Banpu Public Company Limited

and Subsidiaries

Management's Discussion and Analysis

For the Third Quarter 2020

Sustainability Award Gold Class 2019

MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM

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

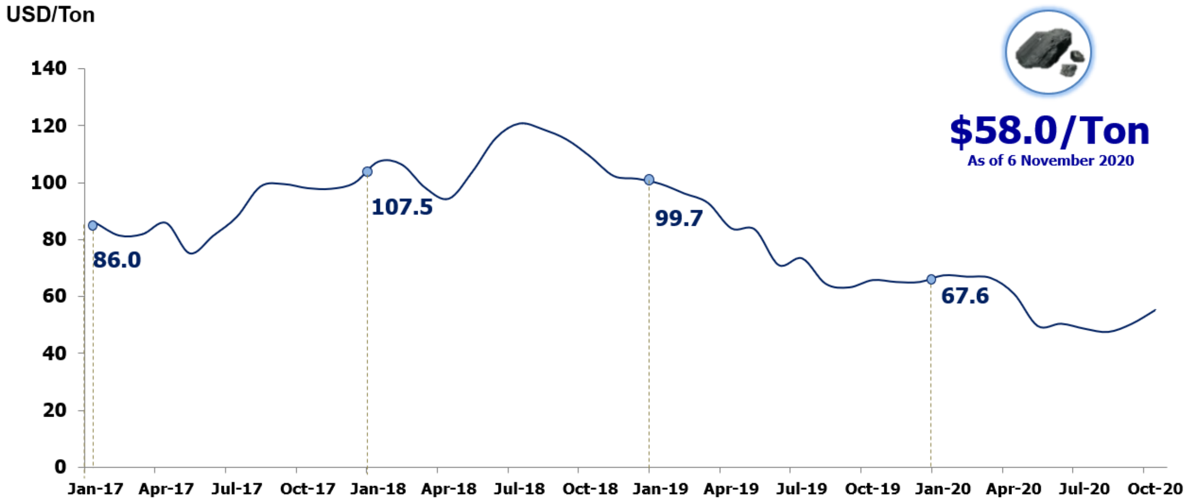
MSCI ESG RATINGS

In 2019, Banpu Public Company Limited received a rating of A (on a scale of AAA-CCC) in the MSCI ESG Ratings assessment.

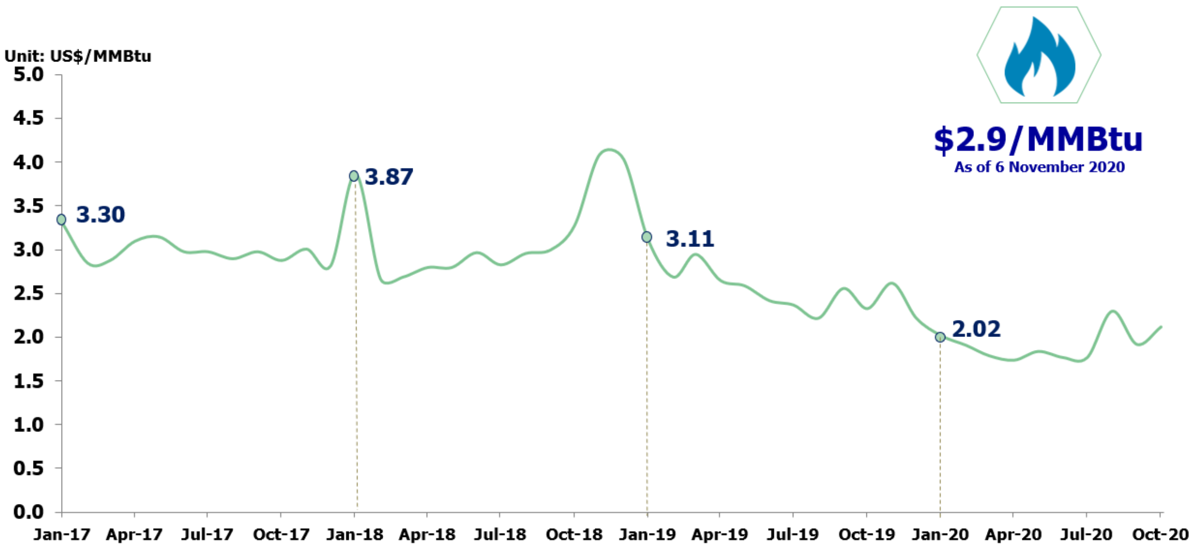
1. Energy Commodities Price Index

The market thermal coal and natural gas price since January 2017 as per below graphs that illustrate the coal and gas price indexes in the past periods.

Coal Price Index: The Newcastle Export Index (NEX) for January 2017 – October 2020



Average Henry Hub Natural Gas Price for January 2017 – October 2020



2. Management Discussion and Analysis

The sign of global economic recovery in the 3rd quarter has been improving after heavily impacted from Corona Virus pandemic in the previous quarter. The Energy demand from both industrial and residential sectors have been gradually improved supported by the rationalize of demand and supply of global coal, oil, and gas industry. Moreover, the implementation of cost cutting with careful utilization of investment budget reflect in the improvement of BANPU financial performance in the 3rd quarter compare to the previous quarter.

Group EBITDA for 3Q20 was USD 146 million (+103 % QoQ), including EBITDA from coal of USD 103 million (+176 % QoQ), EBITDA from gas of USD 13 million (+ 699 % QoQ) and EBITDA from power of USD 30 million (- 8 % QoQ).

In this quarter, the depreciation of Thai Baht against US Dollar at 31.66 THB/USD compare to the previous quarter at 30.89 THB/USD resulted in an unrealize translation gain of USD 20 million. Therefore, the company reported consolidated net loss of USD 16 million improved by USD 13 million compare to the same period last year.

Operation result from Energy Resources business consists of Coal mine in Indonesia reported coal sale of 4.31 million tons, decreasing 19% QoQ due to heavy rainfall. The softening coal market also impact The Average Selling Price (ASP) at 49.10 USD per ton while the implementation of cost cutting program reflected in the lower cost of sale at 32.28 USD per ton, therefore the Gross Profit Margin (GPM) was 34% or improved by 12% from previous quarter. Coal mine in Australia reported coal sale volume at 3.24 million tons. The ASP slightly reduced to AUD 78.97 per ton, while the average coal cost was at A$ 70.95 significantly improve from the successful cost cutting program result in gross profit margin that turn to positive GPM of 11% compare to negative GPM of 3% in the previous quarter. China coal reported equity income of USD 10.27 million due to an increase of domestic coal market price in China, resilient coal sale and cost normalization. The operation team will continue its cost control program to ensure the ability to generate positive margin in the long term.

Shale gas business in the US reported the lower sale volume of 15.15 Billion Cubic Feet (Bcf), with the ASP of USD 0.55 per Million cubic feet (Mcf). While the gas price has the sign of recovery from the improvement in demand and supply balance in the inventory level.

For Energy generation business, the Combined Heat and Power (CHP) plants in China contributed net profit of USD 7 million. HPC reported equity income of USD 20 million significantly improve from previous quarter after all 3 units fully operated after complete the maintenance of unit 3 since August 2020. BLCP maintain 100% high electricity dispatch rate reported in an equity contribution of USD 2 million.

Renewable business continues to progress well with consistent power generation. Project Yamagata solar and Project Yabuki solar in Japan remain its target to achieve COD in November and December 2020 respectively while Soc Trang wind project in Vietnam reach 30% construction progress.

Energy technology business continue progressing in its product and service development, in this quarter Banpu NEXT secure 68 MW additional capacity from solar rooftop and floating business.

BANPU remain cautious in liquidity management and careful utilization of capital expenditure to ensure financial flexibility with stable cash flow.

3. Group Performance Analysis

The analysis and explanation of Banpu Group performance for the 3rd quarter ended 30 September 2020 and 2019 as follows:

Consolidated Statement of Income for the 3rd quarter ended 30 September 2020 and 2019

Consolidated financial performance (Unit: Million USD)	3Q20	3Q19	Change Inc/(Dec)	%
		Restated		
Sales and service income	470	654	(184)	-28%
Cost of sales and services	(373)	(483)	(110)	-23%
Gross profit	97	171	(74)	-43%
Selling expenses	(38)	(50)	(12)	-23%
Administrative expenses	(32)	(53)	(21)	-40%
Royalty fee	(37)	(57)	(20)	-34%
Share of profit from joint ventures and associates	32	63	(31)	-49%
Other income (expenses)	25	(1)	26	n.a.
Finance cost	(43)	(46)	(3)	-7%
Profit (Loss) before income taxes	4	27	(23)	n.a.
Income taxes	(11)	(12)	1	8%
Profit (Loss) for the period	(7)	15	(22)	n.a.
Owners of the parent	(16)	(1)	(15)	n.a.
Non-controlling interests	9	16	(7)	-44%
Earnings (Loss) per share (Unit : USD)	(0.003)	(0.000)	(0.003)	n.a.

In order to manage risks caused by COVID-19 pandemic that has a significant impact on worldwide economic, the group has focused on cost management and production efficiency to cope with the uncertainty of the global economic and volatility of energy commodities price in the future.

The group performance in 3Q2020 reported net loss at $16 million, decreased by $15 million compared to 3Q2019, mainly from a decrease of coal and natural gas sales volume and sales price aligned with global economic. Furthermore, cost management program has provided a favor outcome in this quarter. Details were described as follows;

Sales and cost of sales

(Unit: Million USD)	Revenue 3Q20	Revenue 3Q19	Revenue Inc.(Dec.)	Cost of Sales 3Q20	Cost of Sales 3Q19	Cost of Sales Inc.(Dec.)
Coal Business	404	586	-31%	309	419	-26%
Natural Gas Business	11	20	-45%	17	20	-15%
Power & Steam Business	38	31	23%	31	28	11%
Others	17	17	0%	16	16	0%
Total	**470**	**654**	**-28%**	**373**	**483**	**-23%**

Sales

Sales reported at $470 million (equivalent THB 14,739 million), decreased by $184 million compared to 3Q2019. This was a decrease of $182 million from coal businesses, a decrease of $9 million from natural gas business, and an increase of others of $7 million. Details of revenue were described as follows:

1. Sales from coal business of $404 million or 86% of total revenue separated by source of coal as below:
    - Indonesia coal mines of $200 million
    - Australia coal mines of $182 million
    - Others of $22 million
2. Sales from natural gas business in USA of $11 million or 2% of total revenue.
3. Sales from Power and steam of $38 million or 8% of total revenue derived from Combined Heat and Power (CHP) plants and solar power plants in China.
4. Others of $17 million represented 4% of total revenue. This was mainly from fuel trading business of a subsidiary in Indonesia.

1.Coal Business

Coal Business		3Q20	3Q19	Inc.(Dec.)
Sales Volume	Million Tonnes	7.95	9.53	-17%
Average selling price	$/Tonne	50.80	62.57	-19%
Average Cost of sales	$/Tonne	38.84	43.87	-11%

Coal sales of $404 million, decreased by $182 million or 31%. This was a decrease of sales volume by 1.58 million tonnes and average selling price by $11.77 per tonne compared to 3Q2019 as following:

Indonesia Mines		3Q20	3Q19	Inc.(Dec.)
Sales Volume	Million Tonnes	4.31	6.67	-35%
Average selling price	$/Tonne	49.10	62.00	-21%
Average Cost of sales	$/Tonne	32.28	43.77	-26%

Coal Business in Indonesia

- **Sales volume**

  Coal sales volume was 4.31 million tonnes, decreased by 2.36 million tonnes compared to 3Q2019.

- **Average selling price**

  Average selling price per tonne was $49.10, decreased by $12.90 or 21% compared to 3Q2019, in accordance with a decrease of global coal market price.

- **Average cost of sales**

  Average cost of sales per tonne was $32.28, decreased by $11.49 or 26% compared to 3Q2019. This was a due to the better cost management to cope with a volatility in global coal market price, while still maintain coal quality, including quality development to meet customer demand and retain in the long run. A decrease in average cost of sales was mostly from a decrease in stripping ratios from 10.76 to 10.02 and a decrease of oil price as global coal market price during the quarter, also from a favor outcome from cost reduction program implemented across the group.

Australia Mines		3Q20	3Q19	Inc.(Dec.)
Sales Volume	Million Tonnes	3.24	2.75	18%
Average selling price	A$/Tonne	78.97	89.78	-12%
Average Cost of sales	A$/Tonne	70.95	65.31	9%

Coal business in Australia

- **Sales volume**

  Coal sales volume was 3.24 million tonnes, increased by 0.49 million tonnes or 18% compared to 3Q2019.

- **Average selling price**

  Average selling price per tonne was A$78.97, decreased by A$10.81 or 12% compared to 3Q2019 as the following:

Australia Mines	Sales Volume (Unit: Million Tonnes)			Avg. Price/Tonne (A$/Tonne)		
	3Q20	3Q19	Inc.(Dec.)	3Q20	3Q19	Inc.(Dec.)
Domestic	2.24	1.70	32%	80.83	79.50	2%
Export	1.00	1.05	-5%	74.88	108.49	-31%
Total	**3.24**	**2.75**	**18%**	**78.97**	**89.78**	**-12%**

- **Average selling price of domestic and export sales**

  Average domestic selling price per tonne was A$ 80.83, increased by A$1.33. This is due to a higher portion of sales from high valued contracts. Average export selling price per ton was A$74.88, decreased from 3Q2019. This was driven by global coal market price. Moreover, an appreciation of AUD currency against USD currency had impacted to USD export sales that affected to lessen average selling price in AUD. Average exchange rate of AUD/USD was $ 0.7147 (3Q2019: $ 0.6849).

- **Average cost of sales**

  Average cost of sales per tonne was A$70.95, increased by A$5.64. This was mainly from Myuna and Springvale mines that encountered the difficulty in geology mining conditions which affected to a higher of average cost of sales. While, coal production volume was higher than 3Q2019 (Q32020:Q32019 was 2.85 million tonnes:2.79 million tonnes).

2. Natural Gas Business

Natural Gas Business		3Q20	3Q19	Inc.(Dec.)
Sales Volume	Bcf	15.15	17.86	-15%
Average selling price	$/Mcf	0.55	1.00	-45%
Average Cost of Sales	$/Mcf	1.11	1.10	1%

*** Bcf = Billion Cubic Feet.

Natural gas business in US

Sales from natural gas business in 3Q2020 reported at $11 million, decreased by $9 million or 45% as following details:

- **Sales Volume**

  Natural gas sale volume was 15.15 billion cubic feet, decreased by 15% versus 3Q2019. This was due to a decrease of production as a result of suspension in drilling and completion campaigns.

- **Average Selling Price**

  Although Henry Hub price fell off by 16% compared to 3Q2019, our average selling price of $0.55 per Mcf decreased by a larger extent – as much as 45 % versus 3Q2019. Even if gas demand continues to stay strong, the short-term oversupply persists, and hence, has resulted in the distressed Marcellus selling price in this quarter.

- **Average Cost of Sale**

  Average cost of sales was $1.11 per Mcf, or increased by 1% compared with 3Q2019, primarily from a higher depletion rate. Such increase is because of two factors. First, the natural production decline and the absence of development programs have both caused a reduction in gas reserves. Secondly, the significant step down in natural gas forward price versus last year has reduced the amount of "economic" reserves and would result in a higher depletion rate per Mcf. Nevertheless, depletion is a non-cash expense with no impact to cash flow. Thus, our gas business is still able to generate positive cash margin.

3. Power Business

Sales from Power and Steam of $38 million or 8% of total revenue was from sales from CHP plant and solar power plant in China. Details were described as follows:

Power Business		Combined Heat & Power Plants (CHP)			Solar Power Plants		
		3Q20	3Q19	Inc.(Dec.)	3Q20	3Q19	Inc.(Dec.)
Sales Volume	GWh	326.50	284.00	15%	59.88	62.44	-4%
Steam Volume	Million Tonnes	0.94	0.65	45%	-	N/A	N/A
Average PowerTariff	RMB/kWh	0.37	0.35	6%	0.83	0.82	1%
Average Steam Price	RMB/Tonne	98.13	101.64	-3%	-	N/A	N/A

Combined Heat and Power (CHP) plants in China

Sales from power, steam, and others from 3 CHP plants in China of $31 million, increased by $7 million compared to 3Q2019. This was mainly from increasing in sales volume of electricity and steam as detail below:

- **Sales Volume**

  Sales volume of 326.50 GWh, increased by 42.50 GWh from 3Q2019, also from steam sales of 0.94 million tonnes, increased by 0.29 million tonnes compared to 3Q2019. This was a result of higher demand of electricity and steam consumption from Zouping power plant and Luannan power plant.

- **Average Selling Price**

  An increase of average power tariff by RMB 0.02 per kWh, was from

  an increase in low-emission tariff subsidy from local government from Zhending power plant that was back date effective since December 2018.

- **Cost of Sale**

  Average cost of sales $28 million, increased by $2.2 million was from higher production volume, particularly from Zouping power plant that increase production volume more than 50% compared to Q32019.

Solar power plants in China

Sales from solar power plants in China reported at $7 million. A decrease of $0.2 million compared to 3Q2019.

- **Sales Volume**

  A decrease in solar power sales volume was from weather condition impacted unfavorably to power production. There was more rain and cloudy when compared to the same period of prior year, especially at Deyuan and Jixin power plants that located in southern area of China.

- **Average Power Tariff**

  Average power tariff was RMB 0.83, or similar to 3Q2019.

- **Cost of Sales**

  An increase of cost of sales $0.2 million was derived from project development cost in accordance with government regulations and the group standards.

Administrative expense

Administrative expenses reported at $32 million, decreased by 21 million or 40%. This was because the group has focused on cost management to cope with slowdown of global economic. Main decrease was from professional fees and others, including domestic and overseas traveling expense.

Royalty fees

Royalty fees reported at $37 million, decreased by $20 million or 34% was from a decrease of royalty fees from Indonesia mines $20 million caused by a decrease in coal sales price and volume. Whereas, royalty fee from Australia mines was slightly increased aligned with an increase in coal sales volume compared to 3Q2019.

Profit sharing (Unit : Million USD)	**3Q20**	**3Q19**	**Inc.(Dec.)**
BLCP	2	9	-78%
Hongsa & Phufai Mining	20	28	-29%
Holding Company of Solar Power in Japan	-	1	n.a.
Coal business in China	10	25	-59%
Total	**32**	**63**	**-49%**

Share of profit from joint ventures and associates

Profit sharing from joint ventures and an associate reported $32 million, decreased by $31 million or 49 % compared to 3Q2019 with major details described as below:

1) Recognition of profit sharing from BLCP of $2 million, decreased by $7 million from 3Q2019 according to revenue structure based on the power purchase agreement. In this quarter, the recognition of profit sharing derived from the effect from exchange rate translation $1 million, and from operating net profit $3 million.

2) Recognition of profit sharing from Hongsa power and PhuFai mining in Laos of $20 million, decreased by $8 million. In this quarter profit sharing from operating performance reported at $18 million with a temporary

cease operation of unit no.3 from annual overhaul. Whereas, there was gain on foreign exchange rate translation of $2 million.

3) Recognition of shares of profit from coal business in China of $10 million, decreased by $15 million from a decrease of sales volume and selling price aligned with market price.

Other income

Other income of $25 million comprised of:

1) Net gain on foreign exchange rate of $20 million was mainly from unrealized gain on foreign exchange rate translation on THB currency borrowings, as result of a depreciation of THB currency against USD currency compared to prior year. Average exchange rate of USD/THB as of 30 September 2020 was THB 31.66 (30 June 2020: THB 30.89).
2) Net loss from financial derivatives of $7 million comprised of:
   - Realized gain from financial derivatives of $1 million derived from coal swap contracts of $12 million, foreign exchange rate forward contracts $5 million, cross currency swap contracts of $8 million. Whereas, realized loss on fuel swap contracts of $18 million, interest rate swap contracts of $5 million and natural gas swap contracts of $1 million.
   - Unrealized loss on fair value of financial derivatives at the end of period of $8 million was mainly from foreign exchange rate forward contracts of $4 million and from natural gas swap contracts of $4 million.
3) Management fee income and others of $12 million was from:
   - Interest income of $2 million.
   - Dividend income of $1 million.
   - Government subsidy of $4 million from residential steam production.
   - Sales of ashes, slag and scraps from mines, power plants and others of $5 million.

Corporate income tax

Corporate income tax of $11 million, decreased by $1 million was mainly from:

1) A decrease of $24 million was from a decrease of operating profits compared to 3Q2019.
2) An increase of $23 million was from a decrease of net deferred income tax asset that mainly from timing different of recognition period between tax and accounting basis on foreign exchange rate translation of financial statement.

4. Statements of Consolidated Financial Position

Statements of Consolidated Financial Position as of 30 September 2020 in comparison with the Statements of Consolidated Financial Position as of 31 December 2019.

Financial Position (Unit: Million USD)	30-Sep-20	31-Dec-19	Inc.(Dec.) Amount	%
		Restated		
Assets	8,747	8,069	678	8%
Liabilities	6,232	5,434	798	15%
Equity	2,515	2,635	(120)	-5%

4.1 Total assets of $8,747 million, increased $678 million compared to total assets as of 31 December 2019 with main details described as below:

Financial Position (Unit: Million USD)	Assets 30-Sep-20	31-Dec-19	Inc.(Dec.) Amount	%
		Restated		
Cash and Cash equivalent	1,016	433	583	135%
Short-term investments	-	110	(110)	-100%
Financial assets measured at fair value through profit or loss	10	-	10	100%
Trade accounts receivable and note receivables, net	174	246	(72)	-29%
Current portion of dividend receivables from related parties	48	-	48	100%
Other current assets	466	573	(107)	-19%
Total Current Assets	1,714	1,362	352	26%
Dividend receivables from related parties	9	21	(12)	-57%
Investments in an associate and joint ventures	1,581	1,485	96	6%
Other investments, net	-	144	(144)	-100%
Financial assets measured at fair value through other comprehensive income	162	-	162	100%
Property, plant and equipment, net	1,888	1,950	(62)	-3%
Deferred exploration/stripping costs, net	964	920	44	5%
Mining property rights, net	1,305	1,318	(13)	-1%
Goodwill	422	398	24	6%
Right of use assets	75	-	75	100%
Other non- current assets	627	471	156	33%
Total Non-Current Assets	7,033	6,707	326	5%
Total Assets	8,747	8,069	678	8%

- Cash and cash equivalents of $1,016 million, increased by $583 million. (As explanation in no.5 Consolidated Statement of Cash Flows).
- Financial assets measured at fair value through profit or loss of $10 million was fixed deposits with local bank in China.
- Current portion and non-current portion of dividend receivable from related parties of $48 million and $9 million, respectively, were dividend receivable from joint ventures who operates power business in Thailand which total increased by $36 million. This was a net result during the year of:

1. A decrease from received dividend during the period of $31 million.
2. An increase from additional declared dividend during the period of $68 million.
3. A decrease from the effects of foreign exchange rate translation at the end of period of $1 million.

- Investment in joint ventures and associates of $1,581 million, increased by $96 million or 6% was from:

1. An increase from addition of investment in associates of $86 million, mainly from a renewable business in Singapore of $86 million.
2. An increase from recognition of profit sharing from joint ventures and associates by $110 million.
3. A decrease from dividend received during the year of $73 million.
4. A decrease from the effects of foreign exchange rate translation at end of period and others by $36 million.
5. An increase from the adoption of new Thai Financial Reporting Standard No.9 (TFRS 9) "Financial instruments" that was effective in 2020 resulted in accounting entry adjustment of $9 million.

- Financial assets measured at fair value through other comprehensive income (FVOCI) or other investment (as presented in statement of financial position of 2019) $162 million, increased by $18 million. This was due to:

1. An additional investment in solar power plant in Japan under form of TK (Tokumai Kumiai) agreement of $11 million.
2. An increase from the impact of fair value adjustment of $29 million under new accounting standard no.9 (TFRS 9).
3. A decrease from capital refunds that was reclassified to be other receivables of $20 million from Aizu Wakamatsu Project and Iwate Tono Project. This was because counter parties failed to follow conditions under agreements.
4. A decrease from the effects of foreign exchange rate and others of $2 million.

- Property plant and equipment of $1,888 million, decreased by $62 million derived from:

1. An increase from additions of machine and equipment of coal business, natural gas business and power business total of $82 million.
2. A decrease from depreciation charges for the year of $152 million.
3. An increase from the effects of foreign exchange rate translation at end of period and others of $14 million.
4. A decrease from reclassification to be right-of-use asset of $6 million according to new Thai Financial Reporting Standard No. 16 (TFRS 16) "Leases" that was effective in 2020.

- Right-of- use assets of $75 was recognized from applying TFRS 16 "Leases" that was effective in 2020.

- Other non-current assets of $627 million, increased by $156 million. This was an increase in deposits for Barnett project acquisition of $170 million, accrued subsidy income from solar power plants in China of $15 million and restricted deposit in Indonesia of 3 million. Whereas, there was a decrease from reclassification of land used right to be right of use assets of $10 million, warrants exercised that was reclassified to be an investment of $9 million ,and revenue department receivable in Indonesia from net result of purchase vat and prepaid income tax of $11 million, and others of $ 2 million.

4.2 Total liabilities of $6,232 million, increased by $798 million compared to total liabilities as of 31 December 2019 with movement details as described below:

Financial Position (Unit: Million USD)	**Liabilities**		**Inc.(Dec.)**	
	30-Sep-20	**31-Dec-19**	**Amount**	**%**
		Restated		
Short-term loans from financial institutions	1,003	455	548	120%
Trade accounts payable	62	60	2	3%
Current portion of long-term borrowings, net	261	363	(102)	-28%
Current portion of debenture, net	126	176	(50)	-28%
Accrued overburden and coal transportation costs	72	74	(2)	-3%
Financial derivative liabilities due in one year	20	2	18	900%
Other current liabilities	394	430	(36)	-8%
Total current liabilities	1,938	1,560	378	24%
Long-term loans from other company	2,359	1,796	563	31%
Debentures, net	1,449	1,644	(195)	-12%
Financial derivative liabilities, net	48	21	27	129%
Other liabilities	438	413	25	6%
Total non-current liabilities	4,294	3,874	420	11%
Total liabilities	6,232	5,434	798	15%

- Short-term loans from financial institutions of $1,003 million, increased by $548 million was additional loans of $1,113 million, repayment of $549 million, and the effects of foreign exchange rate translation at the end of period of $16 million.

- Current portions of long- term loans of $261 million, decreased by $102 million was from repayment of $241 million and the effects of foreign exchange rate translation at the end of period of $1 million, while an increase from reclassification from non-current portion of $140 million.
- Current portions of debenture of $126 million, decreased by $50 million from redemption of $170 million, and the effects of foreign exchange rate translation at the end of period of $2 million; whereas, an increase from a reclassification from non-current portion of $122 million.

- Accrued overburden and coal transportation expenses of $72 million, decreased by $2 million or 3% was mainly from mining operations of subsidiaries in Indonesia.

- Long- term loans of $2,359 million, increased by $563 million or 31% was a net result of:

  1. An increase from additional loan of $701 million.
  2. A decrease from reclassification to current portion of $140 million.
  3. An increase from the effects of foreign exchange translation at the end of period of $2 million. Mainly was from AUD currency loan due to an appreciation of AUD currency against USD currency. Average exchange rate of AUD/USD as of 30 September 2020 was $0.7126 (31 Dec 2019: $0.6981).

- Debenture of $1,449 million, decreased by $195 million or 12% was from reclassification to be current portion of $122 million and from the effects of foreign exchange rate translation at the end of period of $73 million.

- Current portion and non-current portion of derivative liabilities reported at $20 million and $48 million, respectively, total of $68 million. This was changes in fair value of financial derivatives at the end of period, that consisted of cross currency swap contracts of $16 million, interest rate swap contracts of $34 million, fuel swap contracts $12 million, natural gas swap contracts of $4 million, and coal swap contracts of $2 million.

4.3 Shareholders' equity of $2,515 million, a decrease of $120 million was mainly due to;

Financial Position (Unit: Million USD)	**Equity**		**Inc.(Dec.)**	
	30-Sep-20	**31-Dec-19**	**Amount**	**%**
		Restated		
Equity attributable to owners of the parent	1,896	2,029	(133)	-7%
Non-controlling interests	619	606	13	2%
Total equity	2,515	2,635	(120)	-5%

- A decrease of $40 million from net profit for the nine-month period.
- An increase of $18 million from non-controlling interests.
- An increase of $ 6 million from the effects of foreign exchange rate translation of subsidiaries' financial statements and others.
- A decrease of $55 million from fair value reserves for financial assets (other investment) and cash flows hedge reserves.
- An increase of $42 million from impact of new Thai Financial Reporting Standard No. 9 "Financial instrument" that was effective in 2020.
- A decrease from dividend payment of $90 million.

4.4 Net debt-to-equity ratio as of 30 September 2020 reported at 1.36 times (31 December 2019: 1.23 times).

5. Statement of Consolidated Cash Flow

Statement of consolidated cash flows for the nine-month period ended 30 September 2020 presented an increase of net cash flow by $582 million (included the effect from unrealized loss on exchange rate translation of $19 million). The consolidated cash flows were divided into:

Statement of Cash Flows (Unit: Million USD)	**Amount**
Cash flows from operating activities	190
Cash flows from investing activities	(329)
Cash flows from finaning activities	740
Net increase in cash and cash equivalents	**601**
Exchange loss on cash and cash equivalents	(19)
Cash and cash equivalents at the beginning of period	433
Cash and cash equivalents at end of period	**1,015**

5.1 Net cash inflow from operating activities of $190 million; with major operating items as follows;

- Collections from coal sales of $1,551 million.
- Payments to contractors and suppliers of $915 million.
- Interest payments of $127 million.
- Payments of corporate income tax of $66 million.
- Receives from income tax refunds of $21 million.
- Royalty fee payments of $120 million.
- Others received of $154 million.

5.2 Net cash outflow from investing activities of $329 million; with major items as follows;

- Payments for machines, equipment and project in progress of $88 million.
- Payments for investment in renewable energy business and solar power business in Japan $97 million.
- Payments for deferred charge of mine exploration, mine development and overburden of $155 million.
- Payments for deposit for investment of $100 million.
- Payment for restructuring of investment of $ 8 million.
- Payment for short-term loan to a related party of $37 million.
- Payment for financial assets measured at fair value through profit or loss of $52 million.
- Receipts from financial assets measured at amortized cost of $147 million.
- Dividend receipts from joint ventures of $36 million.
- Interest income and others of $25 million.

5.3 Net cash inflow from financing activities of $740 million; comprised of

- Receipts from short term and long - term loans from financial institutions and others of $1,820 million.
- Repayments of short term and long - term loans from financial institutions and others of $989 million.
- Dividend payment of $90 million.
- Payments for treasury shares of a subsidiary of $1 million.