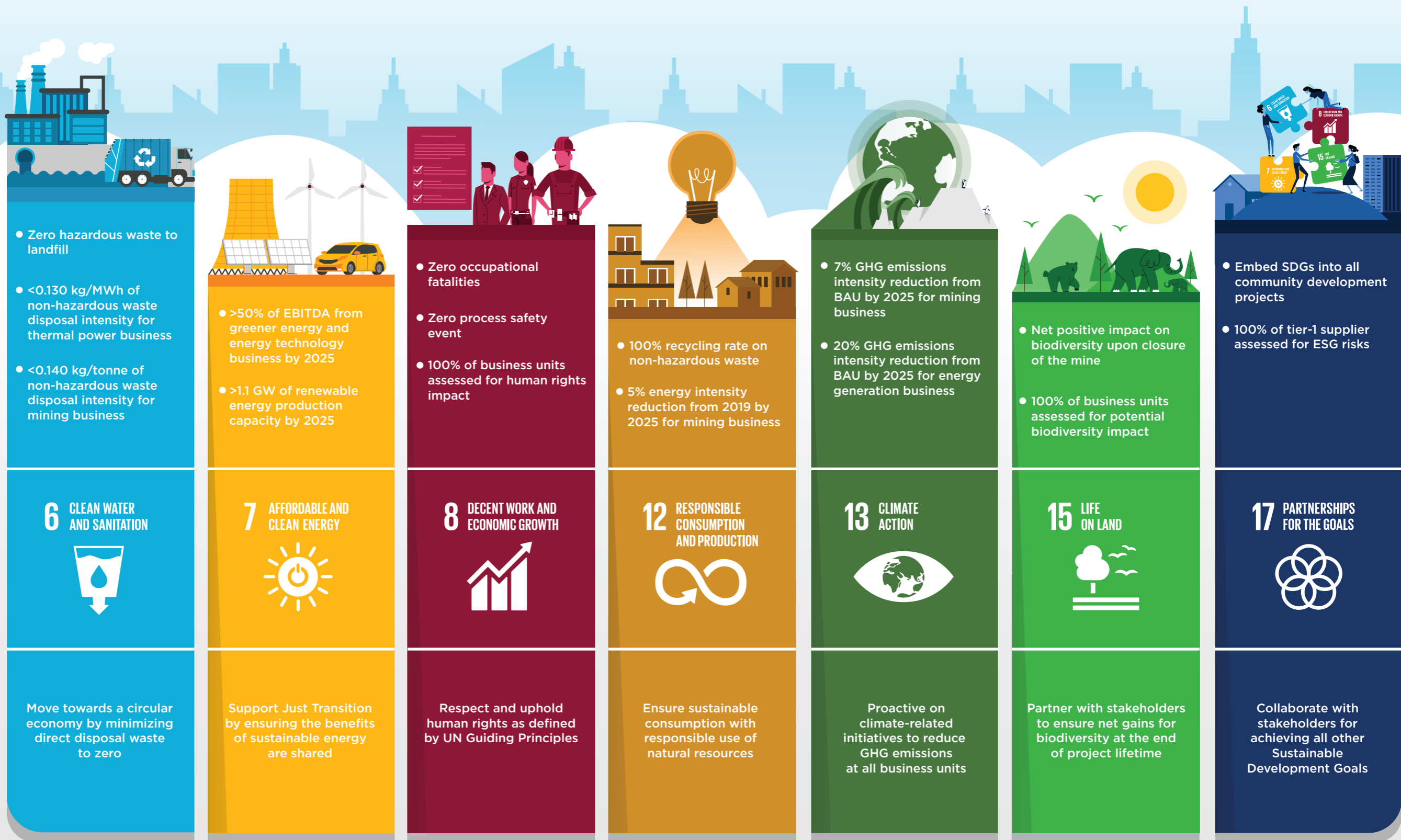


POWER GREEN CAMP

In partnership with the Faculty of Environment and Resources Studies at Mahidol University, the Company hosted the “18th Power Green Camp” under the “Environmental Science — Learn to Practice” theme. In October 2023, the camp embraced the theme “Waste Warriors, Mission to Save the World: Green Cloud – Green Tech – Green Influencer”, focusing on innovative approaches to waste management.











The camp brought together 50 high school and vocational college students selected from 48 schools across 30 provinces. Participants embarked on a learning journey about waste management from inception to disposal. The camp concluded with the environmental science group project competition, allowing students to showcase their innovative solutions to the camp committee and the public. This camp empowered young individuals to tackle real-world waste issues collaboratively with local communities.

BANPU AND SDGs








GOVERNANCE

PERFORMANCE HIGHLIGHT

		2023	Target 2023	Target 2025
	Coverage of material ESG aspects embedded in CEO's KPI and deployed to senior management	86%	100%	100%
	Number of cybersecurity breaches	0	0	0
	IT and IoT assets securely managed by security operation center	70%	≥90%	≥90%
	Coverage of ESG risk management	98%	100%	100%
	Proportion of critical tier-1 suppliers assessed for ESG risks	84%	-	100%
	Complaints regarding customer privacy	0	0	0
	Significant non-compliance	0	0	0
	Number of significant corporate governance complaints	0	0	0
	Availability factor of power plants • Combined Heat and Power (CHP) • Combined Cycle Gas Turbine (CCGT)	95.98% 82.68%	≥90% -	≥90% -
	Coverage of BCP exercise for critical business functions	49%	≥30%	≥64%

ENVIRONMENT

PERFORMANCE HIGHLIGHT

		2023	Target 2023	Target 2025
	GHG emissions intensity reduction <ul style="list-style-type: none"> • Mining business • Power business 	<div> <div></div> <div>4%</div> </div> <div> <div></div> <div>-34%</div> </div>	<div> <div></div> <div>-3%</div> </div> <div> <div></div> <div>-12%</div> </div>	<div> <div></div> <div>-7%</div> </div> <div> <div></div> <div>-20%</div> </div>
	Energy consumption intensity <ul style="list-style-type: none"> • Mining business • Thermal power business • Renewable power business 	<div> <div></div> <div>0.588</div> </div> <div> <div></div> <div>2.304</div> </div> <div> <div></div> <div>0.121</div> </div>	<div> <div></div> <div>≤0.438</div> </div> <div> <div></div> <div>≤1.550</div> </div> <div> <div></div> <div>-</div> </div>	<div> <div></div> <div>≤0.428</div> </div> <div> <div></div> <div>≤1.550</div> </div> <div> <div></div> <div>-</div> </div>
	Water consumption intensity <ul style="list-style-type: none"> • Mining business • Thermal power business 	<div> <div></div> <div>1.882</div> </div> <div> <div></div> <div>0.958</div> </div>	<div> <div></div> <div>≤0.144</div> </div> <div> <div></div> <div>≤0.868</div> </div>	<div> <div></div> <div>-</div> </div> <div> <div></div> <div>≤0.868</div> </div>
	Hazardous waste to landfill	1,176	0	0
	Business units assessed for potential biodiversity impact	100%	100%	100%
	Business units assessed for biodiversity value	100%	100%	100%
	Air emissions intensity (SO₂) <ul style="list-style-type: none"> • Mining business • Thermal power business 	<div> <div></div> <div>21.09</div> </div> <div> <div></div> <div>11.88</div> </div>	<div> <div></div> <div>≤30</div> </div> <div> <div></div> <div>≤76.6</div> </div>	<div> <div></div> <div>≤30</div> </div> <div> <div></div> <div>≤76.6</div> </div>
	Number of reports related to mine subsidence	0	-	-
	Progress of subsidence management activities against plan	100%	≥90%	≥90%

SOCIAL

PERFORMANCE HIGHLIGHT

		2023	Target 2023	Target 2025
	Employee engagement level	78%	≥75%	≥80%
	Banpu Heart score	80%	≥75%	≥80%
	Total turnover rate	40.9%	-	-
	Proportion of high critical positions with successor identified	84%	100%	100%
	Employees with individual development plan	70%	≥96%	100%
	Occupational fatalities			
	• Employees	0	0	0
	• Contractors	1	0	0
	Lost time injury frequency rate			
	• Employees	1.56	≤2.35	≤1.99
	• Contractors	0.22	≤0.16	≤0.14
	Significant human rights incidents	0	0	0
	Significant resettlement complaints	0	0	0
	Indigenous peoples and ethnic minorities' rights violations	0	0	0
	Number of significant community complaint issues	0	0	0
	Coverage of social impact assessment	42%	≥50%	≥90%
	Proportion of mines with mine closure plan	100%	100%	100%
	Progress of mine closure activities against plan	100%	≥90%	≥90%

REPORT ASSURANCE



LRQA Independent Assurance Statement Relating to Banpu Public Company Limited's Sustainability Report for the calendar year 2023

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 2023 ("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 and GRI Electric Utilities sector disclosures.
- Evaluating the reliability of data and information for only the selected indicators listed below: c, (1)
 - GRI 303-1 Interactions with water as a shared resource (2018)⁽²⁾
 - GRI 303-2 Management of water discharge-related impacts (2018)⁽²⁾
 - GRI 303-3 Water withdrawal (2018)⁽²⁾
 - GRI 303-4 Water discharge (2018)⁽²⁾
 - GRI 303-5 Water consumption (2018)⁽²⁾
 - GRI 305-6 Emissions of ozone-depleting substances (ODS) (2016)⁽³⁾
 - GRI 306-1 Waste generation and significant waste-related impacts (2020)⁽⁴⁾
 - GRI 306-2 Management of significant waste related impacts (2020)⁽⁴⁾
 - GRI 306-3 Waste generated (2020)⁽⁴⁾
 - GRI 306-4 Waste diverted from disposal (2020)⁽⁴⁾
 - GRI 306-5 Waste directed to disposal (2020)⁽⁴⁾
 - GRI 403-1 to 403-7 management disclosure Occupational Health and Safety (2018)⁽⁵⁾
 - GRI 403-8 Workers covered by an occupational health and safety management system (2018)⁽⁵⁾
 - GRI 403-9 Work-related injuries (2018)⁽⁵⁾
 - Lost time injury frequency rate (LTIFR) and injury severity rate (ISR)⁽⁵⁾
 - Tier-1 Process safety event rate⁽⁵⁾

Note:

1. Banpu's reporting boundary excludes the business entities where Banpu holds less than 50 percent of either direct or indirect investment and does not directly participate in their management; in other words, only supervised through their Board of Directors. Examples of such entities are mining business in China and thermal power business in Thailand and Lao PDR. Banpu's reporting boundary also excludes business entities where Banpu holds a greater than 50% of shares and has management control, but the data collection system is under standardization i.e. Durapower, the energy storage system business in China.
2. Banpu's reporting boundary and our scope of verification for waste includes mining business in Indonesia and Australia; gas business in USA, thermal power business in China & in USA; renewable power business in China, Japan, Vietnam and Australia.
3. Reporting boundary for emissions of ODS includes mining business in Indonesia only.
4. Banpu's reporting boundary and our scope of verification for waste includes mining business in Indonesia and Australia; gas business in USA, thermal power business in China & in USA; renewable power business in China, Japan, Vietnam and Australia, solar rooftop and floating business in Thailand, and smart city and energy management business in Thailand. Whereas reporting boundary of waste in Japan's renewable business covers only management approach (i.e. performance data is excluded).
5. Banpu's reporting boundary and our scope of verification for occupational health and safety data includes mining business in Indonesia, Australia and Mongolia; gas business in USA, thermal power business in China & in USA; renewable power business in China, Japan, Vietnam and Australia; solar rooftop and floating business in Thailand; and smart city and energy management business in 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

^a <https://www.accountability.org/>

^b <https://www.globalreporting.org/>

^c GHG quantification is subject to inherent uncertainty.



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, and the reason for omission, is clearly stated in the GRI content index within the report i.e. Pollutant load of discharged water of Centennial is 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 stakeholder engagement survey 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, as well as 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. Luannan Thermal Power Plant and Deyuan Solar Farm in China, PT Trubaindo Coal Mining (TCM) in Indonesia and Mandalong Coal Mine in Australia).
- Verifying data and information remotely, via online meetings, for a selection of Banpu's subsidiary companies' (i.e. Temple I and Temple II natural gas-based power plant of Thermal Power Business in the USA, and Nepa & Barnette site of Gas Business in the USA, and Nhanhai Solar Farm (LCE-NH) of Renewable Business in Vietnam).
- 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, instead of engaging with stakeholders through a questionnaire used solely for the purpose of this Sustainability Report, Banpu should also collect and analyse data which is continuously coming in via other engagement forums, such as focus groups, advisory meetings, seminars, etc., within each Business unit. These additional forums would ensure that stakeholder views and expectations are complete and representative of each and every Business unit.
- **Materiality:**
Banpu has established criteria for determining which issue is material by considering stakeholders' views and expectations, as well as global sustainability trends, and peers' sustainability strategies. These material issues have then been prioritised, used to set strategy, and influenced performance disclosures.



However, additional clarity on impact assessment criteria, thresholds and measures used in determining materiality would help reduce the potential for inconsistency in results due to variability in interpretation/judgement when applying these criteria.

- **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, pollutant load of discharged water of Centennial should be included in future reports. This will add to Banpu's responsiveness in addressing water related impacts.
- **Impact:**
Banpu has monitored, measured and been accountable for how their actions affect the broader ecosystems, as related to their material issues.
- **Reliability:**
Data management systems are established and centralised for the collection and calculation of data associated with the selected performance indicators.
However, more vigorous and systematic internal verification by each Business unit, and at the corporate level, will improve the reliability of reported data and information. Effectively this should prevent inconsistencies within data related to:
 - employees' man-hours in Monica IT system, finger scan and HR database of ITM (Coal Mining Business in Indonesia)
 - waste generated and especially general wastes and food waste of ITM (Coal Mining Business in Indonesia).

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 Hengsrirawat
LRQA Lead Verifier

Dated: 10 April 2024

On behalf of LRQA Group Limited.
LRQA (Thailand) Limited
No.252/123, Muang Thai – Phatra Complex Tower B, 26th Floor, Unit 252/123 (C),
Ratchadaphisek Road, Huaykwang Sub-District, Huaykwang District,
Bangkok, 10310 Thailand

LRQA reference: BGK00001007

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Sustainability
Report 2023