

BANPU PUBLIC COMPANY LIMITED

CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTS

31 DECEMBER 2022

Independent Auditor's Report

To the shareholders of Banpu 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 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. These matters were 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 these matters.

Key audit matter	How my audit addressed the key audit matter
Impairment assessment of goodwill As at 31 December 2022, the Group has goodwill net of an accumulated impairment of US Dollar 394.16 million in the consolidated statement of financial position. The goodwill mainly arose from the acquisitions of a coal mining business overseas. In 2022, the Group recognised an impairment loss for the goodwill of US Dollar 31.44 million as disclosed in Note 19, Goodwill. Management tests goodwill for impairment annually. The impairment test is performed at the level of the cash generating unit (CGU) and computing a recoverable amount by applying a value-in-use model which involves the significant management judgements in respect to the future operating results of business, projected cash flows and the discount rate to be applied to the projected cash flows. Goodwill of US Dollar 329.84 million, representing 84% of total goodwill, arose from the acquisition of a coal mining business in Australia. The key assumptions applied in the value-in-use model of coal mining business in Australia include the trend of global coal prices, estimated coal reserves, production plans, forecasted exchange rates, cost structures, inflation rate and discount rate applied to projected cash flows.	The audit procedures of the impairment assessment of goodwill arising from the acquisition of coal mining business in Australia were performed by the component auditor in Australia. I planned the audit procedures of the consolidation process and communicated them to the component auditors. In addition, I understood and evaluated the work of the component auditor to obtain sufficient and appropriate audit evidence for the impairment testing of goodwill. I also satisfied myself as to the appropriateness of management's identification of the Group's CGUs and the continued satisfactory operation of the Group's controls over the impairment assessment process. The component auditor carried out the following procedures to review management's assessment of impairment testing of goodwill which I have reviewed. • held discussions with management to understand the basis for the assumptions used and assessed whether the impairment testing process and assumptions had been applied consistently across the Group. • evaluated management's significant assumptions used in impairment testing for goodwill, specifically the trend of global coal prices, estimated coal reserves, production plans, forecasted exchange rates, cost structures, inflation rate and discount rate. The procedures included comparing the key assumptions to the external sources and the approved business and mine plans. • assessed the reasonableness of business and mine plans and compared the plans with actual results of 2022.

Key audit matter	How my audit addressed the key audit matter
I focused on the impairment assessment of goodwill arising from the acquisition of coal mining business in Australia due to its significant value and the fact that the determination of recoverable amount depends on a number of assumptions. Those assumptions involve significant judgement made by management in assessing the possibility of future business plans.	- assessed the discount rate taking into account the independently obtained data from available public information of companies in the industry, to see whether the discount rate used by management was within an acceptable range. - tested sensitivity analysis over key assumptions used by management in order to assess factors to be sensitive to assumptions and potential impact of a range possible outcomes. As a result of the procedures performed, the key assumptions used by management in assessing the recoverable amount of goodwill were reasonable and consistent with supporting evidence.
Business combination - Barnett Shale Refer to Note 32.2 Business combination in the Barnett Shale. In 2022, the Group completed the acquisition of natural gas and midstream assets in the Barnett Shale, in the United States for a consideration paid of US Dollar 636.59 million. Management determined that this acquisition is a business combination in accordance with TFRS 3, Business combinations. Management engaged an external valuer to appraise the fair value of net identifiable assets acquired and perform the purchase price allocation. As a result of this work performed, the Group recognised a bargain purchase of US Dollar 170.85 million in the consolidated statement of comprehensive income for the year ended 31 December 2022 which was resulted from the net identifiable assets acquired exceeding the consideration paid for the acquisition. The fair value determination of the net identifiable assets involved significant assumptions of the external valuer and significant judgement made by management. Significant assumptions were future	The audit procedures of this matter were performed by a component auditor in the United States. I planned the audit procedures of the consolidation process and communicated them to the component auditors. In addition, I understood and evaluated the work performed by the component auditor to obtain sufficient and appropriate audit evidence. The component auditor carried out the following procedures, to obtain evidence for management's assessment of accounting related to the business combination and allocation of the purchase price according to the relative fair value of net identifiable assets acquired which I have reviewed. - reviewed management's assessment that this acquisition meets the definition of a business combination in accordance with TFRS 3. - assessed the appropriateness of the net identifiable assets acquired at the acquisition date and evaluated the management's process for determining the fair value estimated of net identifiable assets acquired and the allocation of the purchase price proportionally according to the relative fair values.

Key audit matter	How my audit addressed the key audit matter
production volumes, future commodity prices and discount rate applied for the discounted cash flow models. Management has not finalised the purchase price allocation for this acquisition as of 31 December 2022 which is within the measurement period of one year from the acquisition date. I focused on the fair value determination of net identifiable assets arising from the business combination due to its significant value and the fair value determination involves significant assumptions and judgments made by management.	• evaluated the competency, qualifications, experience and objectivity of the external valuer who is management's specialist. • evaluated the methods and assumptions used by the external valuer. • tested the completeness and accuracy of underlying data used in the discounted cash flow models and evaluated the reasonableness of the significant assumptions used by management related to future production volumes, future commodity prices and discount rate. • examined the consideration paid and calculated the bargain purchase which was recognised by management in the consolidated statement of comprehensive income. As a result of the procedures performed, I determined that the acquisition of Barnett shale is the business combination in accordance with TFRS 3, Business Combinations. The assumptions that were used in determination of the fair value of net identifiable assets acquired were reasonable and in accordance with accounting related to the business combination and the bargain purchase was appropriately recognised.

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.

A handwritten signature in blue ink, appearing to read "Rodjanart", followed by a checkmark-like flourish.

Rodjanart Banyatananusard

Certified Public Accountant (Thailand) No. 8435

Bangkok

22 February 2023

Banpu Public Company Limited
Statement of Financial Position
As at 31 December 2022

		Consolidated financial statements			
		US Dollar'000		Baht'000	
	Notes	2022	2021	2022	2021
Assets					
Current assets					
Cash and cash equivalents	10	2,154,023	1,184,361	74,448,221	39,581,234
Investment in debt instruments measured at fair value through profit or loss	6	11,581	15,687	400,254	524,272
Investment in debt instruments measured at fair value through other comprehensive income	6	89	168	3,087	5,600
Trade receivables and note receivables, net	11	668,401	472,940	23,101,556	15,805,596
Advances to and amounts due from related parties	30	2,723	2,068	94,091	69,096
Current portion of dividend receivables from related parties	30	27,810	24,191	961,167	808,475
Short-term loans to related parties	30	53,473	69,260	1,848,152	2,314,662
Inventories, net	12	146,359	116,834	5,058,519	3,904,574
Spare parts and machinery supplies, net		49,880	41,400	1,723,989	1,383,594
Derivative assets due in one year	6	14,160	20,990	489,395	701,494
Current portion of deferred exploration and development expenditures and deferred overburden expenditures/stripping costs, net	17	131,342	78,475	4,539,501	2,622,612
Non-current assets classified as held for sale	14	-	172,048	-	5,749,827
Other current assets	13	426,386	358,037	14,736,907	11,965,563
Total current assets		3,686,227	2,556,459	127,404,839	85,436,599

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Financial Position
As at 31 December 2022

		Consolidated financial statements			
		US Dollar'000		Baht'000	
	Notes	2022	2021	2022	2021
Assets (continued)					
Non-current assets					
Dividend receivables from a related party	30	3,293	7,146	113,831	238,831
Long-term loans to related parties	30	16,952	16,664	585,914	556,903
Investments in associates and joint ventures using the equity method	15	1,784,138	1,645,453	61,664,098	54,990,890
Investment in debt instruments measured at fair value through profit or loss	6	177,704	-	6,141,875	-
Investment in equity instruments measured at fair value through profit or loss	6	6,570	7,727	227,085	258,239
Investments in equity instruments measured at fair value through other comprehensive income	6	158,688	164,424	5,484,637	5,495,041
Derivative assets	6	51,103	63,719	1,766,234	2,129,467
Investment property, net		1,471	1,488	50,858	49,714
Property, plant and equipment, net	16	4,190,373	3,416,125	144,829,364	114,166,560
Right-of-use assets, net		77,066	65,873	2,663,592	2,201,476
Deferred exploration and development expenditures and deferred overburden expenditures/stripping costs, net	17	739,736	888,847	25,567,047	29,705,179
Mining property rights, net	18	875,701	1,276,104	30,266,326	42,647,263
Goodwill, net	19	394,156	431,568	13,622,971	14,422,945
Deferred tax assets	20	92,129	103,567	3,184,184	3,461,183
Other non-current assets	21	382,534	300,393	13,221,284	10,039,109
Total non-current assets		8,951,614	8,389,098	309,389,300	280,362,800
Total assets		12,637,841	10,945,557	436,794,139	365,799,399

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Financial Position
As at 31 December 2022

		Consolidated financial statements			
		US Dollar'000		Baht'000	
	Notes	2022	2021	2022	2021
Liabilities and equity					
Current liabilities					
Short-term loans from financial institutions	22	450,842	1,173,907	15,582,197	39,231,861
Trade payables		122,846	98,547	4,245,847	3,293,416
Accrued interest expenses		43,170	33,228	1,492,060	1,110,469
Accrued royalty expenses		5,844	3,443	201,970	115,072
Accrued overburden and coal transportation costs		113,030	77,367	3,906,598	2,585,582
Accrued income taxes		226,688	99,685	7,834,886	3,331,470
Accrued employee benefits		74,888	90,636	2,588,318	3,029,053
Derivative liabilities due in one year	6	66,427	128,120	2,295,891	4,281,755
Current portion of long-term loans from financial institutions, net	24	667,254	517,009	23,061,908	17,278,404
Current portion of debentures, net	25	251,244	119,672	8,683,602	3,999,435
Current portion of lease liabilities, net		31,178	25,806	1,077,573	862,422
Current portion of deferred unfavourable contract liabilities, net		-	4,180	-	139,684
Other current liabilities	23	729,513	536,585	25,213,707	17,932,626
Total current liabilities		2,782,924	2,908,185	96,184,557	97,191,249
Non-current liabilities					
Long-term loans from financial institutions, net	24	2,262,162	2,270,243	78,185,763	75,871,298
Debentures, net	25	2,372,308	1,911,304	81,992,641	63,875,581
Employee benefit obligations		32,152	39,701	1,111,236	1,326,790
Derivative liabilities	6	3,721	52,776	128,612	1,763,754
Lease liabilities, net		32,551	25,535	1,125,052	853,379
Deferred tax liabilities	20	300,899	84,701	10,399,793	2,830,715
Provision for decommissioning, restoration, and mine and natural gas rehabilitation		263,340	340,305	9,101,647	11,372,946
Other non-current liabilities		179,119	209,951	6,190,818	7,016,554
Total non-current liabilities		5,446,252	4,934,516	188,235,562	164,911,017
Total liabilities		8,229,176	7,842,701	284,420,119	262,102,266

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Financial Position
As at 31 December 2022

		Consolidated financial statements			
		US Dollar'000		Baht'000	
	Note	2022	2021	2022	2021
Liabilities and equity (continued)					
Equity					
Share capital	26				
Registered share capital					
10,149,163,028 ordinary shares at par of Baht 1 each				10,149,163	10,149,163
Issued and paid-up share capital					
8,454,161,388 ordinary shares at paid-up of Baht 1 each					
(2021: 6,766,108,686 ordinary shares at paid-up of Baht 1 each)		243,199	198,500	8,454,161	6,766,108
Premium on share capital	26	826,726	647,929	28,890,758	22,138,547
Share-based payments		45,578	20,313	1,555,540	677,687
Retained earnings					
Appropriated					
- Legal reserve	26	104,867	100,397	3,487,207	3,318,402
- Other reserves	26	183,921	121,159	6,190,158	3,906,838
Unappropriated		2,793,829	1,831,341	94,501,450	61,096,868
Other components of equity	26	(789,044)	(547,482)	(25,253,453)	(18,627,198)
Equity attributable to owners of the Parent		3,409,076	2,372,157	117,825,821	79,277,252
Non-controlling interests		999,589	730,699	34,548,199	24,419,881
Total equity		4,408,665	3,102,856	152,374,020	103,697,133
Total liabilities and equity		12,637,841	10,945,557	436,794,139	365,799,399

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Financial Position
As at 31 December 2022

	Notes	Separate financial statements			
		US Dollar'000		Baht'000	
		2022	2021	2022	2021
Assets					
Current assets					
Cash and cash equivalents	10	164,663	114,057	5,691,149	3,811,758
Trade receivables	11	14,466	7,250	499,970	242,287
Advances to and amounts due from related parties	30	74,148	524,662	2,562,723	17,534,141
Short-term loans to related parties	30	63,562	74,603	2,196,871	2,493,217
Current portion of long-term loan to related parties	30	42,000	79,500	1,451,621	2,656,882
Inventories, net	12	11,563	4,699	399,638	157,027
Derivative assets due in one year	6	1,608	-	55,572	-
Other current assets	13	5,064	6,131	175,057	204,899
Total current assets		377,074	810,902	13,032,601	27,100,211
Non-current assets					
Long-term loans to related parties	30	2,224,499	2,955,695	76,884,038	98,779,016
Investments in subsidiaries using cost method	15	3,684,814	2,368,224	127,356,009	79,145,807
Investment in equity instruments measured at fair value through other comprehensive income	6	9,939	7,749	343,500	258,967
Derivative assets	6	11,535	813	398,663	27,181
Investment property, net		1,020	1,020	35,267	34,101
Property, plant and equipment, net	16	3,966	5,011	137,084	167,461
Right-of-use assets, net		1,243	2,309	42,961	77,161
Deferred tax assets	20	-	5,142	-	171,830
Other non-current assets	21	8,100	7,399	279,961	247,268
Total non-current assets		5,945,116	5,353,362	205,477,483	178,908,792
Total assets		6,322,190	6,164,264	218,510,084	206,009,003

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Financial Position
As at 31 December 2022

	Notes	Separate financial statements			
		US Dollar'000		Baht'000	
		2022	2021	2022	2021
Liabilities and equity					
Current liabilities					
Short-term loans from financial institutions	22	353,853	812,461	12,230,000	27,152,378
Trade payables to subsidiaries	30	-	2,746	-	91,758
Advances from and amounts due to related parties	30	653	784	22,577	26,202
Accrued interest expenses		34,182	26,419	1,181,423	882,906
Derivative liabilities due in one year	6	13,504	3,989	466,735	133,310
Current portion of long-term loans from financial institutions, net	24	377,747	355,871	13,055,828	11,893,176
Current portion of debentures, net	25	251,244	119,672	8,683,602	3,999,435
Current portion of lease liabilities, net		825	1,073	28,515	35,873
Other current liabilities	23	21,388	10,676	739,222	356,797
Total current liabilities		1,053,396	1,333,691	36,407,902	44,571,835
Non-current liabilities					
Long-term loans from financial institutions, net	24	1,180,342	1,506,331	40,795,456	50,341,446
Debentures, net	25	2,213,405	1,911,304	76,500,575	63,875,581
Employee benefit obligations		13,830	13,247	478,013	442,729
Derivative liabilities	6	3,721	22,500	128,612	751,943
Lease liabilities, net		317	1,022	10,958	34,163
Deferred tax liabilities	20	26,343	-	910,463	-
Other non-current liabilities		1,041	1,206	35,976	40,205
Total non-current liabilities		3,438,999	3,455,610	118,860,053	115,486,067
Total liabilities		4,492,395	4,789,301	155,267,955	160,057,902

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Financial Position
As at 31 December 2022

	Note	Separate financial statements			
		US Dollar'000		Baht'000	
		2022	2021	2022	2021
Liabilities and equity (continued)					
Equity					
Share capital	26				
Registered share capital					
10,149,163,028 ordinary shares at par of Baht 1 each				10,149,163	10,149,163
Issued and paid-up share capital					
8,454,161,388 ordinary shares at paid-up of Baht 1 each					
(2021: 6,766,108,686 ordinary shares at paid-up of Baht 1 each)		243,199	198,500	8,454,161	6,766,108
Premium on share capital	26	826,726	647,929	28,890,758	22,138,547
Retained earnings					
Appropriated					
- Legal reserve	26	24,320	19,850	845,416	676,611
Unappropriated		696,416	494,670	22,769,187	15,706,969
Other components of equity	26	39,134	14,014	2,282,607	662,866
Total equity		1,829,795	1,374,963	63,242,129	45,951,101
Total liabilities and equity		6,322,190	6,164,264	218,510,084	206,009,003

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Comprehensive Income
For the year ended 31 December 2022

		Consolidated financial statements			
		US Dollar'000		Baht'000	
	Notes	2022	2021	2022	2021
Sales and service income		7,693,220	4,123,592	272,270,127	133,190,083
Cost of sales and services		(3,616,383)	(2,392,578)	(127,713,284)	(76,916,092)
Gross profit		4,076,837	1,731,014	144,556,843	56,273,991
Dividend income from equity instruments		7,956	8,541	282,498	273,817
Management fee and others		60,640	38,610	2,083,615	1,248,310
Interest income		17,553	8,742	627,195	277,888
Selling expenses		(228,580)	(170,602)	(8,075,925)	(5,505,622)
Administrative expenses		(445,484)	(304,341)	(15,787,220)	(9,786,939)
Royalty fee		(592,482)	(294,314)	(21,018,654)	(9,530,953)
Gain on disposal of investment in a joint venture	14	179,216	-	5,923,599	-
Bargain purchase from business combination	32	170,854	-	5,876,861	-
Impairment of assets	18	(374,814)	-	(13,636,029)	-
Net losses from changes in fair value					
of financial instruments		(807,025)	(444,595)	(28,295,687)	(14,645,688)
Net gains on exchange rate		4,841	74,003	39,815	2,332,062
Interest expenses		(256,989)	(174,116)	(9,079,247)	(5,575,548)
Other finance costs		(8,173)	(9,557)	(287,824)	(307,046)
Share of profit from associates and joint ventures					
accounted for using the equity method	15	339,358	227,137	11,980,442	7,290,188
Profit before income taxes		2,143,708	690,522	75,190,282	22,344,460
Income taxes	20	(520,827)	(198,033)	(18,378,700)	(6,371,877)
Profit for the year		1,622,881	492,489	56,811,582	15,972,583
Other comprehensive income (expense), net of taxes:					
Items that will not be reclassified to profit or loss					
- Remeasurements of post-employment					
benefit obligations		1,501	312	54,275	(35,065)
- Changes in fair value of financial assets measured at					
fair value through other comprehensive income		3,005	(19,530)	99,569	(550,393)
- Share of other comprehensive income (expense) from					
joint ventures accounted for using the equity method	15	5,749	(11,781)	188,692	(344,501)
- Translation differences		-	-	751,446	3,739,834
Total items that will not be reclassified to profit or loss,					
net of taxes		10,255	(30,999)	1,093,982	2,809,875

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Comprehensive Income
For the year ended 31 December 2022

Consolidated financial statements				
Note	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Other comprehensive income (expense), net of taxes: (continued)				
Items that will be reclassified subsequently to profit or loss				
- Gains (losses) on cash flow hedge reserve	37,295	(90,885)	1,901,548	(3,149,989)
- Gains on net investment hedge	25,627	88,965	852,557	2,709,956
- Share of other comprehensive income (expense)				
from associates and joint ventures				
accounted for using the equity method	15	(111,049)	(97,853)	(2,144,431)
- Translation differences		(243,428)	(101,420)	(9,123,191)
Total items that will be reclassified subsequently to profit or loss, net of taxes		(291,555)	(201,193)	(8,513,517)
Other comprehensive income (expense) for the year, net of taxes		(281,300)	(232,192)	(7,419,535)
Total comprehensive income for the year		1,341,581	260,297	49,392,047
Profit attributable to:				
Owners of the Parent		1,162,365	303,931	40,518,967
Non-controlling interests		460,516	188,558	16,292,615
		1,622,881	492,489	56,811,582
Total comprehensive income attributable to:				
Owners of the Parent		896,671	109,158	33,073,849
Non-controlling interests		444,910	151,139	16,318,198
		1,341,581	260,297	49,392,047
Note	US Dollar		Baht	
	2022	2021	2022	2021
Earnings per share				
Basic earnings per share				
28	0.162	0.049	5.649	1.591
Diluted earnings per share				
28	0.148	0.046	5.167	1.497

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Comprehensive Income
For the year ended 31 December 2022

	Notes	Separate financial statements			
		US Dollar'000		Baht'000	
		2022	2021	2022	2021
Sales		58,949	40,058	2,087,272	1,270,576
Cost of sales		(46,728)	(35,644)	(1,660,740)	(1,129,005)
Gross profit		12,221	4,414	426,532	141,571
Dividend income from subsidiaries	30	271,468	89,311	9,639,779	2,915,768
Dividend income from equity instruments		194	160	6,673	5,011
Management fee and others		62,716	34,646	2,219,947	1,119,490
Interest income		126,830	116,644	4,442,459	3,745,994
Selling expenses		(6,773)	(3,238)	(237,955)	(104,611)
Administrative expenses		(71,146)	(55,920)	(2,535,273)	(1,805,305)
Effect from group restructuring	15	37,140	21,544	1,226,264	675,509
Net losses from changes in fair value of financial instruments		(4,353)	(11,486)	(147,883)	(378,181)
Net gains on exchange rate		116,537	88,449	4,043,609	2,773,852
Interest expenses		(173,248)	(138,773)	(6,099,784)	(4,439,088)
Other finance costs		(3,917)	(4,055)	(137,385)	(129,523)
Profit before income taxes		367,669	141,696	12,846,983	4,520,487
Income taxes	20	(28,264)	(61,530)	(934,224)	(1,930,341)
Profit for the year		339,405	80,166	11,912,759	2,590,146
Other comprehensive income, net of taxes:					
Items that will not be reclassified to profit or loss					
- Remeasurements of post-employment benefit obligations		1,490	219	54,461	-
- Changes in fair value of financial assets measured at fair value through other comprehensive income		1,724	308	60,322	10,964
- Translation differences		-	-	751,446	3,739,834
Total items that will not be reclassified to profit or loss, net of taxes		3,214	527	866,229	3,750,798

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Comprehensive Income
For the year ended 31 December 2022

		Separate financial statements			
		US Dollar'000		Baht'000	
		2022	2021	2022	2021
Other comprehensive income, net of taxes: (continued)					
Item that will be reclassified subsequently to profit or loss					
- Gains on cash flow hedge reserve		23,396	26,407	807,973	838,886
Total item that will be reclassified subsequently to profit or loss, net of taxes					
		23,396	26,407	807,973	838,886
Other comprehensive income for the year, net of taxes		26,610	26,934	1,674,202	4,589,684
Total comprehensive income for the year		366,015	107,100	13,586,961	7,179,830
		US Dollar		Baht	
Note		2022	2021	2022	2021
Earnings per share					
Basic earnings per share	28	0.047	0.013	1.661	0.418
Diluted earnings per share	28	0.043	0.012	1.519	0.394

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Changes in Equity
For the year ended 31 December 2022

Consolidated financial statements

US Dollar'000

Attributable to owners of the Parent															
Other components of equity															
Other comprehensive income (expense)															
Changes in parent's ownership interests in subsidiaries															
Other reserves															
Total other components of equity															
Non-controlling interests															
Total equity															

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Changes in Equity
For the year ended 31 December 2022

Consolidated financial statements															
Baht'000															
Attributable to owners of the Parent															
Other components of equity															
Other comprehensive income (expense)															
Changes in parent's ownership interests in subsidiaries															
Total other components of equity															
Non-controlling interests															
Total equity															
Notes	Issued and paid-up share capital	Premium on share capital	Share-based payment	Legal reserve	Other reserves	Unappropriated	Fair value reserve of financial assets	Cash flow hedge reserve	Net investment hedge	Translation differences	Other reserves	Other components of equity	Non-controlling interests	Total equity	
Opening balance as at 1 January 2022															
	6,766,108	22,138,547	677,687	3,318,402	3,906,838	61,096,868	558,804	(3,972,220)	372,633	(26,078,747)	11,991,329	(1,498,997)	(18,627,198)	24,419,881	103,697,133
Increase in share capital	26	1,688,053	6,752,211	-	-	-	-	-	-	-	-	-	-	-	8,440,264
Legal reserve	26	-	-	-	168,805	(168,805)	-	-	-	-	-	-	-	-	-
Other reserves	26	-	-	-	-	2,283,320	-	-	-	-	-	-	-	-	-
Disposal of treasury shares of a subsidiary		-	-	-	-	-	-	-	-	-	1,299,642	-	1,299,642	817,723	2,117,365
Dividend paid	29	-	-	-	-	(4,736,197)	-	-	-	-	-	-	-	-	(4,736,197)
Dividend paid of subsidiaries		-	-	-	-	-	-	-	-	-	-	-	-	(7,035,121)	(7,035,121)
Increase in share capital of a subsidiary		-	-	-	-	-	-	-	-	-	-	-	-	27,518	27,518
Reserve for share-based compensation to employees		-	-	877,853	-	-	-	-	-	-	-	-	-	-	877,853
Fair value of put options over non-controlling interests		-	-	-	-	-	-	-	-	-	(379,383)	(379,383)	-	(379,383)	
Fair value of put options over employee compensation liabilities		-	-	-	-	-	-	-	-	-	-	(27,459)	(27,459)	-	(27,459)
Profit for the year		-	-	-	-	40,518,967	-	-	-	-	-	-	-	16,292,615	56,811,582
Other comprehensive income (expense) for the year		-	-	-	-	73,937	267,261	2,181,464	852,557	(10,820,337)	-	-	(7,519,055)	25,583	(7,419,535)
Closing balance as at 31 December 2022															
	8,454,161	28,890,758	1,555,540	3,487,207	6,190,158	94,501,450	826,065	(1,790,756)	1,225,190	(36,899,084)	13,290,971	(1,905,839)	(25,253,453)	34,548,199	152,374,020
Opening balance as at 1 January 2021															
	5,074,581	15,372,438	55,037	3,157,984	3,458,754	54,628,542	1,312,742	(1,760,471)	(2,337,323)	(27,261,096)	11,993,743	(1,350,978)	(19,403,383)	22,211,298	84,555,251
Increase in share capital	26	1,691,527	6,766,109	-	-	-	-	-	-	-	-	-	-	-	8,457,636
Legal reserves	26	-	-	-	160,418	(160,418)	-	-	-	-	-	-	-	-	-
Other reserves	26	-	-	-	-	448,084	(448,084)	-	-	-	-	-	-	-	-
Treasury shares of a subsidiary		-	-	-	-	-	-	-	-	-	(16,657)	88,994	72,337	(72,337)	-
Dividend paid	29	-	-	-	-	(1,776,071)	-	-	-	-	-	-	-	-	(1,776,071)
Dividend paid of subsidiaries		-	-	-	-	-	-	-	-	-	-	-	-	(2,005,642)	(2,005,642)
Change in shareholding interests of subsidiaries		-	-	-	-	-	-	-	-	-	14,243	-	14,243	-	14,243
Reserve for share-based compensation to employees		-	-	622,650	-	-	-	-	-	-	-	-	-	-	622,650
Redemption of subsidiary's shares from non-controlling interests		-	-	-	-	(880,926)	-	-	-	-	-	-	-	(3,199,721)	(4,080,647)
Fair value of put options over non-controlling interests		-	-	-	-	-	-	-	-	-	(237,013)	(237,013)	-	-	(237,013)
Issuance of subsidiary's shares to non-controlling interest		-	-	-	-	-	-	-	-	-	-	-	-	96	96
Profit for the year		-	-	-	-	9,851,795	-	-	-	-	-	-	-	6,120,788	15,972,583
Other comprehensive income (expense) for the year		-	-	-	-	(117,970)	(753,938)	(2,211,749)	2,709,956	1,182,349	-	-	926,618	1,365,399	2,174,047
Closing balance as at 31 December 2021															
	6,766,108	22,138,547	677,687	3,318,402	3,906,838	61,096,868	558,804	(3,972,220)	372,633	(26,078,747)	11,991,329	(1,498,997)	(18,627,198)	24,419,881	103,697,133

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited

Statement of Changes in Equity

For the year ended 31 December 2022

Separate financial statements

US Dollar'000

					Other components of equity				
					Other comprehensive income (expense)				
		Issued and paid-up share capital	Premium on share capital	Retained earnings		Fair value reserve of financial assets	Cash flow hedge reserve	Total other components of equity	Total equity
Notes		share capital	share capital	Legal reserve	Unappropriated				
Opening balance as at 1 January 2022		198,500	647,929	19,850	494,670	505	13,509	14,014	1,374,963
Increase in share capital	26	44,699	178,797	-	-	-	-	-	223,496
Legal reserve	26	-	-	4,470	(4,470)	-	-	-	-
Dividend paid	29	-	-	-	(134,679)	-	-	-	(134,679)
Profit for the year		-	-	-	339,405	-	-	-	339,405
Other comprehensive income for the year		-	-	-	1,490	1,724	23,396	25,120	26,610
Closing balance as at 31 December 2022		243,199	826,726	24,320	696,416	2,229	36,905	39,134	1,829,795
Opening balance as at 1 January 2021		147,424	443,624	14,996	474,992	197	(12,898)	(12,701)	1,068,335
Increase in share capital	26	51,076	204,305	-	-	-	-	-	255,381
Legal reserve	26	-	-	4,854	(4,854)	-	-	-	-
Dividend paid	29	-	-	-	(55,853)	-	-	-	(55,853)
Profit for the year		-	-	-	80,166	-	-	-	80,166
Other comprehensive income for the year		-	-	-	219	308	26,407	26,715	26,934
Closing balance as at 31 December 2021		198,500	647,929	19,850	494,670	505	13,509	14,014	1,374,963

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited

Statement of Changes in Equity

For the year ended 31 December 2022

Separate financial statements									
Baht'000									
Notes	Other components of equity								
	Issued and paid-up share capital	Premium on share capital	Retained earnings		Other comprehensive income (expense)			Total other components of equity	Total equity
			Legal reserve	Unappropriated	Fair value reserve of financial assets	Cash flow hedge reserve	Translation differences		
Opening balance as at 1 January 2022	6,766,108	22,138,547	676,611	15,706,969	16,905	451,453	194,508	662,866	45,951,101
Increase in share capital	26 1,688,053	6,752,211	-	-	-	-	-	-	8,440,264
Legal reserve	26 -	-	168,805	(168,805)	-	-	-	-	-
Dividend paid	29 -	-	-	(4,736,197)	-	-	-	-	(4,736,197)
Profit for the year	-	-	-	11,912,759	-	-	-	-	11,912,759
Other comprehensive income for the year	-	-	-	54,461	60,322	807,973	751,446	1,619,741	1,674,202
Closing balance as at 31 December 2022	8,454,161	28,890,758	845,416	22,769,187	77,227	1,259,426	945,954	2,282,607	63,242,129
Opening balance as at 1 January 2021	5,074,581	15,372,438	516,193	15,053,312	5,941	(387,433)	(3,545,326)	(3,926,818)	32,089,706
Increase in share capital	26 1,691,527	6,766,109	-	-	-	-	-	-	8,457,636
Legal reserve	26 -	-	160,418	(160,418)	-	-	-	-	-
Dividend paid	29 -	-	-	(1,776,071)	-	-	-	-	(1,776,071)
Profit for the year	-	-	-	2,590,146	-	-	-	-	2,590,146
Other comprehensive income for the year	-	-	-	-	10,964	838,886	3,739,834	4,589,684	4,589,684
Closing balance as at 31 December 2021	6,766,108	22,138,547	676,611	15,706,969	16,905	451,453	194,508	662,866	45,951,101

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2022

	Notes	Consolidated financial statements			
		US Dollar'000		Baht'000	
		2022	2021	2022	2021
Cash flows from operating activities					
Profit for the year before income taxes		2,143,708	690,522	75,190,282	22,344,460
Adjustment to reconcile profit before taxes to cash receipts from (payments in) operations					
- Depreciation and amortisation		633,376	497,079	22,207,049	15,895,145
- Write-off property, plant and equipment and intangible assets		2,866	2,364	100,486	75,608
- Write-off of right-of-use assets		1,066	4,714	37,375	150,726
- (Reversal of) expected credit loss		(539)	8,974	(18,898)	286,962
- Allowance for slow-moving of spare parts and machinery supplies		906	4,336	31,766	138,653
- (Reversal of) allowance for net realisable value of fuel		(1,953)	1,466	(68,475)	46,882
- Impairment of assets	18	374,814	-	13,636,029	-
- Impairment of goodwill	19	31,444	-	1,143,946	-
- Dividend income from equity instruments		(7,956)	(8,541)	(282,498)	(273,817)
- Interest income		(17,553)	(8,742)	(627,195)	(277,888)
- Interest expenses		256,989	174,116	9,079,247	5,575,548
- Other finance costs		8,173	9,557	287,824	307,046
- Share of profit from associates and joint ventures accounted for using the equity method	15	(339,358)	(227,137)	(11,980,442)	(7,290,188)
- Gain on disposal of investment in a joint venture	14	(179,216)	-	(5,923,599)	-
- Bargain purchase from business combination	32	(170,854)	(71)	(5,876,861)	(2,270)
- Net gains from disposal of property, plant and equipment and intangible assets		(704)	(3,939)	(24,683)	(125,958)
- Impairment of property, plant and equipment		1,604	-	55,447	-
- Share based payment expenses		25,265	18,662	877,853	622,650
- Net (gains) losses from changes in fair value of financial instruments		(61,736)	444,595	(2,164,551)	14,645,688
- Net (gains) losses on exchange rate		4,651	(544,382)	(3,490,890)	(18,688,403)
Cash flow before changes in working capital		2,704,993	1,063,573	92,189,212	33,430,844
Changes in working capital (excluding effects from business combination)					
- Trade receivables and note receivables		(208,465)	(137,367)	(7,309,075)	(4,392,598)
- Advances to and amounts due from related parties		(105)	4	(3,717)	80
- Inventories		(31,383)	(8,402)	(1,100,332)	(268,672)
- Spare parts and machinery supplies		(10,770)	(13,369)	(377,611)	(427,502)
- Other current assets		(55,744)	24,655	(1,954,463)	788,395
- Deferred overburden expenditures/stripping costs		(307)	44,269	(10,764)	1,415,594
- Other non-current assets		(105,172)	(96,514)	(3,687,478)	(3,086,238)
- Trade payables		24,299	(9,905)	851,922	(316,733)
- Accrued royalty expenses		2,401	(19,277)	84,182	(616,423)
- Accrued overburden and coal transportation costs		35,663	17,026	1,250,395	544,442
- Employee benefit obligations		(19,999)	(6,725)	(701,193)	(215,046)
- Other current liabilities		95,486	222,270	3,347,873	7,107,550
- Other non-current liabilities		(121,082)	(46,031)	(4,245,304)	(1,471,938)
Cash generated from operating activities		2,309,815	1,034,207	78,333,647	32,491,755
- Interest paid and other finance costs paid		(248,781)	(179,074)	(8,722,610)	(5,726,267)
- Income tax paid		(259,864)	(83,977)	(9,111,196)	(2,685,341)
- Income tax refund		30,359	38,243	1,064,429	1,222,900
Net cash generated from operating activities		1,831,529	809,399	61,564,270	25,303,047

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2022

		Consolidated financial statements				
		US Dollar'000		Baht'000		
		Notes	2022	2021	2022	2021
Cash flows from investing activities						
Cash receipts from financial assets measured at fair value through profit or loss			65,038	54,617	2,280,323	1,746,493
Cash payments for financial assets measured at fair value through profit or loss			(227,854)	(66,056)	(7,988,880)	(2,112,279)
Cash receipts from financial assets measured at fair value through other comprehensive income			2,577	2,365	90,353	75,626
Cash payments for financial assets measured at fair value through other comprehensive income			(14,333)	(7,080)	(502,535)	(226,398)
Cash receipts from short-term loan to related parties	30		15,076	1,564	528,579	50,000
Cash payments for short-term loan to related parties	30		(52)	(10,951)	(1,835)	(350,178)
Cash receipts from long-term loan to related parties	30		134	-	4,684	-
Cash payments for long-term loan to related parties	30		(3,342)	(5,014)	(117,192)	(160,335)
Net cash payments for business combination			(647,724)	(84,029)	(21,844,492)	(2,687,004)
Net cash payments for acquisition of investment in a subsidiary			-	(394,594)	-	(12,617,972)
Cash receipt from disposal of investment in a joint venture	14		347,548	-	11,487,462	-
Cash payments for additional of investment in associates and joint ventures	15		(17,296)	(97,237)	(606,422)	(3,109,360)
Cash receipts from disposal of property, plant and equipment and intangible assets			3,154	31,976	110,584	1,022,500
Cash payments for purchase of property, plant and equipment and intangible assets			(283,846)	(281,288)	(9,952,038)	(8,994,775)
Cash payments for deferred exploration and development expenditures			(212,700)	(165,453)	(7,457,560)	(5,290,707)
Interest received			16,577	7,851	581,213	251,052
Cash receipts from dividends from joint ventures			107,035	54,493	3,752,797	1,742,528
Cash receipts from dividends from equity instruments			7,956	8,541	278,948	273,116
Cash payments for placement of restricted deposits at banks			(18,704)	(107,461)	(655,788)	(3,436,291)
Net cash used in investing activities			(860,756)	(1,057,756)	(30,011,799)	(33,823,984)

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2022

		Consolidated financial statements			
		US Dollar'000		Baht'000	
Notes		2022	2021	2022	2021
Cash flows from financing activities					
Cash receipts from short-term loans from financial institutions	22	1,598,501	1,766,914	56,045,692	56,500,783
Cash payments of short-term loans from financial institutions	22	(2,295,607)	(1,368,723)	(80,487,201)	(43,767,793)
Cash receipts from long-term loans from financial institutions	24	680,187	861,635	23,848,294	27,552,585
Cash payments of long-term loans from financial institutions	24	(497,402)	(1,063,379)	(17,439,595)	(34,003,777)
Cash receipts from debentures	25	774,265	679,669	26,600,000	21,733,830
Cash payments of debentures	25	(115,096)	(129,939)	(4,000,000)	(4,155,083)
Payments for principal elements of lease payment		(40,378)	(35,116)	(1,415,694)	(1,122,916)
Dividend paid to shareholders	29	(134,679)	(55,853)	(4,736,197)	(1,776,071)
Dividend paid to non-controlling interests of subsidiaries		(201,321)	(61,676)	(7,035,121)	(2,005,642)
Cash receipts from increase of share capital	26	223,496	255,381	8,440,264	8,457,636
Cash receipts from increase in share capital of a subsidiary from non-controlling interests		800	-	27,518	-
Cash payments for redemption of subsidiary's shares from non-controlling interest		-	(122,381)	-	(4,080,647)
Cash receipts from disposal of treasury shares of a subsidiary		63,472	-	2,117,365	-
Cash payments for treasury shares of a subsidiary		-	(2,754)	-	(88,994)
Net cash generated from financing activities		56,238	723,778	1,965,325	23,243,911
Net increase in cash and cash equivalents		1,027,011	475,421	33,517,796	14,722,974
Exchange differences on cash and cash equivalents		(57,349)	(21,516)	1,349,191	2,917,475
Cash and cash equivalents at beginning of the year		1,184,361	730,456	39,581,234	21,940,785
Cash and cash equivalents at end of the year		2,154,023	1,184,361	74,448,221	39,581,234
Supplementary information of cash flows					
Significant non-cash transactions are as follows:					
Other payables for purchase of property, plant and equipment		56,147	37,793	1,940,590	1,263,045
Changes in fair value of contingent liabilities from asset acquisition		(5,053)	194,973	(177,165)	6,234,681
Changes in fair value of put option over non-controlling interests		11,939	7,028	379,383	237,013
Acquisitions and remeasurement of right-of-use assets under lease contracts		54,961	27,946	1,899,572	893,640

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited
Statement of Cash Flows
For the year ended 31 December 2022

	Notes	Separate financial statements			
		US Dollar'000		Baht'000	
		2022	2021	2022	2021
Cash flows from operating activities					
Profit for the year before income taxes		367,669	141,696	12,846,983	4,520,487
Adjustment to reconcile profit before income taxes to cash receipts from (payments in) operations					
- Depreciation and amortisation		2,107	2,332	73,859	74,566
- Write-off property, plant and equipment and intangible assets		770	-	27,004	3
- Dividend income from subsidiaries	30	(271,468)	(89,311)	(9,639,779)	(2,915,768)
- Dividend income from equity instruments		(194)	(160)	(6,673)	(5,011)
- Interest income		(126,830)	(116,644)	(4,442,459)	(3,745,994)
- Interest expenses		173,248	138,773	6,099,784	4,439,088
- Other finance costs		3,917	4,055	137,385	129,523
- Effect from group restructuring	15	(37,140)	(21,544)	(1,226,264)	(675,509)
- Net gains from disposal of property, plant and equipment and intangible assets		(62)	(131)	(2,180)	(4,204)
- Net gains from changes in fair value of financial instruments		(1,063)	(6,988)	(37,263)	(223,462)
- Net gains on exchange rate		(93,119)	(94,767)	(3,569,898)	(3,084,037)
Cash flow before changes in working capital		17,835	(42,689)	260,499	(1,490,318)
Changes in working capital					
- Trade receivables		(6,215)	8,363	(217,899)	267,431
- Advances to and amounts due from related parties		(4,566)	(4,203)	(160,090)	(134,388)
- Inventories		(6,864)	375	(240,668)	11,995
- Other current assets		(5,479)	(6,041)	(192,102)	(193,169)
- Other non-current assets		974	142	34,164	4,545
- Trade payables to subsidiaries		(2,746)	(3,632)	(96,265)	(116,146)
- Advances from and amounts due to related parties		(131)	(221)	(4,586)	(7,081)
- Employee benefit obligations		2,477	(1,373)	86,845	(43,913)
- Other current liabilities		10,615	5,583	372,181	178,544
- Other non-current liabilities		(1,117)	(60)	(39,179)	(1,926)
Cash generated from (used in) operating activities		4,783	(43,756)	(197,100)	(1,524,426)
- Interest paid and other finance costs paid		(161,029)	(128,797)	(5,645,912)	(4,118,557)
Net cash used in operating activities		(156,246)	(172,553)	(5,843,012)	(5,642,983)

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

Banpu Public Company Limited

Statement of Cash Flows

For the year ended 31 December 2022

	Notes	Separate financial statements			
		US Dollar'000		Baht'000	
		2022	2021	2022	2021
Cash flows from investing activities					
Cash payments for financial assets measured at fair value through other comprehensive income		-	(780)	-	(24,950)
Cash receipts from short-term loans to related parties	30	65,132	18,800	2,283,623	601,169
Cash payments for short-term loans to related parties	30	(101,720)	(75,493)	(3,430,496)	(2,414,033)
Cash receipts from long-term loans to related parties	30	683,762	-	23,973,601	-
Cash payments for long-term loans to related parties	30	(226,177)	(680,001)	(7,930,070)	(21,744,449)
Cash payments for additional investment in a subsidiary	15	(385,678)	(8,133)	(13,522,407)	(260,067)
Cash receipt from decrease of investment in a subsidiary	15	961	-	33,685	-
Cash receipts from disposal of property, plant and equipment and intangible assets		489	134	16,945	4,304
Cash payments for purchase of property, plant and equipment and intangible assets		(2,037)	(58)	(71,453)	(1,843)
Interest received		50,533	22,257	1,771,759	711,701
Cash receipts from dividends from subsidiaries		271,804	88,971	9,529,844	2,845,025
Cash receipts from dividends from equity instruments		194	160	6,673	5,011
Net cash generated from (used in) investing activities		357,263	(634,143)	12,661,704	(20,278,132)
Cash flows from financing activities					
Cash receipts from short-term loans from financial institutions	22	1,248,549	1,246,082	43,775,864	39,846,088
Cash payments for short-term loans from financial institutions	22	(1,684,473)	(1,165,231)	(59,059,977)	(37,260,707)
Cash receipts from long-term loans from financial institutions	24	50,000	317,000	1,686,250	10,136,741
Cash payments for long-term loans from financial institutions	24	(345,731)	(430,000)	(12,121,801)	(13,750,153)
Cash receipts from debentures	25	611,181	679,669	21,100,000	21,733,830
Cash payments for debentures	25	(115,096)	(129,939)	(4,000,000)	(4,155,083)
Cash receipts from long-term loan from a related party		-	6,000	-	191,863
Cash payments for long-term loan from a related party		-	(6,000)	-	(191,863)
Payments for principal elements of lease payment		(975)	(1,092)	(34,178)	(34,907)
Dividend paid to shareholders	29	(134,679)	(55,853)	(4,736,197)	(1,776,071)
Cash receipts from increase in share capital	26	223,496	255,381	8,440,264	8,457,636
Net cash generated from (used in) financing activities		(147,728)	716,017	(4,949,775)	23,197,374
Net increase (decrease) in cash and cash equivalents		53,289	(90,679)	1,868,917	(2,723,741)
Exchange differences on cash and cash equivalents		(2,683)	(11,383)	10,474	43,925
Cash and cash equivalents at beginning of the year		114,057	216,119	3,811,758	6,491,574
Cash and cash equivalents at end of the year		164,663	114,057	5,691,149	3,811,758
Supplementary information of cash flows					
Significant non-cash transactions are as follows:					
Other payables for purchase of property, plant and equipment		88	81	3,040	2,689
Note receivables from group restructuring		-	151	-	4,727
Amounts due from a related party and other receivable from disposal of property, plant and equipment		142	-	4,893	-
Disposal of investment under group restructuring	15	1,298,472	-	43,790,979	-
Addition of investment under group restructuring	15	1,320,345	-	44,528,637	-
Conversion of loans to a related party and interest receivables to investment in subsidiary	15	910,000	-	30,689,750	-

The notes to the consolidated and separate financial statements are an integral part of these financial statements.

1 General information

Banpu Public Company Limited (the Company) is a public limited company which is 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, 27th Floor, New Petchburi Road, Makkasan, Ratchathewi, Bangkok.

For reporting purposes, the Company and its subsidiaries are referred to as "the Group".

The Group is engaged in three core groups of businesses which are energy resources, energy generation and energy technology. The Group has operations in Thailand and overseas which are mainly in the Indonesia, Australia, China, Mongolia, Vietnam, Japan, and the United States.

These consolidated and separate financial statements were authorised by the 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 Company's management has determined that the US Dollar is the Company's functional currency and has presented the consolidated and separate financial statements in US Dollar, in accordance with Thai Accounting Standard 21 (TAS 21), the Effects of Changes in Foreign Exchange Rates. The Company is required to present its consolidated and separate financial statements in Baht by converting the US Dollar to Baht, using the basis as described in Note 4.3 (c) to comply with the regulations of the Stock Exchange of Thailand and the Department of Business Development.

The consolidated and separate financial statements have been prepared under the historical cost convention except for certain accounts as disclosed in the following 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 have been prepared from the statutory 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 statutory 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 to the Group 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 and equity method accounting

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 accumulated 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 accumulated 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, the joint arrangements are accounted for using cost method less accumulated 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 US Dollar, 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 the Group's entities (none of which has the currency of a hyper-inflationary economy) that have a different functional currency from the Group's 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.

To comply with the regulations of the Stock Exchange of Thailand and Department of Business Development, the Group has to present the financial statements in Baht that are converted from the US Dollar financial statements by using the basis as described in Note 4.3 c).

4.4 Cash and cash equivalents

In the consolidated 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

Trade receivables are amounts due from customers for goods sold or service performed in the ordinary course of business. They are classified as current.

Trade receivables are recognised initially at the amount of consideration that is unconditionally unless they contain significant financing components, when 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.

The impairment of trade receivables has been disclosed in Note 4.7 f).

4.6 Inventories, spare parts and machinery supplies

Inventories

Inventories consist of coal, fuel and natural gas are valued at the lower of cost or net realisable value. Cost is determined by the weighted average method. The cost of coal comprises direct labour, other direct costs, and related production overhead. The cost of fuel and natural gas comprises both the purchase price and costs directly attributable to the acquisition of fuel and natural gas.

Net realisable value is the estimate of the selling price in the ordinary course of business, less the costs of completion and selling expenses. The Group recognises allowance for slow-moving of coal and fuel based on a specific case.

Spare parts and machinery supplies

Spare parts and machinery supplies are stated at cost less allowance for obsolescence, slow-moving and defective. Cost is determined on a weighted average method. The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of spare parts and machinery supplies, such as import duties and transportation charge, less all attributable discounts, allowances, or rebates. Spare parts and machinery supplies are charged to production costs in the period in which they are used.

Allowance is made for obsolete, slow-moving, and defective spare parts and machinery supplies 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 Investment property

Property that is held for long-term rental or for capital appreciation or both, and that is not occupied by the companies in the Group, is classified as investment property. Investment property also includes property that is being constructed or developed for future use as investment property or land held for a currently undetermined future use. The Group's investment property is land held for a currently undetermined future use.

Investment property is measured initially at its cost including related transaction costs. Subsequently, the investment property is carried at cost less accumulated impairment losses.

Subsequent expenditure is capitalised to the asset's carrying amount only when it is probable that future economic benefits associated with the expenditure will flow to the Group and the cost of the item can be measured reliably. All other repair and maintenance costs are expensed when incurred.

4.10 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 impairment losses. Subsequent changes in 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 any component accounted for as a separate asset is derecognised when replaced. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives as follows:

Land improvement	10 years
Buildings, construction and building improvement	depend on period of the mine or 5 to 30 years and 30 years for power plants
Machinery and equipment	5 to 40 years
Furniture	3 and 5 years
Office equipment and tools	3 and 5 years
Motor vehicles	4 and 5 years
Equipment under finance lease	5 to 15 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains or losses on disposals are determined by comparing proceeds with carrying amount. These are included in profit or loss.

Gas exploration and producing assets

Probable reserves represent reserves that are assessed by the Group at the time when there is an acquisition of business. Probable reserves will be classified as gas properties once there are proved reserves and are amortised using the unit of production method.

Costs of properties comprise total acquisition costs of natural gas rights or the acquisition costs of the portion of properties, decommissioning costs as well as equipment and support equipment.

Exploratory drilling costs are capitalised and will be classified as deferred exploration and development expenditures if their exploratory wells have identified proved reserves that have been found to be commercially viable. However, if proved reserves are not identified or are not commercially viable, such drilling costs will be expensed in the profit or loss.

Exploration costs, comprising geological and geophysical costs as well as area reservation fees during the exploration stage, are charged to expenses in the profit or loss when incurred.

Development costs, whether relating to the successful or unsuccessful development of wells, are capitalised.

The capitalised acquisition costs of natural gas rights are amortised using the unit of production method based on proved reserves. Depreciation of exploratory wells, development costs and decommissioning costs, except unsuccessful projects, are calculated using the unit of production method based on proved reserves or proved developed reserves. The Group recognises changes in reserve estimates prospectively.

Proved reserves and proved developed reserves are calculated by the Group's engineers and the geologists and reservoir engineers based on the information received from the joint operators.

Midstream assets

Costs of properties comprise purchase prices and other direct costs necessary to bring the asset to a working condition suitable for its intended use. Depreciation is calculated on the straight-line method over their estimated useful life as follows:

Compressor station and meter station	25 years
Pipelines	40 years

4.11 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.

4.12 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) Mining property rights

Mining property rights represent the excess of the cost of an acquisition over the fair value of net assets, which in managements' view represents future economic benefits attributable to the mining rights held by subsidiaries. Mining property rights are amortised using the units of production.

c) Deferred unfavourable contract liabilities

Deferred unfavourable contract liabilities are recognised as identifiable liabilities of acquiree as part of the purchase price allocation at the acquisition date. The unfavourable contract liabilities incurred from an excess of the fair value of long-term coal sales contracts than sales values specified in such coal sales contracts. The deferred unfavourable contract liabilities are amortised based on delivered units of coal.

d) Deferred exploration and development expenditures

Exploration expenditures are capitalised on an area of interest basis. Such expenditures comprise net direct costs such as licence, geology and geophysics expenditures and do not include general overheads or administrative expenditures not directly attributable to a particular area of interest. Exploration expenditures are capitalised as deferred expenditures when the following conditions are met:

- a) such costs are expected to be recouped through successful development and exploitation of the area of interest or, by its sales; and
- b) exploration activities in the area of interest have not yet reached the stage which permits a reasonable assessment of the existence of economically recoverable reserves, and active operations in the area are continuing.

Recoupment of exploration expenditure carried forward is dependent upon successful development and commercial exploitation, or sale of the respective area. Each area of interest is reviewed at the end of period. Exploration expenditures in respect of an area of interest, which has been abandoned or for which a decision has been made by the Group against the commercial viability of the area of interest, are written-off in the period the decision is made to the profit or loss.

Development expenditures and incorporated costs in developing an area of interest prior to commencement of operations in the respective area, as long as they meet the criteria for deferral, are capitalised.

Deferred exploration and development expenditure is principally amortised using the units of production of each area of interest starting from the commencement of commercial operations.

e) Stripping costs/Overburden costs

The Group recognises the production stripping costs as assets if, and only if, all of the following are met:

- a) It is probable that the future economic benefit associated with the stripping activity will flow to the entity.
- b) The entity can identify the component of the ore body for which access has been improved; and
- c) The costs relating to the stripping activity associated with that component can be measured reliably.

The deferred overburden expenditures/stripping costs shall be initially measured at cost and subsequently stated at cost less accumulated amortisation and impairment losses, if any. Amortisation is calculated using the units of production method.

f) 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.

g) Rights in patents

The rights in patents arising from purchase of investments are amortised over the periods of estimated useful life of the assets.

4.13 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.

4.14 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 IT-equipment and 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 of the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature.

4.15 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 renegotiated/modified contractual cash flows discounted at its original effective interest rate. The difference is recognised in other gains (losses) in profit or loss.

4.16 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.

4.17 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 charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of reporting period. Management periodically evaluates positions taken in tax returns 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.

4.18 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.

d) Other employee benefits

Other employee benefits of the Indonesian subsidiaries, which consist of long service reward and long leave benefit, are recognised in the consolidated statement of financial position at the present value of the defined benefit obligation. The actuarial gains and losses and the past service costs are recognised immediately in the profit or loss.

Other employee benefits of the Australian subsidiaries, which consist of annual leave, sick leave, and long service leave, are paid monthly in accordance with Coal Mining Industry (Long Service Leave Funding Corporation) and recognised as expenses in profit or loss.

4.19 Share-based payment

The Group operates a number of equity-settled, share-based compensation plans, under which the Group receives services from employees as consideration for equity instruments (warrants) of the Group. The fair value of the employee services received in exchange for the grant of the warrants 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 period); and
- excluding the impact of any non-vesting conditions (for example, the requirement for employees to save or hold shares for a specific period).

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 Group 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 share. The proceeds received net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium.

For share-based compensation plans in which the terms of the arrangement provide the Group with the option to settle the awards in cash, the Group assesses the probability of exercising that option, including considering their past practice of settling in cash when determining classification of the awards as equity or liability. The Group shall measure the services received from each employee and the liability incurred at the fair value of the restricted stock units at the grant date and remeasures the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in fair value recognised in profit or loss for the period.

The grant by the Group of warrants over its equity instruments to the employees of subsidiaries undertakings in the Group is treated as a capital contribution. The fair value of employee services received, measured by reference to the grant date fair value, is recognised over the vesting period as an increase to investment in subsidiary, in separate financial statements undertakings, with a corresponding credit to equity.

4.20 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.

Provision for environmental rehabilitation is recognised by units of sale at the rate determined by the Group's geologist. The provisioning rate is based on the estimated cost for mine rehabilitation through to the end of the mine. The Group reviews and revises the rate to reflect the actual expenses incurred on a regular basis.

The Group records a provision for decommissioning costs whenever it is probable that there would be an obligation as a result of a past event and the amount of that obligation is reliably estimated by the Group's engineers and management's judgement. The Group recognises provision for decommissioning costs as part of oil and gas properties, using the discounted present value on the estimated eventual costs that relate to the removal of the production facilities and amortised based on the unit of production of the proved reserve or the proved developed reserve. The Group recognises an increase that reflects the passage of time from the unwinding discount in each period, as a finance cost in profit or loss. The provisions are based on the current situation such as regulations, technologies, and prices. The actual results could differ from these estimates as future confirming events occur.

4.21 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.

4.22 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 fulfilment of the obligation to the customer. Revenue is recognised as follows.

Revenue from coal sales

The Group recognises revenue from coal sales at a certain point in time when the products is delivered to customers at the delivery point. The transfer of products takes place when the Group delivers products to its destination as specified according to the contracts. 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 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 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.

Revenue from sales of natural gas

Revenues from sales of natural gas are recorded upon transfer of title, according to the terms of related contracts and based on actual volumes sold.

Revenue from pipeline transportation is recognised when services are rendered based on quantities transported and measured according to the underlying contract.

Revenue from rendering of services

The Group recognised service contracts with a continuous service provision as revenue on a straight-line basis over the contract term, regardless of the payment pattern.

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.

4.23 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 of the Company.

4.24 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); or
- 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.

When forward contracts are used to hedge forecast transactions, the Group generally designates only the change in fair value of the forward contract related to the spot component as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot component of the forward contracts are recognised in the cash flow hedge reserve within equity. The change in the forward element of the contract that relates to the hedged item ('aligned forward element') is recognised within other comprehensive income in the costs of hedging reserve within equity.

In some cases, the Group may designate the full change in fair value of the forward contract (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire forward contract are recognised in the cash flow hedge reserve within equity.

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.

4.25 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.

4.26 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 derivatives 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 rate risk

The Group operates internationally and is exposed to foreign exchange rate risk arising from various currency exposures, primarily with respect to Baht, US Dollar, Indonesian Rupiah, Australian Dollar and Chinese Yuan. Foreign exchange risk arises from future commercial transactions, net investment in foreign operations and net monetary assets and liabilities that are denominated in a currency that is not the entity's functional currency.

Instruments used by the Group

The Group uses the foreign exchange forward contracts and the currency and interest rate swaps contracts to hedge its exposure to foreign exchange rate risk. Under the group's policy, the critical terms of the derivative instruments must align with the hedged items.

Net investment hedges in foreign operations

The Group has adopted accounting policy for net investment hedges in foreign operations. The Group designates certain Baht debentures and short-term loans from financial institutions to be hedging instruments for net investments in subsidiaries whose functional currency is Baht, by using the foreign exchange rate of the debentures and short-term loans from financial institutions at the designated date.

Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in other comprehensive income and accumulated as reserves in equity. Gains or losses relating to the ineffective portion are recognised immediately in profit or loss. Gains and losses accumulated in equity are recognised to profit or loss when the foreign operation is disposed.

As at 31 December	Consolidated financial statements	
	US Dollar'000	
	2022	2021
Carrying amount of debentures and short-term loans from financial institutions at inception date	US Dollar 850 million	US Dollar 801 million
Debentures and short-term loans from financial institutions in Baht	Baht 28,100 million	Baht 26,400 million
Change in carrying amount of short-term loans from financial institutions as a result of foreign currency movement from inception date, in 2022, recognised in other comprehensive income	(486)	-
Change in carrying amount of debentures and short-term loans from financial institutions as a result of foreign currency movement from 1 January, recognised in other comprehensive income	26,113	88,965
Change in value of hedge item used to determine hedge effectiveness	(25,627)	(88,965)

Exposure

The Group and the Company have significant exposure to foreign exchange rate risk that are denominated in a currency that is not entity's functional currency expressed in US Dollar currency, was as follows:

Currency that is not entity's functional currency	Consolidated financial statements					
	US Dollar'000			Baht'000		
	USD	THB	IDR	USD	THB	IDR
As at 31 December 2022						
Financial assets						
Cash and cash equivalents	46,895	183,237	103,000	1,620,789	6,333,109	3,559,919
Trade receivables and note receivables, net	59,103	35,196	38,596	2,042,733	1,216,445	1,333,981
Amounts due from related parties	28,074	26,262	-	970,317	907,664	-
Short-term loans to related parties	99,650	-	-	3,444,135	-	-
Long-term loans to related parties	292,320	1,460,864	-	10,103,281	50,490,967	-
Financial liabilities						
Short-term loans from financial institutions	-	353,853	-	-	12,230,000	-
Short-term loans from related parties	36,953	-	-	1,277,181	-	-
Trade payables	6,583	-	144,276	227,507	-	4,986,535
Amounts due to related parties	5,897	1	-	203,821	45	-
Accrued interest expenses	16,516	51,691	-	570,847	1,786,552	-
Long-term loans from financial institutions, net	57,000	-	-	1,970,057	-	-
Debentures, net	-	2,267,493	-	-	78,370,000	-
Long-term loans from related parties	132,019	1,399,994	-	4,562,898	48,387,150	-
Derivative assets						
Derivative assets recognised at fair value through profit or loss						
- Foreign exchange forward contracts	-	43,400	11	-	1,500,000	381
Derivative assets applied hedge accounting						
- Foreign exchange forward contracts	315,000	-	-	10,887,156	-	-
- Currency and interest rate swaps contracts	-	67,121	-	-	2,319,850	-
Derivative liabilities						
Derivative liabilities applied hedge accounting						
- Currency and interest rate swaps contracts	-	159,132	-	-	5,500,000	-

Banpu Public Company Limited

Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

Currency that is not entity's functional currency	Consolidated financial statements					
	US Dollar'000			Baht'000		
	USD	THB	IDR	USD	THB	IDR
As at 31 December 2021						
Financial assets						
Cash and cash equivalents	10,413	113,883	-	347,997	3,805,943	-
Trade receivables, net	12,973	7,250	73,528	433,546	242,287	2,457,297
Amounts due from related parties	16,908	137,435	-	565,048	4,593,068	-
Short-term loans to related parties	175,959	9,124	-	5,880,520	304,930	-
Long-term loans to related parties	252,970	784,859	-	8,454,232	26,229,926	-
Financial liabilities						
Short-term loans from financial institutions	174,491	592,461	-	5,831,459	19,800,000	-
Short-term loans from related parties	49,550	-	-	1,655,956	-	-
Trade payables	7,065	-	85,262	236,107	-	2,849,436
Amounts due to related parties	3,807	-	-	127,238	-	-
Accrued interest expenses	8,310	147,299	-	277,707	4,922,720	-
Long-term loans from financial institutions, net	60,000	158,588	-	2,005,194	5,300,000	-
Debentures, net	-	1,833,339	-	-	61,270,000	-
Long-term loans from related parties	81,070	455,363	-	2,709,351	15,218,198	-
Derivative assets						
Derivative assets applied hedge accounting						
- Foreign exchange forward contracts	120,000	-	-	4,010,388	-	-
- Currency and interest rate swaps contracts	-	253,153	-	-	8,460,350	-

	Separate financial statements	
	US Dollar'000	Baht'000
	THB	THB
Currency that is not entity's functional currency		
As at 31 December 2022		
Financial assets		
Cash and cash equivalents	155,596	5,377,783
Trade receivables	14,466	499,970
Amounts due from related parties	22,535	778,851
Long-term loans to related parties	1,035,057	35,774,067
Financial liabilities		
Short-term loans from financial institutions	353,853	12,230,000
Accrued interest payable	27,259	942,149
Debentures, net	2,267,493	78,370,000
Derivative assets		
Derivative assets recognised at fair value through profit or loss		
- Foreign exchange forward contracts	43,400	1,500,000
Derivative assets applied hedge accounting		
- Currency and interest rate swaps contracts	67,121	2,319,850
Derivative liabilities		
Derivative liabilities applied hedge accounting		
- Currency and interest rate swaps contracts	159,132	5,500,000
As at 31 December 2021		
Financial assets		
Cash and cash equivalents	101,031	3,376,449
Trade receivables	7,250	242,287
Amounts due from related parties	137,435	4,593,068
Short-term loans to related parties	9,124	304,930
Long-term loans to related parties	784,859	26,229,926
Financial liabilities		
Short-term loans from financial institutions	592,461	19,800,000
Accrued interest payable	20,665	690,625
Long-term loans from financial institutions, net	158,588	5,300,000
Debentures, net	1,833,339	61,270,000
Derivative assets		
Derivative assets applied hedge accounting		
- Currency and interest rate swaps contracts	253,153	8,460,350

The effects of the foreign currency-related hedging instruments on the Group and the Company's financial position and performance are as follows:

	Consolidated financial statements	
Foreign exchange forward contracts	US Dollar'000	Baht'000
As at 31 December 2022		
Carrying amount - Derivative assets	3,129	108,132
Notional amount	315,000	10,887,156
Maturity	January 2023 to December 2023	
Change in intrinsic value of outstanding hedge instrument for the year	3,580	123,750
Change in value of hedged item used to determine hedge effectiveness	(3,580)	(123,750)
Weighted average strike rate for outstanding hedging instruments (including forward points)	AUD 1: USD 0.6749	
As at 31 December 2021		
Carrying amount - Derivative assets	758	25,347
Notional amount	120,000	4,010,388
Maturity	February 2022 to September 2022	
Change in intrinsic value of outstanding hedge instrument for the year	(10,807)	(361,170)
Change in value of hedged item used to determine hedge effectiveness	10,807	361,170
Weighted average strike rate for outstanding hedging instruments (including forward points)	AUD 1: USD 0.7203	

	Consolidated and separate financial statements	
Currency and interest rate swaps contracts	US Dollar'000	Baht'000
As at 31 December 2022		
Carrying amount - Derivative liabilities, net	17,115	591,556
Notional amount	226,253	7,819,850
Maturity	April 2023 to April 2026	
Change in intrinsic value of outstanding hedge instrument for the year	5,849	202,146
Change in value of hedged item used to determine hedge effectiveness	(5,849)	(202,146)
Weighted average strike rate for outstanding hedging instruments (including forward points)	USD 1: Baht 31.1877	
Weighted average strike rate for outstanding hedging instruments (swap rate)	1.595% - 6.390%	
As at 31 December 2021		
Carrying amount - Derivative liabilities	19,366	647,205
Notional amount	253,153	8,460,350
Maturity	March 2022 to September 2026	
Change in intrinsic value of outstanding hedge instrument for the year	(30,628)	(1,023,571)
Change in value of hedged item used to determine hedge effectiveness	30,628	1,023,571
Weighted average strike rate for outstanding hedging instruments (including forward points)	USD 1: Baht 31.2500	
Weighted average strike rate for outstanding hedging instruments (swap rate)	1.595% - 6.390%	

Sensitivity

As shown in the table above, the Group is primarily exposed to changes in US Dollar and Baht exchange rates and Australian Dollar and US Dollar. The sensitivity of profit or loss to changes in the exchange rates arises mainly from financial assets and financial liabilities and the impact on other components of equity arises from foreign forward exchange contracts and certain financial liabilities designated as cash flow hedges. Foreign exchange exposure in other currencies do not have material impact to the Group.

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	Impact to net profit before income tax	Impact to other components of equity before income tax	Impact to net profit before income tax	Impact to other components of equity before income tax
As at 31 December 2022				
US Dollar to Baht				
- Increase 5%*	70,716	-	2,444,108	-
- Decrease 5%*	(77,440)	-	(2,676,510)	-
Australian Dollar to US Dollar				
- Increase 5%*	10,019	14,584	346,264	504,071
- Decrease 5%*	(9,727)	(16,120)	(336,184)	(557,131)
As at 31 December 2021				
US Dollar to Baht				
- Increase 5%*	69,250	-	2,314,317	-
- Decrease 5%*	(74,782)	-	(2,499,210)	-
Australian Dollar to US Dollar				
- Increase 5%*	7,515	5,714	251,134	190,955
- Decrease 5%*	(8,306)	(6,315)	(277,570)	(211,055)

	Separate financial statements			
	US Dollar'000		Baht'000	
	Impact to other		Impact to other	
	Impact to net	components of	Impact to net	components of
	profit before	equity before	profit before	equity before
	income tax	income tax	income tax	income tax
As at 31 December 2022				
US Dollar to Baht				
- Increase 5%*	56,925	-	1,967,450	-
- Decrease 5%*	(62,969)	-	(2,176,363)	-
Australian Dollar to US Dollar				
- Increase 5%*	11,079	-	382,907	-
- Decrease 5%*	(11,079)	-	(382,907)	-
As at 31 December 2021				
US Dollar to Baht				
- Increase 5%*	62,819	-	2,099,404	-
- Decrease 5%*	(69,432)	-	(2,320,394)	-

* 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 in either short and long-term contracts or loans with fixed and floating interest rates corresponding to their types of investments. The Group 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.

The exposure of the Group's long-term loans and debentures to interest rate changes at the end of the reporting period is provided Note 24 and 25, respectively.

Instruments used by the Group

The Group entered interest rate swaps covering approximately 7% of the variable long-term loan principal outstanding (2021: 15%). The fixed interest rates of the swaps range between 1.17% and 5.00% per annum (2021: 1.17% to 3.42% per annum), and the variable rates of the loans are between 2.29% and 13.00% (2021: 1.55% to 5.85% per annum) at the end of the reporting period.

The swap contracts require settlement of net interest receivable or payable between 90 - 180 days. The settlement dates coincide with the dates on which interest is payable on the underlying debt.

The effects of the interest rate-related hedging instruments on the Group's and the Company's financial position and performance are as follows:

	Consolidated financial statements		Separate financial statements	
Interest rate swaps	US Dollar'000	Baht'000	US Dollar'000	Baht'000
As at 31 December 2022				
Carrying amount - Derivative assets	11,851	409,563	11,851	409,563
Notional amount	213,200	7,368,704	213,200	7,368,704
Maturity	September 2023		September 2023	
	to September 2027		to September 2027	
Change in intrinsic value of outstanding				
hedge instrument for the year	21,541	744,522	21,541	744,522
Change in value of hedged item used to				
determine hedge effectiveness	(21,541)	(744,522)	(21,541)	(744,522)
Weighted average strike rate for outstanding				
hedging instruments (swap rate)	1.17% - 5.00%		1.17% - 5.00%	
As at 31 December 2021				
Carrying amount - Derivative liabilities, net	6,495	217,068	6,430	214,879
Notional amount	407,557	13,620,510	376,100	12,569,224
Maturity	March 2022		March 2022	
	to September 2027		to September 2027	
Change in intrinsic value of outstanding				
hedge instrument for the year	19,432	649,411	19,496	651,601
Change in value of hedged item used to				
determine hedge effectiveness	(19,432)	(649,411)	(19,496)	(651,601)
Weighted average strike rate for outstanding				
hedging instruments (swap rate)	1.17% - 3.42%		1.17% - 3.42%	

The impact of interest rate hedging instruments on the Group's financial position and performance by entering currency and interest rate swap contracts was disclosed in Note 5.1.1 a) with the hedging of foreign exchange rate risk.

Sensitivity

Profit or loss is sensitive to higher or lower interest expenses from borrowings as a result of changes in interest rates from variable interest rate loan. Other components of equity changes as a result of an increase or decrease in the fair value of the cash flow hedges of interest rate swaps.

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	Impact to net profit before income tax	Impact to other components of equity before income tax	Impact to net profit before income tax	Impact to other components of equity before income tax
As at 31 December 2022				
- Interest rates increase 0.1%*	(2,518)	511	(87,039)	17,651
- Interest rates decrease 0.1%*	2,517	(513)	86,987	(17,714)
As at 31 December 2021				
- Interest rates increase 0.1%*	(2,269)	645	(81,079)	21,546
- Interest rates decrease 0.1%*	2,186	(624)	81,079	(20,867)
	Separate financial statements			
	US Dollar'000		Baht'000	
	Impact to net profit before income tax	Impact to other components of equity before income tax	Impact to net profit before income tax	Impact to other components of equity before income tax
As at 31 December 2022				
- Interest rates increase 0.1%*	(1,579)	492	(54,561)	17,000
- Interest rates decrease 0.1%*	15,592	(494)	538,894	(17,062)
As at 31 December 2021				
- Interest rates increase 0.1%*	(1,871)	645	(62,515)	21,546
- Interest rates decrease 0.1%*	1,871	(624)	62,515	(20,867)

* 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. Transition risks mainly relate to the potential impact of rate differences if debt and hedging swaps don't transition to the new benchmark interest rate at the same time and/or the rates move by different amounts. This could result in hedge ineffectiveness and a net cash expense for the Group. 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			
	US Dollar'000		Baht'000	
	USD LIBOR	THBFIX	USD LIBOR	THBFIX
Non-derivative liabilities				
Measured at amortised cost				
- Long-term loans from financial institutions	1,760,490	65,100	60,846,760	2,250,000
	Separate financial statements			
	US Dollar'000		Baht'000	
	USD LIBOR		USD LIBOR	
Non-derivative liabilities				
Measured at amortised cost				
- Long-term loans from financial institutions		1,564,000		54,055,594
	Consolidated and separate financial statements			
	US Dollar'000		Baht'000	
	USD LIBOR		USD LIBOR	
Derivative assets				
- Interest rate swap		11,851		409,563
Derivative liabilities				
- Interest rate swap		34		1,176

Interest rate risk on variable-rate borrowings (cash flow hedge)

The following table only contains details of hedging instruments used in the Group's hedging strategies which reference USD LIBOR and THBFIX and haven't transitioned to an alternative interest rate benchmark yet, such that Phase 1 relief have been applied to the hedging relationship:

Consolidated and separate financial statements				
US Dollar'000				
	Carrying amount		Changes in fair value	
			used for calculating	
	Notional	Assets	hedge ineffectiveness	Notional amount directly impacted by IBOR reform
Cash flow hedges				
Interest rate				
- Interest rate swaps	213,200	11,851	15,036	192,750
Consolidated and separate financial statements				
Baht'000				
	Carrying amount		Changes in fair value	
			used for calculating	
	Notional	Assets	hedge ineffectiveness	Notional amount directly impacted by IBOR reform
Cash flow hedges				
Interest rate				
- Interest rate swaps	7,368,704	409,563	519,694	6,661,903

Of the US Dollar 213.20 million or equivalent to Baht 7,368.70 million nominal amount of interest rate swaps above, US Dollar 20.45 million or equivalent to Baht 706.80 million will mature before the anticipated IBOR replacement.

c) Price risk

The Group is exposed to coal price risk, fuel price and natural gas price risks from substantial fluctuations in the world market price. The Group uses coal swap contracts, fuel swap contracts, natural gas swap and option contracts and natural gas liquids swap contracts to minimise its exposure to fluctuations in its business operations.

In addition, the Group is exposed to electricity price risk in the United States and Australia 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 into electricity forward contracts and electricity swaption to maintain the ability to generate income.

Significant contracts

Coal swap contracts

As at 31 December 2022, the Group has outstanding coal swap contracts with no physical delivery of selling and buying side of 60,000 tons at the average selling price of US Dollar 332 per ton. The contracts are due within 1 year.

Natural gas swap, options and natural gas liquids contracts

As at 31 December 2022, the Group has outstanding natural gas swap and options contracts of 89,455,660 MMBTU at the average selling price of US Dollar 3.83 per MMBTU and natural gas liquids swap contracts of 1,934,500 BBL at the average selling price of US Dollar 23.78 per BBL. The contracts are due within 1 year.

Sensitivity

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	Impact to net profit before income tax	Impact to other components of equity before income tax	Impact to net profit before income tax	Impact to other components of equity before income tax
As at 31 December 2022				
Coal prices				
- Increase 5%*	-	(907)	-	(31,339)
- Decrease 5%*	-	907	-	31,339
Oil and natural gas prices				
- Increase 5%*	(10,897)	(373)	(376,619)	(12,909)
- Decrease 5%*	12,015	2,690	415,272	92,963
Forward electricity price curve				
- Increase 5%*	(2,852)	(1,648)	(98,573)	(56,972)
- Decrease 5%*	2,839	1,646	98,117	56,902
As at 31 December 2021				
Coal prices				
- Increase 5%*	-	(661)	-	(22,076)
- Decrease 5%*	-	661	-	22,076
Oil and natural gas prices				
- Increase 5%*	(314)	(15,169)	(10,496)	(506,930)
- Decrease 5%*	314	15,169	10,496	506,930
Forward electricity price curve				
- Increase 5%*	(3,009)	(1,657)	(100,570)	(55,368)
- Decrease 5%*	2,998	1,656	100,206	55,344

* Holding all other variables constant

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 institutions.

b) Impairment of financial assets

The Group and the Company has financial assets that are subject to the expected credit loss model as follow:

- Cash and cash equivalents
- Trade receivables and note receivables
- Amount due from related parties
- Short-term loans to related parties and other companies
- Dividend receivables from related parties
- Long-term loan to related parties
- Investment in debt instruments measured at amortised cost and fair value through other comprehensive income

Expected credit losses for trade receivables is provided in Note 11. Impairment loss for other financial assets is not material.

5.1.3 Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of credit facilities and the ability to close out market positions. Due to the dynamic nature of the underlying business, Group Treasury aims at maintaining flexibility in funding by keeping credit lines available.

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The tables below analyse the maturity of financial liabilities and derivative liabilities, net grouping based on their contractual maturities. The amounts disclosed are the contractual undiscounted cash flows including notional and interest.

	Consolidated financial statements							
	US Dollar'000				Baht'000			
	Within 1 year	1 - 5 years	Over 5 years	Total	Within 1 year	1 - 5 years	Over 5 years	Total
As at 31 December 2022								
Non-derivatives								
Short-term loans from financial institutions	458,409	-	-	458,409	15,843,725	-	-	15,843,725
Trade payables	122,846	-	-	122,846	4,245,847	-	-	4,245,847
Accrued overburden and coal transportation costs	113,030	-	-	113,030	3,906,598	-	-	3,906,598
Other current liabilities	713,854	-	-	713,854	24,672,507	-	-	24,672,507
Long-term loans from financial institutions	842,239	2,396,974	272,002	3,511,215	29,109,801	82,845,174	9,401,042	121,356,017
Debentures	260,512	1,175,746	1,716,057	3,152,315	9,003,920	40,636,604	59,311,048	108,951,572
Lease liabilities	31,752	28,595	3,999	64,346	1,097,425	988,312	138,215	2,223,952
Other non-current liabilities	-	179,120	-	179,120	-	6,190,817	-	6,190,817
Total non-derivatives	2,542,642	3,780,435	1,992,058	8,315,135	87,879,823	130,660,907	68,850,305	287,391,035
Derivative liabilities								
Derivatives recognised at FVPL								
- Interest rate swap contracts	12	25	-	37	429	854	-	1,283
- Heat rate call option	1,994	-	-	1,994	68,903	-	-	68,903
- Electricity forward contracts	583	-	-	583	20,189	-	-	20,189
- Natural gas swap	30,336	-	-	30,336	1,048,483	-	-	1,048,483
Derivatives applied hedge accounting								
- Currency and interest rate swap contracts	13,944	2,699	-	16,643	481,938	93,284	-	575,222
- Natural gas swap	12,987	-	-	12,987	448,861	-	-	448,861
- Natural gas and natural gas liquids swap and option	7,023	-	-	7,023	242,720	-	-	242,720
Total derivative liabilities	66,879	2,724	-	69,603	2,311,523	94,138	-	2,405,661
As at 31 December 2021								
Non-derivatives								
Short-term loans from financial institutions	1,376,200	-	-	1,376,200	45,992,478	-	-	45,992,478
Trade payables	98,547	-	-	98,547	3,293,416	-	-	3,293,416
Accrued overburden and coal transportation costs	77,367	-	-	77,367	2,585,582	-	-	2,585,582
Other current liabilities	455,149	-	-	455,149	15,211,044	-	-	15,211,044
Long-term loans from financial institutions	560,676	1,737,171	828,592	3,126,439	18,737,720	58,056,091	27,691,461	104,485,272
Debentures	128,132	843,518	1,479,663	2,451,313	4,282,163	28,190,291	49,450,204	81,922,658
Lease liabilities	26,483	13,341	4,363	44,187	885,073	445,871	145,795	1,476,739
Other non-current liabilities	-	235,036	-	235,036	-	7,854,889	-	7,854,889
Total non-derivatives	2,722,554	2,829,066	2,312,618	7,864,238	90,987,476	94,547,142	77,287,460	262,822,078
Derivative liabilities								
Derivatives recognised at FVPL								
- Interest rate swap contracts	4,303	9,110	-	13,413	143,817	304,441	-	448,258
- Electricity forward contracts	3,215	-	-	3,215	107,437	-	-	107,437
- Heat rate call option	1,197	-	-	1,197	40,011	-	-	40,011
- Oil and gas swap contracts	-	6,281	-	6,281	-	209,921	-	209,921
Derivatives applied hedge accounting								
- Interest rate swap contracts	3,230	3,532	-	6,762	107,943	118,034	-	225,977
- Currency and interest rate swap contracts	2,817	16,286	-	19,103	94,156	544,292	-	638,448
- Coal swap contracts	25,374	-	-	25,374	847,963	-	-	847,963
- Oil and gas swap contracts	91,156	17,381	-	108,537	3,046,434	580,866	-	3,627,300
Total derivative liabilities	131,292	52,590	-	183,882	4,387,761	1,757,554	-	6,145,315

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	Separate financial statements							
	US Dollar'000				Baht'000			
	Within 1 year	1 - 5 years	Over 5 years	Total	Within 1 year	1 - 5 years	Over 5 years	Total
As at 31 December 2022								
Non-derivatives								
Short-term loans from financial institutions	354,472	-	-	354,472	12,251,403	-	-	12,251,403
Other current liabilities	55,569	-	-	55,569	1,920,598	-	-	1,920,598
Long-term loans from financial institutions	455,201	1,288,232	64,748	1,808,181	15,732,839	44,524,390	2,237,846	62,495,075
Debentures	254,101	1,108,789	1,576,524	2,939,414	8,782,340	38,322,409	54,488,453	101,593,202
Lease liabilities	914	502	-	1,416	31,590	17,350	-	48,940
Other non-current liabilities	-	763	-	763	-	26,371	-	26,371
Total non-derivatives	1,120,257	2,398,286	1,641,272	5,159,815	38,718,770	82,890,520	56,726,299	178,335,589
Derivative liabilities								
Derivatives recognised at FVPL								
- Interest rate swap contracts	12	25	-	37	429	854	-	1,283
Derivatives applied hedge accounting								
- Currency and interest rate swap contracts	13,944	2,699	-	16,643	481,938	93,284	-	575,222
Total derivative liabilities	13,956	2,724	-	16,680	482,367	94,138	-	576,505
As at 31 December 2021								
Non-derivatives								
Short-term loans from financial institutions	818,730	-	-	818,730	27,361,863	-	-	27,361,863
Trade payables	2,746	-	-	2,746	91,758	-	-	91,758
Other current liabilities	9,529	-	-	9,529	318,442	-	-	318,442
Long-term loans from financial institutions	365,528	1,436,906	197,433	1,999,867	12,215,920	48,021,269	6,598,202	66,835,391
Debentures	128,132	843,518	1,479,663	2,451,313	4,282,163	28,190,291	49,450,204	81,922,658
Lease liabilities	1,160	1,070	-	2,230	38,793	35,748	-	74,541
Other non-current liabilities	-	14,377	-	14,377	-	480,476	-	480,476
Total non-derivatives	1,325,825	2,295,871	1,677,096	5,298,792	44,308,939	76,727,784	56,048,406	177,085,129
Derivative liabilities								
Derivatives applied hedge accounting								
- Interest rate swap contracts	3,164	3,532	-	6,696	105,753	118,034	-	223,787
- Currency and interest rate swap contracts	2,817	16,286	-	19,103	94,156	544,292	-	638,448
Total derivative liabilities	5,981	19,818	-	25,799	199,909	662,326	-	862,235

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.

5.1.4 Derivatives

The Group and the Company has derivatives in the statement of financial position as below:

	Consolidated financial statements							
	As at 31 December 2022				As at 31 December 2021			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Current								
Derivative recognised at fair value through profit or loss								
Electricity swaption	1,745	-	60,294	-	4,038	-	134,999	-
Foreign exchange rate forward	1,066	-	36,857	-	300	-	10,029	-
Natural gas swap	-	30,336	-	1,048,483	1,549	-	51,778	-
Interest rate swap	-	-	-	-	-	3,124	-	104,411
Electricity forward contracts	1,249	583	43,182	20,189	-	4,412	-	147,448
Heat rate call option	-	1,994	-	68,903	-	-	-	-
Derivatives applied hedge accounting								
Electricity swaption	933	-	32,240	-	2,844	-	95,038	-
Interest rate swap	1,612	-	55,701	-	-	3,199	-	106,928
Cross currency and interest rate swap	-	13,504	-	466,735	-	855	-	28,571
Foreign exchange rate forward	3,129	-	108,132	-	758	-	25,347	-
Coal swap	1,776	-	61,369	-	1,513	25,374	50,566	847,963
Natural gas swap	2,650	12,987	91,620	448,861	9,988	91,156	333,737	3,046,434
Natural gas and natural gas liquids swap and option	-	7,023	-	242,720	-	-	-	-
Total current derivatives	14,160	66,427	489,395	2,295,891	20,990	128,120	701,494	4,281,755
Non-current								
Derivative recognised at fair value through profit or loss								
Warrants	161	-	5,581	-	120	-	4,012	-
Electricity swaption	19,485	-	673,458	-	37,550	-	1,254,882	-
Interest rate swap	4,582	34	158,343	1,176	-	6,614	-	221,024
Natural gas swap	-	-	-	-	-	6,281	-	209,921
Derivatives applied hedge accounting								
Electricity swaption	14,686	-	507,584	-	25,356	-	847,404	-
Interest rate swap	11,298	-	390,467	-	693	3,989	23,169	133,309
Cross currency and interest rate swap	76	3,687	2,615	127,436	-	18,511	-	618,634
Natural gas swap	815	-	28,186	-	-	17,381	-	580,866
Total non-current derivatives	51,103	3,721	1,766,234	128,612	63,719	52,776	2,129,467	1,763,754
Total derivatives	65,263	70,148	2,255,629	2,424,503	84,709	180,896	2,830,961	6,045,509

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	Separate financial statements							
	As at 31 December 2022				As at 31 December 2021			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Current								
Derivatives recognised at fair value through profit or loss								
Foreign exchange rate forward contracts	1,055	-	36,476	-	-	-	-	-
Derivative applied hedge accounting								
Interest rate swap	553	-	19,096	-	-	3,134	-	104,739
Cross currency and interest rate swap	-	13,504	-	466,735	-	855	-	28,571
Total current derivatives	1,608	13,504	55,572	466,735	-	3,989	-	133,310
Non-current								
Derivatives recognised at fair value through profit or loss								
Warrants	161	-	5,581	-	120	-	4,012	-
Interest rate swap	-	34	-	1,176	-	-	-	-
Derivative applied hedge accounting								
Interest rate swap	11,298	-	390,467	-	693	3,989	23,169	133,309
Cross currency and interest rate swap	76	3,687	2,615	127,436	-	18,511	-	618,634
Total non-current derivatives	11,535	3,721	398,663	128,612	813	22,500	27,181	751,943
Total derivatives	13,143	17,225	454,235	595,347	813	26,489	27,181	885,253

Hedging reserve

Hedging reserves comprise hedging costs and cash flow hedge reserves. The cash flow hedge reserve is used to recognise gain/loss relating to the effective portion of the change in fair value of the derivatives for which hedge accounting is applied.

Hedging reserves are listed in other components of equity, which consists of the following hedging instruments.

Consolidated financial statements						
US Dollar'000						
	Electricity Swaption contracts	Natural gas swap contracts	Coal price swap contracts	Currency and interest rate swap contracts	Interest rate swap contracts	Total hedge reserve
Cash flow hedge reserves						
Opening balance as at 1 January 2021	-	-	(8,311)	(42,883)	(7,416)	(58,610)
Add: Change in fair value of hedging instrument recognised in other comprehensive income	7,729	(389,473)	(212,340)	(2,996)	30,557	(566,523)
Less: Reclassification from other comprehensive income to profit or loss	(4,043)	244,781	199,251	15,182	19,337	474,508
Less: Deferred tax	(1,106)	32,998	2,600	2,633	(5,358)	31,767
Closing balance as at 31 December 2021	2,580	(111,694)	(18,800)	(28,064)	37,120	(118,858)
Add: Change in fair value of hedging instrument recognised in other comprehensive income	(7,357)	(537,925)	(110,147)	(11,065)	29,758	(636,736)
Less: Reclassification from other comprehensive income to profit or loss	799	533,698	135,782	19,634	(1,643)	688,270
Less: Deferred tax	2,001	943	(5,640)	1,101	(3,417)	(5,012)
Closing balance as at 31 December 2022	(1,977)	(114,978)	1,195	(18,394)	61,818	(72,336)

Consolidated financial statements						
Baht'000						
	Electricity Swaption contracts	Natural gas swap contracts	Coal price swap contracts	Currency and interest rate swap contracts	Interest rate swap contracts	Total hedge reserve
Cash flow hedge reserves						
Opening balance as at 1 January 2021	-	-	(242,969)	(1,270,724)	(246,778)	(1,760,471)
Add: Change in fair value of hedging instrument recognised in other comprehensive income	253,005	(12,678,803)	(6,844,939)	(671,623)	1,050,620	(18,891,740)
Less: Reclassification from other comprehensive income to profit or loss	(129,270)	7,827,390	6,371,477	915,197	618,322	15,603,116
Less: Deferred tax	(37,492)	1,118,619	88,131	89,246	(181,629)	1,076,875
Closing balance as at 31 December 2021	86,243	(3,732,794)	(628,300)	(937,904)	1,240,535	(3,972,220)
Add: Change in fair value of hedging instrument recognised in other comprehensive income	(248,745)	(17,866,117)	(3,861,706)	(252,923)	493,515	(21,735,976)
Less: Reclassification from other comprehensive income to profit or loss	28,014	18,712,199	4,760,707	688,396	(57,606)	24,131,710
Less: Deferred tax	85,545	40,315	(241,118)	47,069	(146,081)	(214,270)
Closing balance as at 31 December 2022	(48,943)	(2,846,397)	29,583	(455,362)	1,530,363	(1,790,756)

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	Separate financial statements					
	US Dollar'000			Baht'000		
	Currency and interest rate swap contracts	Interest rate swap contracts	Total hedge reserve	Currency and interest rate swap contracts	Interest rate swap contracts	Total hedge reserve
Cash flow hedge reserves						
Opening balance as at 1 January 2021	(425)	(12,473)	(12,898)	(12,780)	(374,653)	(387,433)
Add: Change in fair value of hedging instrument recognised in other comprehensive income	9,354	2,418	11,772	321,675	53,130	374,805
Less: Reclassification from other comprehensive income to profit or loss	(4,896)	17,078	12,182	(149,743)	545,352	395,609
Less: Deferred tax	6,151	(3,698)	2,453	181,144	(112,672)	68,472
Closing balance as at 31 December 2021	10,184	3,325	13,509	340,296	111,157	451,453
Add: Change in fair value of hedging instrument recognised in other comprehensive income	5,297	15,018	20,315	184,176	570,202	754,378
Less: Reclassification from other comprehensive income to profit or loss	3,598	3,262	6,860	126,788	57,305	184,093
Less: Deferred tax	(450)	(3,329)	(3,779)	(15,536)	(114,962)	(130,498)
Closing balance as at 31 December 2022	18,629	18,276	36,905	635,724	623,702	1,259,426

Amounts recognised in profit of loss

In addition to the amounts disclosed in the reconciliation of hedging reserves in above table, the following amounts were recognised in profit or loss in relation to derivatives:

	Consolidated financial statements		Separate financial statements	
	US Dollar'000	Baht'000	US Dollar'000	Baht'000
For the year ended 31 December 2022				
Net gains on foreign currency forwards not qualifying as hedges included in net gains (losses) from changes in fair value of financial instruments	(96,355)	(3,348,472)	2,507	36,210
For the year ended 31 December 2021				
Net gains (losses) on foreign currency forwards not qualifying as hedges included in net gains (losses) from changes in fair value of financial instruments	29,338	938,219	697	17,427

5.2 Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern, so that they can continue to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

To maintain or adjust the capital structure, the Group may adjust the amounts 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 asset and liability, excluding financial assets and financial liabilities measured at amortised cost where the carrying value approximates fair value.

	Consolidated financial statements							
	US Dollar'000				Baht'000			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
As at 31 December 2022								
Financial assets								
Derivative assets recognised at fair value through profit or loss								
- Interest rate swap	-	4,582	-	4,582	-	158,343	-	158,343
- Foreign exchange rate forward contracts	-	1,066	-	1,066	-	36,857	-	36,857
- Electricity forward contracts	-	1,249	-	1,249	-	43,182	-	43,182
- Electricity swaption	-	-	21,230	21,230	-	-	733,753	733,753
- Warrants	161	-	-	161	5,581	-	-	5,581
Derivatives applied hedge accounting								
- Interest rate swap	-	12,910	-	12,910	-	446,168	-	446,168
- Foreign exchange rate forward contracts	-	3,129	-	3,129	-	108,132	-	108,132
- Cross currency and interest rate swap	-	76	-	76	-	2,615	-	2,615
- Coal price swap	-	1,776	-	1,776	-	61,369	-	61,369
- Natural gas swap	-	3,465	-	3,465	-	119,806	-	119,806
- Electricity swaption	-	-	15,619	15,619	-	-	539,823	539,823
Financial assets at fair value through profit or loss								
- Investment in debt instruments	-	187,285	2,000	189,285	-	6,473,004	69,125	6,542,129
- Investment in equity instruments	-	-	6,570	6,570	-	-	227,085	227,085
Financial assets at fair value through other comprehensive income								
- Investment in debt instruments - Note receivables	-	89	-	89	-	3,087	-	3,087
- Investment in equity instruments	8,929	-	149,759	158,688	308,622	-	5,176,015	5,484,637
Total assets	9,090	215,627	195,178	419,895	314,203	7,452,563	6,745,801	14,512,567

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	Consolidated financial statements							
	US Dollar'000				Baht'000			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
As at 31 December 2022								
Financial liabilities								
Derivative liabilities recognised at fair value through profit or loss								
- Interest rate swap	-	34	-	34	-	1,176	-	1,176
- Electricity forward contracts	-	583	-	583	-	20,189	-	20,189
- Heat rate call option	-	1,994	-	1,994	-	68,903	-	68,903
- Natural gas swap	-	30,336	-	30,336	-	1,048,483	-	1,048,483
Derivatives applied hedge accounting								
- Cross currency and interest rate swap	-	17,191	-	17,191	-	594,171	-	594,171
- Natural gas and natural gas liquids swap and option	-	7,023	-	7,023	-	242,720	-	242,720
- Natural gas swap	-	12,987	-	12,987	-	448,861	-	448,861
Other financial liabilities								
- Employee compensation liabilities (included in other current liabilities and other non-current liabilities)	-	-	14,713	14,713	-	-	508,517	508,517
- Contingent liabilities from asset acquisition (included in other current liabilities and other non-current liabilities)	-	-	137,480	137,480	-	-	4,751,630	4,751,630
- Contingent liabilities from business combination (included in other non-current liabilities)	-	-	15,571	15,571	-	-	538,176	538,176
- Put option over non-controlling interest (included in other non-current liabilities)	-	-	58,501	58,501	-	-	2,021,942	2,021,942
Total liabilities	-	70,148	226,265	296,413	-	2,424,503	7,820,265	10,244,768

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	Consolidated financial statements							
	US Dollar'000				Baht'000			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
As at 31 December 2021								
Financial assets								
Derivative assets recognised at fair value through profit or loss								
- Foreign exchange rate forward contracts	-	300	-	300	-	10,029	-	10,029
- Electricity swaption	-	-	41,588	41,588	-	-	1,389,881	1,389,881
- Natural gas swap	-	1,549	-	1,549	-	51,778	-	51,778
- Warrants	120	-	-	120	4,012	-	-	4,012
Derivatives applied hedge accounting								
- Interest rate swap	-	693	-	693	-	23,169	-	23,169
- Foreign exchange rate forward contracts	-	758	-	758	-	25,347	-	25,347
- Electricity swaption	-	-	28,200	28,200	-	-	942,442	942,442
- Natural gas and natural gas liquids swap and option	-	9,988	-	9,988	-	333,737	-	333,737
- Coal price swap	-	1,513	-	1,513	-	50,566	-	50,566
Financial assets at fair value through profit or loss								
- Investment in debt instruments	-	15,687	-	15,687	-	524,272	-	524,272
- Investment in equity instruments	-	-	7,727	7,727	-	-	258,239	258,239
Financial assets at fair value through other comprehensive income								
- Investment in debt instruments - Note receivables	-	168	-	168	-	5,600	-	5,600
- Investment in equity instruments	6,400	-	158,024	164,424	213,884	-	5,281,157	5,495,041
Total assets	6,520	30,656	235,539	272,715	217,896	1,024,498	7,871,719	9,114,113

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For the year ended 31 December 2022

	Consolidated financial statements							
	US Dollar'000				Baht'000			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
As at 31 December 2021								
Financial liabilities								
Derivative liabilities recognised at fair value through profit or loss								
- Interest rate swap	-	9,738	-	9,738	-	325,435	-	325,435
- Electricity forward contracts	-	3,215	-	3,215	-	107,437	-	107,437
- Heat rate call option	-	1,197	-	1,197	-	40,011	-	40,011
- Natural gas swap	-	6,281	-	6,281	-	209,921	-	209,921
Derivatives applied hedge accounting								
- Interest rate swap	-	7,188	-	7,188	-	240,237	-	240,237
- Cross currency and interest rate swap	-	19,366	-	19,366	-	647,205	-	647,205
- Natural gas and natural gas liquids swap and option	-	108,537	-	108,537	-	3,627,300	-	3,627,300
- Coal price swap	-	25,374	-	25,374	-	847,963	-	847,963
Other financial liabilities								
- Employee compensation liabilities (included in other current liabilities and other non-current liabilities)	-	-	6,443	6,443	-	-	215,322	215,322
- Contingent liabilities from asset acquisition (included in other current liabilities and other non-current liabilities)	-	-	207,533	207,533	-	-	6,935,743	6,935,743
- Put option over non-controlling interest (included in other non-current liabilities)	-	-	46,562	46,562	-	-	1,556,094	1,556,094
Total liabilities	-	180,896	260,538	441,434	-	6,045,509	8,707,159	14,752,668

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For the year ended 31 December 2022

As at 31 December 2022	Separate financial statements							
	US Dollar'000				Baht'000			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets								
Derivative assets recognised at fair value through profit or loss								
- Warrants	161	-	-	161	5,581	-	-	5,581
- Foreign exchange rate forward contracts	-	1,055	-	1,055	-	36,476	-	36,476
Derivatives applied hedge accounting								
- Cross currency and interest rate swap	-	76	-	76	-	2,615	-	2,615
- Interest rate swap	-	11,851	-	11,851	-	409,563	-	409,563
Financial assets at fair value through other comprehensive income								
- Investment in equity instruments	7,122	-	2,817	9,939	246,140	-	97,360	343,500
Total assets	7,283	12,982	2,817	23,082	251,721	448,654	97,360	797,735
Financial liabilities								
Derivative liabilities recognised at fair value through profit or loss								
- Interest rate swap	-	34	-	34	-	1,176	-	1,176
Derivatives applied hedge accounting								
- Cross currency and interest rate swap	-	17,191	-	17,191	-	594,171	-	594,171
Total liabilities	-	17,225	-	17,225	-	595,347	-	595,347

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	Separate financial statements							
	US Dollar'000				Baht'000			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
As at 31 December 2021								
Financial assets								
Derivative assets recognised at fair value through profit or loss								
- Warrants	120	-	-	120	4,012	-	-	4,012
Derivatives applied hedge accounting								
- Interest rate swap	-	693	-	693	-	23,169	-	23,169
Financial assets at fair value through other comprehensive income								
- Investment in equity instruments	4,932	-	2,817	7,749	164,826	-	94,141	258,967
Total assets	5,052	693	2,817	8,562	168,838	23,169	94,141	286,148
Financial liabilities								
Derivatives applied hedge accounting								
- Interest rate swap	-	7,123	-	7,123	-	238,048	-	238,048
- Cross currency and interest rate swap	-	19,366	-	19,366	-	647,205	-	647,205
Total liabilities	-	26,489	-	26,489	-	885,253	-	885,253

There were no transfers between Level 1,2 and 3 during the year.

Fair value is categorised into hierarchy based on inputs used as follows:

(a) Financial instruments in level 1

The fair value of financial instruments traded in active markets is based on quoted market prices on the statement of financial position date referring to the Stock Exchange of Thailand and Australian Securities Exchange. The quoted market price used for financial assets held by the Group is the closing price. These instruments are included in Level 1.

(b) Financial instruments in level 2

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximise the use of observable market data where it is available and rely as little as possible on entity specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2.

Specific valuation techniques used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments.
- The fair value of interest rate swaps is calculated as the present value of the estimated future cash flows based on observable yield curves.
- The fair value of forward foreign exchange contracts is determined by using forward exchange rates on the statement of financial position date, with the resulting value discounted back to present value.
- The fair value of coal swap contract, fuel swap contract, natural gas swap contract 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.
- Fair value of investment in debt instruments and note receivables is determined from discounted contractual cash flows where discount rate quoted in an active market.
- Fair value of investment in debt instruments is determined from net asset value of the investment fund.
- Other techniques, such as discounted cash flow analysis, are used to determine fair value for the remaining financial instruments.

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(c) Financial instruments in level 3

The fair value of financial instruments is not based on observable market data.

The following table presents the significant changes in level 3 items:

	Consolidated financial statements							
	Investment in equity instruments		Contingent liabilities from asset acquisition		Put option over non-controlling interests		Electricity swaption	
	US Dollar'000	Baht'000	US Dollar'000	Baht'000	US Dollar'000	Baht'000	US Dollar'000	Baht'000
Opening balance as at 1 January 2021	148,927	4,473,332	12,560	377,266	42,288	1,270,200	-	-
Additions	52,014	1,663,242	-	-	-	-	-	-
Decrease of investment	(2,365)	(75,636)	-	-	-	-	-	-
Business combination	-	-	-	-	-	-	58,843	1,936,041
Treasury shares of a subsidiary	-	-	-	-	(2,754)	(88,994)	-	-
Changes in fair value recognised to profit or loss	582	18,605	-	-	-	-	8,299	277,368
Change in fair value recognised in other comprehensive income	(17,947)	(573,899)	-	-	-	-	3,700	123,639
Changes in fair value recognised as part of its cost of assets	-	-	194,973	6,234,681	-	-	-	-
Change in fair value recognised in equity	-	-	-	-	7,028	237,013	-	-
Translation differences	(15,460)	33,752	-	323,796	-	137,875	(1,054)	(4,725)
Closing balance at 31 December 2021	165,751	5,539,396	207,533	6,935,743	46,562	1,556,094	69,788	2,332,323
Additions	13,183	462,214	-	-	-	-	-	-
Decrease of investment	(1,387)	(48,629)	-	-	-	-	-	-
Payment of contingent liabilities from asset acquisition	-	-	(65,000)	(2,148,439)	-	-	-	-
Changes in fair value recognised to profit or loss	(138)	(4,853)	-	-	-	-	(17,976)	(630,281)
Change in fair value recognised in other comprehensive income	323	11,334	-	-	-	-	(10,934)	(383,367)
Changes in fair value recognised as part of its cost of assets	-	-	(5,053)	(177,165)	-	-	-	-
Change in fair value recognised in equity	-	-	-	-	11,939	379,383	-	-
Translation differences	(21,403)	(556,362)	-	141,491	-	86,465	(4,029)	(45,099)
Closing balance at 31 December 2022	156,329	5,403,100	137,480	4,751,630	58,501	2,021,942	36,849	1,273,576

Significant changes during the year

On 29 June 2022, Banpu Ventures Pte. Ltd., which is a subsidiary of the Group, invested in the US Healthcare industry through Public US based healthcare investment fund as a founding limited partner for USD 150 million. This investment is classified as investment in debt instruments measured at fair value through profit or loss. The fair value hierarchy is level 2 which is derived from net asset value of the investment fund.

The following table summarises the quantitative information about the significant unobservable inputs used in level 3 fair value measurement.

As at 31 December	Fair value (US Dollar'000)		Unobservable inputs	Range of inputs	
	2022	2021		2022	2021
Investment in equity instruments	156,329	165,751	Discount rate	6.98% - 16.27%	6.86% - 15.51%
Contingent liabilities from an asset acquisition	137,480	207,533	Discount rate	9.50%	5.00%
Put option over non-controlling interests	58,501	46,452	Discount rate	10.04%	8.63%
Electricity swaption	36,849	69,788	Forward electricity price curve	AUD 48.41 per MWh - AUD 53.92 per MWh	AUD 51.14 per MWh - AUD 63.92 per MWh

The unobservable inputs and fair values as at 31 December 2022 are shown as follows:

	Changes in fair value			
			US Dollar'000	
	Unobservable inputs	Movement	Increase in assumption	Decrease in assumption
Investment in equity instruments	Discount rate	1.00%	(10,202)	11,493
Contingent liabilities from an assets acquisition	Discount rate	1.00%	(1,031)	1,047
Put option over non-controlling interest	Discount rate	2.50%	(10,160)	13,955
Electricity swaption	Forward electricity price curve	5.00%	(4,500)	4,485

The main level 3 inputs used by the Group pertains to the discount rate. It is estimated based on weighted average cost of capital incorporating the average rate of return in the industry that is expected for the given period and forward electricity prices which are refer to an energy consulting firm.

Group's valuation processes

The Groups' finance department has a working team that performs the valuations of financial instruments required for financial reporting, including level 3 fair values. The team reports directly to the chief financial officer (CFO) and the audit committee.

7 Critical accounting estimates, assumptions, and judgements

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 accounting 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 Fair value of certain financial instruments

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. Details of key assumptions used are disclosed in Note 6.

7.2 Coal and natural gas reserves

The Group estimates coal and natural gas reserves based on its best estimate of products that can be economically extracted from the relevant mining area and proved reserves and proved developed reserves for natural gas. The Group estimates coal reserves based on the geological studies and drilling samples and involves the geologists and reservoir engineers to estimate natural gas reserves.

7.3 Impairment of goodwill and long-lived assets

The Group annually tests for impairment of goodwill and tests for impairment of long-lived assets whenever there is an indication for impairment in accordance with the accounting policy stated in Note 4.11 and Note 4.13. The recoverable amounts of cash-generating units have been determined based on value-in-use model or fair value less costs of disposal. These calculations use cash flow projections which key assumptions are the future commodity prices, future production volumes and the economic useful lives of assets including the discount rate used in the calculation of impairment testing.

7.4 Fair value determination of the net identifiable assets acquired from the business combination

The fair value determination of the net identifiable assets involves significant assumptions of the external valuer who is management's specialist and significant judgement made by the management. Significant assumptions were future production volumes, future commodity prices and discount rate applied for the discounted cash flow models.

8 Segment information

The Group has presented segment information aligned with the current business activities. The Group is organised into the following business segments:

- Energy Resources: The Group operates in coal sales and production both domestic and overseas. The Group also operates in gas production in the United States.
- Energy Generation: The Group operates in electricity generation which consists of thermal and renewable energy both domestic and overseas.
- Energy Technology: The Group's operations comprise of solar rooftop, electric vehicle, energy storage and energy management system.

Banpu Public Company Limited

Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

Consolidated financial statements																			
Million US Dollar																			
	Energy resources					Energy generation									Energy technology	Head office	Eliminated		
	Mining				Natural gas	Thermal					Renewable						Total	entries	Total
	Thailand	Indonesia	Australia	China and Mongolia	United States	Thailand	China	Japan	Laos	United States	China	Japan	Vietnam	Australia					
For the year ended 31 December 2022																			
Quantity of coal sales (unit: thousand tons)	1,582	18,947	8,543	2,777	-	-	-	-	-	-	-	-	-	-	-	-	31,849	(896)	30,953
Quantity of natural gas sales (unit: MMBTU)	-	-	-	-	280,049	-	-	-	-	-	-	-	-	-	-	-	280,049	-	280,049
Sales and service income	230	3,652	1,253	314	1,658	-	200	-	-	502	28	-	9	10	71	-	7,927	(234)	7,693
Cost of sales and services	(185)	(1,227)	(774)	(311)	(639)	-	(209)	-	-	(423)	(10)	-	(5)	(12)	(77)	-	(3,872)	256	(3,616)
Gross profit (loss)	45	2,425	479	3	1,019	-	(9)	-	-	79	18	-	4	(2)	(6)	-	4,055	22	4,077
Gross profit margin (%)	20%	66%	38%	1%	61%	-	(5%)	-	-	16%	64%	-	44%	(20%)	(8%)	-	51%		53%
Share of profit (loss) from associates and joint ventures	-	-	(1)	230	-	16	(9)	8	104	-	-	(1)	-	-	(8)	-	339	-	339
Selling expenses	(7)	(186)	(92)	-	-	-	-	-	-	-	-	-	-	-	(2)	-	(287)	58	(229)
Administrative expenses	-	(42)	(13)	(7)	(153)	-	(23)	-	-	(18)	(2)	-	-	(8)	(19)	(82)	(367)	-	(367)
Royalty fee	-	(513)	(79)	-	-	-	-	-	-	-	-	-	-	-	-	-	(592)	-	(592)
Interest income	180	9	2	-	20	-	4	-	-	-	-	-	-	-	11	111	337	(319)	18
Profit (loss) from operation before interest expenses and income taxes	218	1,693	296	226	886	16	(37)	8	104	61	16	(1)	4	(10)	(24)	29	3,485	(239)	3,246

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Consolidated financial statements																					
Million US Dollar																					
Energy resources					Energy generation										Energy technology	Head office	Eliminated entries			Total	
Mining				Natural gas	Thermal					Renewable											
Thailand	Indonesia	Australia	China and Mongolia	United States	Thailand	China	Japan	Laos	United States	China	Japan	Vietnam	Australia								
For the year ended																					
31 December 2022 (continued)																					
Profit from operation before interest expenses and income taxes																				3,246	
Net gains on exchange rate																				5	
Net losses from changes in fair value of financial instruments																				(807)	
Gain on disposal of investment in a joint venture																				179	
Bargain purchase from business combination																				171	
Impairment of assets																				(375)	
Others																				(18)	
Interest expenses																				(257)	
Income taxes																				(521)	
Non-controlling interests																				(461)	
Profit for the year - owners of the Parent																				1,162	
Timing of revenue recognition																					
- At a point in time					230	3,652	1,253	314	1,658	-	200	-	-	502	28	-	9	10	71	-	7,927 (234) 7,693
- Overtime					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					230	3,652	1,253	314	1,658	-	200	-	-	502	28	-	9	10	71	- 7,927 (234) 7,693	

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For the year ended 31 December 2022

Consolidated financial statements																			
Million US Dollar																			
Energy resources					Energy generation										Energy technology	Head office	Eliminated		
Mining				Natural gas	Thermal					Renewable							Total	entries	Total
Thailand	Indonesia	Australia	China and Mongolia	United States	Thailand	China	Japan	Laos	United States	China	Japan	Vietnam	Australia						
For the year ended 31 December 2021																			
Quantity of coal sales (unit: thousand tons)					-	-	-	-	-	-	-	-	-	-	-	-	32,776	(866)	31,910
Quantity of natural gas sales (unit: MMBTU)					246,223	-	-	-	-	-	-	-	-	-	-	246,223	-	246,223	
Sales and service income					891	-	191	-	-	20	29	-	4	6	67	-	4,292	(168)	4,124
Cost of sales and services					(410)	-	(190)	-	-	(21)	(11)	-	(2)	(6)	(84)	-	(2,562)	169	(2,393)
Gross profit (loss)					481	-	1	-	-	(1)	18	-	2	-	(17)	-	1,730	1	1,731
Gross profit margin (%)					54%	-	1%	-	-	(5%)	62%	-	50%	0%	(25%)	-	40%		42%
Share of profit (loss) from associates and joint ventures					-	7	(16)	6	113	-	-	5	-	-	(17)	-	227	-	227
Selling expenses					-	-	-	-	-	-	-	-	-	-	(2)	-	(200)	29	(171)
Administrative expenses					(84)	-	(21)	-	-	(2)	(2)	-	-	(12)	(14)	(63)	(248)	-	(248)
Royalty fee					-	-	-	-	-	-	-	-	-	-	-	-	(294)	-	(294)
Interest income					4	-	5	-	-	1	2	-	-	-	4	115	254	(245)	9
Profit (loss) from operation before interest expenses and income taxes					401	7	(31)	6	113	(2)	18	5	2	(12)	(46)	52	1,469	(215)	1,254

Banpu Public Company Limited

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For the year ended 31 December 2022

Consolidated financial statements																							
Million US Dollar																							
Energy resources					Energy generation										Energy technology	Head office	Eliminated						
Mining				Natural gas	Thermal					Renewable				Total			entries						
Thailand	Indonesia	Australia	China and Mongolia	United States	Thailand	China	Japan	Laos	United States	China	Japan	Vietnam	Australia	Total			Total						
For the year ended																							
31 December 2021 (continued)																							
Profit from operation before interest																		1,254					
expenses and income taxes																							
Net gains on exchange rate																		74					
Net losses from changes in fair value																							
of financial instruments																		(445)					
Others																		(18)					
Interest expenses																		(174)					
Income taxes																		(198)					
Non-controlling interests																		(189)					
Profit for the year - owners of the Parent																		304					
Timing of revenue recognition																							
- At a point in time					95	2,097	728	164	891	-	191	-	-	20	29	-	4	6	67	-	4,292	(168)	4,124
- Overtime					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					95	2,097	728	164	891	-	191	-	-	20	29	-	4	6	67	-	4,292	(168)	4,124

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Consolidated financial statements																			
Million Baht																			
Energy resources					Energy generation										Energy technology	Head office	Eliminated		
Mining				Natural gas	Thermal					Renewable							Total	entries	Total
Thailand	Indonesia	Australia	China and Mongolia	United States	Thailand	China	Japan	Laos	United States	China	Japan	Vietnam	Australia						
For the year ended 31 December 2022																			
Quantity of coal sales (unit: thousand tons)	1,582	18,947	8,543	2,777													31,849	(896)	30,953
Quantity of natural gas sales (unit: MMBTU)	-	-	-	-	280,049	-	-	-	-	-	-	-	-	-	-	-	280,049	-	280,049
Sales and service income	8,129	129,207	44,439	11,037	58,634	-	6,942	-	-	17,962	963	-	326	458	2,504	-	280,601	(8,331)	272,270
Cost of sales and services	(6,526)	(43,376)	(27,258)	(10,964)	(22,580)	-	(7,273)	-	-	(15,143)	(350)	-	(185)	(422)	(2,682)	-	(136,759)	9,046	(127,713)
Gross profit (loss)	1,603	85,831	17,181	73	36,054	-	(331)	-	-	2,819	613	-	141	36	(178)	-	143,842	715	144,557
Gross profit margin (%)	20%	66%	39%	1%	61%	-	(5%)	-	-	16%	64%	-	43%	(8%)	(7%)	-	51%		53%
Share of profit (loss) from associates and joint ventures	-	-	(35)	8,102	-	596	(285)	267	3,683	-	-	(46)	2	-	(304)	-	11,980	-	11,980
Selling expenses	(246)	(6,571)	(3,215)	(12)	-	-	-	-	-	(7)	-	-	-	-	(84)	-	(10,135)	2,059	(8,076)
Administrative expenses	-	(1,483)	(445)	(250)	(5,400)	-	(824)	-	-	(623)	(82)	-	(13)	(287)	(656)	(2,938)	(13,001)	-	(13,001)
Royalty fee	-	(18,233)	(2,786)	-	-	-	-	-	-	-	-	-	-	-	-	-	(21,019)	-	(21,019)
Interest income	6,328	317	73	9	707	-	145	-	-	4	1	-	3	5	370	3,875	11,837	(11,210)	627
Profit (loss) from operation before interest expenses and income taxes	7,685	59,861	10,773	7,922	31,361	596	(1,295)	267	3,683	2,193	532	(46)	133	(246)	(852)	937	123,504	(8,436)	115,068

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Consolidated financial statements																							
Million Baht																							
Energy resources					Energy generation										Energy technology	Head office	Eliminated entries						
Mining				Natural gas	Thermal					Renewable													
Thailand	Indonesia	Australia	China and Mongolia	United States	Thailand	China	Japan	Laos	United States	China	Japan	Vietnam	Australia										
For the year ended 31 December 2022 (continued)																							
Profit from operation before interest expenses and income taxes																	115,068						
Net gains on exchange rate																	40						
Net losses from changes in fair value of financial instruments																	(28,296)						
Gain on disposal of investment in a joint venture																	5,924						
Bargain purchase from business combination																	5,877						
Impairment of assets																	(13,636)						
Others																	(707)						
Interest expenses																	(9,079)						
Income taxes																	(18,379)						
Non-controlling interests																	(16,293)						
Profit for the year - owners of the Parent																	40,519						
Timing of revenue recognition																							
- At a point in time					8,129	129,207	44,439	11,037	58,634	-	6,942	-	-	17,962	963	-	326	458	2,504	-	280,601	(8,331)	272,270
- Overtime					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					8,129	129,207	44,439	11,037	58,634	-	6,942	-	-	17,962	963	-	326	458	2,504	-	280,601	(8,331)	272,270

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For the year ended 31 December 2022

	Consolidated financial statements																		
	Million Baht																		
	Energy resources					Energy generation									Energy technology	Head office	Total	Eliminated entries	Total
	Mining				Natural gas	Thermal					Renewable								
	Thailand	Indonesia	Australia	China and Mongolia		United States	Thailand	China	Japan	Laos	United States	China	Japan	Vietnam					
For the year ended 31 December 2021																			
Quantity of coal sales (unit: thousand tons)	1,059	20,065	9,816	1,836	-	-	-	-	-	-	-	-	-	-	-	-	32,776	(866)	31,910
Quantity of natural gas sales (unit: MMBTU)	-	-	-	-	246,223	-	-	-	-	-	-	-	-	-	-	-	246,223	-	246,223
Sales and service income	3,078	67,990	23,346	5,290	28,722	-	6,114	-	-	674	917	-	121	192	2,142	-	138,586	(5,396)	133,190
Cost of sales and services	(2,808)	(29,380)	(21,690)	(5,247)	(13,157)	-	(6,114)	-	-	(712)	(347)	-	(67)	(195)	(2,647)	-	(82,364)	5,448	(76,916)
Gross profit (loss)	270	38,610	1,656	43	15,565	-	-	-	-	(38)	570	-	54	(3)	(505)	-	56,222	52	56,274
Gross profit margin (%)	9%	57%	7%	1%	54%	-	0%	-	-	(6%)	62%	-	45%	(2%)	(24%)	-	41%		42%
Share of profit (loss) from associates and joint ventures	-	-	(10)	4,190	-	216	(542)	209	3,607	-	-	160	-	-	(540)	-	7,290	-	7,290
Selling expenses	(184)	(3,927)	(2,280)	(12)	-	-	-	-	-	(1)	-	-	-	-	(63)	-	(6,467)	961	(5,506)
Administrative expenses	-	(805)	(740)	(64)	(2,684)	-	(662)	-	-	(58)	(48)	-	(9)	(396)	(436)	(2,047)	(7,949)	-	(7,949)
Royalty fee	-	(8,036)	(1,495)	-	-	-	-	-	-	-	-	-	-	-	-	-	(9,531)	-	(9,531)
Interest income	3,846	95	10	2	119	-	146	-	-	43	55	-	-	1	136	3,696	8,149	(7,871)	278
Profit (loss) from operation before interest expenses and income taxes	3,932	25,937	(2,859)	4,159	13,000	216	(1,058)	209	3,607	(54)	577	160	45	(398)	(1,408)	1,649	47,714	(6,858)	40,856

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Notes to the consolidated and separate financial statements

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Consolidated financial statements																							
Million Baht																							
Energy resources					Energy generation										Energy technology	Head office	Total	Eliminated entries	Total				
Mining				Natural gas	Thermal					Renewable													
Thailand	Indonesia	Australia	China and Mongolia	United States	Thailand	China	Japan	Laos	United States	China	Japan	Vietnam	Australia										
For the year ended																							
31 December 2021 (continued)																							
Profit from operation before interest expenses and income taxes																			40,856				
Net gains on exchange rate																			2,332				
Net losses from changes in fair value of financial instruments																			(14,646)				
Others																			(621)				
Interest expenses																			(5,576)				
Income taxes																			(6,372)				
Non-controlling interests																			(6,121)				
Profit for the year - owners of the Parent																			9,852				
Timing of revenue recognition																							
- At a point in time					3,078	67,990	23,346	5,290	28,722	-	6,114	-	-	674	917	-	121	192	2,142	-	138,586	(5,396)	133,190
- Overtime					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					3,078	67,990	23,346	5,290	28,722	-	6,114	-	-	674	917	-	121	192	2,142	-	138,586	(5,396)	133,190

Revenue is allocated to the geographic areas where the sale originated and there is no customer who generates significant revenue to the Group.

9 Financial assets and financial liabilities

The Group has classified financial assets and liabilities as follows:

As at 31 December 2022	Consolidated financial statements		Separate financial statements	
	US Dollar'000	Baht'000	US Dollar'000	Baht'000
Financial assets				
Financial assets measured at amortised cost				
Cash and cash equivalents	2,154,023	74,448,221	164,663	5,691,149
Trade receivables and note receivables, net	668,401	23,101,556	14,466	499,970
Advances to and amounts due from related parties	2,723	94,091	74,148	2,562,723
Short-term loans to related parties	53,473	1,848,152	63,562	2,196,871
Other current assets	252,727	8,734,842	190	6,570
Dividend receivables from related parties	31,103	1,074,998	-	-
Long-term loans to related parties	16,952	585,914	2,266,499	78,335,659
Other non-current assets	70,156	2,424,746	238	8,240
Financial assets measured at fair value through profit or loss				
Investments in debt instruments	189,285	6,542,129	-	-
Investments in equity instruments	6,570	227,085	-	-
Financial assets measured at fair value through other comprehensive income				
Note receivables	89	3,087	-	-
Investments in equity instruments	158,688	5,484,637	9,939	343,500
Derivative assets				
Held for trading at fair value through profit or loss	28,288	977,716	1,216	42,057
Apply hedge accounting	36,975	1,277,913	11,927	412,178
Financial liabilities				
Financial liabilities measured at amortised cost				
Short-term loans from financial institutions	450,842	15,582,197	353,853	12,230,000
Trade payables	122,846	4,245,847	-	-
Advance from and amounts due to related parties	-	-	653	22,577
Accrued interest expenses	43,170	1,492,060	34,182	1,181,423
Long-term loans from financial institutions, net	2,929,416	101,247,671	1,558,089	53,851,284
Debentures, net	2,623,552	90,676,243	2,464,649	85,184,177
Lease Liabilities	63,729	2,202,625	1,142	39,473
Other current liabilities	641,868	22,184,523	20,506	708,719
Other non-current liabilities	22,580	780,454	1,041	35,976
Financial liabilities measured at fair value through profit or loss				
Employee compensation liabilities	14,713	508,517	-	-
Contingent liabilities from asset acquisition	137,480	4,751,630	-	-
Contingent liabilities from business combination	15,571	538,176	-	-
Put option over non-controlling interest	58,501	2,021,942	-	-
Derivative liabilities				
Held for trading at fair value through profit or loss	32,947	1,138,751	34	1,176
Apply hedge accounting	37,201	1,285,752	17,191	594,171

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As at 31 December 2021	Consolidated financial statements		Separate financial statements	
	US Dollar'000	Baht'000	US Dollar'000	Baht'000
Financial assets				
Financial assets measured at amortised cost				
Cash and cash equivalents	1,184,361	39,581,234	114,057	3,811,758
Trade receivables, net	472,940	15,805,596	7,250	242,287
Amounts due from related parties	2,068	69,096	523,165	17,484,116
Advances to related parties	-	-	1,497	50,025
Short-term loans to related parties	69,260	2,314,662	74,603	2,493,217
Other current assets	222,651	7,440,983	91	3,035
Dividend receivables from related parties	31,337	1,047,306	-	-
Long-term loans to related parties	16,664	556,903	3,035,195	101,435,898
Other non-current assets	71,263	2,381,613	245	8,195
Financial assets measured at fair value through profit or loss				
Investments in debt instruments	15,687	524,272	-	-
Investments in equity instruments	7,727	258,239	-	-
Financial assets measured at fair value through other comprehensive income				
Note receivables	168	5,600	-	-
Investments in equity instruments	164,424	5,495,041	7,749	258,967
Derivative assets				
Held for trading at fair value through profit or loss	43,557	1,455,700	120	4,012
Apply hedge accounting	41,152	1,375,261	693	23,169
Financial liabilities				
Financial liabilities measured at amortised cost				
Short-term loans from financial institutions	1,173,907	39,231,861	812,461	27,152,378
Trade payables	98,547	3,293,416	2,746	91,758
Advance from and amounts due to related parties	-	-	784	26,202
Accrued interest expenses	33,228	1,110,469	26,419	882,906
Long-term loans from financial institutions, net	2,787,252	93,149,702	1,862,202	62,234,622
Debentures, net	2,030,976	67,875,016	2,030,976	67,875,016
Lease Liabilities	51,341	1,715,801	2,095	70,036
Other current liabilities	419,512	14,020,364	9,529	318,442
Other non-current liabilities	17,481	584,229	1,206	40,205
Financial liabilities measured at fair value through profit or loss				
Employee compensation liabilities	6,443	215,322	-	-
Contingent liabilities from asset acquisition	207,533	6,935,743	-	-
Put option over non-controlling interest	46,562	1,556,094	-	-
Derivative liabilities				
Held for trading at fair value through profit or loss	20,431	682,804	-	-
Apply hedge accounting	160,465	5,362,705	26,489	885,253

As at 31 December 2022 and 2021, the financial assets and liabilities measured at amortised cost approximated the fair value except debentures, as disclosed in Note 25.

Financial assets at fair value through other comprehensive income

Amounts recognised in profit or loss and other comprehensive income

The following gains/(losses) were recognised in profit or loss and other comprehensive income during the year as follows:

	Consolidated financial statements		Separate financial statements	
	US Dollar'000	Baht'000	US Dollar'000	Baht'000
For the year ended 31 December 2022				
Gains recognised in other comprehensive income	8,127	267,261	1,724	60,322
Dividends from equity investments at FVOCI recognised in profit or loss related to investments held at the end of the reporting period	7,956	282,498	194	6,673
For the year ended 31 December 2021				
Gains (losses) recognised in other comprehensive income	(26,984)	(753,938)	308	10,964
Dividends from equity investments at FVOCI recognised in profit or loss related to investments held at the end of the reporting period	8,541	273,817	160	5,011

10 Cash and cash equivalents

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Cash on hand	4,650	1,074	160,708	35,883	15	16	525	525
Deposits held at call with banks	969,920	959,078	33,522,747	32,052,281	147,288	114,041	5,090,624	3,811,233
Fixed deposits with banks	1,179,453	224,209	40,764,766	7,493,070	17,360	-	600,000	-
Total cash and cash equivalents	2,154,023	1,184,361	74,448,221	39,581,234	164,663	114,057	5,691,149	3,811,758

As at 31 December 2022, the interest rates on deposits held at call with banks and fixed deposits with banks were 0.25% to 2.0% per annum and 0.01% to 4.95% per annum (2021: 0.13% to 2.02% per annum and 0.01% to 6.12% per annum). These fixed deposits have an original maturity of three months.

11 Trade receivables and note receivables, net

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Trade receivables								
- third parties	665,695	477,968	23,008,078	15,973,648	14,466	7,250	499,970	242,287
Note receivables	7,185	-	248,320	-	-	-	-	-
<u>Less</u> Expected credit losses	(4,479)	(5,028)	(154,842)	(168,052)	-	-	-	-
Trade receivables and note receivables, net	668,401	472,940	23,101,556	15,805,596	14,466	7,250	499,970	242,287

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 can be analysed as follows:

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Trade receivables and note receivables under credit term	660,003	453,620	22,811,346	15,159,936	12,305	7,250	425,292	242,287
Trade receivables and note receivables due for payment								
- Less than 3 months	7,891	15,036	272,735	502,510	2,157	-	74,552	-
- Over 3 months but less than 6 months	433	640	14,951	21,395	4	-	126	-
- Over 6 months but less than 12 months	119	3,571	4,118	119,341	-	-	-	-
- Over 12 months	4,434	5,101	153,248	170,466	-	-	-	-
Total trade receivables and note receivables	672,880	477,968	23,256,398	15,973,648	14,466	7,250	499,970	242,287
<u>Less</u> Expected credit losses	(4,479)	(5,028)	(154,842)	(168,052)	-	-	-	-
Trade receivables and note receivables, net	668,401	472,940	23,101,556	15,805,596	14,466	7,250	499,970	242,287

12 Inventories, net

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Coal	125,772	100,035	4,346,963	3,343,160	15,417	8,553	532,851	285,837
Fuel	124	3,514	4,299	117,438	-	-	-	-
Natural gas	8,655	2,991	299,146	99,947	-	-	-	-
Others	1,128	330	38,981	11,017	-	-	-	-
Good in transits - coal	18,263	19,500	631,209	651,704	-	-	-	-
Total	153,942	126,370	5,320,598	4,223,266	15,417	8,553	532,851	285,837
<u>Less</u> Allowance for								
slow-moving of coal	(7,583)	(7,583)	(262,079)	(253,415)	(3,854)	(3,854)	(133,213)	(128,810)
Allowance for net								
realisable value of fuel	-	(1,953)	-	(65,277)	-	-	-	-
Inventories, net	146,359	116,834	5,058,519	3,904,574	11,563	4,699	399,638	157,027

13 Other current assets

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Prepaid expenses	110,602	59,077	3,822,652	1,974,326	2,763	4,535	95,519	151,563
Advance for prepayment	28,352	14,660	979,902	489,952	26	34	889	1,146
Value added tax receivables	20,833	20,108	720,053	672,003	1,599	1,350	55,268	45,112
Prepaid income tax	1,828	4,092	63,178	136,744	512	155	17,700	5,188
Restricted deposits at banks								
(Note 15.1 d))	167,754	161,412	5,797,984	5,394,381	-	-	-	-
Other receivables	56,621	46,579	1,956,957	1,556,651	164	57	5,681	1,890
Long service leave coal industry								
fund receivable in Australia	39,544	49,374	1,366,743	1,650,083	-	-	-	-
Others	852	2,735	29,438	91,423	-	-	-	-
Total other current assets	426,386	358,037	14,736,907	11,965,563	5,064	6,131	175,057	204,899

14 Non-current assets held for sale

As at 31 December 2021, the Group classified an investment in Sunseap Group Pte. Ltd. (Sunseap) which is a joint venture as non-current assets held-for-sale at a net book value of US Dollar 172.05 million. On 23 February 2022, the Group completely sold the investment in Sunseap with the net selling price of SGD 469.19 million or equivalent to US Dollar 347.54 million. Therefore, the Group recognised gain on disposal of this investment of US Dollar 179.22 million in the consolidated statement of comprehensive income for the year ended 31 December 2022. The Group 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.

15 Investments in subsidiaries, associates, and joint ventures

Investments in associates and joint ventures using the equity method are as follows:

As at 31 December	Consolidated financial statements (Equity method)			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Associates				
Urban Mobility Tech Co., Ltd.	10,069	10,414	348,023	348,023
Durapower Holdings Pte. Ltd.	34,174	34,174	1,181,147	1,142,103
FOMM Corporation	18,391	19,020	635,650	635,650
Global Engineering Co., Ltd.	8,636	9,949	298,476	332,480
Port Kembla Coal Terminal Ltd.	80	86	2,771	2,876
GEPP Sa-ard Co., Ltd.	347	359	12,000	12,000
Beyond Green Co., Ltd.	8,680	8,977	300,000	300,000
Solar Esco Joint Stock Company	2,600	-	89,862	-
Altotech Global Co., Ltd.	1,910	-	66,000	-
Joint ventures				
BLCP Power Ltd.	176,179	182,202	6,089,170	6,089,170
Hebi Zhong Tai Mining Co., Ltd.	48,320	48,320	1,670,068	1,614,862
Shanxi Gaohe Energy Co., Ltd.	308,933	308,933	10,677,457	10,324,501
Shanxi Luguang Power Co., Ltd.	75,719	71,203	2,617,025	2,379,602
Hongsa Power Company Limited	378,809	391,759	13,092,534	13,092,534
Phu Fai Mining Company Limited	24	25	836	836
Aura Land Development Pte. Ltd.	2,699	2,791	93,290	93,290
Aizu Energy Pte. Ltd.	11,124	11,505	384,484	384,484
Hokkaido Solar Estate G.K.	1,748	1,807	60,396	60,396
PT. Nusantara Timur Unggul	488	491	16,871	16,403
Nakoso IGCC Management Co., Ltd.	73,572	80,443	2,542,830	2,688,394
EVOLT Technology Co., Ltd.	3,472	2,693	120,000	90,000
LIV Energy Venture Pte. Ltd.	1,000	-	34,562	-
BNSP Smart Tech Co., Ltd.	44	-	1,500	-
BCD Energies Co., Ltd.	3	-	105	-
Investments in associates and joint ventures				
- cost method	1,167,021	1,185,151	40,335,057	39,607,604
<u>Add</u> Cumulative equity account of investments				
in associates and joint ventures	617,117	460,302	21,329,041	15,383,286
Total investments in associates and joint ventures	1,784,138	1,645,453	61,664,098	54,990,890

As at 31 December 2022 and 2021, the Group pledged its investments in two joint ventures with a cost of US Dollar 370.82 million, as collateral for loans from financial institutions of such joint ventures, under the conditions of loans for project finance of joint ventures.

As at 31 December 2022, a subsidiary, who is the shareholder of a joint venture, guarantee for loans from financial institutions amounting to CNY 274.58 million or equivalent to US Dollar 39.46 million and US Dollar 33.23 million of a joint venture (2021: amounting to CNY 300.76 million or equivalent to US Dollar 47.25 million and US Dollar 36.53 million).

Investments in subsidiaries are as follows:

As at 31 December	Separate financial statements (Cost method)			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Subsidiaries				
Banpu Minerals Co., Ltd.	1,569,068	102,434	54,230,766	3,423,345
BP Overseas Development Co., Ltd.	-	388,472	-	12,982,706
Banpu Power Public Company Limited	687,198	687,198	23,751,190	22,966,067
Banpu Engineering Services Co., Ltd.	6,826	7,787	235,948	260,256
BOG Co., Ltd.	991,454	991,454	34,267,021	33,134,285
Banpu Innovation & Ventures Co., Ltd.	9,184	4,110	317,408	137,342
Banpu NEXT Co., Ltd.	232,434	185,769	8,033,480	6,208,386
Banpu Vietnam Limited Liability Company	1,000	1,000	34,562	33,420
Banpu Ventures Pte. Ltd.	187,650	-	6,485,634	-
Total investments in subsidiaries	3,684,814	2,368,224	127,356,009	79,145,807

15.1 Changes in investments in subsidiaries, associates and joint ventures

Movements of investments in associates and joint ventures are as follows:

For the year ended 31 December	Consolidated financial statements (Equity method)			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Opening balance	1,645,453	1,689,950	54,990,890	50,761,193
Increase of investments	17,296	97,237	606,422	3,109,360
Decrease of investment	-	(17,593)	-	(562,569)
Dividend received from associates and joint ventures	(116,085)	(69,596)	(4,070,090)	(2,225,488)
Reclassification to non-current asset held-for-sale (Note 14)	-	(172,048)	-	(5,501,596)
Share of profit from associates and joint ventures	339,358	227,137	11,980,442	7,290,188
Share of other comprehensive income (expense) from associates and joint ventures				
- Remeasurement of post-employment benefit obligations	-	(962)	-	(34,574)
- Gains (losses) on fair value of equity instruments	5,749	(10,819)	188,692	(309,927)
- Cash flow hedge reserve	22,814	31,344	766,443	934,787
Translation differences	(130,447)	(129,197)	(2,798,701)	1,529,516
Closing balance	1,784,138	1,645,453	61,664,098	54,990,890

Movements of investments in subsidiaries are as follows:

For the year ended 31 December	Separate financial statements (Cost method)			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Opening balance	2,368,224	2,489,582	79,145,807	74,779,817
Increase of investments	385,678	8,133	13,522,407	260,067
Decrease of investment	(961)	-	(33,685)	-
Group restructuring (Note b))				
- Disposal of investment	(1,298,472)	-	(43,790,979)	-
- Increase of investment	1,320,345	-	44,528,637	-
- Conversion of loans to a related party and interest receivables to investment	910,000	-	30,689,750	-
Disposal of investments under common control	-	(129,491)	-	(4,140,739)
Translation differences	-	-	3,294,072	8,246,662
Closing balance	3,684,814	2,368,224	127,356,009	79,145,807

Significant transactions of investments during the year

a) Increase of investments

Separate financial statements

The Company additionally invested in Banpu Innovation & Ventures Co., Ltd., a subsidiary, in proportion to the original investment of Baht 167.50 million or equivalent to US Dollar 5.07 million. The Company fully paid for this investment.

The Company additionally invested in Banpu Minerals Co., Ltd., a subsidiary, in proportion to the original investment of Baht 4,862.66 million or equivalent to US Dollar 146.29 million. The Company has fully paid for this investment.

The Company established Banpu Ventures Pte. Ltd. which is a limited company incorporated in Singapore that invested in fund. The Company holds 100% of its registered share capital with a total cost of US Dollar 187.65 million. The Company has fully paid for this investment.

The Company additionally invested in Banpu Next Co., Ltd., a subsidiary, in proportion to the original investment amounting to Baht 1,700 million or equivalent to US Dollar 46.67 million. The Company has fully paid for this investment

Consolidated financial statements

The Group additionally invested in Shanxi Luguang Power Co., Ltd., a joint venture, in proportion to the original investment of CNY 73.75 million or equivalent to US Dollar 10.91 million. The Group fully paid for this investment.

b) Group restructuring

Separate financial statements

On 14 February 2022, the Company entered into a Share Purchase Agreement with Banpu Minerals Company Limited (BMC), its direct subsidiary, to dispose its 75% shareholding of BP Overseas Development Co., Ltd. (BPOD), another direct subsidiary, with the selling price of Baht 14,180.15 million or equivalent to US Dollar 426.60 million. The Company additionally invested in BMC in proportion to the original investment with the same amount of the selling price. The Company recognised the difference between the selling price and net book value of investment in BPOD of US Dollar 38.13 million in the separate statement of comprehensive income during the period. On the same date, the Company entered into Debt-to-Equity Conversion Agreement with BPOD to convert interest receivables to investment in BPOD of US Dollar 513.20 million. On 15 February 2022, the above transactions were completed. As a result, the Company has remaining shareholding of 49.89% in BPOD.

On 26 April 2022, the Company entered into Debt-to-Equity Conversion Agreement with BPOD to convert principal and interest receivables in US Dollar and Thai Baht to investment in BPOD of US Dollar 393.22 and Baht 121.67 million or equivalent to US Dollar 3.58 million, totalling of US Dollar 396.80 million. On 27 April 2022, the Company entered into a Share Sale and Purchase Agreement with BMC to dispose the total remaining shareholding in BPOD with the selling price of Baht 30,219.92 million or equivalent to US Dollar 910.00 million. On the same date, the Company entered into the Novation Agreement with BPOD and BMC to novate the remaining loans to BPOD to BMC. Therefore, BMC will become a new debtor of the Company after the completion of the Group restructuring.

On 12 May 2022, the Company additionally invested in BMC in proportion to the original investment with the same amount of the selling price of Baht 30,219.92 million or equivalent to US Dollar 893.75 million for the purpose of settlement of BPOD's share receivable.

As at 31 December 2022, the Company completed all the above transactions. Accordingly, BMC has 100% direct shareholding of BPOD.

c) Dividend income from an associate and joint ventures

For the year ended 31 December	Million US Dollar		Million Baht	
	2022	2021	2022	2021
Associate				
Global Engineering Co., Ltd.	-	0.24	-	7.60
Joint ventures				
BLCP Power Ltd.	-	5.68	-	181.78
Hongsa Power Company Limited	28.90	19.38	1,013.40	619.74
Phu Fai Mining Company Limited	12.78	2.57	447.81	82.24
Hebi Zhong Tai Mining Co., Ltd.	1.76	1.89	61.86	60.06
Aizu Energy Pte. Ltd	2.06	17.54	72.29	560.89
Shanxi Gaohe Energy Company Limited	70.59	22.30	2,474.73	713.18
Total dividend income from an associate and joint ventures	116.09	69.60	4,070.09	2,225.49

Banpu Power Public Company Limited, a subsidiary, has provided the Standby Letters of Credit, issued by commercial banks under the subsidiary's name amounting to Baht 1,600 million or equivalent to US Dollar 46.29 million and US Dollar 22.00 million as a guarantee for lenders of Hongsa Power Company Limited (2021: Baht 1,600 million or equivalent to US Dollar 47.17 million and US Dollar 22 million). However, the Group considered that there are no financial liabilities expected from this financial guarantee.

d) Significant restrictions

As at 31 December	Million US Dollar		Million Baht	
	2022	2021	2022	2021
Deposits held at banks as a guarantee for bank loan for subsidiaries in the People's Republic of China ⁽¹⁾	1	6	43	194
Deposits held at banks as reserve for bank guarantee of subsidiaries in Australia ⁽¹⁾	133,669	161,406	4,619,925	5,394,187
Deposits held at banks as reserve for debt service of subsidiaries in Australia ⁽¹⁾	34,084	-	1,178,016	-
Deposits held at banks as reserve for bank guarantee of a subsidiary in Australia ⁽²⁾	3,788	10,378	130,923	346,848
Restricted cash used in mine closure activities of subsidiaries in Indonesia ⁽²⁾	39,190	32,266	1,354,494	1,078,317
	210,732	204,056	7,283,401	6,819,546

⁽¹⁾ Presented in other current assets

⁽²⁾ Presented in other non-current assets

15.2 Material subsidiaries

As at 31 December, the Group had the following significant subsidiaries:

Name of company	Country	Business	Proportion of ordinary shares held by the Group (%)		Proportion of ordinary shares held by non-controlling interests (%)	
			2022	2021	2022	2021
PT. Indo Tambangraya Megah Tbk. and its subsidiaries	Indonesia	Investment in coal mining	65.14	67.13	34.86	32.87
Banpu Australia Co., Pty Ltd. and its subsidiaries	Australia	Investment in coal mining	100.00	100.00	-	-
Banpu Power Public Company Limited and its subsidiaries	Thailand	Investment in power business	78.66	78.66	21.34	21.34
Banpu North America Corporation and its subsidiaries	United States	Natural gas business	100.00	100.00	-	-

List of subsidiaries of the Group is disclosed in Note 15.6.

15.3 Non-controlling interests

Set out below are the summarised financial information for each subsidiary that has non-controlling interests that are material to the Group. The amounts disclosed for each subsidiary are before inter-company eliminations.

Summarised statement of financial position

	PT Indo Tambangraya Megah Tbk.				Banpu Power Public Company Limited			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Current assets	1,908,545	988,717	65,963,888	33,042,818	337,660	295,708	11,670,345	9,882,516
Current liabilities	(585,613)	(365,435)	(20,240,199)	(12,212,805)	(271,546)	(328,193)	(9,385,290)	(10,968,162)
Total current assets, net	1,322,932	623,282	45,723,689	20,830,013	66,114	(32,485)	2,285,055	(1,085,646)
Non-current assets	731,631	678,214	25,286,923	22,665,845	1,909,433	1,966,324	65,994,597	65,714,349
Non-current liabilities	(102,802)	(98,406)	(3,553,070)	(3,288,727)	(448,118)	(428,473)	(15,488,019)	(14,319,516)
Total non-current assets, net	628,829	579,808	21,733,853	19,377,118	1,461,315	1,537,851	50,506,578	51,394,833
Net assets	1,951,761	1,203,090	67,457,542	40,207,131	1,527,429	1,505,366	52,791,633	50,309,187
Accumulated non-controlling interest	642,840	384,043	22,218,093	12,834,675	330,733	330,772	11,430,943	11,054,367

Summarised statement of comprehensive income

	PT Indo Tambangraya Megah Tbk.				Banpu Power Public Company Limited			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
For the year ended								
31 December								
Revenue	3,652,132	2,096,720	128,048,846	67,047,034	698,809	212,167	24,501,208	6,784,497
Profit before income tax	1,544,999	621,394	54,169,833	19,870,380	176,674	101,058	6,194,451	3,231,538
Income tax expense	(345,493)	(145,741)	(12,113,463)	(4,660,372)	(1,280)	(1,789)	(44,888)	(57,203)
Post-tax profit from continuing operations	1,199,506	475,653	42,056,370	15,210,008	175,394	99,269	6,149,563	3,174,335
Other comprehensive income (expense)	(6,441)	(13,645)	(225,824)	(436,340)	(18,580)	109,494	(651,453)	3,501,289
Total comprehensive income	1,193,065	462,008	41,830,546	14,773,668	156,814	208,763	5,498,110	6,675,624
Total comprehensive income allocated to non-controlling interests	421,304	151,759	14,771,494	4,852,809	13,491	21,994	473,014	703,290
Dividend paid to non-controlling interests	187,335	35,090	6,650,875	1,162,812	13,986	13,159	487,884	422,843

Summarised statement of cash flows

For the years ended 31 December	PT Indo Tambangraya Megah Tbk.			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Cash flow from operating activities				
Cash generated from operations	1,539,025	678,608	53,960,371	21,699,916
Income tax paid	(213,553)	(60,891)	(7,487,467)	(1,947,118)
Net cash generated from operating activities	1,325,472	617,717	46,472,904	19,752,798
Net cash used in investing activities	(71,251)	(24,683)	(2,498,160)	(789,291)
Net cash used in financing activities	(504,590)	(134,189)	(17,691,632)	(4,290,975)
Net increase in cash and cash equivalents	749,631	458,845	26,283,112	14,672,532
Cash and cash equivalents at beginning of the year	690,970	231,459	23,092,148	6,952,357
Exchange gains (losses) on cash and cash equivalents	(10,274)	666	60,274	1,467,259
Cash and cash equivalents at ending of the year	1,430,327	690,970	49,435,534	23,092,148
For the years ended 31 December	Banpu Power Public Company Limited			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Cash flow from operating activities				
Cash generated from (used in) operations	43,574	(3,573)	1,527,756	(114,263)
Interest paid	(22,882)	(5,148)	(802,281)	(164,632)
Income tax paid	(2,703)	(2,775)	(94,781)	(88,751)
Net cash generated from (used in) operating activities	17,989	(11,496)	630,694	(367,646)
Net cash generated from (used in) investing activities	116,504	(502,002)	4,084,798	(16,052,562)
Net cash generated from (used in) financing activities	(92,864)	524,563	(3,255,959)	16,774,009
Net increase in cash and cash equivalents	41,629	11,065	1,459,533	353,801
Cash and cash equivalents at beginning of the year	78,841	72,212	2,634,854	2,169,033
Exchange gains (losses) on cash and cash equivalents	(3,137)	(4,436)	(39,064)	112,020
Cash and cash equivalents at ending of the year	117,333	78,841	4,055,323	2,634,854

15.4 Investments in associates

The Group has interests in a number of individually immaterial associates that are accounted for using the equity method.

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Aggregate carrying amount of individually immaterial associates	47,745	58,310	1,650,177	1,948,709
Aggregate amounts of the reporting entity's share of:				
Loss from continuing activities	(11,805)	(12,605)	(416,558)	(406,722)
Other comprehensive income (expense)	(3,226)	(3,836)	(42,817)	50,327
Total comprehensive expense	(15,031)	(16,441)	(459,375)	(356,395)

15.5 Investments in joint ventures

Below are the joint ventures that are material to the Group. These joint ventures have share capital consisting solely of ordinary shares, which are held directly by the Group, which has voting rights in proportion to the ordinary shares.

Name of company	Country	Business	Measurement method	Percent of ownership interest	
				2022 %	2021 %
Hongsa Power Company Limited	Laos	Power concession	Equity	40.00	40.00
Shanxi Gaohe Energy Co., Ltd.	People's Republic of China	Coal mining and trading	Equity	45.00	45.00

Summarised financial information for joint ventures

Set out below are the summarised financial information for the joint ventures that are material to the Group. The information disclosed reflects the amounts presented in the financial statements of the relevant joint ventures (not the Group's shares of those amounts). They have been amended to reflect adjustments made using the equity method, including fair value adjustments and modifications for differences in the accounting policies of the Group and its joint ventures.

Summarised statement of financial position

	US Dollar'000			
	Hongsa Power Company Limited		Shanxi Gaohe Energy Co., Ltd.	
	2022	2021	2022	2021
As at 31 December				
Current assets				
Cash and cash equivalents	169,442	149,162	82,875	76,987
Restricted deposits at financial institutions	86,582	86,587	40,546	43,522
Current portion of lease accounts receivable, net	202,865	197,523	-	-
Other current assets	199,732	232,318	832,710	564,581
Total current assets	658,621	665,590	956,131	685,090
Non-current assets				
Lease accounts receivable	1,921,542	2,098,780	-	-
Property, plant and equipment, net	146,740	131,504	589,687	667,934
Mining property rights, net	-	-	575,687	677,667
Other non-current assets	515,965	462,811	33,573	34,520
Total non-current assets	2,584,247	2,693,095	1,198,947	1,380,121
Current liabilities				
Current portion of long-term loans from financial institutions, net	235,967	226,122	13,791	41,834
Other current liabilities	83,668	91,244	474,906	578,107
Total current liabilities	319,635	317,366	488,697	619,941
Non-current liabilities				
Long-term loans from financial institutions, net	1,219,423	1,485,449	-	10,446
Other non-current liabilities	29,178	42,064	67,045	82,213
Total non-current liabilities	1,248,601	1,527,513	67,045	92,659
Net assets	1,674,632	1,513,806	1,599,336	1,352,611

As at 31 December	Baht'000			
	Hongsa Power Company Limited		Shanxi Gaohe Energy Co., Ltd.	
	2022	2021	2022	2021
Current assets				
Cash and cash equivalents	5,856,306	4,984,993	2,864,368	2,572,900
Restricted deposits at financial institutions	2,992,488	2,893,727	1,401,379	1,454,493
Current portion of lease accounts receivable, net	7,011,505	6,601,210	-	-
Other current assets	6,903,226	7,764,038	28,780,442	18,868,243
Total current assets	22,763,525	22,243,968	33,046,189	22,895,636
Non-current assets				
Lease accounts receivable	66,413,094	70,141,004	-	-
Property, plant and equipment, net	5,071,669	4,394,854	20,381,015	22,322,277
Mining property rights, net	-	-	19,897,110	22,647,539
Other non-current assets	17,832,999	15,467,084	1,160,369	1,153,662
Total non-current assets	89,317,762	90,002,942	41,438,494	46,123,478
Current liabilities				
Current portion of long-term loans from financial institutions, net	8,155,581	7,556,981	476,665	1,398,083
Other current liabilities	2,891,754	3,049,352	16,413,925	19,320,277
Total current liabilities	11,047,335	10,606,333	16,890,590	20,718,360
Non-current liabilities				
Long-term loans from financial institutions, net	42,146,169	49,643,567	-	349,101
Other non-current liabilities	1,008,512	1,405,785	2,317,221	2,747,560
Total non-current liabilities	43,154,681	51,049,352	2,317,221	3,096,661
Net assets	57,879,271	50,591,225	55,276,872	45,204,093

Summarised statement of comprehensive income

For the years ended 31 December	US Dollar'000			
	Hongsa Power Company Limited		Shanxi Gaohe Energy Co., Ltd.	
	2022	2021	2022	2021
Sales and service income	627,773	649,913	1,337,140	1,145,587
Cost of sales and services	(271,473)	(277,353)	(420,504)	(510,520)
Depreciation and amortisation	(1,755)	(2,175)	(214,059)	(192,972)
Interest income	2,367	2,123	4,048	1,893
Interest expense	(86,786)	(108,166)	(3,616)	(9,548)
Income taxes	(20,514)	(19,893)	(188,557)	(117,176)
Profit for the year	247,213	267,138	514,452	317,264
Other comprehensive income (expense) for the year	(14,128)	(94,664)	(110,877)	23,558
Total comprehensive income for the year	233,085	172,474	403,575	340,822
Dividend paid to shareholders of joint ventures	72,259	48,452	156,850	49,562
For the years ended 31 December	Baht'000			
	Hongsa Power Company Limited		Shanxi Gaohe Energy Co., Ltd.	
	2022	2021	2022	2021
Sales and service income	22,010,588	20,782,341	46,881,986	36,632,560
Cost of sales and services	(9,518,222)	(8,868,950)	(14,743,454)	(16,324,950)
Depreciation and amortisation	(61,541)	(69,560)	(7,505,225)	(6,170,704)
Interest income	82,973	67,882	141,943	60,530
Interest expense	(3,042,839)	(3,458,826)	(126,783)	(305,318)
Income taxes	(719,248)	(636,107)	(6,611,070)	(3,746,950)
Profit for the year	8,689,453	8,536,386	18,090,815	10,273,461
Other comprehensive income (expense) for the year	1,147,843	1,830,054	(2,518,639)	4,635,555
Total comprehensive income for the year	9,837,296	10,366,440	15,572,176	14,909,016
Dividend paid to shareholders of joint ventures	2,549,250	1,520,280	5,499,397	1,584,839

Reconciliation of the summarised financial information

Reconciliation of the summarised financial information presented to the carrying amount of its interest in joint ventures.

	US Dollar'000			
	Hongsa Power Company Limited		Shanxi Gaohe Energy Co., Ltd.	
	2022	2021	2022	2021
Net assets as at 1 January	1,513,806	1,389,784	1,352,611	1,061,351
Profit for the year	247,213	267,138	514,452	317,264
Other comprehensive income (expense)	(14,128)	(94,664)	(110,877)	23,558
Dividend paid	(72,259)	(48,452)	(156,850)	(49,562)
Net assets as at 31 December	1,674,632	1,513,806	1,599,336	1,352,611
Ownership percentage in joint ventures by the Group	40%	40%	45%	45%
Interests in joint ventures	669,853	605,522	719,701	608,675
Impacts of change in functional currency of joint ventures	8,237	21,188	-	-
Carrying value as at 31 December	678,090	626,710	719,701	608,675

	Baht'000			
	Hongsa Power Company Limited		Shanxi Gaohe Energy Co., Ltd.	
	2022	2021	2022	2021
Net assets as at 1 January	50,591,225	41,745,065	45,204,093	31,879,916
Profit for the year	8,689,453	8,536,386	18,090,815	10,273,461
Other comprehensive income (expense)	1,147,843	1,830,054	(2,518,639)	4,635,555
Dividend paid	(2,549,250)	(1,520,280)	(5,499,397)	(1,584,839)
Net assets as at 31 December	57,879,271	50,591,225	55,276,872	45,204,093
Ownership percentage in joint ventures by the Group	40%	40%	45%	45%
Interests in joint ventures	23,151,708	20,236,490	24,874,592	20,341,842
Impacts of change in functional currency of joint ventures	284,710	708,087	-	-
Carrying value as at 31 December	23,436,418	20,944,577	24,874,592	20,341,842

Individually immaterial joint ventures

In addition to the investment in joint ventures disclosed above, the Group also has investments in a number of individually immaterial joint ventures that are accounted for using the equity method.

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Aggregate carrying amount of individually immaterial joint ventures	338,602	351,759	11,702,911	11,755,762
Aggregate amounts of the reporting entity's share of:				
Profit (loss) from continuing activities	20,774	(9,882)	780,352	(340,702)
Other comprehensive expense	(51,350)	(99,720)	(1,411,209)	(1,456,635)
Total comprehensive expense	(30,576)	(109,602)	(630,857)	(1,797,337)

15.6 List of subsidiaries and associates and joint arrangements

Name of company	Country	Business	Percentage of direct shareholding	
			2022 %	2021 %
<u>Direct shareholding</u>				
Banpu Minerals Co., Ltd.	Thailand	Coal trading and investment in coal mining	100.00	100.00
BP Overseas Development Co., Ltd.	Mauritius	Investment in coal mining and trading	-	75.00 ⁽⁶⁾
Banpu Power Public Company Limited	Thailand	Investment in power	78.66	78.66
BOG Co., Ltd.	Thailand	Investment in power	100.00	100.00
Banpu Engineering Services Co., Ltd.	Thailand	Investment in renewable energy	100.00	100.00
Banpu Innovation & Ventures Co., Ltd.	Thailand	Research and development	100.00	100.00
Banpu Next Co., Ltd.	Thailand	Investment in clean energy	50.00 ⁽⁵⁾	50.00 ⁽⁵⁾
Banpu Vietnam Limited Liability Company	Vietnam	Coal and power management	100.00	100.00
Banpu Ventures Pte. Ltd.	Singapore	Investment in fund	100.00	-
<u>Indirect shareholding</u>				
Banpu Minerals Co., Ltd. and its subsidiaries, an associate and a joint venture as follow:				
<u>Subsidiaries</u>				
1) Banpu Coal Sales Co., Ltd.	Thailand	Coal trading	-	100.00
2) Banpu International Limited	Thailand	Coal trading and project feasibility study	100.00	100.00

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Name of company	Country	Business	Percentage of direct shareholding	
			2022 %	2021 %
3) Banpu Coal Investment Company Limited and its subsidiary	Mauritius	Investment in coal mining	100.00	100.00
- Banpu Minerals (Singapore) Pte. Ltd.	Singapore	Investment in coal mining	50.00 ⁽²⁾	50.00 ⁽²⁾
4) Banpu Minerals (Singapore) Pte. Ltd. and subsidiaries	Singapore	Investment in coal mining	50.00 ⁽²⁾	50.00 ⁽²⁾
- PT. Indo Tambangraya Megah Tbk (ITM) and subsidiaries	Indonesia	Investment in coal mining	65.14	67.13
- PT. Indominco Mandiri (IMM)	Indonesia	Coal mining and trading	100.00	100.00
- PT. Kitadin (KTD)	Indonesia	Coal mining and trading	100.00	100.00
- PT. Trubaindo Coal Mining (TCM)	Indonesia	Coal mining and trading	100.00	100.00
- PT. Bharinto Ekatama (BEK)	Indonesia	Coal mining and trading	100.00	100.00
- PT. Jorong Barutama Greston (JBG)	Indonesia	Coal mining and trading	100.00	100.00
- PT. Tambang Raya Usaha Tama	Indonesia	Coal mining and trading	100.00	100.00
- PT. ITM Energi Utama	Indonesia	Investment in power	99.99	99.99
- PT. Energi Batubara Perkasa	Indonesia	Coal Trading	100.00	100.00
- PT. Nusa Persada Resources	Indonesia	Coal mining and trading	100.00	100.00
- PT. ITM Bhinneka Power (formerly named PT. ITM Banpu Power) and subsidiaries as follows:	Indonesia	Investment in power	70.00 ⁽⁴⁾	70.00 ⁽⁴⁾
- PT. IBP Hydro Power	Indonesia	Management Consulting	100.00	-
- PT. Cahaya Power Indonesia	Indonesia	Energy and electricity support	60.00	60.00
- PT. ITM Batubara Utama	Indonesia	Investment in coal mining	100.00	100.00
- PT. Tepian Indah Sukses	Indonesia	Coal mining and trading	100.00	100.00
- PT. Gasemas	Indonesia	Fuel trading	98.70	98.70
- PT. Sentral Mutiara Energy and its subsidiary	Indonesia	Coal mining and trading	100.00	100.00
- PT. Graha Panca Karsa	Indonesia	Coal mining and trading	70.00	70.00
- PT. ITM Indonesia and joint arrangement <u>Joint arrangement - Joint venture</u>	Indonesia	Coal mining and trading	100.00	100.00
- PT. Nusantara Timur Unggul	Indonesia	Logistic service	33.34 ⁽¹⁾	33.34 ⁽¹⁾
- BMS Coal Sales Pte. Ltd.	Singapore	Coal trading and provide service in mining	100.00	100.00
- Banpu (Beijing) Trading Ltd.	People's Republic of China	Coal trading	100.00	100.00
- Hunnu Coal Pty Ltd. and subsidiaries	Australia	Investment in coal mining and trading	100.00	100.00
- Hunnu Resources LLC and subsidiaries	Mongolia	Coal trading	100.00	100.00
- Munkh Sumber Uul LLC	Mongolia	Coal mining and trading	100.00	100.00
- Bilegt Khairkhan Uul LLC	Mongolia	Coal mining and trading	100.00	100.00
- Munkhnoyov Suvrager LLC	Mongolia	Business consult in coal mining and trading	100.00	100.00
- Hunnu Investments Pte Ltd. and a subsidiary	Singapore	Coal trading	100.00	100.00
- Hunnu Altai LLC and subsidiaries	Mongolia	Coal mining and trading	100.00	100.00
- Hunnu Global Altai LLC	Mongolia	Coal mining and trading	80.00	80.00
- Hunnu Altai Minerals LLC	Mongolia	Coal mining and trading	100.00	100.00
5) BP Overseas Development Co., Ltd. (Note 15.1 b.))	Mauritius	Investment in coal mining and trading	100.00	25.00 ⁽⁶⁾
A subsidiary is as follows:				
Asian American Coal Inc.	British Virgin Islands	Investment in coal mining	100.00	100.00
and subsidiaries and a joint venture as follows:				

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			Percentage of direct shareholding	
			2022	2021
Name of company	Country	Business	%	%
Subsidiaries				
- Banpu Singapore Pte. Ltd. and subsidiaries	Singapore	Coal trading	100.00	100.00
- Banpu Australia Co. Pty Ltd. and subsidiaries	Australia	Investment in coal mining	100.00	100.00
- AFE Investments Pty Ltd.	Australia	Investment in coal mining	100.00	100.00
- ACN 152 429 206 Pty. Ltd. (formerly named Banpu Australia Resources Pty. Ltd.)	Australia	Investment in coal mining	100.00	100.00
- Banpu Energy Australia Pty. Ltd. and subsidiaries	Australia	Investment in renewable energy	100.00	100.00
- Airly Solar Pty Limited	Australia	Renewable energy	100.00	100.00
- Banpu Energy Holding Pty Ltd.	Australia	Investment in renewable energy	80.00 ⁽⁷⁾	80.00 ⁽⁷⁾
- Banpu Energy Hold Trust and subsidiaries	Australia	Investment in renewable energy	80.00 ⁽⁷⁾	80.00 ⁽⁷⁾
- FS NSW Project No. 1 HT Pty Ltd.	Australia	Investment in renewable energy	100.00	100.00
- FS NSW Project No. 1 Hold Trust	Australia	Investment in renewable energy	100.00	100.00
- FS NSW Project No. 1 AT Pty Ltd.	Australia	Investment in renewable energy	100.00	100.00
- FS NSW Project No. 1 Asset Trust	Australia	Investment in renewable energy	100.00	100.00
- FS NSW Project No. 1 Fincos Pty Ltd.	Australia	Investment in renewable energy	100.00	100.00
- Manildra Prop Hold Pty Ltd.	Australia	Investment in renewable energy	100.00	100.00
- Manildra Hold Trust	Australia	Investment in renewable energy	100.00	100.00
- Manildra Prop Pty Ltd.	Australia	Investment in renewable energy	100.00	100.00
- Manildra Asset Trust	Australia	Investment in renewable energy	100.00	100.00
- Manildra Fincos Pty Ltd.	Australia	Investment in renewable energy	100.00	100.00
- Manildra Solar Farm Pty Ltd.	Australia	Investment in renewable energy	100.00	100.00
- Centennial Coal Company Pty Ltd.	Australia	Investment in coal mining and trading	100.00	100.00
and subsidiaries and an associate as follow:				
<u>Subsidiaries</u>				
- Centennial Wallarah Pty Ltd.	Australia	Investment in coal mining	100.00	100.00
- Centennial Inglenook Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Coal Sales and Marketing Pty Ltd. (formerly named Centennial Coal Services and Marketing Pty Ltd.)	Australia	Sales and marketing	100.00	100.00
- Centennial Northern Coal Services Pty Ltd.	Australia	Mining Services	100.00	100.00
- Centennial Airly Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Berrima Coal Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Angus Place Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Coal Infrastructure Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Fassifern Pty Ltd. and a subsidiary	Australia	Coal mining and trading	100.00	100.00
- Powercoal Pty Ltd. and subsidiaries	Australia	Investment in coal mining and trading	100.00	100.00
- Elcom Collieries Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Huntley Colliery Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Mandalong Pastoral Management Pty Ltd.	Australia	Investment in coal mining and trading	100.00	100.00
- Collieries Superannuation Pty Ltd.	Australia	Manage provident fund	100.00	100.00
- Powercoal Superannuation Pty Ltd.	Australia	Manage provident fund	100.00	100.00
- Centennial Northern Mining Services Pty Ltd.	Australia	Coal service provider	100.00	100.00
- Centennial Mandalong Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Mannering Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Munmorah Pty Ltd.	Australia	Coal mining and trading	100.00	100.00

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Name of company	Country	Business	Percentage of direct shareholding	
			2022 %	2021 %
- Centennial Myuna Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Springvale Holdings Pty Ltd. and a subsidiary	Australia	Coal mining and trading	100.00	100.00
- Centennial Springvale Pty Ltd. And subsidiaries	Australia	Coal mining and trading	100.00	100.00
- Springvale Coal Sales Pty Ltd.	Australia	Coal trading	100.00	100.00
- Boulder Mining Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Springvale Coal Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Newstan Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Charbon Coal Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Coalex Pty Ltd. and subsidiaries	Australia	Coal mining and trading	100.00	100.00
- Clarence Coal Investments Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Clarence Coal Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Clarence Colliery Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Hartley Valley Coal Company Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Centennial Clarence Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Ivanhoe Coal Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
- Powercoal Employees Entitlements Company Pty Ltd.	Australia	Manage provident fund	50.00	50.00
- Centennial Drilling Services Pty Ltd.	Australia	Coal mining and trading	100.00	100.00
<u>Associate</u>				
- Port Kembla Coal Terminal Ltd	Australia	Port service	16.66	16.66
<u>Joint arrangement - Joint venture</u>				
- Shanxi Gaohe Energy Co., Ltd.	People's Republic of China	Coal mining and trading	45.00 ⁽¹⁾	45.00 ⁽¹⁾
<u>Associate</u>				
6) BP Overseas Development Co., Ltd.	Mauritius	Investment in coal mining and trading	-	25.00 ⁽¹⁾
<u>Joint arrangement - Joint venture</u>				
7) Hebi ZhongTai Mining Co., Ltd.	People's Republic of China	Coal mining and trading	40.00 ⁽¹⁾	40.00 ⁽¹⁾
Banpu Power Public Company Limited				
Subsidiaries, an associate, joint ventures are as follows:				
<u>Subsidiaries</u>				
1) Banpu Coal Power Limited	Thailand	Investment in power	100.00	100.00
a subsidiary and a joint venture are as follows:				
<u>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 ⁽¹⁾	50.00 ⁽¹⁾
2) Banpu Power International Limited and subsidiaries:	Mauritius	Investment in power	100.00	100.00
- Banpu Power Investment Co., Ltd.	Singapore	Investment in power	100.00	100.00
and subsidiaries and joint ventures as follows:				
<u>Subsidiaries</u>				
- Shijiazhuang Chengfeng Cogen Co., Ltd.	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

Banpu Public Company Limited

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Name of company	Country	Business	Percentage of direct shareholding	
			2022 %	2021 %
- Zouping Peak CHP Co., Ltd.	People's Republic of China	Power and steam production and trading	70.00	70.00
- 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 ⁽³⁾	87.92 ⁽³⁾
- Banpu Investment (China) Ltd. and subsidiaries	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 ⁽³⁾	12.08 ⁽³⁾
<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 ⁽¹⁾	30.00 ⁽¹⁾
- Nakoso IGCC Management Co., Ltd.	Japan	Investment in power	33.50 ⁽¹⁾	33.50 ⁽¹⁾
3) Banpu Power (Japan) Co., Ltd.	Thailand	Investment in renewable energy	100.00	100.00
4) Banpu Power US Corporation and a subsidiary	United States	Investment in power	100.00	100.00
- BKV-BPP Power LLC and a subsidiary	United States	Investment in power	50.00 ⁽⁸⁾	50.00 ⁽⁸⁾
- Temple Generation Intermediate Holdings II, LLC and a subsidiary as follow	United States	Investment in power	100.00	100.00
- Temple Generation I, LLC and a joint venture	United States	Power production and trading	100.00	100.00
- Temple Generation SF, LLC	United States	Energy generation support	50.00 ⁽¹⁾	50.00 ⁽¹⁾
- BKV-BPP Retail LLC	United States	Power and purchase and trading	100.00	-
<u>Associates</u>				
5) Banpu Next Co., Ltd.	Thailand	Investment in clean energy	50.00 ⁽⁵⁾	50.00 ⁽⁵⁾
<u>Joint arrangement - Joint ventures</u>				
6) Hongsa Power Company Limited	Laos	Power concession	40.00 ⁽¹⁾	40.00 ⁽¹⁾
7) Phu Fai Mining Company Limited	Laos	Mining concession	37.50 ⁽¹⁾	37.50 ⁽¹⁾
BOG Co., Ltd.				
A subsidiary is as follows:				
Banpu North America Corporation and a subsidiary	United States	Investment in natural gas business	100.00	100.00
- BKV Corporation and its subsidiaries and a joint venture	United States	Natural gas business	96.11	96.30
<u>Subsidiaries</u>				
- Kalnin Ventures, LLC	United States	Natural gas business	100.00	100.00
- BKV Oil & Gas Capital Partners L.P., and subsidiaries as follows:	United States	Natural gas business	-	100.00
- BKV Chaffee Corners, LLC	United States	Natural gas business	-	100.00
- BKV Chelsea, LLC	United States	Natural gas business	-	100.00
- BKV Operating, LLC	United States	Natural gas business	-	100.00
- BKV Barnett, LLC	United States	Natural gas business	-	100.00
- BKV Midstream, LLC	United States	Natural gas business	100.00	-
- BKV North Texas, LLC	United States	Natural gas business	100.00	-
- BKV dCarbon Ventures, LLC and a subsidiary as follows:	United States	Carbon capture and sequestration (CCS)	100.00	-
- BKVerde, LLC (formerly named BKVerde CCS Ventures, LLC)	United States	Carbon capture and sequestration (CCS)	100.00	-

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Name of company	Country	Business	Percentage of direct shareholding	
			2022 %	2021 %
- BKV Chaffee Corners, LLC	United States	Natural gas business	100.00	-
- BKV Chelsea, LLC	United States	Natural gas business	100.00	-
- BKV Operating, LLC	United States	Natural gas business	100.00	-
- BKV Barnett, LLC	United States	Natural gas business	100.00	-
<u>Joint arrangement - Joint venture</u>				
- BKV-BPP Power LLC	United States	Natural gas business	50.00 ⁽⁸⁾	50.00 ⁽⁸⁾
Banpu Engineering Services Co., Ltd.				
and a subsidiary as follows:				
Banpu Energy Services (Thailand) Co., Ltd.	Thailand	Investment in renewable energy	100.00	100.00
and joint ventures as follows:				
- Aura Land Development Pte. Ltd.	Singapore	Investment in renewable energy	75.00 ⁽¹⁾	75.00 ⁽¹⁾
- Hokkaido Solar Estate G.K.	Japan	Investment property	60.00 ⁽¹⁾	60.00 ⁽¹⁾
Banpu Innovation & Ventures Co., Ltd.				
A subsidiary is as follows:				
Banpu Innovation & Ventures (Singapore) Pte. Ltd.	Singapore	Research and development	100.00	100.00
and a subsidiary and a joint venture as follow:				
<u>Subsidiary</u>				
- Banpu Innovation & Ventures LLC	United States	Research and development	100.00	100.00
<u>Joint arrangement - Joint venture</u>				
- LIV Energy Venture Pte. Ltd.	Singapore	Hybrid Energy storage solution	30.00 ⁽¹⁾	-
Banpu Next Co., Ltd. ⁽⁵⁾				
Its subsidiaries, associates and joint ventures are:				
<u>Subsidiaries</u>				
1) BPIN Investment Co., Ltd. and its associate	Mauritius	Investment in renewable energy	100.00	100.00
- Durapower Holding Pte. Ltd.	Singapore	Energy storage system	47.68	47.68
2) BRE Singapore Pte. Ltd. and its subsidiaries				
- BPP Vinh Chau Wind Power Limited Liability Company	Vietnam	Investment in renewable energy	100.00	100.00
- El Wind Mui Dinh Ltd.	Vietnam	Power production and trading	100.00	100.00
- LCE Ninh Thuan	Vietnam	Power production and trading	100.00	-
Associate				
- Solar Esco Joint Stock Company	Vietnam	Renewable energy business	49.01	-
3) Banpu Japan K.K. and its subsidiary	Japan	Investment in renewable energy	100.00	100.00
- Digital Energy Solutions Corporation	Japan	Power and purchase and trading	-	100.00
- J&A Energy GK	Japan	Investment in renewable energy	100.00	-
- Tenguyama Solar Park G.K.	Japan	Investment in renewable energy	100.00	-
4) Banpu Renewable Singapore Pte. Ltd. and subsidiaries, and an associate	Singapore	Investment in renewable energy	100.00	100.00
<u>Subsidiaries</u>				
- Banpu Power Trading GK	Japan	Power and purchase and trading	100.00	100.00
- Banpu Renewable Australia Pty Limited	Australia	Renewable energy	100.00	100.00
and its associates as follows:				

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Name of company	Country	Business	Percentage of direct shareholding	
			2022 %	2021 %
- Banpu Energy Holding Pty Ltd.	Australia	Investment in renewable energy	20.00 ⁽⁷⁾	20.00 ⁽⁷⁾
- Banpu Energy Hold Trust	Australia	Investment in renewable energy	20.00 ⁽⁷⁾	20.00 ⁽⁷⁾
<u>Associate</u>				
- Global Engineering Co., Ltd.	Japan	Virtual power plant and power trading	19.82	19.82
5) BPP Renewable Investment (China) Co., Ltd. and subsidiaries as follow:	People's Republic of China	Investment in renewable energy	100.00	100.00
- Anqiu Huineng Renewable Energy Co., Ltd.	People's Republic of China	Solar power generation	100.00	100.00
- Weifang Tian'en Jinshan Comprehensive Energy Co., Ltd.	People's Republic of China	Solar power generation	100.00	100.00
- Dongping County Haoyuan Solar Power Generation Co., Ltd.	People's Republic of China	Solar power generation	100.00	100.00
- Anqiu County Hui'en PV Technology Co., Ltd.	People's Republic of China	Solar power generation	100.00	100.00
- Jiaxing Deyuan Energy - Saving Technology Co., Ltd.	People's Republic of China	Solar power generation	100.00	100.00
- Feicheng Xingyu Solar Power PV Technology Co., Ltd.	People's Republic of China	Solar power generation	100.00	100.00
- Jiangsu Jixin Electric Power Co., Ltd.	People's Republic of China	Solar power generation	100.00	100.00
6) Banpu Next Green Leasing Co., Ltd.	Thailand	Investment in energy and leasing	100.00	100.00
7) Banpu Next Ecoserve Company Limited and a joint venture	Thailand	Energy management business	100.00	100.00
- BNSP Smart Tech Co., Ltd.	Thailand	Energy management business	50.00	-
8) Banpu NEXT Green Energy Co., Ltd. (formerly named Banpu Coal Sales Co., Ltd.)	Thailand	Investment in renewable energy	100.00	-
<u>Associates</u>				
9) Urban Mobility Tech Co., Ltd.	Thailand	Electric vehicle business	39.74 ⁽⁹⁾	39.74 ⁽⁹⁾
10) FOMM Corporation	Japan	Electric vehicle business	21.45	21.45
11) Beyond Green Co.Ltd	Thailand	Electronic utility vehicle distributor	30.00	30.00
12) PT. ITM Bhinneka Power (formerly named PT. ITM Banpu Power)	Indonesia	Investment in power	30.00 ⁽⁴⁾	30.00 ⁽⁴⁾
13) GEPP Sa-ard Co., Ltd.	Thailand	Trash management services	25.00	25.00
14) Altotech Global Co., Ltd.	Thailand	Electric vehicle charging system service business	25.00	-
<u>Joint arrangement - Joint ventures</u>				
15) Aizu Energy Pte. Ltd.	Singapore	Investment in renewable energy	75.00 ⁽¹⁾	75.00 ⁽¹⁾
16) Evolt Technology Co., Ltd	Thailand	Electric vehicle charging system service business	20.00 ⁽¹⁾	15.79 ⁽¹⁾
17) BCD Energies Co., Ltd.	Thailand	Battery system assembly and production	30.00 ⁽¹⁾	-

Percentage of shareholding by the Group

- (1) Shareholder agreements of the Group's joint ventures have determined the management structure including strategic financial decisions and operations which required unanimous votes/consents from all shareholders or their representatives. The Group has classified these as investments in joint ventures.
- (2) The Group owns 100% shareholding in Banpu Minerals (Singapore) Pte. Ltd., which is held by Banpu Mineral Co., Ltd. and Banpu Coal Investment Company Limited in the proportion of 50% each.
- (3) The Group owns 100% shareholding in Tangshan Banpu Heat and Power Co., Ltd. of which 12.08% shareholding held by Banpu Investment (China) Ltd. and 87.92% shareholding held by Pan-Western Energy Corporation LLC.
- (4) PT. ITM Bhinneka Power (formerly named PT. ITM Banpu Power) owned by PT. Indo Tambangraya Megah Tbk and Banpu Next Public Company Limited in the proportion of 70% and 30% respectively.
- (5) The Group owns 100% shareholding in Banpu Next Co., Ltd., which is held by the Company and Banpu Power Public Company Limited in the proportion of 50% each.
- (6) The Group owns 100% shareholding in BP Overseas Development Co., Ltd., which is held by the Company in the proportion of 75% and by Banpu Minerals Co., Ltd. in the proportion of 25%.
- (7) The Group owns 100% shareholding in Banpu Energy Holding Pty Ltd. and Banpu Energy Hold Trust, which are held by Banpu Energy Australia Pty Ltd. in the proportion of 80% and Banpu Renewable Australia Pty Limited in the proportion of 20%.
- (8) The Group owns 100% shareholding in BKV-BPP Power LLC, which is held by Banpu Power US Corporation and BKV Corporation in the proportion of 50% each.

Preference shares held by the Group

- (9) The Group holds investments in Urban Mobility Tech Co., Ltd. and Altotech Global Co., Ltd. by newly issued preference shares which are entitled to dividends and voting rights equal to the number of ordinary shares in the proportion of 39.74% and 25.00% of total registered shares, respectively.

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16 Property, plant and equipment, net

Consolidated financial statements									
US Dollar'000									
	Land	Land improvement	Building and infrastructures	Machinery and equipment and power plants and components of power plants and gas exploration and producing assets and pipelines	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	Total
As at 1 January 2021									
Cost	55,550	193,738	345,800	3,976,392	30,348	31,571	11,642	37,637	4,682,678
<u>Less</u> Accumulated depreciation	-	(133,058)	(216,205)	(1,698,039)	(22,434)	(26,027)	(6,018)	-	(2,101,781)
Net book amount	55,550	60,680	129,595	2,278,353	7,914	5,544	5,624	37,637	2,580,897
For the year ended 31 December 2021									
Opening net book amount	55,550	60,680	129,595	2,278,353	7,914	5,544	5,624	37,637	2,580,897
Additions	20	-	149	220,161	858	1,430	2,230	48,797	273,645
Increase from purchase of investment in a subsidiary	1,030	-	-	451,707	47	142	-	-	452,926
Increase from business combinations	2,309	-	15	191,078	21	46	-	-	193,469
Increase from the change in fair value of contingent liabilities from an asset acquisition (Note 6)	-	-	-	194,973	-	-	-	-	194,973
Disposals - Net book value	(4,263)	-	(3)	(9,785)	(205)	-	(50)	-	(14,306)
Reclassification	-	5,012	3,050	62,954	513	256	62	(25,658)	46,189
Write-offs – Net book value	-	-	(392)	(833)	(134)	(91)	17	(931)	(2,364)
Translation differences	(2,341)	2	1,727	(32,281)	(35)	(132)	(161)	(936)	(34,157)
Depreciation charge	-	(5,172)	(12,150)	(251,334)	(2,569)	(2,069)	(1,853)	-	(275,147)
Closing net book amount	52,305	60,522	121,991	3,104,993	6,410	5,126	5,869	58,909	3,416,125
As at 31 December 2021									
Cost	52,305	197,464	350,537	4,984,217	29,675	32,486	13,136	58,909	5,718,729
<u>Less</u> Accumulated depreciation	-	(136,942)	(228,546)	(1,879,224)	(23,265)	(27,360)	(7,267)	-	(2,302,604)
Net book amount	52,305	60,522	121,991	3,104,993	6,410	5,126	5,869	58,909	3,416,125

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For the year ended 31 December 2022

Consolidated financial statements									
US Dollar'000									
	Land	Land improvement	Building and infrastructures	Machinery and equipment and power plants and components of power plants and gas exploration and producing assets and pipelines	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	Total
For the year ended 31 December 2022									
Opening net book amount	52,305	60,522	121,991	3,104,993	6,410	5,126	5,869	58,909	3,416,125
Additions	5,009	-	10,440	206,260	3,781	1,769	1,424	71,803	300,486
Increase from business combinations (Note 32)	4,112	-	8,535	937,570	-	-	4,744	-	954,961
Decrease from the change in fair value of contingent liabilities from an asset acquisition (Note 6)	-	-	-	(5,053)	-	-	-	-	(5,053)
Disposals - Net book value	(1,311)	-	(388)	(397)	224	(8)	(89)	-	(1,969)
Reclassification	(4,113)	3,648	16,163	8,178	494	(55)	79	(16,480)	7,914
Write-offs – Net book value	-	-	(67)	(2,075)	(415)	(1)	-	(560)	(3,118)
Translation differences	(3,175)	(1,910)	(7,623)	(88,132)	(104)	(257)	(117)	(3,385)	(104,703)
Depreciation charge	-	(5,214)	(12,067)	(347,392)	(3,135)	(2,058)	(2,800)	-	(372,666)
Impairment loss	-	-	(9)	(1,339)	-	(6)	-	(250)	(1,604)
Closing net book amount	52,827	57,046	136,975	3,812,613	7,255	4,510	9,110	110,037	4,190,373
As at 31 December 2022									
Cost	52,827	193,452	372,823	5,904,980	30,764	33,108	17,862	110,287	6,716,103
<u>Less</u> Accumulated depreciation	-	(136,406)	(235,839)	(2,091,028)	(23,509)	(28,592)	(8,752)	-	(2,524,126)
<u>Less</u> Accumulated impairment	-	-	(9)	(1,339)	-	(6)	-	(250)	(1,604)
Net book amount	52,827	57,046	136,975	3,812,613	7,255	4,510	9,110	110,037	4,190,373

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For the year ended 31 December 2022

Consolidated financial statements									
Baht'000									
	Land	Land improvement	Building and infrastructures	Machinery and equipment and power plants and components of power plants and gas exploration and producing assets and pipelines	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	Total
As at 1 January 2021									
Cost	1,668,565	5,819,340	10,386,820	119,439,286	911,565	948,306	349,680	1,130,510	140,654,072
<u>Less</u> Accumulated depreciation	-	(3,996,691)	(6,494,174)	(51,004,175)	(673,834)	(781,790)	(180,757)	-	(63,131,421)
Net book amount	1,668,565	1,822,649	3,892,646	68,435,111	237,731	166,516	168,923	1,130,510	77,522,651
For the year ended 31 December 2021									
Opening net book amount	1,668,565	1,822,649	3,892,646	68,435,111	237,731	166,516	168,923	1,130,510	77,522,651
Additions	654	-	4,753	7,040,108	27,447	45,742	71,312	1,560,394	8,750,410
Increase from purchase of investment in a subsidiary	32,936	-	-	14,444,280	1,503	4,541	-	-	14,483,260
Increase from business combinations	73,822	-	490	6,110,113	663	1,482	11	-	6,186,581
Increase from the change in fair value of contingent liabilities from an asset acquisition (Note 6)	-	-	-	6,234,681	-	-	-	-	6,234,681
Disposals - Net book value	(136,328)	-	(80)	(312,910)	(6,554)	(15)	(1,605)	-	(457,492)
Reclassification	-	160,262	97,531	2,013,089	16,392	8,195	1,983	(820,465)	1,476,987
Write-offs - Net book value	-	-	(12,548)	(26,651)	(4,273)	(2,919)	547	(29,764)	(75,608)
Translation differences	108,381	205,129	482,659	7,867,686	23,461	13,928	14,205	128,042	8,843,491
Depreciation charge	-	(165,393)	(388,508)	(8,036,944)	(82,159)	(66,150)	(59,247)	-	(8,798,401)
Closing net book amount	1,748,030	2,022,647	4,076,943	103,768,563	214,211	171,320	196,129	1,968,717	114,166,560
As at 31 December 2021									
Cost	1,748,030	6,599,241	11,714,926	166,572,021	991,730	1,085,672	439,004	1,968,717	191,119,341
<u>Less</u> Accumulated depreciation	-	(4,576,594)	(7,637,983)	(62,803,458)	(777,519)	(914,352)	(242,875)	-	(76,952,781)
Net book amount	1,748,030	2,022,647	4,076,943	103,768,563	214,211	171,320	196,129	1,968,717	114,166,560

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For the year ended 31 December 2022

Consolidated financial statements									
Baht'000									
	Land	Land improvement	Building and infrastructures	Machinery and equipment and power plants and components of power plants and gas exploration and producing assets and pipelines	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	Total
For the year ended 31 December 2022									
Opening net book amount	1,748,030	2,022,647	4,076,943	103,768,563	214,211	171,320	196,129	1,968,717	114,166,560
Additions	175,635	-	366,046	7,231,749	132,584	62,040	49,910	2,517,498	10,535,462
Increase from business combinations	138,677	-	287,871	31,619,525	-	-	159,991	-	32,206,064
Decrease from the change in fair value of contingent liabilities from an asset acquisition (Note 6)	-	-	-	(177,165)	-	-	-	-	(177,165)
Disposals - Net book value	(45,952)	-	(13,623)	(13,914)	7,858	(294)	(3,129)	-	(69,054)
Reclassification	(144,208)	127,890	566,741	286,753	17,323	(1,923)	2,756	(577,815)	277,517
Write-offs – Net book value	-	-	(2,357)	(72,767)	(14,557)	(27)	-	(19,626)	(109,334)
Translation differences	(46,350)	3,916	(124,048)	1,356,598	3,265	(2,840)	7,360	(76,975)	1,120,926
Depreciation charge	-	(182,802)	(423,097)	(12,180,034)	(109,916)	(72,156)	(98,160)	-	(13,066,165)
Impairment loss	-	-	(301)	(46,287)	(11)	(192)	-	(8,656)	(55,447)
Closing net book amount	1,825,832	1,971,651	4,734,175	131,773,021	250,757	155,928	314,857	3,803,143	144,829,364
As at 31 December 2022									
Cost	1,825,832	6,686,159	12,885,649	204,090,271	1,063,282	1,144,297	617,350	3,811,799	232,124,639
<u>Less</u> Accumulated depreciation	-	(4,714,508)	(8,151,173)	(72,270,963)	(812,514)	(988,177)	(302,493)	-	(87,239,828)
<u>Less</u> Accumulated impairment	-	-	(301)	(46,287)	(11)	(192)	-	(8,656)	(55,447)
Net book amount	1,825,832	1,971,651	4,734,175	131,773,021	250,757	155,928	314,857	3,803,143	144,829,364

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	Separate financial statements								
	US Dollar'000								
	Land	Land improvement	Building and infrastructures	Machinery and equipment	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	Total
As at 1 January 2021									
Cost	2,028	2,669	4,494	2,777	6,571	267	595	73	19,474
<u>Less</u> Accumulated depreciation	-	(2,604)	(2,468)	(2,773)	(4,949)	(221)	(536)	-	(13,551)
Net book amount	2,028	65	2,026	4	1,622	46	59	73	5,923
For the year ended 31 December 2021									
Opening net book amount	2,028	65	2,026	4	1,622	46	59	73	5,923
Additions	-	-	15	-	95	3	-	-	113
Disposals - Net book value	-	-	-	-	(3)	-	-	-	(3)
Reclassification	-	-	6	-	1	-	-	(7)	-
Depreciation charge	-	(4)	(368)	(1)	(598)	(14)	(37)	-	(1,022)
Closing net book amount	2,028	61	1,679	3	1,117	35	22	66	5,011
As at 31 December 2021									
Cost	2,028	1,380	4,468	885	5,619	138	360	66	14,944
<u>Less</u> Accumulated depreciation	-	(1,319)	(2,789)	(882)	(4,502)	(103)	(338)	-	(9,933)
Net book amount	2,028	61	1,679	3	1,117	35	22	66	5,011

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	Separate financial statements								
	US Dollar'000								
	Land	Land improvement	Building and infrastructures	Machinery and equipment	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	Total
For the year ended 31 December 2022									
Opening net book amount	2,028	61	1,679	3	1,117	35	22	66	5,011
Additions	-	-	-	-	235	1	-	-	236
Disposals - Net book value	-	-	(389)	-	(161)	(7)	-	-	(557)
Reclassification	-	-	66	-	-	-	-	(66)	-
Write-offs – Net book value			(43)	-	(1)	-		-	(44)
Depreciation charge	-	(4)	(150)	(2)	(489)	(13)	(22)	-	(680)
Closing net book amount	2,028	57	1,163	1	701	16	-	-	3,966
As at 31 December 2022									
Cost	2,028	1,380	3,740	885	3,750	102	8	-	11,893
<u>Less</u> Accumulated depreciation	-	(1,323)	(2,577)	(884)	(3,049)	(86)	(8)	-	(7,927)
Net book amount	2,028	57	1,163	1	701	16	-	-	3,966

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	Separate financial statements								
	Baht'000								
	Land	Land improvement	Building and infrastructures	Machinery and equipment	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	Total
As at 1 January 2021									
Cost	60,916	80,167	134,993	83,395	197,359	8,001	17,870	2,224	584,925
<u>Less</u> Accumulated depreciation	-	(78,205)	(74,141)	(83,294)	(148,658)	(6,633)	(16,093)	-	(407,024)
Net book amount	60,916	1,962	60,852	101	48,701	1,368	1,777	2,224	177,901
For the year ended 31 December 2021									
Opening net book amount	60,916	1,962	60,852	101	48,701	1,368	1,777	2,224	177,901
Additions	-	-	471	-	3,039	98	-	-	3,608
Disposals - Net book value	-	-	-	-	(100)	-	-	-	(100)
Reclassification	-	-	194	-	17	-	-	(211)	-
Write-offs – Net book value	-	-	(3)	-	-	-	-	-	(3)
Translation differences	6,860	215	6,353	9	4,756	138	147	241	18,719
Depreciation charge	-	(134)	(11,752)	(44)	(19,106)	(451)	(1,177)	-	(32,664)
Closing net book amount	67,776	2,043	56,115	66	37,307	1,153	747	2,254	167,461
As at 31 December 2021									
Cost	67,776	46,133	149,311	29,562	187,787	4,597	12,041	2,254	499,461
<u>Less</u> Accumulated depreciation	-	(44,090)	(93,196)	(29,496)	(150,480)	(3,444)	(11,294)	-	(332,000)
Net book amount	67,776	2,043	56,115	66	37,307	1,153	747	2,254	167,461

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	Separate financial statements								
	Baht'000								
	Land	Land improvement	Building and infrastructures	Machinery and equipment	Furniture and office equipment	Tools	Motor vehicles	Construction in progress	Total
For the year ended 31 December 2022									
Opening net book amount	67,776	2,043	56,115	66	37,307	1,153	747	2,254	167,461
Additions	-	-	-	-	8,233	46	-	-	8,279
Disposals - Net book value	-	-	(13,623)	-	(5,629)	(261)	-	-	(19,513)
Reclassification	-	-	2,364	-	-	-	-	(2,364)	-
Write-offs – Net book value	-	-	(1,502)	-	(21)	(15)	-	-	(1,538)
Translation differences	2,317	72	2,176	3	1,483	49	37	110	6,247
Depreciation charge	-	(147)	(5,341)	(44)	(17,134)	(402)	(784)	-	(23,852)
Closing net book amount	70,093	1,968	40,189	25	24,239	570	-	-	137,084
As at 31 December 2022									
Cost	70,093	47,710	129,331	30,569	129,622	3,535	265	-	411,125
<u>Less</u> Accumulated depreciation	-	(45,742)	(89,142)	(30,544)	(105,383)	(2,965)	(265)	-	(274,041)
Net book amount	70,093	1,968	40,189	25	24,239	570	-	-	137,084

As at 31 December 2022, assets with net book value of CNY 781.36 million or equivalent to US Dollar 112.28 million were mortgaged and pledged as collateral for long-term loans from financial institutions of a subsidiary in the People's Republic of China (2021: CNY 771.84 million or equivalent to US Dollar 121.27 million) as described in Note 24.

As at 31 December 2022 and 2021, the Group has capital commitments which are shown in Note 31.2.

17 Deferred exploration and development expenditures and deferred overburden expenditures/stripping costs, net

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
As at 31 December				
Current portion:				
- Deferred development costs	131,342	78,475	4,539,501	2,622,612
	131,342	78,475	4,539,501	2,622,612
Non-current portion:				
- Deferred exploration and development expenditures	654,413	803,832	22,618,094	26,863,969
- Deferred stripping costs	85,323	85,015	2,948,953	2,841,210
	739,736	888,847	25,567,047	29,705,179
Total deferred exploration and development expenditures and deferred overburden expenditures/stripping costs, net	871,078	967,322	30,106,548	32,327,791

Movement of the deferred exploration and development expenditures and deferred overburden expenditures/stripping costs is as follows:

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
As at 1 January				
Cost	6,100,593	6,025,406	203,881,207	180,985,715
<u>Less</u> Accumulated amortisation	(5,133,271)	(4,945,307)	(171,553,416)	(148,542,682)
Net book amount	967,322	1,080,099	32,327,791	32,443,033
For the year ended 31 December				
Opening net book amount	967,322	1,080,099	32,327,791	32,443,033
Additions	699,266	509,617	24,517,229	16,296,077
Amortisation	(682,864)	(544,134)	(23,942,176)	(17,399,832)
Impairment loss (Note 18)	(60,074)	-	(2,185,525)	-
Reclassification	-	(45,612)	-	(1,458,550)
Translation differences	(52,572)	(32,648)	(610,771)	2,447,063
Net book amount	871,078	967,322	30,106,548	32,327,791
As at 31 December				
Cost	6,616,164	6,100,593	228,670,499	203,881,207
<u>Less</u> Accumulated amortisation	(5,684,564)	(5,133,271)	(196,472,180)	(171,553,416)
<u>Less</u> Accumulated impairment	(60,522)	-	(2,091,771)	-
Net book amount	871,078	967,322	30,106,548	32,327,791

The majority of additions and amortisation represents overburden expenditures. The Group presents the amortisation incurred during the year under cost of sales in the consolidated statements of comprehensive income.

18 Mining property rights, net

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
As at 1 January				
Cost	2,085,064	2,130,574	69,682,629	63,996,273
<u>Less</u> Accumulated amortisation	(808,960)	(771,633)	(27,035,366)	(23,177,630)
Net book amount	1,276,104	1,358,941	42,647,263	40,818,643
For the year ended 31 December				
Opening net book amount	1,276,104	1,358,941	42,647,263	40,818,643
Amortisation	(26,257)	(37,138)	(920,592)	(1,187,559)
Impairment loss	(314,437)	-	(11,439,462)	-
Translation differences	(59,709)	(45,699)	(20,883)	3,016,179
Closing net book amount	875,701	1,276,104	30,266,326	42,647,263
As at 31 December				
Cost	1,757,942	2,085,064	60,758,709	69,682,629
<u>Less</u> Accumulated amortisation	(567,804)	(808,960)	(19,624,692)	(27,035,366)
<u>Less</u> Accumulated impairment	(314,437)	-	(10,867,691)	-
Closing net book amount	875,701	1,276,104	30,266,326	42,647,263

For the year ended 31 December 2022, the Group's management considered to provide a provision for the impairment loss of one coal mine under development in Mongolia because the public transportation infrastructures that is necessary for project developing and commercial operating this project did not progress as planned. The Group recognised an impairment loss of relative assets of US Dollar 374.81 million or equivalent to Baht 13,636.03 million, mainly comprising of mining property rights of US Dollar 314.43 million or equivalent to Baht 11,439.46 million and deferred exploration and development expenditures of US Dollar 60.07 million or equivalent to Baht 2,185.52 million.

In addition, the Group recognised the impairment loss of goodwill arising from an acquisition of this coal mine (Note 19) and reversed deferred tax liabilities in relation to the mining property rights (Note 20) in the same amount of US Dollar 31.44 million or equivalent to Baht 1,143.95 million.

19 Goodwill, net

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
For the year ended 31 December				
Opening net book amount	431,568	446,748	14,422,945	13,419,014
Addition from business combination	19,338	2,911	678,023	95,784
Impairment loss (Note 18)	(31,444)	-	(1,143,946)	-
Translation differences	(25,306)	(18,091)	(334,051)	908,147
Closing net book amount	394,156	431,568	13,622,971	14,422,945
As at 31 December				
Cost	425,600	431,568	14,709,740	14,422,945
<u>Less</u> Accumulated impairment	(31,444)	-	(1,086,769)	-
Closing net book amount	394,156	431,568	13,622,971	14,422,945

Goodwill is allocated to cash-generating units (CGU). Goodwill allocation for each material CGU is presented as follows:

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
As at 31 December				
Energy resources				
Coal production and distribution				
Australia	329,835	354,005	11,399,885	11,830,809
Indonesia	17,418	17,418	602,001	582,101
Mongolia	7,062	38,506	244,094	1,286,870
Natural gas production	17,509	17,509	605,165	585,160
United States				
Energy generation and energy technology	22,332	4,130	771,826	138,005
Total	394,156	431,568	13,622,971	14,422,945

The Group tests impairment of goodwill annually by comparing the carrying amount to the recoverable amount for each cash-generating unit (CGU), which is determined based on value-in-use model. As at 31 December 2022, the goodwill mainly arose from the acquisition of the mining business in Australia of US Dollar 329.84 million or equivalent to Baht 11,399.89 million (2021: US Dollar 354 million or equivalent to Baht 11,830.81 million). The recoverable amount was calculated by using cash flow projections based on the approved financial budgets by management. The key assumptions applied in the cash flow projections include the trend of global coal prices, estimated coal reserves, production plans, forecasted exchange rates, cost structures, inflation rate and discount rate. Cash inflow is calculated from the revenue which is based on the production plan of each mine and forecasted selling prices which are refer to energy research and consulting firms. Cash outflow is used the inflation rate for the five-year period and the constant inflation rate for periods beyond five years. The discount rate used is WACC of 8.80% per annum (2020: 8.50% per annum). The recoverable amount calculated based on value-in-use model exceeds the carrying amount.

For the year ended 31 December 2022, if the discount rate used in the calculation of goodwill arising from acquisition of mining business in Australia increased by 2.60% per annum, the recoverable amount will approximate the carrying amount.

20 Deferred income taxes and income taxes

Corporate income tax is calculated based on the net profit (tax base) which excludes the interests in associates and joint ventures. The rates are as follows:

	Income tax rate (%)									
	Thailand	Australia	Indonesia	Japan	Singapore	Mauritius	People's Republic of China	Mongolia	USA	Vietnam
2022	20	30	22	23.2	17	15	12.5-25	10-25	21	20
2021	20	30	22	23.2	17	15	12.5-25	10-25	21	20

20.1 Deferred tax assets and deferred tax liabilities

The analysis of deferred tax assets and deferred tax liabilities is as follows:

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Deferred tax assets	92,129	103,567	3,184,184	3,461,183
Deferred tax liabilities	(300,899)	(84,701)	(10,399,793)	(2,830,715)
Deferred taxes, net	(208,770)	18,866	(7,215,609)	630,468

	Separate financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Deferred tax assets	-	5,142	-	171,830
Deferred tax liabilities	(26,343)	-	(910,463)	-

The movements in deferred tax assets and liabilities during the year are as follows:

	Consolidated financial statements					
	US Dollar'000					
	At 1 January 2022	Charged (credited) to profit or loss	Charged (credited) to other comprehensive income or expense	Increase (decrease) from business combination	Translation differences	At 31 December 2022
Deferred tax assets:						
Employee benefit obligations	6,742	(1,727)	313	-	(52)	5,276
Loss carried forward	331,806	(32,967)	-	-	(38,450)	260,389
Derivatives	44,120	17,617	(6,611)	-	(1,196)	53,930
Depreciation and amortisation	44,457	496	-	-	(1,893)	43,060
Investments in joint ventures	16,492	(1,140)	-	-	(1)	15,351
Provision for mine rehabilitation	4,442	6,356	-	-	-	10,798
Provision for decommissioning	5,407	23,860	-	-	(1)	29,266
Allowance for slow moving of spare parts	2,011	202	-	-	(3)	2,210
Other reserves	35,268	(4,375)	-	-	(4,081)	26,812
Others	76,365	18,808	(140)	-	(5,372)	89,661
Total	567,110	27,130	(6,438)	-	(51,049)	536,753
Deferred tax liabilities:						
Investments in joint ventures	(26,314)	(61,877)	(175)	-	7,056	(81,310)
Mining property rights	(288,381)	40,454	-	-	5,429	(242,498)
Derivatives	(2)	2	-	-	-	-
Depreciation and amortisation	(221,539)	(94,173)	-	(50,568)	20,746	(345,534)
Fair value uplift from the acquisition of power plants	(1,588)	171	-	(16,472)	65	(17,824)
Connection fee	(567)	12	-	-	31	(524)
Tax effect of currency translation on tax base	(1,235)	(44,191)	-	-	-	(45,426)
Others	(8,618)	(4,653)	-	-	864	(12,407)
Total	(548,244)	(164,255)	(175)	(67,040)	34,191	(745,523)
Net	18,866	(137,125)	(6,613)	(67,040)	(16,858)	(208,770)

Deferred income tax assets are recognised for tax loss and carried forwards only to the extent that realisation of the related tax benefit through the future taxable profits is probable. The Group did not recognise deferred tax assets amounting to US Dollar 113.61 million from tax losses of US Dollar 568.06 million that could be carried forward against future taxable income, these tax losses will be expired in 2026 (2021: The Group did not recognise deferred tax assets amounting to US Dollar 113.54 million from tax losses of US Dollar 567.70 million that could be carried forward against future taxable income, these tax losses will be expired in 2026).

	Consolidated financial statements				
	US Dollar'000				
	At 1 January 2021	Charged (credited) to profit or loss	Charged (credited) to other comprehensive income or expense	Translation differences	At 31 December 2021
Deferred tax assets:					
Employee benefit obligations	6,328	1,101	(686)	(1)	6,742
Loss carried forward	274,312	55,934	-	1,560	331,806
Derivatives	15,087	(5,231)	34,074	190	44,120
Depreciation and amortisation	42,036	2,536	-	(115)	44,457
Investments in joint ventures	23,297	188	(6,993)	-	16,492
Provision for mine rehabilitation	3,751	691	-	-	4,442
Provision for decommissioning	6,852	(1,444)	-	(1)	5,407
Allowance for slow moving of spare parts	1,635	376	-	-	2,011
Other reserves	36,067	(781)	-	(18)	35,268
Others	84,088	(11,668)	(1,531)	5,476	76,365
Total	493,453	41,702	24,864	7,091	567,110
Deferred tax liabilities:					
Investments in joint ventures	(16,206)	(12,339)	-	2,231	(26,314)
Mining property rights	(292,827)	8,556	-	(4,110)	(288,381)
Derivatives	(2,321)	2,319	-	-	(2)
Depreciation and amortisation	(219,588)	(1,966)	-	15	(221,539)
Fair value uplift from the acquisition of power plants	(1,633)	79	-	(34)	(1,588)
Connection fee	(558)	183	-	(192)	(567)
Tax effect of currency translation on tax base	58,036	(59,271)	-	-	(1,235)
Others	(3,521)	(4,994)	-	(103)	(8,618)
Total	(478,618)	(67,433)	-	(2,193)	(548,244)
Net	14,835	(25,731)	24,864	4,898	18,866

Banpu Public Company Limited

Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

Consolidated financial statements						
Baht'000						
	At 1 January 2022	Charged (credited) to profit or loss	Charged (credited) to other comprehensive income or expense	Increase (decrease) from business combination	Translation differences	At 31 December 2022
Deferred tax assets:						
Employee benefit obligations	225,330	(60,384)	10,954	-	6,466	182,366
Loss carried forward	11,088,938	(1,152,939)	-	-	(936,328)	8,999,671
Derivatives	1,474,480	616,104	(231,199)	-	4,552	1,863,937
Depreciation and amortisation	1,485,755	17,338	-	-	(14,819)	1,488,274
Investments in joint ventures	551,146	(39,874)	-	-	19,310	530,582
Provision for mine rehabilitation	148,450	222,276	-	-	2,467	373,193
Provision for decommissioning	180,689	834,445	-	-	(3,621)	1,011,513
Allowance for slow moving of spare parts	67,204	7,060	-	-	2,125	76,389
Other reserves	1,178,657	(152,999)	-	-	(98,977)	926,681
Others	2,552,124	657,785	(4,909)	-	(106,101)	3,098,899
Total	18,952,773	948,812	(225,154)	-	(1,124,926)	18,551,505
Deferred tax liabilities:						
Investments in joint ventures	(879,418)	(2,164,006)	(6,131)	-	239,276	(2,810,279)
Mining property rights	(9,637,637)	1,414,800	-	-	(158,466)	(8,381,303)
Derivatives	(75)	78	-	-	(3)	-
Depreciation and amortisation	(7,403,816)	(3,293,497)	-	(1,768,534)	523,348	(11,942,499)
Fair value uplift from the acquisition of power plants	(53,071)	5,963	-	(576,057)	7,113	(616,052)
Connection fee	(18,952)	421	-	-	407	(18,124)
Tax effect of currency translation on tax base	(41,280)	(1,545,463)	-	-	16,725	(1,570,018)
Others	(288,056)	(162,717)	-	-	21,934	(428,839)
Total	(18,322,305)	(5,744,421)	(6,131)	(2,344,591)	650,334	(25,767,114)
Net	630,468	(4,795,609)	(231,285)	(2,344,591)	(474,592)	(7,215,609)

Banpu Public Company Limited

Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

	Consolidated financial statements				
	Baht'000				
	At 1 January 2021	Charged (credited) to profit or loss	Charged (credited) to other comprehensive income or expense	Translation differences	At 31 December 2021
Deferred tax assets:					
Employee benefit obligations	190,064	32,008	(19,950)	23,208	225,330
Loss carried forward	8,239,540	1,626,232	-	1,223,166	11,088,938
Derivatives	453,157	(152,076)	990,671	182,728	1,474,480
Depreciation and amortisation	1,262,643	73,733	-	149,379	1,485,755
Investments in joint ventures	699,784	5,468	(203,340)	49,234	551,146
Provision for mine rehabilitation	112,659	20,099	-	15,692	148,450
Provision for decommissioning	205,803	(41,992)	-	16,878	180,689
Allowance for slow moving of spare parts	49,099	10,940	-	7,165	67,204
Other reserves	1,083,340	(22,709)	-	118,026	1,178,657
Others	2,525,755	(339,234)	(44,521)	410,124	2,552,124
Total	14,821,844	1,212,469	722,860	2,195,600	18,952,773
Deferred tax liabilities:					
Investments in joint ventures	(486,775)	(358,738)	-	(33,905)	(879,418)
Mining property rights	(8,795,641)	248,747	-	(1,090,743)	(9,637,637)
Derivatives	(69,717)	67,417	-	2,225	(75)
Depreciation and amortisation	(6,595,787)	(57,170)	-	(750,859)	(7,403,816)
Fair value uplift from the acquisition of power plants	(49,050)	2,306	-	(6,327)	(53,071)
Connection fee	(16,749)	5,326	-	(7,529)	(18,952)
Tax effect of currency translation on tax base	1,743,241	(1,723,276)	-	(61,245)	(41,280)
Others	(105,768)	(145,197)	-	(37,091)	(288,056)
Total	(14,376,246)	(1,960,585)	-	(1,985,474)	(18,322,305)
Net	445,598	(748,116)	722,860	210,126	630,468

	Separate financial statements			
	US Dollar'000			
	At	Charged (credited) to		At
	1 January 2022	Charged (credited) to profit or loss	other comprehensive income or expense	31 December 2022
Deferred tax assets (liabilities):				
Employee benefit obligations	2,649	115	2	2,766
Derivatives	5,089	(576)	(3,780)	733
Tax effect of currency translation on tax base	(3,307)	(26,801)	-	(30,108)
Others	711	21	(466)	266
Total	5,142	(27,241)	(4,244)	(26,343)
	Separate financial statements			
	US Dollar'000			
	At	Charged (credited) to		At
	1 January 2021	Charged (credited) to profit or loss	other comprehensive income or expense	31 December 2021
Deferred tax assets (liabilities):				
Employee benefit obligations	3,214	(510)	(55)	2,649
Derivatives	4,307	(1,653)	2,435	5,089
Tax effect of currency translation on tax base	55,961	(59,268)	-	(3,307)
Others	977	(99)	(167)	711
Total	64,459	(61,530)	2,213	5,142

Separate financial statements					
Baht'000					
	At 1 January 2022	Charged (credited) to profit or loss	Charged (credited) to other comprehensive income or expense	Translation differences	At 31 December 2022
Deferred tax assets					
(liabilities):					
Employee benefit obligations	88,548	3,780	59	3,216	95,603
Derivatives	170,052	(18,963)	(124,469)	(1,299)	25,321
Tax effect of currency translation on tax base	(110,472)	(882,532)	-	(47,546)	(1,040,550)
Others	23,702	698	(15,322)	85	9,163
Total	171,830	(897,017)	(139,732)	(45,544)	(910,463)
Separate financial statements					
Baht'000					
	At 1 January 2021	Charged (credited) to profit or loss	Charged (credited) to other comprehensive income or expense	Translation differences	At 31 December 2021
Deferred tax assets					
(liabilities):					
Employee benefit obligations	96,546	(15,329)	-	7,331	88,548
Derivatives	129,360	(50,917)	68,472	23,137	170,052
Tax effect of currency translation on tax base	1,680,941	(1,861,095)	-	69,682	(110,472)
Others	29,314	(3,001)	(6,105)	3,494	23,702
Total	1,936,161	(1,930,342)	62,367	103,644	171,830

20.2 Income taxes

Income taxes for the year ended 31 December consist of:

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Current tax:				
Current tax on profit for the year	348,546	164,698	12,334,985	5,371,777
Withholding tax for dividends	35,157	7,604	1,248,107	251,984
Total current taxes	383,703	172,302	13,583,092	5,623,761
Deferred tax:				
Origination and reversal of temporary differences	137,124	25,731	4,795,608	748,116
Total deferred tax	137,124	25,731	4,795,608	748,116
Total tax expenses	520,827	198,033	18,378,700	6,371,877
	Separate financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Current tax:				
Current tax on profit for the year	1,023	-	37,207	-
Total current taxes	1,023	-	37,207	-
Deferred tax:				
Origination and reversal of temporary differences	27,241	61,530	897,017	1,930,341
Total deferred tax	27,241	61,530	897,017	1,930,341
Total tax expenses	28,264	61,530	934,224	1,930,341

The tax on the Group's profit before tax 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			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Profit before tax	2,143,708	690,522	75,190,282	22,344,460
Tax calculated at a tax rate of 20% (2021: 20%)	428,742	138,104	15,038,057	4,468,892
Tax effect of:				
Income not subject to tax	(65,230)	(21,739)	(2,287,062)	(695,135)
Expenses not deductible for tax purpose	77,774	15,148	2,726,880	484,397
Tax losses for which no deferred tax asset was recognised	(59,277)	11,595	(2,078,348)	370,772
Utilisation of previously unrecognised tax losses	6,462	(5,724)	226,554	(183,050)
Deferred tax assets (liabilities) from exchange rate translation	23,566	36,927	826,241	1,180,805
Tax assessment	529	1,855	18,547	59,318
Withholding tax for dividends	35,157	7,604	1,232,656	243,166
Tax effect from different tax rates of foreign entities	58,372	(10,802)	2,046,613	(345,417)
Others	14,732	25,065	628,562	788,129
Tax expense	520,827	198,033	18,378,700	6,371,877

	Separate financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Profit before tax	367,669	141,696	12,846,983	4,520,487
Tax calculated at a tax rate of 20% (2021: 20%)	73,534	28,339	2,569,397	904,097
Tax effect of:				
Income not subject to tax	(61,760)	(17,894)	(2,165,407)	(572,206)
Expenses not deductible for tax purpose	523	2,487	18,321	79,532
Recognition of previously unrecognised tax losses	561	9,771	19,672	312,439
Deferred tax assets (liabilities) from exchange rate translation	14,368	38,803	503,780	1,240,822
Others	1,038	24	(11,539)	(34,343)
Tax expense	28,264	61,530	934,224	1,930,341

21 Other non-current assets

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Value added tax receivable	200,567	97,304	6,932,069	3,251,894	-	-	-	-
Prepaid income tax	19,279	45,054	666,329	1,505,699	591	457	20,427	15,282
Deposits	27,178	28,619	939,329	956,448	238	245	8,240	8,195
Restricted deposits at banks (Note 15.1 d))	42,978	42,644	1,485,417	1,425,165	-	-	-	-
Rights to operate the power plants, net	35,066	29,420	1,211,976	983,221	-	-	-	-
Others	57,466	57,352	1,986,164	1,916,682	7,271	6,697	251,294	223,791
Total other non-current assets	382,534	300,393	13,221,284	10,039,109	8,100	7,399	279,961	247,268

22 Short-term loans from financial institutions

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
- US Dollar loans	90,000	394,491	3,110,616	13,183,837	-	220,000	-	7,352,378
- Baht loans	353,852	766,010	12,230,000	25,600,000	353,853	592,461	12,230,000	19,800,000
- Foreign currency loans	6,990	13,406	241,581	448,024	-	-	-	-
Total short-term loans from financial institutions	450,842	1,173,907	15,582,197	39,231,861	353,853	812,461	12,230,000	27,152,378

Movements of short-term loans from financial institutions for the year are as follows:

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
For the year ended 31 December								
Opening balance	1,173,907	827,518	39,231,861	24,856,241	812,461	779,045	27,152,378	23,400,240
Cash flows:								
Additions	1,598,501	1,766,914	56,045,692	56,500,783	1,248,549	1,246,082	43,775,864	39,846,088
Repayments	(2,295,607)	(1,368,723)	(80,487,201)	(43,767,793)	(1,684,473)	(1,165,231)	(59,059,977)	(37,260,707)
Other non-cash movements:								
Net gains on exchange rate	(9,124)	(37,623)	(319,901)	(1,203,066)	(22,684)	(47,435)	(795,348)	(1,516,809)
Translation differences	(16,835)	(14,179)	1,111,746	2,845,696	-	-	1,157,083	2,683,566
Closing balance	450,842	1,173,907	15,582,197	39,231,861	353,853	812,461	12,230,000	27,152,378

Consolidated financial statements

As at 31 December 2022, short-term loans from financial institutions are unsecured liabilities and bare interest at the rates of 1.38% to 8.38% per annum (2021: 1.00% to 4.57% per annum). The repayments are due within one year.

Separate financial statements

As at 31 December 2022, short-term loans from financial institutions are unsecured liabilities and bare interest at the rates of 1.38% to 1.72% per annum (2021: 1.00% to 2.00% per annum). The repayments are due within one year.

The fair value of short-term loans approximates their carrying amount, as short-term loans from financial institutions had a short period of maturity.

23 Other current liabilities

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Accrued expenses	585,721	381,728	20,243,933	12,757,319	20,418	9,448	705,679	315,753
Contingent liabilities from an asset acquisition (Note 6)	65,000	65,000	2,246,556	2,172,294	-	-	-	-
Value added tax payables	4,569	22,265	157,901	744,086	47	8	1,631	282
Withholding tax payables	16,934	12,871	585,273	430,148	835	1,139	28,872	38,073
Other payables for purchase of property, plant and equipment	56,147	37,793	1,940,590	1,263,045	88	81	3,040	2,689
Advance from customer	-	9,350	-	312,462	-	-	-	-
Others	1,142	7,578	39,454	253,272	-	-	-	-
Total other current liabilities	729,513	536,585	25,213,707	17,932,626	21,388	10,676	739,222	356,797

24 Long-term loans from financial institutions, net

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
- US Dollar	2,330,490	1,928,424	80,547,328	64,447,729	1,564,000	1,712,000	54,055,595	57,214,869
- Foreign currencies	617,289	875,968	21,335,003	29,274,721	-	158,588	-	5,300,000
Total	2,947,779	2,804,392	101,882,331	93,722,450	1,564,000	1,870,588	54,055,595	62,514,869
Less: Deferred financing service fees	(18,363)	(17,140)	(634,660)	(572,748)	(5,911)	(8,386)	(204,311)	(280,247)
	2,929,416	2,787,252	101,247,671	93,149,702	1,558,089	1,862,202	53,851,284	62,234,622
Less: Current portion, net	(667,254)	(517,009)	(23,061,908)	(17,278,404)	(377,747)	(355,871)	(13,055,828)	(11,893,176)
Long-term loans from financial institutions, net	2,262,162	2,270,243	78,185,763	75,871,298	1,180,342	1,506,331	40,795,456	50,341,446

Movements of long-term loans from financial institutions for the year are as follows:

For the year ended 31 December	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
Opening net balance	2,787,252	2,682,844	93,149,702	80,584,856	1,862,202	1,992,266	62,234,622	59,841,890
Cash flows:								
Additions	680,187	861,635	23,848,294	27,552,585	50,000	317,000	1,686,250	10,136,741
Repayments	(497,402)	(832,513)	(17,439,595)	(26,621,350)	(345,731)	(430,000)	(12,121,801)	(13,750,153)
Payments of financing service fees	(1,479)	(11,775)	(51,863)	(376,545)	(600)	(2,501)	(20,235)	(79,953)
Other non-cash movements:								
Increase from business combinations (Note 32)	21,757	130,965	733,753	4,309,001	-	-	-	-
Amortisation of deferred financing service fees	5,665	7,618	198,617	243,578	3,074	3,297	107,788	105,436
Net gains on exchange rate	(8,614)	(17,504)	(301,964)	(559,733)	(10,856)	(17,860)	(380,713)	(571,121)
Translation differences	(57,950)	(34,018)	1,110,727	8,017,310	-	-	2,345,373	6,551,782
Closing net balance	2,929,416	2,787,252	101,247,671	93,149,702	1,558,089	1,862,202	53,851,284	62,234,622

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 subsidiaries in the People's Republic of China amounting to CNY 305.87 million or equivalent US Dollar 43.95 million (2021: CNY 386.22 million or equivalent to US Dollar 57.40 million) which are secured liabilities. The Group has mortgaged and pledged property, plant and equipment as disclosed in Note 16.

Details of long-term loans of subsidiaries are shown as follow:

No.	Million US Dollar (Original currency)		Interest rate	Due of loan repayment
	2022	2021		
1	113	120	BBA LIBOR plus applicable fixed margin	Repayment of principal as agreement expires on 25 April 2024
2	26	36	LIBOR plus applicable fixed margin	Repayment every 6 months commencing 2 April 2021 to expiry of agreement on 2 October 2024
3	57	60	LIBOR plus applicable fixed margin	Repayment every 3 months commencing 27 October 2021 to expiry of agreement on 27 October 2028
4	570	-	SOFR plus applicable fixed margin	Repayment every 12 months commencing 30 June 2022 to expiry of agreement on 30 June 2027
	766	216		

Banpu Public Company Limited

Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

Million Australian Dollar (Original currency)				
No.	2022	2021	Interest rate	Due of loan repayment
1	330	400	BBSY plus applicable fixed margin	Repayment annually commencing 30 September 2022 to expiry of agreement on 30 September 2026
2	-	62	Fixed rate	Repayment of principal as agreement expires on 22 March 2022
3	107	109	Fixed rate	Repayment of principal as agreement expires on 10 May 2023
4	-	12	Fixed rate	Repayment of principal as agreement expires on 21 June 2022
	437	583		

Million Baht (Original currency)				
No.	2022	2021	Interest rate	Due of loan repayment
1	1,500	-	THOR plus applicable fixed margin	Repayment every 6 months commencing 30 September 2024 to expiry of agreement on 31 March 2029
2	1,125	1,500	THB FIX plus applicable fixed margin	Repayment every 6 months commencing 21 February 2022 to expiry of agreement on 21 August 2025
3	1,125	1,500	THB FIX plus applicable fixed margin	Repayment every 6 months commencing 20 June 2022 to expiry of agreement on 20 December 2025
4	5,000	5,000	BIBOR plus applicable fixed margin	Repayment every 6 months commencing 27 April 2024 to expiry of agreement on 27 October 2031
	8,750	8,000		

Million CNY (Original currency)				
No.	2022	2021	Interest rate	Due of loan repayment
1	10.01	18.02	LPR plus applicable fixed margin	Repayment every 3 months commencing 29 March 2019 to expiry of agreement on 21 January 2024
2	49.61	79.61	LPR plus applicable fixed margin	Repayment every 6 months commencing 1 June 2019 to expiry of agreement on 30 October 2023
3	-	15.61	Fixed rate	Repayment every 3 months commencing 23 May 2019 to expiry of agreement on 23 May 2022
4	18.43	21.40	Fixed rate	Repayment every 3 months commencing 11 August 2020 to expiry of agreement on 11 July 2023
5	60.58	64.15	LPR plus applicable fixed margin	Repayment every 3 months commencing 28 June 2022 to expiry of agreement on 28 June 2027
6	195.68	142.20	LPR plus applicable fixed margin	Repayment every 3 months commencing 22 January 2018 to expiry of agreement on 30 August 2031
	334.31	340.99		

Banpu Public Company Limited

Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

No.	Million VND (Original currency)		Interest rate	Due of loan repayment
	2022	2021		
1	477,919.96	-	VNIBOR plus applicable fixed margin	Repayment every 3 months commencing 25 Mar 2021 to expiry of agreement on 25 December 2031
	477,919.96	-		

Long-term loans of the Company are unsecured loans denominated in Thai Baht and US Dollar as details below:

No.	Million THB Baht (Original currency)		Interest rate	Due of loan repayment
	2022	2021		
1	-	5,300	BBA LIBOR plus applicable fixed margin	Repayment every 3 months commencing 23 December 2020 to expiry of agreement on 22 December 2022
	-	5,300		

No.	Million US Dollar (Original currency)		Interest rate	Due of loan repayment
	2022	2021		
1	-	20.00	BBA LIBOR plus applicable fixed margin	Repayment annually commencing 27 June 2018 to expiry of agreement on 26 June 2022
2	-	100.00	BBA LIBOR plus applicable fixed margin	Repayment of principal as agreement expires on 26 December 2022.
3	90.00	90.00	BBA LIBOR plus applicable fixed margin	Repayment of principal as agreement expires on 29 March 2024
4	50.00	50.00	BBA LIBOR plus applicable fixed margin	Repayment every 3 months commencing 16 September 2019 to expiry of agreement on 14 September 2023
5	-	11.70	BBA LIBOR plus applicable fixed margin	Repayment every 6 months commencing 6 February 2021 to expiry of agreement on 6 February 2025
6	56.00	66.30	BBA LIBOR plus applicable fixed margin	Repayment every 6 months commencing 6 February 2021 to expiry of agreement on 6 February 2025
7	-	32.00	BBA LIBOR plus applicable fixed margin	Repayment every 6 months commencing 22 March 2020 to expiry of agreement on 23 March 2022
8	250.00	250.00	BBA LIBOR plus applicable fixed margin	Repayment annually commencing 22 December 2023 to expiry of agreement on 22 December 2028
9	30.00	40.00	BBA LIBOR plus applicable fixed margin	Repayment annually commencing 26 June 2021 to expiry of agreement on 26 June 2025
10	70.00	75.00	BBA LIBOR plus applicable fixed margin	Repayment every 6 months commencing 18 June 2020 to expiry of agreement on 17 December 2025
11	150.00	100.00	BBA LIBOR plus applicable fixed margin	Revolving loan maturity in 2025
12	48.00	52.00	BBA LIBOR plus applicable fixed margin	Repayment every 6 months commencing 10 September 2019 to expiry of agreement on 10 September 2025

Banpu Public Company Limited

Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

No.	Million US Dollar (Original currency)		Interest rate	Due of loan repayment
	2022	2021		
13	80.00	80.00	BBA LIBOR plus applicable fixed margin	Repayment every 3 months commencing 16 April 2020 to expiry of agreement on 11 April 2024
14	200.00	200.00	BBA LIBOR plus applicable fixed margin	Repayment annually commencing 23 April 2023 to expiry of agreement on 22 April 2025
15	40.00	45.00	BBA LIBOR plus applicable fixed margin	Repayment every 6 months commencing 30 January 2021 to expiry of agreement on 30 January 2027
16	100.00	100.00	BBA LIBOR plus applicable fixed margin	Revolving loan maturity in 2023
17	300.00	300.00	BBA LIBOR plus applicable fixed margin	Repayment annually commencing 23 September 2023 to expiry of agreement on 23 September 2027
18	100.00	100.00	BBA LIBOR plus applicable fixed margin	Repayment of principal as agreement expires on 22 July 2025
	1,564.00	1,712.00		

The effective interest rates are as follows:

As at 31 December	Consolidated financial statements		Separated financial statements	
	2022 % per annum	2021 % per annum	2022 % per annum	2021 % per annum
Loans from financial institutions	2.29 - 13	1.55 - 5.85	5.63 - 8.00	1.55 - 3.47

Most of long-term loans from financial institutions bear floating rates. The fair value of long-term loans approximates their carrying amount. As the interest rates of long-term loans vary with the market interest rates, the impact of discounting is not significant. The fair value is based on discounted cash flows using a discount rate based on the current lending 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:

As at 31 December	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
Within 1 year	672,608	519,247	23,246,949	17,353,199	379,660	356,588	13,121,962	11,917,140
Later than 1 year but not later than 5 years	2,027,342	1,531,018	70,069,830	51,166,468	1,124,340	924,000	38,859,889	30,879,988
Later than 5 years	247,829	754,127	8,565,552	25,202,783	60,000	590,000	2,073,744	19,717,741
Total loans	2,947,779	2,804,392	101,882,331	93,722,450	1,564,000	1,870,588	54,055,595	62,514,869

The Group is required to comply with certain criteria and conditions; for example, maintaining debt to equity ratio.

25 Debentures, net

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
- US Dollar	200,000	200,000	6,912,480	6,683,980	200,000	200,000	6,912,480	6,683,980
- Thai Baht	2,426,625	1,833,339	83,870,000	61,270,000	2,267,493	1,833,339	78,370,000	61,270,000
Total	2,626,625	2,033,339	90,782,480	67,953,980	2,467,493	2,033,339	85,282,480	67,953,980
<u>Less</u> Deferred financing service fees	(3,073)	(2,363)	(106,237)	(78,964)	(2,844)	(2,363)	(98,303)	(78,964)
	2,623,552	2,030,976	90,676,243	67,875,016	2,464,649	2,030,976	85,184,177	67,875,016
<u>Less</u> Current portion, net	(251,244)	(119,672)	(8,683,602)	(3,999,435)	(251,244)	(119,672)	(8,683,602)	(3,999,435)
Debentures, net	2,372,308	1,911,304	81,992,641	63,875,581	2,213,405	1,911,304	76,500,575	63,875,581

Movements of debentures for the year are as follows:

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
For the year ended 31 December								
Opening net balance	2,030,976	1,650,116	67,875,016	49,564,678	2,030,976	1,650,116	67,875,016	49,564,678
Cash flows:								
Additions	774,265	679,669	26,600,000	21,733,830	611,181	679,669	21,100,000	21,733,830
Repayment	(115,096)	(129,939)	(4,000,000)	(4,155,083)	(115,096)	(129,939)	(4,000,000)	(4,155,083)
Payments of financing service fees	(1,283)	(1,314)	(44,197)	(42,021)	(1,030)	(1,314)	(35,667)	(42,021)
Other non-cash movements:								
Amortisation of deferred financing service fees	566	372	19,837	11,935	549	372	19,241	11,935
Net gains on exchange rate	(61,931)	(167,928)	(2,171,378)	(5,369,841)	(61,931)	(167,928)	(2,171,378)	(5,369,841)
Translation differences	(3,945)	-	2,396,965	6,131,518	-	-	2,396,965	6,131,518
Closing net balance	2,623,552	2,030,976	90,676,243	67,875,016	2,464,649	2,030,976	85,184,177	67,875,016

Debentures are unsecured liabilities. However, the Group is required to comply with certain procedures and conditions; for example, maintaining debt to equity ratio.

Separate financial information

On 27 January 2022, the Company has issued Baht name-registered, unsubordinated, and unsecured debentures totalling Baht 12,000 million or equivalent to US Dollar 357.53 million. There are 5 tranches which are 1) 3-year debenture of Baht 2,000 million or equivalent to US Dollar 59.59 million with fixed interest rate of 1.76 per annum, 2) 6-year debenture of Baht 1,000 million or equivalent to US Dollar 29.79 million with fixed interest rate of 3.11 per annum, 3) 8-year debenture of Baht 2,000 million or equivalent to US Dollar 59.59 million with fixed interest rate of 3.58 per annum, 4) 10-year debenture of Baht 3,000 million or equivalent to US Dollar 89.38 million with fixed interest rate of 3.89 per annum, and 5) 12-year debenture of Baht 4,000 million or equivalent to US Dollar 119.18 million with fixed interest rate of 4.12 per annum.

On 20 September 2022, the Company has issued Baht name-registered, unsubordinated, and unsecured debentures totalling Baht 9,100 million or equivalent to US Dollar 253.65 million. There are 3 tranches which are 1) 4-year debenture of Baht 4,000 million or equivalent to US Dollar 111.49 million with fixed interest rate of 3.26 per annum, 2) 7-year debenture of Baht 1,860 million or equivalent to US Dollar 51.85 million with fixed interest rate of 3.80 per annum, and 3) 10-year debenture of Baht 3,240 million or equivalent to US Dollar 90.31 million with fixed interest rate of 4.20 per annum.

Consolidated financial information

On 10 June 2022, a subsidiary has issued Baht name-registered, unsubordinated, and unsecured debentures totalling Baht 5,500 million or equivalent to US Dollar 163.08 million. There are 4 tranches which are 1) 4-year debenture of Baht 1,500 million or equivalent to US Dollar 44.48 million with fixed interest rate of 3.10 per annum, 2) 7-year debenture of Baht 700 million or equivalent to US Dollar 20.75 million with fixed interest rate of 4.00 per annum, 3) 10-year debenture of Baht 1,900 million or equivalent to US Dollar 56.34 million with fixed interest rate of 4.35 per annum, and 4) 12-year debenture of Baht 1,400 million or equivalent to US Dollar 41.51 million with fixed interest rate of 4.60 per annum.

All debentures bear fixed interest rates at range between 1.58% to 5.25% per annum.

The following table summarises fair value of debentures. 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 by the Thai Bond Market Association.

	Consolidated financial statements				Separate financial statements			
	Million US Dollar		Million US Dollar		Million Baht		Million Baht	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Fair value of debentures	2,686	2,095	92,826	70,015	2,522	2,095	87,169	70,015

Maturities of debentures are as follows:

	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December								
Within 1 year	251,266	119,689	8,684,360	4,000,000	251,266	119,689	8,684,360	4,000,000
Later than 1 year								
but not later than 5 years	1,281,251	757,273	44,283,120	25,307,985	1,237,852	757,273	42,783,120	25,307,985
Later than 5 years	1,094,108	1,156,377	37,815,000	38,645,995	978,375	1,156,377	33,815,000	38,645,995
Total debentures	2,626,625	2,033,339	90,782,480	67,953,980	2,467,493	2,033,339	85,282,480	67,953,980

26 Equity

(a) Registration of the additional paid-up share capital

On 5 October 2022, the Company received the payment for the additional paid-up share capital from exercise of warrant (BANPU-W4). The total number of warrants exercised by the shareholders was 1,688,052,702 units which was equal to 1,688,052,702 shares. As a result, the additional paid-up share capital increased by Baht 1,688.05 million or equivalent to US Dollar 44.70 million.

	Number of registered shares	Issued and paid-up share capital		Share premium	Total
	Shares	Share	US Dollar'000	US Dollar'000	US Dollar'000
As at 1 January 2021	5,074,581,515	5,074,581,515	147,424	443,624	591,048
Increase of registered share capital	5,074,581,513	1,691,527,171	51,076	204,305	255,381
As at 31 December 2021	10,149,163,028	6,766,108,686	198,500	647,929	846,429
Increase of registered share capital	-	1,688,052,702	44,699	178,797	223,496
As at 31 December 2022	10,149,163,028	8,454,161,388	243,199	826,726	1,069,925

	Number of registered shares	Issued and paid-up share capital		Share premium	Total
	Shares	Share	Baht'000	Baht'000	Baht'000
As at 1 January 2021	5,074,581,515	5,074,581,515	5,074,581	15,372,438	20,447,019
Increase of registered share capital	5,074,581,513	1,691,527,171	1,691,527	6,766,109	8,457,636
As at 31 December 2021	10,149,163,028	6,766,108,686	6,766,108	22,138,547	28,904,655
Increase of registered share capital	-	1,688,052,702	1,688,053	6,752,211	8,440,264
As at 31 December 2022	10,149,163,028	8,454,161,388	8,454,161	28,890,758	37,344,919

On 31 December 2022, the Company had warrants (BANPU-W5) offered to existing shareholders who have subscribed and been allocated with the newly issued ordinary shares at the ratio of 1 warrant to 1 new share but not more than 1,691,527,171 warrants. The warrants could be exercised at Baht 7.50 per share. The exercise date is as specified in the warrants. The term of warrants is 2 years from 1 October 2021 (Issuance date of the warrants).

(b) Legal reserve

The movement of legal reserve is as follows:

	Consolidated and separate financial statements					
	US Dollar'000			Baht'000		
	Company	Subsidiaries	Total	Company	Subsidiaries	Total
As at 1 January 2021	14,996	80,547	95,543	516,193	2,641,791	3,157,984
Appropriation during the year	4,854	-	4,854	160,418	-	160,418
As at 31 December 2021	19,850	80,547	100,397	676,611	2,641,791	3,318,402
As at 1 January 2022	19,850	80,547	100,397	676,611	2,641,791	3,318,402
Appropriation during the year	4,470	-	4,470	168,805	-	168,805
As at 31 December 2022	24,320	80,547	104,867	845,416	2,641,791	3,487,207

Under the Public Company Act, the Company is required to set aside a statutory reserve of at least 5% of its net profit after accumulated deficit brought forward (if any) until the reserve reaches not less than 10% of the registered capital. The legal reserve is non-distributable. During the year ended 31 December 2022, the Company has set aside legal reserve totalling of Baht 168.81 million or equivalent to US Dollar 4.47 million. As at 31 December 2022, the legal reserve has fully recognised at 10% of registered capital.

(c) Other reserves

As at 31 December 2022 and 2021, other reserves of the Group comprised reserves resulting from holding a joint venture in the People's Republic of China. These reserves are in accordance with the regulation of a government unit in the People's Republic of China with the objective of future development, safety, and transformation.

(d) Other components of equity

Movements of other components of equity are as follows:

	Consolidated financial statements													
	US Dollar'000													Baht'000
	Changes in							Changes in	Fair value	Cash flow	Net			
	ownership	Fair value	Cash flow	Net	Translation	Other	Total	ownership	reserve of	Cash flow	Investment	Translation	Other reserve	Total
	interests in	reserve of	hedge	investment	differences	reserve		interests in	financial	hedge	hedge	differences		
	subsidiaries	financial assets	reserve	hedge				subsidiaries	assets	reserve				
Opening balance as at 1 January 2022, net of taxes	333,127	16,721	(118,858)	11,150	(743,060)	(46,562)	(547,482)	11,991,329	558,804	(3,972,220)	372,633	(26,078,747)	(1,498,997)	(18,627,198)
Fair value of put options over non-controlling interests	-	-	-	-	-	(11,939)	(11,939)	-	-	-	-	-	(379,383)	(379,383)
Fair value of put options over employee compensation liabilities	-	-	-	-	-	(866)	(866)	-	-	-	-	-	(27,459)	(27,459)
Disposal of treasury shares of a subsidiary	38,971	-	-	-	-	-	38,971	1,299,642	-	-	-	-	-	1,299,642
Other comprehensive income (expense)	-	8,676	47,284	25,627	(348,004)	-	(266,417)	-	286,019	2,395,734	852,557	(10,820,337)	-	(7,286,027)
Taxes charge to other comprehensive income (expense)	-	(549)	(762)	-	-	-	(1,311)	-	(18,758)	(214,270)	-	-	-	(233,028)
Closing balance as at 31 December 2022, net of taxes	372,098	24,848	(72,336)	36,777	(1,091,064)	(59,367)	(789,044)	13,290,971	826,065	(1,790,756)	1,225,190	(36,899,084)	(1,905,839)	(25,253,453)
Opening balance as at 1 January 2021, net of taxes	333,217	43,705	(58,610)	(77,815)	(549,015)	(42,288)	(350,806)	11,993,743	1,312,742	(1,760,471)	(2,337,323)	(27,261,096)	(1,350,978)	(19,403,383)
Change in shareholding interests of subsidiaries	424	-	-	-	-	-	424	14,243	-	-	-	-	-	14,243
Fair value of put options over non-controlling interests	-	-	-	-	-	(7,028)	(7,028)	-	-	-	-	-	(237,013)	(237,013)
Disposal of treasury shares of a subsidiary	(514)	-	-	-	-	2,754	2,240	(16,657)	-	-	-	-	88,994	72,337
Other comprehensive income (expense)	-	(26,496)	(92,015)	88,965	(194,045)	-	(223,591)	-	(738,552)	(3,168,434)	2,709,956	1,182,349	-	(14,681)
Taxes charge to other comprehensive income (expense)	-	(488)	31,767	-	-	-	31,279	-	(15,386)	956,685	-	-	-	941,299
Closing balance as at 31 December 2021, net of taxes	333,127	16,721	(118,858)	11,150	(743,060)	(46,562)	(547,482)	11,991,329	558,804	(3,972,220)	372,633	(26,078,747)	(1,498,997)	(18,627,198)

Banpu Public Company Limited

Notes to the consolidated and separate financial statements

For the year ended 31 December 2022

	Separate financial statements						
	US Dollar'000			Baht'000			
	Fair value reserve of financial assets	Cash flow Hedge reserve	Total	Fair value reserve of financial assets	Cash flow Hedge reserve	Translation differences	Total
Opening balance as at 1 January 2022, net of taxes	505	13,509	14,014	16,905	451,453	194,508	662,866
Other comprehensive income	2,190	27,175	29,365	76,541	940,168	751,446	1,768,155
Taxes charge to other comprehensive income (expense)	(466)	(3,779)	(4,245)	(16,219)	(132,195)	-	(148,414)
Closing balance as at 31 December 2022, net of taxes	2,229	36,905	39,134	77,227	1,259,426	945,954	2,282,607
Opening balance as at 1 January 2021, net of taxes	197	(12,898)	(12,701)	5,941	(387,433)	(3,545,326)	(3,926,818)
Other comprehensive income	493	23,954	24,447	16,584	766,231	3,739,834	4,522,649
Taxes charge to other comprehensive income (expense)	(185)	2,453	2,268	(5,620)	72,655	-	67,035
Closing balance as at 31 December 2021, net of taxes	505	13,509	14,014	16,905	451,453	194,508	662,866

27 Expenses by nature

For the year ended	Consolidated financial statements				Separate financial statements			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
31 December								
Staff costs	471,813	424,648	16,542,413	13,579,020	45,064	31,499	1,580,001	1,007,243
Depreciation and amortisation	633,376	497,079	22,207,049	15,895,145	2,107	2,332	73,859	74,566
Write-off of assets	3,932	7,078	137,861	226,334	803	47	28,156	1,503
Impairment of assets	374,814	-	13,636,029	-	-	-	-	-
Impairment of goodwill	31,444	-	1,143,946	-	-	-	-	-
Inventories recognised as an expense	1,335,752	1,245,362	47,088,797	39,953,438	-	-	-	-
(Reversal of) allowance for net realisable of fuel	(1,953)	1,466	(68,475)	46,882	-	-	-	-
Allowance for slow-moving of spare parts and machinery supplies and coal	906	4,336	31,766	138,653	-	-	-	-
(Reversal of) expected credit loss	(539)	8,974	(18,898)	286,962	-	-	-	-

28 Earnings per share

For the year ended 31 December	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
US Dollar				
Net profit attributable to ordinary shareholders of the Parent (US Dollar'000)	1,162,365	303,931	339,405	80,166
Basic earnings per share (US Dollar)	0.162	0.049	0.047	0.013
Diluted earnings per share (US Dollar)	0.148	0.046	0.043	0.012
Baht				
Net profit attributable to ordinary shareholders of the Parent (Baht'000)	40,518,967	9,851,795	11,912,759	2,590,146
Basic earnings per share (Baht)	5.649	1.591	1.661	0.418
Diluted earnings per share (Baht)	5.167	1.497	1.519	0.394
Weighted average number of shares				
Weighted average number of shares outstanding, (Thousand shares)	7,173,091	6,193,447	7,173,091	6,193,447
Adjustments for diluted earnings per share calculation - Warrants (Thousand shares)	669,145	387,026	669,145	387,026
Weighted average number of shares and potential ordinary shares used in calculating diluted earnings per share (Thousand shares)	7,842,236	6,580,473	7,842,236	6,580,473

29 Dividend paid

For the year ended 31 December 2022

At the Annual General Shareholders' meeting on 1 April 2022, the shareholders approved a payment of final dividends of 2021 of Baht 0.25 per share for 6,766,108,686 shares, totalling of Baht 1,691.53 million or equivalent to US Dollar 50.88 million. The Thailand Securities Depository Company Limited notified the Company that certain shareholders were not entitled to receive dividend totalling Baht 0.02 million or equivalent to US Dollar 441. The Company paid such dividend to the shareholders on 29 April 2022.

At the Board of Directors' meeting on 31 August 2022, the Board of Directors approved a payment of interim dividend of 2022 of Baht 0.45 per share for 6,766,108,686 shares, totalling of Baht 3,044.75 million or equivalent to US Dollar 83.80 million. The Thailand Securities Depository Company Limited notified the Company that certain shareholders were not entitled to receive dividend totalling Baht 0.06 million or equivalent to US Dollar 1,762.31. The Company paid such dividend to the shareholders on 30 September 2022

For the year ended 31 December 2021

At the Annual General Shareholders' meeting on 2 April 2021, the shareholders approved a payment of final dividends of 2020 of Baht 0.15 per share for 5,074,478,566 shares, totalling of Baht 761.17 million or equivalent to US Dollar 24.73 million. The Thailand Securities Depository Company Limited notified the Company that certain shareholders were not entitled to receive dividend totalling Baht 0.02 million or equivalent to US Dollar 502. Such dividends were paid to the shareholders on 30 April 2021.

At the Board of Directors' meeting on 25 August 2021, the meeting approved a payment of interim dividend of 2021 of Baht 0.20 per share for 5,074,493,756 shares, totalling of Baht 1,014.90 million or equivalent to US Dollar 31.12 million. The Thailand Securities Depository Company Limited notified the Company that certain shareholders were not entitled to receive dividend totalling Baht 0.02 million or equivalent to US Dollar 538.30. Such dividends were paid to the shareholders on 23 September 2021.

30 Related party transactions

Individuals and entities that directly or indirectly control or are controlled by or are under common control with the Company, including investment entities, associates, joint venture and individuals or entities having significant influence over the Company, key management personnel, including directors and officers of the Company and close members of the family of these individuals and entities associated with these individuals also constitute related parties.

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 subsidiaries, joint ventures and related parties are:

- Coal sales and purchase within the Group are generally set based on international indices as benchmarks adjusted for coal specifications and the location of deliveries.
- Management income represents service fee charged between the Group and joint ventures for rendering the management services in the normal course of business. The fees are based on the service provided in accordance with the conditions in the agreement.
- Marketing Service Agreement to overseas subsidiaries for rendering the marketing consultant and management in transportation. The fees are based on a certain percentage of gross revenue of coal exports which is comparable to other companies.
- The prices of other sales and services charged between the Company and subsidiaries approximate to those charged to third parties.
- For loans to joint ventures and an associate and interest income, the Group charges interest by considering the average cost of borrowing 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.

Significant transactions carried out with related parties are as follows:

30.1 Transactions during the years consist of:

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
For the year ended 31 December				
Interest income from associates and joint ventures	3,556	2,700	125,306	86,461
Management income from joint ventures	1,186	847	41,520	27,093

	Separate financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
For the year ended 31 December				
Purchases of goods from subsidiaries	44,228	26,700	1,546,981	847,541
Cost of service from a subsidiary	5,806	4,348	201,192	138,780
Dividend from subsidiaries	271,468	89,311	9,639,779	2,915,768
Interest income from subsidiaries	126,214	116,341	4,420,407	3,736,291
Interest expense to a subsidiary	-	155	-	4,963
Management income from subsidiaries	62,318	34,751	2,205,695	1,122,257
Management expense to subsidiaries	-	2,613	-	83,802

30.2 Advances to, amount due from and dividend receivables from related parties consist of:

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
As at 31 December				
Advances to an associate and a joint venture	26	-	889	-
Interest receivables - associates and joint ventures	2,566	2,016	88,672	67,346
Other receivables - joint ventures	131	52	4,530	1,750
Total advances to and amounts due from related parties	2,723	2,068	94,091	69,096
Dividend receivables from joint ventures				
- Current portion	27,810	24,191	961,167	808,475
- Non-current portion	3,293	7,146	113,831	238,831
Total dividend receivables from joint ventures	31,103	31,337	1,074,998	1,047,306

As at 31 December	Separate financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Advances to subsidiaries	1,162	1,497	40,147	50,025
Interest receivables - subsidiaries	60,866	516,088	2,103,691	17,247,608
Other receivables - subsidiaries	12,082	7,077	417,570	236,508
Other receivables - joint venture	38	-	1,315	-
Total advances to and amounts due from related parties	74,148	524,662	2,562,723	17,534,141

30.3 Loans to related parties consist of:

As at 31 December	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Short-term loans to				
- an associate	15,713	17,412	543,062	581,924
- joint ventures	37,760	51,848	1,305,090	1,732,738
Total short-term loans to related parties	53,473	69,260	1,848,152	2,314,662
Long-term loans to related parties	16,952	16,664	585,914	556,903

Movements of short-term loans and long-term loans to related parties are as follows:

For the year ended 31 December	Consolidated financial statements							
	Short-term loans to related parties				Long-term loans to related parties			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
Opening balance	69,260	61,130	2,314,662	1,836,164	16,664	20,888	556,903	627,400
Cash flows:								
Additions	52	10,951	1,835	350,178	3,342	-	117,192	-
Repayments	(15,076)	(1,564)	(528,579)	(50,000)	(134)	-	(4,684)	-
Other non-cash movements:								
Repayment with inventories and services	-	(63)	-	(2,011)	(1,860)	(3,324)	(65,225)	(106,293)
Expected credit loss	-	(1,381)	-	(44,175)	-	-	-	-
Translation differences	(763)	187	60,234	224,506	(1,060)	(900)	(18,272)	35,796
Closing balance	53,473	69,260	1,848,152	2,314,662	16,952	16,664	585,914	556,903

As at 31 December 2022, short-term loans to an associate and three joint ventures represent US Dollar loan of 53.42 million and Japanese yen loan of 7.04 million (2021: CNY loan of 90 million and US Dollar loan of 55.12 million). Such loans bear interest at the rates between of 5% to 10% per annum (2021: 3.35% to 5.00% per annum). The loans period is 1 year.

As at 31 December 2022, long-term loans to three associates represent US Dollar loan of 1.10 million, Australian Dollar loan of 20.27 million and Baht loan of 73.94 million (2021: Australian Dollar loan of 22.95 million). Such loans bear no interest rate and one of them bear interest rate at 5.63% to 5.94% (2021: no interest).

As at 31 December	Separate financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
Short-term loans to subsidiaries	63,562	74,603	2,196,871	2,493,217
Long-term loans to subsidiaries				
- Current portion	42,000	79,500	1,451,621	2,656,882
- Non-current portion	2,224,499	2,955,695	76,884,038	98,779,016
Long-term loans to subsidiaries	2,266,499	3,035,195	78,335,659	101,435,898

Movements of short-term loans and long-term loans to subsidiaries are as follows:

For the year ended 31 December	Separate financial statements							
	Short-term loans to related parties				Long-term loans to related parties			
	US Dollar'000		Baht'000		US Dollar'000		Baht'000	
	2022	2021	2022	2021	2022	2021	2022	2021
Opening balance	74,603	18,800	2,493,217	564,697	3,035,195	2,283,094	101,435,898	68,577,510
Cash flows:								
Additions	101,720	75,493	3,430,496	2,414,033	226,177	680,001	7,930,070	21,744,449
Repayments	(65,132)	(18,800)	(2,283,623)	(601,169)	(683,762)	-	(23,973,601)	-
Other non-cash movements:								
Transfer from (to)	(43,495)	-	(1,524,978)	-	43,495	-	1,524,978	-
Group restructuring (Note 15)	-	-	-	-	(376,685)	151,035	(12,703,689)	4,829,646
Converting accrued interest to principal	1,074	-	37,655	-	-	1,856	-	59,335
Gains (losses) on exchange rate	(5,208)	(890)	(182,571)	(28,454)	22,079	(80,791)	774,135	(2,583,422)
Translation differences	-	-	226,675	144,110	-	-	3,347,868	8,808,380
Closing balance	63,562	74,603	2,196,871	2,493,217	2,266,499	3,035,195	78,335,659	101,435,898

As at 31 December 2022, short-term loans to subsidiaries represent US Dollar loan of 62.83 million, Australian Dollar loan of 1.08 million (2021: US Dollar loan of 50.96 million, Australian Dollar loan of 20 million and Baht loan of 304.93 million). Such loans bear interest at the rate between 5.00% to 5.75% per annum (2021: 4.25% to 5.00% per annum). The repayment for principal and interest is due within 1 year.

As at 31 December 2022, long-term loans to subsidiaries represent US Dollar loan of 1,014.76 million, Australian Dollar loan of 320.33 million and Baht loan of 35,774.07 million (2021: US Dollar loan of 2,133.43 million, Australian Dollar loan of 161.03 million and Baht loan of 26,229.93 million). Such loans bear interest at the rates between 5.50% to 5.75% per annum (2021: 4.25% to 5.00% per annum).

The fair value of short-term loans to subsidiaries approximates their carrying amount, as short-term loans to subsidiaries had a short period of maturity. The fair value of long-term loans to subsidiaries are based on discounted cash flows using a discount rate based upon the current lending rate as at the reporting date and are within level 2 of the fair value hierarchy.

30.4 Trade payables, advances from and amount due to related parties consist of:

	Separate financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
As at 31 December				
Trade payables to subsidiaries	-	2,746	-	91,758
Advances from subsidiaries	653	-	22,577	-
Other payables - a subsidiary	-	784	-	26,202
Total advances from and amounts due to related parties	653	784	22,577	26,202

30.5 Key management compensation consist of:

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
For the year ended 31 December				
Salaries and short-term employee benefits	5,259	4,501	187,340	146,507
Post-employment benefits	62	162	2,180	5,164
	5,321	4,663	189,520	151,671

	Separate financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
For the year ended 31 December				
Salaries and short-term employee benefits	2,007	4,024	69,502	130,994
Post-employment benefits	46	145	1,612	4,616
	2,053	4,169	71,114	135,610

31 Commitments, significant contracts and contingent liabilities

31.1 Outstanding letters of guarantee and letters of credit with the financial institutions:

	Consolidated financial statements		Separate financial statements	
	2022	2021	2022	2021
	Million	Million	Million	Million
	(Original currency)	(Original currency)	(Original currency)	(Original currency)
Letters of guarantee				
- US Dollar	-	1	-	-
- Baht	263	51	45	45
- Indonesian Rupiah	250,841	269,143	-	-
- Australian Dollar	410	380	-	-
- Chinese Yuan	1	1	-	-
Letters of credit				
- US Dollar	26	22	4	3
- Baht	1,600	1,600	-	-

31.2 Capital commitments

The Group had capital commitments that were not recognised in the consolidated financial statements as follows:

	Consolidated financial statements			
	US Dollar'000		Baht'000	
	2022	2021	2022	2021
As at 31 December				
Property, plant and equipment	52,814	91,480	1,825,405	3,057,269
Investments	64,791	79,039	2,239,325	2,641,483
	117,605	170,519	4,064,730	5,698,752

31.3 Coal supply agreements

As at 31 December 2022, a group of Indonesian subsidiaries had coal supply commitments in accordance with the coal supply agreements for 14.20 million tonnes (2021: 15.80 million tonnes) at the market price. The coal will be delivered during 2023 and 2024.

31.4 Significant contracts

Share purchase agreements

- a) On 9 December 2021, a subsidiary entered into Sale and Purchase Agreement (SPA) for the acquisition of 100% in Ha Tinh Solar Power Joint Stock Company that holds an interest in Ha Tinh solar farm with the capacity of 50 MW located in Vietnam. The purchase consideration is US Dollar 23.9 million. As at 31 December 2022, this transaction remains subject to certain adjustments, conditions precedents outlined in the SPA and customary approvals with completion expected to take place.
- b) On 25 January 2022, a subsidiary of the Group entered into the Sale and Purchase Agreement (SPA) for the acquisition of 100% holding interest in Licogi 16 Gia Lai Investment Renewable Energy Joint Stock Company (LCE Gia Lai) which owns 15 MW Chu Ngoc solar power plant located in Vietnam. The purchase consideration is US Dollar 9.12 million. As at 31 December 2022, this transaction remains subject to certain adjustments, conditions precedents outlined in the SPA and customary approvals with completion expected to take place.
- c) On December 19, 2022, a subsidiary of the Group entered into a Subscription Agreement to invest in a Private Equity Fund with a total investment amount of US Dollar 120 million. The payment period is based on the specified conditions in the agreement. As of 31 December 2022, the Group did not make any payment.

31.5 Significant changes in tax investigation of Indonesian subsidiaries

Significant changes in tax investigation by the Directorate General of Tax (DGT) for the year ended 31 December 2022 are as follow:

Fiscal year	Subsidiaries	Tax type	Tax assessment letter	Dispute amount	Status
2009	ITM	CIT	Underpayment	US Dollar 13.0 million	The Supreme Court result was favourable of ITM
2011	TCM	Withholding tax (WHT) 23	Underpayment	Indonesian Rupiah 36.4 billion (equivalent to US Dollar 2.3 million)	Submitted Judicial Review to Supreme Court
2012	TCM	CIT	Overpayment	US Dollar 2.6 million	Submitted Judicial Review to Supreme Court
2012	TCM	WHT 23/26	Underpayment	Indonesian Rupiah 7.9 billion (equivalent to US Dollar 0.5 million)	Submitted Judicial Review to Supreme Court
2012	JBG	CIT	Overpayment	US Dollar 1.9 million	The Supreme Court result was unfavourable of JBG
2013	IMM	WHT 23/26	Underpayment	Indonesian Rupiah 33.8 billion (equivalent to US Dollar 2.2 million)	Submitted Judicial Review to Supreme Court
2013	KTD	WHT 23	Underpayment	Indonesian Rupiah 601.6 million (equivalent to US Dollar 0.04 million)	Submitted Judicial Review to Supreme Court
2015	IMM	CIT	Overpayment	US Dollar 3.1 million	Submitted Judicial Review to Supreme Court
2015	IMM	WHT 26	Underpayment	Indonesian Rupiah 24.6 billion (equivalent to US Dollar 1.6 million).	Submitted Judicial Review to Supreme Court
2015	IMM	VAT	Underpayment	Indonesian Rupiah 69.4 billion (equivalent to US Dollar 4.6 million).	Submitted Judicial Review to Supreme Court
2016	IMM	WHT 26	Underpayment	Indonesian Rupiah 27.7 billion (equivalent to US Dollar 1.9 million)	The Tax Court result was in favour of IMM
2018	IMM	CIT	Overpayment	US Dollar 4.0 million	Submitted tax appeal letter to Tax Court
2019 and 2020	IMM	Land and Building Tax	Underpayment	Indonesian Rupiah 99.6 billion (equivalent to US Dollar 6.3 million)	Submitted tax appeal letter to Tax Court
2019	IMM	CIT	Overpayment	US Dollar 3.0 million	DGT accepted objection and the company fully received refund

Fiscal year	Subsidiaries	Tax type	Tax assessment letter	Dispute amount	Status
2019	BEK	CIT	Overpayment	US Dollar 1.1 million	DGT accepted objection and the company fully received refund
2020	IMM	CIT	Overpayment	US Dollar 1.5 million	Submitted objection to DGT
2020	IMM	Domestic VAT	Overpayment	Indonesian Rupiah 24.8 billion (equivalent to US Dollar 1.6 million)	Submitted objection to DGT

As at 31 December 2022, the Group recognised prepaid taxes as assets amounting to US Dollar 213.09 million or equivalent to Baht 7,364.93 million (2021: US Dollar 136.90 million or equivalent to Baht 4,575.11 million) in the consolidated statement of financial position. The Group considers the recoverable amounts of these prepaid taxes by assessing the evidence, including related taxation law and the conformity of the Group's tax management, tax objection, and tax appeals. However, recoverable amounts of prepaid taxes depend on the tax investigation and decision by the related tax bureau and/or tax court.

Additionally, various taxes of Indonesian subsidiaries are still in the process of tax audit by the DGT for the fiscal years of 2018 and 2021. The Group's management believes that the tax audit, objection, appeal, lawsuit, and judicial review results will not have a material impact on the consolidated financial statements.

31.6) Significant litigation during the year

On 19 April 2022, an Indonesian subsidiary was sued for the breach of Cooperation Agreement with the other company dated 4 September 2004. The Plaintiff is claiming compensation for total losses of US Dollar 490.64 million. On 13 December 2022, the District Court rejected the Plaintiff's claim in its entirety. On 23 December 2022, the Plaintiff then filed an appeal to the High Court. As at 31 December 2022, this case has been in the process of the High court. The subsidiary did not recognise contingent liability in the consolidated financial statement because the Group's management believes that the subsidiary has strong evidence to defend in the lawsuit.

32 Business combination

32.1 Investment in solar farms Beryl Hold Trust and Manildra Hold Trust

On 30 July 2021, the Group purchased all ordinary class units and shares in Beryl Hold Trust Group and Manildra Hold Trust Group, which own solar farms in New South Wales, Australia, with a capacity of 110.9 MW and 55.9 MW, respectively. The total consideration payment was Australian Dollar 95.73 million or equivalent to US Dollar 70.72 million. The Group has a 100% of holding interest in this investment and fully paid for this investment.

The Group has completed the purchase price allocation during the year ended 31 December 2022. Details of fair value of net assets acquired and the consideration paid are as follows:

	Australian Dollar'000	US Dollar'000
Cash	12,411	9,168
Trade receivables	458	339
Other current assets	1,361	1,006
Derivative assets	79,658	58,843
Property, plant and equipment, net	175,322	129,510
Intangible assets, net	27,196	20,089
Other non-current assets	5,600	4,137
Trade and other payables	(2,117)	(1,564)
Borrowings	(195,299)	(144,267)
Deferred tax liabilities	(20,100)	(14,848)
Other liabilities	(16,802)	(12,412)
Fair value of net assets acquired	67,688	50,001
Goodwill	28,041	20,714
Purchase consideration	95,729	70,715

32.2 Investment in the Barnett Shale

On 18 May 2022, the Group signed a Purchase and Sale Agreement (PSA) to acquire natural gas and midstream assets in the Barnett Shale, in the United States from XTO Energy, Inc. and Barnett Gathering LLC (XTO), subsidiaries of Exxon Mobil Corporation with the transaction valued at US Dollar 750 million. As at 30 June 2022, the Group successfully completed the acquisition of natural gas and midstream assets for a consideration of US Dollar 636.59 million after adjustments according to the Agreement. The terms of the Purchase and Sale Agreement also stipulated contingent considerations up to US Dollar 50 million, based upon the future related commodity prices over the next two years beginning 1 January 2023.

Details of fair value of net assets acquired and the consideration paid are as follows:

	US Dollar'000
Inventories	150
Property, plant and equipment, net	927,634
Asset retirement obligation	(46,867)
Deferred tax liabilities	(50,568)
Other current liabilities	(22,908)
Fair value of net assets acquired	807,441
<u>Less</u> Purchase consideration	
- Purchase consideration at acquisition date	619,437
- Contingent consideration at acquisition date	17,150
Total purchase consideration	636,587
Bargain purchase from business combination	170,854

As at 31 December 2022, the Group is in the process of determining fair value of net assets acquired and reviewing purchase price allocation (PPA). This is expected to be finalised within 12 months from the acquisition date. However, the estimated fair value may be adjusted to reflect new information obtained about facts and circumstances that existed as of the acquisition date.

32.3 Investment in solar farm Nhon Hai

On 25 January 2022, a subsidiary of the Group entered into the Sale and Purchase Agreement (SPA) for the acquisition of 100% holding interest in Licogi 16 Nin Thuan Investment Renewable Energy Joint Stock Company (LCE Ninh Thuan) which owns 35 MW Nhon Hai solar power plant in Vietnam. On 31 May 2022, the Group completed the acquisition of LCE Ninh Thuan for a consideration of US Dollar 20.38 million.

Details of fair value of net assets acquired and the consideration paid are as follows:

	VND'000	US Dollar'000
Cash	70,861,518	3,057
Trade receivables	29,188,938	1,259
Other current assets	173,336	7
Property, plant and equipment, net	633,363,957	27,327
Right to operate the power plant	247,364,681	10,673
Trade payables	(23,570)	(1)
Other current liabilities	(4,303,043)	(185)
Deferred tax liabilities	(49,472,936)	(2,135)
Long-term loans from financial institutions	(504,269,961)	(21,757)
Fair value of net assets acquired	422,882,920	18,245
Goodwill	49,472,936	2,135
Purchase consideration	472,355,856	20,380

As at 31 December 2022, the Group is in the process of determining fair value of net assets acquired and reviewing purchase price allocation (PPA). This is expected to be finalised within 12 months from the acquisition date. However, the estimated fair value may be adjusted to reflect new information obtained about facts and circumstances that existed as of the acquisition date.

33 Events after the reporting period

On 20 February 2023, a subsidiary of the Group has entered into an investment agreement to additionally invested in Durapower Holding PTE, Ltd. (DPH), an associate of the Group, totalling US Dollar 70 million. After execution, the Group's shareholding in DPH will increase from 47.68% to 65.10%.