



QUALITY MEGAWATTS

FOR SUSTAINABLE VALUE

Management's Discussion and Analysis for the 3rd Quarter 2023

Banpu Power Public Company Limited and Subsidiaries



1. Management Discussion and Analysis

In the third quarter of 2023, Banpu Power has invested in Temple II Gas-fired power plant, located adjacent to Temple I Gas-fired power plant in the state of Texas, which experience consistent growth of electricity demand due to economic expansion, urbanization, population growth, and abundant energy resources. The acquisition of Temple II marks a significant success in expanding our power business in the United States at optimal timing. As an operational power plant, it can generate immediate revenue and cash flow. Furthermore, Temple I, which underwent Spring maintenance, has resumed operation during the high demand summer season, driven by heatwave in Texas, which led to increased electricity demand and higher prices. Consequently, this quarter has demonstrated robust profitability for the company. Temple I and Temple II have planned to conduct Fall Maintenance to ensure continuous operation, efficiency, and responsiveness to meet high electricity consumption during the upcoming winter season.

In the third quarter of 2023, The Company achieved a net profit of THB 2,099 million, including an FX translation gain of THB 236 million and a THB 1,926 million loss from derivatives. The company's EBITDA of THB 7,460 million increased by THB 5,545 million or 289% compared to the same quarter last year, which mainly resulted from the excellent performance of gas-fired power plant business in the United States, together with an acquisition of Temple II. Additionally, surging electricity demand driven by heatwave crisis led to a significant increase of gross profit margin.

The Company reported consolidated revenue of THB 16,148 million, mainly driven by the gas-fired power plant in USA which contributed THB 15,008 million. This reflected an increase by 289% compared to same quarter last year due to acquisition of Temple II and higher electricity price. Additionally lower natural gas prices also led to higher gross profit by 840% compared to the same quarter last year to THB 6,886 million. For three CHPs in China, they contributed revenue by THB 1,141 million, increased THB 45 million or 4% compared to the same quarter last year due to higher electricity sold. Moreover, a 23% drop in average coal price led to higher gross profit to be THB 44 million in this quarter, despite THB strengthening against the RMB.

Total profit sharing was reported at THB 537 million, mainly from the HPC power plants which contributed to THB 451 million of share profit, despite maintenance shutdown of Unit 1. The BLCP power plant reported a share profit of THB 230 million with high EAF at 99.9%. This is composed of THB 372 million operating profit and THB 142 million of loss from foreign exchange translation and deferred tax. SLG power plant in China reported a share profit of THB 43 million, contributed by higher electricity sold and a coal supply contract at favorable price. The Nakoso power plant reported a loss sharing of THB 69 million, because of plant maintenance shutdowns. There was a share of losses from investments in renewable energy and energy

technology businesses, totaling THB 118 million. improved by THB 141 million compared to the same quarter last year, primarily driven by the energy storage system business in Singapore, the renewable energy and energy trading businesses in Japan, and the less impact of the exchange rate.

Banpu Power continues to push forward in fostering energy growth with quality megawatts as an integral part of our Greener & Smarter strategy for sustainable growth. Our objective is to expand our power business portfolio by leveraging high efficiency, low emissions technologies (HELE), along with renewable energy, and fostering the growth of energy technology businesses that support clean energy. Our goal is to achieve a production capacity of 5,300 megawatts by 2025 and deliver sustainable returns and value to all of our stakeholders.

2. Group Performance Analysis

The analysis and explanation performance for the period ended 30 September 2023 and 2022:
Consolidated Statement of Income for the 3rd quarter ended 30 September 2023 and 2022:

Consolidated financial performance (Unit: Million Baht)	3Q2023	3Q2022	Change	
			Amount	%
Sales	16,148	4,956	11,192	226%
Cost of sales	(9,218)	(4,355)	(4,863)	112%
Gross profit	6,930	601	6,329	1053%
Selling & Administrative expenses	(592)	(412)	(180)	44%
Share of profit from an associate and joint ventures	537	1,156	(619)	-54%
Other Income (Expense)	(1,582)	3,070	(4,652)	-152%
Other financial costs	(731)	(254)	(477)	188%
Profit before income taxes	4,562	4,161	401	10%
Income taxes	(484)	(441)	(43)	10%
Profit for the period	4,078	3,720	358	10%
Owners of the company	2,099	2,315	(216)	-9%
Non-controlling interests	1,979	1,405	574	41%
Basic earnings per share (unit : Baht)	0.689	0.760	(0.071)	-9%

The group reported 3Q2023 net profit at THB 2,099 million, decreased by THB 216 million or 9% compared to 3Q2022. This was mainly from unrealized loss on financial derivative from Temple I and Temple II gas-fired power plants totaling THB 1,785 million before tax and non-controlling interest. In case excluding such loss, the group reported higher net profit compared to 3Q2022, which mainly resulted from recognition of operating profit from Temple II gas-fired powerplant. Additionally, electricity demand became higher, driven by the heatwave that caused extremely high temperatures in Texas resulting in an increase in gross profit margin. A decrease in recognition of loss sharing from investment in renewable energy business, was mainly from energy storage system business in Singapore, energy trading business in Japan, and a lessor impact from foreign exchange rate conversion. Also, SLG power plant reported profits continually from higher sales volume and entering a long-term coal supply contract at favorable price. However, there was a decrease in profit sharing recognition from HPC power plant that was consequential impact from the maintenance shutdown of Unit 1, also a decrease in profit sharing from Nakoso power plant due to maintenance shutdown to improve efficiency and stability of the power plant in the long run, and an increase in finance costs supported business expansion in USA.

Details of the group operating performance for 3Q2023 were described as followings:

Sales, Cost of sales and Gross profit

Sales reported at THB 16,148 million, increased by THB 11,192 million or 226% compared to 3Q2022. This was mainly from an increase in electricity sales from gas-fired power plant in USA of THB 11,147 million, and from power and steam sales from CHP plants in China of THB 45 million. Details were described as followings:

Items	Power Sold (GWh)		Steam & Others Sold (Million Tonnes)		Average Power tariff (RMB/KWh)		Average Steam & others price (RMB/Tonne)	
	3Q2023	3Q2022	3Q2023	3Q2022	3Q2023	3Q2022	3Q2023	3Q2022
100 % Basis								
Zhengding CHP	41.40	28.68	0.09	0.06	0.49	0.41	207.71	218.92
Luannan CHP	58.23	42.12	0.58	0.36	0.40	0.38	141.02	140.81
Zouping CHP	70.39	76.11	0.38	0.36	0.43	0.46	154.80	207.78
Total CHP Power Plant	170.02	146.91	1.06	0.78	0.43	0.43	151.60	178.21
	(GWh)				(USD/MWh)			
Gas-Fired Power Plant	2,478.56	1,315.35	-	-	102.79	94.35	-	-

Combined Heat and Power (CHP) plants in China: Increase THB 45 million

An increase of sales from CHP plants compared to 3Q2022 was derived from:

1. An increase of THB 53 million from power sales. This was a result of an increase in customer demand from Luannan CHP plant and Zhengding CHP plant that caused an increase in sales volume of 23.11 GWh. Power sales tariff remained at 0.43 RMB (3Q2022: 0.43 RMB).
2. An increase of THB 102 million from steam sales and others, resulting from an increase in customer demand from Luannan CHP and Zhouping CHP, resulting to an increase in steam sales of 0.28 million tonnes, while average price of steam sales and others per tonne decreased by RMB 26.61. Average sale price per tonne in 3Q2023 was 151.60 RMB (3Q2022: 178.21 RMB).
3. The effects of foreign exchange rate translation of THB 110 million due to an appreciation of THB currency against RMB currency compared to 3Q2022, which caused a lesser revenue in THB currency when converting from revenue in RMB currency. Average exchange rate of RMB/THB in 3Q2023 was THB 4.8540 (3Q2022: THB 5.3186).

Temple I Gas-Fired Power Plant in USA: Increase THB 11,147 million

Sales from gas-fired power plant business was higher, mainly derived from the acquisition of Temple II gas-fired power plant during this quarter, resulting in an increase in sales volume of 1,163.21 GWh or 88% compared to 3Q2022. Average sales price in 3Q2023 was \$102.79 (3Q2022: \$94.35).

**Cost of sales:
Increase 112%**

Cost of sales reported THB 9,218 million, increased by THB 4,863 million compared to 3Q2022 was derived from:

1. CHP Plants in China that cost of sales decreased by THB 131 million from:
 - A decrease in coal cost THB 124 million due to a decrease in average coal cost per tonne by RMB 275. Average coal cost per tonne in 3Q2023 was RMB 910 (3Q2022: RMB 1,185), although an increase in coal used by 0.03 million tonnes which coal used in this quarter was 0.17 million tonnes (3Q2022: 0.14 million tonnes).
 - The effects from an appreciation of THB currency to foreign exchange rate translation of THB 7 million. This resulted in lesser cost of sales in THB currency when converting from cost of sales in RMB currency. Average exchange rate of RMB/THB in 3Q2023 was THB 4.8540 (3Q2022: THB 5.3186).
2. Gas-fired power plant in USA that cost of sales increased by THB 4,994 million was a result from an increase in natural gas consumption from higher power sales volume resulting from the acquisition of Temple II gas fired power plant that caused an increase in cost of sales THB 5,146 million. However, the effects from an appreciation of THB currency against USD currency of THB 152 million resulting to a decrease in cost of sales in THB currency when converting from USD currency. Average exchange rate of USD/THB in 3Q2023 was THB 35.1671 (3Q2022: THB 36.4147)

**Gross profit:
Increase 1,053%**

Gross profit was THB 6,930 million, increased by THB 6,329 million compared to 3Q2022 derived from:

1. An increase in operating performance from CHP plants in China of THB 176 million from higher power and steam sales volume and a decrease in coal cost compared to 3Q2022.
2. An increase in operating performance from gas-fired power plants in USA of THB 6,153 million. This was due to an increase in sales volume and tariff compared to 3Q2022, resulting from the acquisition of Temple II gas-fired power plant in USA, and from an increase in gross profit margin due to higher price driven by the growth of power demand arising from significantly higher temperature.

Selling and Administrative expenses: Increase 44%

Administrative expenses of THB 592 million increased by THB 180 million compared to 3Q2022. This was mainly from administrative expense from Temple II gas-fired power plant and expenses for business expansion to power retail business in USA.

Items	Profit (loss) sharing		Increase/(Decrease)	
	3Q2023	3Q2022	Amount	%
(Unit: Million Baht)				
BLCP	230	9	221	2328%
HPC & PFMC	451	1,405	(954)	-68%
SLG	43	(1)	44	4339%
Holding Company for Nakoso power plant	(69)	2	(71)	-4531%
Banpu Next	(118)	(258)	141	54%
Total	537	1,156	(619)	-54%

Share of profit from joint ventures and associates: decrease 54%

Recognition of profit sharing from joint ventures and an associate was decreased by THB 619 million compared to 3Q2022 was a net result of:

1. A decrease in profit sharing recognition from HPC power plant and PFMC of THB 954 million. This was a decrease in operating performance of THB 759 million, resulting from the maintenance shutdown of Unit 1, also from a decrease in gain on exchange rate of THB 195 million.
2. A decrease in profit sharing recognition from Nakoso power plant in Japan of THB 71 million. This was a result of the power plant shut down for maintenance to improve efficiency and stability in the long run.
3. A decrease in loss sharing recognition from investment in renewable power and energy technology business of THB 141 million, primary from energy storage system business in Singapore, and energy trading business in Japan, and a lesser impact from foreign exchange rate conversion compared to 3Q2022.
4. An increase in profit sharing recognition from BLCP of THB 221 million, which was mainly an increase in operating profit of THB 49 million and a decrease in deferred tax and loss on foreign exchange rate translation, totaling THB 172 million.
5. An increase in profit sharing recognition from SLG power plant of THB 44 million resulting from better operating performance due to higher sales volume and entering a coal supply contract at favorable price, led to substantially decrease in coal cost.

Other income and other expense

Other income and other expense of THB 1,582 million was comprised of:

1. Net loss on financial derivatives THB 1,925 million that was unrealized loss on fair value of financial derivatives of THB 1,785 million and realized loss on fair value of financial derivatives of THB 140 million.
2. Interest income of THB 29 million.
3. Management fee income of THB 42 million, primary was management fees charged to related companies and joint ventures.
4. Net gain on foreign exchange rate of THB 236 million was mainly from unrealized gain on exchange rate from conversion of USD currency loan from related party at the end of the period, caused by a depreciation of THB currency against USD currency compared to the 2Q2023. Average exchange rate of USD/THB for 3Q2023 was THB 35.1671 (2Q2023: THB 34.4783).
5. Other income of THB 36 million comprised of:
 - Pipeline connecting fee income charged to new steam customers of CHP plants in China of THB 10 million.
 - Ash and slag sales from CHP plants in China of THB 3 million.
 - Subsidy income from China government for electricity production of THB 6 million.
 - Other income of THB 17 million.

Interest expenses and finance cost: Increase 188%

Interest expenses and finance cost of THB 731 million, increased by THB 477 million compared to 3Q2022, primarily was from interest of loan for business expansion in USA.

Income tax: Increase 10%

Income tax expenses of THB 484 million, increased by THB 43 million compared to 3Q2022. This comprised of:

1. An increase of recognition in deferred income tax of THB 182 million, was from a decrease in deferred tax assets from tax loss utilization due to higher operating profit from gas-fired power plant in USA.
2. A decrease in income tax of THB 139 million, mostly from a decrease of dividend income from a joint venture in Laos.

Net profit for the 3rd quarter ended 30 September 2023 reported at THB 2,099 million, decreased by THB 216 million compared to 3Q2022.

Basic Earnings per Share reported at THB 0.689 (3Q2022: THB 0.760)

3. Statement of Consolidated Financial Position

Statement of Consolidated Financial Position as of 30 September 2023 in comparison with Statements of Consolidated Financial Position as of 31 December 2022

Items (Unit: Million Baht)	Financial Position		Increase/(Decrease)	
	30-Sep-23	31-Dec-22	Amount	%
Assets	103,674	77,665	26,009	33%
Liabilities	46,031	24,873	21,158	85%
Equity	57,643	52,792	4,851	9%

3.1 Total assets of THB 103,674 million, increased by THB 26,009 million or 33% compared to the 31 December 2022, with mainly described as follows:

Financial Position (Unit: Million Baht)	Assets		Increase/(Decrease)	
	30-Sep-23	31-Dec-22	Amount	%
Cash and cash equivalents	9,208	4,055	5,153	127%
Financial assets measured at fair value	198	58	140	243%
Trade accounts receivable, net	3,152	1,754	1,398	80%
Fuel and Spare parts & supplies, net	1,318	1,101	216	20%
Current portion of dividend receivables from related parties	-	50	(50)	-100%
Other current assets	3,281	4,652	(1,371)	-29%
Total current assets	17,157	11,670	5,487	47%
Dividend receivables from related parties	-	114	(114)	-100%
Investments in an associate and joint ventures	44,214	40,513	3,701	9%
Property, plant and equipment, net	40,298	22,876	17,422	76%
Right of use assets, net	550	567	(17)	-3%
Other non current assets	1,455	1,926	(471)	-24%
Total non current assets	86,517	65,995	20,522	31%
Total assets	103,674	77,665	26,009	33%

- Cash and cash equivalents of THB 9,208 million, increased by THB 5,153 million or 127% (Explanation in no. 4 Statement of Consolidated Cash Flows).
- Financial assets measured at fair value of THB 198 million, increased by THB 140 million or 243 % was from an addition of THB 828 million; net with redemption of THB 692 million, and an impact from foreign exchange conversion of THB 4 million.

- Account receivable of THB 3,152 million increased by THB 1,398 million or 80%. This was an increase from gas-fired power plant in USA of THB 1,510 million due to the acquisition of Temple II gas-fired power plant during this quarter, while a decrease from CHP plant in China of THB 103 million due to a decrease of average price in steam sales and others compared to the end of prior year, and effect from foreign exchange conversion of THB 9 million
- Fuel and Spare parts, net of THB 1,318 million, increased by THB 216 million or 20%. This was an increase from CHP plant in China of THB 62 million, from gas-fired power plant of THB 202 million and effect from foreign exchange conversion of THB 48 million,
- Other current assets of THB 3,281 million, decreased by THB 1,371 million or 29% was mainly from:
 1. A decrease in short-term loans to related parties of THB 1,705 million. This was a net result of cash received THB 1,730 million from settlement and unrealized gain on foreign exchange conversion of THB 25 million.
 2. A decrease in accrued interest income from related parties of THB 194 million. This was a net result of a recognition of interest income during the period of THB 136 million, cash receives THB 327 million from settlement, and unrealized loss on foreign exchange rate translation of THB 3 million.
 3. An increase from the current portion of long-term loan to related parties of THB 160 million was a reclassification from non-current part.
 4. An increase from financial derivative assets from gas fired power plant in USA of 196 million.
 5. An increase in restricted cash from CHP power plant in China of THB 107 million.
 6. An increase in other accrued income and other receivable of THB 65 million.
- Current and non-current portions of dividend receivables from related party totaling decrease of THB 164 million, from dividend receivables from a domestic power plant joint venture.

Dividend receivables from related parties (Unit: Million Baht)	Financial Position		Increase/(Decrease)	
	30-Sep-23	31-Dec-22	Amount	%
Current portion of dividend receivables from related parties	-	50	(50)	-100%
Dividend receivables from related parties	-	114	(114)	-100%
Total	-	164	(164)	-100%

- Investment in joint ventures and associates of THB 44,214 million, increased by THB 3,701 million or 9% from new investment in a joint venture BKV-BPP Cotton Cove in USA of THB 316 million, shares of profits recognition of THB 4,246 million and other comprehensive loss of THB 66 million, offset with unrealized gain on foreign exchange rate translation at the end of period of THB 282 million, and dividend recognition during the period of THB 1,077 million.

- Net property plant and equipment of THB 40,298 million increased by THB 17,422 million or 76%. This was mainly from the acquisition of Temple II gas fired power plant of THB 15,795 million, additions of machinery and equipment of CHP plants THB 946 million net with disposals of THB 254 million and depreciation charges THB 1,051 million and unrealized gain on foreign exchange rate translation at the end of period of THB 1,986 million.
- Right-of-use assets of THB 550 million, decreased by THB 17 million or 3%, was the amortization THB 22 million and unrealized gain on foreign exchange rate translation at the end of period 5 million.
- Other non-current assets of THB 1,455 million, decreased by THB 471 million or 24% was mainly from:
 1. A decrease in long term loan to related parties of THB 642 million resulting from reclassification to current portion of THB 160 million, received from loan settlement of THB 475 million and unrealized loss on foreign exchange rate translation at the end of period of THB 7 million.
 2. An increase in deferred tax assets of THB 24 million from recognition of deferred tax assets deriving from operating loss of CHP plants in China.
 3. An increase in customer list from the power retail business in USA of THB 99 million.
 4. An increase in other assets of THB 48 million.

3.2 Total liabilities of THB 46,031 million, increased by THB 21,158 million or 85% compared to total liabilities as of 31 December 2022 with details mainly described as follows:

Financial Position (Unit: Million Baht)	Liabilities		Increase/(Decrease)	
	30-Sep-23	31-Dec-22	Amount	%
Short-term loans from financial institutions	1,498	242	1,256	520%
Trade accounts payable	232	220	12	6%
Current portion of long-term loans from financial institutions	1,670	1,231	439	36%
Current portion of lease liabilities	5	13	(8)	-63%
Other current liabilities	9,316	7,680	1,636	21%
Total current liabilities	12,720	9,385	3,335	36%
Long-term loans from financial institutions, net	27,381	9,860	17,521	178%
Debenture, net	5,493	5,492	1	0%
Lease liabilities	3	4	(1)	-32%
Other non current liabilities	434	131	303	230%
Total non-current liabilities	33,311	15,488	17,823	115%
Total liabilities	46,030	24,873	21,158	85%

- Short-term loans from financial institutions of THB 1,498 million, increased by THB 1,256 million or 520 % was from a net result of additional loans THB 3,854 million and repayment THB 2,602 million. Also, there was an unrealized loss on foreign exchange rate translation at the end of period of THB 4 million on RMB currency loan, resulting from a depreciation of THB currency against RMB currency. Average exchange rate of RMB/THB as of 30 September 2023 was THB 5.0177 (31 Dec 2022: THB 4.9664).
- Current portion of long-term loans from financial institutions of THB 1,670 million, increased by THB 439 million or 36%. This was a net result of reclassification from non-current portion THB 3,010 million (including net front end fee), repayment THB 2,591 million and from unrealized loss on foreign exchange rate translation at the end of period of THB 20 million.
- Other current liabilities of THB 9,316 million, increase by THB 1,636 million or 21% was mainly from:
 1. An increase in financial derivative liabilities of Gas – fired power plant THB 2,648 million.
 2. A decrease in advance received from steam residential customers CHP plants in China THB 232 million.
 3. A decrease in account payable of related party THB 348 million.
 4. A decrease in current portion of long-term loan from related party THB 547 million due to additions of THB 276 million, repayment of THB 1,051 million, and unrealized loss on foreign exchange rate translation at the end of period of THB 228 million.
 5. An increase in other accrued expense THB 115 million.
- Long-term loans from financial institutions of THB 27,381 million, increase by THB 17,521 million or 178%, was a result of reclassification to current portion THB 3,010 million, additions of THB 19,728 million mainly to support business expansion in USA, and unrealized loss on foreign exchange rate translation at the end of period THB 803 million on USD loan resulting from a depreciation of THB currency against USD currency. Average exchange rate of USD/THB as of 30 September 2023 was THB 36.5583 (31 Dec 2022: THB 34.5624)

3.3 Shareholders' equity of THB 57,643 million, an increase of THB 4,851 million or 9% compared to shareholders' equity as of 31 December 2022 was due to:

Financial Position (Unit: Million Baht)	Equity		+/(-)	
	30-Sep-23	31-Dec-22	Amount	%
Owners of the parent	51,841	48,481	3,360	7%
Non-controlling interests	5,802	4,311	1,491	35%
Total equity	57,643	52,792	4,851	9%

- An increase of THB 5,550 million from net profits for the 9-month period.
- An increase of THB 1,491 million from non-controlling interests.
- An increase of THB 505 million from foreign exchange translation of subsidiaries and joint ventures financial statements.
- A decrease of THB 351 million from the change in fair value of hedged financial instruments.
- A decrease of THB 210 million from cashflows hedge reserves of associate and joint venture.
- A decrease of THB 2,133 million from dividend paid.
- A decrease in remeasurement of employment benefit of THB 1 million.

Net debt to equity ratio as of 30 September 2023 from consolidated financial positions was 0.45 times (31 December 2022: 0.24 time)

4. Statements of Consolidated Cash Flows

Statement of consolidated cash flows for 3rd quarter ended 30 September 2023 reported an increase of net cash flows from 31 December 2022 total of THB 5,153 million (included exchange rate translation gain of THB 375). The consolidated cash flows were as follows:

Cash flow (Unit : Million Baht)	Consolidated
Net cash receipt from operating activities	2,938
Net cash used in investing activities	(13,628)
Net cash receipt from financing activities	15,468
Net increase in cash and cash equivalents	4,778
Exchange differences on cash and cash equivalents	375
Cash and cash equivalents at beginning of the period	4,055
Cash and cash equivalents at end of the period	9,209

4.1 Net cash inflows from operating activities of THB 2,938 million comprised of:

- Collection from sales of power and steam THB 8,603 million.
- Payment to suppliers and contractors THB 4,371 million.
- Payment of interest expense THB 1,203 million.
- Payment of corporate income tax THB 91 million.

4.2 Net cash outflows from investing activities of THB 13,628 million comprised of:

- Receipts of dividends from joint ventures THB 1,242 million.
- Receipts from interest income THB 356 million.
- Receipts from investment in debt instruments THB 692 million.
- Receipts from loan to related party THB 2,207 million.
- Payment for acquisition of Temple II gas fired power plant in USA THB 15,930 million.
- Payments for machines, equipment, and project in progress THB 948 million.
- Payment for investment in a joint venture, BKV-BPP Cotton Cove in USA THB 316 million.
- Payments for investment in debt instruments THB 828 million.
- Payments for restricted deposit THB 103 million.

4.3 Net cash inflows from financing activities of THB 15,468 million comprised of:

- Receipts from short-term and long- term loans from financial institutions THB 23,580 million.
- Repayments of short-term and long-term loans from financial institutions THB 5,193 million.
- Repayments of long-term loan to related party of 776 million.
- Repayment of lease liabilities THB 10 million.
- Payment for dividend of THB 2,133 million.