Banpu Public Company Limited

and Subsidiaries

Management's Discussion and Analysis

The Group Performance

For the Year Ended 31 December 2019

SAM
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
A

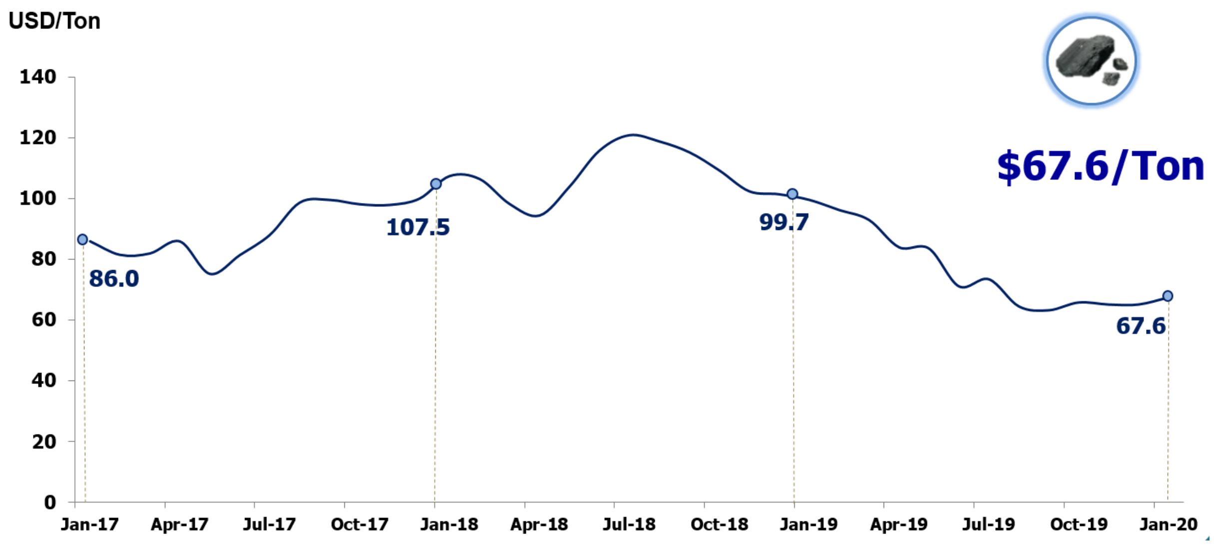
CCC	B	BB	BBB	A	AA	AAA

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

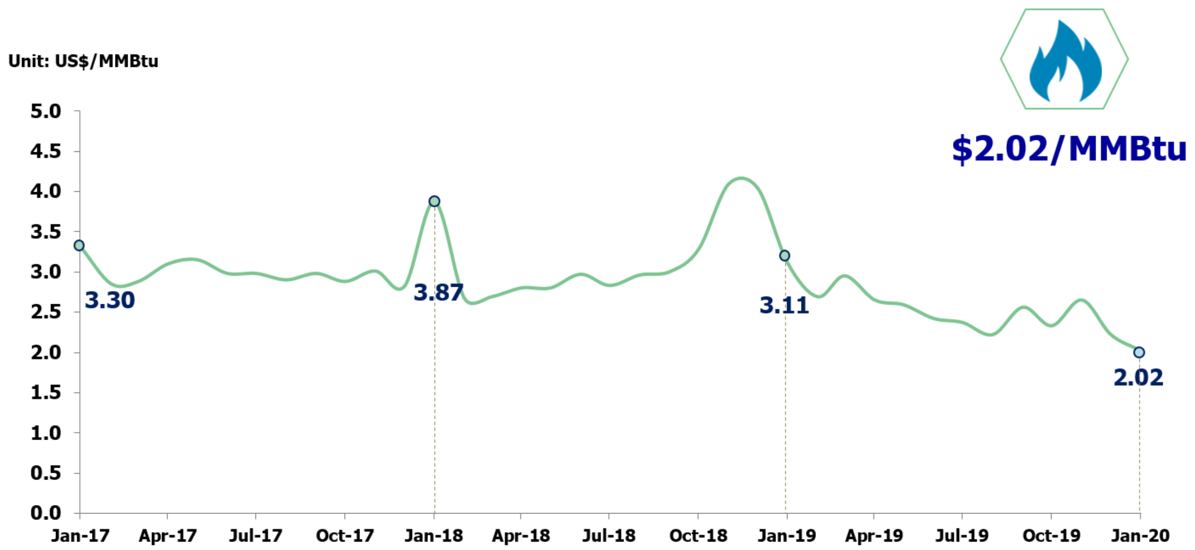
1. Energy Commodities Price Index

The market thermal coal price has gradually decrease starting from January 2019. The following presentations illustrate the coal price index.

Coal Price Index: The Newcastle Export Index (NEX) for January 2017 – 7 February 2020



Average Henry Hub Natural Gas Price for January 2017 – 31 January 2020



2. Management Discussion and Analysis

The business environment in 2019 reflects challenges arising from slowdown in global economy and unusually mild winter in northern hemisphere, impacting energy demand and commodities pricing during 4Q19.

Group EBITDA for 2019 was USD 695 million, 41% less than the previous year due mainly to lower coal and gas prices resulting in EBITDA from coal of USD 482 million (-46%) and EBITDA from gas of USD 68 million (-33%). Power business contributed EBITDA of USD 145 million (-20%).

The net profit excluding foreign exchange was USD 75 million. The continued appreciation of Thai Baht against US Dollar during the year has adversely impacted earnings. A foreign exchange loss of USD 95 million was realized in 2019, resulting in consolidated net loss of 20 million compared to the net profit of USD 206 million in the previous year.

In 4Q19 the group EBITDA was USD 131 million contributed by EBITDA from coal of USD 108 million, EBITDA from gas of USD 14 million and EBITDA from power of USD 9 million. Net loss was USD 28 million in this quarter before loss from foreign exchange.

In 4Q19 Indonesia coal achieved coal sale of 6.34 million tonnes, lower 5% QoQ as the country was approaching wet season. The Average Selling Price (ASP) was USD 60 per tonne, decreased 3% and cost of sale decreased 9% to USD 40.02 per tonne with diesel price unchanged at USD 0.67 per litre. This led to significant improvement in Gross Profit Margin (GPM) at 34% versus 28% in previous quarter.

Australia coal sale volume in 4Q19 was 2.92 million tonnes, higher 6% QoQ. The ASP remained firm at AUD 90.96 per tonne with cost of sale of AUD 78.49 per tonne. Gross profit margin was 13% compared to 27% in previous quarter.

China coal reported an equity income of USD 8 million with smooth coal production and firm domestic demand.

Gas business reported stable sale volume of 18 Billion Cubic Feet (Bcf). The mild weather in North America and high national inventory of gas weighed on gas prices during the period. Its ASP was USD 1.21 per million BTU (MMBtu) with GPM of 23%.

In power business, the Combined Heat and Power (CHP) plants in China contributed a net profit of USD 5.62 million. BLCP successfully fulfilled its electricity sale contract since October, allowing its plants to idle operation thus realized a net equity loss of USD 5 million. Hongsa reported an equity income of USD 7 million as power generation was disrupted by earthquake incident during November. All three units of Hongsa plants resumed its full operation in early January 2020.

The group continue progress on development and construction of projects in pipeline while continue expanding portfolio across strategic countries pursuing Greener & Smarter strategy. This year, with the amalgamation completion to create new flagship company “Banpu NEXT” we believe that it would expand the opportunity landscape in ramping up clean energy portfolio with advancement in Energy technology.

3. Group Performance Analysis

The analysis and explanation of Banpu Group performance for the year ended 31 December 2019 and 2018 as follows:

Consolidated Statement of Income for the year ended 31 December 2019 and 2018

Consolidated financial performance (Unit: Million USD)	2019	2018	Change Amount	Change %
Sales and service income	2,759	3,481	(722)	-21%
Cost of sales and services	(2,051)	(2,253)	202	9%
Gross profit	708	1,228	(520)	-42%
Selling expenses	(195)	(182)	(13)	-7%
Administrative expenses	(252)	(237)	(15)	-6%
Indemnity payment	-	(86)	86	100%
Royalty fee	(241)	(291)	50	17%
Share of profit from joint ventures and associates	206	264	(58)	-22%
Other income (expenses)	78	(17)	95	559%
Finance cost	(187)	(175)	(12)	-7%
Profit before income taxes	117	504	(387)	-77%
Income taxes	(76)	(189)	113	60%
Profit for the year	41	315	(274)	87%
Owners of the parent	**(20)**	**206**	**(226)**	**110%**
Non-controlling interests	**61**	**109**	**(48)**	**-44%**
Earnings (losses) per share (Unit : USD)	(0.004)	0.040	(0.044)	110%

In accordance with energy commodities price index that presented falling trends since the beginning of the year of thermal coal price, natural gas price and oil price; also a strength of THB currency against USD currency, the group performance reported net loss for 2019 at $20 million, decreased by $226 million compared to 2018. The group focused on cost management and efficient improvement of coal production to cope with gradually lower global market price. Details were described as follows:

3.1 Sales and Cost of sales

(Unit: Million USD)	Revenue 2019	Revenue 2018	Revenue Inc.(Dec.)	Cost of Sales 2019	Cost of Sales 2018	Cost of Sales Inc.(Dec.)
Coal Business	2,381	3,020	-21%	1,753	1,917	-9%
Natural Gas Business	105	144	-27%	72	76	-5%
Power & Steam Business	183	196	-7%	149	155	-4%
Others	90	121	-25%	77	105	-27%
Total	**2,759**	**3,481**	**-21%**	**2,051**	**2,253**	**-9%**

Sales

Sales reported at $2,759 million (equivalent THB 85,718 million) , decreased by $722 million compared to 2018.This was mainly a decrease of $639 million from coal businesses, a decrease of $39 million from natural gas business, and a decrease of $13 million from power and steam business. Details of revenue were described as follows:

1. Sales from coal business of $2,381 million or 86% of total revenue separated by source of coal as below:
   - From Indonesia coal mines of $1,671 million
   - From Australia coal mines of $694 million
   - From others of $16 million
2. Sales from natural gas business in USA of $105 million or 4% of total revenue.
3. Sales from Power and steam of $183 million or 7% of total revenue derived from Combined Heat and Power (CHP) plants, Solar power plants in China and Energy Trading business in Japan that started operation in 4Q19.
4. Others of $90 million represented 3% of total revenue. A decrease of $31 million was mainly from fuel trading business of a subsidiary in Indonesia.

1. Coal Business

Coal Business		2019	2018	Inc.(Dec.)
Sales Volume	Million Tonnes	36.18	38.03	-5%
Average selling price	$/Tonne	65.82	78.77	-16%
Average Cost of sales	$/Tonne	48.15	50.25	-4%

Coal sales of $2,381 million, decreased by $639 million or 21% due to a decrease of sales volume and average selling price by $13.48 per tonne compared to prior year as following details:

Indonesia Mines		2019	2018	Inc.(Dec.)
Sales Volume	Million Tonnes	25.41	24.02	6%
Average selling price	$/Tonne	65.00	82.62	-21%
Average Cost of sales	$/Tonne	44.53	47.98	-7%

Coal Business in Indonesia

- **Sales volume**

  Coal sales volume was 25.41 million tonnes, increased by 1.39 million tonnes compared to 2018.

- **Average selling price**

  Average selling price per tonne was $65, decreased by $17.62 or 21% compared to 2018, in accordance with a fall of global coal market price.

- **Average cost of sales**

  Average cost of sales per tonne was $44.53, decreased by $3.45 or 7% compared to 2018. This was due to cost management that cope with a decrease of global coal market price, while maintain quality standards of coal, including quality development to meet customer demand and retain in the long term.

Australia Mines		2019	2018	Inc.(Dec.)
Sales Volume	Million Tonnes	10.50	13.70	-23%
Average selling price	A$/Tonne	93.81	105.33	-11%
Average Cost of sales	A$/Tonne	80.71	72.54	11%

Coal business in Australia

- **Sales volume**

  Coal sales volume was 10.50 million tonnes, decreased by 3.20 million tonnes or 23% compared to 2018, was from a lower of production tonned caused by a difficulty geographical mining conditions.

- **Average selling price**

  Average selling price per tonne was A$93.81, decreased by A$11.52 or 11% compared to 2018 as the following:

Australia Mines	Sales Volume (Unit: Million Tonnes)			Avg. Price/Tonne (A$/Tonne)		
	2019	2018	Inc.(Dec.)	2019	2018	Inc.(Dec.)
Domestic	5.98	8.53	-30%	79.43	81.72	-3%
Export	4.52	5.17	-13%	114.90	126.54	-9%
Total	**10.50**	**13.70**	**-23%**	**93.81**	**105.33**	**-11%**

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

  Average domestic selling price per tonne was A$ 79.43, decreased by A$2.29 due to a less portion of sales from high valued contracts as result of coal production volume was below the plan. Average export selling price per ton was A$114.90 that decrease from 2018 driven by a decline of global coal market price. Whereas, a depreciation of AUD currency against USD currency promoted higher revenue in AUD currency when converted from USD export sales, then a higher average selling price. Average exchange rate of AUD/USD was $0.6947 (2018: $0.7478).

- **Average cost of sales**

Average cost of sales per tonne was A$80.71, increased by A$8.17 from lower production volume compared to 2018. Coal production volume was 9.29 milion tonnes (2018: 11.70 million tonnes). This was due to coal production encountered the difficulty mining conditions and relocation of longwall equipment at Mandalong mine. As a result, in 2019 the average cost per tonne was high.

2. Natural Gas Business

Natural Gas Business		2019	2018	Inc.(Dec.)
Sales Volume	Bcf	69.14	70.74	-2%
Average selling price	$/Mcf	1.38	1.87	-26%
Average Cost of Sales	$/Mcf	1.05	1.07	-2%

Natural gas business in USA

Sales from natural gas business of 2019 reported at $105 million, decreased by $39 million or 27% as following details:

- **Sales Volume**

Natural gas sale volume was 69.14 billion cubic feet, decreased by 2% compared to 2018. The warmer weather and shorter winter period during the year caused a smaller growth rate of gas demand, impacted to postpone operation from new natural gas wells.

- **Average Selling Price**

Average selling price was $1.38 per thousand cubic feet, decreased by 26 % from 2018. This was an impact from over natural gas volume in US market from new projects operated from certain sources and from natural gas tied with associated gas. In addition, the selling price affected by the high stock reserves that almost reach the top level among last 5 years, whereas the growth of consumption can’t keep up with such supply.

- **Average Cost of Sale**

Average cost of sales was $1.05 per Mcf, decreased by 2% compared to 2018 from more efficiency of cost management to cope with a decrease of market price.

3. Power Business

Sales from Power and Steam of $183 million or 7% 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		
		2019	2018	Inc.(Dec	2019	2018	Inc.(Dec.)
Sales Volume	GWh	1,495.75	1,491.09	0%	213.88	185.72	15%
Steam Volume	Million Tonnes	3.60	4.11	-12%	N/A	N/A	N/A
Average PowerTariff	RMB/kWh	0.36	0.37	-3%	0.83	0.81	2%
Average Steam Price	RMB/Tonne	101.67	101.80	0%	N/A	N/A	N/A

Combined Heat and Power (CHP) plants in China

Sales from power, steam, and others from 3 CHP plants in China $154 million, decreased by $20 million compared to the previous year.

- **Sales Volume**

  Sales volume of 1,496 GWh, increased by 5 GWh from prior year, whereas steam sales of 4.57 tonne million, decreased by 0.48 tonne million. This was from a lower demand of electricity and steam from customer that caused a decrease of sales volume from Zouping power plant. Whereas, sales from Zhending and Luannan power plant was higher, compared to 2018.

- **Average Selling Price**

  A decrease of average power tariff by RMB 0.01 per kWh caused by price adjustment in accordance with local government policy (HEBEI) since 1 September 2018.Whereas, steam price was increased by RMB1.10 per tonne from Luannan power plant compared to 2018.

- **Cost of Sale**

  Average cost of sales $135 million, decreased by $13 million was from a decrease of coal cost that was main fuel by RMB 40 per tonne. Average coal cost was RMB 599 per tonne (2018: RMB 639 per tonne).

Solar power plants in China

Sales from solar power plants in China reported at $24 million an increase of $2 million from 2018.

- **Sales Volume**

  An increase of solar power plant sales volume was from a new solar power plant (Jixin) operated during the period and from weather condition that support better production.

- **Average Power Tariff**

  Average power tariff was RMB 0.83, that higher than 2018. This was from a decrease of value added tax from 16% to be 13% that was effective since 1 April 2019.

- **Cost of Sales**

  An increase of cost of sales was align with higher sales volume from a new solar power plant (Jixin).

Administrative expense

Administrative expenses reported at $252 million, an increase of 15 million or 6% was mainly from professional fees and others from business expansion to Vietnam and USA.

Royalty fees

Royalty fees reported at $241 million, a decrease of $50 million or 17% was from a decrease of royalty fees from Indonesia mines of $37 million. Moreover, a decrease of royalty fees from Australia mines by $13 million caused by a decrease of coal sales price and volume compared to 2018.

Profit (Loss) sharing (Unit : Million USD)	**2019**	**2018**	**Inc.(Dec.)**
BLCP	27	42	-36%
Hongsa & Phufai Mining	91	106	-14%
Holding Company of Solar Power in Japan	(4)	(2)	98%
Coal business in China	92	118	-22%
Total	**206**	**264**	**-3%**

Share of profit from joint ventures and associates

Profit sharing from joint ventures and an associate reported $206 million, decreased by $58 million or 22 % compared to 2018 with major details described as below:

1) Recognition of profit sharing from BLCP of $27 million, decreased by $15 million according to operating performance, including from a higher of interest expense and income tax under condition of BOI promotion certificate.

2) Recognition of profit sharing from Hongsa power and PhuFai mining in Laos of $91 million, decreased by $15 million from unplanned outage caused by the earthquake in November 2019 in order to inspect and repair damaged equipment.

3) Recognition of shares of profit from coal business in China of $92 million, decreased by $26 million from a decrease of selling price aligned with market price compared to the prior year.

Other income

Other income of $78 million comprised of :

1) Loss on foreign exchange rate of $95 million was mainly from unrealized loss on foreign exchange rate translation on THB currency borrowings, as result of an appreciation of THB currency against USD currency compared to 2018. Average exchange rate of USD/THB as of 31 December 2019 was 30.15 (31 December 2018: THB 32.45).

2) Net gain from financial derivatives of $33 million comprised of:
   - Realized gain from financial derivatives of $34 million was gain from coal swap contracts and fuel swap contracts total of $26 million, also gain from cross currency swap contracts of $5 million and natural gas swap and option contracts of $8 million. Whereas, realized loss from interest rate swap contracts of $3 million and foreign exchange rate forward contracts total of $2 million.
   - Unrealized gain on fair value of financial derivatives at the end of period of $0.16 million was mainly from natural gas swap and options contracts.

3) Management fee income and others of $140 million was mainly from:
   - Interest income of $13 million.
   - Government subsidy of $5 million from residential steam.
   - Sales of ashes, slag and scraps from mines, power plants and others of $18 million
   - Gain on sales of Mannering mine in Australia of $42 million.
   - Gain on acquisition of Springvale mine of $51million.
   - Reversal entry of reserves for acquiring natural gas resources (West Brom) of $11 million due to did not meet criterias agreed with counter party.

Corporate income tax

Corporate income tax of $76 million, decreased by $113 million or 60% was mainly from:

1) A decrease of $40 million was from a decrease of operating profits compared to 2018.
2) A decrease of withholding tax of $2 million caused by a decrease of dividend income during the year.
3) A decrease of $71 million was from an additional recognition of net deferred income tax asset that was a time difference of recognition period between tax and accounting principles.

4. Statements of Consolidated Financial Position

Statements of Consolidated Financial Position as of 31 December 2019 in comparison with the Statements of Consolidated Financial Position as of 31 December 2018.

Financial Position (Unit: Million USD)	31-Dec-19	31-Dec-18	Inc.(Dec.) Amount	%
Assets	8,542	8,454	88	1%
Liabilities	5,542	5,279	263	5%
Equity	3,000	3,175	(175)	-6%

4.1 Total assets of $8,542 million, an increase of $88 million compared to total assets as of 31 December 2018 with main details described as below:

Financial Position (Unit: Million USD)	Assets		Inc.(Dec.)	
	31-Dec-19	31-Dec-18	Amount	%
Cash and Cash equivalent	433	607	(174)	-29%
Short-term investments	110	8	102	1275%
Trade accounts receivable and note receivables, net	246	395	(149)	-38%
Current portion of dividend receivables from related parties	-	10	(10)	-100%
Other current assets	573	375	198	53%
Total Current Assets	1,362	1,394	(33)	-2%
Dividend receivables from related parties	21	210	(189)	-90%
Investments in an associate and joint ventures	1,485	1,374	111	8%
Other investments, net	144	148	(4)	-3%
Property, plant and equipment, net	1,950	1,859	91	5%
Deferred exploration/stripping costs, net	920	869	51	6%
Mining property rights, net	1,665	1,711	(46)	-3%
Goodwill	524	524	-	0%
Other non- current assets	471	364	107	29%
Total Non-Current Assets	7,180	7,059	121	2%
Total Assets	8,542	8,454	88	1%

- Cash and cash equivalents of $433 million, a decrease of $174 million (Refer to the explanation in no.5 Consolidated Statement of Cash Flows)
- Non-current portions of dividend receivable from related parties of $21 million, decreased by $199 million were dividend receivable from joint ventures who operates power business in Thailand and coal business in China. This was a net results of:
  1. A decrease from received dividend during the period of $413 million.
  2. An increase from additional declared dividend of $210 million.
  3. An increase from the effects of foreign exchange rate translation at the end of the period of $4 million.

- Investment in joint ventures and associates of $1,485 million, increased by $111 million or 8% was from:

  1. An increase from addition of investments in joint ventures and associates of $61 million comprised of:

     1.1. Electric vehicle (EV) development business in Japan of $20 million.

     1.2. An associate company in Singapore that was a reclassification of prepayment for development of solar power plant in Japan of $6 million to be investment.

     1.3. CHP power plant in China of $23 million.

     1.4. Electric Tuk Tuk projects in Thailand of $2 million.

     1.5. Virtual power plant and energy trading business of $10 million.

  2. An increase from recognition of profit sharing recognized by $190 million.
  3. A decrease from dividend received of $210 million.
  4. An increase from the effects of foreign exchange rate translation at end of period by $77 million.
  5. A decrease from adjustment effects of $7 million from new Thai Financial Reporting Standard No.15 “Revenue from contracts with customers” that was effective in 2019.

- Other investments of $144 million, decreased by $4 million.This was due to capital refund of $14 million as result of the adjusted debt to equity portion under conditions of project financing from Goudou Kaisha Woodlake (Kurokawa) project and from resale of $3 million from Goudou Kaisha University (Hiroshima) project because the counter party was unable to follow conditions under the agreement. Moreover, there was disposal of bonds from a subsidiary in Indonesia of $3 million. Whereas, there was addition of investments in solar power projects in Japan of $16 million and an increase from changes in fair value at the end of period of $2 million.

- Property plant and equipment of $1,950 million, an increase of $91 million derived from:

  1. An increase from additions of machine and equipment of coal business, natural gas business and power business total of $279 million.
  2. An increase from acquisition of solar power plant business in China of $19 million.
  3. An increase from addition of acquisition of investment in joint venture in Australia of $24 million.
  4. A decrease from depreciation charges for the period of $220 million.
  5. A decrease from the effects of foreign exchange rate translation at end of period and others of $11 million.

- Other non-current assets of $471 million, increased by $107 million. This was from an increase of deferred income tax assets of $45 million, prepaid tax of subsidiaries in Indonesia and restricted cash of $33 million and $12 million, respectively. There were an increase of accrued subsidy income from solar power plants in China of $19 million and other receivables from sales of non-current assets of $15 million. Whereas, there were a decrease from reclassification of prepayment for project development in Japan to be investment in a joint venture of $6 million, and a decrease of others of $11 million that mostly was a decrease of VAT, deposits and land used right.

4.2 Total liabilities of $5,542 million, increased by $263 million compared to total liabilities as of 31 December 2018 with movement details as described below:

Financial Position (Unit: Million USD)	Liabilities		Inc.(Dec.)	
	31-Dec-19	31-Dec-18	Amount	%
Short-term loans from financial institutions	455	512	(57)	-11%
Trade accounts payable	60	116	(56)	-48%
Current portion of long-term borrowings, net	363	370	(7)	-2%
Current portion of debenture, net	176	88	88	100%
Accrued overburden and coal transportation costs	74	143	(69)	-48%
Financial derivative liabilities due in one year	2	5	(3)	-60%
Other current liabilities	431	475	(44)	-9%
Total current liabilities	1,561	1,709	(148)	-9%
Long-term loans from other company	1,796	1,655	141	9%
Debentures, net	1,644	1,397	247	18%
Financial derivative liabilities, net	21	18	3	17%
Other liabilities	520	500	20	4%
Total non-current liabilities	3,981	3,570	411	12%
Total liabilities	5,542	5,279	263	5%

- Short-term loans from financial institutions of $455 million, decreased by $57 million was from repayment of $1,131 million, net with additional loans of $1,058 million, realized loss on foreign exchange rate of $9 million and an increase from the effects of foreign exchange rate translation at the end of period of $7 million.

- Current portions of long- term loans of $363 million, decreased by $7 million was due to a decrease from refinancing to be non-current portion of $225 million, also repayment of $112 million. While, there were an increase from reclassification from non-current portion of $284 million, additions of $45 million, and the effects of foreign exchange rate translation at the end of period of $1 million.

- Current portions of debenture of $176 million, increased by $88 million was from reclassification from non-current portion of $173 million and from the effects of foreign exchange rate translation at the end of period of $4 million, net with a decrease from redemption of $89 million.

- Accrued overburden and coal transportation expenses of $74 million, decreased by $69 million or 48% was mainly from mining operations of subsidiaries in Indonesia.

- Long- term loans of $1,796 million, increased by $141 million or 9% was a net results of:
  1. An increase from additional loan of $297 million
  2. An increase from refinancing from current portion of $225 million
  3. A decrease from reclassification to current portion of $283 million
  4. A decrease from early repayment of $102 million
  5. An increase from the effects of foreign exchange translation at the end of period of $4 million. Mainly was from AUD currency loan due to a depreciation of AUD currency against USD currency. Average exchange rate of AUD/USD as of 31 Dec 2019 was 0.6981 (31 Dec 2018: 0.7039).
- Debenture of $1,644 million, increased by $247 million or 18% was from debenture issuance of $314 million, net with reclassification to be current portion of $173 million and an increase from the effects of foreign exchange translation at the end of period of $106 million.
- Current portion and non-current portion of derivative liabilities reported at $2 million and $21 million, respectively, total of $23 million. This was changes in fair value of financial derivatives at the end of period. These consisted of cross currency swap contracts of $1 million, interest rate swap contracts of $22 million.

4.3 Shareholders ‘equity of $3,000 million, a decrease of $175 million was mainly due to;

Financial Position (Unit: Million USD)	**Equity**		**Inc.(Dec.)**	
	31-Dec-19	**31-Dec-18**	**Amount**	**%**
Equity attributable to owners of the parent	2,394	2,560	(166)	-6%
Non-controlling interests	606	615	(9)	-1%
Total equity	3,000	3,175	(175)	-6%

- A decrease of $20 million from net loss for the year 2019.
- An increase of $77 million from non-controlling interests.
- An increase of $45 million from the effects of foreign exchange rate translation of subsidiaries’ financial statements and others.
- A decrease of fair value reserves for available for sales investment and cash flows hedge reserves of $32 million.
- A decrease of $7 million from impact of new Thai Financial Reporting Standard No. 15 “Revenue from contracts with customers” that was effective in 2019.
- A decrease of $200 million from dividend payment.
- A decrease of $38 million from repurchase of treasury shares.

4.4 Net debt-to-equity ratio as of 31 December 2019 reported at 1.24 times (31 December 2018: 1.02 times).

5. Statement of Consolidated Cash Flow

Statement of consolidated cash flows for the year ended 31 December 2019 presented a decrease of net cash flow by $174 million (included the effect from unrealized gain on exchange rate translation of $17 million). The consolidated cash flows were divided into:

Statement of Cash Flows (Unit: Million USD)	**Amount**
Cash flows from operating activities	124
Cash flows from investing activities	(348)
Cash flows from finaning activities	33
Net decrease in cash and cash equivalents	**(191)**
Exchange gains on cash and cash equivalents	17
Cash and cash equivalents at the beginning of period	607
Cash and cash equivalents at end of period	**433**

5.1 Net cash inflow from operating activities of $124 million; with major operating items as follows;

- Collections from coal sales of $2,033 million
- Payments to contractors and suppliers of $1,416 million
- Interest payments of $186 million
- Payments of corporate income tax of $140 million
- Royalty fee payments of $204 million
- Others received of $37 million

5.2 Net cash outflow from investing activities of $348 million; with major items as follows;

- Payments for machines, equipment and project in progress of $297 million
- Payments for investment in electric vehicle (EV) development business and solar power business in Japan $75 million
- Payments for deferred charge of mine exploration, mine development and overburden of $239 million
- Payments for short-term investment of $155 million
- Payments for short term loan to related company of $23 million
- Dividend receipts from joint ventures of $414 million
- Cash payments for placement of restricted deposits at banks of $79 million
- Receipts from others of $106 million

5.3 Net cash inflow from financing activities of $33 million; comprised of

- Receipts from short term and long - term loans from financial institutions and others of $1,707 million
- Repayments of short term and long - term loans from financial institutions and others of $ 1,436 million
- Dividend payment to shareholders of $200 million
- Payments for treasury shares of $38 million

6. Coal Reserves

The quantity of sales and remaining of coal reserves for the year ended 31 December 2019:

Source (Unit: Million Tons)	Quantity of Coal Sales and Reserves		
	Reserves as of 31-Dec-18	Sales Full year 2019	Reserves as of 31-Dec-19
1. Indonesia			
1.1 Jorong	11.80	1.55	10.25
1.2 Indominco	59.50	12.66	46.84
1.3 Kitadin	4.44	1.39	3.05
1.4 Trubaindo	48.60	4.71	43.89
1.5 Bharinto	152.20	2.86	149.34
1.6 NPR Project	77.40	0.00	77.40
2. Australia	309.36	10.27	299.09
			-
3. China			-
3.1 Gaohe	134.70	9.15	125.55
3.2 Hebi Zhongtai	17.10	1.46	15.64
Total	**815.10**	**44.05**	**771.05**

7. Natural Gas Reserves

The quantity of sales and remaining of natural gas reserves for the year ended 31 December 2019:

Item (Unit: Million Cubic Feet)	Quantity of Natural Gas Sales and Reserves		
	Reserves as of 31-Dec-18	Sales Full year 2019	Reserves as of 31-Dec-19
Natural Gas	1,254,173	69,144	1,185,029
Total	**1,254,173**	**69,144**	**1,185,029**