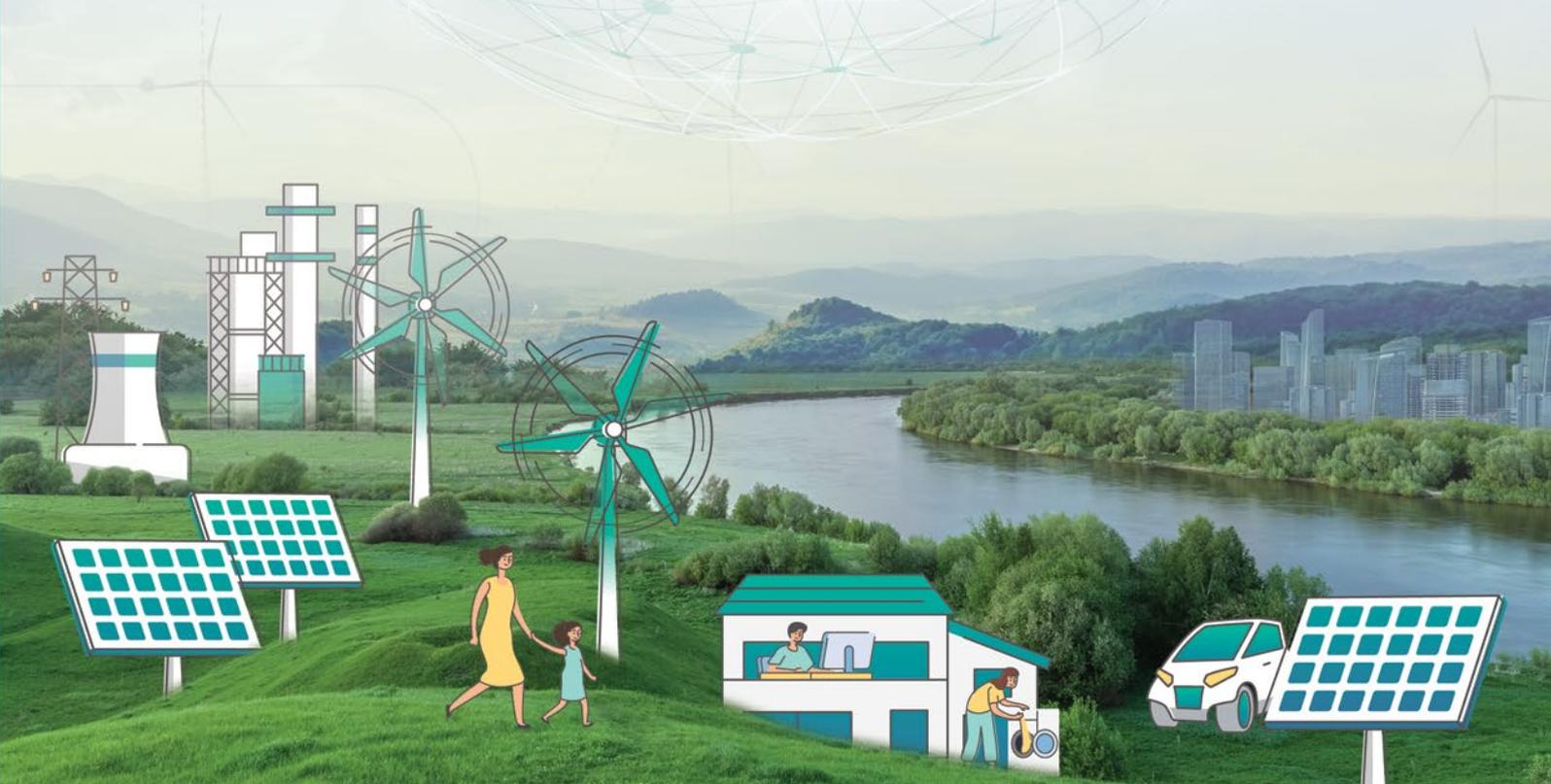


Annual Report 2022  
(Form 56-1 One Report)  
Banpu Power Public Company Limited

A large, semi-transparent wireframe globe is centered in the background. A green power plug icon is integrated into the letter 'Q' of the word "QUALITY".

# QUALITY MEGAWATTS

FOR SUSTAINABLE VALUE





# QUALITY MEGAWATTS FOR SUSTAINABLE VALUE

## BANPU POWER PUBLIC COMPANY LIMITED (BPP)

A leading power-generating company for a sustainable world with a balanced portfolio from both thermal power businesses and renewable power businesses across the Asia-Pacific region. BPP focuses on achieving continuous growth and expansion of quality megawatts capacity to 5,300 MW by 2025 according to the Greener & Smarter strategy to deliver sustainable value to all stakeholders.

## DRIVING CONTINUOUS GROWTH IN QUALITY MEGAWATTS ACCORDING TO THE ENERGY SUSTAINABILITY PRINCIPLE, OR “ARE”

### Affordable



Electricity  
is accessible to all.

### Reliable



Electricity is generated  
and distributed continuously.

### Eco-Friendly



Electricity  
that is environmentally-friendly.



## ACCELERATING THE TRANSITION TOWARD A GREENER AND SMARTER ENERGY GENERATION

BPP leverages Banpu Ecosystem, which comprises three core groups of businesses; Energy Resources, Energy Generation and Energy Technology. The Company also drives the growth of Energy Technology business through investment in Banpu NEXT Co., Ltd. to seize the opportunities in the power business in response to future energy trends throughout the power generation and distribution supply chain from upstream to downstream.

In 2022, BPP continued power generation and distribution that deploys High Efficiency, Low Emissions (HELE) technologies while expanding its renewable portfolio by investing in Mukawa and Shirakawa solar power plants in Japan, the solar power plants in Vietnam, the solar rooftop project operated by IBP in Indonesia, and the solar rooftop project in Zhengding County, China.

### THERMAL AND RENEWABLE POWER BUSINESSES



Equity-based Power  
Generation Capacity  
**3,337** MW

Thermal capacity 2,869 MW  
Renewable capacity 468 MW



BPP Operates  
**42**  
power plants/projects

40 are commercially operating with 3,161 MW equity-based power generation capacity.

### ENERGY TECHNOLOGY BUSINESSES OPERATED BY BANPU NEXT, A 50% OWNED SUBSIDIARY OF BANPU POWER



#### Solar Rooftop and Floating Business

Equity-based generation capacity of  
205 MW<sup>1</sup>



#### Energy Storage Systems Business

Forming a joint venture with partners to develop an energy storage system and establishing a battery assembly plant in Thailand with a target capacity of 1,719 GWh<sup>1</sup>



#### Smart Cities & Energy Management Business

Operating 20 smart city  
and energy management projects



#### E-Mobility Business

- Ride-sharing service with Muvmi electric tuk-tuks
- Car-sharing service
- EV charger management service.
- Aftersales services by Beyond Green Co., Ltd.



#### Energy Trading Business

Overseas energy trading with a capacity of 1.0 GWh<sup>1</sup>

**Being firmly committed to its standpoint: “We ARE Power for the Sustainable World,”**

**BPP aims to improve and scale up business operation efficiency to achieve growth in quality megawatts. It also embraces ESG principles and supports the Sustainable Development Goals of the United Nations. As a result, BPP has been included on Thailand Sustainability Investment (THSI) list for the fifth consecutive year and has been granted the Commended Sustainability Award by the Stock Exchange of Thailand (SET).**

Notes: <sup>1</sup>The figures represent 100% capacity.



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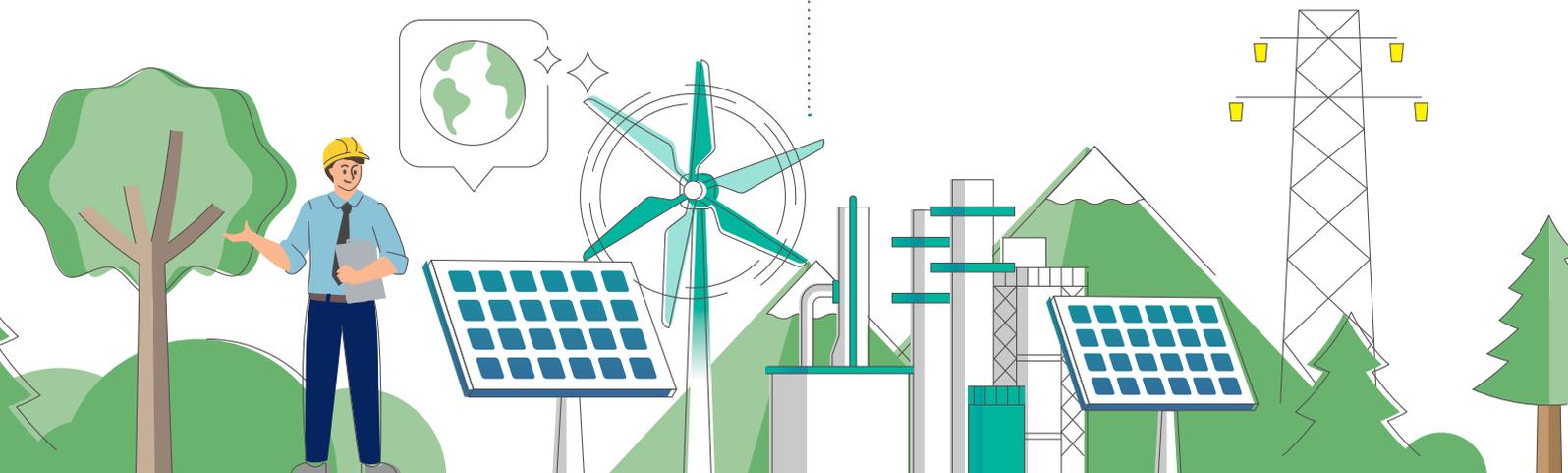
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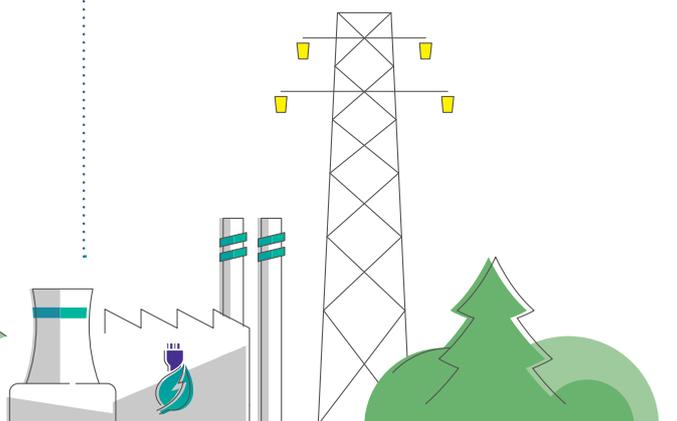
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In case this Annual Report (Form 56-1 One Report) refers to the information disclosed on the Company's website, the disclosed information shall be deemed a part of Form 56-1 One Report. The Board of Directors certifies the correctness and completeness of the disclosed information and information disclosed in Form 56-1 One Report alike.



# Financial Highlights



## 77,665

THB million

Total Assets



## 1.88

THB

Earnings per Share



## 52,792

THB million

Total Shareholders' Equity



## 0.24

Times

Net Debt to Equity

		For the year ended 31 Dec		
		2022	2021	2020
<b>Financial Position</b>				
Total Assets	(THB million)	77,665	74,867	49,563
Total Liabilities	(THB million)	24,873	25,287	7,585
Total Shareholders' Equity	(THB million)	52,792	49,579	41,978
Issued and Paid-up share Capital	(THB million)	30,477	30,477	30,510
<b>Operational Results</b>				
Sale Revenues	(THB million)	24,501	6,784	5,506
Cost of Sales	(THB million)	(22,090)	(6,824)	(4,391)
Gross Profit	(THB million)	2,411	(40)	1,114
Administrative Expenses	(THB million)	1,880	(1,103)	(1,527)
Dividend Income from Other Company	(THB million)	-	-	-
Management Fee and Others	(THB million)	548	652	647
Interest Income	(THB million)	357	381	374
Net Gain (Loss) on Financial Instrument	(THB million)	(662)	241	4
Net Gain (Loss) on Exchange Rate	(THB million)	(27)	375	148
Interest Expenses	(THB million)	891	(246)	(236)
Other Financial Charges	(THB million)	(6)	(4)	(7)
Share of Profit from Joint Ventures	(THB million)	6,350	2,974	3,565
Income Taxes	(THB million)	(45)	(57)	(300)
Profit for the Year	(THB million)	6,150	3,174	3,783



**24,501** THB million

Sale Revenues



**6,350** THB million

Share of Profit  
from Joint Ventures



**9,124** THB million

EBITDA



**5,739** THB million

Profit Attributable  
to Owners of the Company

		For the year ended 31 Dec		
		2022	2021	2020
<b>Operational Results (Continued)</b>				
Profit Attributable to Non-Controlling Interests	(THB million)	(411)	(47)	(81)
Profit Attributable to Owners of the Company	(THB million)	5,739	3,127	3,702
EBITDA	(THB million)	9,124	3,407	5,230
<b>Financial Ratios</b>				
Gross Profit Margin	(Percent)	10	(1)	20
Net Profits to Total Revenues	(Percent)	18	28	36
Returns on Assets	(Percent)	8	5	8
Returns on Equity	(Percent)	11	7	9
Interest Coverage Ratio	(Times)	1.90	(0.69)	4.55
Net Debt to Equity	(Times)	0.24	0.28	0.07
<b>Data per Share</b>				
Earnings per Share	(THB)	1.88	1.03	1.21
Book Value per Share	(THB)	17.32	16.27	13.76
Dividend per Share	(THB)	0.70	0.65	0.65

\* The Company announced a total dividend of THB 0.70 per share arising from its performance during the period from 1 January 2022 to 31 December 2022, of which THB 0.40 was paid on 26 September 2022. The remaining dividend of THB 0.30 per share for 2022 performance will be paid on 26 April 2023.

**Remark** Financial figures and financial ratios are based on the consolidated financial statement.

# Operating Results

	For the year ending		
	2022	2021	2020
<b>Sales volume</b>			
<b>Power sold</b> (GWh)			
Zhengding power plant	285.08	312.68	414.85
Luannan power plant	463.54	537.65	708.75
Zouping power plant	340.80	328.73	439.60
Temple I power plant <sup>1</sup>	3810.30	417.23	-
Solar China <sup>2</sup>	-	-	24.92
<b>Total power sold</b>	<b>4,899.71</b>	<b>1,596.30</b>	<b>1,588.12</b>
<b>Steam sold</b> (Million tonnes)			
Zhengding power plant	0.60	0.60	0.77
Luannan power plant	2.83	3.10	2.22
Zouping power plant	1.79	1.75	2.34
<b>Total steam sold</b>	<b>5.22</b>	<b>5.45</b>	<b>5.33</b>
<b>Total revenue</b> (THB million)			
<b>Revenue from power sold</b>			
Zhengding power plant	598.93	530.68	643.19
Luannan power plant	966.33	918.07	1,090.27
Zouping power plant	805.98	698.01	836.00
Temple I power plant	17,584.54	672.52	-
Solar China	-	-	89.24
<b>Total revenue from power sold</b>	<b>19,955.78</b>	<b>2,819.28</b>	<b>2,658.70</b>
<b>Revenue from steam sold</b>			
Zhengding power plant	466.51	358.42	369.34
Luannan power plant	1,755.79	1,683.21	940.07
Zouping power plant	1,808.76	1,465.47	975.52
<b>Total revenue from steam sold</b>	<b>4,031.06</b>	<b>3,507.09</b>	<b>2,284.93</b>
<b>Other income</b> <sup>3</sup>	<b>514.36</b>	<b>458.12</b>	<b>433.87</b>
<b>Revenue from energy trading in Japan</b> <sup>2</sup>	<b>-</b>	<b>-</b>	<b>128.01</b>
<b>Total revenue</b>	<b>24,501.21</b>	<b>6,784.50</b>	<b>5,505.51</b>



		For the year ending		
		2022	2021	2020
<b>Equity income</b>	<b>(THB million)</b>			
BLCP power plant		579.58	214.90	543.32
HPC power plant		3,691.33	3,611.71	3,222.61
Shanxi Lu Guang power plant		(289.90)	(541.54)	76.07
Nakoso power plant <sup>4</sup>		267.16	210.43	-
Solar Japan		-	-	12.93
Renewable & energy technology businesses under Banpu NEXT Co., Ltd. <sup>5</sup>		2,101.55	(521.02)	(289.56)
<b>Total Equity income</b>		<b>6,349.72</b>	<b>2,974.48</b>	<b>3,565.39</b>
<b>Gross profit margin</b>	<b>(%)</b>			
Zhengding power plant		(19)	(8)	16
Luannan power plant		(6)	1	25
Zouping power plant		6	3	18
Temple I power plant		16	(6)	-
Solar China		-	-	47
Energy trading in Japan		-	-	11
<b>Total gross profit margin</b>		<b>10</b>	<b>(1)</b>	<b>20</b>

**Remark:** <sup>1</sup> The Company has invested in Temple I power plant with 768-MW capacity located in Texas, the United States on 1 Nov 2021. Therefore, the performance in 2021 of Temple I represented performance for the period of 1 November - 31 December 2021.

<sup>2</sup> As a result after the completion of business amalgamation of renewable and energy Technology businesses to form Banpu NEXT in which BPP held 50% ownership on 28 February 2020, BPP changed from consolidating performance of Sola China and Energy Trading Japan as subsidiaries, to be taking profit sharing from Banpu NEXT as an associate. Therefore, the performance in 2020 of solar operations in China and energy trading in Japan represented performance from 1 January - 28 February 2020.

<sup>3</sup> Other income includes revenues from hot water and cold water.

<sup>4</sup> Nakoso power plant started Commercial Operation Date on 16 April 2021. Therefore, the performance in 2021 of Nakoso power plant represented performance from 16 April - 31 December 2021.

<sup>5</sup> In 2022, Renewable & Energy technology business under Banpu NEXT Co., Ltd. recorded an extraordinary item from a gain of 2,850 THB million on the divestment of Sunseap Group Pte, Ltd.



# Board of Directors' Review

## Dear Shareholders,

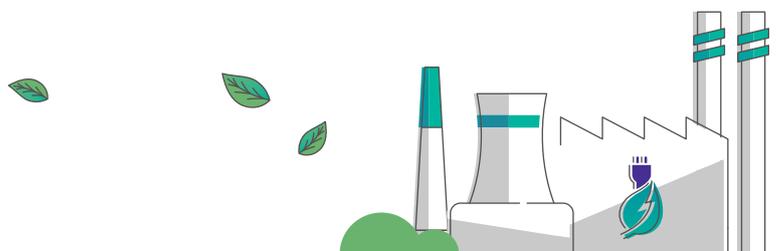
In 2022, many businesses faced challenges triggered by economic, political, and social factors, most notably the political conflict in Europe, which escalated into energy price volatility and a long-lasting global energy crisis with a vast impact. Banpu Power Public Company Limited (BPP), one of the leading power generation and distribution companies in the Asia-Pacific region, thus implemented strategies to meet electricity demands with stability and create sustainable value for all stakeholders. The Board of Directors attaches great importance to corporate governance to maintain good governance, thus requiring the management to apply risk management principles and Business Continuity Management (BCM) system in order to ensure prudent management and minimize impacts on the Company. BPP has deployed BCM as an operational framework in all countries where it operates and worked closely with local partners and government agencies in each country. With improved corporate governance, risk management in power generation, and prudent investment, we could effectively cope with the challenges, especially fuel price volatility.

Aiming to achieve power generating capacity of 5,300 MW by 2025 from thermal and renewable energy businesses, BPP is driving continued growth through investments in high-quality assets in line with the Greener & Smarter strategy. The Company balances its investments in under-construction and commercially-operational power plants to ensure stable cash flows and delivery of affordable, reliable, and eco-friendly electricity. In addition, BPP creates synergy among the Banpu group's companies by leveraging the Banpu Ecosystem to further expand its energy generation and energy technology businesses to respond to future energy trends and satisfy modern consumers' lifestyle preferences, while being environmentally-friendly and sustainably improving people's quality of life.

Another critical contributing factor to BPP's target achievement is "Human Resources." Hence, the Board prioritizes the recruitment of competent and knowledgeable independent directors whose qualifications are consistent with our business direction. In the past year, the Board appointed an independent director with expertise in engineering and power plants, which increased the proportion of independent directors to more than half of the Board, higher than the SET's and the SEC's requirements. This well reflects that the Board stresses independence in corporate governance. In addition, the Board supports capacity building for senior executives and employees so that

they have knowledge, capability, and agility to changing global situations. We have developed programs and training to enhance essential skills and improve their performance. We also encourage job rotation to help employees gain hands-on and diverse experience as well as create a positive work environment to attract talented employees.

In order to create a sustainable growth of BPP, the Board of Directors attaches great importance to integrating Environmental, Social, and Governance (ESG) principles into business operations in all host countries. We have set Sustainability Development Policy and targets aiming to improve competitiveness and create value for all stakeholders since we realize that superior ESG execution can contribute to sustainable growth. As a result of our ESG commitment in business operations, we were granted the "Commended Sustainability Awards" from the 2022 SET Awards. We were also selected to be on Thailand Sustainability Investment (THSI) list for the fifth consecutive year and included in the Sustainability Yearbook 2022 based on sustainability performance assessed by S&P Global Inc. These awards and recognitions reaffirm our efforts and success in driving growth according to the ESG principles to generate steady and favorable returns for shareholders and create sustainable value for all stakeholders.



“ In order to create a sustainable growth of BPP, the Board of Directors attaches great importance to integrating Environmental, Social, and Governance (ESG) principles into business operations in all host countries. We have set Sustainability Development Policy and targets aiming to improve competitiveness and create value for all stakeholders since we realize that superior ESG execution can contribute to sustainable growth. ”

Additionally, the Board of Directors promotes the implementation of the Anti-Corruption Policy, Whistleblower Policy, and Whistleblower Protection, as well as adherence to good corporate governance principles. Because of these actions, BPP was recertified as a member of Thai Private Sector Collective Action Against Corruption (CAC) and received Excellence CG Scoring on the Corporate Governance Report of Thai Listed Companies (CGR) surveyed by the Thai Institute of Directors Association (IOD). We also received the 2021 ASEAN CG Scorecard Award in the category of the ASEAN Asset Class PLCs based on the ASEAN Corporate Governance Scorecard (ACGS).

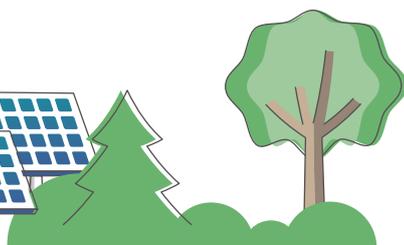
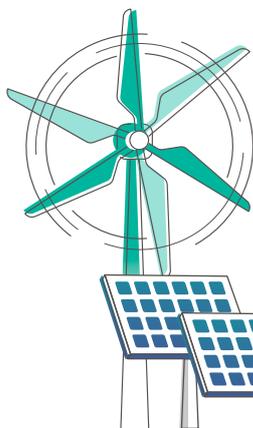
Achievements throughout 2022 reiterate BPP's position as one of the leading power generation and distribution companies in the Asia-Pacific region. All of this has been borne out of the collaboration of the Board of Directors, the management, employees in all countries, and stakeholders' continued support and trust in BPP. As the Board of Directors, we pledge to fulfill our duties with utmost dedication and capability to strengthen BPP's business operations and maintain sustainable growth. We are also committed to business integrity and best practices to ensure quality electricity

supply, create stable and sustainable value for all sectors, and drive consistent economic development in all countries where we operate.



**Assoc. Prof. Dr. Naris Chaiyasoot**

Chairman of the Board of Directors



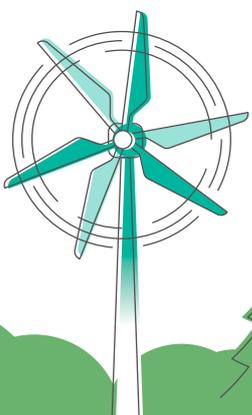
# Chief Executive Officer's Review

## Dear Shareholders,

Throughout 2022, Banpu Power Public Company Limited (BPP) continued to create solid growth in power generation and distribution business in line with the Greener & Smarter strategy to transform itself into a greener and smarter power provider, despite various challenges ranging from the global economic recession, energy crisis, and volatile fuel prices. As a quality power generating company for a sustainable world, BPP prioritizes improving energy security by continually increasing power capacity for reliable delivery to meet the growing power demand. BPP's business expansion focuses on two areas. Firstly, we balance business expansion in the potential countries of the Banpu ecosystem, both in the thermal power business portfolio, which is extremely important to ensure the continuity of electricity supply, and in the renewable power business portfolio, which addresses the future global energy trends. Secondly, we put in place an effective Business Continuity Management (BCM), particularly risk management in power generation, both in terms of cost management and the use of digital technology to improve power plant operation. These two areas allow BPP to adapt to changes with flexibility, continuous delivery of electricity, and increased production of quality electricity or "Quality Megawatts" as planned.

BPP's expansion of quality megawatts is in line with the energy sustainability principle comprising ARE attributes: Affordable, Reliable, and Eco-friendly. In addition, BPP considers Environmental, Social, and Governance (ESG) principles in every process of our operations and in every country where we operate. In 2022, we improved four sustainability policies, namely Environment Policy, Water Management Policy, Biodiversity Policy, and Occupational Health and Safety Policy, to ensure that all business units are capable of creating value for all stakeholders, competitive, with appropriate risk management, and capable of adapting to changes and growing sustainably.

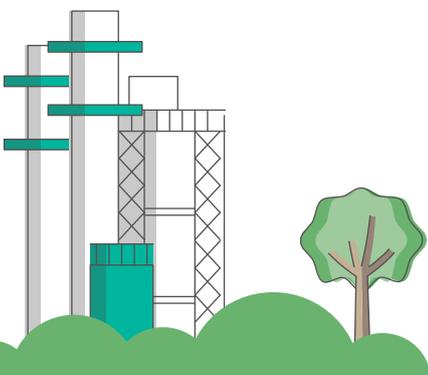
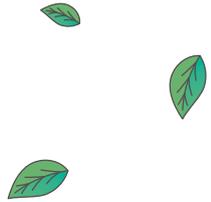
In the past year, TRIS Rating affirmed BPP's credit rating at A+, reflecting our stable power generation capacity, financial strength, and good profit-making profile from investments in the power business. Our diverse power portfolio includes over 40 projects in the Asia-Pacific. We focus on maintaining a balance between thermal power generation that deploys High Efficiency, Low Emissions (HELE) technologies and renewable power generation while continuing to drive growth of energy technology.



“ BPP is driving the transition toward a greener and smarter energy generation to achieve the generation capacity target of 5,300 MW by 2025 in line with the Greener & Smarter strategy. With the dedication and expertise of our employees, we will continuously strive to achieve our mission of expanding the power generation and distribution business, as well as propelling the growth of the energy technology business in both our host countries as well as countries with high-growth potential to deliver sustainable returns for all our stakeholders. ”



**Dr. Kirana Limpaphayom**  
Chief Executive Officer



## Summary of Operating Results 2022

In 2022, BPP owned 42 power plants/projects with total equity-based power and steam capacity of 3,161 MW from operating power plants and 176 MW from under-development projects. Throughout the year, we remained dedicated to ensuring energy stability by maintaining the availability of the power generationsystem of each power plant and the continuous and stable distribution of electricity. For instance, the HPC power plant realized increased profit share from efficient operations while the three Combined Heat and Power Plants (CHPs) in China enjoyed increased steam sales volume and price due to the recovery in demand from some industrial customers. Similarly, the Shanxi Lu Guang power plant had increased electricity sales volume and price from the initial sales in the wholesale electricity market. In addition, a long-term coal purchase agreement at a reasonable price led to a significant reduction in coal costs. The Temple I CCGT gas-fired power plant in the U.S. has also demonstrated outstanding performance due to increased electricity demand, pushing the purchase and sale prices up, plus an opportunity to make a profit in generating and distributing electricity from selling in the merchant market. In addition, the power plant generated revenue from forward contracts to manage risk and ensure favorable returns and stable cash flows.

Regarding capacity expansion, BPP started commercial operation of the Shirakawa Solar Power Plant in Japan and made more investments in solar power plants in Vietnam. In addition, the Vinh Chau wind farm project in Vietnam is applying for an electricity generation license, which is expected to complete by 2023. The Zhengding CHP power plant was also selected to develop a solar rooftop project in Zhengding, China.

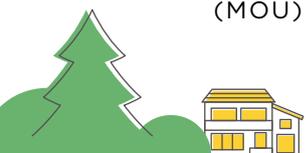
In addition to expanding power generation capacity, BPP also focuses on maintaining the operational efficiency of all power plants. In particular, we have established maintenance plans and adjusted our mode of operation as appropriate to maintain operational capacity during times of volatility. We have also implemented cost control measures, particularly in response to rising raw material costs over the past year. Moreover, our employees, both at our headquarters and in all our country offices across the world, work together to understand the new markets where BPP has invested, such as the United States, in order to ensure seamless operations and identify investment opportunities that enable us to grow sustainably.

BPP continued driving the growth of renewable energy and energy technology businesses through investments in Banpu NEXT. In 2022, we invested in Solar Esco Joint Stock Company, Vietnam's leading renewable energy company that provides an integrated solar rooftop platform service, to expand the energy technology business in Vietnam. Furthermore, we signed a Memorandum of Understanding (MOU) with Cherdchai Motors Sales and

Durapower to establish a lithium-Ion battery assembly plant in Thailand, with a targeted capacity of 1 GWh by 2026, which will support the growth of our energy technology business. We also invested Altotech Global Co., Ltd., a developer of an IoT energy management platform for buildings and hotels.

In 2022, BPP reported a net profit of THB 5,739 million. The gains were attributed to the HPC power plant's efficient operations that continued to profit, shared profit from the divestment of Sunseap Group, and the Temple I CCGT gas-fired power plant in the U.S., which we acquired in late 2021. BPP recorded an EBITDA of THB 9,124 million. The consolidated revenue for 2022 was reported at THB 24,501 million, a 261% increase over the previous year. The performance was mainly from Temple I CCGT gas-fired power plant, THB 17,585 million, which started realizing a full year of revenue. It could sell large quantities at high prices, especially during the summer months of Texas when electricity consumption soared and reported a gross profit of THB 2,735 million. The three combined heat and power plants (CHPs) in China had a combined revenue of THB 6,917 million, increasing THB 805 million from the previous year, thanks to a 21% increase in electricity tariff after joining the wholesale electricity market in late 2021 and increased steam sale price as a result of negotiations with industrial customers.

BPP realized the share of profit from its joint ventures at THB 6,350 million. The HPC power plant reported a THB 3,401 million share of profit, with a high Equivalent Availability Factor (EAF) at 86% as a result of an effective maintenance plan. If factoring in unrealized



exchange rate gains, the HPC power plant would report a THB 3,691 million share of profit. BLCPP power plant reported its share of profit of THB 764 million, with a high Equivalent Availability Factor (EAF) at 87%. After recognizing deferred tax charges and the effect of an unrealized loss on the translation of foreign currency, the BLCPP power plant would report a THB 580 share of profit. Nakoso IGCC power plant in Japan reported its share of profit of THB 267 million. Shanxi Lu Guang power plant in China reported its share of loss of THB 290 million owing to high coal costs in the first half of 2022. However, the Shanxi Lu Guang power plant successfully concluded a long-term coal purchase agreement at a reasonable price for the second half of 2022

## Strategies and Future Directions

BPP is driving the transition toward a greener and smarter energy generation to achieve the generation capacity target of 5,300 MW by 2025 in line with the Greener & Smarter strategy through the three following strategies: 1. Leverage synergies across Banpu Ecosystem to further expand energy generation business in countries where Banpu has operations and to seek opportunities for expanding quality megawatts in high-potential countries with a merchant market, especially in the U.S. where BPP has a robust ecosystem with natural gas sources and power plants. The U.S. is also a merchant market with the potential to generate good profits through higher electricity prices during periods of high electricity demand, with an opportunity to expand into a related value chain, such as energy trading and retail electricity; 2. Seek investment opportunities in Asia-Pacific countries with high economic growth and electricity demand through balancing investments in commercially and under development projects with an aim to

and enjoyed increased electricity sale volume and price in the wholesale market, resulting in the improvement of its performance by THB 252 million compared to last year. Meanwhile, renewable and energy technology businesses invested through Banpu NEXT reported a share of profit of THB 2,102 million, mainly from the divestment of Sunseap Group.

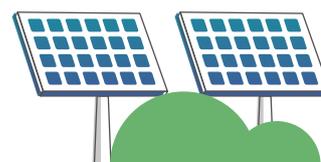
In June 2022, we offered debentures to institutional and high-net-worth investors, which were fully subscribed with a total value of THB 5,500 million, reflecting investors' strong trust in BPP as a leader in the power generation and distribution industry with capacity and potential for sustainable growth.

generate constant cash flow, focusing on deploying HELE technologies in thermal power business to deliver affordable, reliable, and eco-friendly electricity; and 3. Drive growth of renewable energy and energy technology businesses through investment in Banpu NEXT to expand business opportunities in new markets and to harness innovations in developing BPP's power generation.

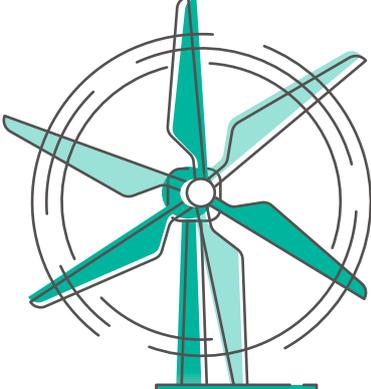
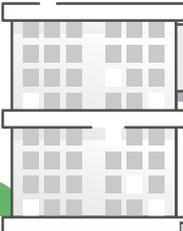
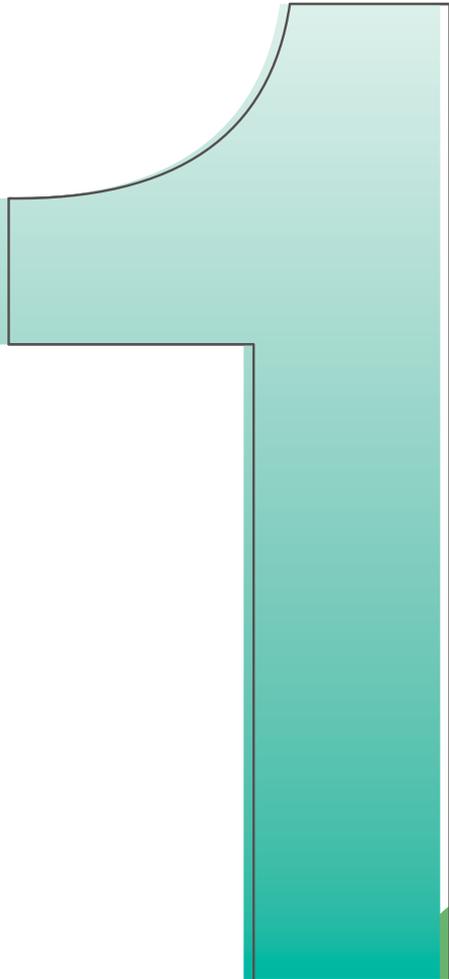
BPP is committed to pursuing continuous and sustainable business growth and being a good corporate citizen in all the locations where we operate. With the unwavering support and trust of our stakeholders and the dedication and expertise of our employees, we will strive to achieve our mission of expanding the power generation and distribution business, as well as propelling the growth of the energy technology business in both our host countries as well as countries with high-growth potential to deliver sustainable returns for all our stakeholders.

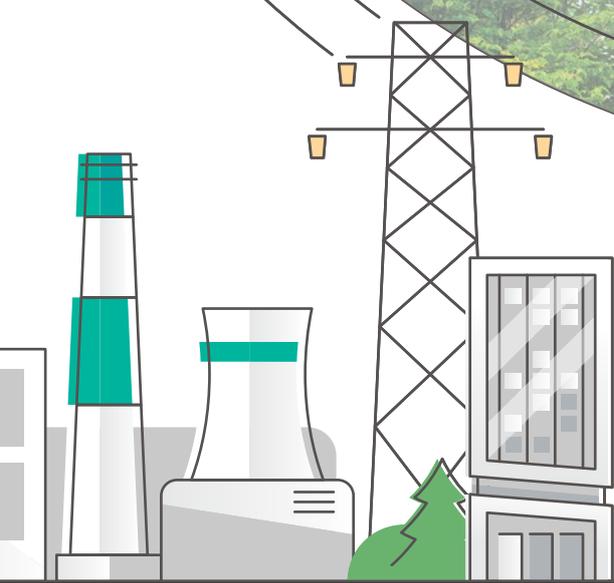


**QUALITY  
MEGAWATTS**  
FOR SUSTAINABLE VALUE



# Section





## **Business Operation and Performance**

# Group Structure and Business Operations

## Policy and Business Overview



Banpu Power Public Company Limited or BPP, a leading power-generating company for a sustainable world with a balanced portfolio from both thermal power businesses and renewable power businesses across the Asia-Pacific region, was established in 1996 as a subsidiary of Banpu Public Company Limited and was listed on the Stock Exchange of Thailand (SET) in 2016. Throughout the past 26 years, BPP has been driving business growth through the expansion of power generation capacity according the Greener & Smarter strategy by expertise in the power generation business and leveraging the synergies across Banpu group. The Company continues to expand its knowledge base in the energy businesses, seek new investment opportunities, and add more value to the power generation businesses. It has developed and sought innovations to achieve power generation efficiency, with the deployment of High Efficiency, Low Emissions (HELE) technologies that are safe and environmentally sound to sustainably be a leader in power generation and distribution in the region.

Since 2016, BPP has planned to achieve the target of 5,300 MWe capacity by 2025. The Company has the policy to generate growth in its power generation and distribution businesses in response to the energy demand of each country where it operates. The Company capitalizes on Banpu's business ecosystem in the countries where it operates. Meanwhile, the Company also seeks investment opportunities in fast-growing countries with high energy demands. It focuses on investing in operating assets which can provide immediate cashflow to the Company. BPP has also drives the growth in renewable energy and energy technology businesses through investment in Banpu NEXT. As of 31 December 2022, BPP owns 42 power plants/projects. The Company's total equity-based power generation capacity by power plants that achieved commercial operation date (COD) amounted to 3,161 MWe, with an unrealized capacity of 176 MW from under development

projects. In 2022, BPP achieved COD Shirakawa solar farm in Japan and invested in the solar farms in Vietnam. The Company was also chosen to develop the solar rooftop project in Zhengding county, China.

BPP aims to create growth in the power generation and distribution businesses to sustainably deliver affordable, reliable, and eco-friendly energy to society and the community. The Company also adheres to fairness and transparency in all business operations. It develops businesses that create sustainable value for all stakeholders in accordance with Environmental, Social, and Governance (ESG) principles to maintain a balance within three dimensions of business growth, socio-economic development, and care for the community and the environment. Ultimately, BPP also acts as a good corporate citizen in every country where it operates.



# Vision

“ To be recognized as a pioneer Asian power company with a strong reputation for sustainable development, friendly community relations, and respect for the natural environment ”



# Mission



To develop, own, and operate both thermal and renewable power businesses using the most efficient technologies available for sustainable growth in pursuit of a position of leadership in Asia



To conduct all business in an ethically, socially, and environmentally responsible manner



To create sustainable value for shareholders, customers, business partners, employees, and communities while being a good corporate citizen in all countries of operations

## Summary of Major Changes and Developments in the Past Year



### 16 January 2022

Banpu Renewable Singapore Pte. Ltd. (BRS), a subsidiary of Banpu NEXT Co., Ltd. (Banpu NEXT), an associated company in which BPP owns 50% of the shares, announced the commercial operation of the Shirakawa solar power plant. Located in Fukushima Prefecture, Japan. The power plant has a capacity of 10 MW and is under a 100% TK investment structure. It also entered into a power purchase agreement with Tohoku Electric Power Co., Inc., with a Feed-in-Tariff (FIT) of 36 JPY/kWh for a period of 19 years. This power plant can generate and supply electricity to a community of approximately 2,000 households.



### 25 January 2022

BRE Singapore Pte. Ltd. (BRES), a subsidiary of Banpu NEXT, entered into a purchase and sale agreement for the acquisition of 100% of Licogi 16 Gia Lai Investment Renewable Energy Joint Stock Company (LCE Gia Lai), a shareholder of Chu Ngoc solar power plant and Licogi 16 Ninh Thuan Investment Renewable Energy Joint Stock Company (LCE Ninh Thuan), a shareholder of Nhon Hai solar power plant in the Socialist Republic of Vietnam. The transaction value was USD 26.69 million, or approximately THB 883 million. (BPP's investment based on its equity in Banpu NEXT amounted to USD 13.35 million or approximately THB 442 million.) The 15-MW Chu Ngoc solar power plant and the 35-MW Nhon Hai solar power plant achieved commercial operation dates on 4 June 2019 and 6 July 2020, respectively. Both power plants are eligible for the Feed-in-Tariff (FIT) of US cents 9.35/kWh and will supply electricity through the national grid system under a power purchase agreement (PPA) with Vietnam Electricity (EVN) for a period of 20 years.



### 23 February 2022

- The Board of Directors approved the Company's dividend payment at the rate of THB 0.65 per share for the 2021 operating results for the period 1 January - 31 December 2021. Previously, an interim dividend was paid out to shareholders at a rate of THB 0.30 per share on 21 September 2021. The remaining dividend for the 2021 operating profits was to be paid out to the shareholders at a rate of THB 0.35 per share. The dividend payment was appropriated from the corporate income tax-exempted profit, on which shareholders are not entitled to tax credits, and paid out on 27 April 2022.
- BPINI Investment Co., Ltd. (BPINI), a subsidiary of Banpu NEXT, sold all of its 47.5% shares in Sunseap Group Pte. Ltd. (Sunseap) to EDP Renováveis SA (EDPR). Following the completion of the relevant adjustments, the final gross consideration paid to BPINI was SGD 469.2 million, equivalent to USD 347.5 million (or approximately THB 11,363 million). BPINI made its initial investment in Sunseap in 2017, with further investments in 2018 and 2020. As of 30 June 2021, BPINI reported an SGD 236.6 million investment in Sunseap, equivalent to USD 174 million (or approximately THB 5,569 million). This transaction is regarded as part of the Group's portfolio rationalization.



### 4 March 2022

BRES signed a Share Subscription Agreement (SSA) to purchase 49.04% of shares in Solar Esco Joint Stock (Solar Esco), a company that was established and is operating under Vietnam's law, from the former shareholder. The transaction value was USD 14.5 million (approximately THB 466 million). Solar Esco is a market leader in the renewable energy sector in Vietnam, providing planning, development, engineering, procurement, and construction (EPC) as well as operation and maintenance (O&M) services for diverse customers, from shopping malls and industrial facilities to warehouses. Its capacity is 20.4 MW, with an additional 106 MW under development.

### 10 June 2022

The Company issued THB 5,500 million of unsubordinated and unsecured debentures with a debenture holders' representative in the name-registered certificate in four tranches with a maturity date of 4 years, 7 years, 10 years and 12 years, and annual interest rate of 3.10%, 4.00%, 4.35%, and 4.60% respectively. The debentures were offered to institutional and high net worth investors, and the principal will be repaid on the maturity date.

### 28 June 2022

Mr. Sinon Vongkusolkit was appointed as Chief Executive Officer of Banpu NEXT Co., Ltd.

### 26 August 2022

The Board of Directors Meeting approved the interim dividend payment from accumulated profits and operating results for the six months ending 30 June 2022 at a rate of THB 0.40 per share for 3,047,731,700 shares, totaling THB 1,219.09 million. The interim dividend was paid on 26 September 2022.

### 22 February 2023

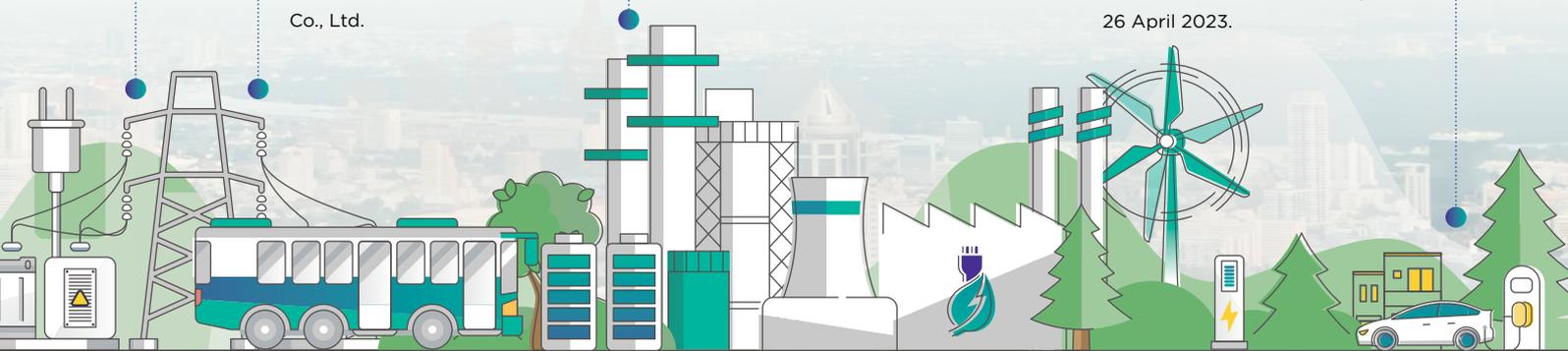
The Board of Directors Meeting approved the Company's dividend payment at a rate of THB 0.70 per share for the 2022 operating results for the period 1 January to 31 December 2022. An interim dividend was paid to shareholders at a rate of THB 0.40 per share on 26 September 2022. The remaining dividend for the operating profits was proposed to be paid out to the shareholders at a rate of THB 0.30 per share. The dividend payment was appropriated from the corporate income tax-exempted profit, on which shareholders are not entitled to tax credits. The dividend is scheduled to be paid on 26 April 2023.

### 21 July 2022

Banpu NEXT signed a Memorandum of Understanding with two leading business partners - Cherdchai Motor Sales Co., Ltd. (Cherdchai), Thailand's largest bus operator, and Durapower Holding Pte. Ltd., a world-leading provider of lithium-ion battery storage systems - to build a lithium-ion battery assembly plant in Thailand, expected to open in 2023. The lithium-ion battery is designed to support fast charging and high energy storage to maximize the driving range of Cherdchai's e-Buses and address battery demands in all EV segments in Thailand. The plant is expected to expand its production capacity to 1 GWh by 2026.

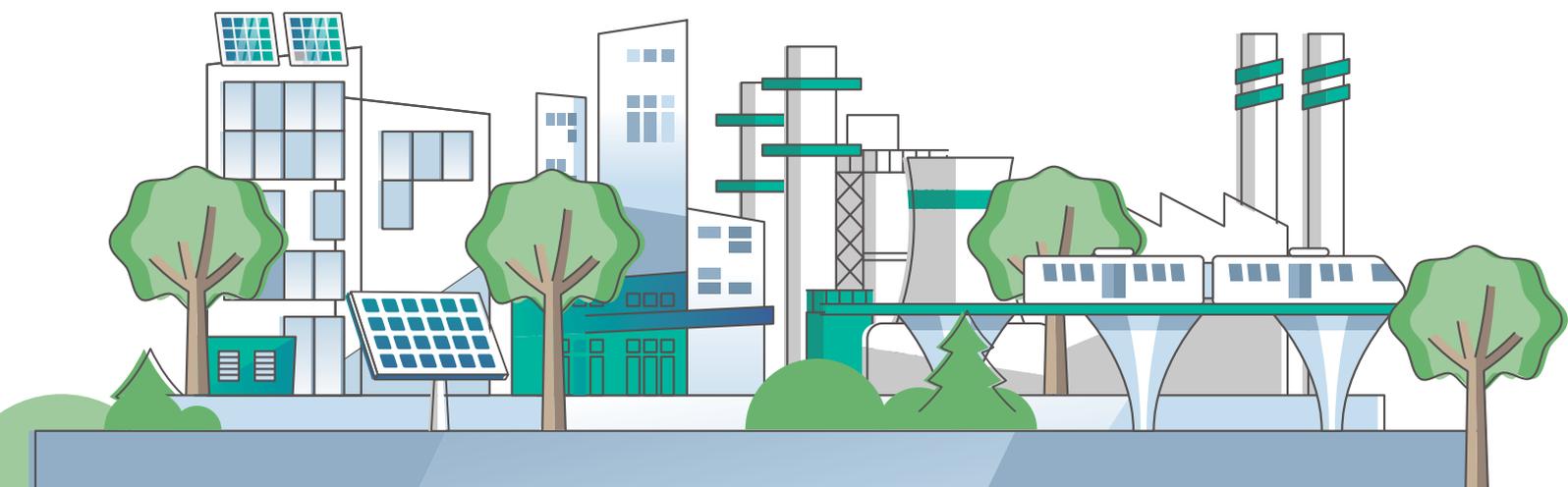
### 9 December 2022

TRIS Rating Co., Ltd. affirmed the Company rating and the rating of unsecured debentures of Banpu Power Public Company Limited or BPP at an "A+" with a "stable" outlook. The rating reflects BPP's robust financial status and stable cash flow resulting from its ability to maintain reliability in power generation and distribution at all of its power plants and effective management of energy price risk, which led to strong operating results. The Company continued to expand its business portfolio in line with the Greener & Smarter strategy to become a more environmentally-friendly integrated clean energy provider by increasing investment in gas-fired power plants, high-efficiency, low-emissions (HELE) power plants, renewable power plants, and the energy technology business.



## Name, Headquarters Location, Type of Business, Registration Number, and Number of Shares

<b>Name (Thai)</b>	:	บริษัท บ้านปู เพาเวอร์ จำกัด (มหาชน)
<b>Name (English)</b>	:	Banpu Power Public Company Limited
<b>Stock Symbol</b>	:	BPP
<b>Major Business</b>	:	A holding company running a major business in power generation and distribution and other related businesses
<b>Registration Number</b>	:	0107558000385
<b>Authorized Capital</b>	:	THB 31,012,020,000.00
<b>Paid-up Capital</b>	:	THB 30,477,317,000.00
<b>No. of Shares</b>	:	3,047,731,700 shares
<b>Par Value</b>	:	THB 10.00
<b>Headquarters Location</b>	:	26 <sup>th</sup> Floor, Thanapoom Tower, 1550 New Petchburi Road, Makkasan Subdistrict, Ratchathewi District, Bangkok 10400
<b>Telephone</b>	:	+66 2 007 6000
<b>Website</b>	:	<a href="http://www.banpupower.com">www.banpupower.com</a>
<b>Company Secretary</b>	:	Tel. : +66 2 007 6048 Email : <a href="mailto:bpp_comsec@banpupower.co.th">bpp_comsec@banpupower.co.th</a>
<b>Investor Relations</b>	:	Tel. : +66 2 007 6009 Email : <a href="mailto:investor_relations@banpupower.co.th">investor_relations@banpupower.co.th</a>



## Revenue Structure

For the previous 3 years ended 31 December

### Banpu Power Public Company Limited and its Subsidiaries

Products/Services	Conduct by	% of share-holding	2022		2021		2020	
			Revenue (THB Million)	%	Revenue (THB Million)	%	Revenue (THB Million)	%
<b>Sales Revenue</b>								
1. Power	BIC	100.00	2,371.24	9.68	2,146.76	31.64	2,569.46	46.67
	BPPRIC <sup>1</sup>	100.00	-	-	-	-	89.24	1.62
	BKV-BPP <sup>2</sup>	50.00	17,584.54	71.77	672.52	9.91	-	-
2. Steam	BIC	100.00	4,031.06	16.45	3,507.09	51.69	2,284.93	41.50
3. Energy Trading	BPPT G.K. <sup>1</sup>	100.00	-	-	-	-	128.01	2.33
4. Other Revenues <sup>3</sup>	BIC	100.00	514.36	2.10	458.12	6.75	433.87	7.88
<b>Total Sales Revenue</b>			<b>24,501.21</b>	<b>100.00</b>	<b>6,784.50</b>	<b>100.00</b>	<b>5,505.51</b>	<b>100.00</b>
<b>Share of profit (loss) of an associate and joint ventures (Equity Method)<sup>4</sup></b>			<b>6,349.72</b>		<b>2,974.48</b>		<b>3,565.39</b>	
<b>Total Revenues and Share of profit from Associated Companies</b>			<b>30,850.93</b>		<b>9,758.98</b>		<b>9,070.90</b>	

**Remark:** <sup>1</sup> BPPRIC is the 100% subsidiary of BPP, invested in Solar power business in China. BPPT G.K. is the 100% subsidiary of BPP, invested in Energy trading business in Japan, both subsidiaries were part of intra-group restructuring "Business amalgamation" and established Banpu NEXT Co., Ltd a flagship company for renewable & energy technology business on the 27th of February 2020 in which BPP hold 50% ownership. Therefore, after completion of amalgamation, the performance from BPPRIC and BPPT G.K. were reported as Profit (Loss) from Investment in Associated Companies (Equity Method) in Banpu NEXT Co., Ltd.

<sup>2</sup> BKV-BPP is an associated company of BPP, it is a Joint-venture between BPPUS (BPP's 100% subsidiary) and BKV (Banpu's 96.1 % subsidiary), equally held 50% shareholding. BKV-BPP invested in 100% ownership in Temple I gas-fired power plant in the US since November 2021. Therefore, BPP has realized Temple I financial performance in 2021 for 2 months from 1 November - 31 December 2021

<sup>3</sup> Other revenues primarily comprise of revenue from hot water and cold water as well as subsidies from the PRC government for compliance with environmental standards.

<sup>4</sup> The company does not recognize sales revenue from its associate and Joint Ventures of Power Business with a shareholding of equal to or less than 50% in its consolidated revenue, but will report as Share of profit (loss) of an associate and joint ventures (Equity Method), namely BLCP power plant, HPC power plant, Shanxi Lu Guang power plant, Nakoso IGCC, and Banpu NEXT Co., Ltd.

# Operation Map and Equity-based Power Capacity

## Thailand



### 1 Thermal Power Plant

- BLCP 717 MW



### Solar Rooftop Project: 35 MW

## Lao PDR



### 1 Thermal Power Plant

- HPC 751 MW

## China



### 3 Combined Heat and Power (CHP) Plants

- Luannan 246 MW
- Zhengdin 139 MW
- Zouping 163 MW



### 7 Solar Power Plants

- Huineng 11 MW
- Jinshan 14 MW
- Haoyuan 10 MW
- Hui'en 10 MW
- Deyuan 26 MW
- Xingyu 5 MW
- Jixin 13 MW



### 1 Thermal Power Plant

- Shanxi Lu Guang: 396 MW



### Solar Rooftop Project: 64 MW

## Japan



### 1 IGCC Power Plant

- Nakoso 73 MW



### 20 Solar Power Plants/Projects

- Olympia - Hitachi Omiya No.1 0.4 MW
- Olympia - Hitachi Omiya No.2 0.4 MW
- Olympia - Ozenosato - Katashina 0.4 MW
- Olympia - Sakura No.1 0.4 MW
- Olympia - Sakura No.2 0.4 MW
- Hino 1 MW
- Awaji 3 MW
- Mukawa 8 MW
- Nari Aizu 10 MW
- Kurokawa 9 MW
- Tenzan 1 MW
- Muroran 1 1 MW
- Muroran 2 1 MW
- Takeo 2 1 MW
- Yamagata 10 MW
- Yabuki 3 MW
- Kesenuma 10 MW
- Nihonmatsu 6 MW
- Shirakawa 5 MW
- Yamagata Iide 51 MW



### Solar Rooftop and Carport Project: 0.3 MW

## United States of America



### Vietnam



#### 2 Wind Power Plants/Projects

- El Wind Mui Dinh 19 MW
- Vinh Chau - Phase 1 15 MW
- Vinh Chau - Phase 2 & 3 25 MW



#### 3 Solar Power Plants

- Ha Tinh 25 MW
- Chu Ngoc 8 MW
- Nhon Hai 18 MW



#### Solar Rooftop Project: 31 MW

### Indonesia



#### Solar Rooftop Project: 1 MW

### Australia



#### 2 Solar Power Plants

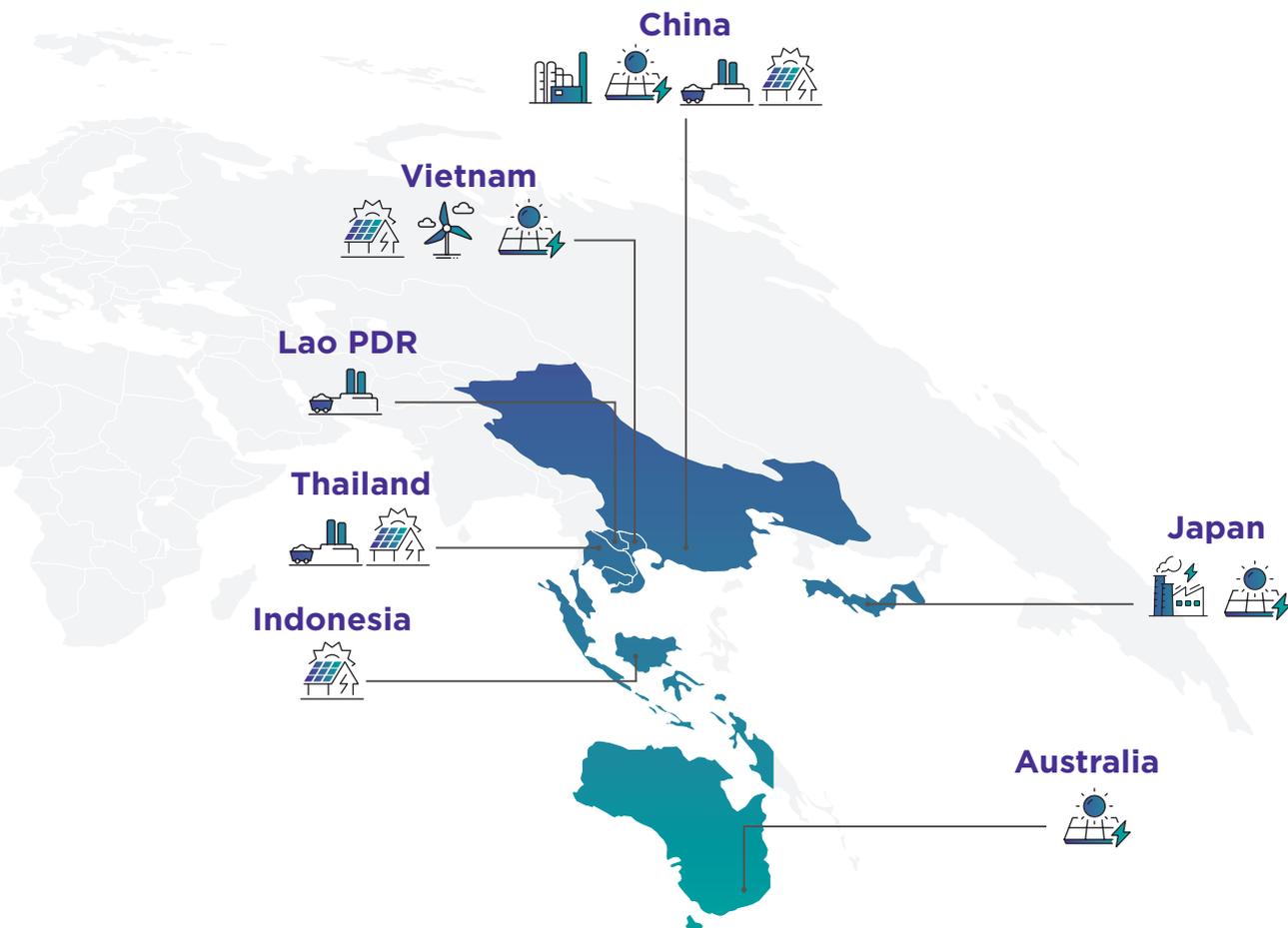
- Beryl 11 MW
- Manildra 6 MW

### United States of America



#### 1 Gas-Fired Power Plant

- Temple I 384 MW



## Information of Business Group

Banpu Power Public Company Limited or BPP, its subsidiaries, and its joint ventures currently operate power generation and distribution businesses, covering thermal power plants and renewable power plants, as well as energy technology businesses, as detailed below.

### 1. Thermal Power Plants

BPP has invested in coal-fired and natural gas-fired power plants which deploy the innovative high efficiency, low emissions (HELE) technology to enhance the quality and reliability of power generation. BPP currently operates 8 thermal power plants in the Asia-Pacific region and the United States.

#### 1.1) Banpu Power Investment Co., Ltd. (BPIC)

Banpu Power Investment Co., Ltd. (BPIC) is BPP’s wholly owned subsidiary registered in Singapore through Banpu Power International Limited (BPPI). BPIC invested in three Combined Heat and Power (CHP) plants in the northern region of China with a total installed capacity of 618 MWe, consisting of 348 MW of power and 1,508 TPH of steam. This is equivalent to 548 MWe equity-based capacity. The details are as follows:

#### Luannan Combined Heat and Power Plant

<b>Location</b>	Luannan County, Tangshan City, Hebei Province, China
<b>Shareholding Percentage</b>	Banpu Power Investment Co., Ltd. 100%
<b>Type and Technology</b>	A subcritical coal-fired CHP plant which generates both power and steam
<b>Generation Capacity</b>	150 MW of power and 538 TPH of steam, or a total installed capacity of 246 MWe
<b>Commercial Operation Date</b>	Phase 1: June 2001                      Phase 2: November 2018 Phase 3: December 2019
<b>Power and Steam Purchasers</b>	Generate and supply power to China’s power grid via wholesale power markets and/ or Hebei Electric Power Corporation’s power grid and generate and sell steam to Luannan County’s industrial and household sectors



## Zhengding Combined Heat and Power Plant

**Location** Zhengding County, Shijiazhuang City, Hebei Province, China

**Shareholding Percentage** Banpu Power Investment Co., Ltd. 100%

**Type and Technology** A subcritical coal-fired CHP plant which generates both power and steam



**Generation Capacity** 73 MW of power and 370 TPH of steam, or a total installed capacity of 139 MWe

**Commercial Operation Date** Phase 1: October 2000      Phase 2: November 2005  
Phase 3: January 2015

**Power and Steam Purchasers** Generate and supply power to China's power grid via wholesale power markets and/or to North China Grid Co., Ltd., and generate and sell steam to Zhengding County's industrial and household sectors

## Zouping Combined Heat and Power Plant

**Location** Zouping County, Binzhou City, Shandong Province, China

**Shareholding Percentage** Banpu Power Investment Co., Ltd. 70%  
Xiwang Group Co., Ltd. 30%

**Type and Technology** A subcritical coal-fired CHP plant which generates both power and steam



**Generation Capacity** 125 MW of power and 600 TPH of steam, or a total installed capacity of 233 MWe (163 MWe equity-based capacity)

**Commercial Operation Date** Phase 1: June 2001      Phase 2: October 2006  
Phase 3: December 2007      Phase 3: May 2017

**Power and Steam Purchasers** Generate and supply power and steam to Xiwang Group Co., Ltd.'s industrial estate

### 1.2) BLCP Power Limited

BLCP Power Limited is an independent power producer (IPP) who operates the BLCP power plant, a thermal power plant that uses high-quality bituminous coal as fuel. The BLCP power plant has been commercial operating for 16 years.

#### BLCP Power Plant

<b>Location</b>	Map Ta Phut Industrial Estate, Rayong Province, Thailand
<b>Shareholding Percentage</b>	Banpu Coal Power Limited 50% Electricity Generating Public Company Limited 50%
<b>Type and Technology</b>	A subcritical coal-fired power plant using bituminous coal as fuel
<b>Generation Capacity</b>	1,434 MW (717 MW equity-based capacity) from 2 production units of 717 MW each
<b>Commercial Operation Date</b>	Unit 1: October 2006                      Unit 2: February 2007
<b>Power and Steam Purchasers</b>	Having entered into a long-term power purchase agreement with the Electricity Generation Authority of Thailand for a period of 25 years



### 1.3) Hongsa Power Company Limited

BPP and a subsidiary of RATCH Group Public Company Limited, and Lao Holding State Enterprise, which is the government enterprise of Lao PDR, formed joint ventures: Hongsa Power Company Limited to develop, construct and operate the HPC power plant (HPC) and Phu Fai Mining Company Limited to operate a lignite coal mine, which holds a lignite mining concession, to supply lignite as fuel for HPC power plant.

#### HPC Power Plant

<b>Location</b>	Hongsa District, Xayaburi Province, Lao PDR
<b>Shareholding Percentage</b>	Banpu Power Public Company Limited 40% RATCH Group Public Company Limited (RATCH) 40% Lao Holding State Enterprise 20%
<b>Type and Technology</b>	A subcritical mine-mouth power plant fueled by lignite coal



<b>Generation Capacity</b>	1,878 MW (751 MW equity-based capacity) from three production units of 626 MW each	
<b>Commercial Operation Date</b>	Unit 1: June 2015	Unit 2: November 2015
	Unit 3: March 2016	
<b>Power and Steam Purchasers</b>	Having entered into a long-term power purchase agreement with the Electricity Generation Authority of Thailand and Électricité du Laos for a period of 25 years	

### 1.4) Shanxi Lu Guang Power Co., Ltd.

BPIC, a wholly-owned subsidiary of BPP, has formed a joint venture to study and develop the Shanxi Lu Guang power plant. This thermal power plant deploys the advanced clean coal ultra-supercritical (USC) technology, which is highly efficient and eco-friendly.

#### Shanxi Lu Guang (SLG) Power Plant

<b>Location</b>	Changzhi City, Shanxi Province, China
<b>Shareholding Percentage</b>	Banpu Power Investment Co., Ltd. 30% Gemeng International Energy Co., Ltd. 35% Anhui Province Wenergy Co., Ltd. 35%



<b>Type and Technology</b>	A coal-fired power plant that deploys the advanced clean coal ultra-supercritical technology	
<b>Generation Capacity</b>	1,320 MW (396 MW equity-based capacity) from two production units of 660 MW each	
<b>Commercial Operation Date</b>	Unit 1: June 2021	Unit 2: October 2021
<b>Power and Steam Purchasers</b>	Generate and supply power to Shanxi Provincial Grid via wholesale power market, and generate and sell steam to industrial factories	

### 1.5) Nakoso IGCC Management Co., Ltd.

The Company holds 100% shares in BPIC, which has invested in 33.5% shares of Nakoso IGCC Management Co., Ltd (NIMCO). NIMCO holds 40% shares in the Nakoso IGCC power plant, which deploys integrated gasification combined cycle (IGCC) technology for power generation. Mitsubishi Corporation Power Ltd. (Japan), one of the five investors in the power plant, is the developer of the technology resulting from over 30-year-long research and development. Nakoso is a large-scale IGCC power plant deploying high efficiency, low emissions (HELE) technology.

## Nakoso IGCC Power Plant

<b>Location</b>	Fukushima Prefecture, Japan
<b>Shareholding Percentage</b>	BPIC holds 33.5% shares in NIMCO, and NIMCO holds 40% shares in the Nakoso IGCC power plant. BPP accordingly holds 13.4% shares in the power plant.
<b>Type and Technology</b>	A gas-fired power plant deploying an integrated gasification combined cycle (IGCC) technology
<b>Generation Capacity</b>	543 MW (73 MW equity-based capacity)
<b>Commercial Operation Date</b>	April 2021
<b>Power and Steam Purchasers</b>	Tokyo Electric Power Company Holdings



### 1.6) Temple Generation Intermediate Holdings II, LLC

Banpu Power US Corporation (BPPUS), a BPP’s wholly owned subsidiary, and BKV Corporation (BKV), a 96.1% owned subsidiary of Banpu Public Company Limited, jointly established BKV-BPP Power LLC (BKV-BPP), in which BPPUS and BKV equally hold 50% ownership. On 10 August 2021, BKV-BPP acquired 100% shares in Temple Generation Intermediate Holdings II, LLC, the entity that wholly owns Temple I CCGT power plant. Temple I CCGT power plant is located in Texas, one of the U.S. states with a fast-growing economy and population. Temple I CCGT power plant deploys combined cycle gas turbines (CCGT) technology – an advanced high efficiency, low emissions (HELE) technology. Its flexibility in priority dispatch according to Merit Order to serve the dynamic demand pattern in the merchant market enables the power plant to compete in the Electric Reliability Council of Texas (ERCOT) market.

## Temple I CCGT Power Plant

<b>Location</b>	Texas, the U.S.
<b>Shareholding Percentage</b>	Banpu Power US Corporation 50% BKV Corporation 50%
<b>Type and Technology</b>	A natural gas-fired power plant using combined cycle gas turbines (CCGT) technology
<b>Generation Capacity</b>	768 MW (384 MW equity-based capacity)
<b>Commercial Operation Date</b>	July 2014
<b>Power and Steam Purchasers</b>	The Electric Reliability Council of Texas (ERCOT)



## 2. Renewable Power Plants

Currently, BPP operates a renewable power generation and distribution business through investment in Banpu NEXT Co., Ltd., a subsidiary in which Banpu and BPP equally own 50% of shares. Banpu NEXT’s focus is to invest in and develop solar and wind power projects in the Asia Pacific region, namely China, Japan, Australia, and Vietnam. The details are as follows:

### 2.1) Solar Power Plants in China

Banpu NEXT has invested in and developed operating seven solar power plants with a combined capacity of 177.32 MW. The power plants entered into long-term power purchase agreements under the Feed-in-Tariff (FiT) scheme for a 20-year period. The generated electricity is to be supplied to the power grid in the province where each power plant is located. The details are as follows:

Solar Power Plants	Shareholding (%)	Generation Capacity (Megawatts)	Location (Province)	Commercial Operation Date
1. Huineng	100.00	21.51	Shandong	July 2016
2. Jinshan	100.00	28.95	Shandong	September 2016
3. Haoyuan	100.00	20.00	Shandong	October 2016
4. Hui'en	100.00	19.70	Shandong	January 2017
5. Deyuan	100.00	51.64	Zhejiang	February 2017
6. Xingyu	100.00	10.30	Shandong	October 2017
7. Jixin	100.00	25.22	Jiangsu	June 2016
<b>Total Generation Capacity</b>		<b>177.32</b>		



Haoyuan



Deyuan



Hui'en

### 2.2) Solar Power Plants and Projects in Japan

Banpu NEXT has invested in and developed solar power projects in Japan under the TK investment structure, through which investors and operators enter into agreements to form a partnership. A TK investor funds a business of a TK operator in the form of cash or other assets and has a right to obtain profit-sharing from the business. Banpu NEXT has invested in 20 solar power plants and projects in Japan thus far, 19 of which are commercially operational while the other is during feasibility study phase. All projects have entered into long-term power purchase agreements under the Feed-in-Tariff (FiT) scheme. The generated electricity will be fed through the power grid in the areas where the power plants are located. The details are as follows:

Solar Power Plants/Projects	Shareholding (%)	Generation Capacity (Megawatts)		Location (Prefecture)	Commercial Operation Date
		100%	Equity-Based		
1. Olympia - Hitachi Omiya No.1	40.00	2.00	0.80	Ibaraki	July 2013
2. Olympia - Hitachi Omiya No.2	40.00	2.00	0.80	Ibaraki	January 2015
3. Olympia - Ozenosato-Katashina	40.00	2.00	0.80	Gunma	January 2015
4. Olympia - Sakura No.1	40.00	2.00	0.80	Tochigi	December 2015
5. Olympia - Sakura No.2	40.00	2.00	0.80	Tochigi	October 2015
6. Hino	75.00	3.50	2.63	Shiga	May 2016
7. Awaji	75.00	8.00	6.00	Hyogo	May 2017
8. Mukawa	92.30	17.00	15.70	Hokkaido	August 2018
9. Nari Aizu	100.00	20.46	20.46	Fukushima	December 2018
10. Kurokawa	100.00	18.90	18.90	Miyagi	December 2019
11. Tenzan	100.00	1.96	1.96	Saga	October 2017
12. Muroran 1	100.00	1.73	1.73	Hokkaido	August 2018
13. Muroran 2	100.00	1.63	1.63	Hokkaido	January 2018
14. Takeo 2	100.00	1.00	1.00	Saga	October 2018
15. Yamagata	100.00	20.00	20.00	Yamagata	November 2020
16. Yabuki	75.00	7.00	5.25	Fukushima	December 2020
17. Kesenuma	100.00	20.00	20.00	Miyagi	November 2021
18. Nihonmatsu	100.00	12.00	12.00	Fukushima	November 2021
19. Shirakawa	100.00	10.00	10.00	Fukushima	January 2022
20. Yamagata Iide	51.00	200.00	102.00	Yamagata	During feasibility study phase
<b>Total Generation Capacity</b>			<b>243.26</b>		



Kesenuma



Awaji



Yabuki

### 2.3) Solar Power Plants in Australia

Banpu NEXT has invested in two operating solar power plants in New South Wales, Australia through Banpu Energy Hold Trust established by Banpu Renewable Australia Pty Ltd. - a subsidiary of Banpu NEXT and Banpu Energy Australia Pty Ltd. - a subsidiary of Banpu.

The two solar power plants are located in areas where there is steady growth in power demand and power consumption. The government also has a clear policy to support renewable power generation. The generated electricity will be supplied to the National Electricity Market (NEM) under a long-term power purchase agreement. This acquisition has paved the way for future investments in Australia’s renewable energy industry. It also gave the Company a foothold in Australian wholesale electricity markets with advanced trading systems and mechanisms. The details are as follows:

Solar Power Plants	Shareholding (%)	Generation Capacity (Megawatts)		Location (State)	Commercial Operation Date
		100%	Equity-Based		
1. Beryl	20.00	110.90	22.18	New South Wales	June 2019
2. Manildra	20.00	55.90	11.18	New South Wales	December 2018
<b>Total Generation Capacity</b>			<b>33.36</b>		



**Beryl**



**Manildra**

## 2.4) Solar and Wind Power Plants and Projects in Vietnam

Banpu NEXT has invested in and developed 5 solar and wind power plants and projects in the Socialist Republic of Vietnam, four of which are commercially operational, and one is during the submission of documents for COD approval and feasibility study phases. They enjoy long-term power purchase agreements under the Feed-in-Tariff FIT scheme. The generated electricity is to be sold to Vietnam Electricity (EVN) through the grid for a period of 20 years.

Power Plants/Projects	Shareholding (%)	Generation Capacity (Megawatts)		Location (Province)	Commercial Operation Date
		100%	Equity-Based		
<b>Wind Power Plants/Projects</b>					
1. El Wind Mui Dinh	100.00	37.60	37.60	Ninh Thuan	June 2019
2. Vinh Chau - Phase 1	100.00	30.00	30.00	Soc Trang	During submission of documents for COD approval
Vinh Chau - Phase 2 & 3	100.00	50.00	50.00	Soc Trang	During the feasibility study phase
<b>Solar Power Plants</b>					
3. Ha Tinh*	100.00	50.00	50.00	Ha Tinh	June 2019
4. Chu Ngoc*	100.00	15.00	15.00	Gia Lai	June 2019
5. Nhon Hai**	100.00	35.00	35.00	Ninh Thuan	July 2020
<b>Total Generation Capacity</b>			<b>217.60</b>		

### Notes

\* Banpu NEXT entered into a Sale and Purchase Agreement to invest in Ha Tinh and Chu Ngoc solar power plants. Currently, the Company is awaiting approval from a government agency to complete the share transaction.

\*\* Banpu NEXT completed the acquisition of the Nhon Hai solar power plant, and the revenue was first recognized on 1 June 2022.



**El Wind Mui Dinh**



**Nhon Hai**



**Ha Tinh**

### 3. Energy Technology Group

BPP drives the growth of energy technology businesses through Banpu NEXT Company Limited, a leading smart energy solutions provider in Asia-Pacific and a long-term strategic partner. It innovates total smart energy solutions for sustainability to fulfill all needs and every step of business operations in order to drive sustainability operations beyond limits. This enables businesses to achieve their sustainability goals based on the Environmental, Social, and Governance (ESG) principles and Sustainable Development Goals (SDGs). Moreover, the Company creates value and opportunities for sustainable growth, supports a low-carbon society and smart city development in Thailand and abroad, and improves the quality of life for its customers and the general public. Banpu NEXT has engaged in five groups of businesses as follows:

#### Solar Rooftop and Floating

Banpu NEXT operates a solar power generation and distribution business, including solar rooftop and floating solar systems. It focuses on expanding its business portfolio to strategic markets in Asia-Pacific, including China, Japan, Vietnam, Indonesia, and Thailand, with a total capacity of 205 MW as of 31 December 2022.

Banpu NEXT continues to expand its rooftop and floating solar power generation business. In 2022, the Company joined forces with Apex Park, the developer of Apex Green Industrial Estate, to install a 32 MW floating solar system at Apex Green Industrial Estate, Chachoengsao Province, which is the largest private floating solar project in Thailand. The goal is to transform the Apex Green Industrial Estate into an eco-industrial estate that will serve as an exemplar of a low-carbon, sustainable estate, creating value in all dimensions for entrepreneurs, communities, and the environment. In addition, Banpu NEXT is looking for investment opportunities with clean energy technology partners to jointly develop clean energy solutions and best services to meet the customers' current and future demands and to strengthen the business ecosystem. The Company has acquired a 49% stake in Solar Esco Joint Stock, a renewable energy company in Vietnam, to provide solar rooftop installation services in Vietnam and to accelerate the overseas expansion of the integrated solar rooftop business.



The Company has also been selected by the local government in Zhengding to develop a rooftop solar power project for government buildings, schools, factories, and commercial establishments, including households in villages and communities. The project is under the “Whole-county Rooftop Solar PV” policy with a committed capacity of 64 MW at the end of 2022 and the potential to increase to 167 MW by 2023, marking an important step in expanding Banpu Group’s clean energy portfolio.

Banpu NEXT continues to expand its rooftop solar power business in Indonesia through an investment in PT. ITM Bhinneka Power or IBP, a Banpu subsidiary that provides integrated rooftop solar installation services to commercial and industrial customers. IBP’s services encompass engineering consultation, a site survey using modern technology to plan a suitable system for each area and customer needs, as well as after-sales service by a team of energy technology experts and customer relations team. As of 31 December 2022, Banpu NEXT operated rooftop and floating solar power projects in Indonesia, both operational projects and projects under development, with a total capacity of 2.47 MW.

### Energy Storage Systems Business

Banpu NEXT has partnered with Durapower Holdings Pte Ltd., a Singapore-based energy storage company and a world-leading provider of lithium-ion battery systems that develop energy storage solutions for electric vehicles (EV) and stationary energy storage solutions, such as solar power systems. Banpu NEXT and Durapower formed a joint venture with Cherdchai Motor Sales Co., Ltd., Thailand’s largest bus operator, in July 2022 to establish a battery assembly plant in Thailand for Cherdchai’s e-Buses and electric vehicle markets throughout the Asia-Pacific region. It is expected to begin operations at the end of 2023. Banpu NEXT also plan to increase battery production capacity at the China factory in order to achieve 3.75 GWh by 2025.



### Energy Trading Business

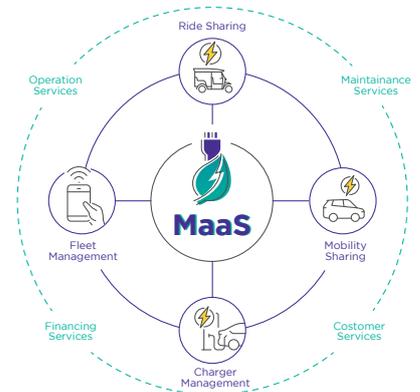
Banpu NEXT has engaged in overseas energy trading which first began operations in Japan. Electricity grid operators, educational institutions, government agencies, and hospitals are the primary customers. Banpu NEXT is always on the lookout for opportunities to expand its energy trading business to other countries where energy can be freely traded. The energy trading capacity is 1,719 GWh as of 31 December 2022.

### E-Mobility Business

Banpu NEXT is Thailand’s first fully integrated alternative mobility service provider in the form of Mobility as a Service (MaaS). The services include ride-sharing with MuvMi electric tuk-tuks, car sharing - vehicle rental via the HAUP application, EV charger management, and operation & maintenance and customer services. In addition, the Company has developed EV fleet management and employed digital platforms for real-time tracking of travel and transportation. As of 31 December 2022, the Company’s Mobility As a Service (MaaS) encompassed:



- Ride-sharing service with Muvmi electric tuk-tuks covering 12 main areas in downtown Bangkok, including 1. Chula – Samyan, 2. Aree – Pradiphat, 3. Phaholyothin, 4. Kasetsart, 5. Rattanakosin Island, 6. Sukhumvit, 7. On Nut, 8. Bang Sue, 9. Chidlom-Lumpini, 10. Victory Monument, 11. Ratchada-Rama 9, 12. Silom-Sathorn, with more than 2,500 access points in Bangkok
- Car-sharing service with over 1,000 access points nationwide and 1,500 vehicles on the platform
- EV charger management service with 310 EV charging stations
- After-sales service by Beyond Green Co., Ltd. in 19 major provinces, namely Bangkok, Chiang Mai, Chiang Rai, Phitsanulok, Loei, Udon Thani, Nakhon Phanom, Roi Et, Ubon Ratchathani, Nakhon Ratchasima, Nakhon Sawan, Kanchanaburi, Hua Hin in Prachuap Khiri Khan, Chonburi, Rayong, Phuket, Krabi, Hat Yai in Song Kla, and Koh Samui in Surat Thani



## Smart Cities & Energy Management Business

Banpu NEXT offers smart energy solutions for sustainability, including the solar power system, Energy Management System (EMS), security management system, waste management system, and various smart infrastructure systems for efficient energy use and energy saving. The Company assists customers in transitioning to Smart Businesses while moving forward to a carbon-free society and driving smart city development. As of 31 December 2022, the Company operated 20 smart city development and energy management projects.

In 2022, Banpu NEXT acquired a 25% stake in Thai tech startup AltoTech Global Co., Ltd., the developer of Alto Energy Edge energy management platform that innovatively uses Artificial Intelligence (AI) and Internet of Things (IoT) technologies to monitor and optimize building's energy efficiency. Furthermore, the Company signed a memorandum of understanding (MoU) to collaborate on developing clean energy solutions in the Asia Pacific with SP Group, a leading utilities group in Singapore and Asia Pacific with experience in installing the world's largest Multi-Plant district cooling network in the Marina Bay district, Singapore, as well as a central heating and cooling system for large mixed-use projects in Chongqing and Guangzhou, China. These collaborations are meaningful steps toward expanding Banpu NEXT's energy management system business with the goal of continuously strengthening the business and jointly providing full-fledged energy management solutions to customers in Thailand and abroad.

Banpu NEXT's Energy Management System (EMS) is supervised by energy and technology experts at every step, from measuring energy consumption, analyzing and designing suitable systems, installing devices and solutions along with digital platforms, to providing after-sales service. The Company offers three types of services: 1. utility management & energy efficiency solutions offering water cooling, air conditioning, compressed air, and steam and hot water systems, etc., with guaranteed efficiency and energy savings; 2. facility management providing facility maintenance and technical services, and 3. district cooling systems and infrastructure designed to meet the needs of real estate business or large real estate projects.

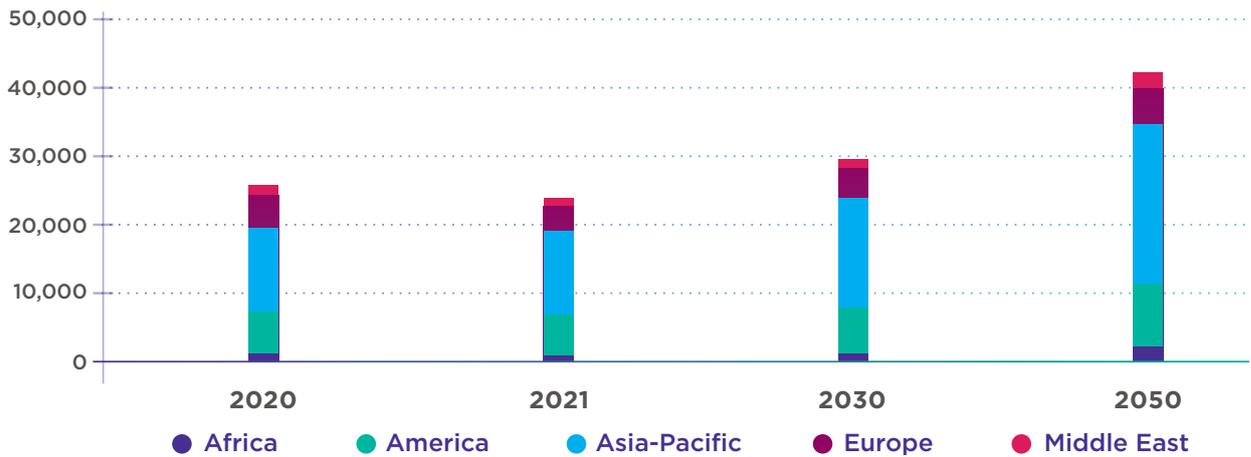
In addition, Banpu NEXT has built on the success of the Phuket Smart City project by partnering with Planet Comm, a leading integrated digital technology provider in Thailand, its long-term strategic partner, to expand the "Smart Safety Platform." This is intended to provide comprehensive security management and facilitate the smart city expansion plan in order to drive smart city development and promote Thailand's tourism sector.

Banpu NEXT combines its expertise in clean energy solutions with cutting-edge technology to provide 24-hour professional after-sales service for its customers. The Company specifically designed integrated digital platforms and applications that allow customers to manage their energy consumption in real time.

# Market and Competition

## 1. Thermal and Renewable Power Businesses

Global Electricity Demand 2020 - 2050  
TWh

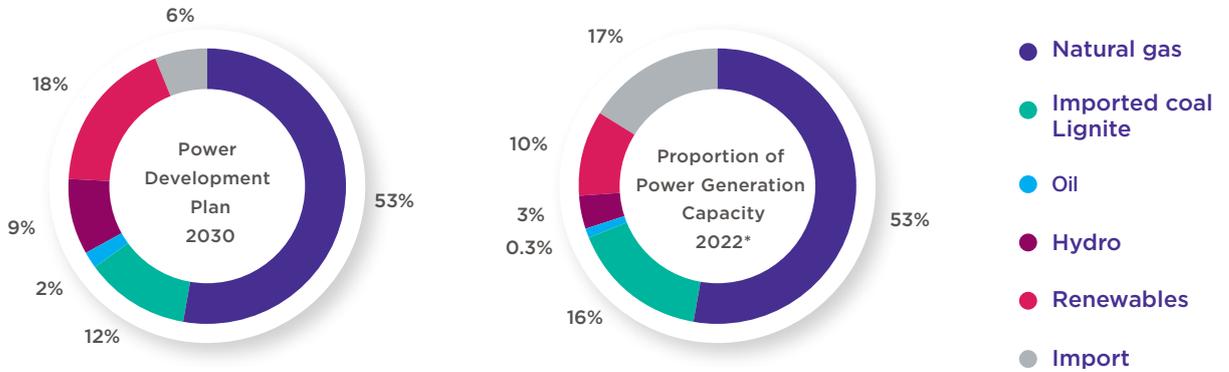


Source: World Energy Outlook 2022

In 2021, the global electricity demand grew by 6%, as a result of the speedy economic recovery the post-pandemic COVID-19 and the effects of climate change worldwide. However, in 2022, the global energy landscape suffered a major setback due to the Russia’s invasion of Ukraine in February, causing significant repercussions and initiating a worldwide energy crisis. The United States and several EU countries have imposed a series of sanctions on Russia and many European countries declare their intention to phase out Russian natural gas imports completely. Given that 25% of the EU’s energy consumption is supplied by Russia, Europe has resorted to importing liquefied natural gas (LNG) from the U.S., Australia, and other countries. Natural gas prices reached record highs, pushing the electricity market and oil prices to their highest level since 2008 due to rising oil and natural gas prices, as well as supply constraints. Consequently, governments of many countries delayed the shutdown of coal-fired power plants and eased restrictions to increase the availability of coal-fired power generation in place of natural gas to secure the energy supply. The rising energy prices also contributed to the highest inflation rates in several decades. Meanwhile, renewable energy has continued to grow rapidly worldwide, generating over 10% of global electricity in 2022.

## Market and Competition in Thailand

Comparison of Power Development Plan and Current Proportion of Power Generation Capacity by Fuel Source



Source: Energy Policy and Planning Office (EPPO), Ministry of Energy  
 \*As of end-October 2022

In 2022, Thailand’s installed power generation capacity totaled 53,370 MW, growing by 5% from 2021. In April, the electricity demand reached its peak at 33,177 MW, which was 2,145 MW or 7% higher than the peak demand in 2021 at 31,032 MW. The proportion of generation capacity by fuel source in 2022 consisted of natural gas at 53%, coal at 16%, oil at 0.3%, hydropower at 3%, and renewable at 10%. In summary, power generation from natural gas, coal, hydropower, and oil decreased while renewables power generation and imported electricity increased.

## Market and Competition in Lao PDR

Currently, Lao PDR operates 90 power plants with an installed capacity of 10,956 MW. The capacity comes from 77 hydropower plants with an installed capacity of 1 MW or more, accounting for 81% of the total power generation capacity, eight solar power plants, four biomass plants, and one coal-fired plant. 72% of the output is exported to foreign countries such as Thailand, Vietnam, Cambodia, Singapore, and Myanmar. Lao PDR signed power purchase agreements to supply 10,500 MW of electricity to Thailand, 5,000 MW to Vietnam, and 600 MW to Cambodia by 2025. Thailand has purchased electricity from Lao PDR through eight power plants, which include seven hydropower plants and one coal-fired power plant.

Most of Lao PDR’s capacity is from hydropower. However, when considering domestic electricity consumption, over 90% relies on hydropower generation. Therefore, Lao DPR always faces power outages during the dry season, forcing the country to turn to electricity imports. Accordingly, the Lao government planned to diversify energy sources by increasing the fuel mix of power from solar, wind, and coal while reducing its reliance on hydropower generation.

## Market and Competition in China

The growth rate in electricity consumption in China is as follows:

	2022	2021	2020	2019
Growth rate in power generation capacity (%)	8.3	7.6	6.6	6.3
Total power generation capacity (GW)	2,500	2,377	2,210	2,073

Source: National Energy Administration (NEA), China

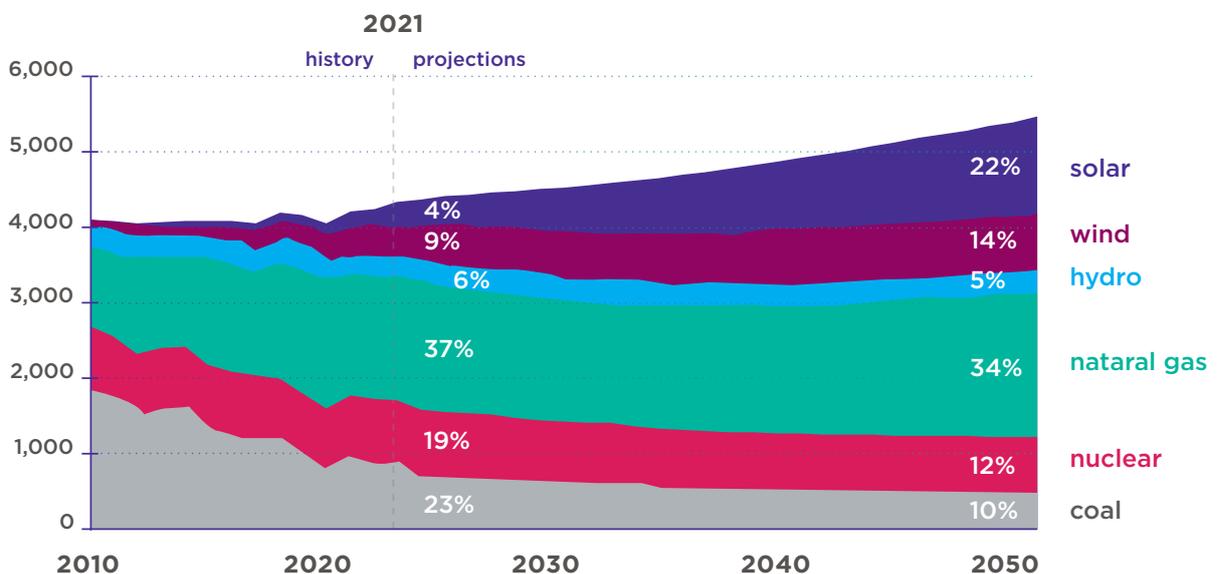
In 2022, China's power generation capacity growth rate was 8.3% of total capacity, growing over the past year. Over 55% of total capacity was from coal-fired power plants while renewable energy capacity continued to increase, with solar and wind power installed capacity reaching 360 GW and 350 GW respectively. The Chinese government has announced that its carbon emissions will peak by 2030. It also aims to reach carbon neutrality by 2060 and will increase the proportion of power generation from non-fossil energy sources to 80%.

The Chinese government has issued several measures to tackle the energy shortage crisis, for example, increasing coal production quotas and opening coal mines in Inner Mongolia. Furthermore, the ceiling on electricity tariff has been increased from the maximum rate at 10% to 20% and lifted the cap on electricity prices ceiling in heavy industry to ease the pressure on power producers. In addition, the Chinese government has reformed the electricity market by opening a wholesale market for all coal-fired power plants. The liberalized wholesale market allows commercial and industrial consumers to buy and sell electricity directly from producers, allow energy distribution and electricity pricing to be determined more by market-based mechanisms.

## Market and Competition in the United States of America

**U.S. electricity generation from selected fuels**  
AEO2022 Reference case

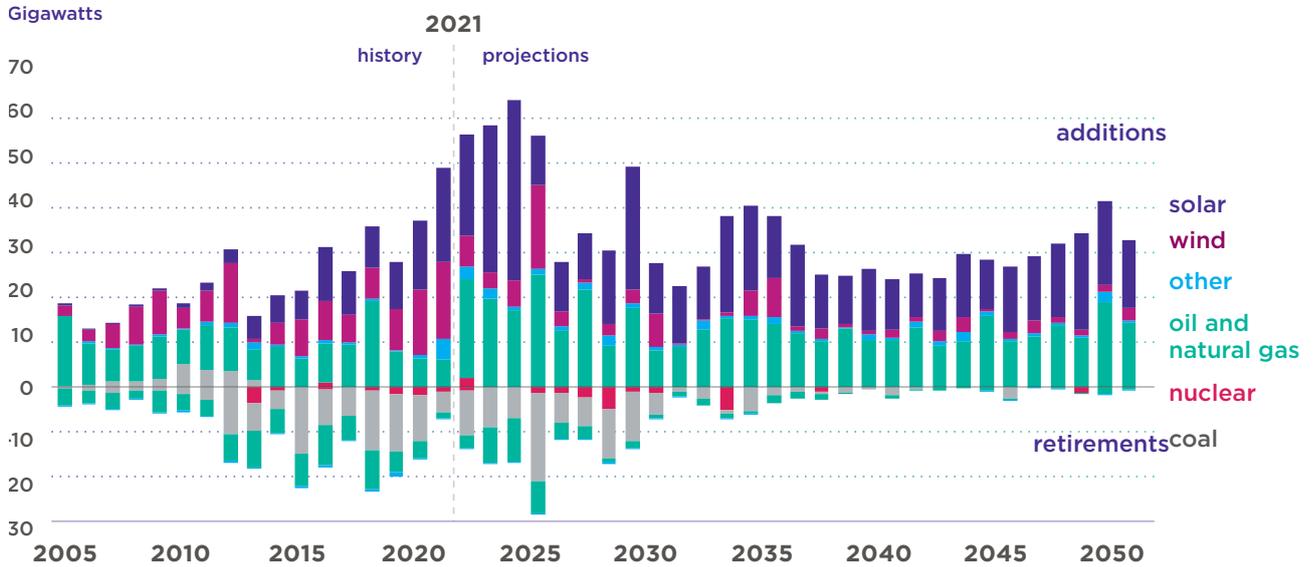
Billion kilowatt-hours



Source: U.S. Energy Information Administration, Annual Energy Outlook 2022 (AEO2022) Reference case

Note: Solar includes both utility-scale and end-use photovoltaic electricity generation

### Annual electricity generating capacity additions and retirements AEO2022 Reference case

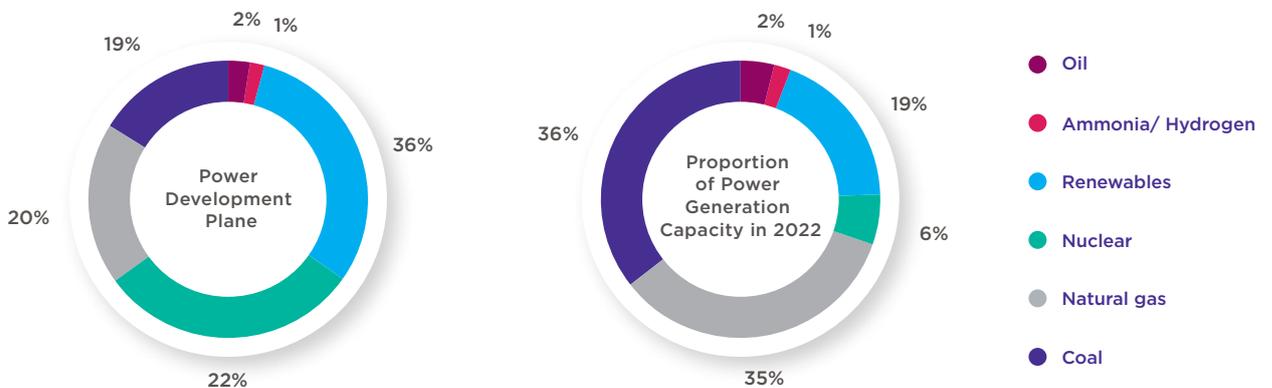


Source: U.S. Energy Information Administration, Annual Energy Outlook 2022 (AEO2022) Reference case

The International Energy Agency (IEA) estimated that the electricity demand in the U.S. would increase steadily at the average annual growth rate of approximately 1% with smaller shares of nuclear power generation and coal-fired power generation. Natural gas is expected to play a major role in satisfying power demand and stabilizing power generation. The share of power generation from renewables will continue to grow, accounting for over 57% of the total capacity increase, or about 570 GW, between 2021 and 2050. Wind power generation is projected to account for 10% while solar power generation tends to increase the most, representing 47% of the total capacity due to government tax credit incentive for renewable energy.

## Market and Competition in Japan

### Comparison of Power Development Plan and Current Proportion of Power Generation Capacity by Fuel Source (Japan)

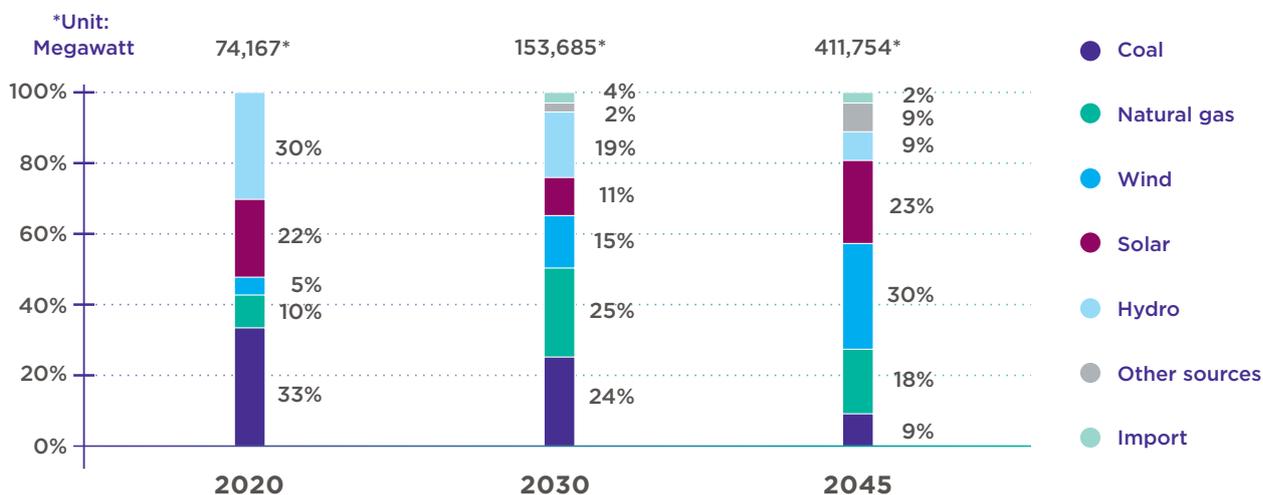


Source: The 6th Strategic Energy Plan, Ministry of Economy, Trade and Industry (METI), Japan (As of end-October 2022)

Japan’s electricity consumption has enjoyed a stable growth with the majority of capacity from thermal power generation. Part of the capacity was from renewables, accounting for 19% of the total capacity of 69,599 MW, consisting of 3,962 MW from wind power, 15,476 MW from solar power, and 49,690 MW from hydropower. According to the Sixth Strategic Energy Plan, Japan set to achieve of 36-38% from renewables by 2030, a significant increase of renewable energy portfolio. The Government of Japan has replaced the renewable-based electricity pricing scheme from the Feed-in Tariff (FiT) scheme with the auction scheme. In 2022, newly developed solar power plants will get an average price of JPY 9.63 per kWh based on the auction scheme. Besides, there was a regulatory change prescribing that any solar power plant project development of over 40 MW operating capacity must submit an Environmental Impact Assessment (EIA) report. The new regulation has been effective from April 2020 onward.

### Market and Competition in Vietnam

Proportion of Power Generation Capacity by Fuel Source (Vietnam)



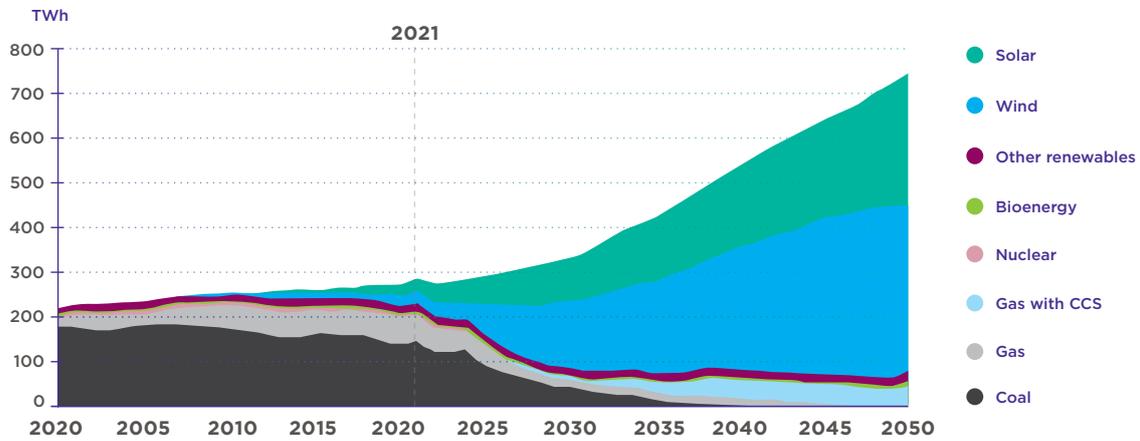
In 2022, Vietnam’s Gross Domestic Product (GDP) grew by 8.02% driven by growth in domestic retail sales and exports. It is projected that Vietnam’s GDP in 2023 will be at around 6.5% due to weak global demand and the global economic slowdown.

Vietnam has established renewable capacity targets for 2045 in the draft of the Power Development Plan VIII finalized in April 2022, aiming to increase wind capacity to 30% and solar capacity to 23% of the total target capacity of 411.8 GW.

Vietnam has set the feed-in tariff (FiT) for the solar and wind power projects that have already achieved commercial operation date. In the future, the Vietnamese government will change the solar and wind pricing schemes from FiT to the auction scheme.

## Market and Competition in Australia

Anticipated Proportion of Electricity Generation from Each Fuel Source (Australia)

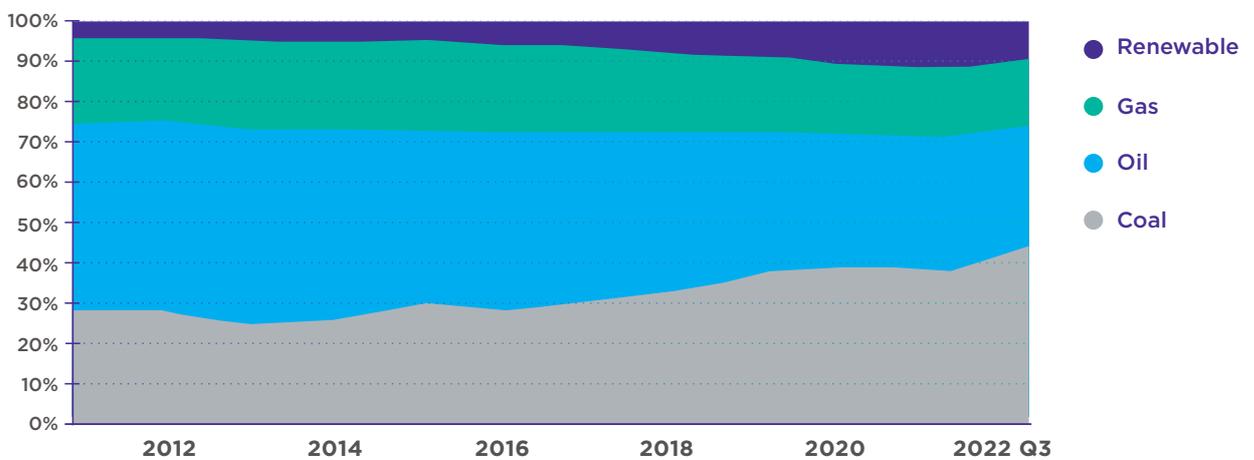


Source: BloombergNEF - New Energy Outlook 2022 – Australia – Net Zero Scenario

The Eastern and Southern states of Australia consist of Queensland, New South Wales, Victoria, South Australia, and Tasmania. These states jointly operate the National Electricity Market, where electricity demand has remained stable over the past five years. In 2021, the electricity demand was at 267,452 GWh, rising 0.1% from the previous year. Australia’s primary energy source is coal, with a share of 71% of total energy sources. However, the share of coal has steadily declined as renewable energy, especially solar energy, has gained popularity in households with solar rooftop systems. The Australian government has pledged to achieve net-zero emissions by 2050, which has led the states to develop and implement policies that promote more renewable energy generation. It is expected that by 2050, the share of renewable energy will increase to 84%.

## Market and Competition in Indonesia

Indonesia primary energy mix 2011-2022 (Indonesia)



Source: 2011-2020 data from MEMR (2022), 2022 Q3 data from MEMR’s preliminary data per November

In 2022, Indonesia’s Gross Domestic Product (GDP) grew by 5.7% due to rising energy demand driven by post-pandemic-COVID-19 economic recovery. The power generation capacity remained quite similar to last year owing to limited addition of new renewable capacity in 2022. The proportion of coal-fired power generation has increased to 67.5% while renewables have remained below 14%.

## Competitive Strategies

### Competitive Strategies in Thailand

BPP holds a 50% stake in BLCP Power Ltd., which operates the BLCP power plant, in which BPP owns an equity capacity of 717 MW out of a total capacity of 1,434 MW. Located in the Map Ta Phut Industrial Estate, the BLCP power plant is a major power producer that sells electricity directly to the Electricity Generating Authority of Thailand (EGAT). The dispatch rate of the BLCP power plant in 2022 was 99.7%, reflecting the power plant's ability to manage operational efficiencies. BLCP's production output accounts for 5% of EGAT's total installed and purchased power capacity.

### Competitive Strategies

#### 1) Maintaining Operational Efficiency and Readiness of Power Plants

BPP consistently improves efficiency and maintains the equipment of power plants according to the maintenance schedule to secure the Availability Factor (AF) and Contracted Available Hours (CAH) in accordance with the power purchase agreement (PPA). In 2022, BLCP reported the Equivalent Availability Factor (EAF) of 87.1%.

#### 2) Seeking Opportunities for Business Expansion

BPP has been on the lookout for new domestic growth opportunities by aligning the domestic power business expansion plan with the Power Development Plan for 2018-2037 (PDP 2018), approved by the National Energy Policy Council (NEPC) on 24 January 2019. The plan proposes increasing the capacity of Isolated Power Supply (IPS) groups and efficient energy-saving measures. The PDP proposal will push electricity demand lower than projected while there are more policies promoting renewable power generation. Moreover, the development of new thermal and renewable power plants will face increasing competition in project bidding and in applying for electricity retail supply licenses. Therefore, the Company has prepared competent and experienced staff from the Business and Project Development Department to monitor the government and related government agencies' policies and evaluate the Company's competitiveness. In addition, the business development team also prepares the Company's participation in government project which allows private investment, such as the Eastern Economic Corridor (EEC). It also responds to government support for the business sector's role in the Isolated Power Supply (IPS) projects that use renewable energy sources.

#### 3) Stakeholder Relations Management

BPP has supported activities and enhanced mutual understanding in the communities in all locations where it operates, resulting in a healthy relationship with the communities.

### Major Competitors

- o BPP's thermal power plants that are commercially operational have no direct competitors who are power producers because the Company entered into a long-term power purchase agreement with the Electricity Generating Authority of Thailand.
- o Major domestic power producers include Electricity Generating Plc., Ratchaburi Electricity Generating Holding Plc., Global Power Synergy Plc., Gulf Energy Development Plc., and international investors.

## Competitive Strategies in Lao PDR

BPP holds a 40% stake in Hongsa Power Company Limited, which operates the HPC power plant, the only mine-mouth power plant in Lao PDR. The HPC power plant has a total capacity of 1,878 MW, of which the Company holds 751 MW equity capacity. The power plant sells the majority of electricity to the Electricity Generating Authority of Thailand under the Independent Power Producer (IPP) scheme and some of its output to Lao PDR. The HPC power plant's production output constitutes 25% of the total electricity that Lao PDR supplies to Thailand.

### Competitive Strategies

#### 1) Maintaining Operational Efficiency and Readiness of Power Plants

All three production units of HPC power plant have been fully operational since 2016, with 100% dispatch in 2022. This demonstrates the operational stability and low operating costs, which are crucial for both countries' electricity systems.

#### 2) Managing Relationships with Local Government Agencies and Communities

BPP places importance on community development by promoting community engagement and improving the quality of life of local people. These measures have been realized into community development initiatives, for example, infrastructure development (water supply, electricity, and roads), partial relocation and rebuilding of houses in appropriate areas, vocational training and promotion of employment at power plants, contract for project design, and equipment procurement.

#### 3) Cost Management and Efficiency

In 2022, BPP supported the HPC power plant to improve its efficiency and capacity readiness in power generation and distribution. The improvements covered equipment maintenance and coal transportation to the power plant, which helped maintain the Equivalent Availability Factor (EAF) at 85.9%. Moreover, the power plant increased readiness by stocking equipment parts and improving the speed and efficiency of maintenance, contributing to smooth power generation.

### Major Competitors

BPP's coal-fired power plant that is commercially operational has no direct competitors because the Company has a long-term power purchase agreement with the Electricity Generation Authority of Thailand and Électricité du Laos.

## Competitive Strategies in China

BPP's combined heat and power (CHP) plants and solar power plants in China are more highly efficient than average power plants and meet pollution control standards. Hence, they obtain various supports from the Chinese government, such as guaranteed electricity sales to local electricity authorities, exclusive rights to sell steam and heat in permitted zones, and local government subsidies.

## Competitive Strategies

### 1) Cost and Efficiency Management

The Chinese government has pursued electricity trading market reform to reflect fuel costs in each province and, at the same time, has imposed measures to stabilize electricity prices for households. BPP has assessed the impact on the pricing in power and steam purchase agreements and adjusted the prices accordingly. BPP maintained its cashflow generation and liquidation management by improving production efficiency and strictly controlling costs by strategically buying and stocking up coal when coal prices decline and utilizing it when coal prices increase.

### 2) Environmental Management

The Chinese government has a stringent policy on environment and pollution control, which restricts the use of coal as a major fuel source in industrial plants. BPP uses highly efficient power generation processes that comply with current environmental standards and regularly maintains all equipment and machinery. It also has the plan to improve environmental control equipment. Furthermore, BPP monitors and assesses environmental impacts to ensure that its business operations fully comply with environmental laws, rules, and regulations. The Company has considered deployment of the state-of-the-art technology called Ultra-Supercritical (USC), which is high efficiency, low emissions (HELE) technology, in new projects, such as the Shanxi Lu Guang power plant.

### 3) High Adaptability

BPP has a specific team to closely monitor changing market conditions and align business operations to the market conditions or situations in order to embrace business opportunities and mitigate negative impacts. The Company is prepared to adjust the distribution of electricity, steam, and hot and chilled water in response to the factors affecting the demand. For instance, the Zhengding CHP plant would produce electricity, steam, and hot water for sale during winter. In summer, when customer demand shifted, it would swap to produce chilled water for sale, which helped generate more income and reduce the impacts of the seasonal decrease in electricity and steam sales.

The Zhengding CHP plant was selected to develop a major solar rooftop project under the support of the local government in Hebei province. Currently, the power plant has a capacity of 64 MW, with the potential for expansion to 167 MW by 2023, representing another milestone in expanding its clean energy portfolio.

### 4) Service Quality and Stakeholder Relations Management

BPP prioritizes the quality of products and services. The Company strives to ensure readiness and security in generating and distributing electricity and steam to respond to customers' needs at all times, especially the distribution of steam and hot water in wintertime. The Company always maintains a good relationship with customers based on mutual trust and benefits, which has earned trust and confidence from customers.

Relationship management with local government agencies and communities is on the basis of mutual benefits by providing basic utility services (electricity and steam) to local communities, building trust and equity, as well as lending continued support to the community. This has brought BPP acceptance from local government agencies and communities as an exemplary local enterprise. Despite a setback from external factors, the Company still enjoys full support from local governments, for instance, financial subsidies or approval to raise steam prices when coal prices increase.

## 5) Seeking Opportunities for Business Expansion and Added Value Creation

BPP puts greater emphasis on investment in renewable energy to align with the government's policy to promote renewable energy. The Company also focuses on creating added value by expanding investment into related businesses while considering the costs of different fuel sources and appropriate technology. For example, the location of the Luannan CHP plant is in the urban-industrial area, which gives it a strategic advantage in becoming the sole distributor of steam. BPP is also considering expanding its customer base to new industrial areas to offer the service of the solar rooftop system. Moreover, the Company is conducting a feasibility study for the development of the Company's existing land to develop a biomass power plant project.

### Major Competitors

- o Domestic and international power producers and investors

### Competitive Strategies in the United States of America

On 1 November 2021, BKV-BPP Power LLC (BKV-BPP), a 50%-owned affiliated company of Banpu Power US Corporation (BPPUS), which is 100% owned by BPP, invested in the 768-MW Temple I Combined Cycle Gas-Turbine (Temple I CCGT) Power Plant, which achieved commercial operation date on 15 July 2014. Temple I CCGT is located in Texas, one of the fastest-growing economic and population centers in the U.S. The power plant can generate and supply the power needs of about 750,000 households in Central Texas. Equipped with a pollution control management system to maintain low emissions, the power plant is highly efficient and flexible in power generation in accordance with power consumption patterns. Its priority dispatch makes it ideal for the competition in the Electric Reliability Council of Texas (ERCOT) market. This investment is the Company's stepping stone to an advanced and free electricity trading market, creating added value from the synergy between BPP and BKV Corporation, a subsidiary of Banpu Public Company Limited, through knowledge and resource sharing to maximize the benefits of investment.

### Competitive Strategies

#### 1) Maintaining Readiness and Enhancing Efficiency of Power Plants

Temple I power plant undergoes annual maintenance in spring and fall or during March and October to ensure the highest operational readiness during the time when electricity consumption peaks (in winter and summer). Moreover, to prevent impact from winter storms, the power plant installed windshields and permanent roof to protect outdoor equipment from blizzards and extreme temperatures. It also installed the heat tracing system on pumps, valves, gauges, and other equipment to prevent them from freezing and becoming inoperable. In 2022, a wet compression system was installed to increase the power plant's efficiency. The system increases generation capacity during summer, the time when the ERCOT market's power demand peaks.

## 2) Cost and Price Management

The Temple I gas-fired power plant operates in an open electricity market with a risk of price fluctuations and fuel costs. In the United States, advanced derivatives will help power producers reduce the risk of electricity price fluctuations and fuel costs. In managing electricity prices and fuel costs, the Temple I gas-fired power plant will consider entering into derivative contracts to mitigate the risk of fluctuations in electricity prices and fuel costs. In addition, the Temple I power plant is one of a few power plants in Texas that own gas storage facilities. Therefore, BKV-BPP can purchase natural gas when the prices are low and store it at the plant as a reserve for power generation when gas prices are higher. Over the past year, natural gas prices were highly volatile, primarily due to extreme weather conditions and supply-demand imbalances when domestic supply could not keep up with increasing demand throughout the year. However, with a team of experts in the natural gas business and effective operational management of both BPP and BKV Corporation, Temple I could harness its gas storage and maintain profitability from this storage optimization.

## 3) Seeking Opportunities for Business Expansion and Added Value Creation

The Company monitors market conditions, growth, and investment trends. It seeks investment opportunities in various projects across the United States, whether natural gas-fired power plants, renewable-energy power plants, or other technologies. That includes value creation through further investments in related companies, for example, by exploring the possibility of investing in new fuels that are compatible with the country's energy development policy and can be supported by financial institutions. The Company is also looking for an opportunity to enter into a power purchase agreement with a large electricity consumer or expand the business into the retail market and power trading business.

### Major Competitors

- o Domestic and international power producers and investors

### Competitive Strategies in Japan

BPP expanded investment into Japan by starting with an investment in the solar power plant business. Currently, the Company has a combined capacity of 135 MW from commercially operational projects and 102 MW from under development projects. In 2021, the Company diversified its investment through joint investment in the Nakoso IGCC power plant with an installed capacity of 543 MW in Fukushima Prefecture. This gas-fired power plant deploys the IGCC technology - a high efficiency, low emissions (HELE) technology - which integrates gasification technology with the Gas-Fired Combined Cycle power plant. Besides, the power plant has entered into a long-term power purchase agreement and a long-term fuel supply agreement. The Company continues to create sustainable growth and seeks investment opportunities in power plants which deploy eco-friendly technologies in markets that have growing electricity demand and supporting government policies.

### Competitive Strategies

#### 1) Capability in Investment Management

BPP has a strategy to collaborate with partners in seeking new investment opportunities as well as managing financial costs from multiple funding sources, especially from domestic financial institutions, to achieve long-term investment goals.

## 2) Project Development

BPP closely monitors policy and regulatory changes of the Japanese government related to the energy industry, with a specific team to follow up and study the changes in detail as well as impacts on under-development projects to ensure that all projects achieve commercial operation dates as planned.

## 3) Seeking Opportunities for Business Expansion and Added Value Creation

Since Japan's energy management is governed by a clear energy policy, BPP faces low investment risk and can keep the risk to a manageable level although the Japanese government reduced the Feed-in Tariff (FiT) for solar power and turned to the auction scheme. To achieve the target return on investment, BPP has adapted by focusing on cautious cost management, procuring important equipment to improve efficiency, and seeking appropriate funding sources. For the new investment, BPP will prioritize projects under the Feed-in Tariff (FiT) scheme or acquire projects that have already achieved commercial operation date.

BPP also constantly seeks investment opportunities in related businesses by building upon the existing power generation business to create added value, such as energy trading and retail electricity by expanding business opportunities with retail customers as well as solar rooftop business to fulfill demands of business and industrial sectors and renewable energy consumers.

### Major Competitors

- o Domestic and international power producers and investors

### Competitive Strategies in Vietnam

BPP has expanded investment in the power business in Vietnam since 2016 under a Memorandum of Understanding (MoU) signed with Soc Trang Provincial People's Committee to conduct a feasibility study on investment in a renewable energy project. The Company was awarded an Investment Registration Certificate (IRC) for Vinh Chau wind power plant project in 2018 and subsequently established a subsidiary in Soc Trang province. BPP assembled an experienced team with a good understanding of Vietnam's business environment to develop the project. The construction of the Vinh Chau wind power plant project, Phase 1, has been completed and ready for commercial dispatch. The Company continued a feasibility study to explore the opportunity for further expansion of the generation capacity.

In 2020, BPP expanded its investment through the acquisition of the commercially operational EI Wind Mui Dinh wind farm in Ninh Thuan province. The 37.6 MW wind farm is eligible for a Feed-in-Tariff (FiT) for a period of 20 years. Located on the South Central Coast of Vietnam, Ninh Thuan province has the highest potential and investment opportunities in renewable energy, thanks to government support. In addition, in December 2021, a subsidiary of Banpu NEXT Co., Ltd. (Banpu NEXT) entered into a purchase and sale agreement to invest in three solar farms: the 50-MW Ha Tinh Solar Farm in Ha Tinh province, the 15-MW Chu Ngoc Solar Farm in Gia Lai province, and the 35-MW Nhon Hai Solar Farm in Ninh Thuan province. The three solar farms are eligible for a Feed-in Tariff (FiT). The investment is awaiting approval from the responsible authorities, which is expected to be completed in Q1/2023. After that, the solar farms can generate immediate income for the Company.

## Competitive Strategies

### 1) Managing Relationships with Local Government Agencies and Communities

BPP builds relationships with local government agencies on the basis of respect for social and cultural differences. The Company focuses on becoming a mutually responsible partner with government agencies to sustainably engage in local community development by providing continuous support for community activities.

### 2) Project Development and Management

BPP recognizes the importance of sound decision-making in project investment. It conducts thorough pre- and full due diligence by hiring consultants with experience and expertise in various fields, such as engineering, environmental, legal, financial, accounting, and tax consultants, to ensure accurate results of the feasibility study before investing and compliance with regulations and investment conditions in Vietnam and internationally. In addition, consultants also help monitor the progress of project development and execution of each construction phase as planned, enabling timely completion of power plant construction.

### 3) Seeking Opportunities for Business Expansion and Added Value Creation

Vietnam has enjoyed a continuous growth rate and is projected to achieve a GDP growth rate of 6.5% in 2023,\* which will lead to a continuous increase in electricity demand. The Vietnamese government also has a clear energy management plan to increase renewable power generation capacity, presenting a promising opportunity for BPP to make an investment.

\*Source: World Bank – Global Economic Prospects (As of January 2023)

## Major Competitors

- o Domestic and international power producers and investors

## Competitive Strategies in Australia

Banpu group has been driving the growth of the renewable energy business through Banpu NEXT, an affiliated company in which BPP holds a 50% stake. Banpu NEXT has expanded investments in the renewable energy business in Australia. In June 2021, Banpu NEXT established Banpu Energy Hold Trust to invest in two solar farms with a combined generation capacity of 166.8 MWdc, comprising 110.9 MWdc from the Beryl Solar Farm (Beryl or BSF) and 55.9 MWdc from the Manildra Solar Farm (Manildra or MSF). Both solar farms are located in New South Wales, where there is consistent growth in electricity consumption and demand, and the government has a clear policy to promote electricity generation from renewable energy. Power plants under long-term power purchase agreements will supply electricity to the National Electricity Market (NEM) and has a long-term power purchase agreement (PPA) with the private sector concurrently. The acquisition of these two solar farms has paved the way for renewable energy investments in Australia and is a penetration into an advanced electricity trading and wholesale electricity market. The Company has been actively seeking investment opportunities with a focus on team and people management, building trust with business partners, and promoting growth in renewable energy and related businesses. Furthermore, in 2022, the Company is working on developing an integrated energy solution platform. After obtaining the license, BPP started energy trading to generate added value and enhance profitability.

## Major Competitors

- o Domestic and international power producers and investors

## Competitive Strategies in Indonesia

PT. ITM Bhinneka Power (IBP) has started the operation in late 2021 to operate a solar rooftop power generation business focusing on industrial and commercial customers as well as a hybrid solar rooftop project at ITM mines to reduce diesel consumption in mining operations. In 2022, PT. Cahaya Power Indonesia (CPI) – a joint venture with IBP – with a 60:40 ownership ratio, started operating a 2.2 MWp solar project under a lease agreement with PT. TCM, a subsidiary of ITM. CPI constantly seeks market opportunities to expand its customer base in order to achieve its targets. The Company also has a strategy to increase electricity generation from renewables; therefore, IBP started exploring business opportunities for hydropower projects. Currently, IBP has a hydropower plant project which is in the assessment and development phase according to its strategic plan.

### Competitive Strategies

#### 1) Relationship Management with Current Networks and Expansion to Related Business Alliances

The management leveraged existing networks of coal miners, Thai companies, and partners in Indonesia to connect with industries and companies that can promote renewable energy and carbon credits similar to coal mining business.

#### 2) Business Development and Project Management

IBP's objective is to explore renewable energy projects, primarily solar and hydropower, by surveying existing projects in the market to conduct a thorough analysis and hiring a consultant for due diligence to ensure the accuracy and feasibility of project operation and development. The Company also cooperates with experts from Banpu NEXT who provide advice and transfer knowledge on renewable energy and energy efficiency gained from operations in Thailand.

#### 3) Seeking Opportunities in Integrated Energy Use and Value-Added Services

Indonesia has sizable commercial, industrial, and service markets. However, the energy sector is still in its early stage and at a point where other competitors are also looking to enter the renewable energy sector. As BPP's advantage is its accumulated experience in renewable energy and energy technologies in other regions, it devised a strategy to provide integrated energy services, including solar rooftop installation and energy efficiency projects, to increase energy saving and support carbon credit offset plans for customers.

### Major Competitors

- o Domestic and international power producers, developers of solar rooftop projects, and investors

## 2. Energy Technology

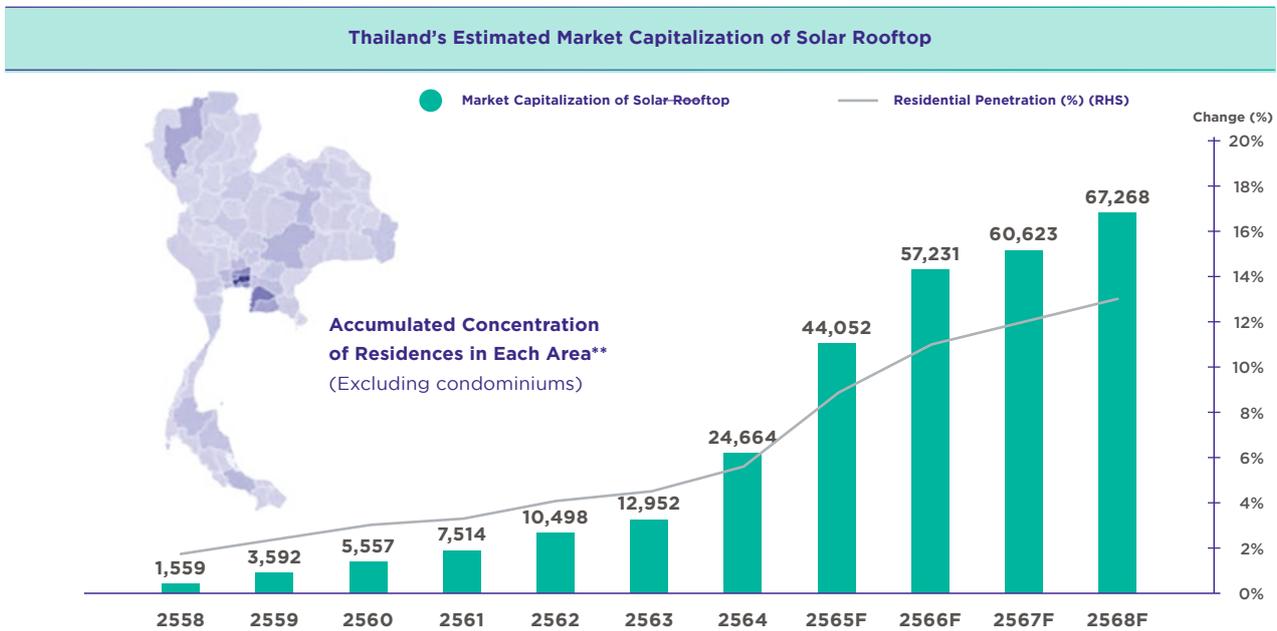
BPP drives the growth of energy technology businesses through a 50% shareholding in Banpu NEXT Company Limited, a leading smart energy solutions provider in Asia-Pacific. Banpu NEXT provides services with knowledge and expertise in technology and energy innovation of international standards. Partnering with strong business alliances, Banpu NEXT can deliver smart energy solutions for sustainability and integrated after-sales services, including smart hardware and digital platforms, to ensure affordable, reliable, and environmental-friendly energys as well as a fulfilling lifestyle for its customers.

### Market

#### 1. Solar Rooftop and Solar Floating Business

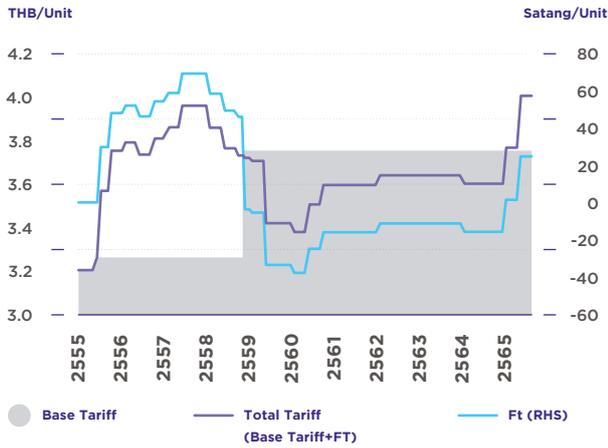
The International Energy Agency (IEA) has projected that renewables will become the world’s major energy source by 2025, accounting for one-third of total energy, with solar energy as a critical driver. Thailand has established a national energy policy in line with the growth of renewable energy through the Alternative Energy Development Plan (AEDP) 2018-2037, approved by the Cabinet on 20 October 2022. The plan targets to increase the share of renewable and alternative energy in the form of electricity, heat, and biofuels in final energy consumption to 30% by 2037. The plan also targets the generation of 29,411 MW of electricity from renewables, with over 50% coming from solar, including 12,139 MW of solar power and 2,725 MW of floating solar power.

In addition, the National Energy Plan 2022, a master plan to bring the energy sector to achieve carbon neutrality

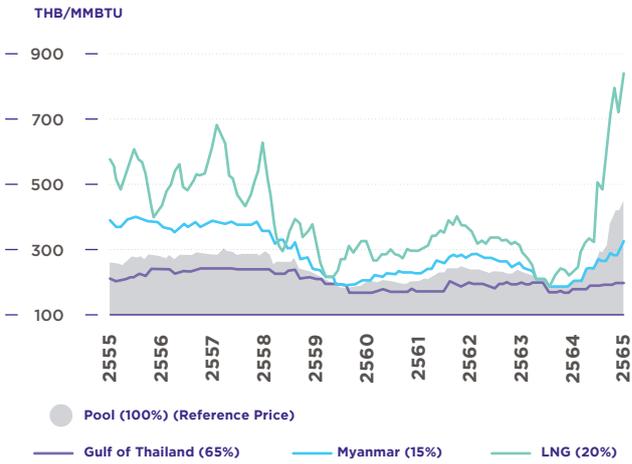


	Number of Residences (Million)	Monthly Electricity Consumption* (kWh)	Electricity Tariff (THB/Month)				
			Dec 19	Dec 21	Aug 22	Dec 22 (E)	2023 (F)
Metropolitan Electricity Authority	3.7	350	1,422.3	1,408.4	1,558.5	1,722.9	1,840.2
Provincial Electricity Authority	18.3	159	583.2	576.9	645.1	719.7	773.1

**Thailand's electricity tariff in 2022 increased significantly due to the government's reduction in support and rising energy costs.**



**The reference price of Thailand's natural gas increased sharply.**



Sourc: Ministry of Energy and ttb analytics

in the years 2065 to 2070, also encourages investment in renewable energy in the energy sector. The plan aims to increase the proportion of renewable energy and clean energy from new power plants, with at least 50% of renewable energy, and put long-term energy storage system costs into consideration.

The market of solar rooftop installations for residential, industrial, and commercial buildings is concentrated in Bangkok and greater metropolitan areas. The growth was high, particularly in the segments of industrial and commercial buildings, as operators wanted to cut costs pushed up by rising energy prices and to facilitate the transition to clean energy according to the stringent carbon emission control policy.

## 2. E-Mobility Business

Thailand's electric vehicle market is poised for exponential growth, with registrations of 18,135 new electric vehicles in the first 11 months of 2022 (Jan-Nov), increasing 235% year-on-year. Influencing factors include purchase subsidies for EV car buyers, tax incentives throughout 2023, the expansion of EV charging infrastructure to cover wider areas, and oil prices that remain high.

Pollution and daily transportation are major problems facing urban dwellers. So, EV is becoming an attractive option gaining more interest and confidence from consumers, especially when the world's leading car manufacturers decided to establish production and distribution bases in Thailand to start manufacturing EVs in 2024. However, rising production costs driven by the rising prices of lithium, battery raw material, as well as rising energy and labor costs, could push up electric vehicle prices.

In addition, the use of electric cars for public transport has been increasing, such as short-term EV rental or car-sharing services, which will help reduce personal car use and energy consumption, alleviate air pollution problems, and improve urban transportation.

## 3. Smart City and Energy Management Business

Smart City Development Plan is another policy that the government is prioritizing. It is considered an urgent agenda to align with the country's development direction under the Thailand 4.0 guidelines and the 20-year National Strategy. The government encourages cities to use cutting-edge and smart technologies and innovations to improve urban services and management efficiency, reduce costs and resource consumption of the target city and population, and emphasize good design and business and public sector participation in urban development. Starting from the pilot development of smart cities in 7 provinces in 2018, the Digital Economy Promotion Agency (DEPA) aims to develop 100 smart cities in 76 provinces and Bangkok by 2022. Measures include promoting participation in city governance and infrastructure development with more deployment of technologies, especially the energy infrastructure, an essential infrastructure required for Thailand to become a smart city. Smart city solutions that maximize energy efficiency range from energy management systems (EMS), energy storage systems (ESS), and electric vehicles (EV).

## Marketing Policy for Integrated Energy

### Services

Banpu NEXT has established an explicit, transparent, and accountable marketing policy to support the Banpu group's Sustainability Policy as follows:

1. To expand the customer portfolio to cover major markets in Asia
2. To create added value to products and services as an integrated energy solutions provider, offering solar solutions and installation as well as diverse energy solutions with state-of-the-art technology, including smart hardware and digital platforms, in order to satisfy varying customer needs in each area while driving the transition to sustainable smart cities; and to develop Internet of Things (IoT) systems for the best customer services to secure being the customer's first choice
3. To maintain marketing ethics and respect customers, competitors, and stakeholders
4. To ensure transparency, credibility, integrity, and professionalism

### Competition

#### Smart Energy Solutions for Sustainability

##### Competitive Strategies

Banpu NEXT focuses on differentiating itself from competitors by offering integrated smart energy solutions, encompassing smart hardware and digital platforms. The company deploys cutting-edge and appropriate technologies as well as designs products and services by prioritizing customers' problems and needs to improve customers' quality of life. It also joins the effort to promote smart cities and drive Thailand toward a low-carbon society. Banpu NEXT's major competitive strategies are as follows:

- **Customer-Centricity**

In developing services and solutions, Banpu NEXT deploys a customer-centric approach by taking into account the customer's pain points and needs in energy utilization. A team of experts will visit customers at their sites to discuss their needs. Cutting-edge technologies and innovations are integrated to support data collection, analysis, and evaluation to provide efficient and cost-effective energy solutions to customers in order to help solve their problems and fulfill their needs as much as possible.

- **Providing Integrated Smart Energy Solutions**

Apart from providing solar rooftop system installation, Banpu NEXT also offers other energy solutions to improve customers' quality of life. The company helps promote and drive the use of clean energy and related technologies to support Thailand's smart cities initiative. Solutions provided are, for example, the microgrid system, energy management system, and energy storage system for power generation control, transmission, and power storage to achieve maximum energy efficiency, as well as electric vehicle solutions. Smart data analytics is the first step of Banpu NEXT's solutions development process to truly understand customer pain points and appropriately respond to the diverse needs of customers in different locations in terms of cost reduction and improvement of energy efficiency and customer convenience.

- **Product Excellence**

Banpu NEXT uses tier 1 quality products from industry-leading brands with guaranteed industrial standards. The company's engineering team has expertise in designing systems that address the specific needs of each project. System installations comply with international standards, while state-of-the-art technology such as drone thermal scan is used to inspect solar panels to ensure delivery of the safest clean energy with the best value for money and highest efficiency for customers.

- **Service Excellence**

Banpu NEXT has built and developed many systems to support after-sales service, for instance, a control room for real-time monitoring of power generation, allowing timely correction of system malfunctions by a team of experienced engineers and customer service staff. The "Banpu Application" for mobile was developed to allow real-time tracking of the power generation system, the amount of power generated, and the power-saving performance. Customers can also view historical data and can be alerted when a system failure occurs.

In addition, Banpu NEXT has a customer service department responsible for providing information, receiving complaints, and responding to customer queries through various channels. Customers can report problems about Banpu NEXT's smart energy solutions to customer service 24/7, allowing the company to quickly resolve issues.

- **Strong Ecosystem**

Banpu NEXT operates its business under the Greener & Smarter strategy while prioritizing collaborating with partners in the energy technology business, clean energy and related businesses, and all sectors to enhance business potential, strengthen energy technology, and create a robust business ecosystem. The company is always open to technologies and ideas from new-generation startups with the potential to complement its all-in-one energy solutions through funding and collaboration in order to transform innovations into new businesses or to increase business growth.

- **Brand and Marketing Communication Strategies**

Banpu NEXT has implemented brand and marketing communication strategies in line with Banpu's Greener & Smarter strategy and environmental, social, and governance (ESG) principles to create awareness and trust among business customers, investors, service users, and society.

Banpu NEXT positions itself as a leading smart clean energy solution provider in Asia-Pacific and a long-term clean energy partner aiming to create integrated clean energy solutions for all business processes and help customers achieve ESG goals and Sustainable Development Goals (SDGs). The company also aspires to enhance the quality of life for consumers and people in society by offering Smart Energy Solutions for Sustainability encompassing Solar Rooftop and Floating, Energy Storage, Energy Trading, e-Mobility, and Smart City & Energy Management businesses.

Banpu NEXT communicates with the target customers and all groups of stakeholders through online and offline marketing channels, including press releases and articles on its business direction and services, promotional marketing activities, and corporate social responsibility activities as follows:

1. **Corporate Branding and Public Relations**

- PR articles highlighting Banpu NEXT's brand position: "Betterment for All," which aims to offer better alternatives for everyone in a low-carbon society through the full-range "Smart Energy Solutions for Sustainability," allowing unlimited access and utilization of clean energy
- Press interviews on business directions and strategies, including the management concept of senior executives to accelerate investment in clean energy and energy technology businesses, enhance competitiveness and connect business ecosystems that align with new energy trends
- Promoting Banpu NEXT's businesses information and investment direction to expand the portfolio in the Asia-Pacific region to build a business ecosystem and respond to the rising demand for clean energy and sustainability
- Informative articles on technology and smart solutions that modern commercial and industrial operators should deploy in their operations, from upstream to downstream, to enhance competitiveness, reduce long-term costs, create sustainable growth, and transform their facilities into Smart Eco Industrial Estates (Smart Eco 4.0) and smart factories.

## 2. Products, Services, and Marketing Public Relations

- Banpu NEXT has launched a new model of Banpu NEXT e-Boat for marine tourism. Banpu NEXT e-Boat can be customized and configured to serve various uses. It is equipped with high-quality materials and batteries, powered entirely by clean energy, which is pollution-free, odorless, noise-free, and safe. Compared to traditional passenger boats of the same size, this eco-friendly boat can significantly reduce fuel costs by up to 85%. Additionally, the Banpu NEXT e-Boat provides long-term value with low maintenance expenses and a monitoring system to keep track of the boat's operations and battery usage. Entrepreneurs and tourists can also enjoy full warranty and after-sales support services for every e-Boat purchased.
- The company has introduced the Microgrid system, a fully integrated system for electricity generation, storage, and distribution. The system helps maintain power stability 24 hours a day and reduces electricity bills and pollution while driving businesses toward sustainability. The equipment is made of top-quality materials, commanded and controlled by an automation system via a digital platform with accurate real-time monitoring. Additionally, the microgrid system can be customized to meet the specific needs of each customer, and the company offers comprehensive services, from pre-installation consulting to after-sales support. The microgrid system is ideal for hotels, resorts, and private businesses located on islands or in areas without access to electricity, as well as industries that require a 24-hour electricity supply.
- The company has developed the "Smart Safety Platform," an integrated safety system for business customers. This platform includes smart features that improve safety and work efficiency while offering convenient and swift data management to increase long-term business value. Smart Safety operates on a digital platform, providing fast and precise data analysis. The dashboard and application allow real-time data tracking from anywhere at any time. This platform is not only ideal for government agencies operating in the security and tourism sectors but also for various other businesses.
- Banpu NEXT expanded its portfolio of floating solar power generation or floating solar systems in Lakchai Muang Yang Industrial Estate, Rayong Province, leveraging its expertise in energy technology to design a floating solar system that meets the needs of the industrial estate's business. The company's floating solar is supported by digital platforms and applications to monitor system performance in real time. It helps create long-term value, reduce electricity costs, increase energy efficiency, and foster business toward becoming a green industry.
- Banpu NEXT and Apex Park have joined forces to transform Apex Green Industrial Estate into an eco-industrial zone that sets an example for sustainable and low-carbon industrial zones. The project aims to create value in all dimensions for all stakeholders, including industrial estates, entrepreneurs, communities, and the environment. The collaboration involves the installation of floating solar systems for electricity generation. Entrepreneurs can purchase electricity from this project to use in their businesses to reduce electricity bills and increase energy efficiency. The project is strategically located in the Eastern Economic Corridor (EEC) and equipped with world-class infrastructure technology.

- The company arranged a promotional campaign that combines three energy solutions, which allow businesses to take full advantage of clean energy. These solutions include energy production, tracking energy usage, and providing electric vehicle charging. After installing a solar energy system with Banpu NEXT, they will receive an energy monitoring system and an EV charger, along with a free platform that helps enhance energy efficiency, reduce electricity bills, add value to their investment, and create business expansion opportunities. These solutions also reduce CO2 emissions and help transform businesses into smart businesses and drive the country toward a low-carbon society.
- Banpu NEXT has developed the “Energy Management System (EMS),” a multidimensional energy management service encompassing utility management and energy efficiency solutions, facility management, and district cooling systems and infrastructure. The system uses hardware, software, and digital platforms certified by the Federation of Thai Industries (FTI). Banpu NEXT’s energy management system provides the most efficient energy management, which enables real-time monitoring and control. The company offers integrated services from inspection, design, and installation to after-sales services for companies seeking to reduce production costs, especially for industrial buildings, hotels, and mixed-use projects that combine the use of real estate to maximize space utilization. Customers can see quick results in reduced electricity bills. The EMS also increases long-term profit, reduces CO2 emissions, and drives sustainable business growth.

### **3. Collaborative Branding with Business Alliances**

- Banpu NEXT and its business partners, Haupcar and MuvMi, co-hosted a press interview with executives to promote their new transportation mode called Mobility as a Service (MaaS) jointly developed by Banpu NEXT and both partners. MaaS will complement the smart mobility business and add diverse services to meet the needs of all customer groups, supporting all travel modes for both the business sector and the general public. EV Fleet Management platform was also developed to cover land and marine transport to facilitate transportation systems and travel in the business sector, such as corporate fleet management and staff shuttle management and general transportation services, as well as operation and maintenance services.
- Banpu NEXT signed a Memorandum of Understanding with its business partners – Cherdchai Motor Sales Co., Ltd., Thailand’s largest bus operator, and Durapower Group, a global leader in performance lithium battery storage solutions, to build a lithium-ion battery assembly plant in Thailand for Cherdchai’s e-Buses. The plant will also serve the electric vehicle markets in the Asia-Pacific region. It is expected to start operations at the end of 2023 with a plan to expand capacity to 1 GWh/year by 2026.
- Banpu NEXT signed a cooperation agreement with Planet Communications Asia PLC., a leading integrated digital technology provider in Thailand, to develop the Smart Safety Platform. This comprehensive safety management solution can process data quickly and accurately. It can run as a web-based service and an application. Users can track and command the system and receive real-time alerts anytime & anywhere through this application. This cooperation is part of smart city development and tourism promotion in line with the approach to boosting the digital economy and Thailand 4.0.

#### 4. Public Promotion and Marketing Communication Activities

- Banpu NEXT presented the company’s exhibition booth and provided a lecture on “Smart Hotel as a Business Development Trend” at the 5th Phuket Hotels for Islands Sustaining Tourism (PHIST) Conference, the largest gathering of entrepreneurs in the hospitality and tourism industry for sustainability in Southeast Asia. At the conference, Banpu NEXT also showcased an energy management system to the attendees.
- Banpu NEXT presented an exhibition booth at the ISAN BCG EXPO 2022 in Khon Kaen Province, where participants can explore the use of clean energy through several activities. At the event, Mr. Sinon Vongkusolkrit, CEO of Banpu NEXT, shared his insight on energy technologies that help promote business growth and sustainability according to the BCG economy model for sustainable development of grassroots economy and business transitioning toward smarter business.
- Banpu NEXT, in collaboration with the Marketing Association of Thailand (MAT), organized the 31st J-MAT Award marketing plan competition on the theme of “Smart e-TukTuk, driving the future with GenNEXT people.” This activity reflected Banpu group’s determination to support the creativity of young people and empower them to become marketers and entrepreneurs in the modern business world who recognize the importance of clean energy innovations. It also promotes transforming young people’s ideas into smart energy solutions to create new S-curve industries driven by technology and innovation for the business sector to support a low-carbon society and improve the quality of life.

#### Major Competitors

Banpu NEXT has no major competitor offering full-range smart energy solutions as it does since the majority of competitors in the market focuses on installation services and rooftop solar system design. The competitors in the market can be classified into three groups: retail operators offering installation services, large operators offering installation services as well as investment packages, and foreign investors. Over 50% of competitors in the market are retail operators.

The company’s competitors in the solar rooftop solutions business are large operators offering installation services with investment packages since they are financially stable operators with diverse services to offer. Meanwhile, smaller operators with access to funding from foreign investors can also offer similar services as large operators. In addition, the access to funding allows them to partner with other operators that offer similar services to Banpu NEXT.

## Pricing Policy

Banpu NEXT offers various pricing packages according to the conditions and requirements of customers. Currently, the company offers two pricing packages for solar rooftop installation services: installation invested by Banpu NEXT and installation costs paid by customers depending on the equipment, installation size, and service model chosen. Banpu NEXT also adjusts installation and equipment costs according to market conditions. It also keeps up with recent technological advancements to provide customers with smart technology options of the highest efficiency at the best prices.

## Customer Profiles

Banpu NEXT's customer portfolio consists of enterprises seeking alternative energy management solutions or medium and large enterprises that primarily consume electricity during the daytime, such as industrial and commercial buildings, and industrial parks or communities seeking full utilization of smart energy technology. In 2022, 70% of customers signing solar power installation contracts with Banpu NEXT chose the first option in which Banpu NEXT is an investor, and customers benefit from savings on electricity bills. The other 30% of customers opted for the system installation service in which they invest in equipment and installation and enjoy the free use of solar energy generated from their rooftops. However, with growing customer needs for lower installation costs, more discount schemes, shorter contract periods, or additional services, Banpu NEXT has adjusted its proposals accordingly to better satisfy the varying needs and different profiles of customers. For other solutions, namely electric vehicle management, energy storage system, and energy management, customers have similar investment needs, namely, periodic payment plans or lease options. Due to the COVID-19 pandemic, customers suspend lump-sum investments to avoid risks.

## Distribution and Distribution Channels

Banpu NEXT offers solar rooftop power generation and smart energy solutions through an open bidding process announced by customers, direct negotiations with customers, and presentations to renewable energy agencies and organizations. Banpu NEXT will contact prospective customers to introduce the company and listen to customers' needs. Then the engineering team will conduct a site survey to design the power generation system or other solutions tailored to the customer's needs. These solutions may include electric vehicle management, energy storage system, or energy management. Based on their findings, the team will prepare a project proposal to present to the customer. Banpu NEXT expands its sales channels through events, activities, and happy customer referrals.

## Assets for Business Operations

### Fixed Assets

BPP's business assets in Thailand and overseas include generation and distribution of power and steam. The fixed assets illustrated in the tables below consist of the Company's and its subsidiaries' fixed assets. Net book value after deducting accumulated depreciation and impairment losses, as reported in the consolidated financial statements of the Company and its subsidiaries for the year ended 31 December 2022 and 31 December 2021, amounted to THB 22,875,580 thousand and THB 23,811,139 thousand, respectively, as detailed below:

Asset	Book Value (THB Thousand) 31 Dec 2022	Book Value (THB Thousand) 31 Dec 2021	Obligation
Land	35,599	34,422	None
Building, infrastructures and Building improvements	2,131,014	2,371,170	None
Plant machinery and equipment for CHP power plant & gas power plant	20,508,517	21,356,538	Put up some machinery and equip- ment as collateral for the long-term loan agreements between subsidiaries and financial institutions
Furniture and office equipment	6,354	8,745	None
Tools	15,457	23,215	None
Motor vehicles	11,198	10,530	None
Construction in progress	167,441	6,519	None
<b>Total Book Value</b>	<b>22,875,580</b>	<b>23,811,139</b>	



## Details of Land Used Rights of Power Plant Business in China

### Land Used Rights Held by Subsidiaries Operating Major Businesses

As of 31 December 2022, land used rights held by subsidiaries operating major businesses are as follows:

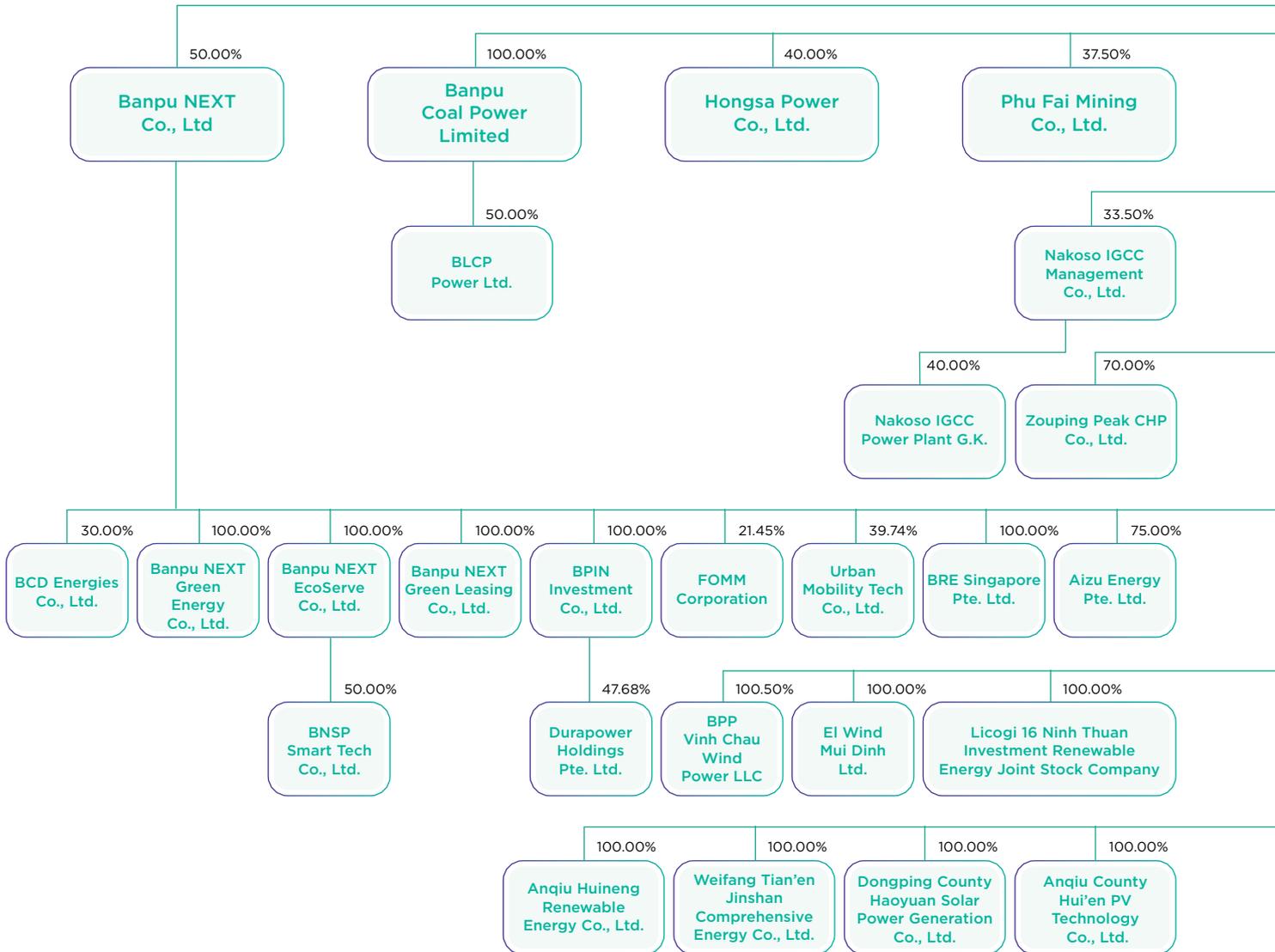
Location	Rights Holder	Area (sq m)	Start Date	End Date	Objective	Book Value of Land Used Rights (THB Thousand)
Zhengding County, Shijiazhuang City, Hebei Province, P.R.China	Shijiazhuang Chengfeng Cogen Co., Ltd.	7,132	27 Dec 2006	2 Sep 2053	To be the location of Zhengding CHP plant	90,332
		67,354	16 Feb 1998	30 Nov 2047		
		17,665	28 Dec 2016	26 Mar 2062		
		23,135	18 Apr 2001	17 Apr 2031		
Luannan County, Tangshan City, Hebei Province, P.R.China	Tangshan Banpu Heat and Power Co., Ltd.	225,172	18 Apr 2020	18 Apr 2070	To be the location of Luannan CHP plant	416,523
		2,100	22 Sep 2018	21 Sep 2068		
		90,370	1 Jan 2017	31 Dec 2066		
		40,960	1 Jan 2017	Under consideration of a government agency		
Zouping County, Binzhou City, Shandong Province, P.R.China	Zouping Peak CHP Co., Ltd.	105,831	30 Aug 2001	3 Jul 2051	To be the location of Zouping CHP plant	39,508
		18,190	29 Dec 2007	29 Dec 2056		
		24,315	29 Dec 2008	3 Dec 2058		



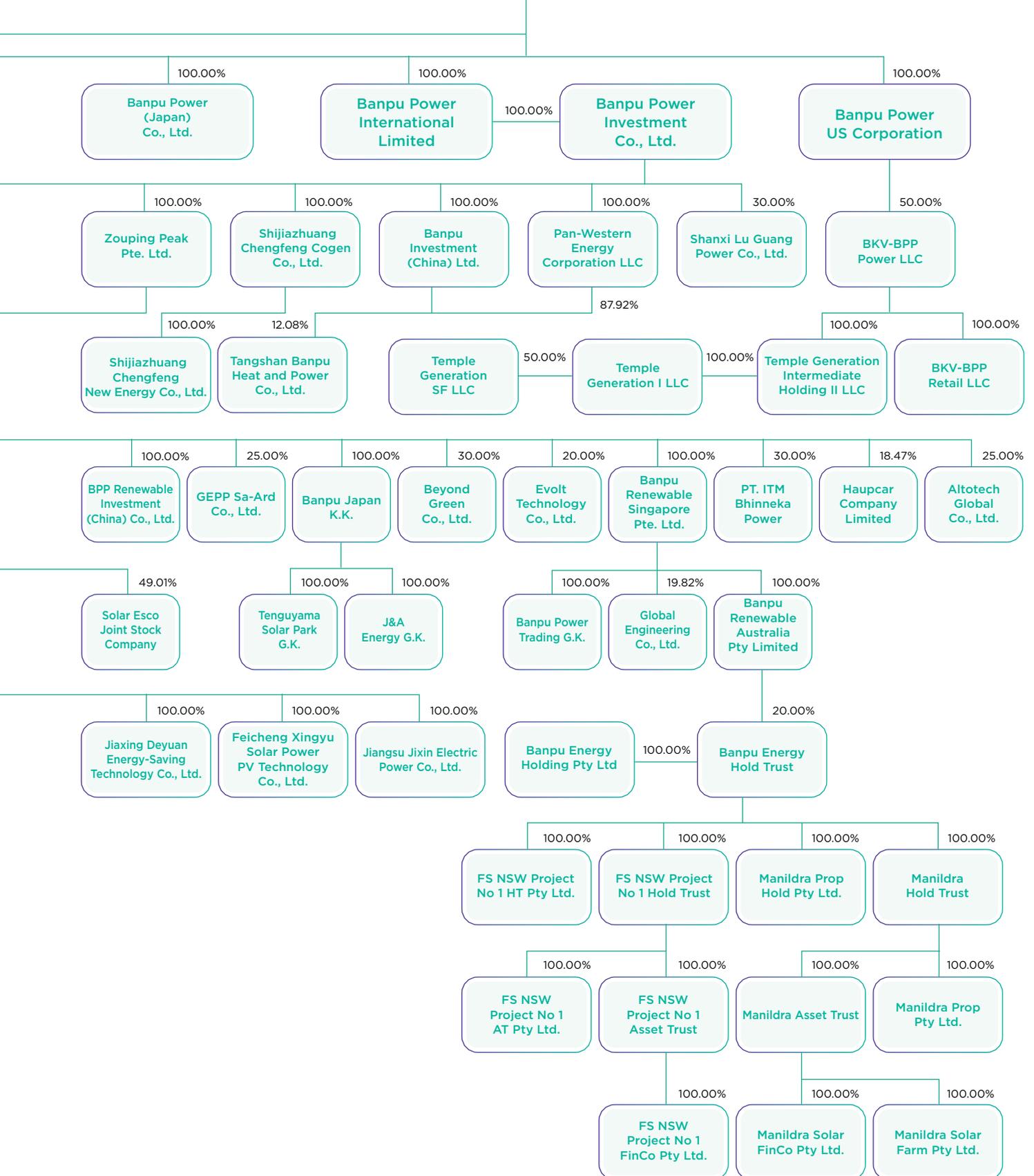
# Group of Companies Structure

As of 31 December 2022

(Direct and indirect shareholdings more than 10%)



## Banpu Power Public Company Limited



# Details of the Company, Its Subsidiaries, Associate Companies and Joint Ventures of Banpu Power Public Company Limited

As of 31 December 2022

Name	Type of business	Authorized capital	Paid up capital	No. of paid-up capital (shares)	Par value per share	% of holding	Head Office	Telephone
1. Banpu Power Public Company Limited	Energy generation business	THB 31,012,020,000	THB 30,477,317,000	3,047,731,700	10	78.66% (held by Banpu Public Company Limited)	1550, Thanapoom Tower, 26 <sup>th</sup> Floor, New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400, Thailand	+66 2007 6000

## Subsidiary companies

### Thailand

2. Banpu Coal Power Ltd.	Investment in energy and power business	THB 5,921,587,160	THB 5,921,587,160	592,158,716	10	100.00% (held by Banpu Power Public Company Limited)	1550, Thanapoom Tower, 26 <sup>th</sup> Floor, New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400, Thailand	+66 2007 6000
3. Banpu Power (Japan) Co., Ltd.	Investment in renewable energy business	THB 5,000,000	THB 5,000,000	500,000	10	100.00% (held by Banpu Power Public Company Limited)	1550, Thanapoom Tower, 26 <sup>th</sup> Floor, New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400, Thailand	+66 2007 6000

### China

4. Shijiazhuang Chengfeng Cogen Co., Ltd.	Power and steam generation and sales	USD 52,516,000	USD 52,516,000	NA	No par value*	100.00% (held by Banpu Power Investment Co., Ltd.)	East of Jingshen Highway, Zhengding County, Shijiazhuang City, Hebei Province, P.R.China, 050800	+86 311 85176918
5. Banpu Investment (China) Ltd.	Investment in energy business and other industrial areas	USD 30,000,000	USD 30,000,000	NA	No par value*	100.00% (held by Banpu Power Investment Co., Ltd.)	Unit 508, 5 <sup>th</sup> Floor, Tower 21, No. 10 Jiuxianqiao Road, Chaoyang District, Beijing, P.R.China 100015	+86 105 7580388
6. Tangshan Banpu Heat and Power Co., Ltd.	Power and steam generation and sales	USD 78,082,200	USD 47,504,216.60	NA	No par value*	87.92% (held by Pan-Western Energy Corporation LLC)  12.08% (held by Banpu Investment (China) Ltd.)	West of Gujiaying Villiage, Bencheng Town, Luannan County, Tangshan City, Hebei Province, P.R.China, 063500	+86 315 4168274
7. Zouping Peak CHP Co., Ltd.	Power and steam generation and sales	CNY 261,800,000	CNY 261,800,000	NA	No par value*	70.00% (held by Zouping Peak Pte. Ltd.)	Handian Town, Zouping County, Binzhou City, Shandong Province, P.R.China, 256209	+86 543 4615655
8. Shijiazhuang Chengfeng New Energy Co., Ltd.	Solar power generation	CNY 66,000,000	CNY 5,000,000	NA	No par value*	100.00% (held by Shijiazhuang Chengfeng Cogen Co., Ltd)	No. 2-1, Jianye Xiang, Jianye Road, Zhengding County, Shijiazhuang City, Hebei Province, P.R.China, 050800	+86 311 85176918

Name	Type of business	Authorized capital	Paid up capital	No. of paid-up capital (shares)	Par value per share	% of holding	Head Office	Telephone
<b>Singapore</b>								
9. Banpu Power Investment Co., Ltd.	Investment in power business	NA	USD 111,962,391	104,917,663	No par value*	100.00% (held by Banpu Power International Ltd.)	8 Marina Boulevard, #05-02 Marina Bay Financial Centre, Singapore 018981	+65 6338 1888
10. Zouping Peak Pte. Ltd.	Investment in power business	NA	SGD 2 CNY 140,495,758	2 140,495,758	No par value*	100.00% (held by Banpu Power Investment Co., Ltd.)	8 Marina Boulevard, #05-02 Marina Bay Financial Centre, Singapore 018981	+65 6338 1888
<b>Mauritius</b>								
11. Banpu Power International Ltd.	Investment in power business	USD 117,835,000	USD 117,835,000	117,835,000	1	100.00% (held by Banpu Power Public Company Limited)	4 <sup>th</sup> Floor, Ebene Skies, Rue de L'Institut, Ebene, Republic of Mauritius 80817	+230 404 8000
<b>Cayman Islands</b>								
12. Pan-Western Energy Corporation LLC	Investment in power business	USD 100,000	USD 100,000	10,000,000	0.01	100.00% (held by Banpu Power Investment Co., Ltd.)	PO Box 309, Uglund House, Grand Cayman, KY1-1104, Cayman Islands	+1 345 949 8066
<b>United States of America</b>								
13. Banpu Power US Corporation	Investment in energy generation and related business	USD 100	USD 100	10,000	0.01	100.00 % (held by Banpu Power Public Company Limited)	251 Little Falls Drive Street, Wilmington, Delaware, USA, 19808	+1 720 375 9680
14. BKV-BPP Power LLC	Investment in energy generation and related business	NA	USD 173,963,925.34	NA	No par value*	50% (held by Banpu Power US Corporation)	1200 17 <sup>th</sup> Street, Suite 2100, Denver, Colorado USA, 80202	+1 720 375 9680
15. Temple Generation Intermediate Holding II LLC	Investment in energy generation and related business	NA	NA	NA	No par value*	100% (held by BKV-BPP Power LLC)	1200 17 <sup>th</sup> Street, Suite 2100, Denver, Colorado USA, 80202	+1 720 375 9680
16. Temple Generation I LLC	Investment in energy generation and related business	NA	NA	NA	No par value*	100% (held by Temple Generation Intermediate Holding II LLC)	1200 17 <sup>th</sup> Street, Suite 2100, Denver, Colorado USA, 80202	+1 720 375 9680
17. Temple Generation SF LLC	Investment in energy generation and related business	NA	NA	NA	No par value*	50% (held by Temple Generation I LLC)	1200 17 <sup>th</sup> Street, Suite 2100, Denver, Colorado USA, 80202	+1 720 375 9680
18. BKV-BPP Retail LLC	Investment in energy generation and related business	NA	NA	NA	No par value*	100% (held by BKV-BPP Power LLC)	1200 17 <sup>th</sup> Street, Suite 2100, Denver, Colorado USA, 80202	+1 720 375 9680

Name	Type of business	Authorized capital	Paid up capital	No. of paid-up capital (shares)	Par value per share	% of holding	Head Office	Telephone
<b>Associated companies</b>								
<b>Thailand</b>								
19. Banpu NEXT Co., Ltd.	Smart clean energy solution business	THB 14,959,000,000	THB 14,959,000,000	14,959,000,000	10	50.00% (held by Banpu Power Public Company Limited)	1550, Thanapoom Tower, 24 <sup>th</sup> Floor, New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400, Thailand	+66 2095 6569
20. Banpu NEXT Green Leasing Co., Ltd.	Investment in energy business and leasing	THB 50,000,000	THB 50,000,000	5,000,000	10	100.00% (held by Banpu NEXT Co., Ltd.)	1550, Thanapoom Tower, 24 <sup>th</sup> Floor, New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400, Thailand	+66 2095 6569
21. Banpu NEXT Green Energy Co., Ltd.	Smart clean energy solution business	THB 80,000,000	THB 80,000,000	800,000	100	100.00% (held by Banpu NEXT Co., Ltd.)	1550, Thanapoom Tower, 24 <sup>th</sup> Floor, New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400, Thailand	+66 2095 6595
22. Banpu NEXT EcoServe Co., Ltd.	Providing energy management services	THB 96,000,000	THB 96,000,000	960,000	100	100.00% (held by Banpu NEXT Co., Ltd.)	1550 Thanapoom Tower, 24 <sup>th</sup> Floor, New Petchburi Road, Makkasan Subdistrict, Ratchathewi District, Bangkok 10400, Thailand	+66 2095 6569
23. Beyond Green Co., Ltd.	Integrated electric vehicle	THB 714,285,700	THB 714,285,700	7,142,857	100	30.00% (held by Banpu NEXT Co., Ltd.)	115/1, 115/6, Motorway Road, Thap Chang Sub-Area, Saphan Sung Area, Bangkok, 10250, Thailand	+66 2136 0490
24. Urban Mobility Tech Co., Ltd.	Electric vehicle business	THB Ordinary share 1,070,000	THB Ordinary share 1,070,000	Ordinary share 107,000	10 (Ordinary share)	39.74% (held by Banpu NEXT Co., Ltd.)	256 Soi Soonvijai, Rama IX Soi 17 Road, Bangkok, Huaykwang, Bangkok 10310, Thailand	+668 6887 4796
		THB Preference share 723,750	THB Preference share 723,750	Preference share 72,375	10 (Preference share)			
25. GEPP SA-ARD Co., Ltd.	Integrated waste management platform	THB 2,666,700	THB 2,666,700	26,667	100	25.00% (held by Banpu NEXT Co., Ltd.)	559/186 Nonsi Road, Chong Nonsi Subdistrict, Yannawa District, Bangkok, 10120, Thailand	+668 4360 2928
<b>Indonesia</b>								
26. PT. ITM Bhinneka Power	Electric power generator	IDR 774,788,000,000	IDR 193,697,000,000	193,697	1,000,000	30.00% (held by Banpu NEXT Co., Ltd.)	Pondok Indah Office Tower 3, 3 <sup>rd</sup> Floor, 3 Jl. Sultan Iskandar Muda Kav. V-TA Pondok Pinang, Kebayoran Lama, Jakarta 12310, Indonesia	+6221 29328100
<b>Australia</b>								
27. Banpu Renewable Australia Pty Ltd.	Renewable energy	AUD 9,031,774	AUD 9,031,774	9,031,774	1	100.00% (held by Banpu Renewable Singapore Pte. Ltd.)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700

Name	Type of business	Authorized capital	Paid up capital	No. of paid-up capital (shares)	Par value per share	% of holding	Head Office	Telephone
28. Banpu Energy Hold Trust	Renewable energy	NA	NA	102,900,010	NA	20% (held by Banpu Renewable Australia Pty Ltd.)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
29. Banpu Energy Holding Pty Ltd.	Renewable energy	10 AUD	10 AUD	10	1	20% (held by Banpu Renewable Australia Pty Ltd.)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
30. FS NSW Project No 1 Hold Trust	Renewable energy	NA	NA	6,932,058,900	NA	100% (held by Banpu Energy Hold Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
31. FS NSW Project No 1 HT Pty Ltd.	Renewable energy	AUD 100	AUD 100	100	1	100% (held by Banpu Energy Hold Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
32. FS NSW Project No 1 Asset Trust	Renewable energy	NA	NA	8,206,490,677	NA	100% (held by FS NSW Project No 1 Hold Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
33. FS NSW Project No 1 AT Pty Ltd.	Renewable energy	AUD 1	AUD 1	1	1	100% (held by FS NSW Project No 1 Hold Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
34. FS NSW Project No 1 FinCo Pty Ltd.	Renewable energy	AUD 1	AUD 1	1	1	100% (held by FS NSW Project No 1 Asset Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
35. Manildra Hold Trust	Renewable energy	NA	NA	6,403,747	NA	100% (held by Banpu Energy Hold Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
36. Manildra Prop Hold Pty Ltd.	Renewable energy	AUD 1	AUD 1	1	1	100% (held by Banpu Energy Hold Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
37. Manildra Asset Trust	Renewable energy	NA	NA	3,701,105	NA	100% (held by Manildra Hold Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
38. Manildra Prop Pty Ltd.	Renewable energy	1 AUD	1 AUD	1	1	100% (held by Manildra Hold Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
39. Manildra Solar Farm Pty Ltd.	Renewable energy	AUD 100	AUD 100	100	1	100% (held by Manildra Asset Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700
40. Manildra FinCo Pty Ltd.	Renewable energy	AUD 1	AUD 1	1	1	100% (held by Manildra Asset Trust)	Level 20, 1 Market Street, Sydney NSW 2000, Australia	+61 2 9266 2700

#### Japan

41. FOMM Corporation	Planning, developing, manufacturing and selling of compact electric vehicle	NA	JPY 3,505,170,250	2,046,635	No par value*	21.45% (held by Banpu NEXT Co., Ltd.)	10FI., Yokohama Dia Building, 1-7, Kinko-cho, Kanagawa-ku, Yokohama-shi, Kanagawa-ken, Japan	+81 50 1753 1831
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Name	Type of business	Authorized capital	Paid up capital	No. of paid-up capital (shares)	Par value per share	% of holding	Head Office	Telephone
42. Global Engineering Co., Ltd.	Electricity sales and resource aggregator of virtual power plant	NA	JPY 308,200,000	3,635,000	No par value*	19.82% (held by Banpu Renewable Singapore Pte. Ltd.)	Nishiko Living Kashii 2 <sup>nd</sup> Floor, 1-1-1, Kashii, Higashi-ku, Fukuoka City, Fukuoka Prefecture, Japan 813-0011	+81 92 692 7547
43. Banpu Power Trading G.K.	Energy trading	NA	JPY 100,000,000	NA	No par value*	100.00% (held by Banpu Renewable Singapore Pte. Ltd.)	Kasumigaseki Building, 33 <sup>rd</sup> Floor, 3-2-5, Kasumigaseki, Chiyoda-ku, Tokyo, Japan 100-6033	+81 3 6205 4665
44. Banpu Japan K.K.	Investment in renewable energy business	NA	JPY 100,000,000	395,549	No par value*	100.00% (held by Banpu NEXT Co., Ltd.)	Kasumigaseki Building, 33 <sup>rd</sup> Floor, 3-2-5, Kasumigaseki, Chiyoda-ku, Tokyo, Japan 100-6033	+81 3 6205 4665
45. Tenguyama Solar Park G.K.	Land owner of solar project	NA	JPY 1	NA	No par value*	100.00% (held by Banpu Japan K.K.)	Kasumigaseki Building, 33 <sup>rd</sup> Floor, 3-2-5, Kasumigaseki, Chiyoda-ku, Tokyo, Japan 100-6033	+81 3 6205 4665
46. J&A Energy G.K.	Store and sell electricity using battery	NA	JPY 500,000	NA	No par value*	100.00% (held by Banpu Japan K.K.)	Kasumigaseki Building, 33 <sup>rd</sup> Floor, 3-2-5, Kasumigaseki, Chiyoda-ku, Tokyo, Japan 100-6033	+81 3 6205 4665

### China

47. BPP Renewable Investment (China) Co., Ltd.	Investment in renewable energy business	160,000,000 USD	97,620,000 USD	NA	No par value*	100.00% (held by Banpu NEXT Co., Ltd.)	Unit 509, 5 <sup>th</sup> Floor, Tower B21, UBP, No.10 Jiuxianqiao Road, Chaoyang District, Beijing 100015	+86 105 7580388
48. Anqiu Huineng Renewable Energy Co., Ltd.	Solar power generation	66,000,000 CNY	66,000,000 CNY	NA	No par value*	100.00% (held by BPP Renewable Investment (China) Co., Ltd.)	1 <sup>st</sup> Floor, Unit 1, Dafugou Villiage, Wushan Town, Anqiu County, Weifang City, Shandong Province, P.R.China	+86 105 7580310
49. Weifang Tian'en Jinshan Comprehensive Energy Co., Ltd.	Solar power generation	83,000,000 CNY	83,000,000 CNY	NA	No par value*	100.00% (held by BPP Renewable Investment (China) Co., Ltd.)	2 <sup>nd</sup> Floor, Unit 1, Dafugou Villiage, Wushan Town, Anqiu County, Weifang City, Shandong Province, P.R.China	+86 105 7580310
50. Dongping County Haoyuan Solar Power Generation Co., Ltd.	Solar power generation	69,000,000 CNY	69,000,000 CNY	NA	No par value*	100.00% (held by BPP Renewable Investment (China) Co., Ltd.)	East side of the north section of Xishan Road, Dongping County, Taian City, Shandong Province, P.R.China	+86 105 7580310
51. Anqiu County Hui'en PV Technology Co., Ltd.	Solar power generation	62,000,000 CNY	62,000,000 CNY	NA	No par value*	100.00% (held by BPP Renewable Investment (China) Co., Ltd.)	Unit 2, Longwangmiao Village, Dasheng Town, Anqiu County, Weifang City, Shandong Province, P.R.China	+86 105 7580310
52. Jiaxing Deyuan Energy-Saving Technology Co., Ltd.	Solar power generation	150,740,000 CNY	150,737,585.55 CNY	NA	No par value*	100.00% (held by BPP Renewable Investment (China) Co., Ltd.)	No. 999 Xianghu Road, Yaozhuang Town, Jiashan County, Jiaxing City, Zhejiang Province, P.R.China	+86 105 7580310

Name	Type of business	Authorized capital	Paid up capital	No. of paid-up capital (shares)	Par value per share	% of holding	Head Office	Telephone
53. Feicheng Xingyu Solar Power PV Technology Co., Ltd.	Solar power generation	CNY 55,000,000	CNY 55,000,000	NA	No par value*	100.00% (held by BPP Renewable Investment (China) Co., Ltd.)	Huangtuling Village, Anzhan Town, Feicheng County, Tai'an City, Shandong Province, P.R.China	+86 105 7580310
54. Jiangsu Jixin Electric Power Co., Ltd.	Solar power generation	CNY 64,000,000	CNY 64,000,000	NA	No par value*	100.00% (held by BPP Renewable Investment (China) Co., Ltd.)	Zhengwei Villiage, Qianfeng Town, Jinhui County, Huai'an City, Jiangsu Province, P.R.China	+86 105 7580310
<b>Singapore</b>								
55. Banpu Renewable Singapore Pte. Ltd.	Investment in renewable energy business	NA	JPY 16,310,029,719.80 USD 71,295,176.69	16,310,029,719	No par value*	100.00% (held by Banpu NEXT Co., Ltd.)	8 Marina Boulevard, #05-02 Marina Bay Financial Centre, Singapore 018981	+65 6338 1888
56. BRE Singapore Pte. Ltd.	Investment in renewable energy business	NA	USD 68,220,001	68,220,001	No par value*	100.00% (held by Banpu NEXT Co., Ltd.)	8 Marina Boulevard, #05-02 Marina Bay Financial Centre, Singapore 018981	+65 6338 1888
57. Durapower Holdings Pte. Ltd.	Investment holding company (with subsidiaries undertaking manufacturing of Lithium-Ion Battery (LiB) for EV and Energy Storage System (ESS))	NA	SGD 59,737,835.50	385,699	No par value*	47.68% (held by BPIN Investment Co., Ltd.)	66 Kallang Pudding Road, #05-02 Hor Kew Business Centre, Singapore 349324	+65 6846 0171
<b>Mauritius</b>								
58. BPIN Investment Co., Ltd.	Investment in renewable energy	USD 212,497,600	USD 212,497,600	212,497,600	1	100.00% (held by Banpu NEXT Co., Ltd.)	4 <sup>th</sup> Floor, Ebene Skies, Rue de L'Institut, Ebene, Republic of Mauritius 80817	+230 404 8000
<b>Vietnam</b>								
59. El Wind Mui Dinh Ltd.	Power production, Installation of electrical systems	VND 235,128,370,557	VND 235,128,370,557	NA	No par value*	100.00% (held by BRE Singapore Pte. Ltd.)	Tu Thien Commune, Phuoc Dinh Ward, Thuan Nam District, Ninh Thuan Province, Vietnam 59000	+849 25 9651 1234
60. BPP Vinh Chau Wind Power Limited Liability Company	Wind power production, power transmission and distribution	VND 427,395,900,000	VND 427,395,900,000	NA	No par value*	100.00% (held by BRE Singapore Pte. Ltd.)	Wind power plant no.3, Street 48, Vinh Phuoc ward, Vinh Chau town, Soc Trang Province 96000	+849 0988 5015
61. Licogi 16 Ninh Thuan Renewable Energy Joint Stock Company	Power production	VND 240,000,000,000	VND 240,000,000,000	24,000,000	10,000	100.00% (held by BRE Singapore Pte. Ltd.)	Kien Kien Vinh Hy Street, Khanh Phuoc Hamlet, Nhon Hai Commune, Ninh Hai District, Ninh Thuan Province, Vietnam, 59000	+28 3866 8535

Name	Type of business	Authorized capital	Paid up capital	No. of paid-up capital (shares)	Par value per share	% of holding	Head Office	Telephone
62. Solar Esco Joint Stock Company	Computer programming, power production, power transmission and distribution	VND Ordinary share 121,715,750,000	VND Ordinary share 121,715,750,000	Ordinary share 12,171,575	10,000 (Ordinary share)	49.01% (held by BRE Singapore Pte. Ltd.)	47 Le Van Thinh, Quarter 5, Binh Trung Dong Ward, Thu Duc City, Ho Chi Minh City, Vietnam	+28 6285 4535
		VND Preference share 31,030,000	VND Preference share 31,030,000	Preference share 3,103	10,000 (Preference share)			

### Joint Ventures

#### China

63. Shanxi Lu Guang Power Co., Ltd.	Power generating and sales	CNY 1,745,818,000	CNY 1,500,000,000	NA	No par value*	30.00% (held by Banpu Power Investment Co., Ltd.)	Songcun Town, Zhangzi County, Changzhi City, Shanxi Province, P.R.China	+86 355 8580511
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#### Japan

64. Nakoso IGCC Management Co., Ltd.	Electricity power generation, supply services of electricity power and steam	NA	JPY 1,000,000	17,600,000	No par value*	33.50% (held by Banpu Power Investment co., Ltd.)	2-6-1 Marunouchi, Chiyoda-ku, Tokyo, Japan 100-8086	+81 3 3210 2121
65. Nakoso IGCC Power Plant G.K.	Power generation	NA	JPY 100,000,000	NA	No par value*	40% (held by Nakoso IGCC Management Co., Ltd.)	102-3, Kawada Iwama-machi, Iwaki-shi, Fukushima Prefecture	+81 246 51 2211

#### Lao PDR

66. Hongsa Power Co., Ltd.	Power generating and sales	USD 927,000,000	USD 927,000,000	92,700,000	10	40.00% (held by Banpu Power Public Company Limited)	NNN Building 4 <sup>th</sup> Floor, Room No.D5 Bourichan Road, Phonsinouane Village, Sisattanak District, Vientiane Capital, Lao PDR	+856 2122 483
67. Phu Fai Mining Co., Ltd.	Mining concession	50,000 USD	50,000 USD	5,000	10	37.50% (held by Banpu Power Public Company Limited)	NNN Building 4 <sup>th</sup> Floor, Room No.D5 Bourichan Road, Phonsinouane Village, Sisattanak District, Vientiane Capital, Lao PDR	+856 2122 483

#### Singapore

68. Aizu Energy Pte. Ltd.	Investment in renewable energy business	NA	JPY 1,601,577,059.88	1,601,577,059.88	No par value*	75.00% (held by Banpu NEXT Co., Ltd.)	8 Marina Boulevard, #05-02 Marina Bay Financial Centre, Singapore 018981	+65 6338 1888
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Name	Type of business	Authorized capital	Paid up capital	No. of paid-up capital (shares)	Par value per share	% of holding	Head Office	Telephone
<b>Thailand</b>								
69. BLCP Power Ltd.	Power generation and sales	THB 12,010,000,000	THB 12,010,000,000	120,100,000	100	50.00% (held by Banpu Coal Power Ltd.)	9 I-8 Road, Map Ta Phut Industrial Estate, Muang District, Rayong 21150, Thailand	+6638 925 100
70. Evolt Technology Co., Ltd.	Electric vehicle Infrastructure	THB 6,250,000	THB 6,250,000	62,500	100	20.00% (held by Banpu NEXT Co., Ltd.)	926 Block 28, Building C, 2nd Floor, Unit C201-202, Soi Chula 7, Wangmai Subdistrict, Pathumwan District, Bangkok, 10330, Thailand	+66 2095 6569
71. BNSP Smart Tech Co., Ltd.	Investor and developer district cooling systems (DCS)	THB 3,000,000	THB 3,000,000	30,000	100	50.00% (held by Banpu NEXT EcoServe Co., Ltd.)	1550 Thanapoom Tower, 24th Floor, New Petchburi Road, Makkasan Subdistrict, Ratchathewi District, Bangkok 10400, Thailand	+66 2095 6595
72. BCD Energies Co., Ltd.	Battery system assembly and production	THB 1,000,000	THB 350,000	10,000	100	30.00% (held by Banpu NEXT Co., Ltd.)	333 Baan Nong Bon Village, Moo 4, Na Klang Sub-district, Sung Noen District, Nakhon Ratchasima Province 30380, Thailand	+6644 335 281
73. Altotech Global Co., Ltd.	Other information technology and computer service activities	THB Ordinary share 1,015,300  THB Preference share 629,200	THB Ordinary share 1,015,300  THB Preference share 629,200	Ordinary share 10,153  Preference share 6,292	100 (Ordinary share)  100 (Preference share)	25.00% (held by Banpu NEXT Co., Ltd.)	719 Rama VI Road, Wang Mai, Pathum Wan, Bangkok 10330, Thailand	+6682 059 9603
<b>Other Investment</b>								
<b>Thailand</b>								
74. Haupcar Co., Ltd	Renting of passenger car, pick-up truck, van and similar light motor vehicles	THB Ordinary share 5,214,340  THB Preference share 2,796,350	THB Ordinary share 5,214,340  THB Preference share 2,796,350	Ordinary share 521,434  Preference share 279,635	10 (Ordinary share)  10 (Preference share)	18.47% (held by Banpu NEXT Co., Ltd.)	128/21 3 <sup>rd</sup> Floor, Phayathai Plaza, Phayathai Road, Thung Phaya Thai Subdistrict, Ratchathewi District, Bangkok 10400, Thailand	+66 2113 1155

## Major Shareholders

Ten Major Shareholders as of 30 December 2022

Major Shareholders		Amount of Shares Held	Percent
1.	Banpu Public Company Limited	2,397,199,497	78.655
2.	Bualuang Long-Term Equity Fund	46,061,700	1.511
3.	Mitr Phol Sugar Corporation Limited	43,074,157	1.413
4.	Thai NVDR Company Limited	24,464,083	0.803
5.	Bualuang Long-Term Equity Fund 75/25	18,878,600	0.619
6.	South East Asia UK (Type C) Nominees Limited	17,937,998	0.589
7.	Mr. Tawat Tassaneepong	17,585,500	0.577
8.	Social Security Office	11,349,700	0.372
9.	Bualuang Flexible RMF	11,256,800	0.369
10.	Mr. Suwan Aisuriyakornthep	10,305,000	0.338
<b>Total</b>		<b>2,598,113,035</b>	<b>85.246</b>



## Debentures

Debenture Details	BPP Debentures No. 1/2022 Tranche 1	BPP Debentures No. 1/2022 Tranche 2	BPP Debentures No. 1/2022 Tranche 3	BPP Debentures No. 1/2022 Tranche 4
<b>Issuer</b>	Banpu Power Plc.	Banpu Power Plc.	Banpu Power Plc.	Banpu Power Plc.
<b>Total Value (THB)</b>	1,500,000,000	700,000,000	1,900,000,000	1,400,000,000
<b>Type of Debentures</b>	Name-registered, unsubordinated, and unsecured debentures with a debenture holders' representative	Name-registered, unsubordinated, and unsecured debentures with a debenture holders' representative	Name-registered, unsubordinated, and unsecured debentures with a debenture holders' representative	Name-registered, unsubordinated, and unsecured debentures with a debenture holders' representative
<b>Amount of Debentures (Units)</b>	1,500,000	700,000	1,900,000	1,400,000
<b>Par Value (THB)</b>	1,000	1,000	1,000	1,000
<b>Outstanding Debenture Value as of 31 December 2022 (THB)</b>	1,500,000,000	700,000,000	1,900,000,000	1,400,000,000
<b>Coupon Rate (%)</b>	3.10	4.00	4.35	4.60
<b>Tenor (Years)</b>	4	7	10	12
<b>Issue Date</b>	10 June 2022	10 June 2022	10 June 2022	10 June 2022
<b>Maturity Date</b>	10 June 2026	10 June 2029	10 June 2032	10 June 2034
<b>Call Option for Debenture Holders and Issuer</b>	-None-	-None-	-None-	-None-
<b>Principal Payment before the Maturity Date</b>	The debenture issuer will pay the principal on the maturity date.	The debenture issuer will pay the principal on the maturity date.	The debenture issuer will pay the principal on the maturity date.	The debenture issuer will pay the principal on the maturity date.
<b>Maturity Value (THB)</b>	1,000	1,000	1,000	1,000
<b>Collateral</b>	-None-	-None-	-None-	-None-
<b>Debenture Rating</b>	A+ TRIS Rating Co., Ltd.			

## Dividend Policy

The Company has a policy to pay dividends at the rate of approximately 50% of net profit on the consolidated financial statements after deduction of any legal and corporate reserves. However, the dividend payout ratio will be dependent on cash flows, future investments of the Company and its affiliates as well as legal requirements and other requirements.

In the past five years, Banpu Power Public Company Limited has paid out dividends as detailed below.

Year	Dividend First Half (THB/share)	Dividend Second Half (THB/share)	Dividend Full Year (THB/share)	Earnings per Share (THB/share)	Dividend Payout Ratio (%)
2018	0.30	0.30	0.60	1.25	48
2019	0.35	0.30	0.65	0.97	67
2020	0.30	0.35	0.65	1.21	54
2021	0.30	0.35	0.65	1.03	63
2022	0.40	0.30	0.70*	1.88	37

\* The Company announced a total dividend of THB 0.70 per share with respect to the operating results for the period from 1 January 2022 to 31 December 2022, of which THB 0.40 was paid on 26 September 2022. The remaining dividend of THB 0.30 per share for 2022 operating results will be paid on 26 April 2023



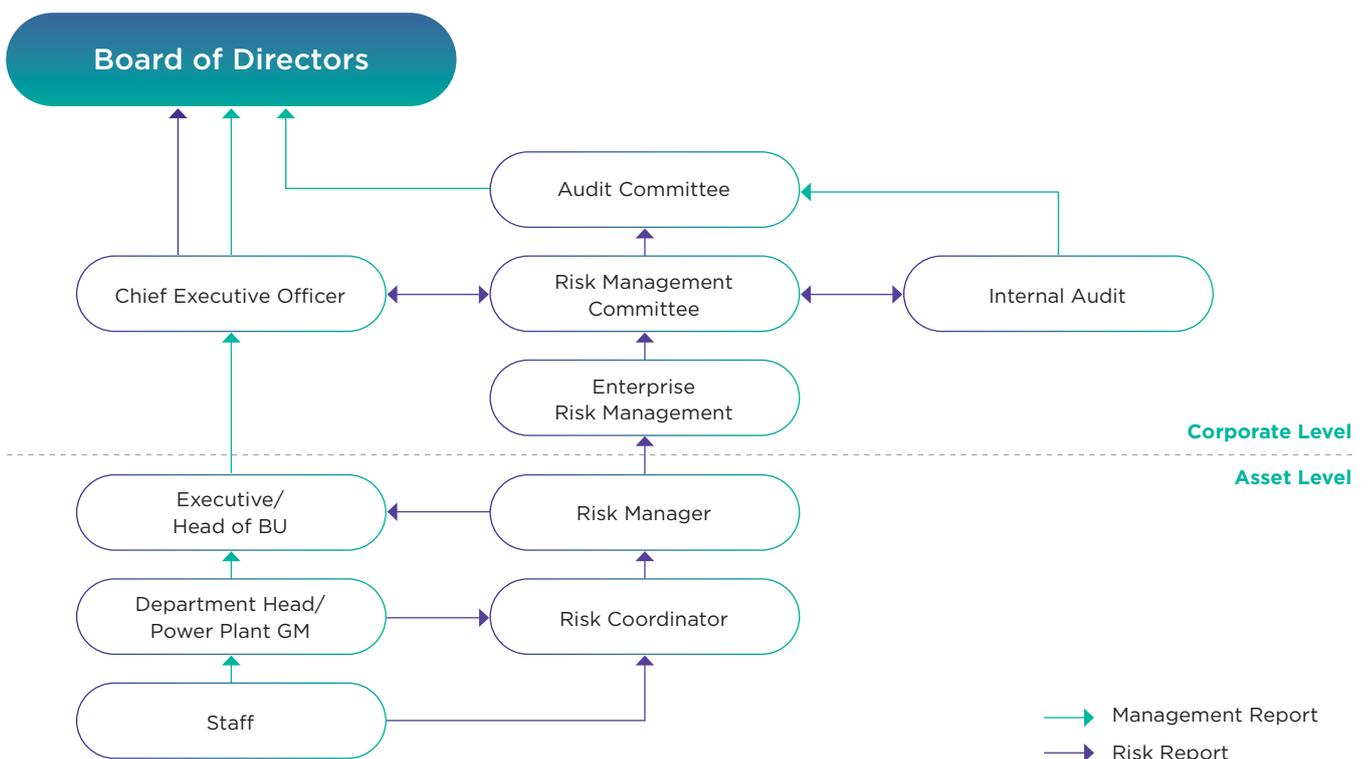
# Risk Management and Risk Factors

## Risk Management

In 2022, Banpu Power Public Company Limited (BPP) maintained the stability of all power plants’ production and distribution in line with the Greener & Smarter strategy. The Company has faced changing risks associated with business expansion and growth in a volatile and uncertain business climate. BPP attaches importance to risk management to achieve its goals and keep risks at an acceptable level, as well as enable effective management of risks and crises that could impact the operations to create stability and sustainable growth. Therefore, the Company aims to develop and strengthen the risk management system, consisting of risk identification, risk assessment, risk management, and control, and risk monitoring, to effectively prepare and manage all current and future changes facing the Company.

BPP manages risks through formulation processes of policy, operation framework, and audit procedures. It also cultivates corporate culture to engage all employees in the risk management process while creating mutual understanding and responsibility for risk management. BPP’s risk management system and structure are under the supervision of the Board of Directors, which delegated responsibilities to the Audit Committee and the Risk Management Committee. They oversee stakeholder management and review roles and responsibilities of managing operational risks and environmental, social and governance (ESG) risks. The risk management structure is illustrated below.

## Risk Management Structure



The Risk Management Committee (RMC) comprises the Chief Executive Officer (CEO) and senior management. The RMC has the following responsibilities:

1. Assess and manage risks to mitigate the impact that can affect the Company's operations.
2. Provide support to related policies to ensure efficient risk mitigation and to raise awareness of any risks arising from the Company's activities.
3. Provide essential internal and external resources to enable efficient risk management.

BPP's Risk Management Policy has been announced and regularly updated. A directly responsible unit was set up to work with related departments to drive effective risk management through the organization. The Company also has a mechanism for searching out and identifying risks.

## Risk Factors

BPP's key risks cover dimensions of environmental, social and corporate governance (ESG) aspects. In developing the annual action plan to align with the Company's strategic direction and link with the context of corporate sustainability management, the Company assesses risk likelihoods and their potential impacts on stakeholders to prioritize them as corporate risks. The Company then appoints responsible people to manage risks within the Company's acceptable level, monitor progress, and regularly review risk issues. Furthermore, the Company has integrated risk management

principles with its work processes to raise awareness of business uncertainty and has taken risk management as part of its business operations to prepare for future risks from business disruptions. The Risk Management Committee convenes on a quarterly basis to monitor risks and risk management performance, assess risk management performance according to the risk mitigation plan, and report the review of the risk management system to the Audit Committee and the Board of Directors. The Company's risks can be categorized as follows:

### 1. Strategic Risk

#### 1.1 Risk in Human Resources Management and Competency Development to Accommodate Future Growth

Human resources are one of the key factors driving the growth of BPP according to its Greener & Smarter strategy. Therefore, BPP has managed the human resources risks through the development of the learning and development framework to create a capacity development plan based on employees' competency gap and Individual Development Plan (IDP) as well as succession planning to recruit and prepare high-potential employees for future leadership roles, to succeed current leaders and accommodate long-term business growth.

#### 1.2 Risk in Achieving Business Growth as Targeted

Given the volatility of global economic trends and fluctuations in inflation, foreign exchange, and interest rates, BPP has undergone several risk management measures, which focus on seeking new business projects or expanding its operations to other countries to appropriately and continuously increase opportunities and achieve business success. The Company has prudent and meticulous investment decision-making procedures ranging from investment opportunity seeking to investment plan approval, including assessing the risks associated with each project to ensure return on investment as targeted.

### 1.3 Climate Change Risk

Climate change is the environmental threat the global community has placed importance on. Recent moves to address the issue include the 26<sup>th</sup> and the 27<sup>th</sup> United Nations Climate Change Conference's (COP26-27) measures to reduce greenhouse gases. Financial institutions and investors also consider climate risk management as a factor in making an investment decision. Hence, BPP has implemented measures to control and mitigate climate impacts, for instance, aligning business operations with Banpu group's Greener & Smarter strategy, reducing GHG emissions in business units, increasing investment portfolio in renewable power plants and thermal power plants that deploy high efficiency, low emissions (HELE) technologies. The Company is planning to implement climate-related reporting based on the framework of the Task Force on Climate-related Financial Disclosures (TCFD), which will be carried out and disclosed to investors within 2023.

## 2. Financial Risk

### 2.1 Foreign Exchange Risk

BPP operates internationally; thus, foreign exchange volatility can directly or indirectly impact its revenues and expenses and net profit and loss. To mitigate the impact of foreign exchange volatility, the Company implemented a cash flow hedge by matching revenues and expenses in both currencies, which include loans and loan repayments, investments, or dividends in foreign currencies of subsidiary companies. It entered into forward foreign exchange contracts for the estimated revenues and expenses and employed derivative instruments as appropriate to prevent foreign exchange risk.

### 2.2 Interest Rate Risk

With the loan burden for business operations and investment plans for continuous business expansion, BPP needs to rely on long-term and short-term loans. Therefore, interest rate increases or fluctuations may affect the Company's operations and cause interest rate risk. BPP manages interest rate risk by closely monitoring interest rates in each host country and considering hedging against interest rate risk when appropriate. The Company also issued bonds or debentures appropriate to the economic situation and its interest rate outlook.

### 2.3 Electricity Market Risk

In Q4/2021, BPPUS Corporation, a subsidiary of BPP invested in Temple I Combined Cycle Gas-Turbine (Temple I CCGT) Power Plant, which the Company expects to be synergistic with the natural gas production of Banpu group in the US and align with the Company's investment direction that focuses on advanced high-efficiency, low-emissions (HELE) technologies. The power plant sells its output in the Electric Reliability Council of Texas (ERCOT) market and is exposed to fluctuations in the market price of electricity and natural gas. Such fluctuations may pose a financial impact on the Company. BPP has formulated the Hedging Risk Management Policy by employing appropriate instruments, such as different types of derivatives, to mitigate risks within the scope specified in the policy.

## 3. Operational Risk

### 3.1 Risk in Power Generation

BPP analyzes and tracks investment returns against predefined targets as well as implements measures to ensure that power plants can achieve operations as planned. Thus, the Company closely monitors the operations of power plants, focusing on root cause analysis to troubleshoot and optimize the reliability and efficiency of power plants. Systems have been put in place, such as Risk Based Inspection and predictive maintenance. Inventory of critical spare parts is appropriately and adequate managed. Employees have been trained to develop capacity, and there is knowledge-sharing across the companies in its group. The Company regularly rehearses an emergency response plan while procuring property damage insurance and business interruption insurance to ensure appropriate responses to different incidents.

### 3.2 Safety, Occupational Health, Environmental, and Social Risk

BPP emphasizes the importance of occupational health and safety, environmental, and social management. In 2022, the Company maintained its focus on the 3-Zeros goals, namely: 1. Zero Incident, 2. Zero Repeat of the same incidents, and 3. Zero Compromise on compliance to applicable occupational safety rules and standards of the Company and host countries. To achieve these goals, BPP has developed an occupational health and safety management system with adherence to its safety culture, including strengthening occupational health and safety systems following the ISO 45001 international standard.

### 3.3 Natural Disaster Risk

Global climate change is increasing the likelihood of natural disasters that might disrupt power plants' operations. The Company has thus established measures to reduce potential impacts on its operations, for instance, considering natural disaster risk factors when selecting investment projects, seeking out technologies to reduce disaster vulnerability, and adopting Business Continuity Management Systems (BCMS). Apart from that, the Company has also procured appropriate property damage insurance and business interruption insurance to mitigate the impact of unexpected incidents.

### 3.4 Pandemic Risk

BPP continued to monitor and carefully watch the COVID-19 pandemic situation that might affect its business operations. It has taken steps to reduce possible impacts on business operations and has been ready to escalate its countermeasures when necessary. The Company has monitored government measures of each host country and applied the Business Continuity Management System at the corporate level. Furthermore, the Company has taken proactive measures in each business unit in each country, such as monitoring and preventing the spread of COVID-19 among employees and contractors who need to access power plants for machinery and equipment operations and maintenance. These measures help maintain steady and efficient business operations.

### 3.5 Cybersecurity and Personal Data Protection Risk

Cyber threats are likely to become prevalent in various forms, with far-reaching impacts. BPP understands the necessity of adopting preventive steps and mitigating their impacts, and has thus carried out multiple activities, including formulating information and cybersecurity policies based on ISO 27001 and ISO 27701 standards. There are activities to raise awareness among employees about cyber threats as well as the implementation of preventive measures, such as annual cyber incident response exercise and IT disaster recovery plan. A crisis communication exercise is also conducted by simulating scenarios involving critical data leaks from cyber threats.

The Company appointed a Global Information Security Officer (GISO) to supervise the implementation and certification of the ISO 27001 standard for information security management systems (ISMS). In addition, policies and procedures have been established to comply with the Personal Data Protection Act (PDPA).

## 4. Compliance Risk

### 4.1 Risk from Relevant Legal, Regulatory, and Policy Changes

BPP operates business assets both in Thailand and overseas; therefore, it has to comply with the laws, regulations, and policies of each country. The Company has its compliance department and/or local legal consultants regularly monitor the announcement of new laws, regulations, and policies, as well as amendments and changes. In addition, it has developed a central legal database – “Laws In-Hand” application to monitor new or amended laws and report them to all units in the Company to ensure that they realize the impact and what they need to comply with. In addition, the Company attaches importance to corruption risk by joining the Private Sector Collective Action against Corruption (CAC), conducting a corruption risk assessment, and formulating a corruption risk management approach.

## 5. Emerging Risk

### 5.1 Disruptive Technology Risk

Changes in energy technologies, such as Carbon Capture, Utilization, and Storage (CCUS) technology, hydrogen technology, micro-grid systems, renewable energy systems, energy storage systems, and big data systems, have motivated consumers to change their energy consumption behavior and influenced regulatory changes toward clean energy technologies, reducing dependence on the grid. Such transformation has impacted the power demand structure in many countries, including Thailand. To address disruptive technology risk, BPP has partnered with Banpu group to enhance the opportunities in renewable energy and energy technology businesses. Units in Banpu group have been restructured to be more precise and agile, emphasizing research to develop future solutions and extended development of existing projects. The Company also considered the possibility of organizational restructuring to align with the Greener & Smarter strategy and build future competitive advantage through investment in Banpu NEXT Co., Ltd.

### 5.2 Value Chain Risk

Given geopolitical tensions, global economic uncertainty, and fluctuations in inflation, foreign exchange, and interest rates, BPP is well aware of the significance of supply chain risk, ranging from production inputs to customer needs. To accelerate the readiness of production inputs, the Company ensures that the power plant’s critical spare parts are adequate and appropriate. In addition, there are long-term coal purchase contracts to maintain sufficient coal stock to run power plants and adequate stocking of fuels. To cater to varying customer needs, the Company has adapted power plants’ operating system to be flexible, suitable, and customized to their needs. It has good customer relationship management and looks for opportunities to attract new customers and invest in new businesses in order to improve the organization’s sustainability.

BPP believes that implementing all the above risk mitigation measures will reduce potential risks and impacts while expanding business opportunities for sustainable growth. It will also enable the Company to achieve its business objectives in line with the Greener & Smarter direction and strategic plan.

# Driving Business Sustainability



Banpu Power Public Company Limited (BPP) is committed to driving business growth according to the Greener & Smarter strategy while adhering to Environmental, Social, and Governance (ESG) principles. The Company operates a power generation and distribution business in line with energy sustainability to ensure reliable delivery of electricity to consumers. It also responds to energy demand in economic and social development and embraces the energy transformation of production and consumption. In addition, the Company respects human rights, the fundamental rights all human beings are equally entitled to, and the principles of corporate governance in order to maintain the internationally accepted operational standards. BPP also joins the global efforts to drive the UN's Sustainable Development Goals (SDGs).

## Sustainability Management Policies and Targets

BPP focuses on balancing its portfolio from thermal and renewable power generation according to energy sustainability, which reflects its responsibility and dedication to delivering affordable, reliable, and eco-friendly power. The Company's Sustainable Policy can be summarized as follows:



◀ [Sustainable Development Policy](#)

### 1. Competitiveness Enhancement

- **Human Resource Management**

As employees are the critical factor that drives the Company toward goals with stability and sustainability, the Company needs an effective recruitment system and human resources management that apply three principles: equity-based, performance-based, and competency-based. BPP has a strong corporate culture, "Banpu Heart," that synergizes all employees from diverse ethnic and cultural backgrounds. United by core values of being Passionate, Innovative, and Committed, employees share the same goal: to deliver quality power for a sustainable world. The Company analyzed and identified essential future skills and knowledge based on its goal to prepare individual development plans for employees to improve their skills, knowledge, and leadership while promoting a healthy work-life balance and happy workplace. Apart from that, BPP established the Job Evaluation Committee, the Organization Development Committee, the Compensation Committee, and the Corporate Governance and Nomination Committee to ensure transparency in line with the Corporate Governance Policy and support the employees in achieving the Company's goal.

- **Operational Excellence and Innovation Development**

BPP promotes operational excellence and encourages corporate Innovations with an aim to advantage and continuous growth in human resources management. The Company set up the Innovation Committee that joined forces with Banpu group to mobilize organization-wide innovations. To align with its Greener & Smarter strategy, the Company embraces innovation to enable quality, stability, and reliability in power generation. It also deploys high efficiency, low emissions technologies while continually improving its operation and stressing flexibility. Furthermore, the Company takes great care of its customers by delivering products that meet their expectations and reinforcing customer relationship management while seeking new investment opportunities in renewable energy and energy technology in response to future energy demand. As for its employees, BPP promotes knowledge management across the organization and organizes knowledge-sharing sessions for the Innovation Awards Recognition program to showcase outstanding innovative projects from the operational to the corporate level.

## 2. Stakeholder Value Creation

- **Corporate Governance**

BPP has formulated the Corporate Governance Policy and the Anti-Corruption Policy and set forth corporate governance practices in the Code of Conduct for directors, executives, and employees. The Company engages stakeholders by communicating policies and practices to trading partners and business alliances to keep everyone on the same page. It also places great importance on the complaint-handling procedure and whistleblower protection as a mechanism that keeps all complaints strictly confidential. Complaints will be submitted through the Company Secretary to be investigated and resolved in an appropriate timeframe. Corporate governance complaints can be filed via the Company's website.



◀ [Whistleblower Channels](#)

- **Compliance with Laws and International Standards**

BPP fully complies with applicable laws and regulations as well as international operational standards. It has set a procedure to ensure compliance with laws and the Company's policies through various processes, such as corporate compliance, internal audit, and Quality Assurance Review (QAR). External assessments and certifications include ISO 9001 Quality Management System, ISO 45001 Occupational Health and Safety Management System, ISO 14001 Environmental Management System, ISO 22301 Business Continuity Management System, ISO 27001 Information Security Management System, and Global Reporting Initiative (GRI). These efforts ensure the Company's legal and regulatory compliance and international standards and are also mechanisms for internal process improvement.

- **Occupational Health and Safety**

BPP has the policy to provide the safest working environment for its employees, contractors, and stakeholders. The working environment has been created with engineering design for occupational health with safety and is regularly inspected. In addition, the Company has continuously cultivated a safety culture, aiming to achieve a three-Zero target as follows:

1. Zero Incident by preventing and correcting unsafe behaviors or working conditions
2. Zero Repeat by identifying and solving the root causes to prevent the recurrence of the incidents
3. Zero Compromise by strictly conforming to safety rules, regulations, and standards

- **Environment**

BPP explores opportunities to invest in renewable energy and deploys high efficiency, low emissions (HELE) technologies in generating electricity and other energy forms. To comply with the international standards for an environmental management system, the Company has clear practices for every operation unit before launching any projects to prevent and mitigate environmental impacts, reduce or optimize resource consumption, prevent impacts at their sources, and properly manage the environment across the supply chain. The Company also reduces potential adverse environmental impact from power generation, and the environmental performance is periodically reviewed by independent organizations to ensure proper management and compliance with laws and international standards.

- **Community and Society**

BPP respects human rights and conducts its business on the basis of transparency. The Company prioritizes community engagement and social responsibility by involving communities since the beginning of the project through stakeholder needs analysis to create mutual understanding and establish effective communication channels for each group of stakeholders. The Company pays all taxes to contribute to community development while creating opportunities for employment and procurement. In addition, the Company has carried out development projects appropriate to each community to drive sustainable development in all locations where it operates.

In 2022, the Board of Directors reviewed and approved amendments to the four sustainability policies as follows:



## Management Approach

The Board of Directors is responsible for setting sustainability policies, overseeing implementation, and evaluating sustainability performance. To mobilize sustainability implementation, the Company established the Banpu Power Sustainability Committee, of which the Chief Executive Officer serves as chairman, and all high-ranking executives, including heads of business units, are committee members. The committee has duties to devise a strategic plan, indicators and monitor the implementation of the plan to ensure that all business units of the Company can create value for all stakeholders, maintain competitiveness, and effectively manage risks while being agile to change and able to sustain growth. The committee regularly reports sustainability performance to the Board of Directors. Apart from that, the Company annually discloses sustainability performance in the Sustainability Report, with assurance by external assessors on key issues for maintaining accuracy and stakeholder trust.



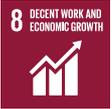
[Sustainability Report](#)

BPP conducted a sustainability materiality assessment by taking into account stakeholders across the value chain on issues related to economy, society and environment and respect for human rights to prioritize sustainability issues in short and long terms. The Company has established sustainability strategies and targets for 2021 - 2025 in alignment with the Greener & Smarter strategy, with an action plan and appropriate indicators. There are regular performance monitoring and assessment by business units, the Sustainability Committee, the Risk Management Committee, and the Board of Directors. Furthermore, the external assessment results at the national and international levels are reviewed to devise an improvement plan for sustainability operations to keep up with constant changes, comply with international standards, and fulfill stakeholder expectations.

## Performance Targets

BPP's sustainability performance targets are related and responsive to UN Sustainable Development Goals (SDGs), a framework reflecting stakeholder expectations and the direction of future sustainable development policy. The Company has established the key performance targets as follows:

UN Sustainable Development Goals (SDGs)		BPP's 2025 Targets
	<p>7.1 By 2030, ensure universal access to affordable, reliable, and modern energy services</p> <p>7.2 By 2030, substantially increase the share of renewable energy in the global energy mix</p> <p>7.3 By 2030, double the global rate of improvement in energy efficiency</p>	<ul style="list-style-type: none"> <li>Achieve the power generating capacity target of 5,300 MWe comprising 4,500 MWe from thermal power generation and 800 MW from renewable power generation</li> <li>Improve energy efficiency and availability with the Availability Factor (AF) target of no less than 90% and the Forced Outage Factor of less than 5%</li> <li>Key Environmental, Social, and Governance (ESG) indicators are part of the performance appraisal of the CEO and are also cascaded to senior management.</li> </ul>

UN Sustainable Development Goals (SDGs)	BPP's 2025 Targets
<div style="display: inline-block; vertical-align: top; margin-bottom: 10px;">  </div> <div style="display: inline-block; vertical-align: top;"> <p>8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants and those in precarious employment</p> </div>	<ul style="list-style-type: none"> <li>• Workplace environment complies with regulatory requirements and standards.</li> <li>• No serious injuries and occupational illness in employees and contractors             <ul style="list-style-type: none"> <li>- Zero fatality</li> <li>- Zero Lost time Injury Frequency Rate: LTIFR</li> <li>- Zero Total Recordable Injury Frequency Rate: TRIFR</li> <li>- Zero high-consequence injury rate</li> <li>- Zero fatality caused by occupational ill-health</li> <li>- Zero total recordable occupational ill-health frequency rate</li> <li>- Zero tier-1 process safety event rate</li> </ul> </li> <li>• Employee engagement score of no less than 80%</li> <li>• Banpu Heart score of no less than 80%</li> <li>• Proportion of employees having Individual Development Plans equivalent to 100%</li> <li>• All critical positions are identified for succession planning.</li> <li>• Proportion of business units conducting human rights risk assessment of no less than 70% in 2021</li> <li>• No human rights complaint and the proportion of human rights complaints entering a dispute resolution mechanism equivalent to 100%</li> <li>• All business units have a risk management plan with ESG issues.</li> <li>• Customers and Products             <ul style="list-style-type: none"> <li>- No complaints about customer privacy</li> <li>- No complaints about safety and environment concerning product use</li> <li>- All customers' complaints are investigated and resolved within an appropriate timeframe.</li> </ul> </li> </ul>
<div style="display: inline-block; vertical-align: top; margin-bottom: 10px;">  </div> <div style="display: inline-block; vertical-align: top;"> <p>9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p> </div>	<ul style="list-style-type: none"> <li>• Reduce emissions intensity of the thermal power plants to achieve ultra-low emissions             <ul style="list-style-type: none"> <li>- SO<sub>2</sub> ≤ 0.0766 tonnes/GWh</li> <li>- NO<sub>x</sub> ≤ 1.184 tonnes/GWh</li> <li>- PM ≤ 0.0230 tonnes/GWh</li> </ul> </li> <li>• Hazardous waste disposal to landfills ≤ 210 tonnes/year</li> <li>• Non-hazardous waste disposal to landfills ≤ 793 tonnes/year</li> </ul>

UN Sustainable Development Goals (SDGs)	BPP's 2025 Targets
	<ul style="list-style-type: none"> <li>• No significant environmental incidents, social incidents, and fines for non-compliance at all operating assets</li> <li>• No significant complaints from communities both from operation and resettlement</li> <li>• All complaints from communities must be resolved through a dispute resolution mechanism.</li> <li>• All thermal power plants in China obtain ISO 14001 certification – Environmental management system standards.</li> <li>• Proportion of procurement and hiring contracts with local trade partners equivalent to 50%</li> <li>• Proportion of ESG risk assessments for key trading partners equivalent to 100%</li> <li>• The Company's contracts contain ESG requirements equivalent to 100%</li> <li>• Cybersecurity and Privacy Maturity Score of no less than 2.5 (full score = 5)</li> </ul>
 <p>12.2 By 2030, achieve the sustainable management and efficient use of natural resources</p>	<ul style="list-style-type: none"> <li>• Water consumption intensity <math>\leq 0.868 \text{ m}^3/\text{MWh}</math></li> <li>• Energy consumption per unit of production <math>\leq 1.55 \text{ GJ/MWh}</math></li> <li>• 100% re-use/recycling of fly ash and bottom ash</li> <li>• All operating assets assessed for potential biodiversity impact</li> </ul>
 <p>13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p>	<ul style="list-style-type: none"> <li>• GHG emissions intensity <math>\leq 0.676 \text{ tonnes CO}_2\text{e/MWh}</math> in combined heat and power plants under BPP's direct management</li> <li>• Achieve <math>\geq 800 \text{ MW}</math> of renewable energy generation capacity</li> <li>• Disclose climate-related information according to the recommendations of Task Force on Climate-related Financial Disclosures (TCFD)</li> <li>• Business continuity management (BCM) system established and rehearsed at all business units, and the proportion of critical business functions drill the BCM plan equivalent to 100%.</li> </ul>
 <p>16.5 Substantially reduce corruption and bribery in all their forms</p>	<ul style="list-style-type: none"> <li>• Zero incidents involving non-compliance, corporate governance, and corruption</li> <li>• All significant complaints investigated and resolved through a dispute resolution mechanism</li> <li>• Be a certified member of Thailand's private sector; Collective Action Coalition Against Corruption (CAC)</li> </ul>

**Notes:** 1. The scope of performance targets covers the production units under BPP's direct management.  
 2. Targets under review and finalization are not included in this report.

# Management of Impacts on Stakeholders in the Value Chain

## BPP's Value Chain

### 1 Production Factor Management Stakeholders: Suppliers/Trading Partners

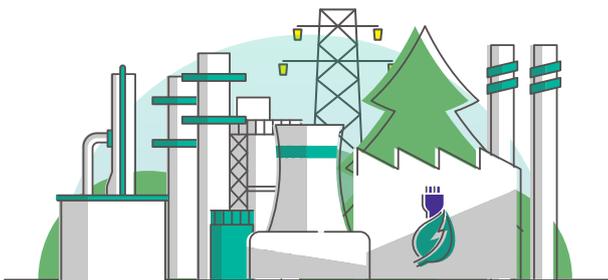
-  Coal
-  Natural gas
-  Fuel oil
-  Waste gas
-  Water
-  Other raw materials and chemicals

### 2 Transportation Stakeholders: Contractors

-  Road freight
-  Rail freight
-  Sea freight
-  Gas pipeline
-  Air freight

### 3 Production Stakeholders: Contractors, Employees, Government Agencies, Communities, Business Partners

#### Thermal power plant



#### Renewable power plant



#### Energy technology and smart energy solutions



## 4 Delivery of Products and Services

Stakeholders: Contractors, Employees

### Products from thermal power plant



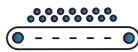
Electricity



Steam and heat



Cooling water



By-products (ash and gypsum)



Renewable energy certificate

### Products from energy technology and smart energy solutions



Electric cars



Electric ferries



Batteries



Solar rooftop solutions



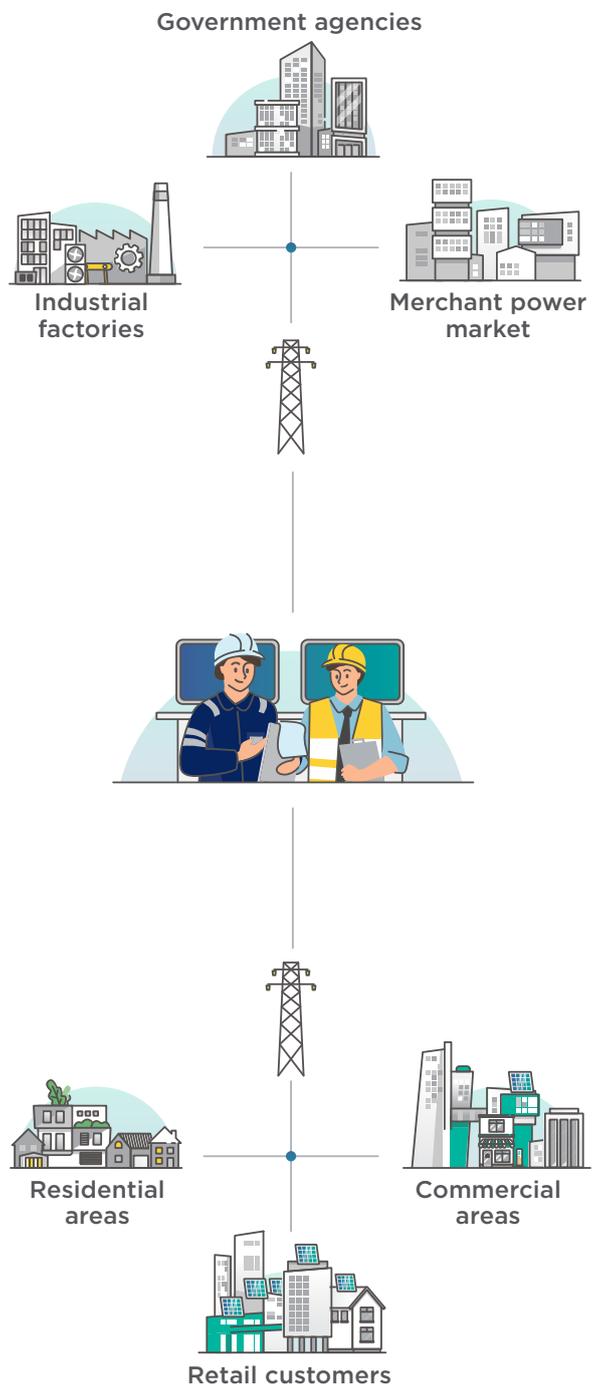
Energy trading platforms



Smart city and energy management

## 5 Customer Management

Stakeholders: Customers, Employees



BPP focuses on creating inclusiveness of stakeholders from all sectors in order to identify the sustainability issues that matter to its operations and stakeholders across the value chain, prioritize the materiality of operations to meet expectations of all stakeholder groups, and disclose performance information with transparency in accordance with the framework of the international AA 1000 Stakeholder Engagement Standard (AA1000SES).

Stakeholder Analysis Procedures

1. Identify stakeholders involved with Company's operations, both inside and outside the organization.
2. Determine levels of the Company's impacts on stakeholders in environmental, social, and governance aspects.
3. Determine levels of stakeholder influence on the Company regarding finance, operations, laws and regulations, reputation and strategies, etc.
4. Classify stakeholders based on levels of the Company's impacts and stakeholder influence.
5. Prioritize the importance of stakeholders to determine appropriate engagement channels for each group of stakeholders.



◀ [Standard Practice on Stakeholder Engagement](#)

Stakeholders	Engagement Channels	Stakeholder's Issues of Interests	Key Operations
 <p><b>Joint-venture Partners, Shareholders, Investors and Financial Institutions</b></p>	<ul style="list-style-type: none"> <li>• The Board of Directors meetings of subsidiaries and joint ventures</li> <li>• The Annual General Meeting of Shareholders</li> <li>• Presentation of investment information on various agendas, such as the quarterly meetings and the roadshows, to present information and answer questions</li> <li>• Organizing the analyst meetings</li> <li>• Presentation of information at the Opportunity Day organized by the Stock Exchange of Thailand</li> <li>• Providing channels for receiving complaints</li> <li>• Conducting a satisfaction survey</li> <li>• Preparation of the annual report and sustainability report</li> <li>• Dissemination of information via the website</li> </ul>	<ul style="list-style-type: none"> <li>• Performance, project development, and business growth related to climate change</li> <li>• Financial and accounting policies</li> <li>• Cash flow management</li> <li>• Cost control</li> <li>• Provision of accurate and complete financial information within an appropriate time frame</li> <li>• Risk management</li> <li>• Business operation transparency</li> <li>• Developing and creating innovations to enhance competitive advantage</li> <li>• Qualifications and compensation of the Board of Directors and executives</li> <li>• Business operations with ESG management</li> </ul>	<ul style="list-style-type: none"> <li>• Establishing the Greener &amp; Smarter strategy; investing in high efficiency, low emissions power plants, such as natural gas-fired power plants, and in renewable energy and energy technology businesses</li> <li>• Formulating climate change policy and management approach; disclosing risks, impacts, and climate-related activities according to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)</li> <li>• Implementing a risk management system in all business units</li> <li>• Commissioning an external data assurance of the accuracy of ESG materiality disclosure</li> <li>• Participating in the 2022 CG assessment organized by the Thai Institute of Directors (IOD) and receiving a five-star rating (Excellent); being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC)</li> </ul>

Stakeholders	Engagement Channels	Stakeholder's Issues of Interests	Key Operations
			<ul style="list-style-type: none"> <li>Evaluating qualifications of the Board of Directors for the preparation of a board skill matrix and appointing an additional director whose qualifications and experience align with the Company's performance targets</li> <li>Participating in the ESG performance assessment and receiving the Commended Sustainability Award from the Stock Exchange of Thailand</li> <li>Participating in the ESG performance assessment of leading companies worldwide and being listed in the S&amp;P Global Sustainability Yearbook 2022 in the Electric Utilities sector</li> </ul>
 <p><b>Employees</b></p>	<ul style="list-style-type: none"> <li>Conducting an employee engagement survey</li> <li>Conducting a Banpu Heart corporate culture survey</li> <li>Setting up the Welfare Committee</li> <li>Setting up the Occupational Health and Safety Committee</li> <li>Setting up the Innovation Committee</li> <li>Organizing CSR activities</li> <li>Organizing activities to promote the corporate culture</li> <li>Providing channels for receiving complaints</li> <li>Developing a performance appraisal system</li> <li>Dissemination of news releases within the organization</li> <li>Preparation of the annual report and sustainability report</li> <li>Dissemination of information via the website</li> </ul>	<ul style="list-style-type: none"> <li>Business directions and the organization's sustainable growth</li> <li>Business ethics and responsibility for employees.</li> <li>Fair compensation</li> <li>Performance appraisal</li> <li>Participation in decision-making and allowing employees to voice their opinions</li> <li>Work-life balance</li> <li>Occupational safety and working environment</li> </ul>	<ul style="list-style-type: none"> <li>Establishing two-way communication with employees to regularly create understanding and employee participation</li> <li>Communicating about corporate governance and integrating it with the corporate culture</li> <li>Ensuring that labor management complies with laws and international standards</li> <li>Establishing clear, transparent, and fair Key Performance Indicators (KPIs) for measuring employee performance</li> <li>Allocating budget and providing capacity-building programs; preparing individual development plans</li> <li>Cultivating Banpu Heart corporate culture</li> <li>Regular inspection of the work environment and safety</li> <li>Establishing appropriate preventive measures against the COVID-19 pandemic for each workplace, such as developing IT and other systems to support remote work, conducting health checks before entering workplace and facilitating vaccination for employees, etc.</li> </ul>

Stakeholders	Engagement Channels	Stakeholder's Issues of Interests	Key Operations
 <p><b>Government Agencies</b></p>	<ul style="list-style-type: none"> <li>• Meetings and visits on various occasions</li> <li>• Site visits and operation inspections</li> <li>• Submission of reports and information as required by laws</li> <li>• Disclosure of information as requested</li> <li>• Participation in the projects organized by the government</li> <li>• Preparation of the annual report and sustainability report</li> <li>• Dissemination of information via the website</li> </ul>	<ul style="list-style-type: none"> <li>• Legal and regulatory compliance and appropriate and adequate risk management</li> <li>• Corporate governance according to the Code of Conduct</li> <li>• Creating economic, social, and environmental values</li> <li>• Optimal utilization of natural resources</li> </ul>	<ul style="list-style-type: none"> <li>• Creating and regularly updating a legal register</li> <li>• Implementing a compliance risk inspection and monitoring system, particularly monthly audits and reporting and independent auditing</li> <li>• Power plants under BPP's direct management being certified for quality, safety, and environmental management</li> <li>• Announcing the Corporate Governance Policy and Code of Conduct and regularly reviewing and monitoring performance</li> <li>• Carrying out social responsibility projects, paying taxes as required by laws, and promoting local procurement and employment</li> <li>• Cooperating with government agencies and supporting their sustainability projects</li> <li>• Conducting environmental projects to reduce resources consumption and minimize waste</li> </ul>
 <p><b>Customers</b></p>	<ul style="list-style-type: none"> <li>• Meeting with customers to devise the work plan, understand market situations, and set delivery targets according to the plan</li> <li>• Meeting for operators to share their experiences on power plants operations and contract management</li> <li>• Visiting customers to learn about their problems and find ways to improve</li> <li>• Disclosing information as requested</li> <li>• Conducting a customer satisfaction survey</li> <li>• Establishing a mechanism for receiving complaints via multiple channels such as by telephone, via website</li> </ul>	<ul style="list-style-type: none"> <li>• Equivalent Availability Factor (EAF) of electricity and other energy forms as specified in the agreements</li> <li>• Delivery of quality products and services as agreed at affordable prices</li> <li>• Business continuity management to deliver products and services without interruption in case of unexpected crises</li> </ul>	<ul style="list-style-type: none"> <li>• Implementing efficient production and maintaining the Equivalent Availability Factor (EAF) of electricity and other energy forms as specified to supply affordable and accessible energy according to customers' needs</li> <li>• Preparing the business continuity management plan to ensure continuous delivery of products and services without interruption even amid crises</li> <li>• Implementing the ISO 9001 quality management systems</li> </ul>

Stakeholders	Engagement Channels	Stakeholder's Issues of Interests	Key Operations
 <b>Suppliers/ Contractors</b>	<ul style="list-style-type: none"> <li>• Disclosure of procurement information via the website or applications</li> <li>• Meeting with suppliers/ contractors</li> <li>• Training for suppliers/ contractors to build capacity and create working safety</li> <li>• Conducting a satisfaction survey</li> </ul>	<ul style="list-style-type: none"> <li>• Procurement and returns</li> <li>• A fair selection process</li> <li>• Action plans in involved projects</li> <li>• Working environment and work safety</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring equitable disclosure of procurement information</li> <li>• Carrying out transparent procurement with fair selection criteria overseen by the Supplier/ Contractor Selection Committee</li> <li>• Regularly communicating about action plans and the progress of collaborated projects</li> <li>• Establishing environmental and safety measures as guidelines for contractors and relevant parties at the equivalent standard for employees</li> </ul>
 <b>Community and Society</b>	<ul style="list-style-type: none"> <li>• Conducting a community attitude survey</li> <li>• Surveying the community's basic information and opinions prior to the start of a project</li> <li>• Providing channels for receiving grievances over the phone and on the website</li> <li>• Meeting with the community</li> <li>• Establishing a joint development committee with the community</li> <li>• Carrying out community relations and activities with the community</li> <li>• Site visits to Company's operations</li> <li>• Preparation of the annual report and sustainability report</li> <li>• Dissemination of information via the website</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental Management</li> <li>• Social responsibility project</li> </ul>	<ul style="list-style-type: none"> <li>• Deploying High Efficiency, Low Emissions (HELE) technology in project design and the improvement of the production process</li> <li>• Establishing an efficient environmental management and monitoring system and maintaining discharging ultra-low emissions into the environment</li> <li>• Regularly involving communities and looking for opportunities to carry out projects to build capacity and sustainability</li> <li>• Providing aid to communities and society in crisis situations, such as the COVID-19 pandemic and floods</li> </ul>

In 2022, the Company surveyed the satisfaction of five stakeholder groups, namely, joint-venture partners, regulatory bodies, consultants, suppliers, and financial institutions. Questionnaires were sent to respondents via online channels to gather information, and results were used to improve the Company's operating systems. The results revealed that overall, stakeholder satisfaction was at a high level.

Topics	Score (Percent)
Working with BPP's People	95
Compliance with Partnership Agreement	100
Transparent Treatment and Selection Criteria	94
Communication Channels Effectiveness	93
Benefits from Partnership Contribution	93
Cooperation in Information Provision and Exchange	96
Overall Satisfaction	100

# Sustainability Management of the Environmental Dimension

## Environmental Policy and Practice

BPP established environmental policies and practices under the Greener & Smarter strategy. These policies are based on the analysis of the Company’s material sustainability issues in value chain. They are used as operational guidelines in all locations where the Company operates, focusing on impact mitigation, environmental improvement, and conservation of natural resources. The Company fully complies with applicable laws while staying alert and agile to changes. Environmental impacts have been evaluated, and an effective surveillance and prevention system is in place. The Company has a management approach to minimize the environmental impacts of project planning. It deploys high efficiency, low emissions (HELE) technologies in power generation and encourages the conservation and optimization of resources, particularly energy, water, and land use. Other management strategies are communication, awareness-raising, capacity-building, and promoting stakeholder engagement, especially among employees and those involved in the Company’s value chain.



## Environmental Performance

### Energy Management

#### Strategy

The Company’s major costs are fuels used for generating power, steam, and other forms of energy. Thus, its strategies focus on controlling fuel consumption to maximize efficiency, using high-efficiency, low emissions technology, and supporting energy-saving projects and innovations.

#### Target

Energy consumption intensity ≤ 1.55 GJ/MWh

#### Management Approach

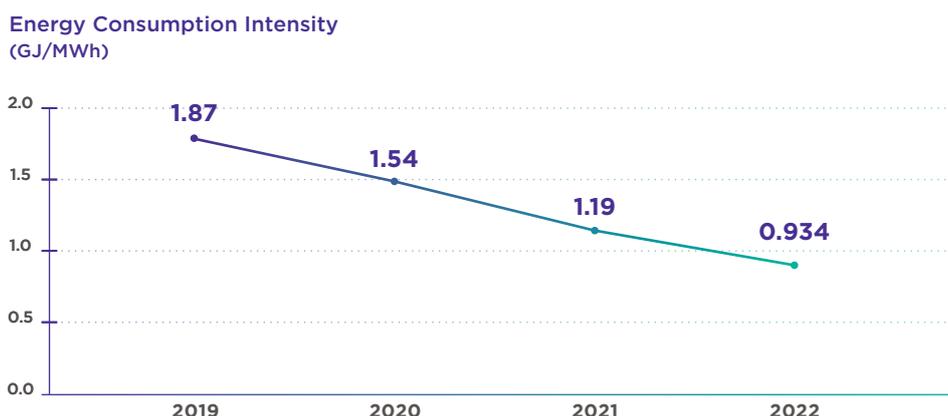
BPP focuses on energy optimization as follows:

- ⚡ Deploying high efficiency, low emissions technologies with low energy consumption intensity
- ⚡ Improving the boiler efficiency to achieve complete combustion and flexibility in fuel types
- ⚡ Planning for efficient maintenance to increase the power plants’ Availability Factor and reduce the Forced Outage Factor
- ⚡ Encouraging employee participation in increasing energy efficiency and reducing losses in production through the quality management process and the Innovation Committee’s support
- ⚡ Improving other support systems to reduce energy consumption, such as improving feedwater quality inside the boiler to extend boiler life and prevent power and water losses

- ⚡ Seeking alternative energy sources in the area, such as industrial waste, natural gases, and biomass fuels
- ⚡ Planning fuel procurement by the procurement unit by developing a database and application for sourcing quality fuels at reasonable prices for each power plant in China
- ⚡ Developing integrated energy management applications for power plants, starting from procurement, storage, blending to combustion in the production process

## 2022 Performance

In 2022, the Company’s energy consumption intensity was at 0.934 GWh, a decrease of 21.5 compared to 2021, which is 39.7 improved from the target. This is owing to the Company’s improvement of the production process by blending low-calorific value coal in the Zhengding combined heat and power (CHP) plant, blending activated carbon which was waste from its customers’ industrial plants, and using it to replace coal for the Zouping CHP plant. The blended coal was tested, and the power plant equipment was also improved and checked for energy efficiency and safety. This improvement has increased energy efficiency, reduced coal consumption, and recycled industrial waste, resulting in a fuel cost reduction of approximately CNY 44.25 million. Moreover, the Company’s energy consumption intensity has significantly improved.



Over the past year, coal prices surged due to global coal shortage and China’s announcement of the law to limit coal consumption in power plants to reduce GHG emissions. The Company has since studied and implemented methods to reduce energy consumption as follows:

- ⚡ Improving boilers to utilize coal of diverse qualities; reusing coal ash in production process; using industrial waste from customers’ industrial processes as fuel, etc.
- ⚡ Seeking ways to increase clean energy production and utilization, such as getting selected to install a solar rooftop system in China and conducting feasibility studies on biomass and waste power generation projects
- ⚡ Developing energy management applications using digital technology, such as market intelligence tools or IRIS for fuel purchase, coal blending applications, and digital transformation for holistic improvement of the power plant by integrating digital technology in the power generation processes to prevent energy losses in the power plant and steam distribution system

## Water Management

### Strategy

As water is an important resource for power generation, the Company analyzed water resource risks and potential impacts on the production units, both in terms of physical impacts and legal changes, especially those related to climate change. The analysis will be used to determine adaptive strategies, namely improvement of production processes, reduction of water losses in the system, water resources optimization, and holistic water management, including both inlet water and discharged water, to minimize the impacts of water utilization in the area.



◀ [Water Resource Management Policy](#)

### Target

- ⚡ Water consumption intensity  $\leq 0.868$  cubic meters/MWh
- ⚡ Discharged water quality meets the legal standards

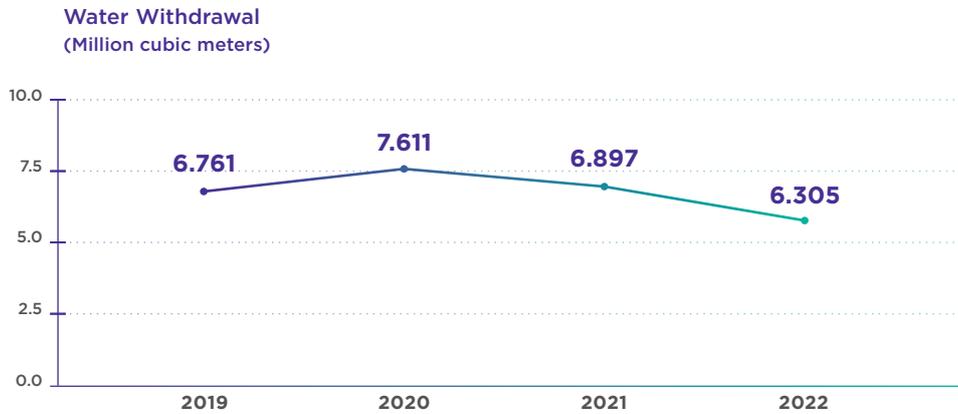
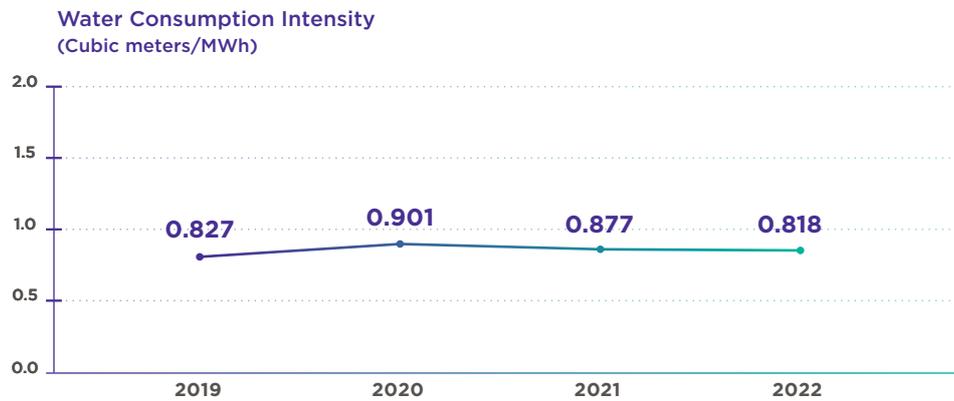
### Management Approach

Water is an essential resource for power generation and the livelihood of surrounding communities. Risks in water resources are related to climate change and can lead to water shortages in the area affected by changing climate. Therefore, the Company regularly assesses water resource risk, particularly in water-stressed areas. Water management focuses on recycling as much water as possible to minimize water consumption and water discharge to comply with water quality standards. Details are as follows:

- ⚡ Seeking investment opportunities in water production technology to maximize water utilization or zero discharge of wastewater to minimize impacts on local freshwater resources
- ⚡ Managing water consumption for maximum benefit and looking for opportunities to reduce water consumption and reuse or recycle water
- ⚡ Improving the quality of wastewater discharge to meet legal standards and establishing measures to prevent chemical leakages and contamination at the source
- ⚡ Implementing holistic water management to ensure righteous and efficient water consumption in operations with no effects on stakeholders in the area
- ⚡ Assessing water-related risks and setting up measures and operational practices in the event of an emergency to reduce the impact and restore the area
- ⚡ Developing a surveillance system for both quality and quantity to ensure that water is well managed while the wastewater discharge complies with the legal standards
- ⚡ Promoting stakeholder participation, especially the local communities and the research sector, to conserve water resources and improve water quality and management in the area

## 2022 Performance

In 2022, the Company’s three combined heat and power (CHP) plants in China had a water consumption intensity of 0.818 cubic meters/MWh, decreasing 6.7% compared to 2021 and above the target of 5.8%. The new power generation units in China had beendesigned not to discharge wastewater from the system to reduce water consumption in the area. Therefore, water consumption intensity has been decreasing for many years. In addition, water has been recycled through a recycling process to be reused, which can significantly reduce the amount of water drawn from water resources.



## Waste Management

### Strategy

The Company stresses utilizing environmental-friendly and state-of-the-art technologies to reduce waste at the source, promoting reuse and recycling of waste to optimize resource utilization and cut waste management costs. In addition, the Company has an effective system as well as regular drills to prevent and handle leaks of hazardous waste.



[← Waste Management Policy](#)

### Target

- ⚡ Hazardous waste disposed to landfill ≤ 210 tonnes/year
- ⚡ Non-hazardous waste disposed to landfill ≤ 793 tonnes/year
- ⚡ Proportion of fly ash reused or recycled equivalent to 100% per year
- ⚡ Proportion of synthetic gypsum reused or recycled equivalent to 100% per year

### Management Approach

The Company has implemented waste management according to the Environmental Policy by adopting the 3Rs principle: Reduce, Reuse, and Recycle. It aims to achieve the zero hazardous waste to landfill target and compliance with the best-practice standards and laws of each country. As a result, wastes from the CHP plants have been classified into three types: hazardous waste, non-hazardous waste, and ash and gypsum.

Waste Type	Example	Management Approach
<b>Non-hazardous waste</b>	<ul style="list-style-type: none"> <li>• Paper and office equipment</li> <li>• Metal scraps, materials and equipment, and packaging</li> <li>• Domestic waste</li> <li>• Organic waste from tree trimmings and area maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Deploying a digital system to reduce the consumption of materials and equipment</li> <li>• Storage and classification of the waste for further reuse and recycling</li> </ul>
<b>Hazardous waste</b>	<ul style="list-style-type: none"> <li>• Oil-absorbent material and used lubricants</li> <li>• Used batteries</li> <li>• Chemicals used for air and water treatment and other chemicals, including their packaging</li> </ul>	<ul style="list-style-type: none"> <li>• Reducing consumption</li> <li>• Looking for opportunities to transform hazardous waste into treatable and reusable waste</li> <li>• Reducing the use of packaging by transporting and transmitting chemicals directly to storage tanks</li> <li>• Storing and classifying wastes for reuse and recycling</li> <li>• Setting measures to prevent and handle waste leakages in the event of an emergency</li> <li>• Ensuring compliance of waste transportation, disposal, and sales for recycling with legal standards</li> <li>• Delivering wastes for disposal by the certified external parties</li> </ul>
<b>Ash and gypsum</b>	<ul style="list-style-type: none"> <li>• Fly ash</li> <li>• Bottom ash</li> <li>• Synthetic gypsum</li> </ul>	<ul style="list-style-type: none"> <li>• Classifying fly ash according to size to meet customer needs and market demands</li> <li>• Exploring the market to sell fly ash, bottom ash, and gypsum as construction materials</li> <li>• Preparing appropriate and adequate storage areas for ash and gypsum</li> <li>• Delivering ash and gypsum for disposal by the certified external parties</li> </ul>

## 2022 Performance

In 2022, hazardous waste generated by the three CHP plants in China amounted to 792,736 tonnes, consisting of 116 tonnes of hazardous waste and 792,621 tonnes of non-hazardous waste. All of the waste were eliminated by proper methods, achieving the zero hazardous waste disposed to landfill target. Meanwhile, by-products generated by the air treatment process at the CHP plants in China were ash and synthetic gypsum. The amount of ash generated from fuel combustion was 791,581 tonnes, consisting of 521,573 tonnes of fly ash, 180,007 tonnes of bottom ash, and 90,001 tonnes of synthetic gypsum. The fly ash was classified by size before selling to be utilized as construction materials. The classification of fly ash according to size to meet customers' needs is a way to add value to fly ash. The Company can sell fly ash at higher prices because it meets the market's demand. 100% of ash and gypsum were reused or recycled.

## Air Quality

### Strategy

Sulfur dioxide (SO<sub>2</sub>), Oxide of Nitrogen (NO<sub>x</sub>), and dust particles are the key indicators of air quality from the thermal power plants' stack as well as surrounding communities' issues of interest. The Company has deployed highly efficient and environmentally friendly power generation technology in its newly acquired power plants, with improved pollutant-trapping and combustion systems, resulting in highly efficient fuel combustion and ultra-low emissions.

### Target

- ⚡ Air quality from the stack meets legal requirements.
- ⚡ Emission intensity
  - SO<sub>2</sub> emission intensity ≤ 0.0766 tonnes/GWh
  - NO<sub>x</sub> emission intensity ≤ 1.184 tonnes/GWh
  - Particulate matter (PM) emission intensity ≤ 0.0230 tonnes/GWh

### Management Approach

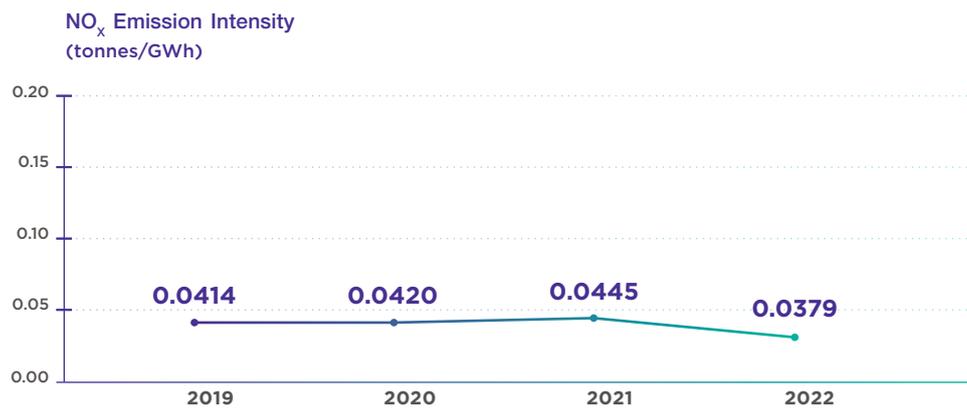
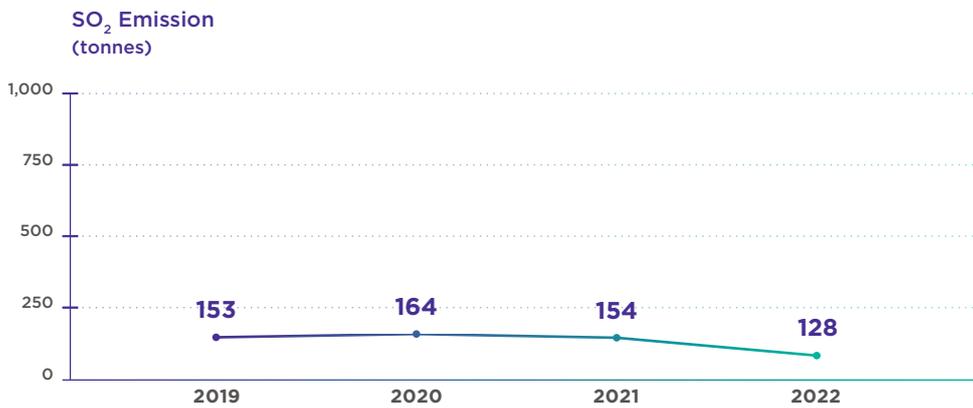
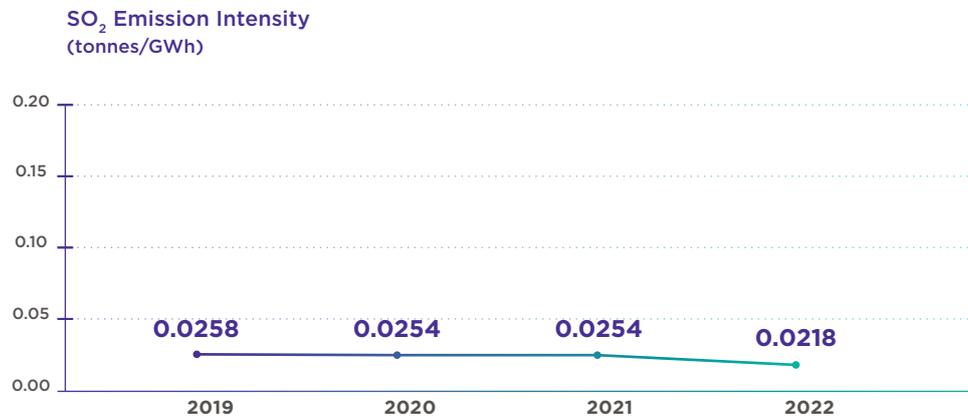
BPP has established emission control measures to comply with legal requirements for the health and safety of its employees and surrounding communities as follows:

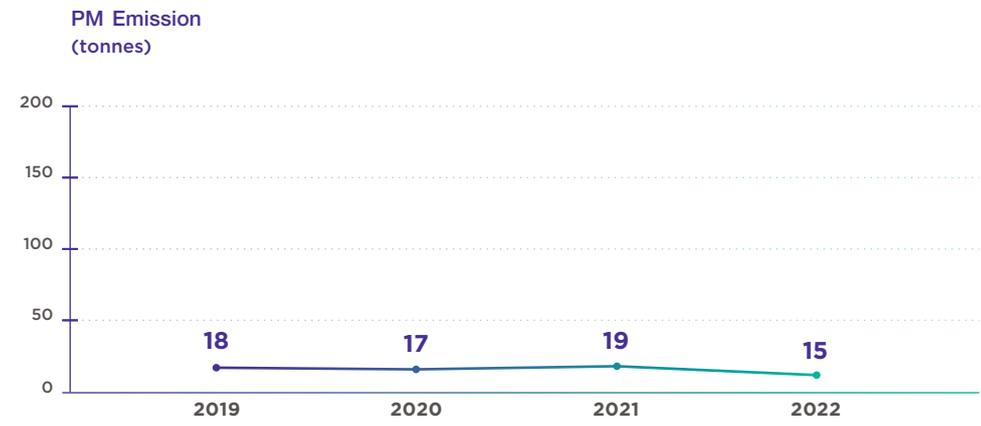
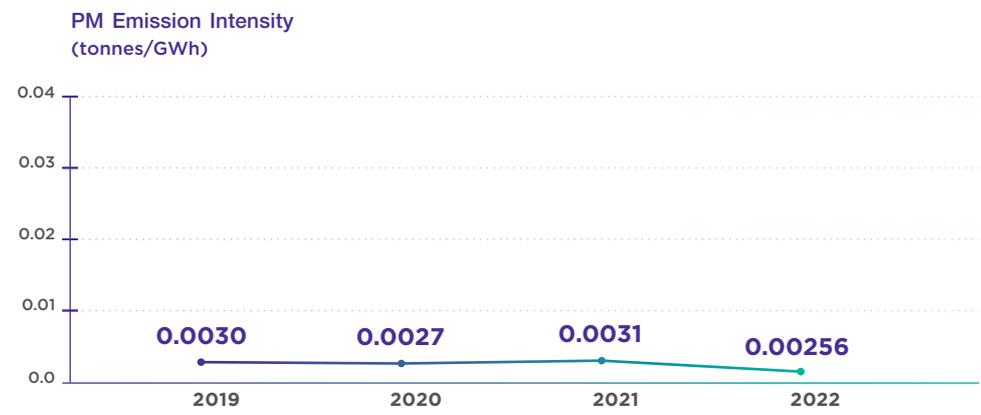
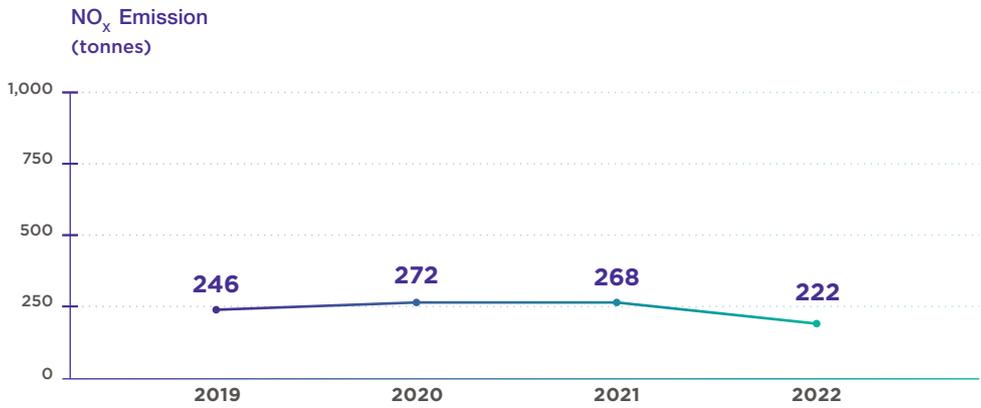
- ⚡ Deploying appropriate innovation to improve the high-standard pollutant-trapping system to achieve ultra-low stack emissions
- ⚡ Opting for low-sulfur coal to reduce SO<sub>2</sub> at the source: BPP has entered into a long-term purchase agreement with coal resources that can supply coal of specified quality. There is also an online trading system for coal traders to offer coal that meets BPP's requirements.
- ⚡ Deploying clean technologies to ensure complete combustion of the boiler of coal-fired thermal power plants, such as High Efficiency, Low Emissions (HELE) technologies; pulverized fuel combustion, in which coal ground to a very fine size is blown into a furnace; and fluidized bed combustion, in which coal ground to a very fine is mixed with lime and blown into a boiler. These technologies help reduce SO<sub>2</sub> and NO<sub>x</sub> as well as particulate matter during combustion.

- ⚡ Implementing the continuous monitoring system for air quality throughout the production process before being emitted; setting preventive measures, which are under the regular inspection of internal and external agencies
- ⚡ Seeking opportunities to invest in power plants that are highly efficient and emit zero or ultra-low air pollutants, such as natural gas-fired or renewable power plants

### 2022 Performance

The three CHP plants in China have continually improved the air quality before being emitted from stacks since 2013; therefore, the air quality has improved significantly. In the past year, the quality of air emitted from stacks was higher than legal standards and met the set targets. The power plants also gained acceptance and were awarded special subsidies by the government for excellent air quality control efforts.





## Greenhouse Gas Emissions (GHG)

### Strategy

As climate change poses impacts on sustainable development and human well-being, it is a global concern, and countries have joined forces to reduce GHG emissions. The Company has established the following measures to adapt to climate change and mitigate its impacts by reducing GHG emissions intensity.

- ⚡ Investing in renewable energy to promote the transition to a low-carbon society in the future
- ⚡ Deploying High Efficiency, Low Emissions (HELE) technologies and improving the power plant efficiency to reduce the consumption of energy and raw materials
- ⚡ Establishing a business continuity management and integrating climate change risk management to increase resilience
- ⚡ Conducting an assessment of climate-related risks and opportunities and disclosing climate-related financial information according to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
- ⚡ Closely monitoring the climate change situation and climate-related policies and laws to be used as input for investing, adapting, and seeking opportunities arising from the energy transition



[Climate Change Policy](#)

### Target

- ⚡ GHG emissions intensity from 2021-2025 not exceeding 0.676 tonnes CO<sub>2</sub>e/MWh
- ⚡ Renewable power generation capacity of no less than 800 MW by 2025

### Management Approach

BPP's power generation and energy businesses rely mainly on fuels in their production processes. So, the Company aims to reduce Scope 1 emissions mainly from fuel consumption. It also seeks opportunities to reduce GHG emissions by improving energy efficiency, reducing energy loss in the production process, conducting studies on alternative fuels, and investing in low-carbon businesses to achieve the GHG emission target. In addition, the Company has taken internal Carbon Pricing into account when making investment decisions in any projects. The Company also jointly established the following climate-related task forces with Banpu group.

- ⚡ The Climate Change Committee is responsible for driving climate-related operations, monitoring climate change impacts and the progress of climate performance in the Company, and gathering internal data on climate-related innovations.
- ⚡ The Task Force on Climate-related Financial Disclosures (TCFD) Working Group is responsible for driving information disclosure according to the TCFD recommendations.
- ⚡ The Decarbonization Committee oversees feasibility studies of various projects to reduce GHG emissions.

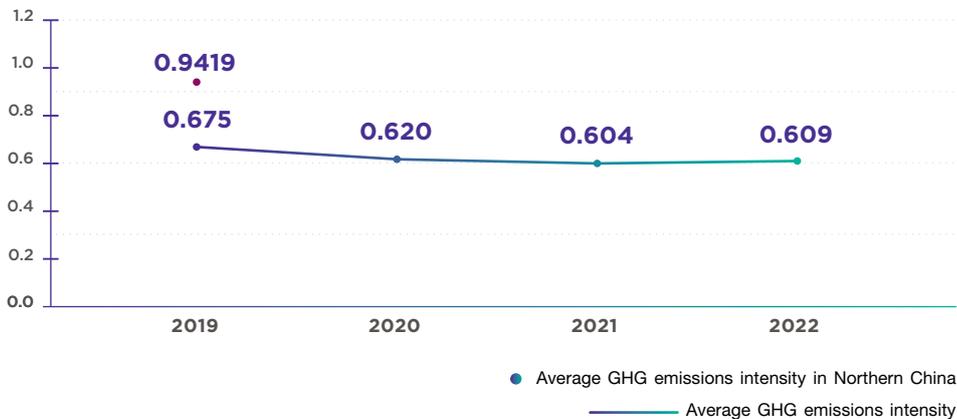
## 2022 Performance

The three CHP plants in China had GHG emissions of 0.609 tonnes CO<sub>2</sub>e/MWh, decreasing 9.9% compared to the target and 3.5% lower than the year 2012 baseline. This resulted from years of continuous improvement of the Company’s power plant efficiency. There were projects to reduce energy and water losses in the system as follows:

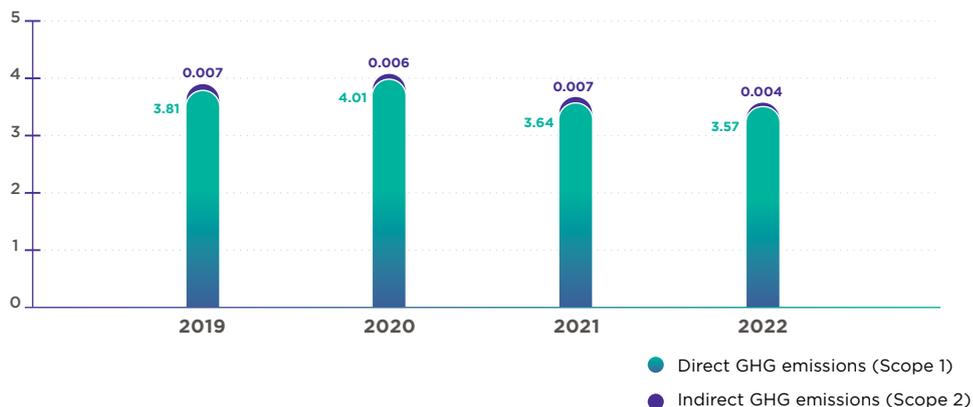
- Improving boilers to enable the utilization of fuels with varying heating values
- Reusing local industrial waste by blending it with fuels
- Reusing ash residue from incomplete combustion to reduce fuel consumption and the amount of bottom ash
- Improving the efficiency of heat exchanger stations and reducing leakage in heat exchanger tubes by deploying digital technology for inspection, and
- Installing a solar rooftop system to generate electricity in Zhengding county, which will help reduce GHG emissions in the future

The Company has also reduced energy consumption and GHG emissions in compliance with the Chinese government’s regulation to limit coal consumption in power plants and the Emission Trading Scheme enforced in China. In 2022, BPP’s CHP plants in China managed to reduce GHG emissions within the legal limit, so they could sell surplus emission rights in China’s GHG emission trading market.

The GHG emissions intensity from the CHP plants in China (tonnes CO<sub>2</sub>e/MWh)



The amount of direct and indirect GHG emissions (tonnes CO<sub>2</sub>e)



- ⚡ Seeking opportunities to invest in renewable energy through Banpu NEXT Co., Ltd., a subsidiary in which Banpu and BPP each hold a 50% shareholding in order to drive a low-carbon society in the future. In 2022, Banpu NEXT achieved an expansion of renewable energy capacity to 576.2 MW.
- ⚡ Enhancing adaptability to climate-related risks
  - Operating Risk Management: BPP has adopted the Business Continuity Management System (BCMS) in preparation for unexpected interruptions in business operations, such as natural disasters and pandemics; therefore, it can deliver products and services to customers and stakeholders without interruption. The Company (jointly with Banpu group) obtained the ISO 22301 certification for Business Continuity Management for the Beijing and Bangkok offices.
  - Changes in policies and regulations regarding energy and GHG emissions: The Company has a unit responsible for monitoring and anticipating regulatory changes in all locations both at the local and government levels to timely respond and adapt to stricter environmental standards. It also seeks investment opportunities in the renewable energy business supported by the governments.
- ⚡ Disclosing climate-related information - Conducting an assessment of risks and opportunities related to climate change to determine strategy and mitigation measures in line with the Task Force on Climate-related Financial Disclosures (TCFD)

### Legal compliance and environmental disputes

BPP has a system in place to monitor its compliance with environmental laws based on performance reports of operating units and audits by the Internal Audit Unit and external agencies. In 2022, there were no significant issues, complaints, or disputes regarding environmental management.

Remark: Environmental performance data was in data assurance process by external consultant.

# Sustainability Management of the Social Dimension

## Social Policies and Practice

BPP places importance on social operations, which are regarded as part of its performance and long-term targets. The Company focuses on stakeholder engagement and operations that create social sustainability. It also prioritizes sustainability issues on a social dimension involving internal and external stakeholders, namely occupational health and safety, staff capacity building, labor practices, creating employee engagement through the corporate culture “Banpu Heart,” and community engagement and human rights operations.



◀ [Social Policies](#)

## Social Performance

### Human Rights

#### Strategy

BPP recognizes the significance of rights, freedom, and equality, which are fundamental human rights every human is entitled to regardless of sex, nationality, religion, or color. Business operations that respect human rights can thus contribute to social sustainability. BPP supports and adheres to human rights principles at the national and international levels, including the Universal Declaration of Human Rights (UDHR), the International Labor Organization (ILO), the United Nations Global Compact (UNGC), and the United Nations Guiding Principles on Business and Human Rights (UNGPs). The Company’s significant strategies are as follows:

- ⚡ Developing policies, guidelines, and preventative measures; raising human rights awareness organization-wide to integrate human rights principles into business operations; preventing potential human rights violations; and considering potential impacts on stakeholders across the value chain.
- ⚡ Conducting comprehensive human rights due diligence in business operations on a regular basis.
- ⚡ Establishing channels for complaints, inspection, and corrective measures.



◀ [Human Rights Policy](#)

#### Target

- ⚡ Proportion of business units conducting human rights risk assessment equivalent to 70% by 2021
- ⚡ No significant human rights complaints
- ⚡ All human rights complaints are resolved through a dispute resolution mechanism.

## Management Approach

To ensure that human rights are respected throughout the organization, including communication across joint ventures and supply chains, BPP has announced the Human Rights Policy, covering the Company's operations and stakeholders throughout the supply chain, such as partners and joint ventures, with the following guidelines.

- ⚡ Respect for human rights in compliance with national and international human rights standards and principles.
- ⚡ Establish an operating system to ensure that all employees and stakeholders are treated fairly, such as selecting employees based on qualifications and experience without considering any irrelevant qualifications, providing a fair performance appraisal system, as well as equal benefits and welfare.
- ⚡ Comply with local laws, regulations, and customs concerning child labor, forced labor, and migrant workers by establishing transparent criteria and procedures for personnel recruitment, and the employment contract must be executed on all occasions.
- ⚡ Engage with local communities, including indigenous peoples, to better understand their social, cultural, environmental, and economic contexts in order to avoid negative consequences from operations.
- ⚡ Assess human rights performance on a regular basis, including a complaint mechanism, in order to identify, prevent, and mitigate negative impacts on human rights.
- ⚡ Establish effective communication channels for employees, communities, and stakeholders to be aware of human rights management performance and to raise human rights concerns with the Company.
- ⚡ Create operational mechanisms to ensure that BPP's operations do not involve human rights violations, such as establishing clear rules, communication procedures, operational audits from internal departments, and social studies prior to the project execution.

## 2022 Performance

Over the last three years, BPP has consistently carried out human rights activities, such as:

- ⚡ Conducting a human rights risk assessment jointly with the Banpu group in 75% of the business units under the Company's direct management, namely three combined heat and power plants in China, the Bangkok Office, and the Beijing Office. The results revealed that no business unit had a high human rights risk. Moreover, BPP intends to conduct a human risk assessment in the US business in which the Company intends to invest in the future.
- ⚡ Conducting a human rights risk assessment in some business units in which the Company has invested, including renewable energy generation and energy technology businesses of Banpu NEXT and the HPC power plant
- ⚡ Safeguarding personal information in accordance with human rights principles and establishing the following policies:

⚡ There were no incidents of human rights violations where the Company was involved with or engaged in.



◀◀ 1) [Privacy Policy](#)



◀◀ 2) [Privacy Notice](#)



◀◀ 3) [Data Subject Access Request](#)

⚡ Reviewing the Banpu group’s Human Resources Management Policies to include human rights aspects: Non-Discrimination and Anti-Harassment Policy, Employee Recruitment and Selection Policy, Remuneration Management Policy, Employee Relations Policy, and Employee Training and Development Policy



◀◀ [Banpu Group’s Human Resource Management Policies](#)

⚡ There were no incidents of human rights violations where the Company was involved with or engaged in.

**Fair Labor Practice**

**Strategy**

- ⚡ Establishing international labor standards; developing employee potential and “Banpu Heart” corporate culture to foster synergy and employee engagement
- ⚡ Establishing a transparent and equitable performance assessment system
- ⚡ Establishing a systematic complaint-handling process
- ⚡ Establishing two-way communication and regularly receiving feedback for improvement

**Target**

- ⚡ No complaints about labor management
- ⚡ Employee potential evaluation is conducted, and individual development planning is completed.
- ⚡ Employee engagement score of at least 70% in Thailand and at least 75% in China
- ⚡ Banpu Heart score of at least 70%

## Management Approach

The Company effectively manages its human resources management in accordance with international good labor practices and regularly reviews the performance in order to better align with its operations and social context. Management approaches can be summarized as follows:

- ⚡ Recruitment process: The selection of candidates is equitable based on their qualifications, knowledge, and experience according to the job description and without discrimination based on qualifications not related to the applicant's capabilities, such as gender or age.
- ⚡ Promotion of collaboration among diverse employees: This has long been a practice in every country where the Company operates to strengthen collaboration and drive the Company's innovation and sustainable growth.
- ⚡ Fostering "Banpu Heart" corporate culture: The Company aims to develop professional employees. It provides equal treatment and opportunities to employees from diverse backgrounds, with a commitment to shared vision, goals, and corporate values.
- ⚡ Performance evaluation: The Company established key performance indicators (KPIs) that are clear and consistent with the Company's goals. KPIs for employees are divided into two categories: work-related KPIs with a total score of 70%, and behavior-based KPIs with a total score of 30%.
- ⚡ Remuneration management: The Company determines compensation based on job evaluation of each position and competitiveness in the labor market in each location where the Company operates. The compensation for each job evaluation is equal and free from discrimination based on sex. The pay rise will be determined based on each employee's annual performance.
- ⚡ Career growth: Outstanding performers are chosen by their supervisors based on consistently exceptional performance which is directly related to their work and behaviors demonstrating the corporate shared values. They will then be nominated to the Promotion Committee for consideration to ensure transparency and non-discrimination based on sex, age, etc.
- ⚡ Complaint channels: Employees can seek advice or directly file complaints through their supervisors and the Human Resources Department. If an employee wishes to file a complaint anonymously, they can do so through online channels. The complaints can be on such issues as uneasy feelings, conflicts with supervisors/ coworkers/management, non-transparent practices, and sexual harassment. The Company has a complaint investigation process and corrective measures in place, including disciplinary action in accordance with the work regulations.
- ⚡ Feedback channels: Employees can submit feedback for welfare and compensation improvements in a variety of channels, i.e., through the Welfare Committee or other forms of committees based on the operational context in each country. Employees can also provide feedback through Human Resources supervisors, employee engagement surveys, and focus groups.
- ⚡ Work rules and regulations: The Company amended work rules and regulations to comply with the new legislation in 2020 and communicated to all employees. The rules and regulations are divided into several categories, including working days, holidays and absence criteria, date and place of wage payment, overtime pay, leave criteria, welfare, complaints, termination of employment, and compensation.

## 2022 Performance

- ⚡ There were no incidents related to violations of labor laws and practices or discrimination, rights violation, sexual harassment, or other forms of harassment in the workplace.
- ⚡ The results of workplace inspection complied with legal standards.
- ⚡ Welfare was improved, and measures to prevent the spread of the COVID-19 virus were established.
- ⚡ Employee potential was evaluated, and individual development planning for all employees was completed.
- ⚡ Review of Banpu group's Human Resources Management Policy to comply with international principles on fair treatment of labor, including Non-Discrimination and Anti-Harassment Policy, Employee Recruitment and Selection Policy, Compensation Policy, Employee Relations Policy and Training and Development Policy.



[Banpu Group's Human Resources Management Policies](#)

- ⚡ Employee engagement score of 74% in Thailand and 96% in China
- ⚡ Banpu Heart score of 84% in Thailand and 92% in China

## Responsibility to Customers/Consumers

### Strategy

The majority of the Company's customers are government agencies, state-owned enterprises who purchase electricity under long-term energy purchase agreements, and customers who buy steam and other forms of energy, i.e., the industrial and community sectors. The Company adheres to the ISO 9001 Quality Management System Standard, the ISO 45001 Occupational Health and Safety Management System Standard, the ISO 14001 Environmental Management System Standard, and business ethics and customer privacy policy. The Company applies these standards to all production units to enable a systematic internal management and to be able to respond to customer needs. It also has the ISO 22301 Business Continuity Management in place to ensure that in unexpected events or abnormal situations, the Company can recover the system and continue to deliver products and services to customers within the specified timeframe.

### Target

- ⚡ Proportion of customer complaints resolved in a timely manner equivalent to 100%
- ⚡ No customer complaints related to customer data privacy
- ⚡ No customer complaints related to the safety and environmental impacts from the use of products and services

### Management Approach

The Company has implemented the ISO 9001 Quality Management System Standard in production units interacting with various groups of customers. Customer focus is one of the Company's quality management approaches, as detailed below.

1. Establishing a communication process to understand the needs and expectations of customers while seeking collaboration and opportunities to satisfy their needs
2. Aligning operational goals with customer needs and expectations
3. Communicating customer needs and expectations so that they are understood throughout the organization
4. Monitoring customer satisfaction for continuous improvement of operations
5. Building customer relationships in a systematic manner
6. Balancing the needs of customers and other stakeholders

Furthermore, BPP focuses on building relationships with customers as partners of mutual success by prioritizing the delivery of sustainable value to all customers with adherence to the following four key values:

1. **Product value:** Deploying High Efficiency, Low Emissions (HELE) technologies, enables the Company to control the quality of air, water, and environmental management in compliance with international standards
2. **Service value:** Improving production efficiency to ensure availability, reliability, and flexibility in response to customer demands and to control product quality in accordance with the standards and terms specified in the agreement with customers

- 3. **People value:** Supporting employee development to equip them with knowledge and capacity while cultivating corporate culture so that all employees have qualifications and readiness to respond to customer needs and are able to properly and promptly resolve customer problems
- 4. **Reputation value:** Being committed to professional business operations, with adherence to professionalism, the Code of Conduct, and good corporate governance principles

### 2022 Performance

The customer satisfaction survey conducted in accordance with the ISO 9001 Quality Management System Standard participated by 54 industrial steam customers was successful. The response rate was 100%, and the satisfaction rate was also 100%. There were no complaints about customer data privacy or the safety and environmental impact related to product use. In 2022, all three combined heat and power plants in China maintained their Availability Factor according to the needs of both public and private customers. They were able to continue the production and delivery of products and services even during the COVID-19 pandemic as a result of the strict implementation of prevention measures. In addition, the Company has been certified by external agencies for the ISO 9001 Quality Management System, the ISO 45001 Occupational Health and Safety Management System, the ISO 14001 Environmental Management System, and the ISO 22301 Business Continuity Management System.

## Community and Social Responsibility

### Strategy

The Company engages communities and listens to their opinions since the feasibility study phase to gain inputs for project development to minimize potential impacts. It also assesses social and stakeholder impacts, sets surveillance and prevention measures for impacts arising during construction and implementation periods, and provides effective channels for communications and receiving complaints



[Community Development Policy](#)



[Corporate Philanthropy Policy](#)

### Target

- ⚡ All community engagement projects are carried out according to the prevention and mitigation plan for community impacts.
- ⚡ No significant complaints from the community
- ⚡ All complaints enter the investigation process and are resolved in a timely manner.

### Management Approach

In accordance with international standards, the Company requires a Social Impact Assessment to be conducted since the feasibility study phase in order to gain a thorough understanding of the project area’s economic and social conditions. The Company has engaged the communities through the analysis of stakeholders, namely

directly-impacted group, indirectly-impacted group, and beneficiaries. Based on the input, the Company has developed guidelines for engaging with each stakeholder group and established communication channels. It has implemented social responsibility projects based on sustainable development principles that are suitable and truly meet the needs of the community in order to generate sustainable social returns in all locations where the Company operates. The Company assigned a responsible community engagement unit to develop the short and long term operational plans for each community, including vulnerable groups, or those who are unable to protect their rights or lack the freedom to make decisions, such as children, the elderly, refugees, and indigenous peoples. The Company also provides channels for communication and receiving complaints to enable timely investigation and resolution. At the large-scale thermal power plants which BPP owns through joint ventures, the Company set up a tripartite committee consisting of representatives from the power plants, the community, and the government sector. The committee members collaborate in monitoring environmental and social performance and community development projects to provide feedback for continuous improvement and deliberating on community development projects that truly meet the needs of each area.

### 2022 Performance

In the past year, the Company received no significant complaints from surrounding communities, neither from the power plants under its direct management nor joint ventures. Targets for community engagement were also achieved. In addition, BPP has announced Standard Practice Manual on Stakeholder Engagement for building the engagement of local stakeholders. This manual provides clear operational guidelines for responsible persons to apply specifically to each area.



[Standard Practice Manual on Stakeholder Engagement](#)

## Social Compliance and Disputes

The Company has a system in place to ensure social compliance within the organization, which is based on performance reports from operating units and regular audits by the Internal Audit Department. The Company received no social complaints or disputes in the past year.

## Awards and Achievements

Sustainability Yearbook  
Member 2022

**S&P Global**

Being included in the **Sustainability Yearbook 2022** based on an annual evaluation of ESG practices of leading companies worldwide



Being Listed on the **Thailand Sustainable Investment (THSI) Index** for the fifth consecutive year



Receiving **Commended Sustainability Awards** in the category of companies with a market capitalization of THB 30,000-100,000 million, assessed by the Stock Exchange of Thailand



Receiving **Excellence CG Scoring** based on the assessment by the Thai Institute of Directors (IOD)

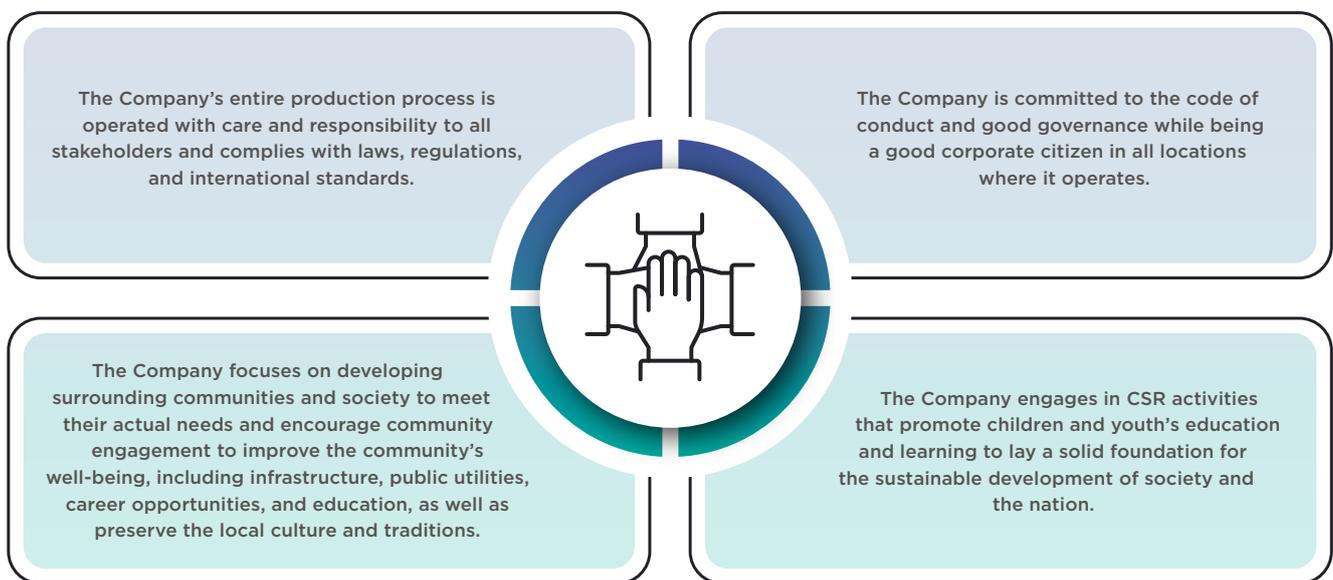


Receiving **“A+”** credit rating with a **“stable”** outlook from TRIS Rating

BPP continues to expand its business according to the Greener & Smarter strategy to deliver energy for driving the economy and society through the deployment of high efficiency, low emissions technologies in its power generation along with adherence to good corporate governance and effective risk management to achieve sustainable growth throughout the value chain and to balance the needs of all stakeholders.

## Community and Social Engagement

Banpu Power Public Company Limited (BPP) and its subsidiaries are committed to sustainable business operations while prioritizing the Environmental, Social and Governance (ESG) principles and seek to achieve a well-balance between business growth and community and environmental development through its Corporate Social Responsibility (CSR) in- and after-process activities. BPP always adheres to Banpu group’s business credo: “an industry will be strong only when it is developed in tandem with social and environmental responsibility” by focusing on community engagement, respect for human rights, energy conservation, environmental care, and employee engagement in community development.



## Social and Environmental Responsibility Activities in the Past Year

### Thailand

BLCP Power Limited (BLCP), a joint venture of BPP, which operates the BLCP power plant, has organized activities to enhance understanding among communities and government agencies by providing operational and environmental quality information and receiving ongoing suggestions from the community on a quarterly basis. It has also engaged in social activities, community development, and environmental conservation. Major activities in 2022 are as follows:

#### Educational Development

BLCP places importance on education as it is the key to the potential development of young people, who are a driving force of the development of society and the country. In 2022, BLCP continued its “BLCP Junior Guide” project for the 15<sup>th</sup> consecutive year. It collaborated with five educational institutions in Rayong province to organize projects in order to

develop leadership skills for high school students to help them become good leaders in the future.

Prioritizing expanding youth education, BLCP has sponsored the Vocational Chemical Engineering Practice College (V-ChEPC) and the Vocational Electrical System Engineering (V-EsEPC) projects at Maptaphut Technical College for three consecutive years with a total value of THB 1.5 million. It also





continued the “BLCP Scholarship” project for the 21<sup>st</sup> consecutive year in order to promote education among underprivileged children in Maptaphut Town Municipality and groups of small-scale fishers in Rayong province worth up to THB 17.52 million.

**Disaster Relief**

In September 2022, BLCP delivered 100 survival kits with drinking water worth THB 30,000 to support flood victims in Rayong province.

**Environmental Conservation**

Since 2016, BLCP has been a consistent supporter of the community forest project. In 2022, BLCP organized a community forest project at Ban Nong Lalok, Natakhwon Sub-district, Mueang District, Rayong province, planting approximately 1,500 trees on 22 Rai of land (35,200 square meters) to restore forests and foster the potential of community forests as a carbon pool, as well as resources and sources of food for surrounding communities.

Furthermore, for the 19<sup>th</sup> consecutive year, BLCP organized a project to release aquatic animals to increase marine and coastal resources in Rayong province in order to instill awareness of environmental care and preservation, to increase the potential for

aquatic animal production in the seas and along the coasts, resulting in job creation, stable income, and long-term sustainability for the people of Rayong province. Aquatic species released into the sea were 300,000 black tiger prawns and 3.5 million baby blue crabs from the breeding farm of the Ban Payoon Small Boat Fishery Group under the Local Small Boat Fishing Community Enterprise in Mueang District and Ban Chang Samakkhi District, Rayong province.

**Lao PDR**

Hongsa Power Company Limited, a joint venture of BPP, which operates the HPC power plants in Lao PDR, has provided consistent support and aid to the people of Lao PDR. In 2022, HPC contributed over THB 17 million to government agencies in Lao PDR and Nan province in Thailand through 27 projects. Examples of these projects include financial support to flood-affected families in Nan province; budget support for the network



to protect and maintain the power grid system for Muang Hongsa, Muang Ngeun, and Muang Chiang Hon. HPC also provided scholarships to junior and senior high school students in Muang Hongsa, Muang Ngeun, and Muang Chiang Hon and organized the “Fill Up, Warm Up” activity to build toilets and necessary school facilities at Ban Phu Dok Mai School in Muang Hongsa, Sainyabuli province, Lao PDR.

**China**

Banpu Investment (China) Limited (BIC), a subsidiary of BPP in China, has promoted and supported social activities, community development, and environmental conservation, including ongoing investment promotion activities in the provinces where the Company operates in accordance with Chinese government policy. This builds a positive relationship and is consistent with Banpu group’s corporate social responsibility policy. The Company is also committed to being a good corporate citizen in all locations where it operates. Its environmentally friendly operations responding to community needs demonstrate the Company’s commitment to social responsibility. In addition, the Company has continuously supported and improved the quality of life of communities surrounding its power plants through various activities as follows:

**Education and Sport Development**

**Educational Development**

Luannan CHP power plant of Tangshan Banpu Heat & Power Company Limited, a subsidiary of BIC, has supported students with physical disabilities at Luannan-Banpu Special Education School for the 15<sup>th</sup> consecutive year. In 2022, the power plant donated six laptops and 85 school bedding sets worth CNY 49,200 in total to facilitate teaching and learning as well as improve students’ well-being.

**Sport Development**

Shijiazhuang Chengfeng Cogen Company Limited, a subsidiary of BIC, has sponsored Hebei-Banpu Fitness Club (formerly known as Banpu Table Tennis Club) for 19<sup>th</sup> consecutive years. In 2022, a grant of CNY 150,000 was given to the Club to sponsor athlete training and competition.

**Disaster Relief**

As the coronavirus disease (COVID-19) spread again in Zouping City in June 2022, the Zouping CHP plant

donated CNY 50,000 to Handian Town to support the local government’s epidemic control efforts.

A 6.8-magnitude earthquake struck Luding County, Sichuan province, in September 2022, caused massive loss of people’s lives and property in the area. BIC and its employees thus raised money and handed CNY 36,888 to the Sichuan Charity Federation to support the recovery and reconstruction efforts in the affected areas.

**Community Development**

**Infrastructure Improvements**

From April to December 2022, Jixin Solar Power Plant sponsored CNY 703,000 to complete the project to repair the road connecting the power plant and the village. This improvement not only allows agricultural and engineering vehicles on the road but also lowers hazards from bad road conditions.



In October 2022, Haoyuan Solar Power Plant donated CNY 5,000 to Maziyu Village to repair the storm-damaged road which leads to the top of the mountain. This will make travel more convenient for the villagers during the upcoming harvest and planting season.

**Economic Development**

Haoyuan Solar Power Plant and Jixin Solar Power Plant contributed to the economic development of local communities through vocational training and employment, such as solar panel cleaning, weeding, and housework services, with a total value of CNY 578,000.

**Japan**

Banpu Japan K.K. (BJP), a subsidiary of BPP, operates renewable power generation and energy technology businesses in Japan through Banpu NEXT Company Limited. BJP adheres to the principles of good corporate citizenship and prioritizes social and environmental responsibility in all areas where it operates. Major activities in 2022 are as follows:

**Educational Development**

BJP, in collaboration with the AiCT consortium, a smart city project in Aizu-Wakamatsu City, welcomed second-year junior high school students from Aizu-Wakamatsu Zaverio Gakuen School to visit and study the construction process of the Nari Aizu solar power plant and its solar car park.

BJP held a lecture session on “Basic Venture Course Each Course I” for Aizu University students.

BJP together with the Corporate Location Division of Aizu-Wakamatsu City gave a presentation about renewable energy on the topic “Initiatives at AiCT Office” to the Aizu-Wakamatsu Citizen’s Charter Promotion Committee.



**Vietnam**

Since Banpu group, including BPP, has been operating in Vietnam, the Company has consistently supported community and social engagement activities. To achieve a well-balance between business growth and community and environmental development, the following significant activities were carried out in 2022:

**Child and Youth Development**

Banpu Vietnam employees together with Thai Charm and other companies organized a charity event at SOS Children’s Village in Ho Chi Minh City in June 2022, handing out 1,500 meals, donating education supplies, cloth masks, and vitamins, and providing a budget for a summer camp, worth VND 75 million in total. The goal was to enhance the quality of life and support the education of children who lost their parents and underprivileged children.



**Community Development**

In September 2022, Banpu Vietnam donated VND 500 million in the 7<sup>th</sup> National Congress of the Ho Chi Minh Communist Youth Union of Soc Trang province to support the construction and repair of bridges and roads in rural areas.

# Management's Discussion and Analysis and Financial Ratios

## Management's Discussion and Analysis

### 1. Management's Discussion and Analysis

Despite the challenges posed by the fluctuating fuel costs and economic risks, Banpu Power Public Company Limited (BPP) has achieved strong performance and generated robust cash flow in 2022 due to its well-balanced portfolio. The Company's main assets have long-term Power Purchase Agreements (PPA) with a cost pass-through mechanism, resulting in limited impact from the high fuel cost. Additionally, the Company has power plants in the merchant market, where the electricity price is driven by market mechanisms, providing opportunities to capture more profits during high electricity demand periods. BPP commitment to energy stability is unwavering. We have ensured the availability and reliability of all our power plants in order to generate and distribute electricity to communities in a stable and consistent manner. This commitment to energy stability will lay a strong foundation to support the economic recovery after the COVID-19 situation. In China, where BPP has several power plants, the Chinese government has explicitly announced that energy security is their top priority. To ensure energy security, they have taken various measures, such as expediting domestic coal production continually. China's coal output consequently reached a record high in 2022. They have also set coal price caps and mandated coal producers to sign coal supply contracts with power plants to fortify energy security and soften the coal price. This has been evidenced by the Shanxi Lu Guang (SLG) power plant, which have entered into long-term coal supply contracts at a favorable price with support from the Chinese government.

BPP recorded a net profit of THB 5,739 million in 2022. This is primarily due to the share profit from the HPC power plant, which operated effectively and continues to generate profit consistently, the share profit from the associated company, which has gain on the divestment of the Sunseap group, and the Temple I gas-fired power plant in the United States, which was invested in at the end of 2021. The Company recorded an EBITDA of THB 9,124 million.

Consolidated revenue was reported at THB 24,501 million, representing a 261% growth over the previous year. The Temple I gas-fired power plant, which earned THB 17,585 million in revenue, was primarily responsible for this increase. In 2022, it recognized full-year revenue for the first time. Furthermore, it could sell electricity in large quantities at high prices, notably during the summer months in Texas, when electricity consumption soared considerably. It made THB 2,735 million in gross profit. Three CHPs in China reported revenue of THB 6,917 million, an increase of THB 805 million from 2021, owing primarily to a 21% increase in power tariff from the previous year as a result of joining the wholesale power trading market at the end of 2021 and an increase in steam selling price as a result of negotiations with industrial customers.

The Company recorded THB 6,350 million in profit sharing from joint ventures and associates, mostly from the HPC power plant, which contributed THB 3,401 million from operations. It could be able to maintain a high EAF of 86% in 2022 as a result of its ability to conduct the operation efficiently and smoothly. When unrealized exchange rate gains are factored in, the HPC power plant declared profit sharing of THB 3,691 million. BLCP reported a THB 764 million share profit from operations, with an EAF of 87%. After deferred tax charges and the effect of an unrealized loss on the translation of foreign currency were taken into account, it reported profit sharing of THB 580 million. Nakoso IGCC reported THB 267 million in profit sharing. SLG power plant in China reported a THB 290 million loss due to high coal costs in the first half of 2022. SLG power plant, on the other hand, has entered into a long-term coal supply contract with a favorable coal price in the second half of 2022 and sold

the electricity in the wholesale power trading platform since early 2022, resulting in high power sold and higher power tariff, improving its performance by THB 252 million compared to last year. The Company announced a THB 2,102 million profit sharing from investments in renewable energy and energy technology through Banpu NEXT, mainly due to the divestment of Sunseap group.

BPP will continue to grow its power generation business with quality megawatts as part of its Greener & Smarter strategy to transition to cleaner and smarter energy generators. The Company is ready to move forward to accomplish the target of 5.3 gigawatts by 2025. We will be leveraging the synergies with Banpu Group to further our development and produce electricity in countries where Banpu Group has operations. We are actively seeking new opportunities to grow our capacity in merchant markets in potential countries, particularly in the United States, where Banpu Group has a strong ecosystem that provides opportunities to expand to relevant businesses in the value chain by adding value from our current power business, namely energy trading business and electricity retail business. The Company will continue to focus on power plants that use High-Efficiency, Low-Emissions (HELE) technology, renewable power plants, and the use of technology and innovation to develop our business to meet the evolving patterns of energy demand in the future to ensure our sustainable growth.

## 2. Group Performance Analysis

The analysis and explanation performance for the quartered ended 31 December 2022 and 2021:

Consolidated Statement of Income for the year ended 31 December 2022 and 2021:

Consolidated financial performance (Unit: Million Baht)	Y2022	Y2021	Change	
			Amount	%
Sales	24,501	6,784	17,717	261%
Cost of sales	(22,090)	(6,824)	(15,266)	224%
<b>Gross profit</b>	<b>2,411</b>	<b>(40)</b>	<b>2,452</b>	<b>6,164%</b>
Selling & administrative expenses	(1,887)	(1,103)	(784)	71%
Share of profit from an associate and joint ventures	6,350	2,974	3,376	113%
Other income (Expense)	217	1,649	(1,432)	-87%
Other financial costs	(897)	(249)	(648)	260%
<b>Profit before income taxes</b>	<b>6,194</b>	<b>3,231</b>	<b>2,963</b>	<b>92%</b>
Income taxes	(44)	(57)	13	-22%
<b>Profit for the period</b>	<b>6,150</b>	<b>3,174</b>	<b>2,976</b>	<b>94%</b>
<b>Owners of the company</b>	<b>5,739</b>	<b>3,127</b>	<b>2,612</b>	<b>84%</b>
Non-controlling interests	411	47	364	769%
Basic earnings per share (unit: Baht)	1.883	1.026	0.857	84%

The group reported 2022 net profit at THB 5,739 million, increased by THB 2,612 million or 84% compared to 2021. This was mainly from higher revenue from Temple I gas-fired power plant in USA that the group invested since last quarter of 2021. Despite the group recognized loss from CHP power plant affected by higher coal cost, the group recognized profit sharing from an associate resulting from gain on sales of investment in Sunseap, and also higher profit sharing from HPC power plant that operate efficiently, and from SLG power plant that increased in sales from both volume and tariff, due to starting power trading in power market and entering into a long-term coal supply contract at favorable price, lowering its coal cost significantly. Meanwhile, the group also had higher finance cost from loan additions for new power plants investment during 2021 and debenture issuance during 2022.

Details of the group operating performance for 2022 were described as followings:

## Sales, Cost of Sales and Gross Profit

Sales reported at THB 24,501 million, increased by THB 17,717 million or 261% compared to 2021. This was mainly from higher steam sales from CHP plants in China of THB 805 million and from electricity sales from Temple I gas-fired power plant in USA of THB 16,912 million. Details were described as followings:

Items	Power Sold (GWh)		Steam & Others Sold (Million Tonnes)		Average Power Tariff (RMB/KWh)		Average Steam & Others Price (RMB/Tonne)	
	Y2022	Y2021	Y2022	Y2021	Y2022	Y2021	Y2022	Y2021
100% Basis								
Zhengding CHP	285.08	312.68	1.46	1.48	0.41	0.34	97.73	112.17
Luannan CHP	463.54	537.65	2.83	3.10	0.40	0.35	111.77	107.07
Zouping CHP	340.80	328.73	1.79	1.75	0.45	0.43	193.82	164.92
Total CHP Power Plants	1,089.42	1,179.07	6.08	6.33	0.42	0.37	132.59	124.29
	(GWh)				(USD/KWh)			
Temple I Power Plant	3,810.30	417.23	-	-	74.71	40.08	-	-

**Combined Heat and Power (CHP) plants in China:** An increase of sales from CHP plants compared to 2021 was derived from:  
**Increase THB 805 Million**

1. An increase of THB 293 million from steam sales and others. This was a result of an increase in average price of steam sales per tonne by RMB 8.30 that an average sale price per tonne in 2022 was 132.59 RMB (2021: 124.29 RMB), while net with a decrease in steam sales and others of 0.25 million tons.
2. An increase of THB 121 million from power sales. This was due to an increase in power sales tariff of 0.05 RMB compared to 2021, which power sales tariff in 2022 was 0.42 RMB (2021: 0.37 RMB), net with a decrease in sales volume of 89.65 GWh compared to 2021.
3. The effects of foreign exchange rate translation of THB 391 million due to a depreciation of THB currency against RMB currency compared to 2021. This caused higher revenue in THB currency when converting from revenue in RMB currency. Average exchange rate of RMB/THB in 2022 was THB 5.2108 (2021: THB 4.9665).

**Temple I Gas-Fired Power Plant in USA:**  
**THB 16,912 Million**

Sales increase from Temple I gas-fired power plant business was THB 16,912 million derived from higher sale volume that reported at 3,810.30 GWh (2021: 417.23 GWh). The group invested in this power plant since 4Q2021.

**Cost of Sales:**  
**Increase 224%**

Cost of sales was THB 22,090 million, increased by THB 15,266 million compared to 2021 from:

1. CHP Plants in China that cost of sales increased by THB 1,126 million from:
  - An increase in coal cost THB 1,020 million was from a higher average coal cost of RMB 242 per ton. Average coal cost was RMB 1,184 per ton (2021: RMB 942 per ton) or increased by 26% compared to 2021.
  - The effects from a depreciation of THB currency to foreign exchange rate translation of THB 106 million. This affected to higher cost of sales in THB currency when converting from cost of sales in RMB currency. Average exchange rate of RMB/THB in 2022 was THB 5.2108 (2021: THB 4.9665).
2. Temple I gas-fired power plant in USA that cost of sales increased by THB 14,140 million, mainly was natural gas cost of THB 12,518 million.

**Gross Profit:**  
**Increase 6,164%**

Gross profit was THB 2,411 million, or increased by THB 2,452 million compared to 2021 was from:

1. An increase from gross profit from Temple I gas-fired power plant in USA THB 2,774 million.
2. A decrease in operating performance from CHP plants in China due to loss increased THB 322 million, caused by higher coal cost compared to 2021.

**Selling and Administrative Expenses:**  
**Increase 71%**

Selling Administrative expenses of THB 1,887 million, increased by THB 784 million compared to 2021. This was mainly from administrative expense from Temple I gas-fired power plant in USA that was full year consolidated in this reporting period.

Items (Unit: Million Baht)	Profit (loss) sharing		Increase/(Decrease)	
	Y2022	Y2021	Amount	%
BLCP	580	215	365	170%
HPC & PFMC	3,691	3,612	79	2%
SLG	(290)	(542)	252	46%
Holding Company for Nakoso Power Plant	267	210	57	27%
Banpu NEXT	2,102	(521)	2,623	503%
<b>Total</b>	<b>6,350</b>	<b>2,974</b>	<b>3,376</b>	<b>113%</b>

**Share of Profit from Joint Ventures and Associates:  
Increase 113%**

Recognition of profit sharing from joint ventures and an associate was increased by THB 3,376 million compared to 2021 was a net result of:

1. An increase in profit sharing from BLCP of THB 365 million, mainly from an increase in operating profit of THB 18 million, net with a decrease in deferred tax expense and unrealized loss on foreign exchange rate translation of THB 347 million.
2. An increase in profit sharing recognition from HPC power plant and Phufai mine of THB 79 million caused by an increase in operating performance of THB 172 million and loss on exchange rate of THB 93 million.
3. A decrease in loss sharing recognition from SLG power plant of THB 252 million was from better operating performance compared to 2021 from higher sales volume and from entered into a long-term coal supply contract at favorable price, then lower its coal cost significantly.
4. An increase in profit sharing recognition from Nakoso power plant in Japan of THB 57 million due to better performance compared to 2021
5. An increase in profit sharing recognition from investment in renewable power and energy technology business of THB 2,623 million, mainly from gain on sales of investment in Sunseap and from better performance of power trading business in Japan.

**Other Income**

Other income of THB 217 million was comprised of:

1. Interest income of THB 357 million.
2. Management fee income of THB 244 million, mainly was management fees charged to related companies and joint ventures.
3. Pipeline connecting fee income charged to new steam customers of CHP plants in China of THB 87 million.
4. Subsidy income from China government for electricity production of THB 127 million.
5. Net loss on financial derivatives of THB 662 million was from realized loss on fair value financial derivatives THB 843 million net with unrealized gain on financial derivatives THB 181 million. Most of financial derivatives was electricity call option contract from Temple I gas-fired power plant that aimed to generate stability cash inflows and mitigate price risk.

6. Net loss on exchange rate of THB 27 million was from netting of unrealized gain on exchange rate from USD currency loans at the end of the period caused by a depreciation of THB currency against USD currency compared to 2021. Average exchange rate of USD/THB for 2022 was THB 35.0614 (2021: USD/THB 31.9771), and from unrealized loss on exchange rate from a depreciation of RMB currency against USD currency compared to 2021. Average exchange rate of USD/RMB in 2022 was RMB 6.4332 (2021: USD/RMB 6.7296).
7. Other income of THB 91 million consisted of ash & slag sales from CHP plants in China of THB 24 million, and others of THB 67 million.

**Interest Expenses and Finance Cost: Increase 260%**

Interest expenses and finance cost of THB 897 million, increased by THB 648 million compared to 2021, primarily from loan additions to support new investment in power plants during 2021 and debenture issuance during 2Q22.

**Income Tax Decrease 22%:**

Income tax expenses of THB 44 million, decreased by THB 13 million compared to 2021. This comprised of:

1. An increase in corporate income tax expense of THB 89 million, mostly from higher operating profit from Temple I gas-fired power plant.
2. A recognition in deferred income tax asset of THB 102 million that was from tax loss carry forward from CHP power plant in China.

Net profit for the year ended 31 December 2022 reported at THB 5,739 million, increased by THB 2,612 million compared to 2021.

Basic Earnings per Share reported at THB 1.883 (2021: THB 1.026)

### 3. Statement of Consolidated Financial Position

Statement of Consolidated Financial Position as of 31 December 2022 in comparison with Statements of Consolidated Financial Position as of 31 December 2021

Items (Unit: Million Baht)	Financial Position		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Assets	77,665	74,866	2,799	4%
Liabilities	24,874	25,287	(413)	-2%
Equity	52,791	49,579	3,212	6%

3.1 Total assets of THB 77,665 million, an increase of THB 2,799 million or 4% compared to the 31 December 2021 was mainly described as follows:

Financial Position (Unit: Million Baht)	Assets		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Cash and cash equivalents	4,055	2,635	1,420	54%
Financial assets measured at fair value	58	530	(472)	-89%
Trade accounts receivable, net	1,754	1,311	443	34%
Fuel and spare parts & supplies, net	1,101	1,186	(85)	-7%
Current portion of dividend receivables from related parties	50	125	(75)	-60%
Other current assets	4,652	4,095	557	14%
<b>Total current assets</b>	<b>11,670</b>	<b>9,882</b>	<b>1,788</b>	<b>18%</b>
Dividend receivables from related parties	114	239	(125)	-52%
Investments in an associate and joint ventures	40,513	33,766	6,747	20%
Property, plant and equipment, net	22,876	23,811	(935)	-4%
Right of use assets, net	567	631	(64)	-10%
Other non current assets	1,925	6,537	(4,612)	-71%
<b>Total non current assets</b>	<b>65,995</b>	<b>64,984</b>	<b>1,011</b>	<b>2%</b>
<b>Total assets</b>	<b>77,665</b>	<b>74,866</b>	<b>2,799</b>	<b>4%</b>

- Cash and cash equivalents of THB 4,055 million, increased by THB 1,420 million or 54% (Explanation in no. 4 Statement of Consolidated Cash Flows).
- Financial assets measured at fair value of THB 58 million, decreased by THB 472 million or 89% was from an addition of THB 1,869 million; net with redemption of THB 2,334 million and an effect from foreign exchange conversion of THB 7 million.
- Account receivable of THB 1,754 million, increased by THB 443 million or 34%. This was from Temple I gas-fired power plant in USA of THB 304 million as a result of higher gas price compared to last year, from CHP plant in China of THB 216 million, and an effect from foreign exchange conversion of THB 77 million.
- Fuel and Spare parts, net of THB 1,101 million, decreased by THB 85 million or 7%. This was due to a decrease from CHP plant in China of THB 287 million, effect from foreign exchange conversion of THB 48 million, and an increase from Temple I gas-fired power plant in USA of THB 250 million from an increase of reserve fuel and gas price
- Other current assets of THB 4,652 million, increased by THB 557 million or 14%, was mainly from:
  1. An increase in current portion of long-term loan to related party of THB 1,240 million. This was a net result of reclassification from non-current part of 1,581 million and from cash receives THB 341 million settled by related company.

2. A decrease in short-term loan to related party of THB 463 million. This was a net result of cash received THB 467 million settled by related party, and unrealized gain on foreign exchange conversion of THB 4 million.
  3. A decrease in financial derivative assets of THB 9 million.
  4. A decrease in accrued interest income from related parties of THB 116 million. This was a net result of a recognition of interest income during the year of THB 319 million, cash receives THB 396 million settled by related company, and unrealized loss on foreign exchange rate translation of THB 39 million.
  5. A decrease from others of THB 95 million.
- Current and non-current portions of dividend receivables from related parties totaling of THB 164 million, decrease by 200 million from dividend receivables from a domestic power plant joint venture.

Dividend Receivables from Related Parties (Unit: Million Baht)	Financial Position		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Current portion of dividend receivables from related parties	50	125	(75)	-60%
Dividend receivables from related parties	114	239	(125)	-52%
<b>Total</b>	<b>164</b>	<b>364</b>	<b>(200)</b>	<b>-55%</b>

- Investment in joint ventures and associates of THB 40,513 million, increased by THB 6,747 million or 20%. This was from additions in a joint venture in China of THB 402 million, in renewable and technology business of THB 1,700 million, a recognition of shares of profits from joint ventures of THB 6,350 million, other comprehensive income from joint ventures and an associate of THB 869 million, unrealized loss on foreign exchange rate translation at the end of period of THB 1,108 million, offset with dividend declaration during the period of THB 1,466 million.
- Net property plant and equipment of THB 22,876 million, decreased by THB 935 million or 4%. This was from additions of machinery and equipment of CHP plants THB 264 million and Temple I gas-fired power plant THB 18 million, net with disposals THB 70 million and depreciation charges THB 1,210 million and unrealized gain on foreign exchange rate translation at the end of period of THB 63 million.
- Right-of-used assets of THB 567 million, decreased by THB 64 million or 10%, was the amortization THB 32 million and unrealized loss on foreign exchange rate translation at the end of period 32 million.
- Other non-current assets of THB 1,925 million, decreased by THB 4,612 million or 71% was mainly from:
  1. A decrease in loan to related parties of THB 4,835 million due to reclassification to current portion of THB 1,581 million, cash receives from loan settlement of THB 3,226 million and unrealized loss on foreign exchange rate translation at the end of period of THB 28 million.
  2. An increase in deferred tax assets of THB 119 million, caused by tax loss carry forward from CHP power plant in China.
  3. An increase in refundable deposit of THB 86 million, mainly from Temple I gas-fired power plant in USA.
  4. An increase in other assets of THB 18 million.

3.2 Total liabilities of THB 24,874 million, decreased by THB 413 million or 2% compared to total liabilities as of 31 December 2021 with details mainly described as follows:

Financial Position (Unit: Million Baht)	Liabilities		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Short-term loans from financial institutions	242	6,551	(6,309)	-96%
Trade accounts payable	220	331	(111)	-34%
Current portion of long-term loans from financial institutions	1,231	1,439	(208)	-14%
Current portion of lease liabilities	13	13	(0)	-2%
Other current liabilities	7,680	2,634	5,046	192%
<b>Total current liabilities</b>	<b>9,386</b>	<b>10,968</b>	<b>(1,582)</b>	<b>-14%</b>
Long-term loans from financial institutions, net	9,860	9,253	607	7%
Debenture, net	5,492	-	5,492	100%
Lease liabilities	4	18	(14)	-76%
Other non current liabilities	132	5,048	(4,916)	-97%
<b>Total non-current liabilities</b>	<b>15,488</b>	<b>14,319</b>	<b>1,169</b>	<b>8%</b>
<b>Total liabilities</b>	<b>24,874</b>	<b>25,287</b>	<b>(413)</b>	<b>-2%</b>

- Short-term loans from financial institutions of THB 242 million, decreased by THB 6,309 million or 96%, was from a net result of additional loans THB 6,556 million and repayment THB 12,849 million. Also, there was unrealized gain on foreign exchange rate translation at the end of period of THB 16 million on RMB currency loan, resulting from an appreciation of THB currency against RMB currency. Average exchange rate of RMB/THB as of 31 Dec 2022 was THB 4.9664 (31 Dec 2021: THB 5.2507).
- Current portion of long-term loans from financial institutions of THB 1,231 million, decreased by THB 208 million or 14%. This was a net result of reclassification from non-current portion THB 1,008 million (including net front end fee), repayment THB 1,211 million and from unrealized gain on foreign exchange rate translation at the end of period of THB 5 million from RMB loan affected from an appreciation of THB currency against RMB currency.
- Other current liabilities of THB 7,680 million, increase by THB 5,046 million or 192% was mainly from:
  1. An increase in current portion of long-term loan from related party THB 4,386 million due to reclassification from non-current portion.
  2. An increase in accrued expense others THB 515 million, mainly from Temple I gas-fired power plant in USA.

3. An increase in payable from maintenance service for Temple I gas-fired power plant THB 267 million was from a reclassification from non-current liabilities THB 281 million, addition during the year THB 109 million, cash settlement THB 90 million, and unrealized gain on foreign exchange rate translation at the end of period of THB 33 million.
  4. An increase in accrued interest expense from related party THB 43 million.
  5. An increase in account payable related party THB 52 million.
  6. A decrease in derivative liabilities - electricity call option THB 29 million.
  7. A decrease in advance received from steam residential customers CHP plants in China THB 63 million.
  8. A decrease in payable from purchase of asset CHP plant 125 million.
- Long-term loans from financial institutions of THB 9,860 million, increase by THB 607 million or 7%, was a net result of additional loan THB 1,552 million (including net front end fee), and reclassification to current portion THB 1,008 million unrealized loss on foreign exchange rate translation at the end of period THB 63 million on USD loan, as a result of a depreciation of THB currency against USD currency. Average exchange rate of USD/THB as at 31 Dec 2022 was THB 34.5624 (2021: THB 33.4199)
  - Debentures, net of THB 5,492 million (including net financing fee) was from an issuance of unsubordinated and unsecured debentures during the year.
  - Other non-current liabilities of THB 132 million, decrease by THB 4,916 million or 97% was mainly from:
    1. A decrease in long-term loan from related parties of 4,712 million from reclassification to current portion of THB 4,386 million, repayment THB 494 million, and from unrealized loss on foreign exchange rate translation at the end of period of THB 168 million.
    2. A decrease in other liabilities from a reclassification to current liabilities of payable from maintenance service for Temple I gas-fired power plant of THB 281 million.
    3. An increase in deferred tax liabilities of 47 million, due to time different in depreciation calculation from Temple I gas-fired power plant in USA.
    4. An increase from remeasurement of employee benefit obligation of THB 30 million.

3.3 Shareholders' equity of THB 52,791 million, an increase of THB 3,212 million or 6% compared to shareholders' equity as of 31 December 2021 was due to:

Financial Position (Unit: Million Baht)	Equity		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Owners of the parent	48,481	45,635	2,846	6%
Non-controlling interests	4,310	3,944	366	9%
<b>Total equity</b>	<b>52,791</b>	<b>49,579</b>	<b>3,212</b>	<b>6%</b>

- An increase of THB 5,738 million from 2022 net profit.
- An increase of THB 753 million from cashflows hedge reserves of associate and joint venture.
- An increase of THB 116 million from the change in fair value of hedged financial instruments.
- An increase of THB 366 million from non-controlling interests.
- A decrease in remeasurement of employment benefit of THB 21 million.
- A decrease of THB 1,454 million from foreign exchange translation of subsidiaries and joint ventures' financial statements.
- A decrease of THB 2,286 from dividend paid.

Net debt to equity ratio as of 31 December 2022 from consolidated financial positions was 0.24 times. (31 December 2021: 0.28 time)

## 4. Statements of Consolidated Cash Flows

Statement of consolidated cash flows for the year ended 31 December 2022 reported an increase of net cash flows from 31 December 2021 total of THB 1,420 million (included exchange rate translation loss of THB 39 million). The consolidated cash flows were as follows:

Cash Flow (Unit: Million Baht)	Consolidated
Net cash receipts from in operating activities	630
Net cash receipts from investing activities	4,085
Net cash used in financing activities	(3,526)
<b>Net increase in cash and cash equivalents</b>	<b>1,459</b>
Exchange differences on cash and cash equivalents	(39)
Cash and cash equivalents at beginning of the period	2,635
<b>Cash and cash equivalents at end of the period</b>	<b>4,055</b>

4.1 Net cash inflows from operating activities of THB 630 million was comprised of:

- Collection from sales of power and steam THB 7,900 million.
- Payment to suppliers and contractors THB 6,373 million.
- Payment of interest expense THB 802 million.
- Payment of corporate income tax THB 95 million.

4.2 Net cash inflows from investing activities of THB 4,085 million was comprised of:

- Receipts of dividends from joint ventures THB 1,665 million.
- Receipts from interest income THB 432 million.
- Receipts from investment in debt instruments THB 2,335 million.
- Receipts from short-term and long-term loan to related party THB 4,033 million.
- Payments for machine, equipment, and project in progress THB 407 million.
- Payments for addition of investment in a joint venture in China and investment in renewable energy and technology business of THB 2,102 million.
- Payments for investment in debt instruments THB 1,869 million.
- Payment for loan to related party of THB 2 million.

4.3 Net cash outflows from financing activities of THB 3,256 million was comprised of:

- Receipts from short-term and long-term loans from financial institutions THB 8,097 million.
- Receipts from debentures of THB 5,500 million.
- Repayments of short-term and long-term loans from financial institutions THB 14,059 million.
- Repayment of long-term loan from related party of THB 494 million
- Payment for dividend of THB 2,286 million.
- Payment for lease liability of THB 14 million.

## Financial Ratios

		Year Ended December 31		
		2022	2021	2020
<b>Liquidity Ratio</b>				
Current Ratio	(Times)	1.24	0.90	1.85
Quick Ratio	(Times)	0.71	0.49	0.97
Cash Flow Liquidity Ratio	(Times)	0.15	(0.02)	0.27
Account Receivable Turnover Ratio	(Times)	10.37	3.77	4.27
Average Collection Period	(Days)	34.71	95.38	84.24
Inventory Turnover	(Times)	19.31	8.07	9.42
Average Sales Period	(Days)	18.64	44.61	38.21
Account Payable Turnover Ratio	(Times)	80.23	27.24	15.50
Payment Period	(Days)	4.49	13.22	23.22
Cash Cycle	(Days)	48.87	126.77	99.22
<b>Profitability Ratio</b>				
Gross Profit Margin	(%)	9.84	(0.59)	20.25
Operating Profit Margin	(%)	25.20	53.21	87.40
Other Profit Margin	(%)	22.78	39.25	46.24
Cash to Profit Margin	(%)	0.25	(0.03)	0.22
Net Profit Margin	(%)	18.09	28.00	36.16
Return on Equity Ratio	(%)	11.21	6.83	9.05
<b>Efficiency Ratio</b>				
Return on Total Assets Ratio	(%)	7.52	5.03	7.53
Return on Fixed Assets Ratio	(%)	29.92	23.31	41.26
Assets Turnover Ratio	(Times)	0.42	0.18	0.21
<b>Financial Policy Ratio</b>				
Debt to Equity Ratio	(Times)	0.47	0.51	0.18
Net Debt to Equity Ratio	(Times)	0.24	0.28	0.07
Interest Coverage Ratio	(Times)	1.90	(0.69)	4.55
Dividend Payout Ratio	(%)	37.18	63.35	53.56

## Other References

- 1. Ordinary Share Registrar**

Thailand Securities Depository Company Limited  
1<sup>st</sup> Floor, The Stock Exchange of Thailand Building  
93 Ratchadapisek Road, Din Daeng, Din Daeng, Bangkok 10400  
Tel. +66 2009 9000  
Contact Center +66 2009 9999
- 2. Debenture Registrar**

Bangkok Bank Public Company Limited  
333 Silom Road, Silom, Bangrak, Bangkok 10500  
Tel. +66 2230 2895
- 3. Bond Representative**

Bangkok Bank Public Company Limited  
333 Silom Road, Silom, Bangrak, Bangkok 10500  
Tel. +66 2230 2895
- 4. Auditor**

Ms. Rodjanart Banyatananusard  
Authorized Auditor No. 8435  
PricewaterhouseCoopers ABAS Ltd.  
15<sup>th</sup> Floor, Bangkok City Tower  
179/74-80 South Sathorn Road,  
Thung Maha Mek, Sathorn, Bangkok 10120  
Tel. +66 2844 1000
- 5. Financial Advisor**

-None-
- 6. Advisor or Manager under Management Agreement**

The Company did not hire any advisors and/or managers under any permanent management agreement. Advisors, including financial advisors, were hired on a case-by-case basis as necessary to support its operations from time to time. The Company's management is mainly supervised by the Board of Directors.
- 7. Financial Institutions Regularly in Contact**

The Company is regularly in contact with around 30 local and international commercial banks and financial institutions.
- 8. Issuance of Other Securities**

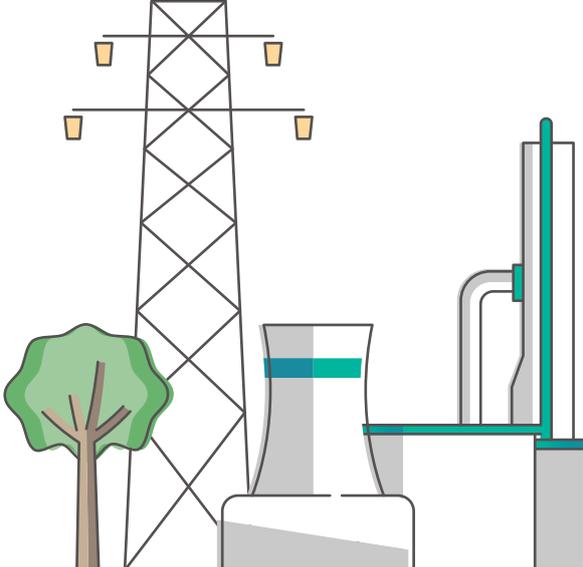
-None-

## Legal Disputes

- There are no legal disputes.-



# Section





## Corporate Governance

# Corporate Governance Policy

## Overview of the Corporate Governance Policy and the Code of Conduct

The Board of Directors is committed to the principles of systematic management and good corporate governance. Accordingly, in 2015 the Board issued the Corporate Governance Policy and the Code of Conduct in written form in Thai and English versions. The Board of Directors delegated the Corporate Governance and Nomination Committee to annually review the policy to align with the business environment and comply with laws, rules, and regulations of the Stock Exchange of Thailand (SET) and the Office of Securities and Exchange Commission (SEC). Consistent with international standard practices, the Policy and Code of Conduct are the complete reference and guidelines for all directors, executives, and employees of the Company.

In 2019, Banpu Power Public Company Limited (BPP) developed and updated the essence of the Corporate Governance Policy and the Code of Conduct by compiling all written policies and practices that the Company adheres to in one book. The updates were aligned with the SEC's Corporate Governance Code for Listed Companies (CG Code) 2017. The Company regarded the Corporate Governance Policy as a principle and the Code of Conduct as practice guidelines, thus putting them in the same book for easy access and convenience reasons. In 2021, the Company amended the Corporate Governance Policy and the Code of Conduct on the topics of holding directorship position in other companies of Chief Executive Officer, setting blackout periods of securities trading, and securities holding reports of the Board of Directors and executives.

The amended version is presented in Thai, English, and Chinese versions to ensure that all directors, executives, and employees in every country where the Company operates fully understand and comply with ethical business conduct. The Company also creates understanding and awareness of the importance of policy implementation and continuously monitors compliance with the Corporate Governance Policy and the Code of Conduct to achieve the business goal while maintaining ethical standards for the benefit of all stakeholders, shareholders, the Company, and society. For further information on the Corporate Governance Policy and the Code of Conduct, please visit the Company's website **by scanning the QR Code or clicking on the icon [Click here](#)**.



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In 2022, BPP organized an internal communication activity, "Scale up your CG," to promote corporate culture and positive attitudes toward corporate governance, reiterating the Company's commitment to good corporate governance principles in business operations while adhering to the Code of Conduct, business transparency, and equitable treatment of stakeholders. In addition, the Company expressed its intent to join the Thai Private Sector Collective Action Against Corruption (CAC) in 2018. It was certified as a member of CAC in 2019, and in 2022 its member certificate was renewed for the second term with a validity period of three years. To monitor and evaluate compliance with the Corporate Governance Policy and the Code of Conduct, CG E-Learning & E-Testing platforms have been developed. Adherence to integrity and ethics is a primary behavior that has been cultivated at a corporate level. In addition, the Company assesses and monitors the effectiveness of the implementation of the Corporate Governance Policy and the Code of Conduct based on the results from employee engagement and corporate culture survey in 2022, in which the value "Committed" was an indicator. The overall assessment results by employee level and operating location were satisfactory.

## Communication of Corporate Governance Policy

To ensure a thorough understanding and practice of the Corporate Governance Policy and the Code of Conduct, in 2022, the Company set out an action plan to reinforce corporate culture and positive attitudes toward corporate governance. The Company communicated the action plan through a wide range of activities as follows:

### 1. Training on Corporate Governance Principles

The Company regularly organizes training on corporate governance principles and introduces the Code of Conduct as part of the new employee orientation program in every country we have operations.

### 2. Scale up your CG Activity

The Company organized an internal communication activity, “Scale up your CG,” by gathering general CG issues and questions to be communicated in the forms of infographics and video clips to help employees better understand the issues. There were case studies from news about the consequences of violations of Corporate Governance and Anti-Corruption policy through VDO Podcasts on Friday News Channel and CG Quiz to test comprehension. These efforts are to help employees understand corporate governance principles and to prevent them from violating the Corporate Governance Policy and the Code of Conduct.



### 3. Evaluation of CG Comprehension through CG E-Learning and CG E-Testing Platforms

The Company has developed CG E-Learning and E-Testing platforms, which allow employees to study and test their comprehension of the significance of the Corporate Governance Policy and the Code of Conduct. CG E-Learning



REQUIRED

Corporate Governance E-Learning  
ELEARNING 000001064



is a learning management platform that educates employees of all levels and builds their awareness of the Corporate Governance Policy and the Code of Conduct so they can effectively apply what they have learned to everyday work. CG E-Testing is a platform that evaluates employees' understanding of corporate governance.

### 4. CG Day 2022

The Company organized “CG Day 2022” to promote and raise awareness among employees at all levels on the importance of ethical business conduct and commitment to integrity. The event in 2022 fea-



tured a Scale up your CG quiz competition, attended either online or on-site by executives and employees, to promote understanding and review knowledge of CG principles according to the Corporate Governance Policy and the Code of Conduct, the Anti-Corruption Policy, and the Whistleblower Policy.

## 5. Communication of Policies and Practices Relating to CG

The Company continued the implementation of the No Gift Policy – not accepting and offering of gifts, hospitality, or other similar forms of reward. It also communicated the policy to directors, executives, employees, and stakeholders to encourage actual practice.



## 6. Anti-Corruption

The Company conducted a corruption risk assessment and prepared mitigation measures for 2022, which covered risks in all businesses in every country where it has invested, including its subsidiaries and joint ventures. The results and measures were reported to the Risk Management Committee.

For further information on the “Anti-Corruption Policy,” [please visit the Company’s website by scanning the QR Code or clicking on the icon Click here.](#)



## Awards and Recognitions on Corporate Governance

Due to its commitment to driving balanced growth and creating value for all stakeholders, BPP received awards and recognitions in 2022 as follows:

- Excellent Corporate Governance Scoring**

Banpu Power Public Company Limited was ranked among the top 296 Listed Companies with Excellent Corporate Governance Scoring, according to the Corporate Governance Report of Thai Listed Companies 2022 (CGR 2022). The assessment was conducted by the Thai Institute of Directors Association (IOD) with support from the Stock Exchange of Thailand (SET). This recognition reflects the Company’s commitment to sustainability and its achievement in the Environmental, Social, and Governance (ESG) operations, which contributes to sustainable growth, favorable long-term returns for shareholders, and sustainable value for all stakeholders.



- ASEAN Asset Class Publicly Listed Companies**

BPP was listed among 234 publicly listed companies from six ASEAN countries, namely Thailand, Malaysia, Singapore, the Philippines, Indonesia, and Vietnam, in the category of ASEAN Asset Class Publicly Listed Companies 2021, with scores above 97.50. The ASEAN CG Scorecard initiative has been supported by ASEAN Capital Markets Forum (ACMF) and Asian Development Bank (ADB), aiming to show recognition and honor publicly listed companies in six ASEAN countries for good corporate governance performance.



- **Renewal of CAC Membership Certification**

In Q4/2022, the Company was recertified for the second term as a member of Thai Private Sector Collective Action Against Corruption (CAC) with a validity period of three years.



- **Thailand Sustainability Investment (THSI)**

BPP was selected to be one of 170 companies in the 2022 Thailand Sustainability Investment (THSI) list in the Resources group by the Stock Exchange of Thailand for the 5<sup>th</sup> consecutive year, reaffirming its continued ESG commitments.



- **SET Sustainability Excellence Award**

BPP received 2022 SET Awards in the “Commended Sustainability Awards” category under the Sustainability Excellence group. The SET Awards ceremony was held by the Stock Exchange of Thailand to honor publicly listed companies and capital market players who have created quality performance and made made changes in impact and become exemplary success cases for other organizations. The Commended Sustainability Awards recognize companies with outstanding sustainability performance based on good corporate governance, taking into account stakeholder concerns in all dimensions to balance economic growth and social and environmental development.



## The Policy and Practices Related to the Board of Directors, Shareholders, and Stakeholders

The Board of Directors formulated the Corporate Governance Policy as a practical guideline for the Board of Directors, executives, and employees, in alignment with the Office of the Securities and Exchange Commission (SEC)'s Corporate Governance Code for Listed Companies 2017, which comprises eight principles as follows:



## Principle 1

### Establish Clear Leadership Role and Responsibilities of the Board

The Board of Directors explicitly set forth duties and responsibilities of the Board in “The Practices for the Board of Directors of Banpu Power Public Company Limited B.E. 2558,” which was amended in 2018 and 2019 to re-align duties and responsibilities and accommodate changes in business environments, regulations, rules, and corporate governance guidelines. For further information on the “Anti-Corruption Policy,” please visit the Company’s website **by scanning the QR Code or clicking on the icon [Click here](#).**



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The Board of Directors understands and recognizes its roles and responsibilities as a leader steering the organization. The Board has a duty to formulate the Company’s business strategy and policies, with responsibility, prudence, and integrity, for the best interests of the Company in accordance with the Environmental, Social, and Governance (ESG) principles. The Board of Directors’ duties and responsibilities are as follows:

1. The Board of Directors plays a pivotal role in determining the Company’s vision and mission, which is the Company’s major goal to achieve a sustainable business. The Board supervises business operations and monitors annual performance against the goals. It also approves the financial Key Performance Indicators (KPIs) and action plans and regularly monitors the management’s performance to ensure progress as planned. In addition, the Board reviews the Company’s vision and mission at least once every five years to ensure that the Company achieves the targets of sustainable development goals as planned.

In the past fiscal year, the Board of Directors reviewed the Company’s vision, mission, and strategy and approved in principle the strategic plan, action plan, and budget plan for 2023 in the Board of Directors Meeting No.12/2022 on 21 December 2022. The Board also provided advice on the business direction to ensure that the strategic plan can respond to the rapidly changing business environment.

2. The Board appointed and entrusted a Chief Executive Officer with responsibilities to govern business management, as well as develop and implement strategies. The Chief Executive Officer cascades management authorities to senior management in business units in Thailand and abroad in accordance with a delegation of authority matrix.
3. The Board of Directors prioritizes business operations that can create substantial benefits for shareholders and adheres to the principles of good corporate governance. The Board established the Corporate Governance Policy and the Code of Conduct, which explicitly prescribes the Company’s vision and mission, its business credo, values, and practices for the convenience of directors, executives, and employees. Employees are clearly advised on what they should do or refrain from, and they are expected to acknowledge and conform to the Company’s standard practices for operations concerning employees, shareholders, customers, trading partners, creditors, competitors, and wider society.

The Company requires directors, executives, and all employees to acknowledge, understand and comply with the Company’s policies and standard practices outlined in the Code of Conduct. All employees have to sign an acknowledgement form and comply with the Corporate Governance Policy and the Code of Conduct, which is published on the Company’s website. A wide range of activities has been carried out to create a better understanding and raise awareness among employees, both locally and abroad, of the importance of compliance with the Code of Conduct.

Apart from the standard practices stipulated in the Code of Conduct, the management and employees collaboratively promote the corporate culture “Banpu Heart,” which comprises three shared values: Passionate, Innovative, and Committed to foster corporate culture and values for all employees both in Thailand and abroad.

## Principle 2

### Define Objectives that Promote Sustainable Value Creation

Based on the Board of Directors’ guidance, the management formulated and presented to the Board the business direction, a long-term strategic plan, an action plan and budget, and an annual workforce plan. The Board openly shared opinions and discussed with the management to reach a mutual agreement before approval.

On 1 October 2022, the Board of Directors and the management discussed and reviewed the business approach and strategic plan for the years 2022–2026 to ensure that the plan responds to the rapidly-changing business environment. There were short- and long-term assessments of business risks, climate change risk, and cybersecurity risk, and preparations to ensure business continuity under multiple future scenarios. The Board of Director’s meeting No. 12/2022 approved in principle the Company’s strategic plan and business approach. Furthermore, the Company monitored the implementation of the plan and included it on the agenda of monthly Board meetings, in which the Board would provide comments or suggestions for improvement where necessary.

## Principle 3

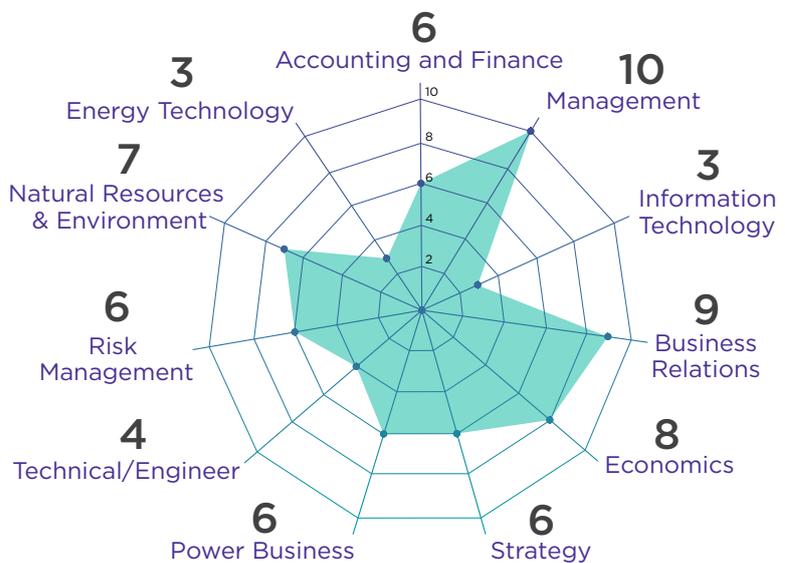
### Strengthen Board Effectiveness

#### Determining and Reviewing the Board Structure

**Composition of the Board of Directors**



**Board Skill Matrix**



The Board of Directors ensures that the Board Structure, in terms of the number of directors, the proportion of independent directors, diverse qualifications, and specialized qualifications of individual directors, is appropriate and beneficial to the Company's business operations. It also set up sub-committees to provide support and assistance to the Board's management.

### **Nomination and Appointment of Directors, Sub-Committee Members, Chief Executive Officer, and Senior Executives**

#### **Nomination and Appointment of Directors and Top Executives**

The Corporate Governance and Nomination Committee is responsible for nominating candidates to replace the directors retiring by rotation or whose office became vacant on other grounds with due process and procedure as follows:

- 1) Review the structure and the composition of the Board in order to strengthen the Board of Directors as a whole.
- 2) Review general and specific qualifications and qualifications of independent directors, and set additional criteria for candidate screening and nomination regarding the conditions and requirements of the Company and in compliance with the SET's rules and regulations.
- 3) Following the screening process, the Corporate Governance and Nomination Committee will nominate the candidate to the Board of Directors for approval and proposal to the Annual General Meeting of Shareholders (AGM) for approval of the appointment.

In the case of nominating candidates to replace the directors retiring by rotation or to fill vacancies, the Corporate Governance and Nomination Committee nominates the qualified candidates and allows retail shareholders to nominate qualified candidates for director positions via the Company's website within the specified duration of time and under stated conditions. All the candidates will then undergo a nomination process, in which knowledge, capability, experience, general qualifications, and specific qualifications promoting an appropriate board skill matrix, as well as consider the collaborative function of the Board as a whole. The number of candidates nominated must be twice more than the number of vacancies and approved by the Board. The shareholder's meeting will approve the appointment of directors, both in cases of new appointment and re-appointment, with the majority votes of the total shareholders attending the meeting. The voting is carried out for each individual director.

For the nomination of executives, the Corporate Governance and Nomination Committee semi-annually

monitors succession planning, covering the CEO, COO, and senior executive officers to ensure that the Company has an explicit succession plan to prepare knowledgeable and highly competent executives to fill critical positions in the future.

#### **Nomination of Independent Directors**

As of 31 December 2022, the Company's independent directors, who made up 50% of the Board, were as follows:

1. Assoc. Prof. Dr. Naris Chaiyasoot
2. Mr. Yokporn Tantisawetrat
3. Prof. Dr. Bundhit Eua-arporn
4. Prof. Dr. Patchanita Thamyongkit
5. Mr. Kijja Sripatthangkura

Independent directors are regarded as an important mechanism of good corporate governance. For the benefit of the Company and shareholders, there should be sufficient independent directors to balance the Board's decision-making process and share opinions independently under no influence of any person. The independent director serves a maximum of three terms or nine years.

BPP defined the qualifications of "Independent Directors" in the Practices for the Board of Directors in accordance with the Notification of the Capital Market Supervisory Board No. TorChor. 39/2559 regarding the qualifications of independent directors as follows:

1. Holding no more than 1% of the total voting shares of BPP, parent company, subsidiary, associate company, major shareholder or controlling person of BPP, including shares held by the connected persons of such independent director;
2. Neither being nor having been an executive director, employee, staff, advisor earning a regular monthly salary or the controlling person of BPP, its parent company, subsidiary, associate company, same-level subsidiary, major

shareholder or controlling person, unless the foregoing status has ended for at least two years prior to the date of filing the application with the Office of Securities and Exchange Commission (SEC). In this regard, such prohibited characteristics shall exclude the case where an independent director used to be a government official or an advisor of a governmental agency, which is a major shareholder or the controlling person of BPP;

3. Not being a person who is related by blood or legal registration as father, mother, spouse, sibling, and child, including the spouse of the executives' child, major shareholder, controlling person, or person to be nominated as executive, or controlling person of BPP or its subsidiary;
4. Neither having nor having had a business relationship with BPP, its parent company, subsidiary, associate company, major shareholder, or controlling person in a manner that may interfere with independent discretion, which includes not being or having been a significant shareholder or the controlling person of any person having a business relationship with BPP, its parent company, subsidiary, associate company, major shareholder or controlling person unless such foregoing relationships have ended for at least two years prior to the date of filing the application with the SEC Office;

The business relationship under Paragraph 1 shall include normal business transactions, rental or lease of real estate, transactions related to assets or services, or granting or receipt of financial assistance through receiving or extending loans, guarantee, providing assets as collateral, and any other similar actions, which result in BPP or the counterparty being subject to indebtedness payable to the other party in an amount starting from 3% of the net tangible assets of BPP or from THB 20 million or more, whichever amount is lower. In this regard, the calculation of such indebtedness shall be in accordance with the method for calculating the value of related party transactions under the Notification of the Capital Market Supervisory Board Re: Rules on Execution of Related Party Transactions, *mutatis mutandis*. In any case, the consideration of such indebtedness shall include the indebtedness incurred during the period of one year to the date of establishing the business relationship with the related person;

5. Neither being nor having been an auditor of BPP, its parent company, subsidiary, associate company, major shareholder, or controlling person, and not being a significant shareholder, controlling person, or partner of the audit firm which employs the auditor of BPP, its parent company, subsidiary, associate company, major shareholder, or controlling person, unless the foregoing relationship has ended for not less than two years prior to the date of filing the application with the SEC Office;
6. Neither being nor having been a provider of professional services, which includes serving as a legal advisor or financial advisor being paid with a service fee of more than THB 2 million per year by BPP, its parent company, subsidiary, associate company, major shareholder, or controlling person, and not being a significant shareholder, controlling person, or partner of such provider of professional services, unless the foregoing relationship has ended for not less than two years prior to the date of filing the application with the SEC Office;
7. Not being a director who is appointed as the representative of directors of BPP, major shareholder, or shareholder who is a connected person of a major shareholder;
8. Not undertaking any business of the same nature and in significant competition with the business of BPP or its subsidiary, or not being a significant partner in a partnership, or an executive director, employee, staff, advisor earning a regular monthly salary or holding more than 1% of the voting shares of another company that undertakes a business of the same nature and in significant competition with the business of BPP or its subsidiary;
9. Not having any other characteristics that cause the inability to express independent opinions on the business operation of BPP.

After being appointed as an independent director with the qualifications under (1) to (9), the independent director may be entrusted by the Board of Directors to participate in collective decision-making on the business operations of BPP, its parent company, subsidiary, associate company, same-level subsidiary, major shareholder or controlling person.

In the case where the person appointed by BPP as an independent director has or used to have a business relationship or provision of professional services at

a value exceeding the specified amount under (4) or (6), BPP shall be granted an exemption from such prohibition of having or having had a business relationship or provision of professional services at such excessive value, provided that BPP has obtained an opinion of the Board of Directors indicating that after consideration in accordance with the principle in Section 89/7 of the Securities and Exchange Act, the appointment of such person does not affect the performance of duties and provision of independent opinions and that the following information has also been disclosed in the notice calling the shareholders' meeting under the agenda for the appointment of independent directors:

- 1) The nature of the business relationship or professional services that deems such person unqualified pursuant to the regulations
- 2) The reason and necessity for retaining or appointing such a person as an independent director
- 3) The opinion of BPP's Board of Directors on the nomination to appoint such person as an independent director

For the purpose of (5) and (6), the term "partner" means a person designated by an audit firm or a provider of professional services to sign on the audit report or the professional service report (as the case may be) on behalf of such juristic person.

#### General Rules for Appointing Members of the Company's Sub-Committees

1. The composition and qualifications of the Audit Committee shall meet the requirements of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET).

#### Performance Evaluation of the Board of Directors

The Company requires that the Board of Directors, Sub-Committees, and individual directors evaluate their performance in compliance with standard criteria and procedures set by the Stock Exchange of Thailand as follows:

- The evaluation form for the Board of Directors consists of questions related to the Board's operations in six major categories, namely;
  - (1) The structure and qualifications of the Board
  - (2) Roles, duties, and responsibilities of the Board
  - (3) Board meetings
  - (4) Duties of the Board
  - (5) Relationship with the management
  - (6) Self-development of directors and leadership development

2. The chairman of each sub-committee shall be an independent director.
3. Each director shall be a committee member in no more than two sub-committees.
4. Any committee members who serve on two sub-committees shall be the chairman of only one committee.

#### General Rules for Appointment of the Chief Executive Officer

The Board of Directors entrusted the Corporate Governance and Nomination Committee with the recruitment and nomination of a qualified CEO candidate to be approved by the Board based on the following criteria:

1. Qualifications, business knowledge, expertise, and experience of the candidate shall meet the criteria set by the Corporate Governance and Nomination Committee.
2. The CEO and the Chairman of the Board of Directors shall not be the same person.
3. The division in authority and responsibilities of the CEO and the Chairman of the Board of Directors should be clearly defined to create a balance between corporate management and governance.
4. The Board of Directors determines the scope of authority and performance goals of the CEO and evaluates the CEO's performance annually.
5. The CEO evaluates the performance of the lower-ranked executive officers based on goals and assessment criteria linked to the Company's strategic and annual plans in order to determine appropriate remuneration and incentives.

- The evaluation form for the three sub-committees, namely, the Audit Committee, the Compensation Committee, and the Corporate Governance and Nomination Committee, consists of items in three categories:
  - (1) The structure and qualifications of the sub-committees
  - (2) Meeting of the sub-committees
  - (3) Roles, duties, and responsibilities of sub-committees according to their charters
- The evaluation form for individual directors consists of three major categories, as follows:
  - (1) The structure and qualifications of directors
  - (2) Meeting of directors
  - (3) Roles, duties, and responsibilities of directors

The Board of Directors has established the performance evaluation procedures of the full Board, sub-committees, and individual directors as follows:

- (1) The Board of Directors approved the performance evaluation form for the full Board, sub-committees, and individual directors, including the standard rating scale as follows:
 

0	=	Strongly disagree or no action on that matter
1	=	Disagree or little action on that matter
2	=	Agree or moderate action on that matter
3	=	Pretty much agree or good action on that matter
4	=	Strongly agree or excellent action on that matter
N/A	=	Not available

The scoring rubric for performance quality is as follows:

Average scores below	2.49:	Need improvement
Average scores	2.50-3.49:	Fair
Average scores	3.50-3.99:	Good
Average scores	4.00-4.49:	Very good
Average scores	4.50-5.00:	Excellent

- (2) The performances of the full Board, sub-committees, and individual directors are subject to evaluation on an annual basis. The evaluation period was from 1 January-31 December 2022, and the evaluation was carried out between 1 and 15 January 2023.
- (3) The Company Secretary summarized and reported the full Board evaluation results to the Corporate Governance and Nomination Committee for consideration and provision of recommendations on efficiency improvement.
- (4) The Corporate Governance and Nomination Committee reported the annual evaluation results and recommendations on efficiency improvement to the Board of Directors.

The overall evaluation results are detailed below:

Board of Directors	Average Scores	Evaluation Results
Full Board	4.80	Excellent
The Audit Committee	4.92	Excellent
The Compensation Committee	4.72	Excellent
The Corporate Governance and Nomination Committee	4.84	Excellent
Individual Directors	4.76	Excellent

### Capacity Development of Directors and Senior Executives

The SEC's Corporate Governance Code for Listed Companies (CG Code) 2017 prescribed that "The Board should ensure that all directors understand their roles and responsibilities as well as the nature of the business, and the Board should support each director to enhance their essential skills and knowledge for their roles on the Board and sub-committees."

Thus, the Board organizes an orientation session for new directors so that they are aware of what BPP expects of them. Through orientation, the directors learn about their roles and responsibilities, BPP's Corporate Governance Policy and practices, as well as the Company's business and operations. These activities are carried out to prepare them thoroughly for their role as BPP's directors. In addition, the Company has the policy to expand all directors' horizons on such topics as corporate governance, industrial outlook, technology businesses, and innovations to improve the Board's performance. In 2022, directors attended seminars and training programs, as shown in the following table:

Name of Director	Training Program	Institution	Date
1. Assoc. Prof. Dr. Naris Chaiyasoot Chairman of the Board of Directors/ Chairman of the Corporate Governance and Nomination Committee/ Member of the Audit Committee/ Independent Director	Energy Sector in U.S.A.	Banpu Power Public Company Limited	14 January 2022
	Global Direction toward Carbon Neutrality and Business Opportunities in Thailand	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	Cybersecurity Update and Artificial Intelligence (AI)	Banpu Group	9 November 2022
	Introduction to Carbon Capture and Storage	BKV Corporation	1 December 2022
2. Mr. Yokporn Tantisawetrat Chairman of the Audit Committee/ Independent Director	2022 Economic and Energy Outlook	Banpu Group	14 January 2022
	Energy Sector in U.S.A.	Banpu Power Public Company Limited	14 January 2022
	Global Direction toward Carbon Neutrality and Business Opportunities in Thailand	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	Derivatives Use by Temple I	Banpu Power Public Company Limited	2 August 2022
	Decarbonization	Banpu Group	17 October 2022
	Cybersecurity Update and Artificial Intelligence (AI)	Banpu Group	9 November 2022
	Introduction to Carbon Capture and Storage	BKV Corporation	1 December 2022

Name of Director	Training Program	Institution	Date
3. Prof. Dr. Bundhit Eua-arporn Chairman of the Compensation Committee/ Member of the Audit Committee/ Independent Director	Energy Sector in U.S.A.	Banpu Power Public Company Limited	14 January 2022
	Global Direction toward Carbon Neutrality and Business Opportunities in Thailand	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	Introduction to Carbon Capture and Storage	BKV Corporation	1 December 2022
4. Prof. Dr. Patchanita Thamyongkit Member of the Corporate Governance and Nomination Committee/ Member of the Audit Committee/ Independent Director	2022 Economic and Energy Outlook	Banpu Group	14 January 2022
	Energy Sector in U.S.A.	Banpu Power Public Company Limited	14 January 2022
	The Diligent Climate Leadership Certificate Program	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Global Direction toward Carbon Neutrality and Business Opportunities in Thailand	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	Derivatives Use by Temple I	Banpu Power Public Company Limited	2 August 2022
	Decarbonization	Banpu Group	17 October 2022
	Cybersecurity Update and Artificial Intelligence (AI)	Banpu Group	9 November 2022
5. Mr. Kijja Sripatthangkura Member of the Compensation Committee/ Independent Director	Introduction to Carbon Capture and Storage	BKV Corporation	1 December 2022
	Derivatives Use by Temple I	Banpu Power Public Company Limited	2 August 2022
	Decarbonization	Banpu Group	17 October 2022
	Cybersecurity Update and Artificial Intelligence (AI)	Banpu Group	9 November 2022
6. Mr. Chanin Vongkusolkit Member of the Corporate Governance and Nomination Committee/ Non-Executive Director	Introduction to Carbon Capture and Storage	BKV Corporation	1 December 2022
	Global Direction toward Carbon Neutrality and Business Opportunities in Thailand	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	How AI and IT Application to Drive Banpu Business?	Banpu Group	1 August 2022
	Derivatives Use by Temple I	Banpu Power Public Company Limited	2 August 2022
	Decarbonization	Banpu Group	17 October 2022
7. Mr. Metee Auapinyakul Member of the Compensation Committee/ Non-Executive Director	Cybersecurity Update and Artificial Intelligence (AI)	Banpu Group	9 November 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	Derivatives Use by Temple I	Banpu Power Public Company Limited	2 August 2022
	Decarbonization	Banpu Group	17 October 2022

Name of Director	Training Program	Institution	Date
8. Mrs. Somruedee Chaimongkol Member of the Compensation Committee/ Executive Director	Global Direction toward Carbon Neutrality and Business Opportunities in Thailand	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	How AI and IT Application to Drive Banpu Business?	Banpu Group	1 August 2022
	Derivatives Use by Temple I	Banpu Power Public Company Limited	2 August 2022
	ESG Summit	Banpu Group	10 October 2022
	Decarbonization	Banpu Group	17 October 2022
	Cybersecurity Update and Artificial Intelligence (AI)	Banpu Group	9 November 2022
9. Mr. Voravudhi Linananda Executive Director	2022 Economic and Energy Outlook	Banpu Group	14 January 2022
	Global Direction toward Carbon Neutrality and Business Opportunities in Thailand	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	Derivatives Use by Temple I	Banpu Power Public Company Limited	2 August 2022
	Decarbonization	Banpu Group	17 October 2022
	Cybersecurity Update and Artificial Intelligence (AI)	Banpu Group	9 November 2022
	Introduction to Carbon Capture and Storage	BKV Corporation	1 December 2022
10. Dr. Kirana Limpaphayom Executive Director/ Chief Executive Officer	2022 Economic and Energy Outlook	Banpu Group	14 January 2022
	Global Direction toward Carbon Neutrality and Business Opportunities in Thailand	Dr. Phirun Saiyasitpanich, Secretary-General of the Office of Natural Resources and Environmental Policy and Planning	28 February 2022
	Commercial Risk Management for Power US	Banpu Power Public Company Limited	4 March 2022
	Derivatives Use by Temple I	Banpu Power Public Company Limited	2 August 2022
	Decarbonization	Banpu Group	17 October 2022
	Cybersecurity Update and Artificial Intelligence (AI)	Banpu Group	9 November 2022
	Introduction to Carbon Capture and Storage	BKV Corporation	1 December 2022

## Principle 4

### Ensure Effective CEO and People Management

#### Succession Planning Policy

The Board of Directors has a succession plan for the CEO and senior executives in place to ensure that there will be knowledgeable and competent executives to fill critical positions in the future. The CEO is invited to report to the succession plan to the Corporate Governance and Nomination Committee twice a year and report to the Board once a year.

In 2022, the Corporate Governance and Nomination Committee nominated an independent director, Mr. Kijja Sripatthangkura, who is knowledgeable, competent, and has relevant qualifications to the Company's business direction. The 2022 Annual General Meeting of Shareholders approved the appointment of Mr. Kijja Sripatthangkura as an independent director on 1 April 2022.

Furthermore, the Charter of the Corporate Governance and Nomination Committee stipulated the Committee's duty to ensure that the Company has leadership development plans for senior executives (vice president level and higher) to prepare candidates for a senior leadership role (vice president level and higher) in replacement of those who retire, resign, or are unable to perform duties.

## Principle 5

### Nurture Innovation and Responsible Business

The Company strives to create a sustainable balance with adherence to corporate governance principles and risk management. International standards are integrated with sustainable development strategies covering Environmental, Social, and Governance (ESG) aspects to elevate the Company's competitiveness and create value for all stakeholders through a 2-level management system as follows:

- **Strategic Integration of Sustainability:** The Board of Directors reviews sustainability risks and suggests appropriate mitigation measures for the CEO to implement.
- **Operational Integration of Sustainability:** The Sustainable Development Committee oversees, monitors, and evaluates sustainability performance as well as determines and reviews policies that support sustainable development.

The Company annually sets sustainability indicators and short-term and long-term performance goals for the CEO, management and employees. Engagement in sustainable development integrated with the corporate value "Committed" has been inculcated in all of BPP's employees in all countries where it operates. Management processes and business performance are regularly disclosed to stakeholders through appropriate channels.

The Company highlights innovation as a shared value in the corporate culture to promote knowledge sharing and bolster business by focusing on knowledge and technology management in support of sustainable growth and efficient resources management through a wide range of activities as follows:

- Establish infrastructure that allows and supports everyone to suggest ideas for improvement of the Company's processes and technologies
- Support activities on innovation to continuously enhance the Company's productivity
- Cultivate an innovative culture in the Company by creating motivation and an atmosphere that supports creative and innovative processes

- Develop specific training programs or projects to enhance creative thinking skills by including innovation topics in relevant training programs
- Create infrastructure and promote innovation creation while focusing on future trends and development of products, services, processes, or tools which can quickly and effectively respond to future demands

**Roles of Stakeholders**

BPP is committed to maintaining fairness for all stakeholders and has set forth a policy toward stakeholders in the Corporate Governance Policy based on collaboration between the Company and its stakeholders, namely shareholders, employees, customers, business partners, creditors, government agencies, communities where the Company operates, and wider society. The practices were prescribed in the Code of Conduct for the directors, executives, and employees to comply with on the basis of fair and equitable distribution of benefits. Important guidelines pertain to conflicts of interest, the responsibility to shareholders, and policies on the treatment of shareholders, employees, customers, business partners, creditors, competitors, and wider society. It is considered the duty and responsibility of directors, executives, and all employees to acknowledge, understand, and strictly comply with the guidelines in order to ensure that all stakeholders are well treated and their rights protected.

Since 2015, BPP has put in place the Whistleblower Policy and whistleblower protection as a mechanism to allow stakeholders to effectively and responsibly file complaints about any wrongdoing against corporate governance and the Code of Conduct. All complaint information is treated with strict confidentiality. Any employees who have witnessed illicit conduct or other actions infringing on the Company’s regulations and the Code of Conduct can report such acts under full protection. The policy also encompasses:

- maintaining the confidentiality of complaints to ensure stakeholders that their complaints will be seriously responded to and sincere complaints will not result in any harm to the whistleblowers;
- protection of whistleblowers by ensuring that the Company will not unfairly treat whistleblowers who are employees, hired and contract workers by any means, such as position or job description or location transfer, job suspension, threatening, harassment, termination of a work contract, or other unfair treatments.

Regarding the whistleblower channels, employees and the concerned public can submit complaints via four channels:

- Sending complaint letters to the Secretary of the Corporate Governance and Nomination Committee, Banpu Power Public Company Limited, 26<sup>th</sup> Floor, Thanapoom Tower, 1550 New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400
- Company’s website:



- Internal website: (BPP Whistleblower)



- Email: GNCchairman@banpupower.co.th and/or bpp\_comsec@banpupower.co.th

The Company regularly monitors possible complaints and reports to the Corporate Governance and Nomination Committee on a quarterly basis and to the Board of Directors on an annual basis. In 2022, there were no reports of complaints through any channels.

Apart from that, the Company announced the Standard Practice Manual for Accepting and Offering of Gifts, Hospitality, or Other Similar Forms of Reward and informed shareholders, investors, customers, business partners, and all stakeholders via the Company's website. The Company requires registration of gifts in the database system for which the Board members, executives, employees, and subsidiaries must understand and comply with, in accordance with the Anti-Corruption Policy. The Company stipulated the practice of giving and receiving bribery, gifts, and business entertainment in its Code of Conduct as follows:

#### No. 3.4 Giving and Receiving Bribery

- 1) Executives and staff are prohibited from demanding or receiving any benefits from trading partners, contractors, suppliers, advisors, and those with whom the Company is doing business.
- 2) Executives and staff are strictly prohibited from offering any benefit to government officers, customers, labor unions, or any other external parties in an attempt to persuade them to commit a fraudulent action.

#### No. 3.5 Gifts, Gratuities, and Business Entertainment

- 1) Executives and employees should refrain from giving gifts or gratuities to or receiving them from any trading partner or others with whom the Company is doing business. Gifts given or received during festive occasions are excluded from this requirement, provided that they have an appropriate value and are not related to any business commitment.
- 2) Executives and employees should refrain from giving or receiving unusually lavish entertainment to or from those with whom the Company is doing business.

#### **Employees**

Recognizing that human capital is the most important asset driving business success, BPP has put in place the Code of Conduct, a policy and practices toward employees to ensure fair treatment to employees regardless of nationality and language, including gaining equal access to career opportunities, remunerations, appointments, transfers, capacity-building, and safe workplace environment for their lives and properties.

The Company announced the HR Philosophy in the management and development of human resources based on three principles:

1. Equitability Principle
2. Performance-based Principle
3. Competency-based Principle

To deal with business changes and the global economy, the Company takes responsibility for developing employees to embrace changes with adaptability, flexibility, mobility, positive creativity, and professionalism beyond the chain of command. In summary, BPP focuses on creating "professional employees" who are equitably treated and provided with equal opportunities, regardless of nationality, race, religion, language, and gender. The Company strictly adheres to a shared vision and goals for all operations, creating harmonious collaboration among all members who are bonded together with the corporate culture, "Banpu Heart."

The Company also established the policies for human resources management as follows:

- 1) **Recruitment & Selection Policy:** BPP's HR management focuses on equity in the recruitment process that emphasizes recruiting professional employees based on work experience, regardless of gender, age, race, nationality, or religion. In fact, the Company's current employments are diverse in terms of race, religion, language, culture, age, knowledge, perspectives, and work experience in Thailand and abroad. Further more, the Company prioritizes employing local talents, whereas employing persons outside of local areas is considered only when local talents are not available.

- 2) **Compensation Management Policy:** The Company maintains a remuneration policy that is fair to the employees and consistent with the Company's performance both in the short and long terms. It is also committed to fair compensation in all forms, namely salary, welfare, and other benefits, including health insurance, provident fund, and flexible benefit. To ensure fairness and competitiveness with the job market, the Company deploys an international standard compensation management system. The Company has set up a Compensation Committee and a Job Evaluation Committee to ensure transparent compensation management. BPP's compensation structure is comparable with those of leading companies and can compete in the job market. The Company regularly surveys the Consumers' Price Index and economic conditions that may affect employees and wages of leading companies.
- 3) **Training & Development Policy:** To align with its business strategy and goals, BPP has established a policy to provide training and capacity development of employees at all levels and allocated a budget for such activities. Other than on-the-job training, there are other capacity development activities such as in-house workshops and external training, e-learning, and knowledge sharing with executives.

Apart from that, BPP has put in place adequate and appropriate occupational health, safety, and environmental measures in order to prevent fatalities from accidents and workplace injuries and illnesses.

In 2022, the Company adopted Banpu People Value Proposition as a principle to enhance efficiency in human resources management and to strengthen employee capacity and agile working. In addition, the Company took care of employees by reviewing and amending policies and regulations. It also initiated relief measures for employees during the emergency or the COVID-19 pandemic to aligned with relevant laws that have been changed, such as the labor law, and social and environmental changes affecting the changing work styles as follows:

- The Company launched 100% Work Anywhere Policy, which allows employees to choose the working time and working style they prefer so that they can work from office, work from home, or from anywhere as long as they are able to achieve their work targets.
- The Company carefully formulated an internship program for intern students to gain full experience while receiving payment. The intern students also get a chance to attend training programs such as giving presentation skills, English skills, or financial planning to prepare them for their future career.
- The Company employed new graduates according to government projects to reduce the unemployment rate and increase job positions for recent graduates.
- The Company hired disabled masseurs to support the employment of persons with disabilities, including donating money directly to disability foundations or hiring persons with disabilities through government agencies to work in the communities.
- In taking care of employees, the Company set a welfare committee as a channel for employees to submit complaints to propose to management's consideration. In addition, the employees are allowed to file complaints directly with the supervisor or HR Department. They can also file complaints via online channels if they do not want to reveal their identities when reporting some issues, such as workplace anxiety, conflicts with team members or the team leader, untransparent conduct, and sexual harassment. The Company has established procedures for investigating complaints and imposing disciplinary penalties as stipulated in the Company's work rules. The Company does not prevent employees from forming a labor union according to the Labor Relations Act. However, to date the labor union has not been established.
- In times of emergency, for instance, flooding, fires, and plagues, the Company has prepared urgent measures to support its employees in

the form of allowances, temporary shelters, and procurement of survival kits and vaccines as appropriate.

### **Customers**

BPP strives to find ways to satisfy customer needs more effectively and efficiently. A policy and practices for customer service were stipulated as its Code of Conduct to honor promises made to customers. The Company delivers quality goods and services that match or are higher than the customer's expectations at a fair price. It provides accurate, timely, and sufficient information as well as strictly observes the terms and conditions agreed upon with the customers. A grievance process was set up for customers to file complaints regarding the quality, volume, and safety of goods and services. Apart from that, the Company provides advice on how to effectively use its goods and services for the customer's best interests.

As the Company supplies electricity to government customers, it is fully aware of the importance of nurturing relationships with local government agencies on the basis of mutual benefits and building trust in local communities. The Company has been supporting community activities; thus, it is trusted by local governments and communities as a reliable and stable energy provider. Additionally, the Company underlines its duty to protect customers' confidential information, refrain from exploiting customers' information, and comply with applicable local laws.

### **Business Partners/Creditors**

BPP has set a policy and practices to equitably and fairly treat its business partners and/or creditors by acting in the best interest of the Company. This is pursued based on fair and equitable distribution of benefits of both parties. The Company shall avoid situations that could result in conflicts of interest, strictly comply with contractual obligations, and provide accurate information and report. In addition, the resolution to any problem must be considered based on mutual business relations. The recommended practices are as follows:

1) The Company shall not demand, receive, or pay any improper benefits to its business partners and/or creditors.

- 2) Should it become known that bribes have been demanded or payment of any improper benefit has occurred, then full information will be disclosed to the business partners and/or creditors involved, and the Company shall collaborate with the parties concerned to resolve the problem on a fair and timely basis.
- 3) The Company shall strictly comply with all the terms and conditions agreed upon in a transaction. In the event that any particular condition cannot be met, the Company will inform any creditor(s) concerned beforehand and seek a solution in accordance with the Code of Conduct.

Banpu Power Public Company Limited is a subsidiary company of Banpu Public Company Limited; therefore, the Company follows Banpu's procurement policy and international-standard procurement protocols, which align with the Corporate Governance Policy and the Code of Conduct. The Company also set up the Procurement Committee to authorize selections of sellers and service providers based on such criteria as product quality, the scope of services, technical specifications, commercial details and conditions, and terms of payment.

### **Competitors**

The Company stipulated a policy and practices intreating competitors in the Code of Conduct in line with international practices and in compliance with the legal framework for business competition. BPP will not fraudulently infringe upon or seek to obtain the trade secrets of any competitors. The Company is also committed to fair business conduct by complying with the guidelines indicated in its Code of Conduct. In the past year, BPP had no disputes with competitors.

### **Community and Society**

BPP adheres to the policy to create benefits for the economy and society while balancing business growth and community, society, and environmental development. It is the Company's policy to be a good corporate citizen and to fully comply with all relevant laws and regulations. The Company is dedicated to improving the quality of society through its own activities or through collaboration with the communities, the government, or non-governmental organizations.

Furthermore, the Company has implemented the Sustainability Policy to align its standards with the global standards for such activities as climate change report and the formulation of guidelines for safety, occupational health, and environment management to achieve efficiency. The guidelines also cover the management of risk resulting from the Company's operations, which may affect employees, business partners, society, the environment, and the communities in which the Company has business operations.

BPP has continuously carried out various Corporate Social Responsibility (CSR) programs to support the activities that help improve society. The Company always allocated part of its earnings for CSR activities at the local and corporate levels, including CSR programs in countries where BPP has operations.

#### **Communication Channels with BPP**

Stakeholders may submit their opinions through the following channels:

Headquarters	:	26 <sup>th</sup> Floor, Thanapoom Tower, 1550, New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400
Telephone	:	+66 2007 6000
Website	:	<a href="http://www.banpupower.com">www.banpupower.com</a>
Company Secretary	:	Email <a href="mailto:bpp_comsec@banpupower.co.th">bpp_comsec@banpupower.co.th</a>
Investor Relations	:	Email <a href="mailto:investor_relations@banpupower.co.th">investor_relations@banpupower.co.th</a>

## Principle 6

### Strengthen Effective Risk Management and Internal Control

#### **Risk Management Policy**

The Board of Directors places importance on comprehensive risk management encompassing risk factors associated with vision, goals, business strategies, finance, production, other operations, and anti-corruption as well as Environmental, Social and Governance (ESG) principles, while taking risk likelihood and levels of impact into account. The Board has set clear measures for risk management and ensures that there are people accountable for risk management. In addition, the Board has established measures for reporting, monitoring, and evaluating risk management.

The Risk Management Committee was set up by the Board to prepare and submit a risk management plan and report performance to the Audit Committee as well as the Board on a quarterly basis. The Committee reviews the risk management system and evaluates the performance at least once a year and whenever the risk level changes. The Risk Management Committee consists of the following members:

Chief Executive Officer (CEO) <sup>1</sup>	Chairman of the Risk Management Committee
Chief Operating Officer (COO)	Member of the Risk Management Committee
Head of Finance and Strategy (CFO)	Member of the Risk Management Committee
Head of Business and Project Development	Member of the Risk Management Committee
Head of Engineering	Member of the Risk Management Committee
Head of Corporate Services	Member of the Risk Management Committee
Head of Company Secretary	Member of the Risk Management Committee
Head of Internal Audit	Member of the Risk Management Committee
Head of Asset Management	Member and Secretary of the Risk Management Committee

### Internal Control System and Internal Audit

The Board of Directors has set up an internal control system that covers all aspects of BPP's businesses, ranging from accounting and finance, administration, asset management, operational management, and compliance with related laws, rules, and regulations. The Board has also established sufficient and effective checks and balances mechanisms to protect shareholders' equities and BPP's assets. Moreover, the Board has determined that the Internal Audit Unit works independently and reports directly to the Audit Committee to ensure that the internal control system and internal audit are the key mechanisms to drive the Company's business to sustainable growth. The Internal Audit Unit audits the internal control of critical operational processes and work systems covering business units and supporting units. The Unit also provides consultancy and suggestions about the internal control system and risk management to improve the Company's operational excellence to accommodate business growth amid changing economy.

## Principle 7

### Ensure Disclosure and Financial Integrity

#### Conflict of Interest

BPP stresses the importance of its policy to prohibit directors, executives, and employees from misuse of position for personal gain. As stipulated in the Corporate Governance Policy and the Code of Conduct, directors, executives, and employees are to avoid connected transactions that could lead to a conflict of interest with the Company. If necessary, the transactions are to be conducted fairly and at arm's length, and directors, executives, or employees having an interest in the transactions must not be involved in the approval process. If any transaction is considered connected under the SET's notification and the Capital Market Supervisory Board's notification, all rules, procedures, and the disclosure of connected information of listed companies must be strictly complied with.

The Board of Directors also prohibits directors, executives, or employees from using any opportunity or information acquired from their position for personal benefit or to compete with the Company or related business. Nor are they allowed to use insider information to sell or buy shares. If an executive or employee involving in a special project of which the information has not yet been disclosed to the public; or that it is under negotiation where the project's information has to be kept confidential as it could influence the share price, the executive or employee are to sign a confidentiality agreement until the information is disclosed to the SET and the SEC.

<sup>1</sup> BPP's Chief Executive Officer shall serve as an ex officio member of the Board of Directors according to the Practices for the Board of Directors of Banpu Power Public Company Limited B.E. 2558, Amendment No. 2 B.E. 2562.

In 2018, BPP announced the Market Sensitive Information Policy and practices on handling confidential information, which potentially affects the stock exchange. It is the duty of directors, executives, employees, consultants, and subsidiary companies to understand and comply with the policy and practices as follows:

- 1) Establish an internal control system to prevent the leak of confidential information.
- 2) Cultivate a culture of information safety through constant communication to raise awareness of relevant persons of their duty to protect confidential information.
- 3) Limit the number of persons who have access to confidential information based on a need-to-know basis. Set up an information access control system for contract parties and service persons.
- 4) Exercise extreme caution when receiving and sending information to and from third parties, being aware of one's duties in using and controlling confidential information.
- 5) Establish an appropriate information technology and control system.

### Disclosure of Information to Investors

The Board of Directors oversees the disclosure of information and its transparency to ensure that both financial and non-financial information relating to the Company's business and performance is disclosed in a complete, accurate, sufficient, regular, and timely manner. Moreover, the information must reflect the Company's actual performance and its true financial status, as well as its business future, while strictly complying with the laws, rules, and regulations relating to information disclosure of both the SEC and the SET. Besides, BPP also communicates with shareholders and investors through other channels. The Investor Relations Department directly communicates with shareholders, investors, and securities analysts both in Thailand and abroad, while the Corporate Communications Department discloses corporate information to shareholders, investors, and the public through the local and international press in an equitable and timely manner.

In 2022, BPP organized the following activities to disclose information to international investors, institutional investors, small investors, securities analysts, and the press:

No.	Information Disclosure and Presentation	Time(s)
1	International Road Show (via Virtual Meeting)	3
2	Local Road Show (via Virtual Meeting)	12
3	Quarterly and Annual Analyst Meeting	4
4	Opportunity Day for listed companies to release quarterly performance to investors	4
5	Company visits by local and international investors	-
6	Information provision to investors via conference call	4
7	Interviews with executive officers	10
8	Press conference on the Company's performance	2
9	Press release on the Company's performance and business strategies	8

The Company also disclosed its information and news via the Company's website: [www.banpupower.com](http://www.banpupower.com) to provide equal and equitable access for all stakeholders. Interested parties may contact or make inquiries to the Company's Investor Relations Department via Telephone: +66 2007 6000 or Email: [investor\\_relations@banpupower.co.th](mailto:investor_relations@banpupower.co.th).

## The Board of Directors' Report

The Board of Directors is responsible for BPP's and its subsidiaries' consolidated financial statements and the financial information that appears in the Company's Annual Report. The financial statements are prepared under the Generally Accepted Accounting Principles (GAAP) in Thailand, where an appropriate accounting policy has been selected and implemented. The Audit Committee and auditors jointly review the accounting policy to ensure it remains practical. While preparing the financial statements, the Board of Directors insists that the working team carefully exercise its discretion and that important information is adequately disclosed in the notes to the financial statements. The Board entrusted the Audit Committee with the responsibility to supervise the quality of financial statements and the internal control system and to ensure that any opinions of the Audit Committee on these issues have been included in its report, which is also included in this Annual Report.

The Board of Directors considered that the financial statements of the Company and its subsidiaries as of 31 December 2022 are accurate, complete, sufficient, and reliable.

## Policy on the Use of Internal Information

The Company places great importance on information disclosure and transparency and has formulated a policy on information disclosure, transparency in financial statements, and corresponding policy implementation in BPP's Corporate Governance Policy. This is to ensure that financial and non-financial information about the Company's businesses and operating results are disclosed to shareholders, investors, securities analysts, and the general public in an accurate, complete, sufficient, reliable, and timely manner. The Board of Directors is committed to strict compliance with laws and regulations regarding information disclosure and transparency. Sales or purchases of shares by any director or executive, according to the SEC's notification, are duly reported to the Company Secretary Department. Changes in securities holding of directors or executives are also subject to be reported to the Board of Directors' meeting on a monthly basis. In addition, directors and executives must disclose their holding of the Company's securities on the date they were appointed, including those of their spouses and minor children who are non sui juris as well as connected persons.

The Company prescribed the rule for the use of internal information under the Disciplinary Action section applied to employees at all levels, that any employee who fails to comply or violates the set disciplinary requirements is considered to have breached the Company's rules and is subject to disciplinary penalties according to the nature of the offense. It is stated that anyone "disclosing the Company's confidential information with an intention to destroy its reputation, credibility or products, resulting in a financial loss or a loss in a business opportunity to the Company" may be subject to severe punishment up to dismissal. In 2022, there were no reports of insider trading violations or non-compliance with the SET's and the SEC's rules and regulations on the securities exchange.

The Company stipulated preventive measures for internal information security as practices in the Code of Conduct under the section "Conflict of Interests and Keeping Confidential Information," especially "Use of Company Information." Measures against internal information leakage have been put in place to supervise the use of the Company's internal information. It is the responsibility of the Company's directors, executives, and employees to keep corporate information strictly confidential, especially internal information not yet disclosed to the public or any data or information that may affect the business of the Company or its share price. Directors shall follow the guidelines set forth in the Practices for the Board of Directors of Banpu Power Public Company Limited B.E. 2558 (Amendment No. 2 B.E. 2562) and the Code of Conduct as follows:

1. Directors, executives, and employees must not use the information they receive from their directorship or employment for personal benefit or for conducting business or other activities in competition with the Company.
2. Directors must not use internal information in trading the Company's shares or disclose internal information to any third party for the benefit of trading the Company's shares.

3. Business secrets must not be disclosed to any third party, especially to competitors, even after a director, executive, or employee has left the Company.
4. Directors and executive officers, as defined by the Securities and Exchange Commission (SEC), or any persons who know inside information which may influence the share price are prohibited from trading the Company's shares during the blackout period set by the Company as follows:

*Directors and executive officers (including their spouses and minor children who are non sui juris) or any persons who know inside information which may influence the share price are prohibited from trading the Company's shares within one month before information in the financial statements or other information which may influence the Company's share price, and until after 24 hours after the information is made public.*

5. Directors and executives, as defined by the Securities and Exchange Commission, shall report on their shareholding and its change with the method regulated by the Securities and Exchange Commission.

Additionally, the Company stipulated in the Corporate Governance Policy that directors, executives, and employees shall not exploit their position for personal gain. They must avoid connected transactions that could lead to a conflict of interest with the Company. If necessary, the transactions are to be conducted fairly and at arm's length. Directors, executives, or employees having an interest in the transactions shall not be involved in the approval process. According to the SET's and the Capital Market Supervisory Board's notification, all rules, procedures, and the disclosure of connected information applied to listed companies must be strictly complied with if the transaction is considered a connected transaction. In addition, the Practices of the Board of Directors stipulate a guideline for directors to follow if they have access to non-public information. The Company also notifies directors and executives of a blackout period of 30 days prior to the disclosure of the financial statements.

To develop the control system for the use of internal information, the Company hired Banpu Public Company Limited to install the IT system to supervise the use of Company information. For example, systems are in place to prevent access to information from a third party and to limit employees' information access levels according to their roles and responsibilities. The system also prevents unauthorized changes, duplication, or deletion of protected information. In the case where a director, executive or employee participates in a special task using information that has not yet been disclosed publicly, is under negotiation or subject to internal control given its possible influence on the Company's share price, such executive and employee must sign a Confidentiality Agreement with the Company. The Agreement shall remain in effect until the information is disclosed to the public or relevant regulatory authorities.

Directors and executive officers shall report their holding of the Company's securities upon appointment and report on any changes in securities holding by themselves, spouses, minor children who are non sui juris, and connected persons. They must also file a report on any changes in their securities holding to the Board meeting on a regular basis. In 2022, there were no violations of or non-compliance with regulations prohibiting insider trading and asset trading pursuant to the SEC's and SET's regulations.

## Principle 8

### Ensure Engagement and Communication with Shareholders

#### Shareholder's Rights

The Board of Directors stresses the importance of rights and equality between shareholders and institutional investors. It is clearly specified in the Corporate Governance Policy that shareholders are entitled to receive share certificates, transfer shares, and acquire adequate information in a timely fashion and a format conducive to decision-making. Shareholders are also entitled to attend a meeting, cast their votes at shareholders' meetings to deliberate on BPP's important policies, elect and remove directors, approve appointments of auditors, and receive their shares of profit.

At each shareholders' meeting, the Board of Directors facilitates shareholders by furnishing them with complete, clear, sufficient, and timely information. The Board encourages shareholders to attend the meeting and cast their votes or to appoint an individual or an independent director as their proxy to cast votes on their behalf in case they cannot attend. Moreover, shareholders are allowed to equally express opinions, seek explanations, or pose questions.

In 2022, the Company also informed the SET to notify minor shareholders about the opportunities to propose agenda items to be included in the Annual General Meeting of Shareholders (AGM) and to nominate candidates to be considered for the director positions from 1 - 30 December 2021. The procedures and methods for considering proposals were clearly stated on the Company's website. In the 2022 AGM, no shareholder proposed additional agenda items or nominated candidates for director positions.

The 2022 Annual General Meeting of Shareholders (AGM) was convened online on 1 April 2022 at 09.30 hours via an e-meeting platform with full attendance of ten directors or 100% of all directors. Five out of ten directors attended the meeting via the Cisco WebEx Meeting platform. The meeting protocol complied with the Emergency Decree on Electronic Meetings, B.E. 2563, which came into effect on 19 April 2020. BPP assigned the Thailand Securities Depository Co., Ltd., its share registrar, to send out an invitation letter to shareholders in advance and post it on the Company's website 30 days prior to the meeting date. The minutes of the 2022 AGM were also posted on the Company's website 14 days after the meeting took place so that the shareholders could propose amendments if they found the minutes to be inaccurate within the 30-day period after the minutes were posted on the Company's website.

#### Equitable Treatment of Shareholders

##### 2022 Annual General Meeting of Shareholders in the form of e-Meeting

Given the ongoing COVID-19 pandemic in Thailand, the Board of Directors was concerned about the health and safety of its shareholders and decided to organize the 2022 Annual General Meeting of Shareholders (AGM) via an e-meeting platform in compliance with the Emergency Decree on Electronic Meetings. The e-meeting was open for shareholders to register at 07.30 hours.

The Board of Directors has the policy to engage shareholders in a decision-making process and to ensure that shareholders receive comprehensive and adequate information in a timely fashion for such a process. As such, BPP sent out an invitation letter for the meeting, together with supporting documents for each agenda item, to shareholders prior to the meeting. Opinions of the Board of Directors also accompany each agenda item.

In the 2022 AGM, ten directors attended the meeting, including the Chairman of the Audit Committee, the Chairman of the Corporate Governance and Nomination Committee, and the Chairman of the Compensation Committee. Senior management, the auditor, and independent observers from a law firm also attended the meeting.

The Chairman of the Meeting provided every shareholder an equal opportunity to examine the Company's operations and present questions in each agenda item. The Chairman also encouraged shareholders to express their opinions and make inquiries about the Company's operations.

The Board of Directors has the policy to treat all shareholders equitably by disseminating complete, precise, adequate, and timely information to them via the channels of the Stock Exchange of Thailand (SET) and the Company's website, which can be accessed **by scanning the QR Code or clicking on the icon Click here.**



## Other Compliance with Corporate Governance Principles

The Board of Directors endeavors to maintain good corporate governance to ensure transparent and efficient operations as well as the responsibility to all stakeholders. BPP's Board of Directors is fully aware of its role and duty to comply with the SEC's Corporate Governance Code for Listed Companies (CG Code) 2017. The Board has considered and reviewed the application of the principles outlined in the CG Code 2017 to the Company's business context and summarized the principles the Company did not yet comply with but will further adopt and apply as appropriate, with details and practices as follows:

- **All members of the Nomination Committee are independent directors.**

**The Company's practice:** The Corporate Governance and Nomination Committee currently consists of three members, namely two independent directors and one non-executive director. The proportion of independent directors is 66.66% of the Corporate Governance and Nomination Committee. The Chairman of the Corporate Governance and Nomination Committee is an independent director. The Committee is qualified, knowledgeable, and competent in corporate governance and nomination. However, the Board of Directors has clearly set in the Charter of the Board the roles and duties of the members of the Corporate Governance and Nomination Committee, covering all aspects of corporate governance and nomination.

- **The majority of the Compensation Committee members are independent directors (more than 50%).**

**The Company's practice:** Currently, the Compensation Committee consists of four members, namely two independent directors, one non-executive director, and one executive director. The proportion of independent directors is 50% of the Compensation Committee. The Chairman of the Compensation Committee is an independent director. The Committee is qualified, knowledgeable, and competent in compensation matters in accordance with the duties and responsibilities of the Compensation Committee stipulated by the Board in the Charter of the Compensation Committee.

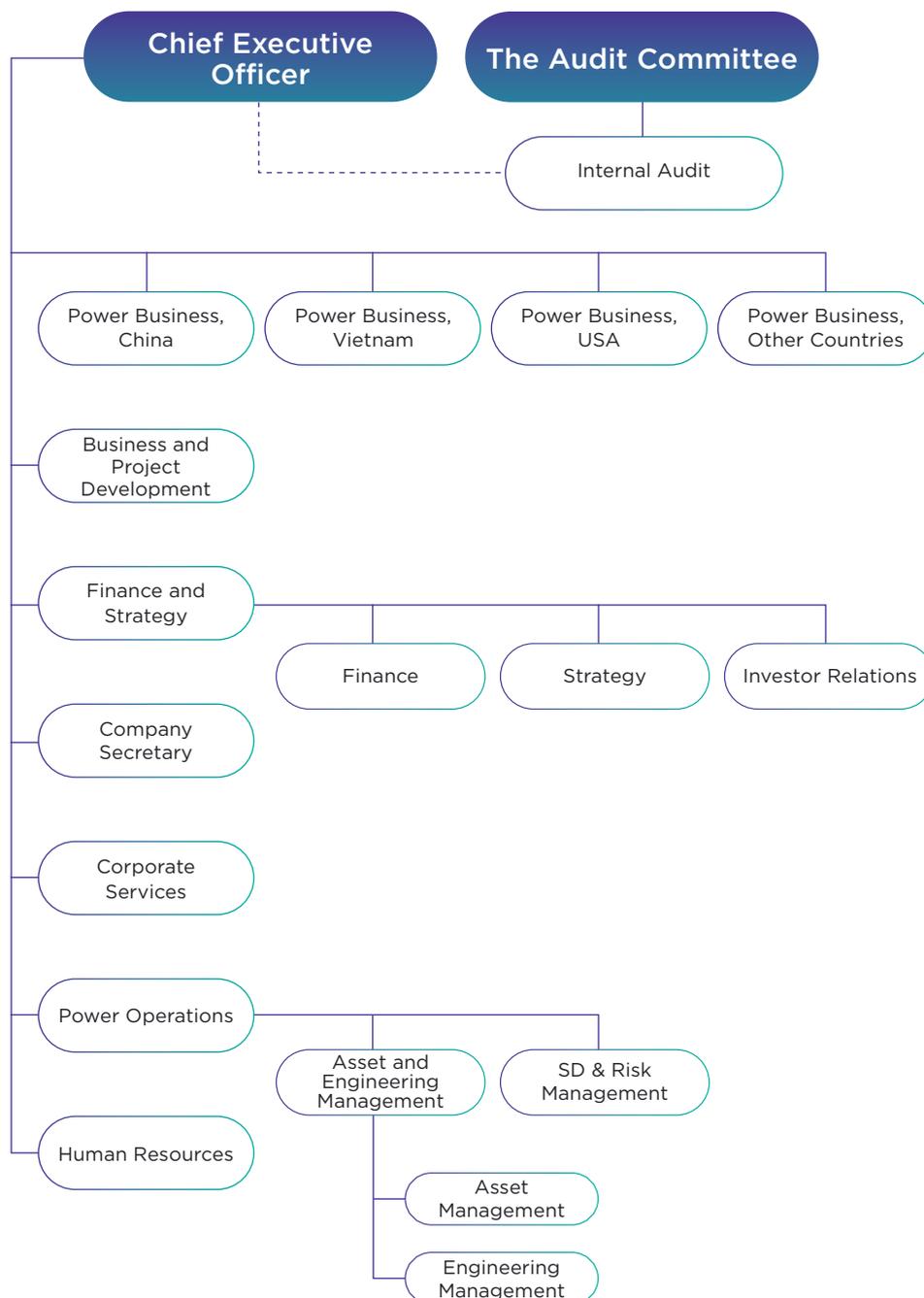
- **The Board should appoint an external consultant to facilitate a board evaluation at least once every three years, and evaluation results should be disclosed in the annual report.**

**The Company's practice:** BPP has annual performance evaluations of the full Board, sub-committees, and individual directors. The Company started the evaluation in 2017 using the evaluation forms prepared in accordance with the Stock Exchange of Thailand (SET)'s standards. The Corporate Governance and Nomination Committee considered the practice and decided to conduct the performance evaluation internally.

# Corporate Governance Structure and Details of the Board of Directors, Sub-Committees, the Management, Employees, and Others

## Corporate Governance Structure

As of 1 January 2023



## Structure of the Board of Directors

The Company's management structure as of 31 December 2022 consists of the Board of Directors and management. The Board of Directors consists of independent directors, non-executive directors, and executive directors. Independent directors account for 50% of the Board.

The Board also requires that the Chairman of the Board of Directors, Chairman of the Audit Committee, Chairman of the Corporate Governance and Nomination Committee, Chairman of the Compensation Committee, and all directors in the Audit Committee be independent directors.

### The Board of Directors consists of:

- |     |                                  |  |
|-----|----------------------------------|--|
| 1.  | Assoc. Prof. Dr. Naris Chaياسoot | Chairman of the Board of Directors/ Independent Director |
| 2.  | Mr. Yokporn Tantisawetrat        | Independent Director                                     |
| 3.  | Prof. Dr. Bundhit Eua-arporn     | Independent Director                                     |
| 4.  | Prof. Dr. Patchanita Thamyingkit | Independent Director                                     |
| 5.  | Mr. Kijja Sripatthangkura        | Independent Director                                     |
| 6.  | Mr. Chanin Vongkusolkit          | Director   |
| 7.  | Mr. Metee Auapinyakul            | Director   |
| 8.  | Mrs. Somruedee Chaimongkol       | Director   |
| 9.  | Mr. Voravudhi Linananda          | Director   |
| 10. | Dr. Kirana Limpaphayom           | Director/ Chief Executive Officer                        |

### Board Composition

As of 31 December 2022, the structure of the Board of Directors consists of independent directors, non-executive directors, and executive directors. Among the ten board members, five are independent directors, who account for 50% of the Board.

### Independent directors, who account for 50% of the Board, are as follows:

- |    |                                  |                      |
|----|----------------------------------|----------------------|
| 1. | Mr. Yokporn Tantisawetrat        | Independent Director |
| 2. | Assoc. Prof. Dr. Naris Chaياسoot | Independent Director |
| 3. | Prof. Dr. Bundhit Eua-arporn     | Independent Director |
| 4. | Prof. Dr. Patchanita Thamyingkit | Independent Director |
| 5. | Mr. Kijja Sripatthangkura        | Independent Director |

BPP defined the qualifications of "Independent Directors" according to the requirements of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET), as stipulated in the Notification of the Capital Market Supervisory Board No. TorChor.39/2559, dated 16 November B.E. 2559. The Company places importance on building Board diversity using the Board skill matrix to cover skills, experiences, knowledge, and specialization that benefit the Company. The nomination of directors does not discriminate on the grounds of gender, age, race, nationality, or religion to increase the opportunity to nominate the right candidates for the Company's business operations.

## Authorized Signatory Directors on Behalf of the Company

Any two of the following five board members, namely Mr. Chanin Vongkusolkit, Mrs. Somruedee Chaimongkol, Dr. Kirana Limpaphayom, Mr. Voravudhi Linananda, or Mr. Metee Auapinyakul, are authorized to jointly sign on a document affixed with the Company's seal.

## Authority and Responsibilities of the Board of Directors

The Board of Directors is accountable to shareholders for the Company's business operations and supervision of the management to accomplish the goals and maximize shareholders' value. The Board also has a duty to ensure ethical conduct and benefits to all stakeholders.

The Board of Directors has a duty to comply with the laws, objectives and regulations of the Company and with resolutions of the shareholders' meetings. It shall perform duties with integrity and act in the interests of shareholders for both short and long terms. The Board also complies with the rules and regulations of the Stock Exchange of Thailand (SET), the Office of the Securities and Exchange Commission (SEC), and the Capital Market Supervisory Board established according to the Securities and Exchange Act, B.E. 2535 as amended by the SEC Act (No.5), B.E. 2559.

To ensure compliance with the Practices, the Board entrusted the Chief Executive Officer with the duty of supervising the Company's business operations and corporate governance.

The Board also formulated the Audit Committee Charter, the Corporate Governance and Nomination Committee Charter, and the Compensation Committee Charter as guidelines for these Sub-Committees.

The Board organizes an orientation session for new directors to make them realize what the Company expects of them about their roles and responsibilities, the Company's corporate governance policy and practices, business and operations, and risk management. In addition, they have the opportunity to visit different operational units. After attending the orientation, the new directors will be equipped for their new roles as directors.

The Board formulated the "Practices for the Board of Directors B.E. 2558 Amendment No.2 B.E. 2562," which details definitions, composition, and criteria of the Board, directors' qualifications, terms of office, and vacancies, duties and responsibilities of the Board as well as meetings and voting procedures. In pursuance of the corporate governance of the Company, subsidiaries, and associate companies, in addition to any other action taken in compliance with the laws, the Company's objectives, the Articles of Association, and the resolutions of the shareholders' meeting.

The Board of Directors has a duty and responsibility to consider and approve the following matters:

1. The Company's policies, strategic plans, action plans, and annual budget
2. Monthly and quarterly operating results reports compared against the Company's plan, budget, and business outlook in the following period of the year
3. Invest in a project worth more than THB 1,500 million
4. Investment which exceeds the approved budget by 15% and costs more than THB 1,000 million

5. Purchase and disposal of assets, acquisitions, and participation in joint venture projects, which are not conflicting with the SEC's and SET's rules, for an amount that exceeds the CEO's authority
6. Transactions which could materially affect the Company's financial status, liabilities, business strategy and/or reputation
7. Entering into a contract either unrelated to the ordinary course of business or related and materially significant
8. Parts of a connected transaction between BPP, its subsidiaries or affiliates, and related individuals according to the Securities and Exchange Act B.E. 2535 (As amended)
9. Any transaction which may cause the Debt-to-Equity Ratio of the Company's consolidated balance sheets to exceed 2:1
10. Payment of an interim dividend
11. Net borrowing which exceeds the amount stated in a budget of more than THB 5,000 million
12. Changes in policies and practices with material implications to accounting, risk management, and financial reserves
13. Significant changes in financial and management control system
14. Determination and review of authorization granted to CEO
15. Appointment of CEO, EO, COO, and CFO
16. Approval of salary structure, salary increase budget, other benefits, or formula to adjust other remuneration packages of executives and employees
17. Nomination, appointment, and termination of directors and the Company Secretary or the Secretary to the Board of Directors
18. Authorization given to the Chairman of the Board of Directors, CEO, or any director, and amendments to such authorization
19. Appointment and delegation of duties of sub-committees
20. Establishing and supervising management in accordance with the principles of good corporate governance; promoting ethics and morals and compliance with the Corporate Governance Policy and the Code of Conduct, and the Anti-Corruption Policy
21. Appointment and supervision of directors or executives who are directors of subsidiaries and affiliated companies
22. Registration of a new company and dissolving a company
23. Review of the Company's vision and mission at least once every five years

24. Directors have a duty to keep corporate information strictly confidential, especially the internal information not to be disclosed to the public or the information that may affect its business or share prices. Directors must follow the following practices:
- In case the information is a report based on an accounting period, such as on operating results, financial statements, and an annual report, directors must refrain from trading BPP's shares no less than 30 days prior to the information disclosure to the public.
  - In case the information is a report of BPP's action in a particular situation, such as acquisition/disposal of assets, connected transactions, joint venture/cancellation of joint venture, capital increase/capital reduction, issuance of new securities, repurchase of own shares, payment or non-payment of dividend or incidents that affect BPP's share price, directors shall refrain from trading the Company's shares from the period he/she learns of the information to the day BPP discloses the information to the public.
25. Amendment of the Board of Directors' scope of authorization as described in Clause 1-24.

In 2022, the Board of Directors convened 12 meetings, all of which were quorate, and all agenda items were covered.

## Checks and Balances by Non-Executive Directors

The Board of Directors ensures that the proportion of its existing directors is appropriate to the Company's size. At present, BPP's Board of Directors consists of ten members. Three members are executive directors, two are non-executive directors, and five are independent directors, which account for 50% of the Board. In 2022, the Corporate Governance and Nomination Committee reviewed the Board composition regarding the proportion of non-executive directors and independent directors and concluded that the Board composition was appropriate.

## Consolidation or Segregation of Office

The Board of Directors requires that the roles of Chairman and Chief Executive Officer should be held by separate individuals. Their roles, responsibilities, and authorities are clearly separated to achieve a balance between management and good corporate governance.

The Chairman of the Board monitors the administration of the management and provides suggestions and assistance, yet does not interfere with the routine management, which is the duty of the Chief Executive Officer within the scope of the authority entrusted by the Board. The Chairman of the Board shall convene and chair the Board of Directors meetings, chair the shareholders' meetings, and determine the agenda for Board meetings together with the Chief Executive Officer. In the case of an equality of votes in a Board of Directors' meeting, the Chair of the meeting shall give the casting vote.

The present Chairman of the Board is an independent director who possesses strong leadership. The Chairman monitors directors' independence at meetings and their full adherence to the principles of good corporate governance without being influenced by the management.

## Scope of Authority and Responsibilities of Chairman of the Board of Directors

- 1) To abide by the objectives, the Company's rules, and resolutions of the shareholder's meetings as well as the Public Limited Companies Act B.E. 2535, the Securities and Exchange Act B.E. 2535, and any other relevant laws that particularly stipulate the duties of Chairman of the Board of Directors
- 2) To preside over the Board of Directors' meetings, shareholder's meetings, and manage such meetings according to the Company's rules, relevant laws, and corporate good governance practices
- 3) To promote, develop, and oversee the performance of the Board to ensure integrity, adherence to the principles of good corporate governance

## Scope of Authority and Responsibilities of the Chief Executive Officer

The Board of Directors sets operational goals for the CEO and evaluates his performance annually to determine compensation for the CEO. The CEO then evaluates the performance of executive officers and senior executive officers in descending order of rank in light of the goals and evaluation criteria linked closely with the Company's strategic plan and the CEO's annual operating plan and operational goals. This information is used to set appropriate and attractive compensation packages and incentives.

## Regulations Governing Holding Directorship in Other Companies

To ensure that directors can devote sufficient time to carrying out their duties and responsibilities in the Company, directors shall not hold the director position of more than five listed companies. The rule is set forth in Article 5.1 Paragraph (5) under the Section: Qualifications of Directors in the Practices for the Board of Directors B.E. 2558, Banpu Power Public Company Limited, Amendment No. 2 B.E. 2562.

In 2021, the Board of Directors established the explicit policy and practices for the Chief Executive Officer and senior executive officers regarding holding directorship positions in other companies, both in terms of positions and the number of companies they are allowed to hold. The Corporate Governance Policy and Code of Conduct was amended accordingly with a paragraph added to Article 4.5 Chairman of the Board and the Chief Executive Officer: "Holding directorship position in other company, other than group companies, CEO must get an approval from the Board of Directors."

## Sub-Committees

The Board of Directors established three sub-committees, namely, the Audit Committee, the Corporate Governance and Nomination Committee, and the Compensation Committee

**The Audit Committee** consists of four independent directors as follows:

- |    |                                   |                                |
|----|-----------------------------------|--------------------------------|
| 1. | Mr. Yokporn Tantisawetrat         | Chairman/ Independent Director |
| 2. | Assoc. Prof. Dr. Naris Chaiyasoot | Independent Director           |
| 3. | Prof. Dr. Bundhit Eua-arporn      | Independent Director           |
| 4. | Prof. Dr. Patchanita Thamyongkit  | Independent Director           |

The Audit Committee's term of office is three years from the date of the Annual General Meeting of Shareholders in 2021 to the date of the Annual General Meeting of Shareholders in 2024, except for Prof. Dr. Patchanita Thamyongkit, whose term of office is three years, from 30 April 2021 (Appointed date) to the date of the Annual General Meeting of Shareholders in 2024. All members of the Audit Committee have the expertise, experience, and a strong understanding of accounting and finance, and Mr. Yokporn Tantisawetrat is a committee member who has sufficient expertise and experience to review the accuracy and credibility of the Company's financial statements.

The Audit Committee Meeting No. 5/2022 held on 4 July 2022 appointed Ms. Nachanok Triratwaroon as the Head of the Internal Audit and the Secretary to the Audit Committee, effective from 4 July 2022. Ms. Nachanok has over ten years of professional experience in internal audit with international standards and a good understanding of the Company's business operations and activities.

The Audit Committee is accountable to the Board of Directors within the scope of responsibilities entrusted by the Board of Directors as follows:

1. To review the Company's financial reporting process to ensure that it is accurate, creditable, and adequate
2. To review the Company's internal control system and internal audit system to ensure that they are appropriate and effective
3. To ensure that the Company has duly complied with the law on securities and exchange, the Stock Exchange of Thailand's (SET) regulations, and the laws relating to the Company's business
4. To consider, select, nominate an independent person to be the Company's auditor or dismissal of the auditor, and propose such person's remuneration, as well as to attend a non-management meeting with an auditor at least once a year
5. To review the connected transactions or the transactions that may lead to conflicts of interest, to ensure that they are in compliance with the laws and the SET's regulations and are reasonable and for the highest benefit of the Company

6. To prepare and disclose in the Company's annual report and Audit Committee's report which must be signed by the Chairman of the Audit Committee and consist of at least the following information:
  - (a) an opinion on the accuracy, completeness, and creditability of the Company's financial report
  - (b) an opinion on the adequacy of the Company's internal control system
  - (c) an opinion on the compliance with the law on securities and exchange, the SET's regulations, and the laws relating to the Company's business
  - (d) an opinion on the suitability of an auditor
  - (e) an opinion on the transactions that may lead to conflicts of interests
  - (f) the number of Audit Committee meetings and the attendance of such meetings by each committee member
  - (g) an opinion or overview comment received by the Audit Committee from its performance of duties in accordance with the charter
  - (h) other transactions which, according to the Audit Committee's opinion, should be known to the shareholders and general investors, subject to the scope of duties and responsibilities entrusted by the Company's Board of Directors
7. To audit cases informed by the Company's external audit or when he/she discovers any suspicious circumstance that the director, manager, or any person responsible for the Company's operation commits an offense, which is specified under the Securities and Exchange Act (No. 5) B.E. 2559 and report the result of preliminary inspection to the Office of the Securities and Exchange Commission (SEC) and the external auditor within 30 days since the informed date
8. To continue the Risk Management Committee's duty in reviewing and monitoring the management of significant risks, including cybersecurity risk and other IT-related risks, for the whole organization
9. To determine an internal audit unit's independence and express opinions regarding the operation plan and operation results, budgeting, and the workforce of the Internal Audit Unit, as well as to approve the appointment, transfer, and dismissal of the Head of Internal Audit
10. To revise the Audit Committee Charter at least once a year
11. To review and approve the Internal Audit Charter
12. To invite executive officers or supervisors to attend its meeting for clarification purposes or to submit relevant documents based on the scope of its authority
13. To obtain appropriate consultations from the independent specialist relating to its scope of duties and responsibilities with the Company's expenses
14. To review and ensure that the Company has duly complied with Anti-Corruption Policy
15. To submit a performance report to the Board of Directors at least once a year
16. To perform any other tasks as assigned by the Board of Directors upon the Audit Committee's consent

In 2022, the Audit Committee convened eight times, all of which were quorate, and all agenda items were covered. For more information, please visit the Company's website **by scanning the QR Code or clicking on the icon Click here.**



**The Corporate Governance and Nomination Committee** consists of three members, namely, one non-executive director and two independent directors. The Chairman of the Corporate Governance and Nomination Committee is an independent director.

- |    |                                   |                                |
|----|-----------------------------------|--------------------------------|
| 1. | Assoc. Prof. Dr. Naris Chaiyasoot | Chairman/ Independent Director |
| 2. | Prof. Dr. Patchanita Thamyongkit  | Independent Director           |
| 3. | Mr. Chanin Vongkusolkit           | Non-Executive Director         |

The Corporate Governance and Nomination Committee's term of office is three years, from August 2021 to August 2024, except for Prof. Dr. Patchanita Thamyongkit, whose term of office is three years, from 30 April 2021 (Appointed date) to 29 April 2024.

The Corporate Governance and Nomination Committee has two major duties. Firstly, it reviews the Corporate Governance Policy and the Code of Conduct and monitors compliance with the policy and practices within BPP's Code of Conduct. Secondly, it nominates Directors, Chief Executive Officer, and Executive Officers as well as monitors succession planning in order to nominate qualified persons to fill senior management positions (Vice President level and higher) and propose to the Board of Directors' meeting for approval or to the shareholders' meeting for approval, as the case may be, with the following details:

1. To consider and review whether the Company's Corporate Governance Policy and its Code of Conduct are appropriate and adequate and to regularly update the Corporate Governance Policy
2. To monitor and supervise directors and staff's compliance with the Corporate Governance Policy and the Code of Conduct so that it is in line with those determined by the Board of Directors and to arrange a system where BPP can receive grievances concerning to the Corporate Governance and Code of Conduct from stakeholders
3. To review the structure and components of the Board of Directors, to monitor the term of office of its directors, Chief Executive Officer, and Executive Officers, and to prepare a succession plan for senior executives (starting from Vice President and over)
4. To determine the director's qualifications in line with business strategy and the nomination process by taking into consideration board diversity in terms of skills, experience, gender, and knowledge and competency that correspond with the Company's strategy
5. To recruit and nominate persons as Directors, Chief Executive Officer, and Executive Officers when the term is due or whenever there is a vacancy or other executive positions as entrusted by the Board
6. To suggest measures for performance evaluation of individual director and the Board of Directors as a group; to participate in the annual evaluation, summarize the evaluation results and report to the Board of Directors as well as monitor the results for improving performance efficiency and enhancing the competency of the Company's directors

7. To review and recommend an amendment to the Corporate Governance and Nomination Committee's scope of work, duties and responsibilities to respond to changing circumstances
8. To submit a performance report to the Board of Directors at least once a year
9. To perform any other tasks as assigned by the Board of Director. To ensure that the Corporate Governance and Nomination Committee performs its duties efficiently, the Committee shall conduct the following tasks:
  - 9.1. Within the scope of its authority, the Committee shall invite management or function heads to attend its meeting for clarification or submission of relevant documents.
  - 9.2. The Committee shall hire consultants or organize other activities relating to its duties and responsibilities with the Company's expenses.

In 2022, the Corporate Governance and Nomination Committee convened four meetings, all of which were quorate, and all agenda items were covered. For further details, please visit the Company's website [by scanning the QR Code or clicking on the icon Click here.](#)



CLICK HERE



**The Compensation Committee** consists of four members, namely, two independent directors, one non-executive director, and one executive director.

- |    |                              |                                |
|----|------------------------------|--------------------------------|
| 1. | Prof. Dr. Bundhit Eua-arporn | Chairman/ Independent Director |
| 2. | Mr. Kijja Sripatthangkura    | Independent Director           |
| 3. | Mr. Metee Auapinyakul        | Non-Executive Director         |
| 4. | Mrs. Somruedee Chaimongkol   | Executive Director             |

The Compensation Committee's term of office is three years, from August 2021 to August 2024, except for Mr. Kijja Sripatthangkura, whose term of office is three years, from 29 April 2022 (Appointed date) to 28 April 2025.

The Compensation Committee's duties are to provide recommendations related to compensation management to the Board of Directors for approval or submission to the shareholders' meeting, as the case may be, which are as follows:

1. To recommend compensation practices and payment of compensation and other fringe benefits to the Board of Directors and Sub-Committees appointed by the Board of Directors
2. To consider and recommend compensation rates and other benefits by taking the duties and responsibilities of the Chief Executive Officer into consideration and review performance evaluation criteria to determine the right annual remuneration
3. To review a compensation structure, compensation rules and regulations as stated in Clauses 1 and 2 to suit the person's duties and responsibilities, BPP's operating results and marketing conditions
4. To review overall budgets for a salary increase, annual bonus payments, and provisions of other staff's benefits
5. To review and recommend an amendment to the Committee's scope of work, duties and responsibilities to respond to changing circumstances

6. To submit a performance report to the Board of Directors at least once a year
7. To perform any other tasks as assigned by the Board of Directors

In 2022, the Compensation Committee convened four meetings, all of which were quorate, and all agenda items were covered. For further details, please visit the Company's website **by scanning the QR Code or clicking on the icon** [Click here](#).



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In addition, the Board of Directors is responsible for establishing the Sustainability Policy and monitoring and evaluating its implementation. To mobilize sustainability implementation, the Company set up the BPP Sustainability Committee in 2017, of which the Chief Executive Officer serves as chairman<sup>1</sup>, and all heads of business units are committee members. The committee has duties to formulate a policy, objectives, a strategic plan, and indicators, as well as monitor implementation of the plan, to ensure that all business units create value for all stakeholders while having appropriate risk management, remaining competitive, and being agile to change and able to sustain growth. The review of materiality assessment of key sustainability issues is done in line with the expansion of operations, ESG risks, and the trends of change. There is regular progress reporting on sustainability implementation to the Board of Directors.

### Sustainability Performance in 2022

- Amendment of policies related to sustainability management to comply with the international standards and practices for assessing sustainability performance, as well as improvement of environmental performance and response to sustainability evaluation. The Board meeting approved the following four ESG policies and practices:
  - Environment Policy
  - Water Management Policy
  - Biodiversity Policy
  - Occupational Health and Safety Policy
- Performing regular assessment, monitoring, and auditing of operational and ESG risks as well as climate impacts at monthly and quarterly meetings
- Setting sustainability performance or ESG factor as a Key Performance Indicator (KPI) of senior executives

The Company annually discloses its sustainability performance to stakeholders in the Sustainability Report, verified for accuracy by external assessors, on the issues of stakeholder interest.

<sup>1</sup> BPP's Chief Executive Officer shall serve as an ex officio member of the Board of Directors according to the Practices for the Board of Directors of Banpu Power Public Company Limited B.E. 2558, Amendment No. 2 B.E. 2562.

## Meetings of the Board of Directors

The Board of Directors convenes at least once a month, with meeting dates scheduled in advance for the whole year. Any additional meetings may be held if necessary. At the meeting, there are clear meeting agenda items. A complete set of supporting documents is sent to the Board of Directors at least seven days in advance of the meeting to allow the Board an opportunity to properly review the agenda before the meeting. During the meeting, all directors may openly voice their opinions. The Chairman of the Board must summarize views and board resolutions. If any director has a conflict of interest in a matter being considered by the Board, the director is not eligible to cast a vote. The Company allows the meetings to be held by electronic means in compliance with the standards for maintaining e-meeting security prescribed by regulatory agencies.

Minutes of all the meetings are recorded in written form and after approval are signed by the Chairman of the Board and the Company Secretary. Records of the meetings are kept as hard copies and scanned electronic files to facilitate quick reference for directors or related persons. These also include other documents attached to a particular agenda. All are kept secure for reference for at least five years with a safeguard system to prevent any alteration and other risks of catastrophe.

## Meetings of the Board of Directors and Voting Procedure

The Company set the Board of Directors' meeting and voting procedures as follows: "no less than half of all directors must attend the meeting to form a quorum and to agree on a resolution, there must be no less than 2/3 of all directors" (The Practices for the Board of Directors of Banpu Power Public Company Limited B.E. 2558 Amendment No.2 B.E. 2562).

## Meetings of the Non-Executive Directors

The Company held a non-executive directors' meeting (NED meeting) on 1 October 2022, between 10.30-12.00 hrs., with full attendance of seven non-executive directors. During the meeting, all directors were allowed to propose interesting issues outside of the general agenda of the Board of Directors' meeting and voice their opinions or provide useful recommendations about collaboration with the management. The directors also worked together to develop a management approach to achieve the Company's targets as planned and a succession plan for senior management positions.

## Summary of Directors' Meetings

In 2022, the Board of Directors and Sub-Committees convened meetings as detailed in the following table:

Name	Title	Term of Office	2022 Meeting Attendance					
			BOD 12 meetings	AC 8 meetings	CC 4 meetings	GNC 4 meetings	AGM 1 meeting	NED 1 meeting
1. Assoc. Prof. Dr. Naris Chaiyasoot	Chairman of the Board of Directors/ Independent Director/ Chairman of the Corporate Governance and Nomination Committee/ Member of the Audit Committee	AGM 2020 - AGM 2023	12/12	8/8	-	4/4	1/1	1/1
2. Mr. Yokporn Tantisawetrat	Independent Director/ Chairman of the Audit Committee	AGM 2021 - AGM 2024	12/12	8/8	-	-	1/1	1/1
3. Prof. Dr. Bundhit Eua-arporn	Independent Director/ Chairman of the Compensation Committee/ Member of the Audit Committee	AGM 2021 - AGM 2024	11/12	8/8	4/4	-	1/1	1/1
4. Prof. Dr. Patchanita Thamyongkit	Independent Director/ Member of the Corporate Governance and Nomination Committee/ Member of the Audit Committee	AGM 2021 - AGM 2024	12/12	8/8	-	4/4	1/1	1/1
5. Mr. Kijja Sripatthangkura	Independent Director/ Member of the Compensation Committee	AGM 2022 - AGM 2025	9/9 <sup>1</sup>	-	2/2 <sup>2</sup>	-	-	1/1
6. Mr. Chanin Vongkusolkit	Non-Executive Director/ Member of the Corporate Governance and Nomination Committee	AGM 2019 - AGM 2022	11/12	-	-	4/4	1/1	1/1
7. Mr. Metee Auapinyakul	Non-Executive Director/ Member of the Compensation Committee	AGM 2021 - AGM 2024	12/12	-	4/4	-	1/1	1/1
8. Mrs. Somruedee Chaimongkol	Executive Director/ Member of the Compensation Committee	AGM 2020 - AGM 2023	12/12	-	4/4	-	1/1	-
9. Mr. Rawi Corsiri	Non-Executive Director/ Member of the Corporate Governance and Nomination Committee	AGM 2019 - AGM 2022	3/3 <sup>3</sup>	-	-	2/2 <sup>3</sup>	1/1 <sup>3</sup>	-
10. Mr. Voravudhi Linananda	Executive Director	AGM 2019 - AGM 2022	12/12	-	-	-	1/1	-
11. Dr. Kirana Limpaphayom	Executive Director/ Chief Executive Officer	AGM 2020 - AGM 2023	12/12	-	-	-	1/1	-

**Notes:** BOD stands for the Board of Directors' Meeting  
AC stands for the Audit Committee's Meeting  
CC stands for the Compensation Committee's Meeting  
GNC stands for the Corporate Governance and Nomination Committee's Meeting  
AGM stands for the Annual General Meeting of Shareholders  
NED stands for the Non-Executive Directors' Meeting

<sup>1</sup> Appointed as a director to replace a retired director by the 2022 AGM on 1 April 2022

<sup>2</sup> Appointed as a member of the Compensation Committee by the Board of Directors' meeting No. 4/2022 on 29 April 2022

<sup>3</sup> Reaching retirement age on the date of the 2022 AGM on 1 April 2022

## Remuneration of the Board of Directors

The Board of Directors delegated the Compensation Committee to review the remuneration structure and system and the appropriate remuneration for the Company's directors and senior management. It is prescribed as a policy that remuneration must be appropriate to roles, duties, and responsibilities and competitive in the job market and business. Executive remuneration is determined based on individual performance to be an incentive for effective performance.

Remuneration of the Board of Directors consists of monthly salary and allowance for each meeting attended. Annual remuneration will be linked to the dividend paid out to shareholders, and the payment of the Board of Directors' remuneration must be approved by the shareholders' meeting.

The Compensation Committee reviewed and determined the remuneration of the Board of Directors based on the Board's duties and responsibilities benchmarked against those in other publicly-listed companies of similar industries and businesses in Thailand. The consideration process was transparent, and to build confidence for shareholders. The remuneration of the Board of Directors was approved by the Board meeting and the 2022 Annual General Meeting of Shareholders as detailed below:

Remuneration Structure	2022
<b>Remuneration of the Board of Directors</b>	
1. Monthly remuneration (THB/month)	
• Chairman of the Board of Directors	57,200
• Other Directors	44,000
2. Meeting allowance for the Board of Directors paid for each meeting attendance (THB/meeting)	
• Chairman of the Board of Directors	28,600
• Non-Executive Directors	22,000
<b>Meeting allowance for the Audit Committee</b> paid for each meeting attendance (THB/meeting)	
• Chairman of the Audit Committee	34,320
• Member of the Audit Committee	26,400
<b>Meeting allowance for the Corporate Governance and Nomination Committee and the Compensation Committee</b> paid for each meeting attendance (THB/meeting)	
• Chairman of the Corporate Governance and Nomination Committee and Chairman of the Compensation Committee	28,600
• Member of the Corporate Governance and Nomination Committee and Member of the Compensation Committee	22,000

## Remuneration in Cash for the Year Ended 31 December 2022

Total cash remuneration of the Board of Directors in the forms of monthly compensation, meeting allowance, and annual remuneration amounted to THB 18,892,236.00, the details of which are as follows:

(Unit: THB)

Name/ Position	Monthly Allowance and Meeting Allowance for Each Meeting Attendance for Directors	Meeting Allowance for the Audit Committee	Meeting Allowance for the Compensation Committee	Meeting Allowance for the Corporate Governance and Nomination Committee	Annual Remuneration*	Total Remuneration
1. Assoc. Prof. Dr. Naris Chaiyasoot Chairman of the Board of Directors/ Chairman of the Corporate Governance and Nomination Committee/ Member of the Audit Committee/ Independent Director	1,006,200.00	206,400.00	-	109,200.00	2,650,485.00	3,972,285.00

Name/ Position	Monthly Allowance and Meeting Allowance for Each Meeting Attendance for Directors	Meeting Allowance for the Audit Committee	Meeting Allowance for the Compensation Committee	Meeting Allowance for the Corporate Governance and Nomination Committee	Annual Remuneration*	Total Remuneration
2. Mr. Yokporn Tantisawetrat Chairman of the Audit Committee/ Independent Director	774,000.00	268,320.00	-	-	2,038,835.00	3,081,155.00
3. Prof. Dr. Bundhit Eua-arporn Chairman of the Compensation Committee/ Member of the Audit Committee/ Independent Director	752,000.00	206,400.00	109,200.00	-	2,038,835.00	3,106,435.00
4. Prof. Dr. Patchanita Thamyongkit Member of the Corporate Governance and Nomination Committee/ Member of the Audit Committee/ Independent Director	774,000.00	206,400.00	-	84,000.00	2,038,835.00	3,103,235.00
5. Mr. Kijja Sripatthangkura** Member of the Compensation Committee/ Independent Director	594,000.00	-	44,000.00	-	1,529,126.00	2,167,126.00
6. Mr. Chanin Vongkusolkit Member of the Corporate Governance and Nomination Committee/ Non-Executive Director	752,000.00	-	-	84,000.00	-	836,000.00
7. Mr. Metee Auapinyakul Member of the Compensation Committee/ Non-Executive Director	774,000.00	-	84,000.00	-	-	858,000.00
8. Mrs. Somruedee Chaimongkol Member of the Compensation Committee/ Executive Director	516,000.00	-	-	-	-	516,000.00
9. Mr. Rawi Corsiri*** Member of the Corporate Governance and Nomination Committee/ Non-Executive Director	180,000.00	-	-	40,000.00	-	220,000.00
10. Mr. Voravudhi Linananda Executive Director	516,000.00	-	-	-	-	516,000.00
11. Dr. Kirana Limpaphayom Executive Director/ Chief Executive Officer	516,000.00	-	-	-	-	516,000.00
<b>Total</b>						<b>18,892,236.00</b>

Notes:

\* The annual remuneration for five directors in 2022 amounting THB 10,296,116.00 needs to be approved by the 2023 Annual General Meeting of Shareholders since the directors appointed by major shareholders and executive directors manifested an intent not to accept the annual remuneration in 2022.

\*\* Being appointed as a director to replace a retired director by the 2022 Annual General Meeting of Shareholders on 1 April 2022

\*\*\* Reaching retirement age on the date of the 2022 Annual General Meeting of Shareholders on 1 April 2022

In addition to the above remuneration, each director received other benefits, including an annual medical check-up fee of THB 50,000 and fees for attending seminars held by the Thai Institute of Directors Association (IOD) and other related institutions as regulated by the Company.

## Details of the Management

The management consists of:

1. Dr. Kirana Limpaphayom Chief Executive Officer
2. Mr. Praphan Likitwacharakorn\* Chief Operating Officer
3. Miss Benjamas Suratanakavikul Chief Financial Officer
4. Mr. Padungsak Thanakij\*\* Senior Vice President – Power Business, Vietnam
5. Mr. Pilun Pochanart Senior Vice President – Power Business, China
6. Dr. Paul Didsayabutra Senior Vice President – Power Business, USA

**Notes :** \* Person No. 2 was appointed Advisor of Banpu Power Public Company Limited, effective from 1 January 2023 onward, and Mr. Issara Niropas was appointed Senior Vice President – Power Operations, to be responsible for asset and engineering management, as well as sustainable development and risk management under the Corporate Governance Structure shown on page 158 , effective from 1 January 2023 onward.

\*\* Person No. 4 reached retirement age and retired as Senior Vice President – Power Business, Vietnam. Therefore, the Company appointed Mrs. Bubpachart Meecharoen to replace the position, effective from 1 January 2023 onward.

## Remuneration of the Management

Cash remuneration of the Company's executives in the form of salary and bonus is rewarded based on performance against the pre-determined key performance indicators and individual achievement.

Unit: THB	Number of Executives	2022	Number of Executives	2021
Total Salaries	6	47,049,420.00	5	41,290,128.00
Total Bonuses	6	37,379,599.90	5	15,217,800.00
<b>Total</b>		<b>84,429,019.90</b>		<b>56,507,928.00</b>

## Other Remunerations

Contribution to Provident Fund

Details of the Company's contribution to the provident fund for executives are as follows

Unit: THB	Number of Executives	2022	Number of Executives	2021
Contribution to Provident Fund	6	1,172,556.00	5	972,390.00

**Notes :** - In 2022, there were six executives, namely, 1. Dr. Kirana Limpaphayom 2. Mr. Praphan Likitwacharakorn 3. Ms. Benjamas Suratanakavikul 4. Mr. Padungsak Thanakit, 5. Mr. Pilun Pochanart, and 6. Dr. Paul Didsayabutra.  
- In 2021, there were five executives, namely, 1. Dr. Kirana Limpaphayom 2. Mr. Praphan Likitwacharakorn 3. Ms. Benjamas Suratanakavikul 4. Mr. Padungsak Thanakit, and 5. Mr. Pilun Pochanart.

## Shareholdings of the Board of Directors and Management

In compliance with Section 89/1/4 of the Securities and Exchange Act (No. 4) B.E. 2551 and Capital Market Supervisory Board Notice No. TorJor.2/2552 RE: Report on Interest of Directors, Executives, and Related Persons, the Board of Directors will report their shareholdings in Banpu Power Public Company Limited held by themselves, their spouses and minor children to the Board of Directors' meeting on a monthly basis. As of 31 December 2022, the shareholdings of the Board of Directors and the Management are as follows:

Name	Ordinary Share (Share)		
	31 Dec 2022	31 Dec 2021	+ / (-)
1) Assoc. Prof. Dr. Naris Chaiyasoot	-	-	-
Spouse/Minor Child	-	-	-
2) Mr. Yokporn Tantisawetrat	60,000	60,000	-
Spouse/Minor Child	-	-	-
3) Prof. Dr. Bundhit Eua-arporn	80,000	80,000	-
Spouse/Minor Child	-	-	-
4) Prof. Dr. Patchanita Thamyongkit	-	-	-
5) Mr. Kijja Sripatthangkura	-	N/A	-
Spouse/Minor Child	-	N/A	-
6) Mr. Chanin Vongkusolkit	35,711	35,711	-
Spouse/Minor Child	330,000	330,000	-
7) Mr. Metee Auapinyakul	431,500	431,500	-
Spouse/Minor Child	33,400	33,400	-
8) Mrs. Somruedee Chaimongkol	1,792,179	1,792,179	-
Spouse/Minor Child	-	-	-
9) Mr. Voravudhi Linananda	100,000	100,000	-
Spouse/Minor Child	1,100	1,100	-
10) Dr. Kirana Limpaphayom	120,000	120,000	-
Spouse/Minor Child	13,036	13,036	-
11) Ms. Benjamas Suratanakavikul	-	-	-
12) Mr. Padungsak Thanakij	23,000	23,000	-
Spouse/Minor Child	-	-	-
13) Mr. Pilun Pochanart	1,514	1,514	-
Spouse/Minor Child	1,552	1,552	-
14) Mr. Praphan Likitwacharakorn	-	-	-
Spouse/Minor Child	-	-	-
15) Dr. Paul Didsayabutra	-	N/A	-
Spouse/Minor Child	-	N/A	-

## Information about Employees

(1) Total employees of BPP and its subsidiaries as of 31 December 2022

Country	Number of Employees (Persons)
Thailand	30
China	967
United States of America	3
<b>Total</b>	<b>1,000</b>

(2) Remuneration of Employees

2.1 In 2022, the total cash remuneration of BPP's and its subsidiaries' employees in Thailand, China, and the United States of America, including salaries and bonuses, amounted to THB 1,202,873,139.61.

Unit: THB	2022	2021
Salaries	740,736,250.38	668,288,725.76
Bonuses	462,136,889.22	192,264,379.17
<b>Total</b>	<b>1,202,873,139.61</b>	<b>860,553,104.93</b>

2.2 Other Remunerations

In 2022, BPP's and its subsidiaries' contributions to the provident fund for their employees in Thailand, China, and the United States of America amounted to THB 28,797,511.38.

Unit: THB	2022	2021
Contribution to Provident Fund	28,797,511.38	26,486,030.42

(3) Significant labor disputes over the last three years

-None-

## Human Resource Management

Banpu Power Public Company Limited (BPP) has adopted a strong human resource management policy and corporate culture from its major shareholder – Banpu Public Company Limited, an internationally renowned company with four decades of professionalism. The Company regards its “employees” as the most valuable asset and the key to sustainable business growth. Hence, the Company has put employees at the center of all human resource management processes. BPP has managed its workforce in all countries, which is diverse in terms of race, religion, language, culture, age, expertise, perspective, and work experience, to create a happy work environment and the highest efficiency while generating sustainable value to stakeholders.

## Human Resource Management Approach

BPP is committed to aligning its human resource management with the Company’s vision while embracing an agile way of working in accordance with its long-term business strategy. In 2022, the Banpu group still maintained the “Banpu People Value Proposition” management approach as the core of human resource management to effectively fit into the new context and internalize the “One Banpu, One Goal” concept in employees in all business groups and countries. It has also adhered to the three fundamental management principles: equitability, performance-based, and competency-based.

The Company is also determined to develop the workforce’s potential to work in harmony, with high agility and adaptability. It also embraces different perspectives and is willing to innovate, which will drive the Company toward being a leading power-generating company for a sustainable world which is friendly to the community and the environment.

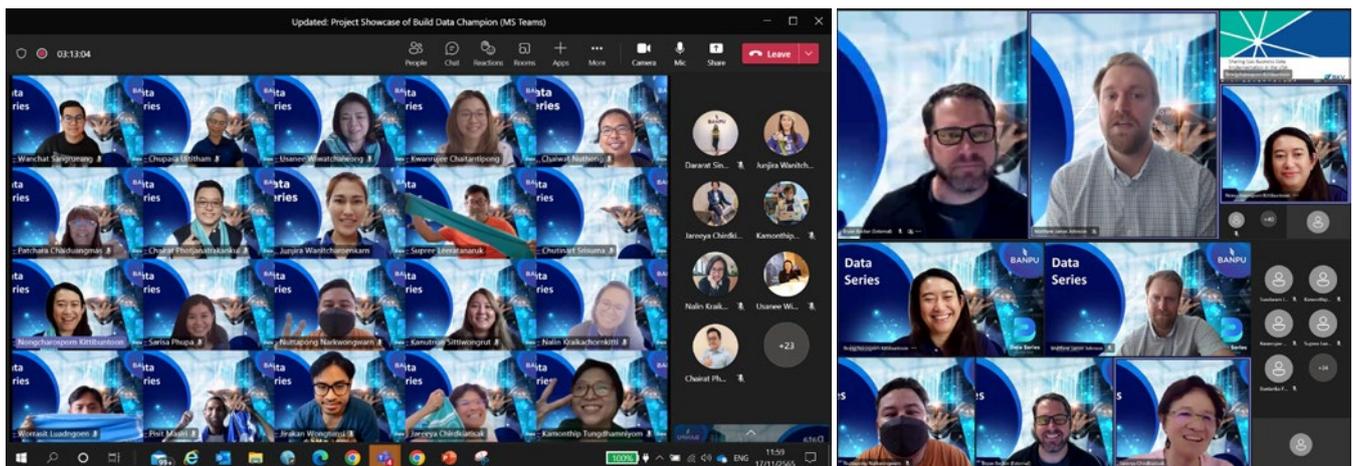
In 2022, BPP implemented human resource strategies as follows:

### 1. Continuous Improvement of Workforce Capability in All Countries

#### People Capability Development Policy



BPP attaches great importance to workforce development and sharing of knowledge, expertise, and innovations for sustainable power generation and distribution in alignment with Banpu group’s policy to facilitate rapid business growth and improved competitive advantages in the long run. In 2022, the Company adapted human resource development to fit the circumstances by using the insight from Banpu Academy Employee Diagnostic Survey to design training programs and embraced a new working trend of a flexible workplace by promoting self-learning via online platforms. It also elevated comprehensive workforce development in all host countries to facilitate Banpu group’s long-term growth. The Company focused on improving every critical process, namely building Banpu Global Talent Pool to prepare for global expansion, planning a company-wide workforce strategy, implementing suitable Learning Solution Design for each business and job position, developing Personalized



Data Series Training Program: one of the employee development programs that enables employees to apply analytical tools to benefit their work units and the Company

Learning Programs for key positions, and creating accurate Learning and Development Measurement on shaping new behaviors and empirical measurement of business impacts.

In addition, the Company continued to design and develop training programs for executives and employees at all levels to encourage lifelong learning through Learning Application Project (LAP). The project enhances the application of knowledge gained to actual work settings and broadens such knowledge through the design thinking process, where “people” are regarded as the crux of development. Participants practiced creative thinking and innovative thinking to reskill themselves, for instance, by setting up Energy Trading Learning Community with a team from Banpu Academy to encourage knowledge and experience sharing among employees. They also upskilled themselves on negotiation skills and effective project and vendor management to increase agility and ability to thrive sustainably in alignment with the Company’s business direction. The Company has also promoted employees to become digital-savvy by organizing the Data-Driven Citizen Program, enabling employees to utilize data insight to drive the organization in the midst of a technologized environment to create benefits for the Company and to add value for customers. Employees are provided a creative space to experiment with their project ideas with help from a learning community that provides support and share experience, as well as unlimitedly transfer knowledge and data analysis techniques. As employees are the center of learning, they can choose their own learning styles to effectively gain diverse skills.



Data Series Community: a community of skilled and experienced practitioners in data analytics that support each other in learning through sharing of knowledge and skills



The Great Coach Report-Out: reporting of participants’ achievement of individual development programs and sharing of impressions and benefits obtained from the program



### Continuous Succession Planning and High Potential Management

One of the Company’s workforce planning and management strategies to achieve fast and agile working is Succession Planning and High Potential Management to mobilize sustainable business operations in response to BPP’s rapid business expansion. In 2022, the Company and the Succession Plan Committee selected and constantly monitored the development of potential successors for senior executive roles. Each successor is expected to have an Individual Development Program (IDP). The Company also recruited new employees and executives to enhance the succession plan for all countries, which is subject to monitoring and assessment to ensure that the succession plan is aligned with the corporate strategy.

To facilitate future growth and global business expansion, in 2022, BPP continued the Leadership Pipeline Development project as Banpu Public Company Limited, its parent company. The program aims to improve the readiness of mid-level and higher executives and equip them with capabilities to manage people and operations so that they can fill future leadership roles. A wide range of programs initiated are as follows:

- Banpu International Business Leader Program (IBLP), a first-generation leadership development program in all countries, aims to develop and prepare leaders with a focus on action learning. In addition, all program participants are assigned mentors from senior management within the organization to encourage their readiness to advance in key positions.

- Banpu Business Leaders Development Program aims to improve the readiness of executives in each country for people management, operations management, and their future leadership roles. Participants are required to go through a systematic selection procedure, where the leadership capabilities and leadership characteristics are assessed in order to identify strengths and areas for development. A personalized learning program is also conducted to prepare each of them for the future leadership role.

In addition, the Company empowers high-potential candidates with business knowledge, analytical thinking skills, and management skills through a wide range of development activities, such as cross-functional and cross-country working as well as job rotation, and monitors their progress against the personalized learning programs on a quarterly basis.



**Strong Corporate Culture, Comprising “Passionate, Innovative, and Committed,” Which Unites All Banpu People toward “One Banpu, One Goal”**

The core principle of BPP’s human resource management is to continually build a strong corporate culture to leverage Banpu group’s power of diversity in creating innovations and sustainable business growth. “Banpu Heart” is the corporate culture all Banpu group’s and BPP’s executives and employees have always upheld in all areas of operation. “Banpu Heart” consists of three shared values: Passionate, Innovative, and Committed.



Recruitment	Orientation	Capacity Building	Performance Assessment
Design “Culture-Fit Assessment” to screen appropriate candidates	Organize new employee orientation on “Banpu Heart” corporate culture via mobile apps	Strengthen corporate culture through various activities adaptable to changing situations	Integrate “Banpu Heart” as part of performance Assessment

BPP has put “Banpu Heart” at the heart of all operations and all processes involved by employees in each host country, such as recruitment of new employees, orientation, performance evaluation, job promotion, an annual survey on corporate culture, and employee engagement. Also, the Company has organized various activities to encourage employees to understand and apply the “10 Key Behaviors” in everyday work and use these behaviors to drive Banpu group’s and BPP’s business goals. In 2022, the Company redesigned its activities to accommodate its portfolio diversification by reinforcing a sense of ownership and facilitating employees of different generations from different countries to create diverse activities. The goal is to encourage employees to design and convey corporate culture in a way that suits their context. For example, gamification, including board games and online games, is used to engage Banpu people in all countries in aligning the “10 Key Behaviors of Banpu Heart” with the Banpu Group’s business goals through the exchange of perspectives to ensure a common understanding of the corporate culture. Furthermore, the design thinking process was adopted to organize creative activities in which employees could practice and link the corporate values with their personal values in order to foster understanding and agile working. The activities held are as follows:

- Reinforcement of Banpu Change Leaders (BCLs), a group of employees who volunteer to drive corporate culture by elevating the BCLs network to become a complete Global Ecosystem
- Banpu Heart activities in each country, including the BCLs Forum in Indonesia, Banpu Heart and the Local Community in Mongolia, and Banpu Heart – How to be innovative in Vietnam, Japan, and Australia
- Banpu People Garden campaign demonstrates that BPP regards employees as good seeds from diverse backgrounds, and each of them can grow in their own path. The campaign provides “different kinds of plants” for employees to grow and take care of.
- “To achieve the best, you must learn from the taste of failure” activity shows that BPP encourages its employees to overcome their fear of failure and dare to take risk and make mistakes through the learning process, and grow from failure and strive for success.
- The presentations by ten Banpu Heart Ambassadors at the “Banpu Transformation: The future we make” event affirm that the “Banpu Heart” corporate culture is the key driver of Banpu transformation, which begins with people.
- The Beat of Winfinity sports activities connect employees in Thailand and Thai employees who are stationed abroad, allowing them to participate in online and on-site activities in support of the Company’s core values.
- Boost Me Up Series aims to sustainably improve employees’ well-being in all aspects by promoting mindfulness, health, and financial literacy and boosting employees with energy to contribute to society.



Banpu Heart



Banpu People Garden



Boost Me Up

BPP has been committed to developing a corporate culture and is willing to share ideas with other organizations to expand the learning horizons for employees about corporate values. To date, many public and private organizations in Thailand and abroad have joined the learning process to drive a sustainable corporate culture.

In 2022, BPP conducted a survey on the corporate culture “Banpu Heart” to measure the levels of employee engagement and alignment of employee behaviors with the corporate culture in order to accurately reflect “Banpu Heart,” as employees are considered one of the key internal customers or stakeholders of the Company.

The 2022 survey results show that the average alignment level of employee behavior with Banpu Heart was 84%, increasing 5% from the previous year. Meanwhile, the average level of employee engagement was 74%, increasing 5% from the previous year. These figures reflect the Company’s determination to cultivate a strong corporate culture in employee behaviors and maintain the satisfactory employee engagement level.

### Alignment Level of Employee Behaviors with BPP’s Corporate Culture in 2022

## Banpu Heart



### BPP’s Employee Engagement Levels in 2022



## 2. Agility-Oriented Organizational Structure

BPP regularly reviews and reorganizes its organizational structure to strengthen its business activities in collaboration with Banpu group. In 2022, the Company appointed a team of Transformation Working Group to help accelerate the organizational transformation process in a concrete way and drive changes in business transformation, corporate centre transformation, governance transformation, and people transformation to achieve structural change and holistic implementation across all sectors. The goal is to support the expansion of the business ecosystem for strong and sustainable growth moving forward to becoming a Global Corporate Centre under the supervision of BPP’s CEO following Banpu group’s strategy of organizational transformation approach. The Transformation Working Group is responsible for three areas:

- Governance & Culture
- Flagship Businesses
- Corporate Centre

Organizational transformation to align with business strategy allows BPP to become more agile in the competitive environment of each country. It helps strengthen the management and synergies between the power business in different countries and accommodate Banpu group's businesses in the long run

## Other Significant Information

### The Appointed Person to Directly Supervise Accounting

Ms. Benjamas Suratanakavikul, the Chief Financial Officer, has been appointed as the person directly supervising the accounting of the Company. For further biographical details and qualifications of the Chief Financial Officer, please visit the Company's website **by scanning the QR Code or clicking on the icon Click here.**



### Company Secretary

The Board of Directors appointed Ms. Thassanee Passarapark as Company Secretary, effective from 1 January 2019, whose duties and responsibilities are as stipulated in the Securities and Exchange Act B.E. 2535 Amendment No.5 B.E. 2559. The Company Secretary is responsible for organizing the Board of Directors' meetings and shareholders' meeting, ensuring implementation of the meetings' resolutions, and advising the Board on rules and regulations to which it must comply. Additionally, the Company Secretary prepares and keeps the register of directors, Board meeting invitation letters, Board meeting minutes and BPP's annual reports, invitation letters to attend the shareholders' meeting and records of its minutes, the report on conflict of interest by directors or executive officers and performs other duties as prescribed by the Office of the Securities and Exchange Commission, the Capital Market Supervisory Board, and the Stock Exchange of Thailand. For further biographical details and qualifications of the Company Secretary, please visit the Company's website **by scanning the QR Code or clicking on the icon Click here.**



### Head of the Internal Audit

The Audit Committee appointed Ms. Nachanok Triratwaroon as Head of Internal Audit and Secretary of the Audit Committee, effective from 4 July 2022, to supervise the Company's internal audit unit. For further details and qualifications of the Head of Internal Audit, please visit the Company's website **by scanning the QR Code or clicking on the icon Click here.**



## Investor Relations

The Investor Relations Department discloses information through the Company's website: <https://www.banpupower.com/investor-relations/> to ensure inclusive and equitable access to information for all stakeholders. Interested parties may contact or make inquiries to the Company's Investor Relations by phone: +66 2077 6000, or by Email: [investor\\_relations@banpupower.co.th](mailto:investor_relations@banpupower.co.th)

## Auditors

The Audit Committee considered the selection of auditors from PricewaterhouseCoopers ABAS Limited (PwC) based on BPP's evaluation criteria, including their independence, quality and standard of operation, and auditors' qualifications in line with the Stock Exchange of Thailand's regulations. The Audit Committee proposed the following individuals as auditors for the annual accounting period for the year ended 31 December 2022:

1. Ms. Rodjanart Banyatananusard, CPA, License No. 8435;  
The auditor who signs the Company's financial statements and/or
2. Ms. Amornrat Permpoonwattanasuk, CPA, License No. 4599, and/or
3. Mr. Pongthavee Ratanakoses, CPA, License No. 7795, and/or
4. Mr. Boonrueng Lerdwisewit, CPA License No. 6552.

## Use of Auditors Unconnected with the Company's Auditors

In accordance with Clause 18 (6)(b) of the Notification of Capital Market Supervisory Board TorChor.28/2551, Application for and Approval of Offer for Sale of Newly Issued Shares, the financial budget of subsidiaries and affiliate companies must be audited and reviewed by (1) BPP's auditors except that such auditors cannot perform auditing in accordance with the laws and regulations in the countries where such company is located, or (2) the local auditors from the audit office that belongs to the same network as the audit office of BPP's auditors. Both audit offices must be full members of the particular network.

In this regard, the Company place importance to specify the auditors from the same audit firm on reviewing and auditing the Company and its subsidiaries' financial statements. In any necessary case of requesting the auditor from the different audit firm, the Board will pay attention and monitor to prepare the financial statements on a timely basis in accordance with the relevant laws and regulations.

## Audit Fees

### 1. Audit Fees

In 2022, BPP paid audit fees in the total amount of THB 1,835,000 to PricewaterhouseCoopers ABAS Limited (PwC) for auditing the Company's and its subsidiaries' accounts and consolidated financial statements.

In accordance with the standards of information disclosure about persons and enterprises connected with the auditors and the auditing office, it is clarified that those persons and enterprises have no connection with the Company and its subsidiaries.

### 2. Non-Audit Fees

In 2022, the Company had no non-audit fees paid to PricewaterhouseCoopers ABAS Limited (PwC).

This excluded out-of-pocket expenses, such as domestic travel expenses, telephone bills, postage and stamp charges, and copy service fees, which shall not exceed 5% of the total audit fees.

# Corporate Governance Performance

## Summary of the Board Performance in 2022

In 2022, the Board of Directors played a pivotal role in establishing policies and strategies to enhance competitiveness, cultivate the corporate culture and values, and increase the effectiveness and sufficiency of the internal control and risk management system. The Board also provided beneficial suggestions for business development as follows:

1. The Board reviewed the accuracy of the information for recertification of membership of the Thai Private Sector Collective Action against Corruption (CAC) and conducted a corruption risk assessment at every business unit.
2. The Board selected and nominated Mr. Kijja Sripatthangkura as an independent director to replace a retired director. Mr. Kijja has knowledge, competencies, and qualifications corresponding with the Company's business direction.
3. The Board considered four policies and practices relevant to the Environmental, Social, and Governance (ESG), namely:
  - (1) Environment Policy
  - (2) Water Management Policy
  - (3) Biodiversity Policy
  - (4) Occupational Health and Safety Policy

The Board also acknowledged the assessment, monitoring, and review of operating and ESG risks as well as climate impacts on a regular basis.

4. The Board set the ESG performance as a key performance indicator (KPI) of senior executives.
5. The Board reviewed the execution of the Securities and Exchange Commission (SEC)'s Corporate Governance Code for Listed Companies (CG Code) 2017 to create sustainable value for the Company and considered the performance to ensure alignment with the Company's business operations.

## Nomination, Development, and Performance Evaluation of the Board of Directors

Nomination, development, and evaluation of the Board of Directors are of utmost importance because the Board has a critical role in establishing strategies and business direction to achieve sustainable growth. The Company has disclosed information and details about the criteria and process of “Nomination and Appointment of Directors, Sub-Committee Members, Chief Executive Officers, and Senior Executives” on page 139, “Performance Evaluation of the Board of Directors” on page 141, and “Capacity Development of Directors and Senior Executives” on page 143.

## Meeting Attendance

The Board of Directors convenes at least once a month, with meeting dates scheduled in advance for the whole year. Any additional meetings may be held if necessary. At the meeting, there are clear meeting agenda items. A complete set of supporting documents is sent to the Board of Directors at least seven days in advance of the meeting to allow the Board an opportunity to properly review the agenda before the meeting. During the meeting, all directors may openly voice their opinions. The Chairman of the Board must summarize views and board resolutions. If any director has a conflict of interest in a matter being considered by the Board, the director is not eligible to cast a vote. In addition, the Company allows the meetings to be held by electronic means in compliance with the standards for maintaining e-meeting security prescribed by regulatory agencies.

Minutes of all the meetings are recorded in written form and after approval are signed by the Chairman of the Board and the Company Secretary. Records of the meetings are kept as hard copies and scanned

electronic files to facilitate quick reference for directors or related persons. These also include other documents attached to a particular agenda. All are kept secure for reference for at least five years with a safeguard system to prevent any alteration and other risks of catastrophe. Meeting attendance of the Board of Directors can be found on page 170.

## Remuneration of the Board of Directors

The Board of Directors delegated the Compensation Committee to review the remuneration structure and system and the appropriate remuneration for the Company’s directors and senior management. It is prescribed as a policy that remuneration must be appropriate to roles, duties, and responsibilities and competitive in the job market and business. Executive remuneration is determined based on individual performance to be an incentive for effective performance.

Remuneration of the Board of Directors consists of monthly compensation and meeting allowance paid for each attendance. Annual remuneration will be linked to the dividend paid out to shareholders, and the payment of the Board of Directors’ remuneration must be approved by the shareholders’ meeting. The remuneration of the Board of Directors can be found on page 171.

## Corporate Governance of Subsidiaries and Affiliated Companies

The Company has established a policy for governance and management of subsidiaries and affiliates (“Corporate Governance Policy for Subsidiaries”) and Delegation of Authorities (DOA) to oversee the management and protect the benefits of the Company’s investment.

To comply with laws and regulations on securities and securities exchange, and notifications, rules, orders, and regulations of the Office of the Securities and Exchange Commission (SEC), the Capital Market Supervisory Board, and the Stock Exchange of Thailand (SET), the Board of Directors of Banpu Power Public Company Limited (BPP) considered and approved the Corporate Governance Policy for the Company, its subsidiaries, and affiliated companies. The policy requires BPP, subsidiaries, and its affiliated companies to comply with rules stipulated by the Capital Market Supervisory Board, the SEC, related rules, notifications, orders, and the SET's regulations. These include the Notification of the Capital Market Supervisory Board No. TorChor. 28/2551 Re: Application for Approval and Granting of Approval for Offering of Newly Issued Shares (Codified), the Notification of the Capital Market Supervisory Board No. TorChor. 21/2551 Re: Rules on Connected Transactions and the Securities and Exchange Commission's notification Re: Disclosure of Information and Other Acts of Listed Companies Concerning the Connected Transactions B.E. 2546 and the related notification (Codified) ("Re: Rules on Connected Transactions") and the Notification of the Capital Market Supervisory Board No. TorChor. 20/2551 Re: Rules on Entering into Material Transactions Deemed as Acquisition or Disposal of Assets, and the SEC's Notification Re: Disclosure of Information and Other Acts of Listed Companies Concerning the Acquisition and Disposition of Assets B.E. 2547 and the related notification (Codified) ("Re: Rules on Acquisition or Disposal of Assets").

"Subsidiary" and "affiliated company" herein refer to any subsidiary or affiliated company that engages in business as stipulated in Article 18/1, with the total value in compliance with Article 18(2) of the Notification of the Capital Market Supervisory Board No. TorChor. 28/2551 Re: Application for Approval

and Granting of Approval for Offering of Newly Issued Shares (Codified) and the Notification of the Securities and Exchange Commission No. KorChor. 17/2551 Re: Determination of Definitions in Notifications relating to Issuance and Offer for Sale of Securities (Codified).

## Internal Control Policy and Central Management Policy

The Board of Directors and the Management allow the Global Internal Audit and Compliance Department to act independently and report internal audit findings directly to the Audit Committee. The Department is also required to report on the progress of internal audits to the Board of Directors on a quarterly basis. Management within each subsidiary is determined based on the Company's investment equity. The Board of Directors has a duty to appoint an executive to serve as a director in each subsidiary to ensure alignment of the business direction with the Company's policies and strategies. Director selection criteria are knowledge, capabilities relevant to the subsidiary's business, work location (in case of an overseas subsidiary), health conditions, and readiness of the director. The list of directors in each subsidiary is subject to review at least once a year.

## Budget Policy

Investment budget preparation and implementation have to comply with the budget regulations of each subsidiary and be consistent with BPP's budget rules. Budget preparation and review must be completed within the deadline, and the corresponding information must be submitted according to the Company's standard operation. The project investments, which cost more than THB 1,500 million and exceed the approved budget by 15%, shall be approved by the Board of Directors.

## Corporate Governance and Compliance Monitoring

### Reporting of Interests of Directors and Executives

In compliance with Section 89/1/4 of the Securities and Exchange Act (No. 4) B.E. 2551 and Capital Market Supervisory Board Notice No. TorJor.2/2552 RE: Report on the Interest of Directors, Executives, and Related Persons, the Board of Directors will report the amount to shares of Banpu Power Public Company Limited held by themselves, their spouses and minor children to the Board of Directors' meeting on a monthly basis. As of 31 December 2022, the shareholdings of the Board of Directors and the Management are illustrated in the table on page 174.

### Anti-corruption

BPP adheres to the principles of good corporate governance in its management, focusing on transparency, integrity, and ethics. It also underlines effective operations as well as responsibilities to society, the environment, and all stakeholders. There is a specific department in the organization which has a clear mission to supervise and monitor business operations to ensure compliance with laws and corporate governance principles.

The Company formulated the Anti-Corruption Policy in 2015 to combat corruption. The policy is under the supervision of the Corporate Governance and Nomination Committee and the Corporate Governance Division. The Company communicates the policy to employees through orientations of new employees and other activities. Complaints submitted via all complaint channels are gathered and reported to the Corporate Governance and Nomination Committee as well as related departments for further action. The

Company also established the Whistleblower Policy to protect whistleblowers and encourages whistleblowing against wrongdoings toward the Company and other stakeholders. Complaint issues are brought to the Corporate Fraud Management Committee and subsequently submitted to senior management for consideration.

In 2018, the Company formulated practices based on the Anti-Corruption Policy regarding accepting and offering of gifts, hospitality, or other similar forms of reward. The Practices for the Board of Directors of Banpu Power Public Company Limited B.E. 2558 was amended by adding anti-corruption measures to the duties and responsibilities of the Board of Directors.

The Company expressed its intention to combat corruption as part of Thai Private Sector Collective Action Against Corruption (CAC) in 2018 and applied for the certification to be a CAC member. It was certified as a CAC member in 2019 for a period of three years and was recertified in Q4/2022.

In 2019, Banpu group developed a Supplier Code of Conduct for all companies to implement and comply with. It is regarded as a fundamental practice for the Company's suppliers in operating business with adherence to environmental, social, and governance, as well as respect for human rights, pursuant to the Sustainable Supply Chain Policy.

The Company set up the Corporate Compliance Department to manage risks from operations that may infringe rules and regulations and to oversee legal compliance of all business units' operations based on their activities, which are made into regulatory compliance checklists. The Corporate Compliance Department will review the checklists and prepare a compliant report semi-annually. All business units must keep up with legal and regulatory changes.

The Risk Management Department is responsible for business risk assessment, covering the strategic plan and annual action plans, and preparation of preventive measures and solutions. The Department also reviews the risks and reports the results to the Board of Directors on a quarterly basis.

In 2022, the Company organized training and communicated to employees about the Anti-Corruption Policy and practices as well as other related policies, such as the Corporate Governance Policy and the Code of Conduct, Anti-Corruption Policy, the Standard Practice Manual for Accepting and Offering of Gifts, Hospitality, or Other Similar Forms of Reward. Employees can access the policies via internal communication channels and the Company's website. The Company also sent out an open letter requesting our stakeholders to refrain from offering gifts to the Board of Directors, executive officers, and employees. In addition, the Company improved its Anti-Corruption Policy to align with the CAC's approach, which has been revised. The Company also conducted a corruption risk assessment and prepared mitigative measures for 2022 to cover risks in all businesses in every country where it has invested, including subsidiaries and joint ventures, and presented them to the Risk Management Committee.

### Internal Information Usage Control

In 2022, there were no reports of insider trading violations or non-compliance with the Stock Exchange of Thailand's and the Office of the Securities and Exchange Commission's rules and regulations on the securities exchange. Moreover, the Board of Directors and executives had disclosed their holding of the Company's securities on the date they were appointed and reported changes in securities, including those of their spouses and minor children as well as connected persons, to the Board of Directors for acknowledgment.

### Whistleblowing and Corporate Governance Complaint Handling

The Company has created a communication channel and procedures for complaint handling, covering all groups of stakeholders, via the Company's website under the Corporate Governance section. Complaints can be sent to the Chairman of the Corporate Governance and Nomination Committee at [GNCchairman@banpupower.co.th](mailto:GNCchairman@banpupower.co.th) and/or the Secretary of the Corporate Governance and Nomination Committee at [bpp\\_comsec@banpupower.co.th](mailto:bpp_comsec@banpupower.co.th). The Committee Secretary, who is a responsible person for complaint handling, will quarterly report the complaints to the Corporate Governance and Nomination Committee and annually submit a summary report to the Board of Directors. In 2022, there were no significant complaints about Corporate Governance from stakeholders. Roles of Stakeholders can be found on page 147.

## Report of the Audit Committee 2022

The Audit Committee of Banpu Power Public Company Limited consists of four independent directors who are competent and have relevant experience in finance and accounting, economics, risk management, engineering, chemical science, and energy business as follows:

- |    |                                   |                                 |
|----|-----------------------------------|---------------------------------|
| 1. | Mr. Yokporn Tantisawetrat         | Chairman of the Audit Committee |
| 2. | Assoc. Prof. Dr. Naris Chaiyasoot | Member of the Audit Committee   |
| 3. | Prof. Dr. Bundhit Eua-arporn      | Member of the Audit Committee   |
| 4. | Prof. Dr. Patchanita Thamyongkit  | Member of the Audit Committee   |

Ms. Nachanok Trairatwaroon serves as the Head of Internal Audit and the Secretary to the Audit Committee.

The Audit Committee is fully aware of its duties and responsibilities stipulated in the Audit Committee Charter as well as other duties entrusted by the Board of Directors with independence and in compliance with the Best Practice Guidelines for the Audit Committee and the regulations of the Stock Exchange of Thailand. The Audit Committee prioritizes adherence to good corporate governance principles and the implementation of effective and efficient systems of risk management, internal control, and internal audit to generate sustainable value for the organization based on the Three Lines Model.<sup>1</sup>

In 2022, the Audit Committee convened eight meetings, at which a quorum was established, with the participation of the management, Internal Audit, and external auditors on the related agenda. The Audit Committee also held a private meeting with the external auditors without the presence of the management. The results of the Audit Committee meetings were quarterly reported to the Board of Directors. The Audit Committee's main activities can be summarized as follows:

1. **Review of Financial Statements:** The Audit Committee reviewed BPP's quarterly financial statements and the 2022 annual financial statements on major issues, including related party transactions, transactions with a possible conflict of interest, and the appropriateness of accounting policies. The Committee also reviewed material accounts, significant changes in accounting and adjustment, accounting estimates, the disclosure of notes to the financial statements, and the external auditor's observations from the review and audit of the financial statements. The Audit Committee received sufficient explications from external auditors, management, and related parties and ensured that the financial statements were prepared in compliance with laws and financial reporting standards. The disclosure of notes to the financial statements was accurate, sufficient, and timely for the benefit of investors and users of the financial statements.
2. **Review of Internal Control and Internal Audit:** The Audit Committee reviewed the internal control system together with the Internal Audit Unit in the areas of operations, resource utilization, asset care, prevention or reduction of mistakes, damages, and corruption, reliability of financial reports, compliance with laws, regulations, and rules, improvement of the corporate governance process, risk management, internal control, and oversight of compliance with relevant regulations. The Committee prioritized employee awareness-

<sup>1</sup> This principle was renamed from Three Lines of Defense to Three Lines Model in July 2020.  
Source: <https://global.theiia.org/about/about-internal-auditing/Pages/Three-Lines-Model.aspx#positionpaper>

raising to promote adherence to prudent and cautious internal control practices. The Committee also reviewed the overall internal control system by considering the results of self-evaluation based on the Self-Evaluation Form developed by the Office of the Securities and Exchange Commission (SEC). Overall, the Audit Committee concluded that BPP had an adequate, appropriate, and effective internal control system that encompasses both the corporate and activity levels.

The Audit Committee oversaw the Internal Audit Unit's activities, including approving the annual audit plan and budget and evaluating the Head of Internal Audit's performance. Moreover, the Committee advised and supervised internal audits and the performance of the internal audit service provider (Banpu Public Company Limited, according to the Management Service Agreement) in accordance with the audit plan, focusing on preventive audit measures and monitoring prompt corrective action for significant issues. Internal audit and follow-up results were regularly reported to the management. It is also reported to the Audit Committee on a quarterly basis. During the COVID-19 pandemic, the Company implemented a Remote Audit protocol with the assistance of data analytics to enable more efficient internal auditing of subsidiaries and affiliated companies in Thailand and abroad.

3. **Review of Legal and Regulatory Compliance:** The Audit Committee reviewed the legal and regulatory compliance of BPP's business operations and policies. The Corporate Compliance Department is responsible for auditing and monitoring legal and regulatory compliance and regularly reports compliance issues and monitoring results to the management and the Audit Committee. In addition, the Company reported risk management and internal audit results covering key compliance risks. The Company utilized Compliance Risk Management (C-RiM) application to oversee the compliance risk of the Company and its subsidiaries in each country via an online system. Additionally, the Laws In-Hand application was used to keep track of recent laws and regulatory updates in all the countries where BPP operates.
4. **Review of Related Party Transactions:** The Audit Committee reviewed related party transactions or transactions that may cause conflicts of interest between the Company, its subsidiaries, and other related parties. The Committee used the related party transactions policy as a guideline for the review and treated these transactions as transactions on an arm's length basis. This is to ensure that the transactions were carried out under fair conditions for the sake of the Company's and stakeholders' benefits and did not involve any transfer of interest. The transactions must also be fair and reasonable in compliance with the laws and regulations of the Stock Exchange of Thailand (SET) and the Office of the Securities and Exchange Commission (SEC).
5. **Governance of Risk Management System:** The Audit Committee reviewed the efficiency and effectiveness of the risk management process and monitored key risks that could potentially threaten the Company's business operations. The Committee quarterly monitored the progress of the management of key risks and changing situations affecting the operations. The Committee also established mitigation measures, emphasizing systematic and sustainable management which timely responds to rapidly changing business environments and trends. Policy on risk management was explicitly stipulated in writing in the Risk Management Policy and the Charter of Risk Management Committee, which was approved by the Board of Directors. The Committee convened regular meetings to assess risks. The Risk Management Policy was communicated to all units of BPP, including its subsidiaries and joint ventures, to enable efficient risk management and mitigation.

6. **The Appointment of the External Auditor and Determination of the Audit Fee for 2023:** The Audit Committee considered the selection of external auditors based on BPP's evaluation criteria which included independence, timeliness, quality, professional standards, and reasonable audit fees. The qualifications of the selected external auditors met the requirements of the Stock Exchange of Thailand. For 2023, the Audit Committee proposed the appointment of auditors to the Board of Directors for consideration and submission to the 2023 Annual General Meeting of Shareholders for approval. The following individuals were nominated:

1. Ms. Amornrat Permpoonwattanasuk, CPA, License No. 4599; and/or
2. Ms. Rodjanart Banyatananusard, CPA, License No. 8435; and/or
3. Mr. Pongthavee Ratanakoses, CPA, License No. 7795; and/or
4. Mr. Boonrueng Lerdwiseswit, CPA License No. 6552.

These CPAs of PricewaterhouseCoopers ABAS Limited (PwC) were appointed as the external auditors of BPP for 2023. The total audit fee for BPP was proposed at THB 2,469,000. One of the individuals on this list shall conduct an audit and express an opinion on BPP's financial statements on behalf of PricewaterhouseCoopers ABAS Limited (PwC). In case these appointed auditors are unable to perform their duties, PricewaterhouseCoopers ABAS Limited (PwC) shall appoint other of its CPAs as the external auditors of BPP.

In summary, in 2022, the Audit Committee independently performed its duties and responsibilities set forth in the Audit Committee Charter, which was approved by the Board of Directors based on their knowledge, capabilities, and prudent consideration for the equitable benefit of the stakeholders. The Audit Committee is certain that BPP's financial statements were accurate and prepared according to the generally accepted accounting principles and standards and that there was adequate disclosure of information. BPP's business conduct was consistent with a sound corporate governance policy, and the Company had an appropriate risk management system as well as effective and adequate internal control and internal audit systems. Furthermore, BPP complied with all relevant laws and regulations governing its business operations.

On behalf of the Audit Committee



**Mr. Yokporn Tantisawetrat**

Chairman of the Audit Committee  
Banpu Power Public Company Limited

## Report of the Compensation Committee 2022

The Compensation Committee of Banpu Power Public Company Limited consists of four members: two are independent directors, one is a non-executive director, and the another is an executive director. All members possess knowledge, competence, skills, and experience both in Thailand and internationally, thus being trusted and appointed by the Board of Directors.

The Compensation Committee consists of Prof. Dr. Bundhit Eua-arporn, Chairman of the Compensation Committee, and three other members, Mr. Metee Auapinyakul, Mrs. Somruedee Chaimongkol, and Mr. Kijja Sripatthangkura.

According to the Compensation Committee Charter B.E. 2558 of Banpu Power Public Company Limited, the Compensation Committee has major duties as follows:

- 1) To recommend compensation guidelines, payment methods, and other benefits to the Board of Directors and Sub-Committees appointed by the Board of Directors
- 2) To consider and recommend the amounts of compensation and other benefits by taking into consideration the duties and responsibilities of the Chief Executive Officer and by reviewing evaluation criteria to determine the right total remuneration package
- 3) To review the remuneration structure, compensation rules, and regulations according to 1) and 2) to suit the person's duties and responsibilities, the Company's operating results, and market environments
- 4) To review the overall salary increase budget, annual bonus payments, and provisions of other fringe benefits for employees
- 5) To review and propose recommendations to amend the scope of work, duties, and responsibilities of the Compensation Committee to respond to changing circumstances
- 6) To compile a performance report to be submitted to the Board of Directors at least once a year.

In 2022, the Compensation Committee convened four meetings covering all agenda items presented by the Secretary of the Compensation Committee. After consideration, the Committee provided suggestions to the Board of Directors for further consideration and approval. Items from the past year's meeting can be summarized as follows:

- **Compensation and Other Benefits**

The Compensation Committee considered and proposed compensation for the Board of Directors, Sub-Committee Members, Chief Executive Officer, and all employees of every country based on their respective duties, responsibilities, performances in the past year, the Company's performance, key economic information, and compensation surveys of leading companies in Thailand and abroad. The Secretary of the Compensation Committee presented relevant information to support the deliberations of the Compensation Committee.

Considerations and recommendations on compensation were made thoroughly, carefully, and transparently. The compensation can provide motivation and incentive for individuals to perform duties to the best of their abilities to create benefits and added value for the Company and shareholders for years to come.

In 2022, the Compensation Committee considered various factors, namely the results of the survey on the compensation of the directors of Thai listed companies on the Stock Exchange of Thailand, the current economic situation, the Company's performance in the past year, the increased duties and responsibilities of the Board of

Directors and Sub-Committees due to business expansion, and the commitment and ability to effectively manage the Company's affairs throughout the year. Therefore, the Compensation Committee proposed the increase of the compensation of the Board of Directors and the three Sub-Committees, namely the Audit Committee, the Compensation Committee, and the Corporate Governance and Nomination Committee. The compensation was increased from 2021 at a rate of 10% in both "retainer fee and attendance fees," effective from the date following the 2022 AGM onward.

- **Business Directions of BPP**

The Compensation Committee participated in determining the Company's business operations to achieve fruitful results. In 2022, the Committee considered and provided suggestions on the Chief Executive Officer's key performance indicators, which appropriately reflected the Company's short- and long-term operational directions in line with ESG principles and could be put into practice for the benefit of internal and external stakeholders. Apart from that, the Committee considered the Chief Executive Officer's performance in the first half and second half of 2022 and provided recommendations on the matter to the Board of Directors.

- **Improvement of Work Process**

In the past year, the Compensation Committee adjusted the deliberation period of annual salary increases and bonus payments for employees to be completed within 2022. The deliberation period of the Chief Executive Officer's compensation was similarly adjusted. The adjustments positively impacted employees' morale and motivated them to their full potential in the upcoming year.

- **Collaborative Work with Employees and the Management**

In performing its duties, the Compensation Committee regularly invited relevant management to attend the meeting of the Committee on related agenda items to provide information and detailed explanations to support its decision-making. This practice improved the accuracy, precision, and timeliness of decision-making while fostering a positive relationship between the Compensation Committee and the Company's management, promoting a streamlined workflow for both parties.

Apart from that, the Compensation Committee evaluated its own performance in the past year regarding qualifications, duties and responsibilities and reported the results, along with evaluations of other Sub-Committees, to the Board of Directors biannually.

In conclusion, the Compensation Committee, in 2022, fully performed its duties and responsibilities set forth in the Compensation Committee Charter B.E. 2558 of Banpu Power Public Company Limited and as entrusted by the Board of Directors. The Committee regularly contributed positive opinions and suggestions to the management, the Board of Directors, and the stakeholders.

On behalf of the Compensation Committee



**Prof. Dr. Bundhit Eua-arporn**  
Chairman of the Compensation Committee  
Banpu Power Public Company Limited

# Report of the Corporate Governance and Nomination Committee 2022

The Corporate Governance and Nomination Committee consists of Assoc. Prof. Dr. Naris Chaiyasoot, the Chairman of the Committee, and two members, namely Prof. Dr. Patchanita Thamyongkit and Mr. Chanin Vongkusolkit. The Committee independently performs duties as entrusted by the Board of Directors, in compliance with principles and the Charter of the Corporate Governance and Nomination Committee as well as the good governance principles outlined in the SEC's Corporate Governance Code for Listed Companies (CG Code) 2017.

In 2022, the Corporate Governance and Nomination Committee convened four meetings with full attendance. The Committee's performance can be summarized in two main areas as follows:

## Good Corporate Governance and Code of Conduct

### 1. Promotion of Corporate Governance

- Preparing the 2022 annual work plan of the Corporate Governance and Nomination Committee to drive the implementation of the Corporate Governance Policy and monitor performance
- Preparing the 2022 performance evaluation forms for the Board of Directors, Sub-Committees, and individual directors, then conducting an evaluation and monitoring improvements against the evaluation results
- Cultivating ethical conduct by establishing "Adhere to Integrity and Ethics" as one of the corporate values and a key performance indicator for all executive officers and employees
- Regularly organizing training sessions on corporate governance principles, including the introduction of the Code of Conduct as part of the new employee orientation program in all countries
- Continuing the implementation of the No Gift Policy, which outlines guidelines for accepting and offering gifts, hospitality, or other similar forms of reward, and communicating the policy to directors, executives, employees, and stakeholders to promote the actual practice
- Organizing an internal communication under the theme "Scale up your CG" by compiling corporate governance issues and questions and disseminating them through infographics and video clips to aid employee comprehension of CG issues. Case studies from news about the consequences of violations of Corporate Governance and Anti-Corruption policy were presented in the form of VDO Podcasts on the Friday News Channel. The CG Quiz tested employees' understanding of corporate governance principles to ensure their understanding and prevent violations of the Corporate Governance Policy and Code of Conduct.
- Developing CG E-Learning and E-Testing platforms, which allow employees to review and test their comprehension and significance of the Corporate Governance Policy and the Code of Conduct. CG E-Learning is a learning platform designed to build employees' awareness of the Corporate Governance Policy and the Code of Conduct, enabling them to apply their knowledge effectively in their daily work. CG E-Testing is an assessment platform that evaluates employees' comprehension of corporate governance principles.

- Organizing “CG Day 2022,” an event that promotes and raises awareness of the importance of ethical business conduct and commitment to integrity among employees at all levels. The event in 2022 featured a Scale up your CG quiz competition, where executives and employees participated online and on-site to promote understanding and review knowledge of good CG principles in line with the Corporate Governance Policy and the Code of Conduct, the Anti-Corruption Policy, and the Whistleblower Policy.
- Conducting a corruption risk assessment and preparing a list of mitigative measures for 2022 addressing all risks in every business in the countries where BPP has invested, including its subsidiaries and joint ventures

## 2. Complaint Handling

In 2022, there were no significant complaints related to Corporate Governance from stakeholders. Regarding the whistleblower channels, employees and the concerned public can file their complaints via four channels:

- Letter to the Secretary of the Corporate Governance and Nomination Committee

Banpu Power Public Company Limited

26<sup>th</sup> Floor, Thanapoom Tower, 1550 New Petchburi Road, Makkasan, Ratchathewi, Bangkok 10400

- BPP’s Website:



- Internal Website:



- Email: GNCchairman@banpupower.co.th and/or bpp\_comsec@banpupower.co.th

## 3. Performance Evaluation of the Board of Directors

The Corporate Governance and Nomination Committee reviewed and approved the appropriateness of the approach and the evaluation forms used for the annual performance evaluation of the Board of Directors. The Board approved evaluation forms are to be used for the annual performance evaluation of the full Board, Sub-Committees, and individual directors.

The Corporate Governance and Nomination Committee reported the annual evaluation results to the Board of Directors’ Meeting. The Board of Directors’ overall performance was rated “excellent,” with an average score of 4.80 out of 5. The Board acknowledged the evaluation results and recommendations, and directors also exchanged views in the Board of Directors’ Meeting on ways to improve their performance for the best interests of the Company.

The evaluation results of the three Sub-Committees, namely, the Audit Committee, the Compensation Committee, and the Corporate Governance and Nomination Committee, revealed that their performances were rated “excellent,” with an average score of 4.83 out of 5. Each Sub-Committee submitted its annual self-evaluation report to the Board of Directors as part of its annual performance report.

In addition, each of the directors performed a self-evaluation, and the annual results indicated that their performances were “excellent,” with an average score of 4.76 out of 5. The directors acknowledged the results and recommendations and found the individual performance evaluation satisfactory. They exchanged views on how to enhance their performance for the best interests of the Company.

## Nomination of Directors and Monitoring of Succession Plans

### 1. Nomination of directors to replace those retiring by rotation

In 2022, there were three directors who retired by rotation, namely:

1. Mr. Chanin Vongkusolkrit
2. Mr. Rawi Corsiri
3. Mr. Voravudhi Linananda

After the Corporate Governance and Nomination Committee had assessed the qualifications and performance of the three directors retiring by rotation, they then proposed their names to the Board of Directors to be nominated to the 2022 Annual General Meeting of Shareholders for consideration and approval of the re-election.

However, one of the directors, Mr. Rawi Corsiri, reached retirement age in the 2022 Annual General Meeting of Shareholders. The Company, therefore, considered and selected suitable candidates according to the nomination process. The 2022 AGM approved the nomination of Mr. Kijja Sripatthangkura as an independent director to replace the retired director.

The Company also informed minor shareholders of their right to nominate candidates for director positions from 1-30 December 2021, but no shareholder nominated candidates for director positions.

Additionally, the Corporate Governance and Nomination Committee conducted an annual review of the Board composition and the Board Skill Matrix to ensure alignment with the Company’s strategy and business direction.

### 2. Succession Planning

The Corporate Governance and Nomination Committee prioritizes the monitoring of succession planning for senior executives. In 2022, the Corporate Governance and Nomination Committee received progress reports on Banpu Power Public Company Limited’s senior executive succession planning with a well-defined and comprehensive succession plan for each critical position.

On behalf of the Corporate Governance and Nomination Committee



**Assoc. Prof. Dr. Naris Chaiyasoot**

Chairman of the Corporate Governance and Nomination Committee  
Banpu Power Public Company Limited

# Internal Control and Connected Transactions

## Internal Control

Banpu Power Public Company Limited (BPP) places great importance on internal control and risk management, emphasizing sufficiency and appropriateness of internal control in all major business activities to achieve business objectives and goals toward sustainable growth. The Board of Directors and executives embrace good governance and transparency in their management and maintain a balanced organizational structure. Clear policies and procedures are in place for critical operations, and effective risk management and internal control systems have been established for major activities. Moreover, the Company has implemented secure and efficient communication and data management systems, as well as appropriate monitoring systems.

The Audit Committee independently reviews and evaluates the adequacy and appropriateness of BPP’s internal control system, including the efficiency of the audit process. On 20 January 2023, the Audit Committee reviewed the internal control sufficiency evaluation form prepared by the management before submitting it to the Board of Directors for consideration. The Committee also oversees the internal control system through the operations of the Internal Audit Department and Risk Management Department, which cover BPP’s major business activities to ensure efficiency and effectiveness as well as full compliance with relevant policies, laws, and regulations. The Company ensures that all connected transactions are transparent, and financial reports and related reports are accurate and reliable, which will enable the Company to achieve its mission and strategy.

The Board of Directors’ Meeting, held on 27 January 2023, evaluated the sufficiency of the internal control system using the form prepared by the management based on the Securities and Exchange Commission’s evaluation form, which is in line with international standards of the Committee of Sponsoring Organizations of the Treadway Commission (COSO 2013). The COSO Integrated Framework for Internal Control consists of the control environment, risk assessment, control activities, information and communication, and monitoring activities. Overall, the evaluation demonstrated that the Company has an adequate, appropriate, and effective internal control system. The Company’s risk management also meets international standards, from the corporate level down to the activity level, ensuring that the Company can achieve its predetermined objectives. The management of BPP’s internal control system can be summarized by components of internal control as follows:



## 1. Control Environment

The Company is committed to promote a sound, effective, and efficient control environment to enhance the opportunity to achieve its business goals. The Company has established a clear line of command and segregation of duties for critical tasks by assigning roles and responsibilities from the Board of Directors down to the operators. The Company has adopted the Interrelationship of Management Accountability (IRMA) guidelines for clarifying the scope of work and assigning work roles between departments and countries to ensure effective coordination and communication. Key Performance Indicator (KPI) and Delegation of Authority (DoA) are clearly defined to enhance management and operational efficiency while also creating checks and balances. Important policies and procedures covering new businesses and projects have been established, with regular reviews and updates to keep up with internal and external changes in the business environment.

The Company focuses on achieving standards on recruitment and management of human resources, which are in accordance with the corporate culture, and providing reasonable and appropriate compensation based on performance. The Company places great importance on staff capacity development to achieve effective operation; therefore, it has created individual development plans, succession plans, and job rotation programs. In 2022, the Company and the Succession Plan Committee considered, selected, reviewed, and continuously monitored the development of successors of high-ranking executives. The Individual Development Program (IDP) of each candidate was evaluated, and new employees and executives were recruited for critical positions to strengthen the Company's operations in each country in accordance with its strategic plan to facilitate growth and global expansion.

Furthermore, the Company is dedicated to ensure that all employees understand and practice the Banpu Heart corporate culture, which comprises three core values: Passionate, Innovative, and Committed. The Company cultivates employees' awareness of change

and motivates them to implement the corporate culture in order to drive the Company forward steadily and sustainably in accordance with Environmental, Social, and Governance (ESG) principles.

The Company underlines integrity and transparency of business conduct and adheres to the principles of good corporate governance and the Code of Conduct. The management structure is designed to include appropriate checks and balances, and anti-corruption policies and practices are in place. The Company also provides whistleblower channels for receiving complaints or grievances of corruption. Additionally, it has developed the Standard Practice Manual for giving and accepting gifts, hospitality, or other similar forms of reward, which is consistent with the Anti-Corruption Policy.

## 2. Risk Assessment

The Company places a high priority on risk management and preparation for changes caused by both internal and external factors affecting its business activities at the department, business unit, and corporate levels. The Risk Management Policy was formulated in explicit written form and approved by the Board of Directors. The Risk Management Committee was set up to provide the risk management approach as well as supervise and monitor the execution to ensure its efficiency and effectiveness.

The management and all employees are involved in the risk assessment and monitoring, covering risk assessment in all aspects from both internal and external factors, i.e., strategy, operation, reporting, compliance, information technology, and corruption. The assessment also includes the assessment of likelihood and impact. The Risk Management Function, under the supervision of the Asset Management Department, has a duty to monitor the progress of risk mitigation implementation of the Company, its subsidiaries and its joint ventures, as well as report the progress of risk management to the Risk Management Committee, the Audit Committee, and the Board of Directors on a quarterly basis.

The Risk Management Committee is responsible for developing a risk management policy and risk management approach, overseeing, and monitoring the overall management of key risks in the Company. The management and all employees take part in the risk assessment and mitigation for managing risks to an acceptable level and closely monitor the risk situations, covering a variety of risks relating to strategy, operation, finance, compliance, information technology, corruption, and corporate reputation. Risk situations are reported to the Risk Management Committee, and reviewed by the Audit Committee, before being submitted to the Board of Directors on a quarterly basis.

The Company continues to prioritize critical ESG principles related to the Company, as well as strategic planning and preparation to deal with changes in global situations. This is accomplished by developing a framework that is consistent with the ESG direction, which necessitates the risk identification of climate change, water management, human rights, cybersecurity, and corruption, including risks related to non-compliance with the Personal Data Protection Act (PDPA). In this regard, the Risk Management Committees and business units have established supporting measures in the organization's short-term and strategic plan.

In addition, the Company developed the C-RiM (Compliance & Risk Management) system and Laws in Hand application to supervise the compliance and risks in each country via an online platform to improve the efficiency of monitoring business operations.

### 3. Control Activities

The Company has been operating its business under an efficient internal control system. It has established control measures at both corporate and operational levels for the Company, its subsidiaries, and joint ventures through explicitly written policies and procedures. It considers factors that may influence operational plans, identifies existing control measures, and seeks to avoid impact based on the approaches

that suit the Company's business, environment, and risks. The control policies and procedures are regularly reviewed; if they no longer suit current work environments, the management will adjust them to align with changing environments.

The Company oversees and monitors the operations to ensure alignment with action plans, work manuals, and practices, as well as compliance with applicable laws and regulations. There is a clear and appropriate segregation of duties, an effective system of checks and balances, a precise delegation of management authority and proper authorization, and Key Performance Indicators (KPI) linked to the Company's goals. The Company safeguards its assets to prevent misuse of the assets for personal gains and has an appropriate and effective information technology control system. The Company has developed an electronic work system and workflow system to prevent mistakes and negligence of important duties.

Additionally, the Company has established a clear policy on related parties transaction, considering them on a similar basis to an at arm's length transaction. Thus, related party transactions shall be done under fair pricing and conditions, which do not lead to the benefit transfer, for the best interests of the Company and stakeholders.

### 4. Information System and Data Communication

The Company has developed an effective and secure information technology (IT) system in compliance with relevant laws to enable sustainable business expansion according to the ESG principles and respond to mega trends and digital disruptions. The Composable Architecture has been deployed for Information Technology General Control to drive business transformation, such as Business Intelligence Software to retrieve, analyze, and transform data into useful business insights for management and employees to enhance operational efficiency relating to the procurement cycle, inventory management, production performance management, and asset management.

The communication of important information has been done via websites, and Microsoft Teams 365 used as an application to connect employees in each country for business operations. Besides, there is an electronic document management system to enable fast and updated internal and external communications. These practices align with the Company's digital transformation plan to drive the transition from the traditional energy business into the new energy business ecosystem.

Furthermore, the Company has improved its IT infrastructure by deploying modern workplace technology to support agile ways of working and enhance working agility. Amid the ongoing COVID-19 pandemic, the Company has also improved its IT infrastructure to boost agility. This includes the implementation of a new online meeting platform to support working from anywhere or any locations in response to the New Normal workplace. The Company has extended the IT infrastructure by integrating the cloud computing system to enhance operational efficiency. Nevertheless, the Company is well aware of the cyber threats that may arise from the use of digital technologies to drive its business. Accordingly, it set up a working team to oversee the assessment of risks, including information technology (IT) and operational technology (OT). The working team went beyond cybersecurity risk management to determine approaches to cyber resilience and reported the progress to the Audit Committee.

In addition to focusing on reducing cybersecurity risks, the Company embraces ESG principles under the Tech-Focus ESG Contributor strategy. The Company's sustainability goals are included in every cybersecurity action plan. In 2022, the Company announced the appointment of a Global Information Security Officer (GISO), whose duties and responsibilities encompass the entire Company group in the supervision of Information Security and Digital Technology Risks & Regulatory Compliance.

The Company also received the ISO 27001 certification, the International Information Security Standard that enhances the trust of all stakeholders and helps elevate the information security system standard and ensures legal compliance in Thailand and all countries where it operates. To align with risk management of cyber threats and cybersecurity, the Company manages risk and applies end-to-end cybersecurity management and oversight, from IoT devices to data platforms. In addition, the Agile Ways of Working have been practiced to align with the Company's long-term goals, while Security by Design & Privacy by Default has been integrated into every stage of digital product development from the beginning to quality assurance.

Moreover, the Company has established a system to prepare and store important data to support the Board of Directors' deliberation process with accurate, complete, effective, and timely data retrieval. Every year, the Board of Directors participates in Board Retreat, in which they can raise issues and share opinions with the management. Various effective communication channels are provided for internal communications, such as the Company's website, email, communications activities, town hall meetings, and regular meetings, to enhance collaboration to achieve the Company's goals. The Company ensures cybersecurity by restricting employee access to data in the Company's systems according to the principle of segregation of duties. For external parties, the Investor Relations Department and Corporate Communication Department are responsible for equitable information disclosures and communication with stakeholders through the Company's channels.

The Company also provides special or confidential channels for internal and external parties to safely report unethical and corrupt acts, for instance, by sending a letter to the secretary of the Corporate Governance and Nomination Committee, via the Company's website, and via email to the Chairman of the Corporate Governance and Nomination Committee or the Company Secretary.

## 5. Monitoring System

The Company has established a monitoring system at both the management and operational levels. Supervisors and executives regularly review and monitor performance, and executive meetings are held regularly to track progress toward predefined goals. The Internal Audit Department is responsible for reviewing and assessing the sufficiency, efficiency, and effectiveness of the Company's internal control system. According to BPP's corporate structure, the Internal Audit Department reports directly to the Audit Committee and indirectly to the Chief Executive Officer to establish the independence of the internal audit activity. Additionally, the Company has hired Banpu Public Company Limited to provide internal audit services using a risk-based audit approach according to the Management Service Agreement. These audit services include providing recommendations for process improvement and regular monitoring of results to ensure appropriate and timely corrective actions. Reports on internal audit and monitoring results are submitted to management and the Audit Committee on a quarterly basis.

In 2022, due to the ongoing COVID-19 pandemic, the Internal Audit Department employed the Remote Audit method, which deploys data analytics and various digital technologies, while also maintaining audit quality and efficiency. The aim is to achieve a "Smart Audit & Continuous Monitoring" to ensure quality and improve efficiency in the face of rapid changes. The Company has also developed agile audit and data analytics to increase efficiency and assurance in the internal audit system as well as to protect and add sustainable value for the business.

Apart from the Internal Audit Department, the Company has the Corporate Compliance Department, which is in charge of promoting and monitoring compliance with the laws and external regulations. The Corporate Compliance Department also emphasizes strict compliance with relevant community and environmental laws. Compliance performance reporting is conducted in accordance with ISO 19600 (Compliance Management Systems - Guidelines), which highlights Compliance Management System. The Company has leveled up Group Compliance Documents enforced in every country by deploying Three Lines Model in risk management, providing advice on legal compliance, and improving compliance process by activities-based compliance to cover both high-level and end-to-end processes.

The Company has established a system to facilitate the implementation of Thailand's Personal Data Protection Act (PDPA) and associated procedures in other countries. The Board of Directors and management have developed policies and practices, set up a working team, and mandated that every department has a data protection officer and a data inventory. The Company has also informed employees about the PDPA, the use and collection of personal data, the security system to prevent data breaches, and the coordination with government agencies to ensure that all executives and employees understand, realize the importance, and strictly comply with the Act.

## Connected Transactions

### Connected Persons

Connected Persons	Type of Business	Relationship
1. Banpu Public Company Limited (Banpu Plc.)	Energy	<ol style="list-style-type: none"> <li>1) A major shareholder with 78.66% shareholding</li> <li>2) Four joint directors with the Company are:               <ol style="list-style-type: none"> <li>1. Mr. Chanin Vongkusolkit</li> <li>2. Mr. Metee Auapinyakul</li> <li>3. Mr. Rawi Corsiri<sup>1</sup></li> <li>4. Mrs. Somruedee Chaimongkol</li> </ol> </li> <li>3) Two Directors who are the executives of Banpu Plc. are:               <ol style="list-style-type: none"> <li>1. Mrs. Somruedee Chaimongkol</li> <li>2. Dr. Kirana Limpaphayom</li> </ol> </li> </ol>
2. Banpu Minerals Company Limited (BMC)	Coal trading and investment in coal mining	<ol style="list-style-type: none"> <li>1) A wholly-owned subsidiary of Banpu Plc. which is the Company's major shareholder</li> <li>2) One joint director with the Company who is also an executive of Banpu Plc. is Mrs. Somruedee Chaimongkol.</li> </ol>
3. Asian American Coal, Inc. (AACI)	Investment in coal mining	<ol style="list-style-type: none"> <li>1) An indirect wholly-owned subsidiary of Banpu Plc. through BP Overseas Development Company Limited</li> <li>2) Two joint directors with the Company are:               <ol style="list-style-type: none"> <li>1. Mr. Chanin Vongkusolkit</li> <li>2. Mrs. Somruedee Chaimongkol</li> </ol> </li> <li>3) One of the Company's executives who is a director of AACI is Mr. Chairat Chanhom.</li> </ol>
4. Banpu Australia Co. Pty Ltd. (BPA)	Investment in coal mining in Australia	<ol style="list-style-type: none"> <li>1) An indirect wholly-owned subsidiary of Banpu Plc. through Banpu Singapore Pte. Ltd.</li> <li>2) Three joint directors with the Company are:               <ol style="list-style-type: none"> <li>1. Mr. Chanin Vongkusolkit</li> <li>2. Mrs. Somruedee Chaimongkol</li> <li>3. Dr. Kirana Limpaphayom</li> </ol> </li> </ol>
5. Banpu Vietnam Limited Liability Company (BPVT)	Management advisory service (except the financial, accounting and legal advisory services)	<ol style="list-style-type: none"> <li>1) A wholly-owned subsidiary of Banpu Plc. which is the Company's major shareholder</li> <li>2) No joint director</li> <li>3) There is no executive of the Company who is BPVT's director.</li> </ol>

<sup>1</sup>Reaching retirement age on the date of the 2022 AGM on 1 April 2022

Connected transactions and relationships are as follows:

1. Banpu Power Public Company Limited (BPP)	
Company	Connected Transaction
1. Banpu Public Company Limited (Banpu Plc.)	Transactions between BPP and Banpu Plc. are as follows: <ul style="list-style-type: none"> <li>• Management fee expense in 2022 of THB 132,600,000.00</li> <li>• Dividend paid to Banpu Plc. in 2022 of THB 1,797,899,622.75</li> </ul>
2. Banpu Power US Corporation (BPPUS)	Transactions between BPP and BPPUS are as follows: <ul style="list-style-type: none"> <li>• Interest income in 2022 of THB 295,062,524.48</li> <li>• Management fee income in 2022 of THB 2,032,174.45</li> <li>• Accrued interest receivable as at 31 December 2022 of THB 55,443,754.03</li> <li>• Long-term loan to BPPUS as at 31 December 2022 of THB 5,571,458,880.00</li> </ul>
3. Banpu Power International Limited (BPPI)	Transactions between BPP and BPPI include loans in the form of a loan agreement with an interest rate calculated based on the amount of loan and market interest rate, as follows: <ul style="list-style-type: none"> <li>• Interest income in 2022 of THB 227,052,879.25</li> <li>• Long-term loan to BPPI as at 31 December 2022 of THB 4,531,821,888.00</li> <li>• Accrued interest receivable as at 31 December 2022 of THB 541,838,482.72</li> </ul>
4. Banpu Power (Japan) Co., Ltd. (BPPJP)	Transactions between BPP and BPPJP are as follows: <ul style="list-style-type: none"> <li>• Dividend income in 2022 of THB 17,000,000.00</li> </ul>
5. Banpu NEXT Co., Ltd. (Banpu NEXT)	Transactions between BPP and Banpu NEXT are as follows: <ul style="list-style-type: none"> <li>• Interest income in 2022 of THB 188,105,474.94</li> <li>• Advance received in 2022 of THB 86,703.04</li> <li>• Accrued interest receivable as at 31 December 2022 of THB 236,219,182.03</li> <li>• Long-term loan to Banpu NEXT as at 31 December 2022 of THB 2,225,651,257.31</li> </ul>
6. BPP Vinh Chau Wind Power Limited Liability Company (BPPVC)	Transactions between BPP and BPPVC are as follows: <ul style="list-style-type: none"> <li>• Accrued management fee income as at 31 December 2022 of THB 898,622.40</li> <li>• Advance paid as at 31 December 2022 of THB 3,569,712.06</li> </ul>
7. Banpu Japan K.K. (BJP)	Transactions between BPP and BJP are as follows: <ul style="list-style-type: none"> <li>• Management fee expense in 2022 of THB 1,597,013.55</li> <li>• Accrued management fee expense as at 31 December 2022 of THB 397,893.85</li> </ul>

2. Banpu Investment (China) Ltd. (BIC)	
Company	Connected Transaction
1. BPP Renewable Investment (China) Co., Ltd. (BPPRIC)	<p>Transactions between BIC and BPPRIC include loans in the form of a loan agreement with an interest rate calculated based on the amount of loan and market interest rate, as follows:</p> <ul style="list-style-type: none"> <li>• Interest income in 2022 of THB 37,194,102.23</li> <li>• Management fee income in 2022 of THB 83,569,826.83</li> <li>• Short-term loan to BPPRIC as at 31 December 2022 of THB 614,343,680.00</li> <li>• Accrued interest receivable as at 31 December 2022 of THB 401,566,808.00</li> </ul>
2. Banpu Public Company Limited (Banpu Plc.)	<p>Transactions between BIC and Banpu Plc. are as follows:</p> <ul style="list-style-type: none"> <li>• Advance received as at 31 December 2022 of THB 27,930,329.02</li> </ul>
3. Banpu Power International Limited (BPPI)	<p>Transactions between BIC and BPPI are as follows:</p> <ul style="list-style-type: none"> <li>• Interest expense in 2022 of THB 227,185,012.75</li> <li>• Long-term loan as at 31 December 2022 of THB 4,562,897,799.58</li> <li>• Accrued interest payable as at 31 December 2022 of THB 414,009,642.01</li> </ul>
4. Banpu Minerals Company Limited (BMC)	<p>Transactions between BIC and BMC are as follows:</p> <ul style="list-style-type: none"> <li>• Management fee income in 2022 of THB 23,662,307.98</li> <li>• Accrued management fee income as at 31 December 2022 of THB 4,165,898.02</li> </ul>
5. Asian American Coal, Inc. (AACI)	<p>Transactions between BIC and AACI are as follows:</p> <ul style="list-style-type: none"> <li>• Management fee income in 2022 of THB 89,298,852.14</li> <li>• Accrued management fee income as at 31 December 2022 of THB 59,819,629.90</li> </ul>
6. Banpu (Beijing) Energy Trading Co., Ltd. (BBET)	<p>Transactions between BIC and BBET are as follows:</p> <ul style="list-style-type: none"> <li>• Management fee income in 2022 of THB 12,289,680.37</li> <li>• Management fee expense in 2022 of THB 9,779,716.91</li> <li>• Coal purchase in 2022 of THB 3,943,172,839.06</li> <li>• Coal purchase accounts payable as at 31 December 2022 of THB 557,891,715.28</li> </ul>
3. Banpu Power Japan Co., Ltd. (BPPJP)	
Company	Connected Transaction
Banpu Power Public Company Limited (BPP)	<p>Transaction between BPPJP and BPP are as follows:</p> <ul style="list-style-type: none"> <li>• Dividend paid to BPP in 2022 of THB 17,000,000.00</li> </ul>

#### 4. Banpu Power International Limited (BPPI)

Company	Connected Transaction
1. Banpu Investment (China) Ltd. (BIC)	<p>Transactions between BPPI and BIC include loans in the form of a loan agreement with an interest rate calculated based on the amount of loan and market interest rate, as follows:</p> <ul style="list-style-type: none"> <li>• Interest income in 2022 of THB 226,432,873.96</li> <li>• Long-term loan as at 31 December 2022 of THB 4,562,928,048.00</li> <li>• Accrued interest receivable as at 31 December 2022 of THB 414,012,386.54</li> </ul>
2. Banpu Power Public Company Limited (BPP)	<p>Transactions between BPPI and BPP include loans in the form of a loan agreement with an interest rate calculated based on the amount of loan and market interest rate, as follows:</p> <ul style="list-style-type: none"> <li>• Interest expense in 2022 of THB 226,162,413.91</li> <li>• Long-term loan as at 31 December 2022 of THB 4,531,821,888.00</li> <li>• Accrued interest payable as at 31 December 2022 of THB 541,838,482.72</li> </ul>

#### 5. Banpu Power US Corporation (BPPUS)

Company	Connected Transaction
1. Banpu Power Public Company Limited (BPP)	<p>Transactions between BPPUS and BPP are as follows:</p> <ul style="list-style-type: none"> <li>• Interest expense in 2022 of THB 293,644,575.57</li> <li>• Management fee expense in 2022 of THB 2,008,878.91</li> <li>• Long-term loan as at 31 December 2022 of THB 5,571,458,880.00</li> <li>• Accrued interest payable as at 31 December 2022 of THB 55,443,754.03</li> </ul>
2. Banpu North America Corporation (BNAC)	<p>Transactions between BPPUS and BNAC are as follows:</p> <ul style="list-style-type: none"> <li>• Interest expense in 2022 of THB 346,410,246.53</li> <li>• Management fee expense in 2022 of THB 800,825.37</li> <li>• Accounts payable as at 31 December 2022 of THB 8,064,374.63</li> <li>• Accrued interest payable as at 31 December 2022 of THB 85,174,535.12</li> <li>• Long-term loan as at 31 December 2022 of THB 4,385,968,560.00</li> <li>• Accrued management fee expense as at 31 December 2022 of THB 214,286.88</li> </ul>

## Necessity and Justification of Connected Transactions

In the event that the Company enters into any agreements or there are any transactions between the Company and its subsidiaries, associate companies, related companies, and/or third parties, the Company will consider the necessity and justification for entering into such transactions for the sake of the Company's interests.

### Measures or Approval Procedure of Connected Transactions

In the event that the Company enters into any agreements or there are any transactions between the Company and its subsidiaries, associate companies, related companies, third parties and/or those who may have a conflict of interest, for the interests of the Company, the Board of Directors requires such transactions to comply with the Company's policy and regulations prescribed in the Notification of the Board of Governors of the Stock Exchange of Thailand, Re: Disclosure of Information and Other Acts of Listed Companies Concerning the Connected Transactions. The prices and conditions must be similar to those in transactions with a third party. Directors or employees who may have a conflict of interest shall not participate in the approval of such transactions.

## Policy or Tendency of Future Connected Transactions

### (a) Loans from Banpu Public Company Limited

The Company had no loan transaction from Banpu Plc. However, this year, the Company's subsidiaries had loan transactions to and from connected parties, for which the Company and subsidiaries prioritized the reasonableness, appropriateness, and benefits of the Company and its subsidiaries. All transactions were reviewed by the Audit Committee and were found to be compliant with relevant laws and regulations to connected transactions.

For future connected transactions, the Board of Directors will strictly abide by laws and regulations and comply with practices of regulatory bodies governing connected transactions by taking into account the reasonableness, appropriateness of trade conditions, adequacy, and compliance with the Company's principles of good corporate governance.

### (b) Management fees and use of Banpu's support services

In 2022, BPP and its subsidiaries entered into a management service agreement with Banpu Plc. with total annual service fees of THB 132.60 million, paid on a monthly basis. The agreement covers advisory services and assistance relating to accounting and finance, internal audit, legal affairs, general administrative support, information technology, human resources, and asset management. The Company renewed the management service agreement with Banpu Plc. on 30 September 2021 for two years, from 1 October 2021 to 30 September 2023. A renewal of the agreement shall be notified at least 30 days prior to the end date of the agreement.

### (c) Management services for related parties

BIC, a subsidiary of BPP operating in China with competent personnel in management, provides advisory services to Banpu Plc. and its subsidiaries under a one-year agreement. The agreement covers advisory services and management of business operations, finance, risk and IT management, management training, and asset management, etc.

### (d) Advance payable/receivable for related parties

Advances paid to and received from related parties are expenses paid for each other on normal operations, such as feasibility expenditures, travel expenses, fees, and miscellaneous expenses, etc. Advances paid to a related party are due 30 days after the invoice date, and advances received from a related party are due 30 days after the invoice date. Advance payable/receivable are to be paid back based on the actual amount originally paid.

# Section





## Financial Report

## Report of the Board of Directors' Responsibilities for the Financial Statements

The Board of Directors has placed top priority on supervising the Company's operations to ensure their compliance with good corporate governance policy and overseeing the accuracy, completeness, and adequacy of financial statements and financial information appearing in the 56-1 One Report 2022. It also has a responsibility to ascertain that the financial statements are carefully prepared in strict compliance with Thai Financial Reporting Standards, which is based on the International Financial Reporting Standards. In addition, the Board of Directors must establish and maintain an effective internal control system to ensure the reliability of its financial statements. The Board has to safeguard the Company's assets with a good protection system to prevent corruption or suspicious operations. Connected transactions which can give rise to possible conflicts of interest are closely monitored to ensure that they are genuine transactions and are reasonably carried out based on the ordinary course of business for the Company's maximum benefits and in compliance with relevant laws and regulations. The Audit Committee has already reported the result of its activities to the Board of Directors, and its opinions in the Audit Committee's Report are included in the 56-1 One Report 2022.

The Board of Directors is of the opinion that the Company's internal control system has been proved to be satisfactory. The Board was able to obtain reasonable assurance on the reliability of the consolidated financial statements as at 31 December 2022, which the auditor conducted an audit in accordance with Thai Standards on Auditing. The auditor is of the opinion that the financial statements present fairly the financial position and the results of its operations and cash flows in conformity with Thai Financial Reporting Standards.



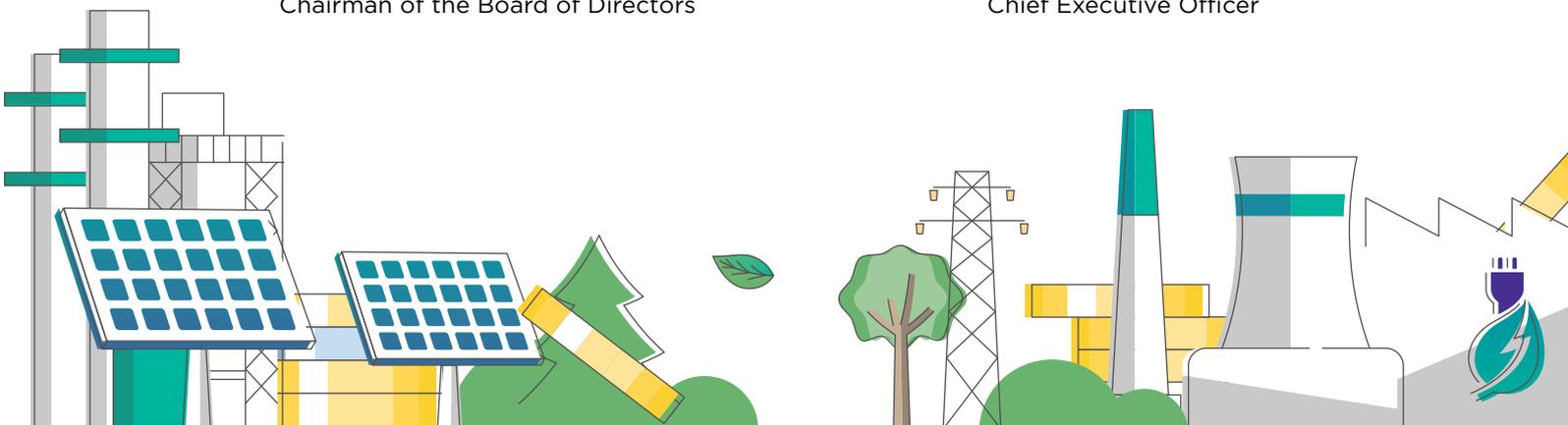
**Assoc. Prof. Dr. Naris Chaiyasoot**

Chairman of the Board of Directors



**Dr. Kirana Limpaphayom**

Chief Executive Officer





# Independent Auditor's Report

## To the shareholders of Banpu Power Public Company Limited

### My opinion

In my opinion, the consolidated financial statements and the separate financial statements present fairly, in all material respects, the consolidated financial position of Banpu Power Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial position of the Company as at 31 December 2022, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRS).

### What I have audited

The consolidated financial statements and the separate financial statements comprise:

- the consolidated and separate statements of financial position as at 31 December 2022;
- the consolidated and separate statements of comprehensive income for the year then ended;
- the consolidated and separate statements of changes in equity for the year then ended;
- the consolidated and separate statements of cash flows for the year then ended; and
- the notes to the consolidated and separate financial statements, which include significant accounting policies and other explanatory information.

### Basis for opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated and separate financial statements section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants including Independence Standards issued by the Federation of Accounting Professions (TFAC Code) that are relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with the TFAC Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

### Key audit matters

Key audit matters are those matters that, in my professional judgement, were of most significance in my audit of the consolidated and separate financial statements of the current period. I determined one key audit matter: Impairment assessment of investment in a subsidiary. The matter was addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on the matter.

Key audit matter	How my audit addressed the key audit matter
<p><b>Impairment assessment of investment in a subsidiary</b></p> <p>Refer to Note 14 Investments in subsidiaries, associates and joint ventures, the Company has an investment in Banpu Coal Power Ltd., a subsidiary whose principal business is to invest in a power business. The cost of investment in the subsidiary less an allowance for impairment in the separate statement of financial position was Baht 5,652 million.</p> <p>As at 31 December 2022, the cost of investment in this subsidiary less an allowance for impairment as presented in the separate financial statements was higher than its net equity value. Management considered this an impairment indicator of investment in the subsidiary and therefore performed an impairment test by applying the value-in-use model to calculate the recoverable amount. This model involves significant management judgment with respect to the future operating results of business, projected cash flows and the discount rate to be applied to the projected cash flows. The subsidiary has an investment in a coal-fired power plant in Thailand. Management has applied a value-in-use model based on the projected cash flow of the coal-fired power plant to calculate its recoverable amount. The key assumptions applied in the value-in-use model are electricity tariff, assumed power plant capacity, growth rate, expected changes to operating expenditures, and the discount rate to be applied to the projected cash flows.</p> <p>As a result of management’s impairment testing, the recoverable amount of this investment is higher than the carrying value. Therefore, the Company did not recognise an additional impairment of investment in the subsidiary in the separate financial statements of 2022.</p> <p>I focused on the impairment assessment of the investments in a subsidiary and their related assets due to their significant values, the various assumptions applied to calculate of the recoverable amounts and management’s significant judgements involved in determining the impairment testing.</p>	<p>I carried out the following procedures to assess the impairment testing of the investment in a subsidiary which prepared by the management.</p> <ul style="list-style-type: none"> <li>assessed the appropriateness of management’s identification of the indicators for impairment of investment in a subsidiary.</li> <li>held discussions with the management to understand the basis for assumptions applied to the cash flow projections.</li> <li>challenged management’s significant assumptions applied in the impairment testing of the investment in a subsidiary, especially the electricity tariffs, assumed the power plant capacity, growth rate and operating expenditures, and compared those assumptions to the underlying agreements, external sources, foreign exchange rate forecasts and the approved business plan.</li> <li>Assessed the reasonableness of the business plan by comparing the 2022 plan with actual results.</li> <li>assessed the discount rate applied by management, taking into account independently obtained data from available public information of companies in the industry to see whether the discount rate applied by management was within the acceptable range.</li> </ul> <p>As a result of the procedures performed, I noted that the key assumptions applied by management in assessing the recoverable amount were reasonable and consistent with supporting evidence.</p>

## Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to the audit committee.

## Responsibilities of the directors for the consolidated and separate financial statements

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRS, and for such internal control as the directors determine is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, the directors are responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

The audit committee assists the directors in discharging their responsibilities for overseeing the Group's and the Company's financial reporting process.

## Auditor's responsibilities for the audit of the consolidated and separate financial statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the audit committee with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with the audit committee, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

PricewaterhouseCoopers ABAS Ltd.



**Rodjanart Banyatananusard**

Certified Public Accountant (Thailand) No. 8435

Bangkok

22 February 2023

# Banpu Power Public Company Limited

## Statement of Financial Position

As at 31 December 2022

	Note	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	10	4,055,323	2,634,854	2,282,821	1,141,799
Restricted deposits at financial institutions		43	194	-	-
Financial assets measured at fair value through profit or loss	6, 11	54,630	524,272	-	-
Financial assets measured at fair value through other comprehensive income	6	3,087	5,600	-	-
Trade receivables and note receivables, net	12	1,753,942	1,311,280	-	-
Amounts due from related parties	26	790,485	869,310	835,648	762,162
Current portion of dividend receivables from related parties	14, 26	50,000	125,000	-	125,000
Advances to related parties	26	3,558	2,761	3,558	2,761
Short-term loans to related parties	26	1,900,163	2,363,615	-	-
Current portion of long-term loans to related parties	26	1,581,427	341,296	7,189,177	-
Fuel		813,515	904,092	-	-
Spare parts and supplies, net		287,912	282,111	-	-
Derivative assets	6	43,182	51,778	-	-
Other current assets	13	333,078	466,355	19,692	9,140
<b>Total current assets</b>		<b>11,670,345</b>	<b>9,882,518</b>	<b>10,330,896</b>	<b>2,040,862</b>
<b>Non-current assets</b>					
Dividend receivables from related parties	14, 26	113,831	238,831	-	45,000
Long-term loans to related parties	26	644,224	5,479,065	5,139,755	15,589,253
Investments in subsidiaries, net	14	-	-	19,787,163	19,787,163
Investments in an associate and joint ventures	14	40,512,628	33,766,280	21,784,019	20,084,019
Property, plant and equipment, net	15	22,875,580	23,811,139	1,421	1,396
Right-of-use assets, net	16	566,707	631,098	1,919	3,359
Deferred tax assets, net	17	722,066	602,758	13,104	5,472
Goodwill		43,834	42,385	-	-
Other non-current assets		515,727	412,691	204,311	182,591
<b>Total non-current assets</b>		<b>65,994,597</b>	<b>64,984,247</b>	<b>46,931,692</b>	<b>55,698,253</b>
<b>Total assets</b>		<b>77,664,942</b>	<b>74,866,765</b>	<b>57,262,588</b>	<b>57,739,115</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Financial Position

As at 31 December 2022

	Note	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Liabilities and equity</b>					
<b>Current liabilities</b>					
Short-term loans from financial institutions	18	241,581	6,551,133	-	6,134,199
Trade payables		219,553	331,090	-	-
Advances from and amounts due to related parties	26	679,760	629,639	485	5,948
Current portion of long-term loans					
from financial institutions, net	20	1,231,393	1,439,380	853,687	850,260
Current portion of long-term loans					
from a related party	26	4,385,969	-	-	-
Current portion of lease liabilities, net	16	12,698	12,759	1,444	1,380
Derivative liabilities	6	98,696	127,779	-	-
Income tax payable		29,043	957	-	-
Other current liabilities	19	2,486,597	1,875,427	160,890	79,976
<b>Total current liabilities</b>		<b>9,385,290</b>	<b>10,968,164</b>	<b>1,016,506</b>	<b>7,071,763</b>
<b>Non-current liabilities</b>					
Long-term loans from financial institutions, net	20	9,860,034	9,252,789	9,850,089	9,134,956
Long-term loans from a related party	26	-	4,712,206	-	-
Debentures, net	21	5,492,066	-	5,492,066	-
Lease liabilities, net	16	4,459	18,265	834	2,278
Deferred tax liabilities, net	17	71,499	24,776	-	-
Employee benefit obligations		59,961	29,210	59,961	29,210
Other non-current liabilities		-	282,049	-	-
<b>Total non-current liabilities</b>		<b>15,488,019</b>	<b>14,319,295</b>	<b>15,402,950</b>	<b>9,166,444</b>
<b>Total liabilities</b>		<b>24,873,309</b>	<b>25,287,459</b>	<b>16,419,456</b>	<b>16,238,207</b>
<b>Equity</b>					
Share capital					
Registered share capital					
3,101,202,000 ordinary shares of Baht 10 each		31,012,020	31,012,020	31,012,020	31,012,020
Issued and paid-up share capital					
3,047,731,700 ordinary shares of Baht 10 each		30,477,317	30,477,317	30,477,317	30,477,317
Premium on share capital		7,231,386	7,231,386	7,231,386	7,231,386
Surplus from business combination					
under common control		(3,891,564)	(3,891,564)	-	-
Reserve for share-based payment		40,326	40,326	40,326	40,326
Retained earnings					
Appropriated					
- Legal reserve	22	1,730,200	1,647,200	1,730,200	1,647,200
Unappropriated		13,996,975	10,648,296	1,363,903	2,104,679
Other components of equity		(1,103,423)	(517,787)	-	-
Owners of the Company		48,481,217	45,635,174	40,843,132	41,500,908
Non-controlling interests	14	4,310,416	3,944,132	-	-
<b>Total equity</b>		<b>52,791,633</b>	<b>49,579,306</b>	<b>40,843,132</b>	<b>41,500,908</b>
<b>Total liabilities and equity</b>		<b>77,664,942</b>	<b>74,866,765</b>	<b>57,262,588</b>	<b>57,739,115</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Comprehensive Income For the year ended 31 December 2022

	Note	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
Sales		24,501,208	6,784,497	-	-
Cost of sales		(22,089,857)	(6,824,268)	-	-
<b>Gross profit (loss)</b>		<b>2,411,351</b>	<b>(39,771)</b>	<b>-</b>	<b>-</b>
Dividend income from subsidiaries and joint ventures	14, 26	-	-	1,483,839	793,871
Management fee and others		548,172	652,375	29,885	76,702
Interest income		357,266	381,457	720,084	447,490
Selling expenses		(6,862)	(833)	-	-
Administrative expenses		(1,879,686)	(1,102,269)	(336,293)	(346,249)
Provision for impairment loss on investment in a subsidiary		-	-	-	(270,000)
Net gains (losses) from changes in fair value of financial instruments		(661,745)	240,988	-	(1,970)
Net gains (losses) on exchange rate		(26,818)	374,543	297,165	386,135
Interest expenses		(890,753)	(245,711)	(495,404)	(151,090)
Other financial costs		(6,199)	(3,735)	(6,199)	(3,735)
Share of profit from an associate and joint ventures, net	14	6,349,725	2,974,494	-	-
<b>Profit before income taxes</b>		<b>6,194,451</b>	<b>3,231,538</b>	<b>1,693,077</b>	<b>931,154</b>
Income taxes	17	(44,888)	(57,203)	(43,854)	597
<b>Profit for the year</b>		<b>6,149,563</b>	<b>3,174,335</b>	<b>1,649,223</b>	<b>931,751</b>
<b>Other comprehensive income (expense), net of taxes:</b>					
Items that will not be reclassified to profit or loss					
- Share of other comprehensive income (expense) of an associate and joint ventures accounted for using the equity method	14	115,895	(474,371)	-	-
- Remeasurements of post-employment benefit		(21,216)	-	(21,216)	-
Total items that will not be reclassified to profit or loss, net of taxes		94,679	(474,371)	(21,216)	-
Items that will be reclassified to profit or loss					
- Gains on cash flow hedge reserve		-	1,559	-	1,559
- Share of other comprehensive income (expense) of an associate and joint ventures accounted for using the equity method	14	(354,124)	2,814,977	-	-
- Translation differences		(392,008)	1,159,124	-	-
Total items that will be reclassified to profit or loss, net of taxes		(746,132)	3,975,660	-	1,559
<b>Other comprehensive income (expense) for the year, net of taxes</b>		<b>(651,453)</b>	<b>3,501,289</b>	<b>(21,216)</b>	<b>1,559</b>
<b>Total comprehensive income for the year</b>		<b>5,498,110</b>	<b>6,675,624</b>	<b>1,628,007</b>	<b>933,310</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Comprehensive Income

For the year ended 31 December 2022

	Note	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Profit attributable to:</b>					
Owners of the Company		5,738,678	3,127,027	1,649,223	931,751
Non-controlling interests		410,885	47,308	-	-
		<u>6,149,563</u>	<u>3,174,335</u>	<u>1,649,223</u>	<u>931,751</u>
<b>Total comprehensive income attributable to:</b>					
Owners of the Company		5,131,826	6,507,468	1,628,007	933,310
Non-controlling interests		366,284	168,156	-	-
		<u>5,498,110</u>	<u>6,675,624</u>	<u>1,628,007</u>	<u>933,310</u>
<b>Earnings per share</b>					
Basic earnings per share (Baht)	24	1.883	1.026	0.541	0.306

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Changes in Equity

### For the year ended 31 December 2022

Notes	Consolidated financial statements Baht'000											Total equity		
	Attributable to owners of the Company										Non-controlling interests			
	Issued and paid-up share capital	Premium on share capital	Treasury shares	Surplus from business combination under common control	Reserve for share-based payment	Retained earnings			Other components of equity				Total other components of equity	
Legal reserve						Other reserve	Unappropriated	Cash flow hedge reserve	Change in fair value of financial assets	Translation differences				
<b>Opening balance as at 1 January 2022</b>	30,477,317	7,231,386	-	(3,891,564)	40,326	1,647,200	-	10,646,296	(71,066)	(235,908)	(210,813)	(517,787)	3,944,132	49,579,306
Legal reserve	-	-	-	-	-	83,000	-	(83,000)	-	-	-	-	-	-
Dividend paid	-	-	-	-	-	-	-	(2,285,783)	-	-	-	-	-	(2,285,783)
Profit for the year	-	-	-	-	-	-	-	5,738,678	-	-	-	-	410,885	6,149,563
Other comprehensive income (expense) for the year	-	-	-	-	-	-	-	(21,216)	753,300	115,895	(1,454,831)	(585,636)	(44,601)	(651,453)
<b>Closing balance as at 31 December 2022</b>	30,477,317	7,231,386	-	(3,891,564)	40,326	1,730,200	-	13,996,975	682,234	(120,013)	(1,665,644)	(1,103,423)	4,310,416	52,791,633
<b>Opening balance as at 1 January 2021</b>	30,510,217	7,231,386	(41,694)	(3,891,564)	40,326	1,600,200	41,694	9,550,966	(974,248)	203,889	(3,162,443)	(3,932,802)	869,048	41,977,777
Decrease in share capital	(32,900)	-	41,694	-	-	-	(41,694)	32,900	-	-	-	-	-	-
Legal reserve	-	-	-	-	-	47,000	-	(47,000)	-	-	-	-	-	-
Dividend paid	-	-	-	-	-	-	-	(1,981,023)	-	-	-	-	-	(1,981,023)
Acquisition of investment in a subsidiary	-	-	-	-	-	-	-	-	-	-	-	-	2,906,928	2,906,928
Profit for the year	-	-	-	-	-	-	-	3,127,027	-	(439,797)	-	-	47,308	3,174,335
Total comprehensive income (expense) for the year	-	-	-	-	-	-	-	(34,574)	903,182	(439,797)	2,951,630	3,415,015	120,848	3,501,289
<b>Closing balance as at 31 December 2021</b>	30,477,317	7,231,386	-	(3,891,564)	40,326	1,647,200	-	10,646,296	(71,066)	(235,908)	(210,813)	(517,787)	3,944,132	49,579,306

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Changes in Equity For the year ended 31 December 2022

	Notes	Separate financial statements Baht'000									
		Issued and paid up share capital	Premium on share capital	Treasury shares	Reserve for share-based	Retained earnings		Other components of equity		Total equity	
						Legal reserve	Other reserve	Unappropriated	Other comprehensive income		Cash flow hedge reserve
<b>Opening balance as at 1 January 2022</b>		30,477,317	7,231,386	-	40,326	1,647,200	-	2,104,679	-	-	41,500,908
Legal reserve	22	-	-	-	-	83,000	-	(83,000)	-	-	-
Dividend paid	25	-	-	-	-	-	-	(2,285,783)	-	-	(2,285,783)
Profit for the year		-	-	-	-	-	-	1,649,223	-	-	1,649,223
Other comprehensive expense for the year		-	-	-	-	-	-	(21,216)	-	-	(21,216)
<b>Closing balance as at 31 December 2022</b>		<b>30,477,317</b>	<b>7,231,386</b>	<b>-</b>	<b>40,326</b>	<b>1,730,200</b>	<b>-</b>	<b>1,363,903</b>	<b>-</b>	<b>-</b>	<b>40,843,132</b>
<b>Opening balance as at 1 January 2021</b>		30,510,217	7,231,386	(41,694)	40,326	1,600,200	41,694	3,168,051	(1,559)	-	42,548,621
Decrease in share capital		(32,900)	-	41,694	-	-	(41,694)	32,900	-	-	-
Legal reserve	22	-	-	-	-	47,000	-	(47,000)	-	-	-
Dividend paid	25	-	-	-	-	-	-	(1,981,023)	-	-	(1,981,023)
Profit for the year		-	-	-	-	-	-	931,751	-	-	931,751
Total comprehensive income for the year		-	-	-	-	-	-	-	1,559	-	1,559
<b>Closing balance as at 31 December 2021</b>		<b>30,477,317</b>	<b>7,231,386</b>	<b>-</b>	<b>40,326</b>	<b>1,647,200</b>	<b>-</b>	<b>2,104,679</b>	<b>-</b>	<b>-</b>	<b>41,500,908</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Cash Flows

For the year ended 31 December 2022

	Notes	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Cash flows from operating activities</b>					
Profit for the year before income taxes		6,194,451	3,231,538	1,693,077	931,154
Adjustment to reconcile profit for cash receipts (payments) from operations					
- Depreciation and amortisation		1,245,794	580,598	2,246	1,964
- Interest income		(357,266)	(381,457)	(720,084)	(447,490)
- Interest expenses		890,753	245,711	495,404	151,090
- Other financial costs		6,199	3,735	6,199	3,735
- Share of profit from an associate and joint ventures, net	14	(6,349,725)	(2,974,494)	-	-
- Dividend income from subsidiaries and joint ventures	14, 26	-	-	(1,483,839)	(793,871)
- Loss on disposal of investment in an associate		-	245	-	16,408
- Provision for impairment loss on investment in a subsidiary		-	-	-	270,000
- Net gains on disposal of property, plant and equipment		(33)	(10)	(33)	(10)
- Write-off property, plant and equipment	15	67,254	11,375	-	-
- Net gains from changes in fair value of financial instruments		(20,487)	(242,959)	-	-
- Net gains on exchange rate		(97,059)	(110,759)	(292,217)	(385,792)
Cash flow before changes in working capital		1,579,881	363,523	(299,247)	(252,812)
Changes in working capital (net of effects from acquisition and disposal of subsidiaries)					
- Trade receivables and note receivables		(442,662)	(371,991)	-	-
- Amounts due from related parties		(37,630)	1,208	5,970	573
- Advances to related parties		(797)	6,043	(797)	31,421
- Fuel and spare parts		84,776	(468,945)	-	-
- Other current assets		136,228	(274,459)	36,437	4,293
- Other non-current assets		(103,744)	(24,170)	(22,017)	(16,192)
- Trade payables		(111,537)	152,596	-	-
- Advances from and amounts due to related parties		8,382	292,271	(5,463)	(23,419)
- Employee benefits obligation		4,231	2,697	4,231	2,697
- Other current liabilities		410,628	206,964	37,005	20,221
Cash receipts from (used in) operations		1,527,756	(114,263)	(243,881)	(233,218)
- Interest paid		(802,281)	(164,632)	(449,657)	(113,880)
- Income tax paid		(94,781)	(88,751)	(46,182)	-
Net cash receipts from (used in) operating activities		630,694	(367,646)	(739,720)	(347,098)

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Cash Flows

For the year ended 31 December 2022

	Notes	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Cash flows from investing activities</b>					
Cash receipts from financial assets measured at fair value through profit or loss		2,280,324	1,662,839	-	-
Cash payments for financial assets measured at fair value through profit or loss		(1,817,352)	(1,801,146)	-	-
Net cash payments for restricted deposits at financial institutions		149	(89)	-	-
Cash receipts from financial assets measured at fair value through other comprehensive income		53,555	78,922	-	-
Cash payments for financial assets measured at fair value through other comprehensive income		(51,236)	(73,044)	-	-
Cash receipts from short-term loans to related parties	26	468,974	744,980	-	-
Cash payment for short-term loans to related parties	26	(1,835)	-	-	-
Cash receipts from long-term loans to related parties	26	3,564,398	24,833	3,630,535	15,940
Cash payments for long-term loans to related parties	26	-	-	(18,666)	(8,301,759)
Cash payments for additional investments in a subsidiary		-	-	-	(1,933,992)
Net cash payments for acquisition of investment in a subsidiary		-	(14,747,833)	-	-
Cash payments for additional investments in an associate and a joint venture	14	(2,101,691)	-	(1,700,000)	-
Cash payments for purchase of investments in an associate and a joint venture		-	(2,679,266)	-	(236,000)
Cash payments for purchase of property, plant and equipment		(407,409)	(257,772)	(545)	(158)
Cash receipts from disposal of property, plant and equipment		44	34	44	19
Interest received		431,446	57,698	610,990	3,440
Cash receipts from dividends from subsidiaries and joint ventures	14	1,665,431	937,282	1,652,431	969,904
<b>Net cash receipts from (used in) investing activities</b>		<b>4,084,798</b>	<b>(16,052,562)</b>	<b>4,174,789</b>	<b>(9,482,606)</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

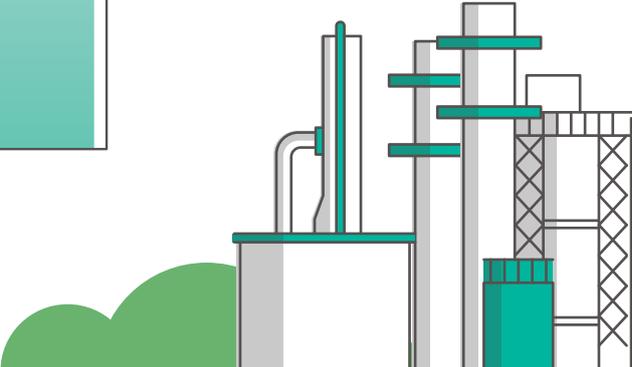
## Statement of Cash Flows

For the year ended 31 December 2022

	Notes	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Cash flows from financing activities</b>					
Cash receipts from short-term loans from financial institutions		6,555,805	9,184,921	5,900,000	8,539,800
Cash payments for short-term loans from financial institutions		(12,848,572)	(4,196,169)	(12,032,467)	(3,457,340)
Cash receipts from long-term loans from financial institutions	20	1,552,108	7,140,799	1,500,000	6,993,806
Cash payments for long-term loans from financial institutions	20	(1,210,812)	(971,363)	(863,850)	(700,000)
Cash receipts from debentures	21	5,500,000	-	5,500,000	-
Cash receipts from long-term loans from a related party	26	-	4,721,033	-	-
Cash payments for long-term loans from a related party	26	(494,365)	-	-	-
Cash payments for lease liabilities	16	(13,904)	(13,319)	(1,511)	(1,511)
Cash payments for other financial costs		(10,436)	(17,798)	(10,436)	(17,798)
Proceeds from non-controlling interests		-	2,906,928	-	-
Dividend paid to shareholders	25	(2,285,783)	(1,981,023)	(2,285,783)	(1,981,023)
Net cash receipts from (used in) financing activities		(3,255,959)	16,774,009	(2,294,047)	9,375,934
<b>Net increase (decrease) in cash and cash equivalents</b>		1,459,533	353,801	1,141,022	(453,770)
Exchange differences on cash and cash equivalents		(39,064)	112,020	-	-
Cash and cash equivalents at beginning of the year		2,634,854	2,169,033	1,141,799	1,595,569
Cash and cash equivalents at end of the year		4,055,323	2,634,854	2,282,821	1,141,799
<b>Supplementary of cash flows</b>					
Significant non-cash transactions as at 31 December					
Other payables for purchase of property, plant and equipment	19	233,691	358,203	-	-
Conversion of long-term loans to a related party to investment in a subsidiary		-	-	-	1,004,454
Amounts due from a related party for a disposal of investment in an associate		-	6,000	-	6,000

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Section





**Certification  
of Information  
and Data Accuracy**

# Attachment 1

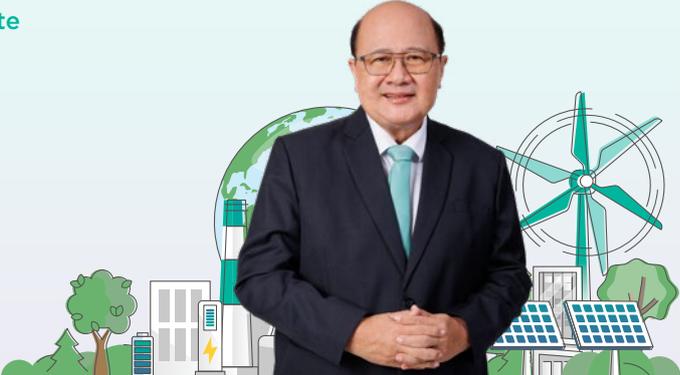
## Details about the Board of Directors and Management

### Details about the Board of Directors, Management, and Controlling Person

#### 1. Assoc. Prof. Dr. Naris Chaiyasoot

Age 68 Years

Position	Appointed Date
Independent Director	4 August 2015
Chairman of the Board of Directors	4 August 2015
Chairman of the Corporate Governance and Nomination Committee	21 August 2015
Member of the Audit Committee	21 August 2015
<b>% of Shares Held</b>	
Self: -	Spouse: -



#### Family Relationship between Director and Management -

**Education** Ph.D. in Economics, University of Hawaii  
 M.Econ. (English Program), Thammasat University  
 B.Econ. (Hons), Thammasat University

#### Training

- Advanced Audit Committee Program (AACP) #29/2018, IOD
- Chartered Director Class (CDC) #3/2008, IOD
- Director Certification Program (DCP) #82/2006, IOD
- Director Accreditation Program (DAP) #32/2005, IOD
- Finance for Non-Finance Directors Program (FND) #19/2005, IOD
- Role of the Chairman Program #45/2019, IOD
- Health Ambassador #2/2019, Chulabhorn Royal Academy

#### Other Public Companies

Dec 2021 - present	Chairman of the Board of Directors/ Independent Director/ Member of the Corporate Governance Committee, Function International Public Company Limited
Apr 2021 - present	Chairman of the Board of Directors/ Independent Director/ Chairman of the Audit and Corporate Governance Committee, United Palm Oil Industry Public Company Limited
2016 - present	Chairman of the Board of Directors, AP (Thailand) Public Company Limited
2013 - present	Chairman of the Audit Committee/ Independent Director/ Member of the Nomination and Compensation Committee, GMM Grammy Public Company Limited
2012 - 2018	Director/ Chairman of the Audit Committee, Fortune Parts Industry Public Company Limited

#### Work Experience in the Last Five Years

##### Companies in Banpu Group

2015 - present	Independent Director/ Chairman of the Board of Directors/ Chairman of the Corporate Governance and Nomination Committee/ Member of the Audit Committee Banpu Power Public Company Limited
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#### Other Companies

2020 - present	Chairman of the Board of Directors, Travelex (Thailand) Limited
2015 - present	Chairman, R.X. Co., Ltd.

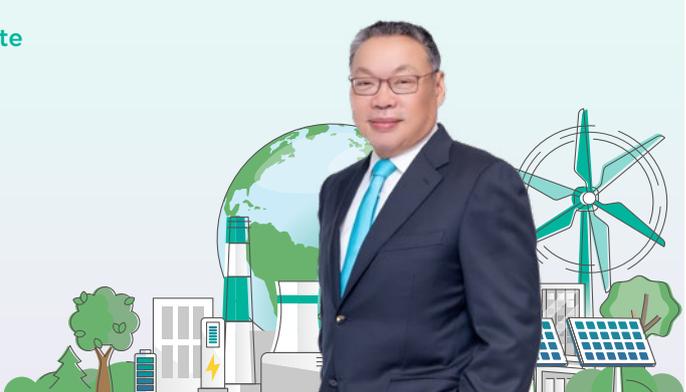
## 2. Mr. Yokporn Tantisawetrat

Age 68 Years

Position	Appointed Date
Independent Director	4 August 2015
Chairman of the Audit Committee	21 August 2015

% of Shares Held	
Self	: 0.002%
Spouse	: -



### Family Relationship between Director and Management -

**Education** M.Econ., Thammasat University  
B.Econ., Chulalongkorn University

### Training

- Director Accreditation Program (DAP) #66/2007, IOD
- Director Certification Program (DCP) #229/2016, IOD
- Advanced Audit Committee Program (AACP) #25/2017, IOD
- IT Governance Program (ITG) #7/2018, IOD
- Advanced Bank Management Program, The Wharton School
- Advanced Management Program (AMP), Harvard Business School
- National Defence Program 2003, National Defence College

### Work Experience in the Last Five Years

#### Companies in Banpu Group

2015 - present Independent Director/  
Chairman of the Audit Committee,  
Banpu Power Public Company Limited

#### Other Public Companies

May 2021 - present Director,  
TMBThanachart Bank  
Public Company Limited

2017 - present Independent Director,  
AP (Thailand) Public Company Limited

#### Other Companies

2017 - present Director,  
Kirloskar Brothers (Thailand) Limited

2016 - May 2021 Director,  
TMB Bank Public Company Limited

#### Other Organizations/Institutions

2016 - Apr 2021 Expert Commissioner/ Chairman of  
the Audit Committee,  
The Securities and Exchange Commission

### 3. Prof. Dr. Bundhit Eua-Arporn

Age 58 Years

Position	Appointed Date
Independent Director	4 August 2015
Chairman of the Compensation Committee	21 August 2015
Member of the Audit Committee	21 August 2015

% of Shares Held	
Self	: 0.003%
Spouse	: -



#### Family Relationship between Director and Management -

**Education** Ph.D. in Engineering, Imperial College of Science Technology and Medicine, U.K.  
M.Eng., Chulalongkorn University  
B.Eng., Chulalongkorn University

#### Training

- Director Certification Program (DCP) #110/2018, IOD
- Executive Program in Energy Literacy for a Sustainable Future Program, #6/2015, Thailand Energy Academy
- Bhumipalung Phandin Program #3/2014
- Temasek Foundation-NUS Programme for Leadership in University Management 2012

#### Work Experience in the Last Five Years

##### Companies in Banpu Group

2015 - present Independent Director/ Chairman of the Compensation Committee/ Member of the Audit Committee, Banpu Power Public Company Limited

##### Other Public Companies

2017 - present Independent Director/ Chairman of the Nomination Committee, PTT Exploration and Production Public Company Limited

##### Other Organizations/Institutions

2016 - present President, Chulalongkorn University

Nov 2021 - present Chairman, Office of the Basic Education Commission (OBEC)

Aug - Sep 2017 Director, The National Energy Reform Committee

#### 4. Prof. Dr. Patchanita Thamyongkit

Age 46 Years

Position	Appointed Date
Independent Director	2 April 2021
Member of the Audit Committee	30 April 2021
Member of the Corporate Governance and Nomination Committee	30 April 2021

% of Shares Held	
Self	-



#### Family Relationship between Director and Management -

**Education** Dr.rer.nat (Ph.D.) (Organic Chemistry), Eberhard-Karls-Universität Tübingen, Germany  
B.Sc. (Organic Chemistry), Chulalongkorn University

#### Training

- Director Certification Program (DCP) #289, IOD
- Risk Management Program for Corporate Leaders (RLC) #23/2021, IOD
- Advanced Audit Committee Program (AACP) #40/2021, IOD
- The Diligent Climate Leadership Certification Program, Diligent APAC Board Services Pte. Ltd.

#### Work Experience in the Last Five Years

##### Companies in Banpu Group

2021 - present	Independent Director/ Member of the Audit Committee/ Member of the Corporate Governance and Nomination Committee , Banpu Power Public Company Limited
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##### Other Organizations/Institutions

2020 - present	Acting Director, Chulalongkorn University Intellectual Property Institute
2019 - present	Assistant to the President for Research and Innovation, Chulalongkorn University
2005 - present	Professor, Department of Chemistry Faculty of Science, Chulalongkorn University
2012 - 2014/ 2017 - 2019	Associate Dean, Graduate School, Chulalongkorn University
2015 - 2017	Vice Director, Scientific and Technological Research Equipment Center, Chulalongkorn University

## 5. Mr. Kijja Sripatthangkura

Age 62 Years

Position	Appointed Date
Independent Director	2 April 2022
Member of the Compensation Committee	29 April 2022

% of Shares Held	
Self	-
Spouse	-



### Family Relationship between Director and Management -

**Education** B.Eng. (Electrical Engineering), Prince of Songkla University

### Training

- Director Certification Program (DCP) #245/2017, IOD
- Advanced Certificate Course in Public Economics Management for Executives (PEM), King Prajadhipok's Institute
- Advanced Management Program, Harvard Business School, U.S.A.
- Senior Executive Program, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Thailand and the ASEAN Economic Community (AEC) Program, King Prajadhipok's Institute
- The Executive Program in Energy Literacy for a Sustainable Future, Thailand Energy Academy (TEA)

### Work Experience in the Last Five Years

#### Companies in Banpu Group

2022 - present Independent Director/ Member of the Compensation Committee  
Banpu Power Public Company Limited

#### Other Public Companies

2017 - 2021 Chief Executive Officer,  
Ratch Group Public Company Limited

2021 Director,  
Bangkok Aviation Fuel Services  
Public Company Limited

#### Other Companies

2019 - 2021 Chairman of the Board of Directors,  
Ratchaburi Electricity Generating Co., Ltd.

2017 - 2021 Chairman of the Board of Directors,  
PT Medco Ratch Power Riau

Chairman of the Board of Directors,  
Hongsa Power Co., Ltd.

Chairman of the Board of Directors,  
Phu Fai Mining Co., Ltd.

Chairman of the Board of Directors,  
RATCH-Australia Corporation Pty. Ltd.

2019 - 2020 Director,  
Fareast Renewable Development Pte. Ltd.

Chairman of the Board of Directors,  
Ratchaburi Energy Co., Ltd.

#### Other Organizations/Institutions

2017 - 2021 Deputy Governor - Governor's Office,  
Electricity Generating Authority of Thailand

2015 - 2017 Deputy Governor - Policy and Planning,  
Electricity Generating Authority of Thailand

## 6. Mr. Chanin Vongkusolkit

Age 70 Years

Position	Appointed Date
Director	12 December 1996
Member of the Corporate Governance and Nomination Committee	21 August 2015

% of Shares Held	
Self	: 0.001%
Spouse	: 0.011%



### Family Relationship between Director and Management -

**Education** MBA, (Finance), St. Louis University, Missouri, U.S.A.  
B.Econ., Thammasat University

### Training

- DCP Refresher Course #3/2006, IOD
- Director Certification Program (DCP) #20/2002, IOD
- TLCA Leadership Development Program (LDP) - Enhancing Competitiveness # 0/2012, Thai Listed Companies Association

### Work Experience in the Last Five Years

#### Companies in Banpu Group

1996 - present	Director, Banpu Power Public Company Limited <sup>1</sup>
2015 - present	Member of the Corporate Governance and Nomination Committee, Banpu Power Public Company Limited <sup>1</sup>
2016 - present	Chairman, Banpu Public Company Limited
1983 - present	Director, Banpu Public Company Limited
2015 - 2016	Senior Executive Officer, Banpu Public Company Limited
1983 - 2015	Chief Executive Officer, Banpu Public Company Limited

#### Other Public Companies

2018 - present	Chairman of the Board of Directors, The Erawan Group Public Company Limited
2004 - present	Director, The Erawan Group Public Company Limited

### Other Companies

1983 - present Director,  
Mitr Phol Sugar Corp., Ltd.

### Other Organizations/Institutions

2021 - present	Chairman, Thai Listed Companies Association
2019 - 2021	Director, Thai Listed Companies Association
2021 - present	Advisor, The Thammasat Economics Association
2012 - 2021	Chairman, The Thammasat Economics Association
2015 - present	Director, Thai Private Sector Collective Action Against Corruption (CAC)
2008 - present	Chairman, The Foundation for Better Life
2012 - 2021	Board of Directors Faculty of Economics, Thammasat University
2016 - 2018	Expert Commissioner, The Securities and Exchange Commission
2015 - 2018	Chairman of the Working Committee, The Working Committee for Sustainability Development of Listed Companies - Office of the Securities and Exchange Commission

<sup>1</sup> The Company was registered as a public company on 10 September 2015.

**7. Mr. Metee Auapinyakul**  
Age 69 Years

<p><b>Position</b></p> <p>Director</p> <p>Member of the Compensation Committee</p> <p><b>% of Shares Held</b></p> <p>Self : 0.014%</p> <p>Spouse : 0.001%</p>	<p><b>Appointed Date</b></p> <p>22 May 2015</p> <p>21 August 2015</p>	
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**Family Relationship between Director and Management -**

**Education** Doctor of Business, Engineering and Technology, St. Louis University, Missouri, U.S.A.  
B.S.C. (Management), St. Louis University, Missouri, U.S.A.

**Training**

- Infrastructure for the Market Economy, Harvard University John F. Kennedy School of Government, Boston, U.S.A.
- Diploma, National Defence College of Thailand, The Joint State - Private Sector (NDCT 377) # 7
- Diploma of Natural Resources & Environment, National Defence College, The Joint State - Private Sector (NDCT Mngmt) #1
- Director Certification Program (DCP) #61/2005, IOD

**Work Experience in the Last Five Years**

**Companies in Banpu Group**

- |   |  |
|---|--|
| <p>2015 - present</p><br><p>1983 - present</p><br><p>2014 - present</p> | <p>Director/<br/>Member of the Compensation Committee,<br/>Banpu Power Public Company Limited</p><br><p>Director,<br/>Banpu Public Company Limited</p><br><p>Advisor,<br/>Banpu Public Company Limited</p> |
|---|--|

**Other Public Companies**

- |                       |   |
|-----------------------|---|
| <p>2004 - present</p> | <p>Chief Advisor,<br/>General Environmental Conservation<br/>Public Company Limited</p> |
|-----------------------|---|

## 8. Mrs. Somruedee Chaimongkol

Age 61 Years

Position	Appointed Date
Director	30 July 2009
Member of the Compensation Committee	1 August 2015

% of Shares Held	
Self	: 0.059%
Spouse	: -



### Family Relationship between Director and Management -

**Education** Honorary Doctorate Degree in Accounting, Bangkok University  
B.Acc., Bangkok University

### Training

- Program for Global Leadership, Harvard University Graduate School of Business Administration, Boston, U.S.A.
- Director Certification Program (DCP) #78/2006, IOD
- Top Executive Management Program, Capital Market Academy (CMA) #18
- Top Executive Management Program on Industrial Development and Investment #2, Institute of Business and Industrial Development (IBID)

Present

Director,  
BLCP Power Ltd.  
Banpu NEXT Co., Ltd.  
Banpu NEXT Green Leasing Co., Ltd.  
Banpu Minerals Co., Ltd.  
Banpu International Ltd.  
Banpu Coal Sales Co., Ltd.  
Banpu Coal Power Co., Ltd.  
Banpu Innovation & Ventures LLC  
BOG Co., Ltd.  
Hunnu Investments Pte. Ltd.  
Banpu Singapore Pte. Ltd.  
BMS Coal Sales Pte. Ltd.  
Banpu Minerals (Singapore) Pte. Ltd.  
Durapower Holdings Pte. Ltd.  
Centennial Coal Co., Ltd.  
Hunnu Coal Pty Ltd.  
AFE Investments Pty Ltd.  
Banpu Australia Resources Pty Ltd.  
Banpu Australia Co. Pty Ltd.  
Banpu Energy Holding Pty Ltd.  
Banpu Energy Australia Pty Ltd.  
Banpu Renewable Australia Pty Ltd.  
Banpu Coal Investment Co., Ltd.  
BPIN Investment Co., Ltd.  
BP Overseas Development Co., Ltd.  
Asian American Coal, Inc.  
Banpu Japan K.K.  
BKV Corporation  
Banpu North America Corporation  
Banpu Power US Corporation

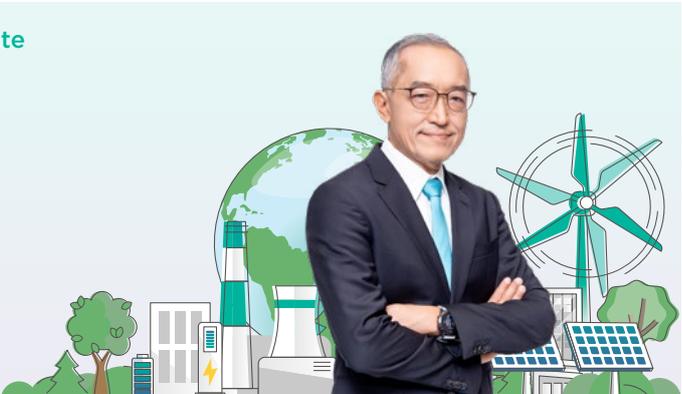
### Work Experience in the Last Five Years

#### Companies in Banpu Group

2009 - present	Director, Banpu Power Public Company Limited <sup>2</sup>
2015 - present	Member of the Compensation Committee, Banpu Power Public Company Limited <sup>2</sup>
2015 - present	Chief Executive Officer/ Director, Banpu Public Company Limited
2006 - 2015	Chief Financial Officer, Banpu Public Company Limited

<sup>2</sup> The Company was registered as a public company on 10 September 2015.

**9. Mr. Voravudhi Linananda**  
Age 65 Years

<p><b>Position</b></p> <p>Director</p>  <p><b>% of Shares Held</b></p> <p>Self : 0.003%</p> <p>Spouse : 0.000%</p>	<p><b>Appointed Date</b></p> <p>30 July 2009</p>	
--	--	--

**Family Relationship between Director and Management -**

**Education** MBA, Sasin Graduate Institute of Business Administration of Chulalongkorn University  
B.Eng. (Mechanical Engineering), Faculty of Engineering, Kasetsart University

**Training**

- Advanced Management Program (AMP173)  
Harvard Business School, U.S.A.
- Director Certification Program (DCP)  
#149/201, IOD
- Orchestrating Winning Performance Program,  
#OWPII/2013, Institute of International Management  
Development (IMD SE Asia)

- Director,  
Banpu Energy Holding Pty Ltd.
- Director,  
FS NSW Project No1 AT Pty Ltd.
- Director,  
FS NSW Project No1 Finco Pty Ltd.
- Director,  
FS NSW Project No1 HT Pty Ltd.
- Director,  
Manildra FinCo Pty Ltd.
- Director,  
Manildra Prop Hold Pty Ltd.
- Director,  
Manildra Prop Pty Ltd.
- Director,  
Manildra Solar Farm Pty Ltd.
- Advisor,  
Banpu Public Company Limited
- Chief Operating Officer,  
Banpu Public Company Limited
- Chief Executive Officer,  
Banpu Power Public Company Limited
- Company Secretary,  
Banpu Power Public Company Limited

**Work Experience in the Last Five Years**

**Companies in Banpu Group**

<p>2009 - present</p> <p>Director, Banpu Power Public Company Limited<sup>3</sup></p> <p>Present</p> <p>Director, BLCP Power Ltd.</p> <p>Director, Hongsa Power Co., Ltd.</p> <p>Director, Phu Fai Mining Co., Ltd.</p> <p>Director, Banpu NEXT Co., Ltd.</p> <p>Director, Banpu Energy Australia Pty Ltd.</p> <p>Director, BKV-BPP Power LLC</p>	<p>2017 - present</p> <p>2013 - 2017</p> <p>2015 - 2017</p> <p>2015 - 2016</p>	<p>Advisor, Banpu Public Company Limited</p> <p>Chief Operating Officer, Banpu Public Company Limited</p> <p>Chief Executive Officer, Banpu Power Public Company Limited</p> <p>Company Secretary, Banpu Power Public Company Limited</p>
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<sup>3</sup> The Company was registered as a public company on 10 September 2015.

## 10. Dr. Kirana Limpaphayom

Age 48 Years

Position	Appointed Date
Director	10 April 2020
Chief Executive Officer	10 April 2020

% of Shares Held	
Self	: 0.004%
Spouse	: 0.000%



### Family Relationship between Director and Management -

#### Education

Ph.D. Sociology, University of Warwick  
 M.Sc. Industrial Relations, London School of Economics and Political Science (LSE), University of London  
 MBA, Sasins Graduate Institute of Business Administration of Chulalongkorn University  
 B.Econ., Chulalongkorn University

#### Training

- Director Certification Program (DCP) #294/2020, IOD
- Graduate of the Australian Institute of Company Directors (GAICD)
- Professional Director Program (PDP), Indonesian Institute for Corporate Directorship (IICD)

Present

Hongsa Power Co., Ltd.  
 Phu Fai Mining Co., Ltd.  
 BLCP Power Ltd.  
 Zouping Peak Pte. Ltd.  
 Banpu Innovation & Ventures LLC  
 Banpu NEXT Co., Ltd.  
 Banpu NEXT Green Leasing Co., Ltd.  
 Banpu Energy Holding Pty Ltd.  
 Banpu Energy Australia Pty Ltd.  
 Banpu Australia Co. Pty Ltd.  
 AFE Investments Pty Ltd.  
 Banpu Australia Resources Pty Ltd.  
 Executive Manager,  
 Banpu Power Trading G.K.  
 Commissioner,  
 PT. Indo Tambangraya Megah Tbk  
 Alternate Director,  
 Centennial Coal Co. Pty Ltd.  
 President Director,  
 PT. Indo Tambangraya Megah Tbk

### Work Experience in the Last Five Years

#### Companies in Banpu Group

2020 - present	Director, Banpu Power Public Company Limited Chief Executive Officer, Banpu Power Public Company Limited Head of Power Business, Banpu Public Company Limited
Present	Director, Banpu Coal Power Limited Banpu Power (Japan) Co., Ltd. Banpu Power US Corporation BKV-BPP Power LLC Banpu Power International Ltd. Pan-Western Energy Corporation LLC

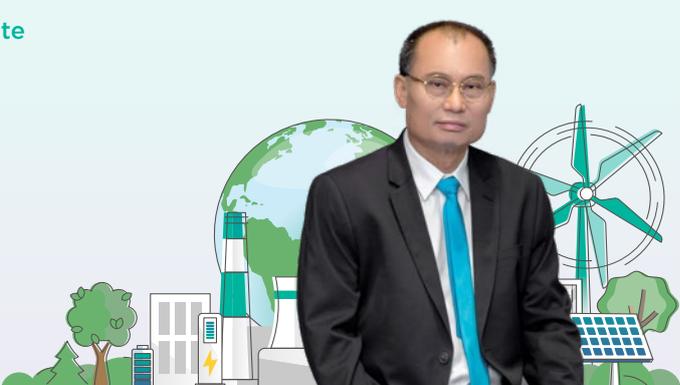
2016 - 2020

#### Other Organizations/Institutions

2019 - 2020	President Director, Thai Business Club Indonesia (TBCI)
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## 11. Mr. Praphan Likitwacharakorn

Age 65 Years

<p><b>Position</b></p> <p>Chief Operating Officer</p>	<p><b>Appointed Date</b></p> <p>1 January 2019</p>	
<p><b>% of Shares Held</b></p> <p>Self : -</p> <p>Spouse : -</p>		

### Family Relationship between Director and Management -

**Education** B.Eng. (Electrical Engineering), Faculty of Engineering, Chiang Mai University  
Senior Professional Engineer License (Electrical Engineering)

### Training

- Director Certification Program (DCP) #192/2014, IOD
- Executive Leadership Program NIDA-Wharton, Faculty of Business Administration, National Institute of Development Administration (NIDA) and The Wharton School, University of Pennsylvania, U.S.A. #7/2014
- The BOSS #72 by Management Psychology Institute
- Top Executive Program #10, Thailand Energy Academy (TEA)

### Work Experience in the Last Five Years

#### Companies in Banpu Group

2019 - 2022 <sup>4</sup>	Chief Operating Officer, Banpu Power Public Company Limited
2017 - 2018	Advisor, Banpu Public Company Limited
2013 - 2017	Managing Director, BLCP Power Ltd.

<sup>4</sup> Person number 11 was appointed Advisor of Banpu Power Public Company Limited, effective from 1 January 2023 onward, and Mr. Issara Niropas (person number 17) was appointed Senior Vice President - Power Operations, to be responsible for asset and engineering management as well as sustainable development and risk management under the Corporate Governance Structure shown on page 158, effective from 1 January 2023 onward.

## 12. Ms. Benjamas Suratanakavikul

Age 51 Years

<p><b>Position</b></p> <p>Chief Financial Officer</p>	<p><b>Appointed Date</b></p> <p>10 April 2020</p>
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<p><b>% of Shares Held</b></p> <p>Self : -</p>	
--	--

### Family Relationship between Director and Management -

**Education** MBA, Sasin Graduate Institute of Business Administration of Chulalongkorn University  
B.Sc. (Mathematics), National University of Singapore

### Training

- Executive Development Program (EDP)  
#20, Thai Listed Companies Association (TLCA)

### Work Experience in the Last Five Years

#### Companies in Banpu Group

2020 - present	Chief Financial Officer, Banpu Power Public Company Limited
Present	Director, Banpu Power (Japan) Co., Ltd. Pan-Western Energy Corporation LLC Zouping Peak Pte. Ltd. Banpu Power US Corporation
2017 - 2019	Deputy Managing Director - Finance and Accounting, Hongsa Power Co., Ltd.

**13. Mr. Pilun Pochanart**  
Age 58 Years

<p><b>Position</b></p> <p>Senior Vice President – Power Business China</p>	<p><b>Appointed Date</b></p> <p>10 April 2020</p>	
<p><b>% of Shares Held</b></p> <p>Self : 0.000%</p> <p>Spouse : 0.000%</p>		

**Family Relationship between Director and Management -**

**Education** MBA, (Executive), Sasin Graduate Institute of Business Administration of Chulalongkorn University  
B.Eng. (Mechanical Engineer), Chiang Mai University

**Work Experience in the Last Five Years**

**Companies in Banpu Group**

<p>2020 - present</p>	<p>Senior Vice President - Power Business China, Banpu Power Public Company Limited</p>
<p>Present</p>	<p>Director, Banpu Investment (China) Ltd. Shijiazhuang Chengfeng Cogen Co., Ltd. Shijiazhuang Chengfeng New Energy Co., Ltd. Feicheng Xingyu Solar Power PV Technology Co., Ltd. Tangshan Banpu Heat and Power Co., Ltd. Zouping Peak CHP Co., Ltd. Shanxi Lu Guang Power Co., Ltd. Banpu Power Investment Co., Ltd.</p>

Pan-Western Energy Corporation LLC  
BPP Renewable Investment (China) Co., Ltd.  
Dongping County Haoyuan Solar Power Generation Co., Ltd.  
Weifang Tian'en Jinshan Comprehensive Energy Co., Ltd.  
Anqiu County Hui'en PV Technology Co.,Ltd.  
Anqiu Huineng Renewable Energy Co., Ltd.  
Jiaxing Deyuan Energy-Saving Technology Co., Ltd.  
Jiangsu Jixin Electric Power Co., Ltd.  
Asian American Coal, Inc.  
Banpu (Beijing) Energy Trading Ltd.  
Shanxi Gaohe Energy Co., Ltd.  
Hebi Zhong Tai Mining Co., Ltd.

**14. Dr. Ponpranod (Paul) Didsayabutra**  
Age 51 Years

<p><b>Position</b></p> <p>Senior Vice President - Power Business USA</p>  <p><b>% of Shares Held</b></p> <p>Self : - Spouse : -</p>	<p><b>Appointed Date</b></p> <p>1 April 2022</p>	
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**Family Relationship between Director and Management -**

**Education** Certificate of Business Administration, The University of California at Berkeley Extension  
 Post-Doctor & Research Scholar, Electrical Engineering, The University of Texas at Arlington  
 Ph.D.Eng (Electrical Engineering), Chulalongkorn University  
 M.Eng. (Electrical Engineering), Chulalongkorn University  
 B.Eng. (Electrical Engineering), Chulalongkorn University

**Work Experience in the Last Five Years**

<b>Companies in Banpu Group</b>		<b>Other Companies</b>	
2022 - present	Senior Vice President - Power Business USA, Banpu Power Public Company Limited	2019 - 2022	Manager - System Planning, Avangrid, Inc (Rochester, New York)
Present	Director, Banpu Power US Corporation	2013 - 2019	Manager - Grid Planning , ColumbiaGrid, Inc (Portland, Oregon)
	Director, BKV-BPP Power LLC	2011 - 2013	Director - Transmission Projects, Brightsource Energy, Inc (Oakland, California)
	Manager, Temple Generation Intermediate Holding II LLC	2002 - 2011	Engineer and Senior Engineer, California Independent System Operator (Folsom, California)
	Manager, Temple Generation I LLC		
	Alternate Manager Temple Generation SF LLC		

## 15. Mr. Padungsak Thanakij

Age 64 Years

<p><b>Position</b> Senior Vice President - Power Business Vietnam</p>	<p><b>Appointed Date</b> 10 April 2020</p>	
<p><b>% of Shares Held</b></p> <p>Self : 0.001%</p> <p>Spouse : -</p>		

### Family Relationship between Director and Management -

**Education** Mini-MBA., Thammasat University  
B.Eng. (Mining Engineering), Chulalongkorn University

### Training

- Banpu Leadership Development Program

### Work Experience in the Last Five Years

#### Companies in Banpu Group

2020 - 2022 <sup>5</sup>	Senior Vice President - Power Business Vietnam, Banpu Power Public Company Limited
2018 - Mar 2020	Operation Director, PT. Indo Tambangraya Megah Tbk
2016 - 2018	Melak Cluster Head, PT. Indo Tambangraya Megah Tbk

<sup>5</sup> Person number 15 retired as Senior Vice President – Power Business Vietnam. The Company thus appointed Mrs. Bubbachart Meecharoen (person number 16) to fill the position, effective from 1 January 2023 onward.

## 16. Mrs. Bubpachart Meecharoen

Age 59 Years

<p><b>Position</b></p> <p>Senior Vice President - Power Business Vietnam</p>	<p><b>Appointed Date</b></p> <p>1 January 2023</p>	
<p><b>% of Shares Held</b></p> <p>Self : 0.002%</p>		

### Family Relationship between Director and Management -

**Education** Doctor of Philosophy (E-Learning Methodology), Assumption University  
MBA, Thammasat University  
B.Sc. (Materials Science), Chulalongkorn University

### Training

- Director Certification Program (DCP)  
# 248/2017, IOD
- Boardroom Success through Financing and Investment (BFI)  
#10/2021, IOD

### Work Experience in the Last Five Years

#### Companies in Banpu Group

1 Jan 2023 - present	Senior Vice President - Power Business Vietnam, Banpu Power Public Company Limited
Present	Director, BRE Singapore Pte. Ltd. Director, BPP Vinh Chau Wind Power LLC Director, EI Wind Mui Dinh Ltd. Director, Licogi 16 Ninh Thuan Investment Renewable Energy Joint Stock Company Director, Licogi 16 Gia Lai Investment Renewable Energy Joint Stock Company Deputy General Director, SOLAR Esco Joint Stock Company
2017 - 2018	Head of Corporate Services, Banpu Power Public Company Limited Company Secretary , Banpu Power Public Company Limited

## 17. Mr. Issara Niropas

Age 51 Years

<p><b>Position</b></p> <p>Senior Vice President - Power Operations</p>	<p><b>Appointed Date</b></p> <p>1 January 2023</p>	
<p><b>% of Shares Held</b></p> <p>Self : -</p> <p>Spouse : -</p>		

### Family Relationship between Director and Management -

**Education** MBA, Ramkhamhaeng University  
B. Ind. Tech. (Mechanical Technology), Phranakhon Rajabhat University

### Training

- Executive Development Program (EDP) 2022, TLCA
- Energy and Mobility Transitions, BloombergNEF (BNEF) 2021
- McKinsey Management Program (MMP), McKinsey & TLCA
- The Young Executive Program in Energy Literacy for a Sustainable Future #4/2017, Thailand Energy Academy
- Clean Coal Technology (Coal Combustion Sector), New Energy Development Organization (NEDO), Japan

### Work Experience in the Last Five Years

#### Companies in Banpu Group

1 Jan 2023 - present	Senior Vice President - Power Operations, Banpu Power Public Company Limited
2019 - 2022	Vice President - Asset Management, Banpu Power Public Company Limited
2022 - present	Director, BLCP Power Ltd.
2011 - 2019	Manager - Contract Management , BLCP Power Ltd.

## Details about the Company Secretary and Duties and Responsibilities of the Company Secretary

### 18. Ms. Thassanee Passarapark

Age 51 Years

Position	Appointed Date
Company Secretary	1 January 2019
<b>% of Shares Held</b>	
Self : -	
Spouse : -	



#### Family Relationship between Director and Management -

**Education** LL.B., Thammasat University

#### Training

- Advances for Corporate Secretaries #1/2017, Thai Company Secretary Club, Thai Listed Companies Association (TLCA)
- Corruption Risk & Control (CRC) #2/2019, IOD
- Company Secretary Program (CSP) #110/2020, IOD
- Professional Development Program for Company Secretary #1/2021, TLCA
- Company Secretary Forum 2022: "Challenges of Company Secretary in Building Trust," TLCA and IOD

#### Work Experience in the Last Five Years

##### Companies in Banpu Group

2019 - present	Company Secretary, Banpu Power Public Company Limited
2016 - 2018	Company Secretarial Officer, Banpu Power Public Company Limited

The Board of Directors' Meeting No. 12/2018 held on 21 December 2018 appointed Ms. Thassanee Passarapark as Company Secretary, effective from 1 January 2019 onward, entrusted with duties and responsibilities as stipulated in the Securities and Exchange Act. The Company Secretary is responsible for organizing the Board of Directors' meetings and general shareholders' meeting, ensuring compliance with the meetings' resolutions, and advising the Board on rules and regulations with which it must comply. The Company Secretary has responsibilities to prepare and keep the register of directors, Board meeting invitation letters, Board meeting minutes, Banpu Power Annual Report, invitation letters to attend the shareholders' meeting and records of its minutes, the report on stakeholder analysis by the Board and related issues required by the Securities and Exchange Commission, the Capital Market Supervisory Board, and the Stock Exchange of Thailand.

## Details about the Head of Internal Audit and the Secretary of the Audit Committee

### 1. Ms. Nachanok Trairatwaroon Age 39 Years

Position	Appointed Date
Head of Internal Audit and Secretary of the Audit Committee	4 July 2022

% of Shares Held	
Self	: -
Spouse	: -



#### Family Relationship between Director and Management -

**Education** MSc International Accounting, Royal Holloway, University of London, UK  
 B.Acc. (Accounting), Chulalongkorn University

#### Training

- Project Management Program, Banpu Power Public Company Limited
- Internal Audit Conference 2022, The Institute of Internal Auditors of Thailand (IIAT)
- The 7 Habits of Highly Effective People, Banpu Public Company Limited
- Banpu Section Manager Development Program, Banpu Public Company Limited

#### Work Experience in the Last Five Years

Companies in Banpu Group	
2022 - present	Head of Internal Audit, Banpu Power Public Company Limited Secretary of the Audit Committee, Banpu Power Public Company Limited
2010 - 2018	Manager – Global Internal Audit, Banpu Public Company Limited



## Attachment 2

### Details of Directors of BPP and Its Subsidiaries, Associate Companies, and Joint Ventures

Name	BPP	Subsidiary								
		BPCP	BPPJP	BPIC	ZPP	BPPI	PW	BIC	ZD	LN
1. Assoc. Prof. Dr. Naris Chaiyasoot	X, //									
2. Mr. Yokporn Tantisawetrat	//									
3. Prof. Dr. Bundhit Eua-arporn	//									
4. Prof. Dr. Patchanita Thamyongkit	//									
5. Mr. Kijja Sripatthangkura	//									
6. Mr. Chanin Vongkusolkrit	/	/	/	/			/			
7. Mr. Metee Auapinyakul	/									
8. Mrs. Somruedee Chaimongkol	/	/								
9. Mr. Voravudhi Linananda	/									
10. Dr. Kirana Limpaphayom	/, M	/	/		/	/	/			
11. Mr. Praphan Likitwacharapakorn <sup>1</sup>	O									
12. Ms. Benjamas Suratanakavikul	O		/		/		/			
13. Mr. Pilun Pochanart	O							/	/	/
14. Dr. Ponpranod (Paul) Didsayabutra	O									
15. Mr. Padungsak Thanakij <sup>2</sup>	O									
16. Mrs. Bubpachart Meecharoen	O									
17. Mr. Issara Niropas	O									

**Notes:**

**Symbols for Directors and Executives**

X Chairman of the Board of Directors M Chief Executive Officer  
 O Executive / Director  
 // Independent Director

<sup>1</sup> Person number 11 was appointed Advisor of Banpu Power Public Company Limited, effective from 1 January 2023 onward, and Mr. Issara Niropas, person number 17, was appointed Senior Vice President – Power Operations, to be responsible for asset and engineering management as well as sustainable development and risk management under the Corporate Governance Structure shown on page 158, effective from 1 January 2023 onward.

<sup>2</sup> Person number 15 retired as Senior Vice President – Power Business Vietnam. The Company thus appointed Mrs. Bubpachart Meecharoen, person number 16, to fill the position, effective from 1 January 2023 onward.

								Joint Venture			
ZP	ZDNE	BPPUS	BKV-BPP	BKV-BPP Retail	Temple Holding	Temple I	Temple SF	BLCP	SLG	HPC	PFMC
		/						/		/	/
		/						/			
			/					/		/	/
		/	/	/				/		/	/
		/									
/	/								/		
		/	/		/	/	/				
								/			

Name	BPP								
		Banpu NEXT	BNGE	BRES	DPH	BPINI	BNGL	BPPRIC	HN
1. Assoc. Prof. Dr. Naris Chaiyasoot	X, //								
2. Mr. Yokporn Tantisawetrat	//								
3. Prof. Dr. Bundhit Eua-arporn	//								
4. Prof. Dr. Patchanita Thamyongkit	//								
5. Mr. Kijja Sripatthangkura	//								
6. Mr. Chanin Vongkusolkrit	/	/				/			
7. Mr. Metee Auapinyakul	/								
8. Mrs. Somruedee Chaimongkol	/	/	/		/	/	/		
9. Mr. Voravudhi Linananda	/	/							
10. Dr. Kirana Limpaphayom	/, M	/					/		
11. Mr. Praphan Likitwacharakorn	O								
12. Ms. Benjamas Suratanakavikul	O								
13. Mr. Pilun Pochanart	O							/	/
14. Dr. Ponpranod (Paul) Didsayabutra	O								
15. Mr. Padungsak Thanakij	O								
16. Mrs. Bubpachart Meecharoen	O			/					
17. Mr. Issara Niropas	O								

**Notes: Symbols for Directors and Executives**

X Chairman of the Board of Directors M Chief Executive Officer  
 O Executive / Director  
 // Independent Director

**Symbols of BPP and Its Subsidiaries, Associate Companies, and Joint Ventures**

BPP	Banpu Power Public Company Limited	Temple SF	Temple Generation SF LLC
BPCP	Banpu Coal Power Ltd.	BLCP	BLCP Power Ltd.
BPPJP	Banpu Power (Japan) Co., Ltd.	SLG	Shanxi Lu Guang Power Co., Ltd.
BPIC	Banpu Power Investment Co., Ltd.	HPC	Hongsa Power Co., Ltd.
ZPP	Zouping Peak Pte. Ltd.	PFMC	Phu Fai Mining Co., Ltd.
BPPI	Banpu Power International Ltd.	Banpu NEXT	Banpu NEXT Co., Ltd.
PW	Pan-Western Energy Corporation LLC	BNGE	Banpu NEXT Green Energy Co., Ltd.
BIC	Banpu Investment (China) Ltd.	BRES	BRE Singapore Pte. Ltd.
ZD	Shijiazhuang Chengfeng Cogen Co., Ltd.	DPH	Durapower Holdings Pte. Ltd.
LN	Tangshan Banpu Heat and Power Co., Ltd.	BPINI	BPIN Investment Co., Ltd.
ZP	Zouping Peak CHP Co., Ltd.	BNGL	Banpu NEXT Green Leasing Co., Ltd.
ZDNE	Shijiazhuang Chengfeng New Energy Co., Ltd.	BPPRIC	BPP Renewable Investment (China) Co., Ltd.
BPPUS	Banpu Power US Corporation	HN	Anqiu Huineng Renewable Energy Co., Ltd.
BKV-BPP	BKV-BPP Power LLC	JS	Weifang Tian'en Jinshan Comprehensive Energy Co., Ltd.
BKV-BPP Retail	BKV-BPP Retail LLC	HY	Dongping County Haoyuan Solar Power Generation Co., Ltd.
Temple Holding	Temple Generation Intermediate Holding II LLC	HE	Anqiu County Hui'en PV Technology Co., Ltd.
Temple I	Temple Generation I LLC	DY	Jiaxing Deyuan Energy-Saving Technology Co., Ltd.



## Attachment 3

### Corporate Governance Policy and Principles and the Code of Conduct

The Board of Directors is committed to management based on BPP's corporate governance principles, the Best Practices for Directors of Listed Companies, as well as regulations and related practices of the Stock Exchange of Thailand (SET) and the Securities and Exchange Commission (SEC). The Company has thus formulated the Corporate Governance Policy and Code of Conduct in writing as guiding principles for all directors, executives, and employees in driving effective business operations and success according to the Company's vision and objectives. This, in turn, will create added value and ensure the utmost benefit of the shareholders, fostering stable and sustainable growth for the Company. The Corporate Governance Policy and Principles cover the following topics:

- Duties and Responsibilities of the Board of Directors to Shareholders: Setting Strategic Directions and Corporate Governance Policy
- Policy Related to Shareholders: Shareholder Rights and Shareholder Meetings
- Policy on Conflict of Interests
- Policy on Stakeholders
- Policy on Information Disclosure, Transparency, Financial and Operational Reporting
- Policy on Risk Management
- Policy on Internal Control
- Policy on Monitoring and Evaluation of Performance
- Policy on Succession Plans
- Policy on Innovation
- Policy on Information Technology
- Policy on Anti-Corruption
- Policy on Market Sensitive Information
- Policy on Sustainable Development
- Corporate Culture and Organizational Attitude

The Company has stipulated the qualifications, structure, Board composition, and duties of the Corporate Governance Committee in Corporate Governance Policy to elevate BPP's corporate governance to be on a par with international best practices.

Additionally, the Company has set forth the Code of Conduct for directors, executives, and employees as operational practices in the "Code of Conduct Handbook" for a clear understanding and convenience of directors, executives, and employees. The Code of Conduct informs the Company's expectations on the treatment of employees, shareholders, customers, trading partners, competitors, and society at large. The Board of Directors has also established a mechanism and procedure to actualize the practice in full compliance. The Corporate Governance Policy and the Code of Conduct Handbook are published on the Company's website and can be downloaded by scanning [the QR Code](#) or [clicking the CLICK HERE button](#).



CLICK HERE



## Attachment 4

### Report of the Audit Committee to Shareholders

The Audit Committee of Banpu Power Public Company Limited (BPP) consists of four independent directors who are competent and have relevant experience in finance and accounting, economics, risk management, engineering, chemical science, and energy business as follows:

- |    |                                   |                                 |
|----|-----------------------------------|---------------------------------|
| 1. | Mr. Yokporn Tantisawetrat         | Chairman of the Audit Committee |
| 2. | Assoc. Prof. Dr. Naris Chaiyasoot | Member of the Audit Committee   |
| 3. | Prof. Dr. Bundhit Eua-arporn      | Member of the Audit Committee   |
| 4. | Prof. Dr. Patchanita Thamyongkit  | Member of the Audit Committee   |

Ms. Nachanok Trairatwaroon is the Head of Internal Audit and the Secretary to the Audit Committee.

The Audit Committee is fully aware of its duties and responsibilities stipulated in the Audit Committee Charter as well as other duties entrusted by the Board of Directors with independence and in compliance with the Best Practice Guidelines for Audit Committee and the regulations of the Stock Exchange of Thailand. The Audit Committee underlines compliance with the principles of good corporate governance, effective and efficient systems of risk management, as well as internal control and internal audit to create sustainable value for the organization based on the Three Lines Model.

In 2022, the Audit Committee convened eight times at which a quorum was established with the participation of the management, Internal Audit, and the external auditors on the related agenda. The Audit Committee also held a private meeting with the external auditors without the presence of the management. The results of the Audit Committee meetings were quarterly reported to the Board of Directors. The Audit Committee's main activities can be summarized as follows:

- Review of Financial Statements:** The Audit Committee reviewed BPP's quarterly financial statements and the 2022 annual financial statements on major issues, including related party transactions, transactions with a possible conflict of interest, and the appropriateness of accounting policies. The Committee also reviewed material accounts, significant changes in accounting and adjustment, accounting estimates, the disclosure of notes to the financial statements, and the external auditor's observations from the review and audit of the financial statements. The Audit Committee received sufficient explanations from external auditors, management, and related parties and ensured that the financial statements were prepared in compliance with laws and financial reporting standards. The disclosure of notes to the financial statements was accurate, sufficient, and timely for the benefit of investors and users of the financial statements.
- Review of Internal Control and Internal Audit:** The Audit Committee reviewed the internal control system together with the Internal Audit Department in the areas of operations, resource utilization, asset care, prevention or reduction of mistakes, damages, and corruption, reliability of financial reports, compliance with laws, regulations, and rules, improvement of the corporate governance process, risk management, internal control, and oversight of compliance with relevant regulations. It was emphasized on awareness-raising for employees to adhere to the air-tight internal control with prudence and carefulness. The Committee

also considered the result of self-evaluation based on the Self Evaluation Form formulated by the Office of the Securities and Exchange Commission (SEC). Overall, the Audit Committee concluded that BPP had an adequate, appropriate, and effective internal control system that covers the corporate level as well as activity level.

The Audit Committee reviewed the Internal Audit Department operation by approving the annual audit plan and budget as well as evaluating the performance of the Head of Internal Audit and performance of the Department as well as the internal audit service provider (Banpu Public Company Limited, according to the Management Service Agreement). Moreover, the Committee provided advice and followed up the audit results against the audit plan. The Committee stressed preventive audit measures and monitoring prompt corrective action of significant issues. Internal audit and follow-up results were regularly reported to the management. It was also reported to the Audit Committee on a quarterly basis. During the COVID-19 pandemic, the Company has adopted the remote audit protocol with the support of data analytics for more efficient internal auditing of subsidiaries and affiliated companies in Thailand and abroad.

3. **Review of Legal and Regulatory Compliance:** The Audit Committee reviewed the legal and regulatory compliance of BPP's business operations and policies. The Corporate Compliance Department is responsible for auditing and monitoring legal and regulatory compliance and regularly report compliance issues and monitoring results to the management and the Audit Committee. In addition, the Company reported risk management and internal audit results covering key compliance risks. The Company also deployed the Compliance Risk Management (C-RiM) application in overseeing compliance risk of the Company and its subsidiaries in each country via an online system, and Laws In-Hand application was used to monitor recent legal and regulatory updates in all countries where BPP has business operations.
4. **Review of Related Party Transactions:** The Audit Committee reviewed related party transactions or transactions that may cause conflicts of interest between the Company, its subsidiaries, and other related parties based on the arm's length principle. That is to ensure that the transactions were carried out at fair value for the best interest of the Company and stakeholders and did not involve a transfer of interest. The transactions must also be fair and reasonable in compliance with the laws and regulations of the Stock Exchange of Thailand (SET) and the Securities and Exchange Commission (SEC).
5. **Governance of Risk Management System:** The Audit Committee reviewed the efficiency and effectiveness of the risk management process and monitored key risks that may have posed threats to the Company's business operations. The Committee quarterly monitored the progress of the management of key risks and changing situations affecting the operations. The Committee also established mitigation measures, emphasizing systematic and sustainable management which timely responds to rapidly changing business environment and trends. Policy on risk management was explicitly stipulated in writing in the Risk Management Policy and the Charter of Risk Management Committee, which was approved by the Board of Directors. The Committee convened regular meetings to assess risks. The Risk Management Policy was communicated to all units of BPP, including its subsidiaries and joint ventures, so they could efficiently manage and mitigate risks.
6. **The Appointment of the External Auditor and Determination of the Audit Fee for 2023:** The Audit Committee considered the selection of external auditors based on BPP's evaluation criteria which included

6. **The Appointment of the External Auditor and Determination of the Audit Fee for 2023:** The Audit Committee considered the selection of external auditors based on BPP's evaluation criteria which included independence, timeliness, quality, professional standard, and reasonable audit fees. As a result, the external auditors' qualifications met the Stock Exchange of Thailand's requirements. For 2023, the Audit Committee proposed the appointment of auditors to the Board of Directors for consideration and submission to the 2023 Annual General Meeting of Shareholders for approval. The following individuals were nominated:
1. Ms. Amornrat Permpoonwattanasuk CPA, License No. 4599; and/or
  2. Ms. Rodjanart Banyatananusard CPA, License No. 8435; and/or
  3. Mr. Pongthavee Ratanakoses CPA, License No. 7795; and/or
  4. Mr. Boonrueng Lerdwisewit CPA License No. 6552.

These CPAs of PricewaterhouseCoopers ABAS Limited (PwC) were appointed as the external auditors of BPP for 2023. The Company also approved the audit fees for 2023 in the amount of 1,890,000 Baht. One of these individuals was assigned to conduct his/her audit and to provide opinions on the financial statements of BPP. In case these appointed auditors are unable to perform their duties, PricewaterhouseCoopers ABAS Limited (PwC) shall appoint other of its CPAs as the external auditors of BPP.

In summary, in 2022, the Audit Committee independently performed its duties and responsibilities set forth in the Audit Committee Charter which was approved by the Board of Directors, based on their knowledge, capabilities, and prudent consideration for the equitable benefit of the stakeholders. The Audit Committee is certain that BPP's financial statements were completed and were consistent with generally accepted accounting standards and principles, and there was adequate information disclosure. BPP's business conduct was in line with a sound corporate governance policy, and the Company had an appropriate risk management system as well as effective and adequate internal control and internal audit systems. In addition, BPP properly complied with existing laws and regulations relevant to its business operations.

20 February 2023

On behalf of the Audit Committee



**Mr. Yokporn Tantisawetrat**

Chairman of the Audit Committee  
Banpu Power Public Company Limited







**BANPU POWER PUBLIC COMPANY LIMITED**

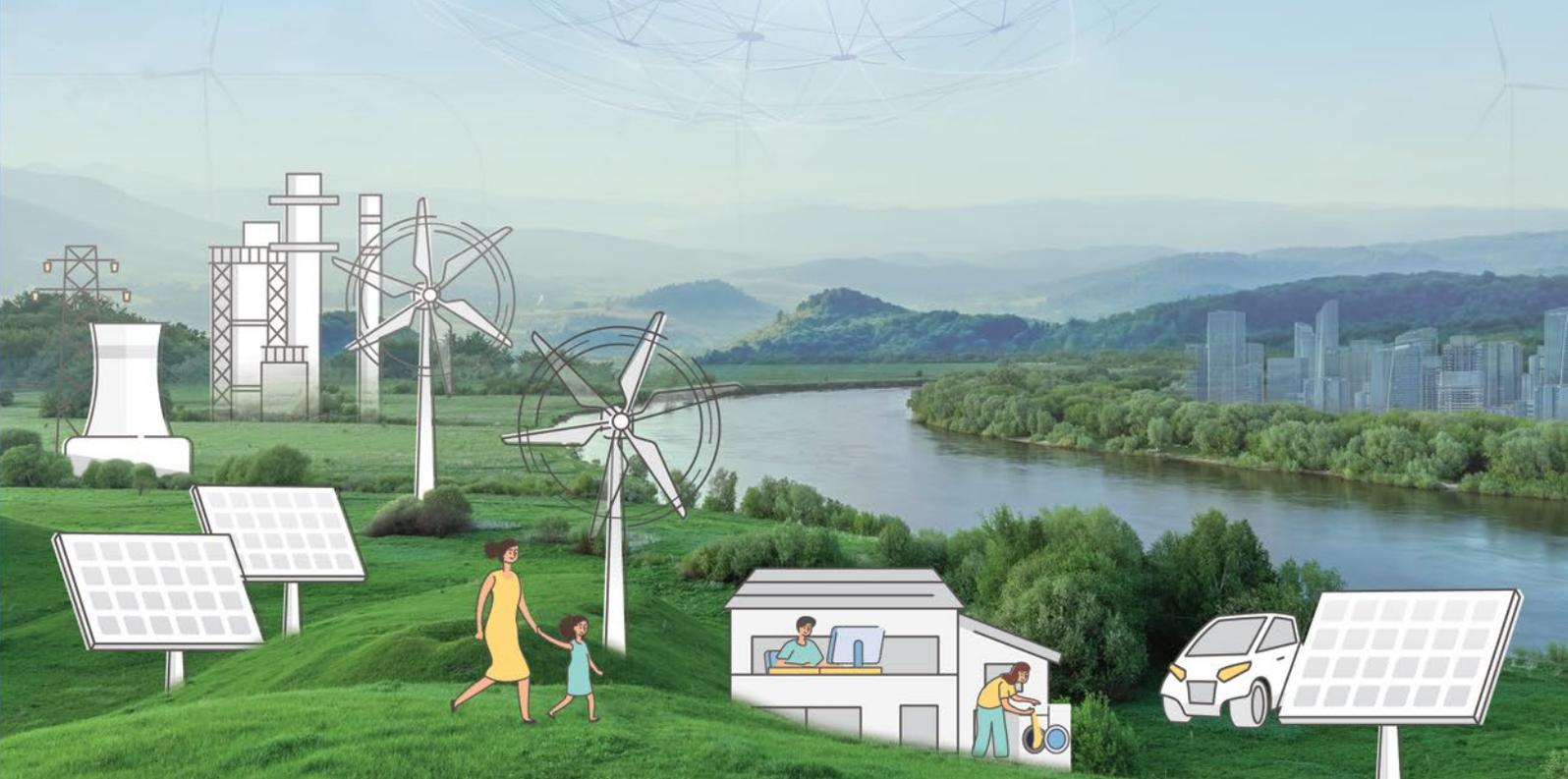
26<sup>th</sup> Floor, Thanapoom Tower, 1550 New Petchburi Road,  
Makkasan, Ratchathewi, Bangkok 10400

Tel. +66 2007 6000 Email: [info@banpuenergy.com](mailto:info@banpuenergy.com)

[WWW.BANPUPOWER.COM](http://WWW.BANPUPOWER.COM)



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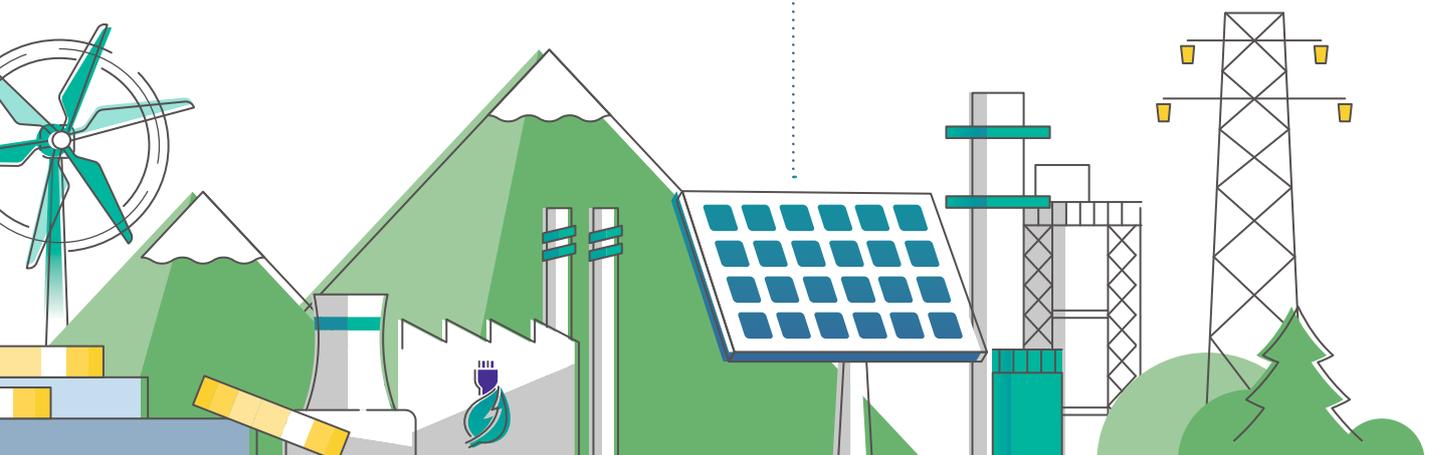
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## Report of the Board of Directors' Responsibilities for the Financial Statements

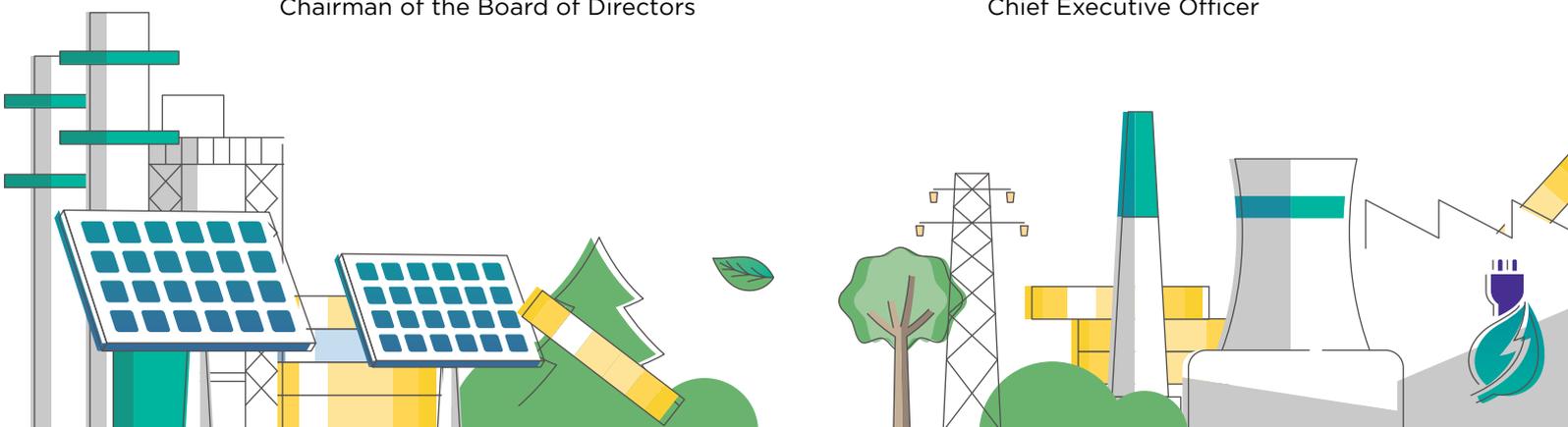
The Board of Directors has placed top priority on supervising the Company's operations to ensure their compliance with good corporate governance policy and overseeing the accuracy, completeness, and adequacy of financial statements and financial information appearing in the 56-1 One Report 2022. It also has a responsibility to ascertain that the financial statements are carefully prepared in strict compliance with Thai Financial Reporting Standards, which is based on the International Financial Reporting Standards. In addition, the Board of Directors must establish and maintain an effective internal control system to ensure the reliability of its financial statements. The Board has to safeguard the Company's assets with a good protection system to prevent corruption or suspicious operations. Connected transactions which can give rise to possible conflicts of interest are closely monitored to ensure that they are genuine transactions and are reasonably carried out based on the ordinary course of business for the Company's maximum benefits and in compliance with relevant laws and regulations. The Audit Committee has already reported the result of its activities to the Board of Directors, and its opinions in the Audit Committee's Report are included in the 56-1 One Report 2022.



The Board of Directors is of the opinion that the Company's internal control system has been proved to be satisfactory. The Board was able to obtain reasonable assurance on the reliability of the consolidated financial statements as at 31 December 2022, which the auditor conducted an audit in accordance with Thai Standards on Auditing. The auditor is of the opinion that the financial statements present fairly the financial position and the results of its operations and cash flows in conformity with Thai Financial Reporting Standards.

**Assoc. Prof. Dr. Naris Chaiyasoot**  
Chairman of the Board of Directors

**Dr. Kirana Limpaphayom**  
Chief Executive Officer





## Report of the Audit Committee to Shareholders

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3. Mr. Pongthavee Ratanakoses CPA, License No. 7795; and/or
4. Mr. Boonrueng Lerdwiseswit CPA License No. 6552.

These CPAs of PricewaterhouseCoopers ABAS Limited (PwC) were appointed as the external auditors of BPP for 2023. The Company also approved the audit fees for 2023 in the amount of 1,890,000 Baht. One of these individuals was assigned to conduct his/her audit and to provide opinions on the financial statements of BPP. In case these appointed auditors are unable to perform their duties, PricewaterhouseCoopers ABAS Limited (PwC) shall appoint other of its CPAs as the external auditors of BPP.

In summary, in 2022, the Audit Committee independently performed its duties and responsibilities set forth in the Audit Committee Charter which was approved by the Board of Directors, based on their knowledge, capabilities, and prudent consideration for the equitable benefit of the stakeholders. The Audit Committee is certain that BPP's financial statements were completed and were consistent with generally accepted accounting standards and principles, and there was adequate information disclosure. BPP's business conduct was in line with a sound corporate governance policy, and the Company had an appropriate risk management system as well as effective and adequate internal control and internal audit systems. In addition, BPP properly complied with existing laws and regulations relevant to its business operations.

20 February 2023

On behalf of the Audit Committee



**Mr. Yokporn Tantisawetrat**

Chairman of the Audit Committee  
Banpu Power Public Company Limited

# Management's Discussion and Analysis

## 1. Management's Discussion and Analysis

Despite the challenges posed by the fluctuating fuel costs and economic risks, Banpu Power Public Company Limited (BPP) has achieved strong performance and generated robust cash flow in 2022 due to its well-balanced portfolio. The Company's main assets have long-term Power Purchase Agreements (PPA) with a cost pass-through mechanism, resulting in limited impact from the high fuel cost. Additionally, the Company has power plants in the merchant market, where the electricity price is driven by market mechanisms, providing opportunities to capture more profits during high electricity demand periods. BPP commitment to energy stability is unwavering. We have ensured the availability and reliability of all our power plants in order to generate and distribute electricity to communities in a stable and consistent manner. This commitment to energy stability will lay a strong foundation to support the economic recovery after the COVID-19 situation. In China, where BPP has several power plants, the Chinese government has explicitly announced that energy security is their top priority. To ensure energy security, they have taken various measures, such as expediting domestic coal production continually. China's coal output consequently reached a record high in 2022. They have also set coal price caps and mandated coal producers to sign coal supply contracts with power plants to fortify energy security and soften the coal price. This has been evidenced by the Shanxi Lu Guang (SLG) power plant, which have entered into long-term coal supply contracts at a favorable price with support from the Chinese government.

BPP recorded a net profit of THB 5,739 million in 2022. This is primarily due to the share profit from the HPC power plant, which operated effectively and continues to generate profit consistently, the share profit from the associated company, which has gain on the divestment of the Sunseap group, and the Temple I gas-fired power plant in the United States, which was invested in at the end of 2021. The Company recorded an EBITDA of THB 9,124 million.

Consolidated revenue was reported at THB 24,501 million, representing a 261% growth over the previous year. The Temple I gas-fired power plant, which earned THB 17,585 million in revenue, was primarily responsible for this increase. In 2022, it recognized full-year revenue for the first time. Furthermore, it could sell electricity in large quantities at high prices, notably during the summer months in Texas, when electricity consumption soared considerably. It made THB 2,735 million in gross profit. Three CHPs in China reported revenue of THB 6,917 million, an increase of THB 805 million from 2021, owing primarily to a 21% increase in power tariff from the previous year as a result of joining the wholesale power trading market at the end of 2021 and an increase in steam selling price as a result of negotiations with industrial customers.

The Company recorded THB 6,350 million in profit sharing from joint ventures and associates, mostly from the HPC power plant, which contributed THB 3,401 million from operations. It could be able to maintain a high EAF of 86% in 2022 as a result of its ability to conduct the operation efficiently and smoothly. When unrealized exchange rate gains are factored in, the HPC power plant declared profit sharing of THB 3,691 million. BLCP reported a THB 764 million share profit from operations, with an EAF of 87%. After deferred tax charges and the effect of an unrealized loss on the translation of foreign currency were taken into account, it reported profit sharing of THB 580 million. Nakoso IGCC reported THB 267 million in profit sharing. SLG power plant in China reported a THB 290 million loss due to high coal costs in the first half of 2022. SLG power plant, on the other hand, has entered into a long-term coal supply contract with a favorable coal price in the second half of 2022 and sold the electricity in the wholesale power trading platform since early 2022, resulting in high power sold and higher

power tariff, improving its performance by THB 252 million compared to last year. The Company announced a THB 2,102 million profit sharing from investments in renewable energy and energy technology through Banpu NEXT, mainly due to the divestment of Sunseap group.

BPP will continue to grow its power generation business with quality megawatts as part of its Greener & Smarter strategy to transition to cleaner and smarter energy generators. The Company is ready to move forward to accomplish the target of 5.3 gigawatts by 2025. We will be leveraging the synergies with Banpu Group to further our development and produce electricity in countries where Banpu Group has operations. We are actively seeking new opportunities to grow our capacity in merchant markets in potential countries, particularly in the United States, where Banpu Group has a strong ecosystem that provides opportunities to expand to relevant businesses in the value chain by adding value from our current power business, namely energy trading business and electricity retail business. The Company will continue to focus on power plants that use High-Efficiency, Low-Emissions (HELE) technology, renewable power plants, and the use of technology and innovation to develop our business to meet the evolving patterns of energy demand in the future to ensure our sustainable growth.

## 2. Group Performance Analysis

The analysis and explanation performance for the quartered ended 31 December 2022 and 2021:

Consolidated Statement of Income for the year ended 31 December 2022 and 2021:

Consolidated financial performance (Unit: Million Baht)	Y2022	Y2021	Change	
			Amount	%
Sales	24,501	6,784	17,717	261%
Cost of sales	(22,090)	(6,824)	(15,266)	224%
<b>Gross profit</b>	<b>2,411</b>	<b>(40)</b>	<b>2,452</b>	<b>6,164%</b>
Selling & administrative expenses	(1,887)	(1,103)	(784)	71%
Share of profit from an associate and joint ventures	6,350	2,974	3,376	113%
Other income (Expense)	217	1,649	(1,432)	-87%
Other financial costs	(897)	(249)	(648)	260%
<b>Profit before income taxes</b>	<b>6,194</b>	<b>3,231</b>	<b>2,963</b>	<b>92%</b>
Income taxes	(44)	(57)	13	-22%
<b>Profit for the period</b>	<b>6,150</b>	<b>3,174</b>	<b>2,976</b>	<b>94%</b>
<b>Owners of the company</b>	<b>5,739</b>	<b>3,127</b>	<b>2,612</b>	<b>84%</b>
Non-controlling interests	411	47	364	769%
Basic earnings per share (unit: Baht)	1.883	1.026	0.857	84%

The group reported 2022 net profit at THB 5,739 million, increased by THB 2,612 million or 84% compared to 2021. This was mainly from higher revenue from Temple I gas-fired power plant in USA that the group invested since last quarter of 2021. Despite the group recognized loss from CHP power plant affected by higher coal cost, the group recognized profit sharing from an associate resulting from gain on sales of investment in Sunseap, and also higher profit sharing from HPC power plant that operate efficiently, and from SLG power plant that increased in sales from both volume and tariff, due to starting power trading in power market and entering into a long-term coal supply contract at favorable price, lowering its coal cost significantly. Meanwhile, the group also had higher finance cost from loan additions for new power plants investment during 2021 and debenture issuance during 2022.

Details of the group operating performance for 2022 were described as followings:

## Sales, Cost of Sales and Gross Profit

Sales reported at THB 24,501 million, increased by THB 17,717 million or 261% compared to 2021. This was mainly from higher steam sales from CHP plants in China of THB 805 million and from electricity sales from Temple I gas-fired power plant in USA of THB 16,912 million. Details were described as followings:

Items	Power Sold (GWh)		Steam & Others Sold (Million Tonnes)		Average Power Tariff (RMB/KWh)		Average Steam & Others Price (RMB/Tonne)	
	Y2022	Y2021	Y2022	Y2021	Y2022	Y2021	Y2022	Y2021
100% Basis								
Zhengding CHP	285.08	312.68	1.46	1.48	0.41	0.34	97.73	112.17
Luannan CHP	463.54	537.65	2.83	3.10	0.40	0.35	111.77	107.07
Zouping CHP	340.80	328.73	1.79	1.75	0.45	0.43	193.82	164.92
Total CHP Power Plants	1,089.42	1,179.07	6.08	6.33	0.42	0.37	132.59	124.29
	(GWh)				(USD/KWh)			
Temple I Power Plant	3,810.30	417.23	-	-	74.71	40.08	-	-

### Combined Heat and Power (CHP) plants in China: Increase THB 805 Million

An increase of sales from CHP plants compared to 2021 was derived from:

1. An increase of THB 293 million from steam sales and others. This was a result of an increase in average price of steam sales per tonne by RMB 8.30 that an average sale price per tonne in 2022 was 132.59 RMB (2021: 124.29 RMB), while net with a decrease in steam sales and others of 0.25 million tons.
2. An increase of THB 121 million from power sales. This was due to an increase in power sales tariff of 0.05 RMB compared to 2021, which power sales tariff in 2022 was 0.42 RMB (2021: 0.37 RMB), net with a decrease in sales volume of 89.65 GWh compared to 2021.
3. The effects of foreign exchange rate translation of THB 391 million due to a depreciation of THB currency against RMB currency compared to 2021. This caused higher revenue in THB currency when converting from revenue in RMB currency. Average exchange rate of RMB/THB in 2022 was THB 5.2108 (2021: THB 4.9665).

### Temple I Gas-Fired Power Plant in USA THB 16,912 Million

Sales increase from Temple I gas-fired power plant business was THB 16,912 million derived from higher sale volume that reported at 3,810.30 GWh (2021: 417.23 GWh). The group invested in this power plant since 4Q2021.

**Cost of Sales:  
Increase 224%**

Cost of sales was THB 22,090 million, increased by THB 15,266 million compared to 2021 from:

1. CHP Plants in China that cost of sales increased by THB 1,126 million from:
  - An increase in coal cost THB 1,020 million was from a higher average coal cost of RMB 242 per ton. Average coal cost was RMB 1,184 per ton (2021: RMB 942 per ton) or increased by 26% compared to 2021.
  - The effects from a depreciation of THB currency to foreign exchange rate translation of THB 106 million. This affected to higher cost of sales in THB currency when converting from cost of sales in RMB currency. Average exchange rate of RMB/THB in 2022 was THB 5.2108 (2021: THB 4.9665).
2. Temple I gas-fired power plant in USA that cost of sales increased by THB 14,140 million, mainly was natural gas cost of THB 12,518 million.

**Gross Profit:  
Increase 6,164%**

Gross profit was THB 2,411 million, or increased by THB 2,452 million compared to 2021 was from:

1. An increase from gross profit from Temple I gas-fired power plant in USA THB 2,774 million.
2. A decrease in operating performance from CHP plants in China due to loss increased THB 322 million, caused by higher coal cost compared to 2021.

**Selling and Administrative  
Expenses: Increase 71%**

Selling Administrative expenses of THB 1,887 million, increased by THB 784 million compared to 2021. This was mainly from administrative expense from Temple I gas-fired power plant in USA that was full year consolidated in this reporting period.

Items (Unit: Million Baht)	Profit (loss) sharing		Increase/(Decrease)	
	Y2022	Y2021	Amount	%
BLCP	580	215	365	170%
HPC & PFMC	3,691	3,612	79	2%
SLG	(290)	(542)	252	46%
Holding Company for Nakoso Power Plant	267	210	57	27%
Banpu NEXT	2,102	(521)	2,623	503%
<b>Total</b>	<b>6,350</b>	<b>2,974</b>	<b>3,376</b>	<b>113%</b>

### Share of Profit from Joint Ventures and Associates: Increase 113%

Recognition of profit sharing from joint ventures and an associate was increased by THB 3,376 million compared to 2021 was a net result of:

1. An increase in profit sharing from BLCP of THB 365 million, mainly from an increase in operating profit of THB 18 million, net with a decrease in deferred tax expense and unrealized loss on foreign exchange rate translation of THB 347 million.
2. An increase in profit sharing recognition from HPC power plant and Phufai mine of THB 79 million caused by an increase in operating performance of THB 172 million and loss on exchange rate of THB 93 million.
3. A decrease in loss sharing recognition from SLG power plant of THB 252 million was from better operating performance compared to 2021 from higher sales volume and from entered into a long-term coal supply contract at favorable price, then lower its coal cost significantly.
4. An increase in profit sharing recognition from Nakoso power plant in Japan of THB 57 million due to better performance compared to 2021
5. An increase in profit sharing recognition from investment in renewable power and energy technology business of THB 2,623 million, mainly from gain on sales of investment in Sunseap and from better performance of power trading business in Japan.

### Other Income

Other income of THB 217 million was comprised of:

1. Interest income of THB 357 million.
2. Management fee income of THB 244 million, mainly was management fees charged to related companies and joint ventures.
3. Pipeline connecting fee income charged to new steam customers of CHP plants in China of THB 87 million.
4. Subsidy income from China government for electricity production of THB 127 million.
5. Net loss on financial derivatives of THB 662 million was from realized loss on fair value financial derivatives THB 843 million net with unrealized gain on financial derivatives THB 181 million. Most of financial derivatives was electricity call option contract from Temple I gas-fired power plant that aimed to generate stability cash inflows and mitigate price risk.

6. Net loss on exchange rate of THB 27 million was from netting of unrealized gain on exchange rate from USD currency loans at the end of the period caused by a depreciation of THB currency against USD currency compared to 2021. Average exchange rate of USD/THB for 2022 was THB 35.0614 (2021: USD/THB 31.9771), and from unrealized loss on exchange rate from a depreciation of RMB currency against USD currency compared to 2021. Average exchange rate of USD/RMB in 2022 was RMB 6.4332 (2021: USD/RMB 6.7296).
7. Other income of THB 91 million consisted of ash & slag sales from CHP plants in China of THB 24 million, and others of THB 67 million.

#### Interest Expenses and Finance Cost: Increase 260%

Interest expenses and finance cost of THB 897 million, increased by THB 648 million compared to 2021, primarily from loan additions to support new investment in power plants during 2021 and debenture issuance during 2Q22.

#### Income Tax Decrease 22%:

Income tax expenses of THB 44 million, decreased by THB 13 million compared to 2021. This comprised of:

1. An increase in corporate income tax expense of THB 89 million, mostly from higher operating profit from Temple I gas-fired power plant.
2. A recognition in deferred income tax asset of THB 102 million that was from tax loss carry forward from CHP power plant in China.

Net profit for the year ended 31 December 2022 reported at THB 5,739 million, increased by THB 2,612 million compared to 2021.

Basic Earnings per Share reported at THB 1.883 (2021: THB 1.026)

### 3. Statement of Consolidated Financial Position

Statement of Consolidated Financial Position as of 31 December 2022 in comparison with Statements of Consolidated Financial Position as of 31 December 2021

Items (Unit: Million Baht)	Financial Position		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Assets	77,665	74,866	2,799	4%
Liabilities	24,874	25,287	(413)	-2%
Equity	52,791	49,579	3,212	6%

3.1 Total assets of THB 77,665 million, an increase of THB 2,799 million or 4% compared to the 31 December 2021 was mainly described as follows:

Financial Position (Unit: Million Baht)	Assets		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Cash and cash equivalents	4,055	2,635	1,420	54%
Financial assets measured at fair value	58	530	(472)	-89%
Trade accounts receivable, net	1,754	1,311	443	34%
Fuel and spare parts & supplies, net	1,101	1,186	(85)	-7%
Current portion of dividend receivables from related parties	50	125	(75)	-60%
Other current assets	4,652	4,095	557	14%
<b>Total current assets</b>	<b>11,670</b>	<b>9,882</b>	<b>1,788</b>	<b>18%</b>
Dividend receivables from related parties	114	239	(125)	-52%
Investments in an associate and joint ventures	40,513	33,766	6,747	20%
Property, plant and equipment, net	22,876	23,811	(935)	-4%
Right of use assets, net	567	631	(64)	-10%
Other non current assets	1,925	6,537	(4,612)	-71%
<b>Total non current assets</b>	<b>65,995</b>	<b>64,984</b>	<b>1,011</b>	<b>2%</b>
<b>Total assets</b>	<b>77,665</b>	<b>74,866</b>	<b>2,799</b>	<b>4%</b>

- Cash and cash equivalents of THB 4,055 million, increased by THB 1,420 million or 54% (Explanation in no. 4 Statement of Consolidated Cash Flows).
- Financial assets measured at fair value of THB 58 million, decreased by THB 472 million or 89% was from an addition of THB 1,869 million; net with redemption of THB 2,334 million and an effect from foreign exchange conversion of THB 7 million.
- Account receivable of THB 1,754 million, increased by THB 443 million or 34%. This was from Temple I gas-fired power plant in USA of THB 304 million as a result of higher gas price compared to last year, from CHP plant in China of THB 216 million, and an effect from foreign exchange conversion of THB 77 million.
- Fuel and Spare parts, net of THB 1,101 million, decreased by THB 85 million or 7%. This was due to a decrease from CHP plant in China of THB 287 million, effect from foreign exchange conversion of THB 48 million, and an increase from Temple I gas-fired power plant in USA of THB 250 million from an increase of reserve fuel and gas price
- Other current assets of THB 4,652 million, increased by THB 557 million or 14%, was mainly from:
  1. An increase in current portion of long-term loan to related party of THB 1,240 million. This was a net result of reclassification from non-current part of 1,581 million and from cash receives THB 341 million settled by related company.

2. A decrease in short-term loan to related party of THB 463 million. This was a net result of cash received THB 467 million settled by related party, and unrealized gain on foreign exchange conversion of THB 4 million.
  3. A decrease in financial derivative assets of THB 9 million.
  4. A decrease in accrued interest income from related parties of THB 116 million. This was a net result of a recognition of interest income during the year of THB 319 million, cash receives THB 396 million settled by related company, and unrealized loss on foreign exchange rate translation of THB 39 million.
  5. A decrease from others of THB 95 million.
- Current and non-current portions of dividend receivables from related parties totaling of THB 164 million, decrease by 200 million from dividend receivables from a domestic power plant joint venture.

Dividend Receivables from Related Parties (Unit: Million Baht)	Financial Position		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Current portion of dividend receivables from related parties	50	125	(75)	-60%
Dividend receivables from related parties	114	239	(125)	-52%
<b>Total</b>	<b>164</b>	<b>364</b>	<b>(200)</b>	<b>-55%</b>

- Investment in joint ventures and associates of THB 40,513 million, increased by THB 6,747 million or 20%. This was from additions in a joint venture in China of THB 402 million, in renewable and technology business of THB 1,700 million, a recognition of shares of profits from joint ventures of THB 6,350 million, other comprehensive income from joint ventures and an associate of THB 869 million, unrealized loss on foreign exchange rate translation at the end of period of THB 1,108 million, offset with dividend declaration during the period of THB 1,466 million.
- Net property plant and equipment of THB 22,876 million, decreased by THB 935 million or 4%. This was from additions of machinery and equipment of CHP plants THB 264 million and Temple I gas-fired power plant THB 18 million, net with disposals THB 70 million and depreciation charges THB 1,210 million and unrealized gain on foreign exchange rate translation at the end of period of THB 63 million.
- Right-of-used assets of THB 567 million, decreased by THB 64 million or 10%, was the amortization THB 32 million and unrealized loss on foreign exchange rate translation at the end of period 32 million.
- Other non-current assets of THB 1,925 million, decreased by THB 4,612 million or 71% was mainly from:
  1. A decrease in loan to related parties of THB 4,835 million due to reclassification to current portion of THB 1,581 million, cash receives from loan settlement of THB 3,226 million and unrealized loss on foreign exchange rate translation at the end of period of THB 28 million.
  2. An increase in deferred tax assets of THB 119 million, caused by tax loss carry forward from CHP power plant in China.
  3. An increase in refundable deposit of THB 86 million, mainly from Temple I gas-fired power plant in USA.
  4. An increase in other assets of THB 18 million.

3.2 Total liabilities of THB 24,874 million, decreased by THB 413 million or 2% compared to total liabilities as of 31 December 2021 with details mainly described as follows:

Financial Position (Unit: Million Baht)	Liabilities		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Short-term loans from financial institutions	242	6,551	(6,309)	-96%
Trade accounts payable	220	331	(111)	-34%
Current portion of long-term loans from financial institutions	1,231	1,439	(208)	-14%
Current portion of lease liabilities	13	13	(0)	-2%
Other current liabilities	7,680	2,634	5,046	192%
<b>Total current liabilities</b>	<b>9,386</b>	<b>10,968</b>	<b>(1,582)</b>	<b>-14%</b>
Long-term loans from financial institutions, net	9,860	9,253	607	7%
Debenture, net	5,492	-	5,492	100%
Lease liabilities	4	18	(14)	-76%
Other non current liabilities	132	5,048	(4,916)	-97%
<b>Total non-current liabilities</b>	<b>15,488</b>	<b>14,319</b>	<b>1,169</b>	<b>8%</b>
<b>Total liabilities</b>	<b>24,874</b>	<b>25,287</b>	<b>(413)</b>	<b>-2%</b>

- Short-term loans from financial institutions of THB 242 million, decreased by THB 6,309 million or 96%, was from a net result of additional loans THB 6,556 million and repayment THB 12,849 million. Also, there was unrealized gain on foreign exchange rate translation at the end of period of THB 16 million on RMB currency loan, resulting from an appreciation of THB currency against RMB currency. Average exchange rate of RMB/THB as of 31 Dec 2022 was THB 4.9664 (31 Dec 2021: THB 5.2507).
- Current portion of long-term loans from financial institutions of THB 1,231 million, decreased by THB 208 million or 14%. This was a net result of reclassification from non-current portion THB 1,008 million (including net front end fee), repayment THB 1,211 million and from unrealized gain on foreign exchange rate translation at the end of period of THB 5 million from RMB loan affected from an appreciation of THB currency against RMB currency.
- Other current liabilities of THB 7,680 million, increase by THB 5,046 million or 192% was mainly from:
  1. An increase in current portion of long-term loan from related party THB 4,386 million due to reclassification from non-current portion.
  2. An increase in accrued expense others THB 515 million, mainly from Temple I gas-fired power plant in USA.

3. An increase in payable from maintenance service for Temple I gas-fired power plant THB 267 million was from a reclassification from non-current liabilities THB 281 million, addition during the year THB 109 million, cash settlement THB 90 million, and unrealized gain on foreign exchange rate translation at the end of period of THB 33 million.
  4. An increase in accrued interest expense from related party THB 43 million.
  5. An increase in account payable related party THB 52 million.
  6. A decrease in derivative liabilities - electricity call option THB 29 million.
  7. A decrease in advance received from steam residential customers CHP plants in China THB 63 million.
  8. A decrease in payable from purchase of asset CHP plant 125 million.
- Long-term loans from financial institutions of THB 9,860 million, increase by THB 607 million or 7%, was a net result of additional loan THB 1,552 million (including net front end fee), and reclassification to current portion THB 1,008 million unrealized loss on foreign exchange rate translation at the end of period THB 63 million on USD loan, as a result of a depreciation of THB currency against USD currency. Average exchange rate of USD/THB as at 31 Dec 2022 was THB 34.5624 (2021: THB 33.4199)
  - Debentures, net of THB 5,492 million (including net financing fee) was from an issuance of unsubordinated and unsecured debentures during the year.
  - Other non-current liabilities of THB 132 million, decrease by THB 4,916 million or 97% was mainly from:
    1. A decrease in long-term loan from related parties of 4,712 million from reclassification to current portion of THB 4,386 million, repayment THB 494 million, and from unrealized loss on foreign exchange rate translation at the end of period of THB 168 million.
    2. A decrease in other liabilities from a reclassification to current liabilities of payable from maintenance service for Temple I gas-fired power plant of THB 281 million.
    3. An increase in deferred tax liabilities of 47 million, due to time different in depreciation calculation from Temple I gas-fired power plant in USA.
    4. An increase from remeasurement of employee benefit obligation of THB 30 million.

3.3 Shareholders' equity of THB 52,791 million, an increase of THB 3,212 million or 6% compared to shareholders' equity as of 31 December 2021 was due to:

Financial Position (Unit: Million Baht)	Equity		Increase/(Decrease)	
	31-Dec-22	31-Dec-21	Amount	%
Owners of the parent	48,481	45,635	2,846	6%
Non-controlling interests	4,310	3,944	366	9%
<b>Total equity</b>	<b>52,791</b>	<b>49,579</b>	<b>3,212</b>	<b>6%</b>

- An increase of THB 5,738 million from 2022 net profit.
- An increase of THB 753 million from cashflows hedge reserves of associate and joint venture.
- An increase of THB 116 million from the change in fair value of hedged financial instruments.
- An increase of THB 366 million from non-controlling interests.
- A decrease in remeasurement of employment benefit of THB 21 million.
- A decrease of THB 1,454 million from foreign exchange translation of subsidiaries and joint ventures' financial statements.
- A decrease of THB 2,286 from dividend paid.

Net debt to equity ratio as of 31 December 2022 from consolidated financial positions was 0.24 times. (31 December 2021: 0.28 time)

## 4. Statements of Consolidated Cash Flows

Statement of consolidated cash flows for the year ended 31 December 2022 reported an increase of net cash flows from 31 December 2021 total of THB 1,420 million (included exchange rate translation loss of THB 39 million). The consolidated cash flows were as follows:

Cash Flow (Unit: Million Baht)	Consolidated
Net cash receipts from in operating activities	630
Net cash receipts from investing activities	4,085
Net cash used in financing activities	(3,526)
<b>Net increase in cash and cash equivalents</b>	<b>1,459</b>
Exchange differences on cash and cash equivalents	(39)
Cash and cash equivalents at beginning of the period	2,635
<b>Cash and cash equivalents at end of the period</b>	<b>4,055</b>

- 4.1 Net cash inflows from operating activities of THB 630 million was comprised of:
- Collection from sales of power and steam THB 7,900 million.
  - Payment to suppliers and contractors THB 6,373 million.
  - Payment of interest expense THB 802 million.
  - Payment of corporate income tax THB 95 million.
- 4.2 Net cash inflows from investing activities of THB 4,085 million was comprised of:
- Receipts of dividends from joint ventures THB 1,665 million.
  - Receipts from interest income THB 432 million.
  - Receipts from investment in debt instruments THB 2,335 million.
  - Receipts from short-term and long-term loan to related party THB 4,033 million.
  - Payments for machine, equipment, and project in progress THB 407 million.
  - Payments for addition of investment in a joint venture in China and investment in renewable energy and technology business of THB 2,102 million.
  - Payments for investment in debt instruments THB 1,869 million.
  - Payment for loan to related party of THB 2 million.
- 4.3 Net cash outflows from financing activities of THB 3,256 million was comprised of:
- Receipts from short-term and long-term loans from financial institutions THB 8,097 million.
  - Receipts from debentures of THB 5,500 million.
  - Repayments of short-term and long-term loans from financial institutions THB 14,059 million.
  - Repayment of long-term loan from related party of THB 494 million
  - Payment for dividend of THB 2,286 million.
  - Payment for lease liability of THB 14 million.

# Independent Auditor's Report

## To the shareholders of Banpu Power Public Company Limited

### My opinion

In my opinion, the consolidated financial statements and the separate financial statements present fairly, in all material respects, the consolidated financial position of Banpu Power Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial position of the Company as at 31 December 2022, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRS).

### What I have audited

The consolidated financial statements and the separate financial statements comprise:

- the consolidated and separate statements of financial position as at 31 December 2022;
- the consolidated and separate statements of comprehensive income for the year then ended;
- the consolidated and separate statements of changes in equity for the year then ended;
- the consolidated and separate statements of cash flows for the year then ended; and
- the notes to the consolidated and separate financial statements, which include significant accounting policies and other explanatory information.

### Basis for opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated and separate financial statements section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants including Independence Standards issued by the Federation of Accounting Professions (TFAC Code) that are relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with the TFAC Code. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

### Key audit matters

Key audit matters are those matters that, in my professional judgement, were of most significance in my audit of the consolidated and separate financial statements of the current period. I determined one key audit matter: Impairment assessment of investment in a subsidiary. The matter was addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on the matter.

Key audit matter	How my audit addressed the key audit matter
<p><b>Impairment assessment of investment in a subsidiary</b></p> <p>Refer to Note 14 Investments in subsidiaries, associates and joint ventures, the Company has an investment in Banpu Coal Power Ltd., a subsidiary whose principal business is to invest in a power business. The cost of investment in the subsidiary less an allowance for impairment in the separate statement of financial position was Baht 5,652 million.</p> <p>As at 31 December 2022, the cost of investment in this subsidiary less an allowance for impairment as presented in the separate financial statements was higher than its net equity value. Management considered this an impairment indicator of investment in the subsidiary and therefore performed an impairment test by applying the value-in-use model to calculate the recoverable amount. This model involves significant management judgment with respect to the future operating results of business, projected cash flows and the discount rate to be applied to the projected cash flows. The subsidiary has an investment in a coal-fired power plant in Thailand. Management has applied a value-in-use model based on the projected cash flow of the coal-fired power plant to calculate its recoverable amount. The key assumptions applied in the value-in-use model are electricity tariff, assumed power plant capacity, growth rate, expected changes to operating expenditures, and the discount rate to be applied to the projected cash flows.</p> <p>As a result of management’s impairment testing, the recoverable amount of this investment is higher than the carrying value. Therefore, the Company did not recognise an additional impairment of investment in the subsidiary in the separate financial statements of 2022.</p> <p>I focused on the impairment assessment of the investments in a subsidiary and their related assets due to their significant values, the various assumptions applied to calculate of the recoverable amounts and management’s significant judgements involved in determining the impairment testing.</p>	<p>I carried out the following procedures to assess the impairment testing of the investment in a subsidiary which prepared by the management.</p> <ul style="list-style-type: none"> <li>assessed the appropriateness of management’s identification of the indicators for impairment of investment in a subsidiary.</li> <li>held discussions with the management to understand the basis for assumptions applied to the cash flow projections.</li> <li>challenged management’s significant assumptions applied in the impairment testing of the investment in a subsidiary, especially the electricity tariffs, assumed the power plant capacity, growth rate and operating expenditures, and compared those assumptions to the underlying agreements, external sources, foreign exchange rate forecasts and the approved business plan.</li> <li>Assessed the reasonableness of the business plan by comparing the 2022 plan with actual results.</li> <li>assessed the discount rate applied by management, taking into account independently obtained data from available public information of companies in the industry to see whether the discount rate applied by management was within the acceptable range.</li> </ul> <p>As a result of the procedures performed, I noted that the key assumptions applied by management in assessing the recoverable amount were reasonable and consistent with supporting evidence.</p>

**Other information**

The directors are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor’s report thereon. The annual report is expected to be made available to me after the date of this auditor’s report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to the audit committee.

## Responsibilities of the directors for the consolidated and separate financial statements

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRS, and for such internal control as the directors determine is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, the directors are responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

The audit committee assists the directors in discharging their responsibilities for overseeing the Group's and the Company's financial reporting process.

## Auditor's responsibilities for the audit of the consolidated and separate financial statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are

inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.

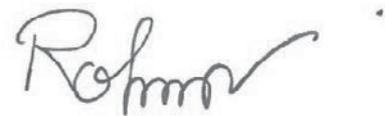
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the audit committee with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with the audit committee, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

PricewaterhouseCoopers ABAS Ltd.



**Rodjanart Banyatananusard**

Certified Public Accountant (Thailand) No. 8435

Bangkok

22 February 2023

# Banpu Power Public Company Limited

## Statement of Financial Position As at 31 December 2022

	Note	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	10	4,055,323	2,634,854	2,282,821	1,141,799
Restricted deposits at financial institutions		43	194	-	-
Financial assets measured at fair value through profit or loss	6, 11	54,630	524,272	-	-
Financial assets measured at fair value through other comprehensive income	6	3,087	5,600	-	-
Trade receivables and note receivables, net	12	1,753,942	1,311,280	-	-
Amounts due from related parties	26	790,485	869,310	835,648	762,162
Current portion of dividend receivables from related parties	14, 26	50,000	125,000	-	125,000
Advances to related parties	26	3,558	2,761	3,558	2,761
Short-term loans to related parties	26	1,900,163	2,363,615	-	-
Current portion of long-term loans to related parties	26	1,581,427	341,296	7,189,177	-
Fuel		813,515	904,092	-	-
Spare parts and supplies, net		287,912	282,111	-	-
Derivative assets	6	43,182	51,778	-	-
Other current assets	13	333,078	466,355	19,692	9,140
<b>Total current assets</b>		<b>11,670,345</b>	<b>9,882,518</b>	<b>10,330,896</b>	<b>2,040,862</b>
<b>Non-current assets</b>					
Dividend receivables from related parties	14, 26	113,831	238,831	-	45,000
Long-term loans to related parties	26	644,224	5,479,065	5,139,755	15,589,253
Investments in subsidiaries, net	14	-	-	19,787,163	19,787,163
Investments in an associate and joint ventures	14	40,512,628	33,766,280	21,784,019	20,084,019
Property, plant and equipment, net	15	22,875,580	23,811,139	1,421	1,396
Right-of-use assets, net	16	566,707	631,098	1,919	3,359
Deferred tax assets, net	17	722,066	602,758	13,104	5,472
Goodwill		43,834	42,385	-	-
Other non-current assets		515,727	412,691	204,311	182,591
<b>Total non-current assets</b>		<b>65,994,597</b>	<b>64,984,247</b>	<b>46,931,692</b>	<b>55,698,253</b>
<b>Total assets</b>		<b>77,664,942</b>	<b>74,866,765</b>	<b>57,262,588</b>	<b>57,739,115</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Financial Position

As at 31 December 2022

	Note	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Liabilities and equity</b>					
<b>Current liabilities</b>					
Short-term loans from financial institutions	18	241,581	6,551,133	-	6,134,199
Trade payables		219,553	331,090	-	-
Advances from and amounts due to related parties	26	679,760	629,639	485	5,948
Current portion of long-term loans					
from financial institutions, net	20	1,231,393	1,439,380	853,687	850,260
Current portion of long-term loans					
from a related party	26	4,385,969	-	-	-
Current portion of lease liabilities, net	16	12,698	12,759	1,444	1,380
Derivative liabilities	6	98,696	127,779	-	-
Income tax payable		29,043	957	-	-
Other current liabilities	19	2,486,597	1,875,427	160,890	79,976
<b>Total current liabilities</b>		<b>9,385,290</b>	<b>10,968,164</b>	<b>1,016,506</b>	<b>7,071,763</b>
<b>Non-current liabilities</b>					
Long-term loans from financial institutions, net	20	9,860,034	9,252,789	9,850,089	9,134,956
Long-term loans from a related party	26	-	4,712,206	-	-
Debentures, net	21	5,492,066	-	5,492,066	-
Lease liabilities, net	16	4,459	18,265	834	2,278
Deferred tax liabilities, net	17	71,499	24,776	-	-
Employee benefit obligations		59,961	29,210	59,961	29,210
Other non-current liabilities		-	282,049	-	-
<b>Total non-current liabilities</b>		<b>15,488,019</b>	<b>14,319,295</b>	<b>15,402,950</b>	<b>9,166,444</b>
<b>Total liabilities</b>		<b>24,873,309</b>	<b>25,287,459</b>	<b>16,419,456</b>	<b>16,238,207</b>
<b>Equity</b>					
Share capital					
Registered share capital					
3,101,202,000 ordinary shares of Baht 10 each		31,012,020	31,012,020	31,012,020	31,012,020
Issued and paid-up share capital					
3,047,731,700 ordinary shares of Baht 10 each		30,477,317	30,477,317	30,477,317	30,477,317
Premium on share capital		7,231,386	7,231,386	7,231,386	7,231,386
Surplus from business combination					
under common control		(3,891,564)	(3,891,564)	-	-
Reserve for share-based payment		40,326	40,326	40,326	40,326
Retained earnings					
Appropriated					
- Legal reserve	22	1,730,200	1,647,200	1,730,200	1,647,200
Unappropriated		13,996,975	10,648,296	1,363,903	2,104,679
Other components of equity		(1,103,423)	(517,787)	-	-
Owners of the Company		48,481,217	45,635,174	40,843,132	41,500,908
Non-controlling interests	14	4,310,416	3,944,132	-	-
<b>Total equity</b>		<b>52,791,633</b>	<b>49,579,306</b>	<b>40,843,132</b>	<b>41,500,908</b>
<b>Total liabilities and equity</b>		<b>77,664,942</b>	<b>74,866,765</b>	<b>57,262,588</b>	<b>57,739,115</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Comprehensive Income For the year ended 31 December 2022

	Note	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
Sales		24,501,208	6,784,497	-	-
Cost of sales		(22,089,857)	(6,824,268)	-	-
<b>Gross profit (loss)</b>		<b>2,411,351</b>	<b>(39,771)</b>	<b>-</b>	<b>-</b>
Dividend income from subsidiaries and joint ventures	14, 26	-	-	1,483,839	793,871
Management fee and others		548,172	652,375	29,885	76,702
Interest income		357,266	381,457	720,084	447,490
Selling expenses		(6,862)	(833)	-	-
Administrative expenses		(1,879,686)	(1,102,269)	(336,293)	(346,249)
Provision for impairment loss on investment in a subsidiary		-	-	-	(270,000)
Net gains (losses) from changes in fair value of financial instruments		(661,745)	240,988	-	(1,970)
Net gains (losses) on exchange rate		(26,818)	374,543	297,165	386,135
Interest expenses		(890,753)	(245,711)	(495,404)	(151,090)
Other financial costs		(6,199)	(3,735)	(6,199)	(3,735)
Share of profit from an associate and joint ventures, net	14	6,349,725	2,974,494	-	-
<b>Profit before income taxes</b>		<b>6,194,451</b>	<b>3,231,538</b>	<b>1,693,077</b>	<b>931,154</b>
Income taxes	17	(44,888)	(57,203)	(43,854)	597
<b>Profit for the year</b>		<b>6,149,563</b>	<b>3,174,335</b>	<b>1,649,223</b>	<b>931,751</b>
<b>Other comprehensive income (expense), net of taxes:</b>					
Items that will not be reclassified to profit or loss					
- Share of other comprehensive income (expense) of an associate and joint ventures accounted for using the equity method	14	115,895	(474,371)	-	-
- Remeasurements of post-employment benefit		(21,216)	-	(21,216)	-
Total items that will not be reclassified to profit or loss, net of taxes		94,679	(474,371)	(21,216)	-
Items that will be reclassified to profit or loss					
- Gains on cash flow hedge reserve		-	1,559	-	1,559
- Share of other comprehensive income (expense) of an associate and joint ventures accounted for using the equity method	14	(354,124)	2,814,977	-	-
- Translation differences		(392,008)	1,159,124	-	-
Total items that will be reclassified to profit or loss, net of taxes		(746,132)	3,975,660	-	1,559
<b>Other comprehensive income (expense) for the year, net of taxes</b>		<b>(651,453)</b>	<b>3,501,289</b>	<b>(21,216)</b>	<b>1,559</b>
<b>Total comprehensive income for the year</b>		<b>5,498,110</b>	<b>6,675,624</b>	<b>1,628,007</b>	<b>933,310</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Comprehensive Income

For the year ended 31 December 2022

	Note	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Profit attributable to:</b>					
Owners of the Company		5,738,678	3,127,027	1,649,223	931,751
Non-controlling interests		410,885	47,308	-	-
		<u>6,149,563</u>	<u>3,174,335</u>	<u>1,649,223</u>	<u>931,751</u>
<b>Total comprehensive income attributable to:</b>					
Owners of the Company		5,131,826	6,507,468	1,628,007	933,310
Non-controlling interests		366,284	168,156	-	-
		<u>5,498,110</u>	<u>6,675,624</u>	<u>1,628,007</u>	<u>933,310</u>
<b>Earnings per share</b>					
Basic earnings per share (Baht)	24	1.883	1.026	0.541	0.306

# Banpu Power Public Company Limited

## Statement of Changes in Equity

### For the year ended 31 December 2022

	Notes	Consolidated financial statements Baht'000										Total equity			
		Attributable to owners of the Company											Non-controlling interests		
		Issued and paid-up share capital	Premium on share capital	Treasury shares	Surplus from business combination under common control	Reserve for share-based payment	Retained earnings			Other components of equity				Total other components of equity	
							Legal reserve	Other reserve	Unappropriated	Cash flow hedge reserve	Change in fair value of financial assets				Translation differences
Other comprehensive income (expense)										Total other components of equity					
<b>Opening balance as at 1 January 2022</b>		30,477,317	7,231,386	-	(3,891,564)	40,326	1,647,200	-	10,646,296		(71,066)	(235,908)	(210,813)	(517,787)	3,944,132
Legal reserve	22	-	-	-	-	83,000	-	-	(83,000)	-	-	-	-	-	-
Dividend paid	25	-	-	-	-	-	-	-	(2,285,783)	-	-	-	-	-	(2,285,783)
Profit for the year		-	-	-	-	-	-	-	5,738,678	-	-	-	-	410,885	6,149,563
Other comprehensive income (expense) for the year		-	-	-	-	-	-	-	(21,216)	753,300	115,895	(1,454,831)	(585,636)	(44,601)	(651,453)
<b>Closing balance as at 31 December 2022</b>		30,477,317	7,231,386	-	(3,891,564)	40,326	1,730,200	-	13,996,975	682,234	(120,013)	(1,665,644)	(1,103,423)	4,310,416	52,791,633
<b>Opening balance as at 1 January 2021</b>		30,510,217	7,231,386	(41,694)	(3,891,564)	40,326	1,600,200	41,694	9,550,966	(974,248)	203,889	(3,162,443)	(3,932,802)	869,048	41,977,777
Decrease in share capital		(32,900)	-	41,694	-	-	-	(41,694)	32,900	-	-	-	-	-	-
Legal reserve	22	-	-	-	-	47,000	-	-	(47,000)	-	-	-	-	-	-
Dividend paid	25	-	-	-	-	-	-	-	(1,981,023)	-	-	-	-	-	(1,981,023)
Acquisition of investment in a subsidiary		-	-	-	-	-	-	-	-	-	-	-	-	2,906,928	2,906,928
Profit for the year		-	-	-	-	-	-	-	3,127,027	-	-	-	-	47,308	3,174,335
Total comprehensive income (expense) for the year		-	-	-	-	-	-	-	(34,574)	903,182	(439,797)	2,951,630	3,415,015	120,848	3,501,289
<b>Closing balance as at 31 December 2021</b>		30,477,317	7,231,386	-	(3,891,564)	40,326	1,647,200	-	10,646,296	(71,066)	(235,908)	(210,813)	(517,787)	3,944,132	49,579,306

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Changes in Equity

For the year ended 31 December 2022

	Notes	Separate financial statements Baht'000							Total equity		
		Issued and paid up share capital	Premium on share capital	Treasury shares	Reserve for share-based	Retained earnings		Other components of equity			
						Legal reserve	Other reserve	Unappropriated		Other comprehensive expense	Cash flow hedge reserve
<b>Opening balance as at 1 January 2022</b>		30,477,317	7,231,386	-	40,326	1,647,200	-	2,104,679	-	-	41,500,908
Legal reserve	22	-	-	-	-	83,000	-	(83,000)	-	-	-
Dividend paid	25	-	-	-	-	-	-	(2,285,783)	-	-	(2,285,783)
Profit for the year		-	-	-	-	-	-	1,649,223	-	-	1,649,223
Other comprehensive expense for the year		-	-	-	-	-	-	(21,216)	-	-	(21,216)
<b>Closing balance as at 31 December 2022</b>		30,477,317	7,231,386	-	40,326	1,730,200	-	1,363,903	-	-	40,843,132
<b>Opening balance as at 1 January 2021</b>		30,510,217	7,231,386	(41,694)	40,326	1,600,200	41,694	3,168,051	(1,559)	-	42,548,621
Decrease in share capital		(32,900)	-	41,694	-	-	(41,694)	32,900	-	-	-
Legal reserve	22	-	-	-	-	47,000	-	(47,000)	-	-	-
Dividend paid	25	-	-	-	-	-	-	(1,981,023)	-	-	(1,981,023)
Profit for the year		-	-	-	-	-	-	931,751	-	-	931,751
Total comprehensive income for the year		-	-	-	-	-	-	-	1,559	-	1,559
<b>Closing balance as at 31 December 2021</b>		30,477,317	7,231,386	-	40,326	1,647,200	-	2,104,679	-	-	41,500,908

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Cash Flows

For the year ended 31 December 2022

	Notes	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Cash flows from operating activities</b>					
Profit for the year before income taxes		6,194,451	3,231,538	1,693,077	931,154
Adjustment to reconcile profit for cash receipts (payments) from operations					
- Depreciation and amortisation		1,245,794	580,598	2,246	1,964
- Interest income		(357,266)	(381,457)	(720,084)	(447,490)
- Interest expenses		890,753	245,711	495,404	151,090
- Other financial costs		6,199	3,735	6,199	3,735
- Share of profit from an associate and joint ventures, net	14	(6,349,725)	(2,974,494)	-	-
- Dividend income from subsidiaries and joint ventures	14, 26	-	-	(1,483,839)	(793,871)
- Loss on disposal of investment in an associate		-	245	-	16,408
- Provision for impairment loss on investment in a subsidiary		-	-	-	270,000
- Net gains on disposal of property, plant and equipment		(33)	(10)	(33)	(10)
- Write-off property, plant and equipment	15	67,254	11,375	-	-
- Net gains from changes in fair value of financial instruments		(20,487)	(242,959)	-	-
- Net gains on exchange rate		(97,059)	(110,759)	(292,217)	(385,792)
Cash flow before changes in working capital		1,579,881	363,523	(299,247)	(252,812)
Changes in working capital (net of effects from acquisition and disposal of subsidiaries)					
- Trade receivables and note receivables		(442,662)	(371,991)	-	-
- Amounts due from related parties		(37,630)	1,208	5,970	573
- Advances to related parties		(797)	6,043	(797)	31,421
- Fuel and spare parts		84,776	(468,945)	-	-
- Other current assets		136,228	(274,459)	36,437	4,293
- Other non-current assets		(103,744)	(24,170)	(22,017)	(16,192)
- Trade payables		(111,537)	152,596	-	-
- Advances from and amounts due to related parties		8,382	292,271	(5,463)	(23,419)
- Employee benefits obligation		4,231	2,697	4,231	2,697
- Other current liabilities		410,628	206,964	37,005	20,221
Cash receipts from (used in) operations		1,527,756	(114,263)	(243,881)	(233,218)
- Interest paid		(802,281)	(164,632)	(449,657)	(113,880)
- Income tax paid		(94,781)	(88,751)	(46,182)	-
Net cash receipts from (used in) operating activities		630,694	(367,646)	(739,720)	(347,098)

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Cash Flows

For the year ended 31 December 2022

	Notes	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Cash flows from investing activities</b>					
Cash receipts from financial assets measured at fair value through profit or loss		2,280,324	1,662,839	-	-
Cash payments for financial assets measured at fair value through profit or loss		(1,817,352)	(1,801,146)	-	-
Net cash payments for restricted deposits at financial institutions		149	(89)	-	-
Cash receipts from financial assets measured at fair value through other comprehensive income		53,555	78,922	-	-
Cash payments for financial assets measured at fair value through other comprehensive income		(51,236)	(73,044)	-	-
Cash receipts from short-term loans to related parties	26	468,974	744,980	-	-
Cash payment for short-term loans to related parties	26	(1,835)	-	-	-
Cash receipts from long-term loans to related parties	26	3,564,398	24,833	3,630,535	15,940
Cash payments for long-term loans to related parties	26	-	-	(18,666)	(8,301,759)
Cash payments for additional investments in a subsidiary		-	-	-	(1,933,992)
Net cash payments for acquisition of investment in a subsidiary		-	(14,747,833)	-	-
Cash payments for additional investments in an associate and a joint venture	14	(2,101,691)	-	(1,700,000)	-
Cash payments for purchase of investments in an associate and a joint venture		-	(2,679,266)	-	(236,000)
Cash payments for purchase of property, plant and equipment		(407,409)	(257,772)	(545)	(158)
Cash receipts from disposal of property, plant and equipment		44	34	44	19
Interest received		431,446	57,698	610,990	3,440
Cash receipts from dividends from subsidiaries and joint ventures	14	1,665,431	937,282	1,652,431	969,904
<b>Net cash receipts from (used in) investing activities</b>		<b>4,084,798</b>	<b>(16,052,562)</b>	<b>4,174,789</b>	<b>(9,482,606)</b>

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Statement of Cash Flows

For the year ended 31 December 2022

	Notes	Consolidated financial statements		Separate financial statements	
		2022 'Baht'000	2021 'Baht'000	2022 'Baht'000	2021 'Baht'000
<b>Cash flows from financing activities</b>					
Cash receipts from short-term loans from financial institutions		6,555,805	9,184,921	5,900,000	8,539,800
Cash payments for short-term loans from financial institutions		(12,848,572)	(4,196,169)	(12,032,467)	(3,457,340)
Cash receipts from long-term loans from financial institutions	20	1,552,108	7,140,799	1,500,000	6,993,806
Cash payments for long-term loans from financial institutions	20	(1,210,812)	(971,363)	(863,850)	(700,000)
Cash receipts from debentures	21	5,500,000	-	5,500,000	-
Cash receipts from long-term loans from a related party	26	-	4,721,033	-	-
Cash payments for long-term loans from a related party	26	(494,365)	-	-	-
Cash payments for lease liabilities	16	(13,904)	(13,319)	(1,511)	(1,511)
Cash payments for other financial costs		(10,436)	(17,798)	(10,436)	(17,798)
Proceeds from non-controlling interests		-	2,906,928	-	-
Dividend paid to shareholders	25	(2,285,783)	(1,981,023)	(2,285,783)	(1,981,023)
Net cash receipts from (used in) financing activities		(3,255,959)	16,774,009	(2,294,047)	9,375,934
<b>Net increase (decrease) in cash and cash equivalents</b>		1,459,533	353,801	1,141,022	(453,770)
Exchange differences on cash and cash equivalents		(39,064)	112,020	-	-
Cash and cash equivalents at beginning of the year		2,634,854	2,169,033	1,141,799	1,595,569
Cash and cash equivalents at end of the year		4,055,323	2,634,854	2,282,821	1,141,799
<b>Supplementary of cash flows</b>					
Significant non-cash transactions as at 31 December					
Other payables for purchase of property, plant and equipment	19	233,691	358,203	-	-
Conversion of long-term loans to a related party to investment in a subsidiary		-	-	-	1,004,454
Amounts due from a related party for a disposal of investment in an associate		-	6,000	-	6,000

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

# Banpu Power Public Company Limited

## Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

### 1. General information

Banpu Power Public Company Limited (the Company) is a public company which listed on the Stock Exchange of Thailand. The Company is incorporated and domiciled in Thailand. The address of the Company's registered office is 1550, Thanapoom Tower 26th Floor, New Petchburi Road, Makkasan, Ratchathewi, Bangkok.

For reporting purpose, the Company and its subsidiaries are referred to as the Group.

The Company is a subsidiary of Banpu Public Company Limited (the Parent) who holds 78.66% of the Company's shares.

The Group is engaged in investments in power businesses in Thailand and overseas.

These consolidated and separate financial statements were authorised by Board of Directors on 22 February 2023.

### 2. Basis of preparation

The consolidated and separate financial statements have been prepared in accordance with Thai Financial Reporting Standards (TFRS) and the financial reporting requirements issued under the Securities and Exchange Act.

The consolidated and separate financial statements have been prepared under the historical cost convention except for certain accounts as disclosed in the accounting policies.

The preparation of financial statements in conformity with TFRS requires management to use certain critical accounting estimates and to exercise its judgement in applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas that are more likely to be materially adjusted due to changes in estimates and assumptions are disclosed in Note 7.

An English version of the consolidated and separate financial statements has been prepared from the financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language financial statements shall prevail.

### 3. Amended financial reporting standards

#### 3.1 Amended financial reporting standards that are effective for accounting period beginning on or after 1 January 2022 and related to the Group

Interest rate benchmark (IBOR) reform - phase 2, amendments to TFRS 9, TFRS 7 and TFRS 16 provide relief measures addressing issues that might affect financial reporting during the reform, including the effects of changes to contractual cash flows or hedging relationship arising from the replacement of one benchmark with an alternative benchmark.

Key relief measures of the phase 2 amendments are as follows:

- When changing the basis for determining contractual cash flows for financial assets and financial liabilities (including lease liabilities), changes that are necessary as a direct result of the IBOR reform and which are considered economically equivalent, will not result in an immediate gain or loss in the statement of income. TFRS 16 has also been amended to require lessees to use a similar practical expedient when accounting for lease modifications that change the basis for determining future lease payments as a result of the IBOR reform.
- Hedge accounting relief measures will allow most TFRS 9 hedge relationships that are directly affected by the IBOR reform to continue. However, additional ineffectiveness might need to be recorded.

TFRS 7 requires additional disclosure about:

- The nature and extent of risks arising from the IBOR reform to which the entity is exposed to.
- How the entity manages those risks.
- The entity's progress in transitioning from the IBOR to alternative benchmark rates and how the entity is managing this transition.

The impacts from the amendments are disclosed in Note 5.1.1 b)

### 3.2 Amended financial reporting standards that are effective for accounting period beginning or after 1 January 2023.

- a) **Amendment to TAS 16 Property, plant and equipment** clarified to prohibit entities from deducting from the cost of an item of property plant and equipment any proceeds received from selling any items produced while the entity is preparing that asset for its intended use.
- b) **Amendment to TAS 37 Provisions, contingent liabilities and contingent assets** clarified that, in considering whether a contract is onerous, the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling the contract. Before recognising a separate provision for an onerous contract, the entity must recognise any impairment losses that have occurred on the assets used in fulfilling the contract.
- c) **Amendment to TFRS 3 Business combinations** clarified some minor amendments to update its references to the Conceptual Framework for Financial Reporting and added a consideration for the recognition of liabilities and contingent liabilities acquired from business combinations. The amendments also confirmed that contingent assets shouldn't be recognised at the acquisition date.
- d) **Amendment to TFRS 9 Financial instruments** clarified which fees should be included in the 10% test for the derecognition of financial liabilities. It should only include fees between the borrower and lender.

The Group has not yet adopted these standards. However, the Group's management assesses that the adoption of these standards does not have significant impact to the Group.

## 4. Accounting policies

The principal accounting policies adopted in the preparation of these consolidated and separate financial statements are set out below:

### 4.1 Principles of consolidation

#### a) Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are consolidated from the date on which control is transferred to the Group until the date that control ceases.

In the separate financial statements, investments in subsidiaries are accounted for using cost method less impairment (if any).

**b) Associates**

Associates are all entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting.

In the separate financial statements, investments in associates are accounted for using cost method less impairment (if any).

**c) Joint arrangements**

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangements.

***Joint operations***

A joint operation is a joint arrangement whereby the Group has rights to the assets, and obligations for the liabilities relating to the arrangement. The Group recognises its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. These have been incorporated in the Group's financial statement line items.

***Joint ventures***

A joint venture is a joint arrangement whereby the Group has rights to the net assets of the arrangement. Interests in joint ventures are accounted for using the equity method.

In the separate financial statements, investments in joint ventures are accounted for using cost method less impairment (if any).

**d) Equity method**

The investment is initially recognised at cost which is consideration paid and directly attributable costs.

The Group's subsequently recognises shares of its associates and joint ventures' profits or losses and other comprehensive income in the profit or loss and other comprehensive income, respectively. The subsequent cumulative movements are adjusted against the carrying amount of the investment.

When the Group's share of losses in associates and joint ventures equals or exceeds its interest in the associates and joint ventures, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associates and joint ventures.

### e) Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A difference between the amount of the adjustment to non-controlling interests to reflect their relative interest in the subsidiary and any consideration paid or received is recognised within equity.

If the ownership interest in associates and joint ventures is reduced but significant influence and joint control is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate. Profit or loss from reduce of the ownership interest in associates and joint ventures is recognise in profit or loss.

When the Group losses control, joint control or significant influence over investments, any retained interest in the investment is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value becomes the initial carrying amount of the retained interest which is reclassified to investment in an associate, or a joint venture or a financial asset accordingly.

### f) Intercompany transactions on consolidation

Intra-group transactions, balances and unrealised gains on transactions are eliminated. Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in the associates and joint ventures. Unrealised losses are also eliminated in the same manner unless the transaction provides evidence of an impairment of the asset transferred.

## 4.2 Business combination

The Group applies the acquisition method to account for business combinations with an exception on business combination under common control. The consideration transferred for the acquisition of a subsidiary comprises fair value of the assets transferred, liabilities incurred to the former owners of the acquiree and equity interests issued by the Group.

Identifiable assets and liabilities acquired and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date.

On an acquisition-by-acquisition basis, the Group initially recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The excess of the consideration transferred, the amount of any non-controlling interest recognised and the acquisition-date fair value of any previous equity interest in the acquiree (for business combination achieved in stages) over the fair value of the identifiable net assets acquired is recorded as goodwill. In the case of a bargain purchase, the difference is recognised directly in profit or loss.

**Acquisition-related cost**

Acquisition-related cost are recognised as expenses in consolidated financial statements.

**Step-up acquisition**

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measured are recognised in profit or loss.

**Changes in fair value of contingent consideration paid/received**

Subsequent changes to the fair value of the contingent consideration that is an asset or liability is recognised in profit or loss. Contingent consideration that is classified as equity is not re-measured.

**Business combination under common control**

The Group accounts for business combination under common control by measuring acquired assets and liabilities of the acquiree at their carrying values presented in the highest level of the consolidation. The Group retrospectively adjusted the business combination under common control transactions as if the combination had occurred on the later of the beginning of the preceding comparative period and the date the acquiree has become under common control.

Consideration of business combination under common control are the aggregated amount of fair value of assets transferred, liabilities incurred and equity instruments issued by the acquirer at the date of which the exchange in control occurs.

The difference between consideration under business combination under common control and the acquirer's interests in the carrying value of the acquiree is presented as "surplus arising from business combination under common control" in equity and is derecognised when the investment is disposed of by transferred to retained earnings.

## 4.3 Foreign currency translation

### a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which each entity operates (the Functional Currency). The financial statements are presented in Baht, which is the Company's functional currency and presentation currency.

## b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transaction. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

Any exchange component of gains and losses on a non-monetary item that recognised in profit or loss, or other comprehensive income is recognised following the recognition of a gain or loss on the non-monetary item.

## c) Group companies

The results and financial position of all of the Group's entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities are translated at the closing rate at the date of respective statement of financial position;
- income and expenses for statement of comprehensive income are translated at average exchange rates; and
- all resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

## 4.4 Cash and cash equivalents

In the consolidated statements of cash flows and separate statements of cash flows, cash and cash equivalents includes cash on hand, deposits held at call, short-term highly liquid investments with original maturities of three months or less from acquisition date.

## 4.5 Trade receivables and note receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. They are classified as current.

Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, they are recognised at its present value. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost.

Notes receivable are notes received from customers that are issued by a private company from sales of electricity and steam from subsidiaries in the People's Republic of China in the ordinary course of business. If collection is expected in one year or less, they are classified as current assets. If not, they are presented as non-current assets.

The impairment of trade receivables and note receivables is disclosed in Note 4.7 f).

## 4.6 Fuel and spare parts

Fuel consists of coal, diesel and natural gas and are valued at the lower of cost or net realisable value. Spare parts which are not met conditions of property, plant and equipment are stated at cost less allowance for obsolescence and defective.

Cost of fuel and spare parts are determined by the weighted average method. The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition, such as import duties and transportation charges, less all attributable discounts and allowances. Net realisable value is the estimate of the selling price in the ordinary course of business, less the costs of completion. The Group recognises allowance for obsolete, slow-moving and defective spare parts are reviewed on a specific case.

## 4.7 Financial assets

### a) Classification

The Group classifies its debt instrument financial assets in the following measurement categories depending on i) business model for managing the asset and ii) the cash flow characteristics of the asset whether they represent solely payments of principal and interest (SPPI).

- those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss); and
- those to be measured at amortised cost.

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

For investments in equity instruments, the Group has an irrevocable election at the time of initial recognition to account for the equity investment at fair value through profit or loss (FVPL) or at fair value through other comprehensive income (FVOCI) except those that are held for trading, they are measured at FVPL.

### b) Recognition and derecognition

Purchases, acquisitions, and sales of financial assets are recognised on trade-date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

### c) Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether the cash flows are solely payment of principal and interest (SPPI).

### d) Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the financial assets. There are three measurement categories into which the Group classifies its debt instruments:

- Amortised cost: Financial assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is included in interest income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss. Impairment expenses are included in administrative expenses.
- FVOCI: Financial assets that are held for i) collection of contractual cash flows; and ii) for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through other comprehensive income (OCI), except for the recognition of impairment gains or losses, interest income using the effective interest method, and foreign exchange gains and losses which are recognised in profit or loss. When the financial assets are derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and recognised in other gains (losses). Interest income is included in interest income. Impairment expenses are included in administrative expenses.
- FVPL: Financial assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within net gains (losses) from changes in fair value of financial instruments in the period in which it arises.

### e) Equity instruments

The Group measures all equity investments at fair value. Where the Group has elected to present fair value gains and losses on equity instruments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in profit or loss as dividend income when the right to receive payments is established.

Changes in the fair value of financial assets at FVPL are recognised in net gains (losses) from changes in fair value of financial instruments in the statement of comprehensive income.

Impairment losses and reversal of impairment losses on equity investments are reported together with changes in fair value.

### f) Impairment

The Group applies the TFRS 9 simplified approach in measuring the impairment of trade receivables and other receivables, which applies lifetime expected credit loss, from initial recognition, for trade receivables and other receivables.

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected credit loss rates are based on payment profiles, historical credit losses as well as forward-looking information and factors that may affect the ability of the customers to settle the outstanding balances.

For other financial assets carried at amortised cost and FVOCI, the Group applies TFRS 9 general approach in measuring the impairment of those financial assets. Under the general approach, the 12-month or the lifetime expected credit loss is applied depending on whether there has been a significant increase in credit risk since the initial recognition.

The significant increase in credit risk (from initial recognition) assessment is performed every end of reporting period by comparing i) expected risk of default as of the reporting date and ii) estimated risk of default on the date of initial recognition.

The Group assesses expected credit loss by taking into consideration forward-looking information and past experiences. The expected credit loss is a probability-weighted estimate of credit losses (probability-weighted present value of estimated cash shortfall). The cash shortfall is the difference between all contractual cash flows that are due to the Group and all cash flows expected to receive, discounted at the original effective interest rate.

When measuring expected credit losses, the Group reflects the following:

- probability-weighted estimated uncollectible amounts
- time value of money; and
- supportable and reasonable information as of the reporting date about past experience, current conditions and forecasts of future situations.

Impairment and reversal of impairment losses are recognised in profit or loss and included in administrative expenses.

#### 4.8 Non-current assets (or disposal groups) held-for-sale

Non-current assets (or disposal groups) are classified as held-for-sale when their carrying amount will be recovered principally through a sale transaction and a sale is considered highly probable. They are measured at the lower of the carrying amount and fair value less costs to sell.

An impairment loss is recognised for write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognised.

#### 4.9 Property, plant and equipment

Property, plant and equipment are initially recorded at cost including contingent consideration arrangement. Subsequently, all plant and equipment are stated at historical cost less accumulated depreciation and allowance for impairment. Subsequent changes contingent consideration shall be recognised as part of its cost.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

Depreciation is calculated on the straight-line method to write off the cost of each asset to their residual values over their estimated useful life as follows:

Building and building improvements	5 to 30 years
Power plants and components of power plants and machinery and equipment	10 to 30 years
Furniture and tools	3 to 5 years
Office equipment	3 to 5 years
Motor vehicles	5 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount.

Gains and losses on disposals are determined by comparing proceeds with carrying amount and are recognised in the profit or loss.

#### 4.10 Goodwill

Goodwill is tested for impairment annually, or more frequently if events or changes in circumstances indicate that it might be impaired. It is carried at cost less accumulated impairment losses.

For the purpose of impairment testing, goodwill is allocated to cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose. The units or groups of units are identified at the lowest level at which goodwill is monitored for internal management purposes.

#### 4.11 Intangible assets

##### a) Computer software

Computer software development costs recognised as assets are amortised over their estimated useful lives, which do not exceed 5 years.

##### b) Rights to operate the power plants

The rights to operate the power plants arising from purchase of investments are amortised over the periods of estimated useful life of the power plants.

#### 4.12 Impairment of assets

Assets that have an indefinite useful life are tested annually for impairment, or more frequently if events or changes in circumstances indicate that it might be impaired. Assets that are subject to amortisation are reviewed for impairment whenever there is an indication of impairment. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. Where the reasons for previously recognised impairments no longer exist, the impairment losses on the assets concerned other than goodwill is reversed.

## 4.13 Leases

### ***Where the Group is the lessee***

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices. However, for leases of real estate for which the group is a lessee, it has elected not to separate lease and non-lease components and instead accounts for these as a single lease component.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

The Group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise small items of office furniture.

#### ***Where the Group is the lessor***

When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Lease income is recognised over the term of the lease which reflects a constant periodic rate of return. Initial direct costs are included in initial measurement of the finance lease receivable and reduce the amount of income recognised over the lease term.

Rental income under operating leases (net of any incentives given to lessees) is recognised on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognised as expense over the lease term on the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature.

## **4.14 Financial liabilities**

### **a) Classification**

Financial instruments issued by the Group are classified as either financial liabilities or equity securities by considering contractual obligations.

- Where the Group has an unconditional contractual obligation to deliver cash or another financial asset to another entity, it is considered a financial liability unless there is a predetermined or possible settlement for a fixed amount of cash in exchange of a fixed number of the Group's own equity instruments.
- Where the Group has no contractual obligation or has an unconditional right to avoid delivering cash or another financial asset in settlement of the obligation, it is considered an equity instrument.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

**b) Measurement**

Financial liabilities are initially recognised at fair value and are subsequently measured at amortised cost.

**c) Derecognition and modification**

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled, or expired.

Where the terms of a financial liability are renegotiated / modified, the Group assesses whether the renegotiation / modification results in the derecognition of that financial liability. Where the modification results in an extinguishment, the new financial liability is recognised based on fair value of its obligation. The remaining carrying amount of financial liability is derecognised. The difference as well as proceed paid is recognised as other gains (losses) in profit or loss.

Where the modification does not result in the derecognition of the financial liability, the carrying amount of the financial liability is recalculated as the present value of the modified contractual cash flows discounted at its original effective interest rate. The difference is recognised in other gains (losses) in profit or loss.

**4.15 Borrowing costs**

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets (assets that take a long time to get ready for its intended use or sale) are added to the cost of those assets less investment income earned from those specific borrowings. The capitalisation of borrowing costs is ceased when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete.

Other borrowing costs are expensed in the period in which they are incurred.

**4.16 Current and deferred income taxes**

The tax expense for the year comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity.

***Current tax***

The current income tax is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

**Deferred income tax**

Deferred income tax is recognised on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements. However, deferred income tax is not recognised for temporary differences arise from:

- initial recognition of an asset or liability in a transaction other than a business combination that affects neither accounting nor taxable profit or loss is not recognised
- investments in subsidiaries, associates and joint arrangements where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax is measured using tax rates of the period in which temporary difference is expected to be reversed, based on tax rates and laws that have been enacted or substantially enacted by the end of the reporting period.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

**4.17 Employee benefits**

The Group operates various post-employment benefits schemes. The Group has both defined benefit and defined contribution plans.

**a) Short-term employee benefits**

Liabilities for short-term employee benefits such as wages, salaries, paid annual leave and paid sick leave, profit-sharing and bonuses that are expected to be settled wholly within 12 months after the end of the period are recognised in respect of employees' service up to the end of the reporting period. They are measured at the amount expected to be paid.

**b) Defined contribution plan**

The Group operates a provident fund that is funded by payments from employees and by the relevant Group companies which are managed by trustee. The Group has no legal or constructive obligations to pay further contributions once the contributions have been paid even if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Contributions to the provident fund are charged to the profit or loss in the year in which they are due.

Furthermore, the Group contributes to a monthly defined contribution retirement benefit plan administered by the government of the People's Republic of China. The relevant government agencies undertake to assume the retirement benefit obligation payable to all existing and future retired employees under this plan and the Group has no further obligation for post-retirement benefits beyond the contributions made. Contributions to this plan are recognised as an expense in profit or loss when incurred.

**c) Retirement benefits**

Employees are entitled to receive benefits reaching normal retirement age under the labour law applicable in Thailand and those countries in which the Group operates, or such other dates of entitlement as may be agreed between the Group and employees. Retirement benefits depend on one or more factors such as age, years of service and compensation.

The liability recognised in the statement of financial position in respect of defined benefit retirement plans is the present value of the defined benefit obligation at the end of the reporting period. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using the interest rates of government securities that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related retirement liability.

Remeasurement of gains and losses arising from experienced adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. They are included in retained earnings in the statements of changes in equity.

Past-service costs are recognised immediately in profit or loss.

## 4.18 Share-based payment

The Group operates a number of equity-settled, its share-based compensation plans, under which the Company receives services from employees as consideration for its equity instruments (warrants). The fair value of the employee services received in exchange for the grant of the options is recognised as an expense. The total amount to be expensed is determined by reference to the fair value of the warrants granted:

- Including any market performance conditions;
- Excluding the impact of any service and non-market performance vesting conditions (for example, profitability, sales growth targets and remaining an employee of the entity over a specified time period); and
- Excluding the impact of any non-vesting conditions (for example, the requirement for employees to save or holdings shares for a specific period of time).

Non-market performance and service conditions are included in assumptions about the number of warrants that are expected to vest. The total expense is recognised over the vesting period, which is the period over which all of the specified vesting conditions are to be satisfied. At the end of each reporting period, the Company revises its estimates of the number of warrants that are expected to vest based on the non-marketing vesting conditions. It recognises the impact of the revision to original estimates, if any, in profit or loss, with a corresponding adjustment to equity.

When the warrants are exercised, the Group issues new shares. The proceeds received net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium.

The grant by the Group of warrants over its equity instruments to the employees of the Parent is treated as a distribution to owner both in the consolidated and separate financial statements and recognised directly to equity at fair value of the warrants as of the grant date.

## 4.19 Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made.

## 4.20 Share capital

Ordinary shares with discretionary dividends are classified as equity.

Incremental external costs directly attributable to the issue of new shares are shown in equity as a deduction, net of tax, from the proceeds.

**Treasury share**

Where any companies within the Group purchases the Company's shares (treasury shares), the consideration paid, including any directly attributable incremental costs (net of taxes) is deducted from equity attributable to the Company's equity holders until the shares are cancelled or reissued. Where such shares are subsequently reissued, any consideration received, net of any directly attributable incremental transaction costs and the related income tax effects, is included in equity attributable to the Company's equity holders.

**4.21 Revenue recognition**

Revenue is recorded net of value added tax. They are recognised in accordance with the provision of goods or services, provided that collectability of the consideration is probable.

Multiple element arrangements involving delivery or provision of multiple products or services are separated into distinct performance obligations. Total transaction price of the bundled contract is allocated to each performance obligation based on their relative standalone selling prices or estimated standalone selling prices. Each performance obligation is recognised as revenue on fulfillment of the obligation to the customer. Revenue is recognised as follows.

***Sales of electricity and steam not under lease agreements***

The Group recognises revenue from sales of electricity and steam relating to Power Purchase Agreement and Steam Purchase Agreement at certain points in time when the control of products is transferred to the customer at the delivery point. Revenue represents the revenue earned from the sale of Group's products with realisable value net of value-added tax, rebate, and discounts.

***Sales of electricity under finance lease agreements***

Finance lease income under power purchase agreements is recognised on an effective interest method over the period of the agreements.

Service income under finance lease agreements related to the Power Purchase Agreements is recognised when the services have been rendered. Service income comprises income in relation to the availabilities of the power plants, other servicing income and fuel cost received from leases with respect to the leased assets. If the considerations exceed the services rendered, a contract liability is recognised. On the other hand, if the considerations less than the services rendered, a contract asset is recognised.

**Dividend income**

Dividend income is recognised when the Group's right to receive payment is established.

**Interest income**

Interest income is recognised using the effective interest method.

**4.22 Dividend distribution**

Dividends distribution to the Group's shareholders is recognised as a liability in the consolidated and separate financial statements in the period in which the dividends are approved by the shareholders and interim dividends are approved by the Board of Directors.

**4.23 Derivatives and hedging activities****a) Embedded derivative and derivatives that do not qualify for hedge accounting**

Embedded derivative that is separately accounted for and derivatives that do not qualify for hedge accounting is initially recognised at fair value. Changes in the fair value are included in "net gains (losses) from changes in fair value of financial instruments".

Fair value of derivatives is classified as a current or non-current following its remaining maturity.

**b) Hedge accounting**

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The Group designates certain derivatives as either:

- hedges of the fair value of i) recognised assets or liabilities or ii) unrecognised firm commitments (fair value hedges)
- hedges of a particular risk associated with the cash flows of i) recognised assets and liabilities and ii) highly probable forecast transactions (cash flow hedges); or
- hedges of a net investment in a foreign operation (net investment hedges).

At inception of the hedge relationship, the Group documents i) the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items and ii) its risk management objective and strategy for undertaking its hedge transactions.

The full fair value of a hedging derivative is classified as a current or non-current asset or liability following the maturity of related hedged item.

**Hedge effectiveness**

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments, to ensure that an economic relationship exists between the hedged item and hedging instrument.

For hedges of foreign currency, the Group enters hedge relationships where the critical terms of the hedging instrument match with the terms of the hedged item. The Group therefore performs a qualitative assessment of effectiveness.

If changes in circumstances affect the terms of the hedged item such that the critical terms no longer match exactly with the critical terms of the hedging instrument, the Group uses the hypothetical derivative method to assess effectiveness.

In hedges of foreign currency, ineffectiveness may arise if the timing of the forecast transaction changes from what was originally estimated, or if there are changes in the credit risk of the derivative counterparty.

The Group enters interest rate swaps that have similar critical terms as the hedged item, such as reference rate, reset dates, payment dates, maturities, and notional amount. The Group does not hedge all of its loans; therefore, the hedged item is identified as a proportion of the outstanding loans up to the notional amount of the swaps. As all critical terms matched during the year, there is an economic relationship.

Hedge ineffectiveness for interest rate swaps is assessed using the same principles as for hedges of foreign currency purchases. It may occur due to the credit value/debit value adjustment on the interest rate swaps which is not matched by the loan, and differences in critical terms between the interest rate swaps and loans.

**Cash flow hedges that qualify for hedge accounting**

The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges is recognised in the cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecasted transaction occurs. When the forecasted transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

### ***Net investment hedges***

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges.

Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in other comprehensive income and accumulated in reserves in equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss within net gains (losses) from changes in fair value of financial instruments. Gains and losses accumulated in equity are reclassified to profit or loss when the foreign operation is partially disposed of or sold.

## **4.24 Financial guarantee contracts**

Financial guarantee contracts are recognised as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value and subsequently at the higher of:

- the amount determined in accordance with the expected credit loss model under TFRS 9; and
- the amount initially recognised less the cumulative amount of income recognised in accordance with the principles of TFRS 15.

The fair value of financial guarantees is determined based on the present value of the difference in cash flows between a) the contractual payments required under the debt instrument; and b) the payments that would be required without the guarantee, or the estimated amount that would be payable to a third party for assuming the obligations.

Where guarantees in relation to loans or other payables of associates are provided for no compensation, the fair values are accounted for as contributions and recognised as part of the cost of the investment.

## **4.25 Segment reporting**

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The Chief Executive Officer is the chief operating decision-maker, responsible for allocating resources, assessing performance of the operating segments, and making strategic decisions.

## 5. Financial risk management

### 5.1 Financial risk

The Group's activities expose it to a variety of financial risks, market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group uses derivative instruments to hedge certain exposures.

Risk management is carried out by a central treasury department under policies approved by the Board of Directors. Group Treasury identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units.

#### 5.1.1 Market risk

##### a) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange rate risk arising from various currency exposures that are not the functional currency of each entity under the Group, primarily with respect to US Dollar and Chinese Yuan. The Group does not use derivative instruments to hedge their exposure to foreign exchange rate risk.

##### *Exposure*

The Group and the Company's exposure to foreign currency risk that is not entity's functional currency expressed in Baht currency, was as follows:

	Consolidated financial statements			
	31 December 2022		31 December 2021	
	US Dollar Baht'000	Chinese Yuan Baht'000	US Dollar Baht'000	Chinese Yuan Baht'000
<u>Financial assets</u>				
Cash and cash equivalents	26,919	-	84,232	-
Amounts due from related parties	718,346	132,615	472,572	116,294
Short-term loans to related parties	1,283,985	-	1,241,540	-
Long-term loans to related parties	10,103,281	484,224	10,110,188	511,943
<u>Financial liabilities</u>				
Short-term loans from financial institutions	-	-	334,199	-
Advances from and amounts due to related parties	27,930	-	30,666	-
Other current liabilities	443,854	-	205,033	-
Long-term loans from financial institutions	1,970,057	-	2,005,194	-
Long-term loans from a related party	4,562,898	-	4,365,275	-

	Separate financial statements			
	31 December 2022		31 December 2021	
	US Dollar Baht'000	Chinese Yuan Baht'000	US Dollar Baht'000	Chinese Yuan Baht'000
<u>Financial assets</u>				
Cash and cash equivalents	25,821	-	73,806	-
Amounts due from related parties	598,181	132,615	356,379	116,294
Long-term loans to related parties	10,103,281	484,224	10,110,188	511,943
<u>Financial liabilities</u>				
Short-term loans from financial institutions	-	-	334,199	-
Advances from and amounts due to related parties	-	-	5,948	-
Other current liabilities	29,844	-	9,627	-
Long-term loans from financial institutions	1,970,057	-	2,005,194	-

#### Sensitivity

As shown in the table above, the Group is primarily exposed to changes in Baht and US Dollar and Chinese Yuan and US Dollar. The sensitivity of profit or loss to changes in the exchange rates arises mainly from financial assets and financial liabilities denominated in US Dollar and Chinese Yuan.

	Consolidated financial statements	
	2022	2021
	Impact to net profit before income tax Baht'000	Impact to net profit before income tax Baht'000
Baht to 1 US Dollar exchange rate - increase 5%*	436,369	378,629
Baht to 1 US Dollar exchange rate - decrease 5%*	(436,369)	(378,629)
Chinese Yuan to 1 US Dollar exchange rate - increase 5%*	(180,112)	(160,862)
Chinese Yuan to 1 US Dollar exchange rate - decrease 5%*	180,112	160,862

	Separate financial statements	
	2022	2021
	Impact to net profit before income tax Baht'000	Impact to net profit before income tax Baht'000
Baht to 1 US Dollar exchange rate - increase 5%*	436,369	409,265
Baht to 1 US Dollar exchange rate - decrease 5%*	(436,369)	(409,265)

\* Holding all other variables constant

## b) Cash flow and fair value interest rate risk

The Group manages interest rate risk by closely monitoring the trend of interest rates in the world's markets as well as in Thailand. The Group allocates its debt portfolio to either short-term and long-term contracts or loans with fixed and floating interest rates corresponding to their types of investments. The Company has chosen financial instruments to create an alternative source of funding and to manage its financial structure properly in which it invests. For example, interest rate swaps are being used to manage the proportion of fixed interest rates necessary to meet the market trends.

Interest rate risk of long-term loans from financial institutions and debentures of the Group was disclosed in Note 20 and 21, respectively.

### Sensitivity

Profit or loss is sensitive to higher or lower interest income from cash and cash equivalents, and interest expenses from borrowings as a result of changes in interest rates.

	Consolidated financial statements	
	2022	2021
	Impact to net profit before income tax Baht'000	Impact to net profit before income tax Baht'000
Interest rate - increase 0.1%*	(11,258)	(10,935)
Interest rate - decrease 0.1%*	11,258	10,935

	Separate financial statements	
	2022	2021
	Impact to net profit before income tax Baht'000	Impact to net profit before income tax Baht'000
Interest rate - increase 0.1%*	(10,720)	(10,005)
Interest rate - decrease 0.1%*	10,720	10,005

\* Holding all other variables constant

### **Effect of IBOR reform**

In 2022, the Group established an IBOR transition plan and communicating with swap and debt counterparties to amend existing contracts and agreements that reference USD LIBOR and THBFIX with maturity after 30 June 2023 to other reference rates or include fallback provisions. The Group plans to complete the transition before the USD LIBOR and THBFIX cessation date.

The following table contains details of all the financial instruments the Group holds as at 31 December 2022 which reference USD LIBOR and THBFIX and haven't transitioned to an alternative interest rate benchmark yet:

	Consolidated financial statements		Separate financial statements	
	USD LIBOR Million Baht	THBFIX Million Baht	USD LIBOR Million Baht	THBFIX Million Baht
Non-derivative assets and liabilities				
Measured at amortised cost				
- Long-term loans from financial institutions	1,970	2,250	1,970	2,250
	1,970	2,250	1,970	2,250

### c) Price risk

The Group is exposed to coal and natural gas price risk which is fuel for electricity generation. To manage its coal price risk in the People's Republic of China which fluctuate from the domestic demand and supply, the Group monitors coal price index trends in order to plan an appropriate volume and price of coal purchase and adjusts the operation plan. To manage its natural gas price risk in the United State of America which fluctuate from the market price, the Group uses natural gas swaps to minimise its exposure to fluctuations in natural gas prices in its business operations.

In addition, the Group is exposed to electricity price risk in the United State of America since the spot price depends on demand and supply in the market and other factors, such as cost of fuel for electricity generation. The Group entered to electricity forward contracts to maintain the ability to generate income.

## 5.1.2 Credit risk

### a) Risk management

The Group has no significant concentrations of credit risk. The Group has policies in place to ensure that sales of goods and services are made to customers with an appropriate credit history. Derivative counter parties and cash transactions are limited to high credit quality financial institutions. The Group has policies that limit the amount of credit exposure to any financial institution.

### b) Impairment of financial assets

The Group and the Company has financial assets that are subject to the expected credit loss model as follows:

- Cash and cash equivalents
- Trade receivables
- Amounts due from related parties
- Loans to related parties
- Dividend receivables from related parties

The impairment loss of trade receivables was disclosed in Note 12. The impairment loss of other financial assets was immaterial.

### 5.1.3 Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities and the availability of funding through an adequate amount of committed credit facilities to meet obligations when due and to close out market positions. Due to the dynamic nature of the underlying businesses, the Group Treasury maintains flexibility in funding by maintaining availability under committed credit lines.

The Group's financial liabilities into relevant maturity groupings based on their contractual maturities. The amounts disclosed in the table are the contractual undiscounted cash flows.

The maturity of financial liabilities	Consolidated financial statements			
	Within 1 year Baht'000	1 - 5 years Baht'000	Over 5 years Baht'000	Total Baht'000
31 December 2022				
<b>Non-derivatives</b>				
Short-term loans from financial institutions	243,530	-	-	243,530
Trade payables	219,553	-	-	219,553
Advances from and amounts due to related parties	679,760	-	-	679,760
Long-term loans from a related party	4,763,038	-	-	4,763,038
Lease liabilities	12,772	4,510	-	17,282
Long-term loans from financial institutions	2,949,949	6,650,287	5,190,540	14,790,776
Debentures	221,550	2,314,191	4,822,617	7,358,358
Other non-current liabilities	2,003,210	-	-	2,003,210
<b>Total non-derivatives</b>	<b>11,093,362</b>	<b>8,968,988</b>	<b>10,013,157</b>	<b>30,075,507</b>
<b>Derivative liabilities</b>				
Heat rate call options	68,902	-	-	68,902
Electricity forward contracts	29,794	-	-	29,794
<b>Total derivatives liabilities</b>	<b>98,696</b>	<b>-</b>	<b>-</b>	<b>98,696</b>
<b>Total financial liabilities</b>	<b>11,192,058</b>	<b>8,968,988</b>	<b>10,013,157</b>	<b>30,174,203</b>

The maturity of financial liabilities	Consolidated financial statements			
	Within 1 year Baht'000	1 - 5 years Baht'000	Over 5 years Baht'000	Total Baht'000
31 December 2021				
<b>Non-derivatives</b>				
Short-term loans from financial institutions	6,569,081	-	-	6,569,081
Trade payables	331,090	-	-	331,090
Advances from and amounts due				
to related parties	586,203	-	-	586,203
Long-term loans from a related party	303,340	4,928,674	-	5,232,014
Lease liabilities	12,901	18,527	-	31,428
Long-term loans from financial institutions	1,714,860	6,367,110	4,632,646	12,714,616
Other current liabilities	1,356,061	-	-	1,356,061
Other non-current liabilities	-	282,049	-	282,049
<b>Total non-derivatives</b>	<b>10,873,536</b>	<b>11,596,360</b>	<b>4,632,646</b>	<b>27,102,542</b>
<b>Derivative liabilities</b>				
Heat rate call options	40,011	-	-	40,011
Electricity forward contracts	87,768	-	-	87,768
<b>Total derivatives liabilities</b>	<b>127,779</b>	<b>-</b>	<b>-</b>	<b>127,779</b>
<b>Total financial liabilities</b>	<b>11,001,315</b>	<b>11,596,360</b>	<b>4,632,646</b>	<b>27,230,321</b>
The maturity of financial liabilities	Separate financial statements			
	Within 1 year Baht'000	1 - 5 years Baht'000	Over 5 years Baht'000	Total Baht'000
31 December 2022				
Advances from and amounts due				
to related parties	485	-	-	485
Lease liabilities	1,511	503	-	2,014
Long-term loans from financial institutions	1,244,720	6,126,945	5,190,540	12,562,205
Debentures	221,550	2,314,191	4,822,617	7,358,358
Other current liabilities	153,744	-	-	153,744
<b>Total financial liabilities</b>	<b>1,622,010</b>	<b>8,441,639</b>	<b>10,013,157</b>	<b>20,076,806</b>

The maturity of financial liabilities	Separate financial statements			
	Within 1 year Baht'000	1 - 5 years Baht'000	Over 5 years Baht'000	Total Baht'000
31 December 2021				
Short-term loans from financial institutions	6,150,252	-	-	6,150,252
Advances from and amounts due				
to related parties	5,948	-	-	5,948
Lease liabilities	1,511	2,014	-	3,525
Long-term loans from financial institutions	1,073,548	5,583,133	4,632,646	11,289,327
Other current liabilities	76,586	-	-	76,586
<b>Total financial liabilities</b>	<b>7,307,845</b>	<b>5,585,147</b>	<b>4,632,646</b>	<b>17,525,638</b>

Management monitors rolling forecasts of the Group's liquidity reserve cash and cash equivalents and undrawn borrowing facilities on the basis of expected cash flows. In addition, the Group's liquidity management policy involves projecting cash flows in major currencies and considering the level of liquid assets and maintaining financing plans.

## 5.2 Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

## 6. Fair value

The following table presents financial assets and liabilities that are measured at fair value, also stated fair value of each financial assets and liabilities, excluding financial assets and financial liabilities measured at amortised cost where the carrying value approximated fair value.

	Consolidated financial statements		
	Fair value level	Fair value through profit or loss (FVPL) Baht'000	Fair value through other comprehensive income (FVOCI) Baht'000
<b>As at 31 December 2022</b>			
<b>Assets</b>			
Investment in debt instruments	Level 2	54,630	-
Note receivables issued by a financial institution	Level 2	-	3,087
Derivative assets			
- Electricity forward contract	Level 2	43,182	-
		97,812	3,087
<b>Liabilities</b>			
Derivative liabilities			
- Heat rate call options	Level 2	68,902	-
- Natural gas swaps	Level 2	29,794	-
		98,696	-

	Consolidated financial statements		
	Fair value level	Fair value through profit or loss (FVPL) Baht'000	Fair value through other comprehensive income (FVOCI) Baht'000
As at 31 December 2021			
<b>Assets</b>			
Investment in debt instruments	Level 2	524,272	-
Note receivables issued by a financial institution	Level 2	-	5,600
Derivative assets			
- Natural gas swaps	Level 2	51,778	-
		576,050	5,600
<b>Liabilities</b>			
Derivative liabilities			
- Heat rate call options	Level 2	40,011	-
- Electricity forward contracts	Level 2	87,768	-
		127,779	-

Note receivables represent note receivables from sales of power and steam of subsidiaries in the People's Republic of China which are issued by a financial institution to guarantee the possessors to get money on the maturity date of note receivables. Note receivables are non-interest bearing.

There were no transfers between Levels 1, 2 and 3 of fair value level during the year.

### Valuation techniques used to measure fair value level 2

Valuation techniques used to measure fair value level 2 are as follows:

- Fair value of debt instruments and note receivables is determined from discounted contractual cash flows where discount rate quoted in an active market.
- The fair value of natural gas swaps and electricity forward contracts is determined by using forward price on the statement of financial position date, with the resulting value discounted back to present value.

## 7. Critical accounting estimates, assumptions and judgments

Estimates, assumption and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

During 2022, the Group makes estimates and assumptions concerning the future. The results of accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are outlined below.

### 7.1 Impairment assessment of investments in subsidiaries, an associate, and joint ventures

The Group tested the impairment of investments in subsidiaries, an associate, and joint ventures when events or changes in circumstances would indicate that the carrying value of the investment is higher than its recoverable amount by applying the value-in-use model. The value-in-use model involves management's significant judgments with respect to the future operating results of the business, projected cash flows, and the appropriate discount rate to be applied to the projected cash flows. Key assumptions applied to the value-in-use model are electricity tariffs, the assumed capacity of the power plants, growth rate, expected changes to operating expenditures, and the discount rate to be applied to the projected cash flows.

### 7.2 Fair value of certain financial assets and derivatives

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques. The Group uses judgement to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period. The significant assumptions are disclosed in Note 6.





	Consolidated financial statements Baht'000															
	Energy Generation						Renewable	Energy Technology	Head Office and others	Total	Elimination	Total				
	Thermal			United States									China	Japan	Vietnam	Australia
	Thailand	Lao	Japan	Thailand	United States											
For the year ended 31 December 2021																
Sales	6,111,973	-	-	-	672,524	-	-	-	-	-	-	6,784,497	-	6,784,497		
Cost of sales	(6,113,090)	-	-	-	(711,177)	-	-	-	-	-	-	(6,824,268)	-	(6,824,268)		
Gross loss	(1,117)	-	-	-	(38,653)	-	-	-	-	-	-	(69,771)	-	(69,771)		
Gross profit margin (%)	0%				(6%)							(1%)		(1%)		
Share of profit (loss) from associates and joint ventures	(541,540)	214,910	3,611,712	210,429	-	179,208	79,376	2,550	16,377	(597,947)	82,760	3,257,835	(283,341)	2,974,494		
Selling expenses	-	-	-	-	(833)	-	-	-	-	-	-	(833)	-	(833)		
Administrative expenses	(662,491)	-	-	(65)	(57,824)	-	-	-	-	-	(162,700)	(883,079)	-	(883,079)		
Interest income	145,816	-	-	35	43,329	-	-	-	-	-	608,554	797,734	(416,277)	381,457		
Profit (loss) from operating before interest expenses and income taxes	(1,059,332)	214,910	3,611,712	210,399	(53,981)	179,208	79,376	2,550	16,377	(597,947)	528,614	3,131,886	(699,618)	2,432,268		



## 9. Financial assets and financial liabilities

The Group classified financial assets and financial liabilities as follow;

	Consolidated financial statements			
	Fair value through profit or loss Baht'000	Fair value through other comprehensive income Baht'000	Amortised cost Baht'000	Total Baht'000
<b>31 December 2022</b>				
<b>Financial assets</b>				
- Cash and cash equivalents	-	-	4,055,323	4,055,323
- Restricted deposits at financial institution	-	-	43	43
- Financial assets - investment in debt instruments	54,630	-	-	54,630
- Financial assets – note receivables issued by a financial institution	-	3,087	-	3,087
- Trade receivables and note receivables, net	-	-	1,753,942	1,753,942
- Amounts due from related parties	-	-	790,485	790,485
- Dividend receivables from related parties	-	-	163,831	163,831
- Advances to related parties	-	-	3,558	3,558
- Short-term loans to related parties	-	-	1,900,163	1,900,163
- Derivative assets	43,182	-	-	43,182
- Other current assets	-	-	100,444	100,444
- Long-term loans to related parties	-	-	2,225,651	2,225,651
<b>Financial liabilities</b>				
- Short-term loans from financial institutions	-	-	241,581	241,581
- Trade payables	-	-	219,553	219,553
- Advances from and amounts due to related parties	-	-	679,760	679,760
- Long-term loans from financial institutions, net	-	-	11,091,427	11,091,427
- Debentures, net	-	-	5,492,066	5,492,066
- Lease liabilities, net	-	-	17,157	17,157
- Derivative liabilities	98,696	-	-	98,696
- Other current liabilities	-	-	2,003,210	2,003,210

	Consolidated financial statements			
	Fair value through profit or loss Baht'000	Fair value through other comprehensive income Baht'000	Amortised cost Baht'000	Total Baht'000
<b>31 December 2021</b>				
<b>Financial assets</b>				
- Cash and cash equivalents	-	-	2,634,854	2,634,854
- Restricted deposits at financial institution	-	-	194	194
- Financial assets - investment in debt instruments	524,272	-	-	524,272
- Financial assets - note receivables issued by a financial institution	-	5,600	-	5,600
- Trade receivables, net	-	-	1,311,280	1,311,280
- Amounts due from related parties	-	-	869,310	869,310
- Dividend receivables from related parties	-	-	363,831	363,831
- Advances to related parties	-	-	2,761	2,761
- Short-term loans to related parties	-	-	2,363,615	2,363,615
- Derivative assets	51,778	-	-	51,778
- Other current assets	-	-	55,563	55,563
- Long-term loans to related parties	-	-	5,820,361	5,820,361
<b>Financial liabilities</b>				
- Short-term loans from financial institutions	-	-	6,551,133	6,551,133
- Trade payables	-	-	331,090	331,090
- Advances from and amounts due to related parties	-	-	629,639	629,639
- Long-term loans from financial institutions, net	-	-	10,692,169	10,692,169
- Lease liabilities, net	-	-	31,024	31,024
- Derivative liabilities	127,779	-	-	127,779
- Other current liabilities	-	-	1,410,149	1,410,149
- Other non-current liabilities	-	-	282,049	282,049

	Separate financial statements			
	Fair value through profit or loss Baht'000	Fair value through other comprehensive income Baht'000	Amortised cost Baht'000	Total Baht'000
31 December 2022				
<b>Financial assets</b>				
- Cash and cash equivalents	-	-	2,282,821	2,282,821
- Amounts due from related parties	-	-	835,648	835,648
- Advances to related parties	-	-	3,558	3,558
- Long-term loans to related parties	-	-	12,328,932	12,328,932
- Other current assets	-	-	11,483	11,483
<b>Financial liabilities</b>				
- Short-term loan from financial institutions	-	-	485	485
- Long-term loans from financial institutions, net	-	-	10,703,776	10,703,776
- Debentures, net	-	-	5,492,066	5,492,066
- Lease liabilities, net	-	-	2,277	2,277
- Other current liabilities	-	-	153,744	153,744
31 December 2021				
<b>Financial assets</b>				
- Cash and cash equivalents	-	-	1,141,799	1,141,799
- Amounts due from related parties	-	-	762,162	762,162
- Dividend receivables from related parties	-	-	170,000	170,000
- Advances to related parties	-	-	2,761	2,761
- Long-term loans to related parties	-	-	15,589,253	15,589,253
<b>Financial liabilities</b>				
- Short-term loan from financial institutions	-	-	6,134,199	6,134,199
- Advances from and amounts due to related parties	-	-	5,948	5,948
- Long-term loans from financial institutions, net	-	-	9,985,216	9,985,216
- Lease liabilities, net	-	-	3,658	3,658
- Other current liabilities	-	-	76,586	76,586

As at 31 December 2022 and 2021, Financial assets and financial liabilities measured at amortised approximated the fair value, except debentures, as disclosed in Note 21.

## 10. Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Cash on hand	160	209	5	5
Deposits held at call with banks	3,455,163	2,634,645	1,682,816	1,141,794
Fixed deposit with bank	600,000	-	600,000	-
<b>Total cash and cash equivalents</b>	<b>4,055,323</b>	<b>2,634,854</b>	<b>2,282,821</b>	<b>1,141,799</b>

As at 31 December 2022, the interest rates on deposits held at call with banks were 0.25% to 2.00% per annum (2021: 0.13% to 2.02% per annum).

As at 31 December 2022, the interest rates on fixed deposit with bank having matured within three months was 1.00% per annum (2021: none).

## 11. Investment in debt instruments measured at fair value through profit or loss

As at 31 December 2022, the Group has investment in debt instruments measured at fair value through profit or loss comprised of structured deposits at financial institutions in the People's Republic of China amounting to CNY 11 million or equivalent to Baht 54.63 million which return is linked to the underlying assets and maturities within 180 days (2021: structured deposits at financial institutions in the People's Republic of China amounting to CNY 99.85 million or equivalent to Baht 524.27).

## 12. Trade receivables and note receivables, net

As at 31 December, trade receivables and note receivables consist of:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Trade receivables - third parties	1,509,819	1,315,717	-	-
Note receivables - third parties	248,320	-	-	-
<u>Less</u> Impairment loss	(4,197)	(4,437)	-	-
<b>Trade receivables and note receivables, net</b>	<b>1,753,942</b>	<b>1,311,280</b>	<b>-</b>	<b>-</b>

Note receivables represent note receivables from sales of power and steam of subsidiaries in the People's Republic of China which are issued by a private company to guarantee the possessors to get money on the maturity date of note receivables. Note receivables are non-interest bearing.

Trade receivables and note receivables are aged as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Trade receivables and note receivables				
under credit term	1,644,104	1,291,440	-	-
Trade receivables overdue for payment				
- Less than 3 months	96,179	2,712	-	-
- Over 3 months but less than 6 months	14,702	21,394	-	-
- Over 6 months but less than 12 months	2,993	-	-	-
- Over 12 months	161	171	-	-
Total trade receivables and note receivables	1,758,139	1,315,717	-	-
Less Impairment loss	(4,197)	(4,437)	-	-
Trade receivables and note receivables, net	1,753,942	1,311,280	-	-

### 13. Other current assets

As at 31 December, other current assets consist of:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Prepaid expenses	159,414	150,122	8,069	8,523
Advance for prepayment	56,701	36,711	-	-
Accrued interest income	82	46	82	-
Value added tax receivables	34,253	157,219	140	109
Prepaid income tax	38,967	103,451	-	508
Other receivables	43,661	18,806	11,401	-
Total other current assets	333,078	466,355	19,692	9,140

## 14. Investments in subsidiaries, an associate and joint ventures

Investments in subsidiaries, an associate and joint ventures are as follows:

	Consolidated financial statements (Equity method)		Separate financial statements (Cost method)	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
<b>Subsidiaries</b>				
Banpu Coal Power Ltd.	-	-	5,921,587	5,921,587
Banpu Power International Limited	-	-	12,196,769	12,196,769
Banpu Power US Corporation	-	-	1,933,992	1,933,992
Banpu Power (Japan) Co., Ltd.	-	-	4,815	4,815
Total investments in subsidiaries	-	-	20,057,163	20,057,163
<u>Less</u> Provision for impairment loss	-	-	(270,000)	(270,000)
Total investments in subsidiaries, net	-	-	19,787,163	19,787,163
<b>Joint ventures</b>				
BLC Power Ltd.	6,089,171	6,089,171	-	-
Hongsa Power Company Limited	13,092,534	13,092,534	13,092,534	13,092,534
Phu Fai Mining Company Limited	836	836	836	836
Shanxi Luguang Power Co., Ltd.	2,617,031	2,379,627	-	-
Nakoso IGCC Management Co., Ltd.	2,542,830	2,688,394	-	-
<b>Associate</b>				
Banpu Next Co., Ltd.	6,874,786	5,174,786	8,690,649	6,990,649
Total investments in an associate and joint ventures - cost method	31,217,188	29,425,348	21,784,019	20,084,019
<u>Add</u> Cumulative equity account of investments in an associate and joint ventures	9,295,440	4,340,932	-	-
Total investments in an associate and joint ventures	40,512,628	33,766,280	21,784,019	20,084,019

As at 31 December 2022 and 2021, under the condition of loans for project finance of joint ventures, the Group pledged its investments in two joint ventures with a cost of US Dollar 370.82 million or equivalent to Baht 13,093 million, as collateral for loans from financial institutions of such joint ventures.

In addition, a subsidiary, who is the shareholder of a joint venture, guarantee for loans from financial institutions of such joint venture as at 31 December 2022 amounting to CNY 274.58 million or equivalent to Baht 1,363.69 million and US Dollar 33.21 million or equivalent to Bath 1,147.70 million. (2021: CNY 300.76 million or equivalent to Baht 1,579.22 million and US Dollar 36.53 million or equivalent to Bath 1,220.88 million).

## 14.1 Changes in investments in subsidiaries, an associate and joint ventures

Movements of investments in subsidiaries, an associate and joint ventures for the years ended 31 December are as follows:

	Consolidated financial statements (Equity method)		Separate financial statements (Cost method)	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Opening balance	33,766,280	26,638,516	39,871,182	36,989,144
Additions of investments	2,101,691	236,000	1,700,000	3,174,446
Acquisition of investment in				
a joint venture	-	2,445,191	-	-
Dividend income from joint ventures	(1,466,839)	(862,282)	-	-
Disposal of investment in an associate	-	(6,245)	-	(22,408)
Impairment loss on investment				
in a subsidiary	-	-	-	(270,000)
<u>Add</u> Share of profit from an associate				
and joint ventures	6,349,725	2,974,494	-	-
Share of other comprehensive				
income (expense) from an				
associate and joint ventures				
- Remeasurement of				
post-employment				
benefit obligations	-	(34,574)	-	-
- Cash flow hedge reserve	753,300	901,623	-	-
- Gains (losses) on fair value of				
equity instruments	115,895	(439,797)	-	-
- Translation differences	(1,107,424)	1,913,354	-	-
Closing balance	40,512,628	33,766,280	41,571,182	39,871,182

a) **Additional investments****Consolidated financial information**

On 21 July 2022, the Group additionally invested in Shanxi Luguang Power Co., Ltd., a joint venture, in the same proportion of shareholding, with a cost of CNY 73.75 million or equivalent to Baht 401.69 million. The Group fully paid for this additional investment.

On 19 December 2022, the Group additionally invested in Banpu Next Co., Ltd., an associate, in the same proportion of shareholding, with a cost of Baht 1,700 million. The Company fully paid for this additional investment.

**Separate financial information**

On 19 December 2022, the Company additionally invested in Banpu Next Co., Ltd., an associate, in the same proportion of shareholding, with a cost of Baht 1,700 million. The Company fully paid for this additional investment.

b) **Dividend receivables from a subsidiary and a joint venture**

The movements of the dividend receivables can be analysed as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Opening balance	363,831	438,831	170,000	346,033
Dividends declared by a subsidiary and joint ventures	1,466,839	862,282	1,483,839	793,871
Dividends received from subsidiaries and joint ventures	(1,665,431)	(937,282)	(1,652,431)	(969,904)
Loss on exchange rate	(1,408)	-	(1,408)	-
Closing balance	163,831	363,831	-	170,000
Current portion	50,000	125,000	-	125,000
Non-current portion	113,831	238,831	-	45,000
Total dividend receivables from a subsidiary and a joint venture	163,831	363,831	-	170,000

During the year ended 31 December 2022, dividend income from joint ventures in the consolidated financial statements represented the dividend income from Hongsa Power Company Limited amounting to Baht 1,019.70 million and Phu Fai Mining Company Limited amounting to US Dollar 8.89 million or equivalent to Baht 306.21 million and Baht 140.93 million, totalling Baht 447.14 million.

The Company has provided standby letters of credit, issued by commercial banks on behalf of the Company, amounting to Baht 1,600 million and US Dollar 22 million or equivalent to Baht 760.37 million as a guarantee for lenders of Hongsa Power Company Limited. However, the Company considered that there are no financial liabilities expected from this financial guarantee.

## 14.2 Investments in subsidiaries

List of subsidiaries of the Group is disclosed in Note 14.4.

As at 31 December, the group had the following subsidiary that has significant non-controlling interests as follows;

Name of company	Country	Business	2022		2021	
			Proportion of ordinary shares held by the group (%)	Proportion of shares held by non-controlling interests (%)	Proportion of ordinary shares held by the group (%)	Proportion of shares held by non-controlling interests (%)
Zouping Peak CHP Co., Ltd.	People's Republic of China	Power and steam production and trading	70.00	30.00	70.00	30.00
BKV-BPP Power LLC and subsidiaries	United State of America	Investment in power	50.00	50.00	50.00	50.00

### Summarised financial information of a subsidiary with material non-controlling interests

Set out below are the summarised financial information of a subsidiary that has non-controlling interests that is material to the Group. The information below is the amount before inter-company eliminations.

### Summarised statements of financial position

As at 31 December	Zouping Peak CHP Co., Ltd.		BKV-BPP Power LLC	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Current assets	1,068,770	818,244	1,553,151	1,201,693
Current liabilities	(467,104)	(392,937)	(9,906,406)	(804,313)
<b>Total net current assets</b>	<b>601,666</b>	<b>425,307</b>	<b>(8,353,255)</b>	<b>397,380</b>
Non-current assets	2,662,140	2,930,713	15,015,802	15,183,732
Non-current liabilities	-	-	-	(9,706,460)
<b>Total net non-current assets</b>	<b>2,662,140</b>	<b>2,930,713</b>	<b>15,015,802</b>	<b>5,477,272</b>
<b>Net assets</b>	<b>3,263,806</b>	<b>3,356,020</b>	<b>6,662,547</b>	<b>5,874,652</b>
Accumulated non-controlling interests	979,142	1,006,806	3,331,274	2,937,326

### Summarised statements of comprehensive income

For the years ended 31 December	Zouping Peak CHP Co., Ltd.		BKV-BPP Power LLC	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Revenue	2,614,741	2,163,477	17,584,541	672,523
Profit before income tax	114,878	69,390	763,491	57,167
Income tax expense	(17,748)	(6,976)	-	-
Post-tax profit from continuing operations	97,130	62,414	763,491	57,167
Other comprehensive income (expense)	(189,344)	396,780	24,405	3,627
<b>Total comprehensive income (expense)</b>	<b>(92,214)</b>	<b>459,194</b>	<b>787,896</b>	<b>60,794</b>
Total comprehensive income (expense) allocated to non-controlling interests	(27,664)	137,759	393,948	30,397
Dividend paid to non-controlling interests	-	-	-	-

### Summarised statement of cash flows

For the years ended 31 December	Zouping Peak CHP Co., Ltd.		BKV-BPP Power LLC	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Cash flow from operating activities				
Cash generated from (used in) operations	469,740	131,620	1,002,634	(144,794)
Interest paid	-	(87)	-	-
Income tax paid	(12,484)	(2,623)	-	-
Net cash generated from (used in)				
operating activities	457,256	128,910	1,002,634	(144,794)
Net cash receipts from (used in)				
investing activities	(314,550)	(18,352)	22,390	26,621
Net cash used in financing activities	(260,545)	(19,269)	(988,731)	-
Net increase (decrease) in cash and				
cash equivalents	(117,839)	91,289	36,293	(118,173)
Cash and cash equivalents				
at beginning of the year	137,231	35,817	571,667	681,786
Exchange differences on cash and				
cash equivalents	(1,901)	10,125	(146,535)	8,054
Cash and cash equivalents at end of the year	17,491	137,231	461,425	571,667

### 14.3 Investments in an associate and joint ventures

Set out below is the joint venture, which is material to the Group. The joint venture as listed below is held directly by the Group and has voting right in proportion of the ordinary shares.

Name of company	Country	Business	Measurement method	Percent of ownership interest	
				2022 %	2021 %
Hongsa Power Company Limited	Lao People's Democratic Republic	Power concession	Equity method	40.00	40.00

## Summarised financial information for a joint venture

Set out below are the summarised financial information which is a significant joint venture and accounted by using the equity method.

### Summarised statements of financial position

As at 31 December	Hongsa Power Company Limited	
	2022 Baht'000	2021 Baht'000
<b>Current assets</b>		
Cash and cash equivalents	5,856,306	4,984,993
Restricted deposit at financial institution	2,992,488	2,893,727
Current portion of finance lease receivable, net	7,011,505	6,601,210
Other current assets	6,903,225	7,764,037
<b>Total current assets</b>	<b>22,763,524</b>	<b>22,243,967</b>
<b>Non-current assets</b>		
Finance lease receivable, net	66,413,094	70,141,004
Property, plant and equipment, net	5,071,669	4,394,854
Other assets	17,832,999	15,467,084
<b>Total non-current assets</b>	<b>89,317,762</b>	<b>90,002,942</b>
<b>Current liabilities</b>		
Current portion of long-term loans, net	8,155,581	7,556,981
Other current liabilities (including trade payables)	2,891,754	3,049,352
<b>Total current liabilities</b>	<b>11,047,335</b>	<b>10,606,333</b>
<b>Non-current liabilities</b>		
Long-term loans, net	42,146,169	49,643,567
Other liabilities	1,008,512	1,405,785
<b>Total non-current liabilities</b>	<b>43,154,681</b>	<b>51,049,352</b>
<b>Net assets</b>	<b>57,879,270</b>	<b>50,591,224</b>

## Summarised statements of comprehensive income

For the years ended 31 December	Hongsa Power Company Limited	
	2022 Baht'000	2021 Baht'000
Sales and services	22,065,968	20,767,978
Cost of sales and services	(9,542,171)	(8,862,821)
Depreciation and amortisation	(61,696)	(69,512)
Interest income	83,182	67,835
Interest expense not included other finance cost	(3,050,477)	(3,456,436)
Net unrealised losses on exchange	(1,448,626)	(2,833,886)
<b>Profit before income tax</b>	<b>9,410,511</b>	<b>9,172,052</b>
Income tax expense	(721,058)	(635,667)
<b>Net profit</b>	<b>8,689,453</b>	<b>8,536,385</b>
Other comprehensive income	1,147,843	1,830,054
<b>Total comprehensive income</b>	<b>9,837,296</b>	<b>10,366,439</b>
<b>Declaration of dividends</b>	<b>2,549,250</b>	<b>1,520,280</b>

The information above reflects the amounts presented in the financial statements of the joint venture adjusted for differences in accounting policies between the Group and the joint venture (and not the Group's share of those amounts).

## Reconciliation of summarised financial information

Reconciliation of the summarised financial information presented to the carrying amount of its interest in a joint venture.

	Hongsa Power Company Limited	
	2022 Baht'000	2021 Baht'000
Opening net assets	50,591,224	41,745,065
Declaration of dividends	(2,549,250)	(1,520,280)
Profit for the year	8,689,453	8,536,385
Other comprehensive income	1,147,843	1,830,054
<b>Closing net assets</b>	<b>57,879,270</b>	<b>50,591,224</b>
Ownership percentage in a joint venture (%)	40	40
Interests in a joint venture	23,151,708	20,236,490
Impact of changes in functional currency of a joint venture	216,053	216,053
<b>Closing carrying value</b>	<b>23,367,761</b>	<b>20,452,543</b>

## Individually immaterial associate and joint ventures

In addition to the interests in joint ventures disclosed above, the Group also has interests in a number of individually immaterial associate and joint ventures that are accounted for using the equity method.

	Consolidated financial statements	
	2022 Baht'000	2021 Baht'000
Aggregate carrying amount of individually immaterial associate and joint ventures, which are accounted for using equity method	17,144,867	13,313,737
Aggregate amounts of the reporting entity's share of:		
Net profit (loss)	2,873,944*	(440,060)
Other comprehensive income (expense)	(697,366)	1,608,584
<b>Total comprehensive income</b>	<b>2,176,578</b>	<b>1,168,524</b>

\*During 2022, an associate recognised gains on disposal of the investment of Baht 5,845.71 million. Therefore, the Group recognised share profit from an associate of Baht 2,922.86 million in the consolidated statement of comprehensive income for the year ended 31 December 2022. An associate has the obligation from providing seller the warranties according to the clauses stipulated in the agreement within specified time limits and it shall not exceed 8% of the purchase price.

## 14.4 List of subsidiaries, an associate and joint ventures

Name of company	Country	Business	Percentage of direct shareholding	
			2022 %	2021 %
<b>Direct shareholding</b>				
<u>Subsidiaries</u>				
- Banpu Coal Power Limited	Thailand	Investment in power	100.00	100.00
- Banpu Power US Corporation	United State of America	Investment in power	100.00	100.00
- Banpu Power International Limited	Republic of Mauritius	Investment in power	100.00	100.00
- Banpu Power (Japan) Co., Ltd.	Thailand	Investment in renewable energy	100.00	100.00
<u>Joint arrangement - Joint ventures</u>				
- Hongsa Power Company Limited	Lao People's Democratic Republic	Power concession	40.00 <sup>(1)</sup>	40.00 <sup>(1)</sup>
- Phu Fai Mining Company Limited	Lao People's Democratic Republic	Mining concession	37.50 <sup>(1)</sup>	37.50 <sup>(1)</sup>
<u>Associate</u>				
- Banpu Next Co., Ltd.	Thailand	Investment in clean energy	50.00	50.00
<b>Indirect shareholding</b>				
<b>1) Banpu Coal Power Limited and a subsidiary and a joint venture are as follows;</b>				
<u>A subsidiary</u>				
- Power Vietnam Co., Ltd.	Thailand	Investment in power	-	100.00
<u>Joint arrangement - Joint venture</u>				
- BLC Power Limited	Thailand	Power production and trading	50.00 <sup>(1)</sup>	50.00 <sup>(1)</sup>
<b>2) Banpu Power US Corporation and subsidiaries are as follows;</b>				
- BKV-BPP Power LLC and subsidiaries	United State of America	Investment in power	50.00 <sup>(2)</sup>	50.00 <sup>(2)</sup>
- Temple Generation Intermediate Holdings II, LLC and a subsidiary	United State of America	Investment in power	100.00	100.00
- Temple Generation I, LLC and a joint venture	United State of America	Power production and trading	100.00	100.00
- Temple Generation SF, LLC	United State of America	Energy generation support	50.00 <sup>(1)</sup>	50.00 <sup>(1)</sup>
- BKV-BPP Retail LLC	United State of America	Power and purchase and trading	100.00	-

Name of company	Country	Business	Percentage of direct shareholding	
			2022 %	2021 %
<b>3) Banpu Power International Limited and subsidiaries are as follows;</b>				
- Banpu Power Investment Co., Ltd. and subsidiaries and joint ventures are as follows;	Singapore	Investment in power	100.00	100.00
<u>Subsidiaries</u>				
- Shijiazhuang Chengfeng Cogen Co., Ltd. and a subsidiary	People's Republic of China	Power and steam production and trading	100.00	100.00
- Shijiazhuang Chengfeng New Energy Co., Ltd.	People's Republic of China	Solar power generation	100.00	-
- Zouping Peak Pte. Ltd. and a subsidiary	Singapore	Investment in power	100.00	100.00
- Zouping Peak CHP Co., Ltd.	People's Republic of China	Power and steam production and trading	70.00	70.00
- Banpu Investment (China) Ltd. and a subsidiary	People's Republic of China	Investment in power	100.00	100.00
- Tangshan Banpu Heat and Power Co., Ltd.	People's Republic of China	Power and steam production and trading	12.08 <sup>(3)</sup>	12.08 <sup>(3)</sup>
- Pan-Western Energy Corporation LLC and a subsidiary	Cayman Islands	Investment in power	100.00	100.00
- Tangshan Banpu Heat and Power Co., Ltd.	People's Republic of China	Power and steam production and trading	87.92 <sup>(3)</sup>	87.92 <sup>(3)</sup>
<u>Joint arrangement - Joint ventures</u>				
- Shanxi Lu Guang Power Co., Ltd.	People's Republic of China	Power and steam production and trading	30.00 <sup>(1)</sup>	30.00 <sup>(1)</sup>
- Nakoso IGCC Management Co., Ltd.	Japan	Investment in power	33.50 <sup>(1)</sup>	33.50 <sup>(1)</sup>

<sup>(1)</sup> Shareholder agreement of joint ventures of the Group has determined the management structure including strategic financial decision and operation which has voting right from the shareholders or the representative of each parties. The Group classifies as investments in joint ventures.

<sup>(2)</sup> The shareholder agreement of subsidiaries of the Group has determined the management structure which the Group has right on strategic financial decision and operation. Thus, the Group is a controlling entity and classifies as investments in subsidiaries.

<sup>(3)</sup> The Group holds investments in Tangshan Banpu Heat and Power Co., Ltd. 100% of registered shares by Banpu Investment (China) Co., Ltd. and Pan-Western Energy Corporation LLC in the proportion of 12.08% and 87.92%, respectively.

## 15. Property, plant and equipment, net

	Consolidated financial statements Baht'000						Total
	Land	Building and building improvements	Power plants and components of power plants and machinery and equipment	Furniture and office equipment	Tools	Motor vehicles	
<b>At 31 December 2021</b>							
Cost	-	3,909,939	9,607,481	25,990	59,128	56,155	217,399
Less: Accumulated depreciation	-	(1,757,485)	(4,009,929)	(19,223)	(41,838)	(46,299)	-
Net book amount	-	2,152,454	5,597,552	6,767	17,290	9,856	217,399
<b>For the year ended 31 December 2021</b>							
Opening net book amount	-	2,152,454	5,597,552	6,767	17,290	9,856	217,399
Increase from acquisition of investment in subsidiaries	34,486	-	15,124,278	1,563	4,764	-	-
Additions	-	-	41,843	1,930	1,265	1,889	141,438
Disposals - Net book value	-	-	-	(9)	(15)	-	-
Write-off - Net book value	-	-	(11,375)	-	-	-	-
Transfer in (out)	-	42,020	320,735	605	4,106	1,983	(369,449)
Depreciation charge	-	(113,628)	(414,936)	(2,907)	(6,509)	(4,509)	-
Translation differences	(64)	290,324	698,440	796	2,314	1,312	17,131
Closing net book amount	34,422	2,371,170	21,356,537	8,745	23,215	10,531	6,519
<b>At 31 December 2021</b>							
Cost	34,422	4,476,558	26,382,019	31,407	75,182	64,147	6,519
Less: Accumulated depreciation	-	(2,105,388)	(5,025,482)	(22,662)	(51,967)	(53,616)	-
Net book amount	34,422	2,371,170	21,356,537	8,745	23,215	10,531	6,519

Cost	34,422	4,476,558	26,382,019	31,407	75,182	64,147	6,519	31,070,254
Less: Accumulated depreciation	-	(2,105,388)	(5,025,482)	(22,662)	(51,967)	(53,616)	-	(7,259,115)
Net book amount	34,422	2,371,170	21,356,537	8,745	23,215	10,531	6,519	23,811,139

	Consolidated financial statements Baht'000							Total
	Land	Building and building improvements	Power plants and components of power plants and machinery and equipment	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	
<b>For the year ended 31 December 2022</b>								
Opening net book amount	34,422	2,371,170	21,356,537	8,745	23,215	10,531	6,519	23,811,139
Additions	-	-	10,652	2,194	3,516	4,101	262,434	282,897
Disposals - Net book value	-	-	-	(11)	-	-	-	(11)
Write-off - Net book value	-	(176)	(67,078)	-	-	-	-	(67,254)
Transfer in (out)	-	1,917	91,165	(1,431)	(3,464)	1,992	(93,300)	(3,121)
Depreciation charge	-	(119,052)	(1,076,252)	(2,890)	(7,140)	(4,794)	-	(1,210,128)
Translation differences	1,177	(122,845)	193,492	(252)	(670)	(632)	(8,212)	62,058
Closing net book amount	35,599	2,131,014	20,508,516	6,355	15,457	11,198	167,441	22,875,580
<b>At 31 December 2022</b>								
Cost	35,599	4,235,092	26,256,437	28,905	69,311	61,236	167,441	30,854,021
Less: Accumulated depreciation	-	(2,104,078)	(5,747,921)	(22,550)	(53,854)	(50,038)	-	(7,978,441)
Net book amount	35,599	2,131,014	20,508,516	6,355	15,457	11,198	167,441	22,875,580

As at 31 December 2022, the Group mortgaged and pledged assets as collateral for long-term loans from financial institutions of a subsidiary in the People's Republic of China at the net book value amounting to CNY 315.38 million or equivalent to Baht 1,566.29 million (2021: CNY 396.71 million or equivalent to Baht 2,083 million).

	Separate financial statements Baht'000
	Furniture and office equipment
<b>At 1 January 2021</b>	
Cost	4,901
<u>Less</u> Accumulated depreciation	(3,137)
Net book amount	<u>1,764</u>
<b>For the year ended 31 December 2021</b>	
Opening net book amount	1,764
Additions	158
Disposals - Net book value	(9)
Depreciation charge	(517)
Closing net book amount	<u>1,396</u>
<b>At 31 December 2021</b>	
Cost	4,626
<u>Less</u> Accumulated depreciation	(3,230)
Net book amount	<u>1,396</u>
<b>For the year ended 31 December 2022</b>	
Opening net book amount	1,396
Additions	545
Disposals - Net book value	(11)
Depreciation charge	(509)
Closing net book amount	<u>1,421</u>
<b>At 31 December 2022</b>	
Cost	4,339
<u>Less</u> Accumulated depreciation	(2,918)
Net book amount	<u>1,421</u>

## 16. Leases

### 16.1 Amounts recognised in the statements of financial position

The statement of financial position shows the following amounts relating to leases:

As at 31 December	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Properties	566,707	631,098	1,919	3,359
Total right-of-use assets, net	566,707	631,098	1,919	3,359
Lease liabilities, net				
Current	12,698	12,759	1,444	1,380
Non-current	4,459	18,265	834	2,278
Total lease liabilities, net	17,157	31,024	2,278	3,658

### 16.2 Amounts recognised in profit or loss and cash flows

Amounts charged to profit or loss and cash flows relating to leases are as follows:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Depreciation charge of right-of-use assets - Properties	31,838	35,586	1,440	1,440
Addition to the right-of-use assets during the year	-	21,498	-	-
Total cash outflow for leases	13,904	13,319	1,511	1,511
Interest expense	966	700	131	191
Expense relating to short-term leases	13,120	14,231	-	-
Expense relating to leases of low-value assets	133	127	-	-

## 17. Deferred income taxes and income tax

Corporate income tax for the years ended 31 December 2022 and 2021 are calculated based on the net profit (tax base) which excludes the interests in joint ventures. The rates are as follows:

	2022	2021
Thailand	20%	20%
People's Republic of China	25%	25%
Mauritius Island	15%	15%
Singapore	17%	17%
United State of America	21%	21%

### 17.1 Deferred income tax assets and liabilities

The analysis of deferred tax assets and liabilities is as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Deferred tax assets	722,066	602,758	13,104	5,472
Deferred tax liabilities	(71,499)	(24,776)	-	-
Deferred income taxes, net	650,567	577,982	13,104	5,472

## The movements of deferred tax assets and liabilities are as follows

	Consolidated financial statements Baht'000				
	At 1 January 2022	Charged to profit or loss	Charged to other comprehensive income	Translation differences	At 31 December 2022
<b>Deferred tax assets:</b>					
Employee benefit obligation	5,842	846	5,304	-	11,992
Depreciation of building and machinery	531,325	(18,658)	-	(28,246)	484,421
Impairment loss	1,110	-	-	(60)	1,050
Tax losses	-	163,716	-	(4,580)	159,136
Accrued expense and others	64,481	4,584	-	(3,598)	65,467
<b>Total</b>	<b>602,758</b>	<b>150,488</b>	<b>5,304</b>	<b>(36,484)</b>	<b>722,066</b>
<b>Deferred tax liabilities:</b>					
Investment in joint ventures	(12,306)	(15,551)	-	-	(27,857)
Depreciation of building and machinery	(11,366)	(56,914)	-	25,578	(42,702)
Others	(1,104)	(332)	-	496	(940)
<b>Total</b>	<b>(24,776)</b>	<b>(72,797)</b>	<b>-</b>	<b>26,074</b>	<b>(71,499)</b>
<b>Net</b>	<b>577,982</b>	<b>77,691</b>	<b>5,304</b>	<b>(10,410)</b>	<b>650,567</b>

	Consolidated financial statements Baht'000				
	At 1 January 2021	Charged to profit or loss	Charged to other comprehensive expense	Translation differences	At 31 December 2021
<b>Deferred tax assets:</b>					
Employee benefit obligation	5,303	539	-	-	5,842
Derivatives	390	-	(390)	-	-
Depreciation of building and machinery	481,566	(15,480)	-	65,239	531,325
Impairment loss	2,151	(1,281)	-	240	1,110
Accrued expense and others	54,865	1,968	-	7,648	64,481
<b>Total</b>	<b>544,275</b>	<b>(14,254)</b>	<b>(390)</b>	<b>73,127</b>	<b>602,758</b>
<b>Deferred tax liabilities:</b>					
Fair value uplift from the					
acquisition of power plants	(406)	438	-	(32)	-
Investment in joint ventures	-	(12,306)	-	-	(12,306)
Depreciation of building and machinery	-	(11,868)	-	502	(11,366)
Others	(560)	(14)	-	(530)	(1,104)
<b>Total</b>	<b>(966)</b>	<b>(23,750)</b>	<b>-</b>	<b>(60)</b>	<b>(24,776)</b>
<b>Net</b>	<b>543,309</b>	<b>(38,004)</b>	<b>(390)</b>	<b>73,067</b>	<b>577,982</b>

	Separate financial statements Baht'000			
	At 1 January 2022	Charged to profit or loss	Charged to other comprehensive income	At 31 December 2022
<b>Deferred tax assets:</b>				
Employee benefit obligation	5,841	847	5,304	11,992
Other	(369)	1,481	-	1,112
<b>Total</b>	<b>5,472</b>	<b>2,328</b>	<b>5,304</b>	<b>13,104</b>

	Separate financial statements Baht'000			
	At 1 January 2021	Charged to profit or loss	Charged to other comprehensive expense	At 31 December 2021
<b>Deferred tax assets:</b>				
Employee benefit obligation	5,302	539	-	5,841
Derivatives	390	-	(390)	-
Other	(427)	58	-	(369)
<b>Total</b>	<b>5,265</b>	<b>597</b>	<b>(390)</b>	<b>5,472</b>

Deferred tax assets are recognised for tax loss carry forwards only to the extent that realisation of the related tax benefit through the future taxable profit is probable. The Group did not recognise deferred tax assets amounting to Baht 96 million from tax losses of Baht 480 million that could be carried forward against future taxable income, these tax losses will expire in 2027 (2021: The Group did not recognise deferred tax assets amounting to Baht 221.74 million from tax losses of Baht 1,108.69 million that could be carried forward against future taxable income, these tax losses will expire in 2026).

## 17.2 Income taxes

Income taxes for the years ended 31 December are as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Current tax	62,377	183	-	-
Withholding tax	60,202	19,016	46,182	-
Deferred tax	(77,691)	38,004	(2,328)	(597)
Total income taxes	44,888	57,203	43,854	(597)

The tax on the Group's profit before taxes differs from the theoretical amount that would arise using the basic tax rate of the home country of the company as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Profit before taxes	6,194,451	3,231,538	1,693,077	931,154
Tax calculated at a tax rate of 20%	1,238,890	646,308	338,615	186,231
Tax effect of:				
Income not subject to tax	(1,071,576)	(617,678)	(296,768)	(142,940)
Expenses not deductible for tax purpose	2,134	58,986	1,130	58,574
Withholding tax	38,528	8,298	38,528	-
Recognition of previously unrecognised tax losses	(112,605)	(101,865)	(37,988)	(101,865)
Tax losses for which no deferred tax asset was recognised	-	427	-	-
Tax effect from different tax rates of foreign entities	(50,819)	53,030	-	-
Others	336	9,697	337	(597)
Income taxes	44,888	57,203	43,854	(597)

Weighted average tax rate of the Group is 0.72% (2021: 1.77%).

## 18. Short-term loans from financial institutions

### Consolidated financial statements

As at 31 December 2022, the Group had short-term loans from financial institutions amounting CNY 48.64 million or equivalent to Baht 241.58 million. (2021: the Group had short-term loans from financial institutions amounting Baht 5,800 million and CNY 79.41 million or equivalent to Baht 416.93 million and US Dollar 10 million or equivalent to Baht 334.20 million, totalling Baht 6,551.13 million). These loans bore interest at the rates of 4.05% to 4.25% per annum (2021: 1.19% to 4.57% per annum) and due for repayment within one year.

### Separate financial statements

As at 31 December 2022, the Company had no short-term loans from financial institutions (2021: the Company had short-term loans from financial institutions amounting Baht 5,800 million and US Dollar 10 million or equivalent to Baht 334.20 million, totalling Baht 6,134.20 million. These loans bore interest at the rates of 1.19% to 2.60% per annum and due for repayment within one year.)

The fair value of short-term loans from financial institutions approximated their carrying amount, as short-term borrowings had a short period of maturity.

## 19. Other current liabilities

As at 31 December, other current liabilities consist of:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Accrued expenses	1,769,519	1,051,946	153,744	76,586
Advance from customers	249,086	312,219	-	-
Value added tax payable	28,855	5,879	892	82
Withholding tax payable	205,446	147,180	6,254	3,308
Other payables for purchase of property, plant and equipment	233,691	358,203	-	-
<b>Total other current liabilities</b>	<b>2,486,597</b>	<b>1,875,427</b>	<b>160,890</b>	<b>79,976</b>

## 20. Long-term loans from financial institutions, net

Long-term loans from financial institutions consist of:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Long-term local currency loans	8,750,000	8,000,000	8,750,000	8,000,000
Long-term foreign currency loans	2,357,708	2,712,147	1,970,057	2,005,194
<u>Less</u> Deferred financing service fee	(16,281)	(19,978)	(16,281)	(19,978)
	11,091,427	10,692,169	10,703,776	9,985,216
<u>Less</u> Current portion of long-term loans from financial institutions	(1,231,393)	(1,439,380)	(853,687)	(850,260)
Long-term loans from financial institutions, net	9,860,034	9,252,789	9,850,089	9,134,956

Movement of long-term loans from financial institutions are as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Opening balance	10,692,169	4,431,606	9,985,216	3,694,085
Cash flow:				
Additions	1,552,108	7,140,799	1,500,000	6,993,806
Repayments	(1,210,812)	(971,363)	(863,850)	(700,000)
Deferred charge for long-term loans	-	(17,598)	-	(17,598)
Other non-cash movements:				
Amortisation of deferred financing service fees	3,697	3,535	3,697	3,535
Loss on exchange rate	78,713	11,388	78,713	11,388
Translation differences	(24,448)	93,802	-	-
Closing balance	11,091,427	10,692,169	10,703,776	9,985,216

As at 31 December 2022, long-term loans from financial institutions bear the floating interest rates and are unsecured liabilities except long-term loans of a subsidiary in the People's Republic of China amounting to CNY 49.61 million or equivalent to Baht 246.40 million (2021: CNY 95.22 million or equivalent to Baht 499.98 million) are secured liabilities. The Group has mortgaged and pledged assets as disclosed in Note 15. In addition, the Group is required to comply with certain criteria and conditions; for example, maintaining certain debt to equity ratio.

Long-term loans from financial institutions are as follows:

### Consolidated financial statements

No.	Currency	2022		2021		Interest rate	Due of loan payment
		Original currency (Million)	Million Baht	Original currency (Million)	Million Baht		
1	Baht	1,500.00	1,500.00	-	-	THOR plus applicable fixed margin	Repayment every 6 months commencing 30 September 2024 to expiry of agreement on 31 March 2029
2	Baht	1,125.00	1,125.00	1,500.00	1,500.00	THBFX plus applicable fixed margin	Repayment every 6 months commencing 21 February 2022 to expiry of agreement on 21 August 2025
3	Baht	1,125.00	1,125.00	1,500.00	1,500.00	THBFX plus applicable fixed margin	Repayment every 6 months commencing 20 June 2022 to expiry of agreement on 20 December 2025
4	Baht	5,000.00	5,000.00	5,000.00	5,000.00	BIBOR plus applicable fixed margin	Repayment every 6 months commencing 27 April 2024 to expiry of agreement on 27 October 2031
5	CNY	10.01	49.72	18.02	94.62	LPR plus applicable fixed margin	Repayment every 3 months commencing 29 March 2019 to expiry of agreement on 21 January 2024
6	CNY	49.61	246.39	79.61	418.02	LPR plus applicable fixed margin	Repayment every 6 months commencing 1 June 2019 to expiry of agreement on 30 October 2023
7	CNY	-	-	15.61	81.96	Fixed rate	Repayment every 6 months commencing 23 May 2020 to expiry of agreement on 23 May 2022
8	CNY	18.43	91.54	21.40	112.36	Fixed rate	Repayment every 3 months commencing 11 August 2020 to expiry of agreement on 11 July 2023
9	USD	57.00	1,970.06	60.00	2,005.19	LIBOR plus applicable fixed margin	Repayment every 3 months commencing 27 October 2022 to expiry of agreement on 27 October 2028
			<u>11,107.71</u>		<u>10,712.15</u>		

### Consolidated financial statements

No.	Currency	2022		2021		Interest rate	Due of loan payment
		Original currency (Million)	Million Baht	Original currency (Million)	Million Baht		
1	Baht	1,500.00	1,500.00	-	-	THOR plus applicable fixed margin	Repayment every 6 months commencing 30 September 2024 to expiry of agreement on 31 March 2029
2	Baht	1,125.00	1,125.00	1,500.00	1,500.00	THBFX plus applicable fixed margin	Repayment every 6 months commencing 21 February 2022 to expiry of agreement on 21 August 2025
3	Baht	1,125.00	1,125.00	1,500.00	1,500.00	THBFX plus applicable fixed margin	Repayment every 6 months commencing 20 June 2022 to expiry of agreement on 20 December 2025
4	Baht	5,000.00	5,000.00	5,000.00	5,000.00	BIBOR plus applicable fixed margin	Repayment every 6 months commencing 27 April 2024 to expiry of agreement on 27 October 2031
5	USD	57.00	1,970.06	60.00	2,005.19	LIBOR plus applicable fixed margin	Repayment every 3 months commencing 27 October 2022 to expiry of agreement on 27 October 2028
			<u>10,720.06</u>		<u>10,005.19</u>		

Weighted average effective interest rate of long-term loans from financial institutions of the Group is as follows:

	Consolidated financial statements		Separate financial statements	
	2022 %	2021 %	2022 %	2021 %
Baht	3.02	2.21	3.02	2.21
CNY	5.18	5.21	-	-
USD	6.86	2.63	6.86	2.63

Interest rate risk of long-term loans from financial institutions of the Group is as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
At fixed rates	91,535	194,317	-	-
At floating rates	11,016,173	10,517,830	10,720,057	10,005,194
Total loans	11,107,708	10,712,147	10,720,057	10,005,194

The fair value of long-term borrowings approximated their carrying amount, as the impact of discounting is not significant. The fair values are based on discounted cash flows using a discount rate based upon the market borrowing rate as at the reporting date and are within level 2 of the fair value hierarchy.

Maturities of long-term loans from financial institutions are as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Within 1 year	1,231,393	1,439,380	853,687	850,260
Later than 1 year but not later than 5 years	5,004,192	4,871,209	4,994,247	4,753,376
Later than 5 years	4,872,123	4,401,558	4,872,123	4,401,558
Total loans	11,107,708	10,712,147	10,720,057	10,005,194

The Group is required to comply with certain criteria and conditions; for example, maintaining debt to equity ratio.

## 21. Debentures, net

	Consolidated and separate financial information	
	31 December 2022 Baht'000	31 December 2021 Baht'000
Thai Baht debentures	5,500,000	-
<u>Less</u> Deferred financing service fees	(7,934)	-
Debentures, net	5,492,066	-

Movements of debentures for the year ended 31 December 2022 are as follows:

	Consolidated and separate financial Statement Baht'000
Opening net balance	-
Cash flows:	
Additions	5,500,000
Payment of financing service fees	(8,530)
Other non-cash movement:	
Amortisation of deferred financing service fees	596
Closing net balance	5,492,066

On 10 June 2022, the Company issued Baht unsubordinated and unsecured debentures totalling Baht 5,500 million. There are 4 tranches which are 1) 4-year debenture of Baht 1,500 million with fixed interest rate of 3.10 per annum, 2) 7-year debenture of Baht 700 million with fixed interest rate of 4.00 per annum, 3) 10-year debenture of Baht 1,900 million with fixed interest rate of 4.35 per annum, and 4) 12-year debenture of Baht 1,400 million with fixed interest rate of 4.60 per annum.

Debentures are unsecured liabilities. However, the Group is required to comply with certain procedure and conditions; for example, maintaining debt to equity ratio.

As at 31 December 2022, fair value of debentures are Baht 5,657.53 million. The valuation technique used to measure fair value of debenture is level 2 which is calculated based on the market price of each debenture published in the Thai Bond Market Association.

Maturities of debentures are as follows:

	Consolidated and separate financial information	
	31 December 2022 Baht'000	31 December 2021 Baht'000
Within 1 year	-	-
Later than 1 year but not later than 5 years	1,500,000	-
Later than 5 years	4,000,000	-
Total debentures	5,500,000	-

## 22. Legal reserve

	Consolidated and separate financial information Baht'000
As at 1 January 2021	1,600,200
Appropriation during the year	47,000
As at 31 December 2021	1,647,200
As at 1 January 2022	1,647,200
Appropriation during the year	83,000
As at 31 December 2022	1,730,200

Under the Public Limited Company Act, B.E. 2535, the Company is required to set aside statutory reserve of at least 5 percent of its net profit after accumulated deficit brought forward (if any) until the reserve reaches not less than 10 percent of the registered capital. The legal reserve is non-distributable.

### 23. Expenses by nature

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Fuel consumption	11,931,110	4,636,301	-	-
Cost of power purchased	6,532,595	-	-	-
Staff costs	1,412,966	1,028,798	125,588	85,652
Depreciation and amortisation	1,245,794	580,598	2,246	1,964
Professional fee	528,392	165,936	26,370	40,591
Management fee	146,888	171,937	136,307	168,116

### 24. Basic earnings per share

Basic earnings per share is calculated by dividing the net profit attributable to shareholders of the Company by the weighted average number of ordinary shares in issued and paid-up during the year.

Basic earnings per share for the years ended 31 December are as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Net profit attributable to ordinary shareholders of the Company (Baht'000)	5,738,678	3,127,027	1,649,223	931,751
Weighted average ordinary shares (Thousand shares)	3,047,732	3,047,732	3,047,732	3,047,732
Basic earnings per share (Baht)	1.883	1.026	0.541	0.306

There are no potential dilutive ordinary shares in issue for the years ended 31 December 2022 and 2021.

## 25. Dividend paid

### ***For the year ended 2022***

At the Annual General Shareholders' meeting on 1 April 2022, the shareholders approved a payment of final dividends of 2021 of Baht 0.35 per share for 3,047,731,700 shares, totalling of Baht 1,066.71 million. The Thailand Securities Depository Company Limited notified the Company that certain shareholders were not entitled to receive dividend totalling Baht 0.02 million. The Company paid such dividend to the shareholders on 27 April 2022.

At the Board of Directors' meeting on 26 August 2022, the Board of Directors approved a payment of interim dividends of 2022 of Baht 0.40 per share for 3,047,731,700 shares, totalling of Baht 1,219.09 million. The Thailand Securities Depository Company Limited notified the Company that certain shareholders were not entitled to receive dividend totalling Baht 2.23 thousand. The Company paid such dividend to the shareholders on 26 September 2022.

### ***For the year ended 2021***

At the Annual General Shareholders' meeting on 2 April 2021, the shareholders approved a payment of final dividends of 2020 of Baht 0.35 per share for 3,047,731,700 shares, totalling of Baht 1,066.70 million. The Company paid such dividend to the shareholders on 28 April 2021.

At the Board of Directors' meeting on 27 August 2021, the Board of Directors approved a payment of interim dividends of 2021 of Baht 0.30 per share for 3,047,731,200 shares, totalling of Baht 914.32 million. The Company paid such dividend to the shareholders on 21 September 2021.

## 26. Related party transactions

The Company is controlled by Banpu Public Company Limited (the Parent), which is domiciled in Thailand. The Parent holds 78.66% of the Company's shareholding.

In considering each possible related party relationship, attention is directed to the substance of the relationship, and not merely the legal form.

The pricing policies for transactions between the Parent, subsidiaries, an associate, joint ventures and related parties are set out below:

- Management income represents fee charged to the parent company, a subsidiary, joint ventures, and related parties for rendering the management services in the normal course of business. The fees are based on the service provided and the agreed rate in accordance with the conditions in agreement.
- Management expenses represent fee charged from the parent company and a subsidiary for rendering the management services in the normal course of business. The fees are based on the service provided and the agreed rate in accordance with the conditions in agreement.
- For loans, borrowings, interest income and interest expenses, the Group charges interest by considering the average cost of borrowings and market interest rate.
- Advance to/from related parties represent the advance payment for related parties which will be reimbursed within the normal credit term.

The following significant transactions were carried out with related parties:

## 26.1 Transactions during the years ended 31 December are as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Purchases of goods from a related party	3,943,173	3,516,121	-	-
Dividend income				
- Subsidiaries	-	-	17,000	106,589
- Joint ventures	-	-	1,466,839	687,282
Total dividend income from related parties	-	-	1,483,839	793,871
Interest income				
- Subsidiaries	-	-	522,116	211,928
- Associates	225,300	293,427	188,105	232,087
- Joint ventures	93,481	68,425	-	-
Total interest income from related parties	318,781	361,852	710,221	444,015
Interest expense to a related party	346,410	43,319	-	-
Management fee				
- Subsidiaries	-	-	2,032	249
- Associates	83,570	82,260	-	2,608
- Joint ventures	18,892	15,614	16,676	14,000
- Related parties	141,248	105,410	-	-
Total management fee charged to related parties	243,710	203,284	18,708	16,857
Management and service expenses				
- The Parent	132,600	160,150	132,600	160,150
- Subsidiary	-	-	-	57
- Associate	1,597	-	1,597	-
- Related parties	12,691	11,787	2,110	8,158
Total management and service expenses to related parties	146,888	171,937	136,307	168,365

## 26.2 Amounts due from related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Interest receivables				
- Subsidiaries	-	-	597,282	355,510
- Associates	637,786	783,421	236,219	398,535
- Joint venture	84,600	55,420	-	-
Total Interest receivables	722,386	838,841	833,501	754,045
Other receivables				
- Associates	899	6,869	899	6,869
- Joint ventures	2,830	1,750	1,248	1,248
- Related parties	64,370	21,850	-	-
Total other receivables	68,099	30,469	2,147	8,117
Total amount due from related parties	790,485	869,310	835,648	762,162
Dividend receivables				
Dividend receivables - Current				
- Subsidiary	-	-	-	125,000
- Joint venture	50,000	125,000	-	-
	50,000	125,000	-	125,000
Dividend receivables - Non-current				
- Subsidiary	-	-	-	45,000
- Joint venture	113,831	238,831	-	-
	113,831	238,831	-	45,000
Total dividend receivables				
from related parties	163,831	363,831	-	170,000

## 26.3 Advances to and loans to related parties

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Advances to associates	3,558	2,761	3,558	2,761
Short-term loans to				
- Associate	614,344	649,512	-	-
- Joint ventures	1,285,819	1,714,103	-	-
Total short-term loans to related parties	1,900,163	2,363,615	-	-
Current-portion of long-term loans				
- Subsidiaries	-	-	5,607,750	-
- Associates	1,581,427	341,296	1,581,427	-
	1,581,427	341,296	7,189,177	-
Long-term loans to				
- Subsidiaries	-	-	4,495,531	10,110,188
- Associate	644,224	5,479,065	644,224	5,479,065
	644,224	5,479,065	5,139,755	15,589,253
Total long-term loans to related parties	2,225,651	5,820,361	12,328,932	15,589,253

Short-term loans to related parties are unsecured promissory notes which details are as follows:

### Consolidated financial statements

Currency	2022			2021			Repayment term
	Currency in promissory note (Million)	Million Baht	Average interest rate per annum	Currency in promissory note (Million)	Million Baht	Average interest rate per annum	
CNY	123.70	614.34	4.35%	123.70	649.51	4.35%	Repayment at the end of contract 6 February 2023 to 13 September 2023
CNY	-	-	-	90.00	472.57	4.30%	Repayment at the end of contract 15 December 2022
USD	37.15	1,283.99	7.52%	37.15	1,241.54	4.15%	Repayment at the end of contract on 13 May 2023
JPY	7.04	1.83	10.00%	-	-	-	Repayment at the end of contract on 26 April 2023
Total		1,900.16			2,363.62		

Movements of short-term loans to related parties for the years ended 31 December are as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Opening balance	2,363,615	2,795,705	-	-
Cash flows:				
Additions	1,835	-	-	-
Repayments	(468,974)	(744,980)	-	-
Other non-cash movements:				
Gains (losses) on exchange rate	115,154	(25,572)	-	-
Translation differences	(111,467)	338,462	-	-
Closing balance	1,900,163	2,363,615	-	-

Long-term loans to related parties are unsecured promissory notes which details are as follows:

### **Consolidated financial statements**

Currency	2022			2021			Repayment term
	Currency in promissory note (Million)	Million Baht	Average interest rate per annum	Currency in promissory note (Million)	Million Baht	Average interest rate per annum	
Baht	1,741.43	1,741.43	5.50%	4,967.12	4,967.12	4.25%	Repayment at the end of contract 30 November 2023 to 27 May 2024
CNY	97.50	484.22	5.50%	162.50	853.24	4.75%	Repayment at the end of contract 31 October 2024
Total		<u>2,225.65</u>			<u>5,820.36</u>		

**Separate financial statement**

Currency	2022			2021			Repayment term
	Currency in promissory note (Million)	Million Baht	Average interest rate per annum	Currency in promissory note (Million)	Million Baht	Average interest rate per annum	
Baht	1,741.43	1,741.43	5.50%	4,967.12	4,967.12	4.25%	Repayment at the end of contract 30 November 2023 to 27 May 2024
US Dollar	292.32	10,103.28	5.75%	302.52	10,110.19	4.50%	Repayment at the end of contract 27 May 2023 to 8 April 2026
CNY	97.50	484.22	5.50%	97.50	511.94	4.25%	Repayment at the end of contract 31 October 2024
Total		12,328.93			15,589.25		

The fair values of long-term loans to related parties are based on discounted cash flows using a discount rate based upon the market borrowing rate as at the reporting date and are within level 2 of the fair value hierarchy. As at 31 December 2022 and 2021, the fair values of long-term loans to related parties approximated their carrying amount.

Movements of long-term loans to related parties for the years ended 31 December are as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Opening balance	5,820,361	5,740,754	15,589,253	7,890,550
Cash flows:				
Additions	-	-	18,666	8,301,759
Repayments	(3,564,398)	(24,833)	(3,630,535)	(15,940)
Other non-cash movements:				
Conversion to investment in a subsidiary	-	-	-	(1,004,454)
Gains (losses) on exchange rate	(27,719)	61,620	351,548	417,338
Translation differences	(2,593)	42,820	-	-
Closing balance	2,225,651	5,820,361	12,328,932	15,589,253

## 26.4 Advances from and amounts due to related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Advances from				
- The Parent	27,930	24,718	-	-
- Associate	87	-	87	-
- Related party	-	41,775	-	-
Total advances from related parties	28,017	66,493	87	-
Accrued management fee to				
- Associate	398	-	398	-
- Related party	214	5,948	-	5,948
Total advances from related parties	612	5,948	398	5,948
Accrued interest expense due to a related party	85,175	43,436	-	-
Amounts due to related parties	565,956	513,762	-	-
Total advances from and amounts due to related parties	679,760	629,639	485	5,948
Long-term loans from a related party				
Current-portion of long-term loans	4,385,969	-	-	-
Long-term loans – Non-current	-	4,712,206	-	-
Total long-term loans from a related party	4,385,969	4,712,206	-	-

Long-term loans from a related party are unsecured promissory notes which details are as follows:

### Consolidated financial statements

Currency	2022			2021			Repayment term
	Currency in promissory note (Million)	Million Baht	Average interest rate per annum	Currency in promissory note (Million)	Million Baht	Average interest rate per annum	
US Dollar	126.90	4,385.97	10.18%	141.00	4,712.21	5.44%	Repayment at the end of contract 1 November 2023
<b>Total</b>		<u>4,385.97</u>			<u>4,712.21</u>		

Movements of long-term loans from a related party for the years ended 31 December are as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Opening balance	4,712,206	-	-	-
Cash flows:				
Additions	-	4,721,033	-	-
Repayments	(494,365)	-	-	-
Other non-cash movements:				
Translation differences	168,128	(8,827)	-	-
Closing balance	<u>4,385,969</u>	<u>4,712,206</u>	<u>-</u>	<u>-</u>

## 26.5 Key management compensation

Key management compensation for the years ended 31 December are detailed as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Salary and other short-term benefits	85,602	57,480	85,602	57,480
Post-employment benefits	1,199	1,169	1,199	1,169
	<u>86,801</u>	<u>58,649</u>	<u>86,801</u>	<u>58,649</u>

In addition, the Group paid management fee to the Parent for the year ended 31 December 2022 of Baht 132.60 million (2021: Baht 160.15 million). Part of the fee is considered as performing key management activities of the Group.

## 27. Commitment and contingent liabilities

### 27.1 Letter of Guarantee

As at 31 December, the Group has obligations with banks as follows;

	Consolidated and separate financial statement	
	2022 Thousand (Original currency)	2021 Thousand (Original currency)
Letters of guarantee		
- US Dollar	613	5,055
- Thai Baht	411	411
Letters of credit		
- US Dollar	22,000	22,000
- Thai Baht	1,600,000	1,600,000

### 27.2 Capital commitments

As at 31 December, the Group had capital commitments to provide funding that were not recognised in the financial statement is as follows:

	Consolidated financial statements		Separate financial statements	
	2022 Baht'000	2021 Baht'000	2022 Baht'000	2021 Baht'000
Property, plant and equipment	30,388	41,130	-	-





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