BANPU

Banpu Public Company Limited

and Subsidiaries

Management's Discussion and Analysis

The Group Performance for The Second Quarter 2019

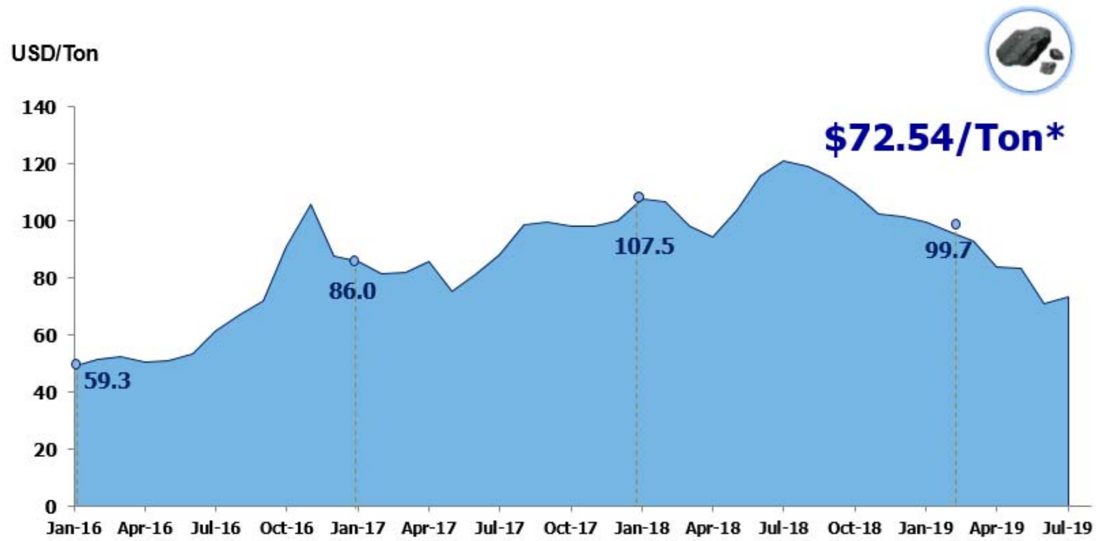
SAM Sustainability Award Gold Class 2019

MEMBER OF
Dow Jones Sustainability Indices
In Collaboration with RobecoSAM

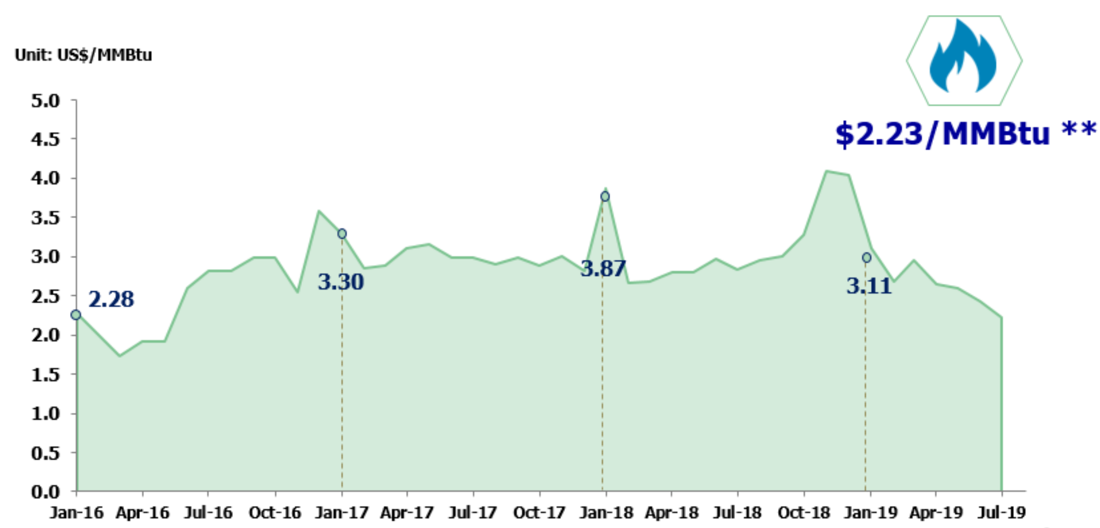
1. Energy Commodities Price Index

The market thermal coal price has gradually rebounded starting from July 2016. The following presentations illustrate the coal price index.

Coal Price Index: The Newcastle Export Index (NEX) for January 2016 - 26 July 2019



Average Henry Hub Natural Gas Price for January2016- 29 July 2019



* Price as of 26 July 2019
** Price as of 29 July 2019

2. Management Discussion and Analysis

The consolidated financial statement for 2Q/2019 reported an EBITDA of USD 168 million, including EBITDA from coal USD 105 million, EBITDA from power USD 47 million and EBITDA from gas USD 16 million. The total EBITDA declined 27% QoQ due to lower contribution from coal business as EBITDA from coal decreased 32% QoQ following seasonal adjustment in coal prices and also due to the divestment gain of USD 42 million recorded in the previous quarter.

Net profit before foreign exchange translation was concluded at USD 43 million, marginally lower 6% QoQ. In this period the rapid strengthening of Thai Baht against US Dollar was translated into a foreign exchange loss of USD 41 million. As a result the net profit was concluded at USD 2.72 million compared to the net profit of USD 29 million in the previous quarter.

Coal operation in Indonesia reported a strong sale of 6.5 million tonnes, 11% increase QoQ. The Average Selling Price (ASP) declined 8% QoQ to USD 66.7 per tonne reflecting lower coal market prices during post-winter period. The cost of sale was relatively flat as cost-saving measures were taken to lower strip ratios to 11.5 times from 13 times against the rising diesel cost in this period by 7% QoQ. Due to the lower ASP, the Gross Profit Margin (GPM) was reported at 29% compared to 35% in the previous quarter.

Australia coal was still in the process of developing underground mine conditions that will support higher production volume for the latter half of this year. For the second quarter the sale volume was 2.9 million tonnes or 42% QoQ improvement. The ASP sustained at a strong level of AUD 99 per tonne while cost of sale of AUD 88.5 per tonne reduced 4% QoQ. The gross profit margin improved to 11% from 8% in the previous quarter.

China coal reported a strong equity income of USD 34 million, increased 25% QoQ supported by sustained high coal prices in domestic market.

In power business, the Combined Heat and Power (CHP) plants and solar power plants in China reported net profit of USD 3.4 million. BLCP continued to achieve solid record of electricity dispatch with equity income contribution of USD 11 million. Hongsa contributed an equity income of USD 31 million supported also by high dispatch rate of 102% and strong tariffs during summer period.

3. Group Performance Analysis

The analysis and explanation of Banpu Group performance for the 2nd quarter ended 30 June 2019 and 2018 as follows:

Consolidated Statement of Income for the 2nd quarter ended 30 June 2019 and 2018

Consolidated financial performance (Unit: Million USD)	2Q19	2Q18	Change	
			Amount	%
Sales and service income	731	813	(82)	-10%
Cost of sales and services	(569)	(521)	(48)	-9%
Gross profit	162	292	(130)	-45%
Selling expenses	(41)	(53)	12	23%
Administrative expenses	(56)	(53)	(3)	-5%
Royalty fee	(63)	(64)	1	1%
Share of profit from joint ventures and associates	77	93	(16)	-18%
Other income (expenses)	(13)	40	(53)	133%
Finance cost	(47)	(45)	(2)	-4%
Profit before income taxes	19	210	(191)	-91%
Income taxes	1	(59)	60	102%
Profit for the period	20	151	(131)	87%
Owners of the parent	3	124	(121)	98%
Non-controlling interests	17	27	(10)	-37%
Earnings per share (Unit : USD)	0.001	0.024	(0.023)	96%

Banpu Group performance reported net profit for 2Q19 at $3 million, decreased by $121 million compared to 2Q18, was mainly from a decrease of sales price in accordance with changes of global thermal coal market price, also from the effects of foreign exchange rate translation as a result of an appreciation of THB currency against USD currency compared to 2Q18. Details were described as follows:

(Unit: Million USD)	Revenue 2Q19	Revenue 2Q18	Revenue % Inc.(Dec.)	Cost of Sales 2Q19	Cost of Sales 2Q18	Cost of Sales % Inc.(Dec.)
Coal Business	645	706	-9%	497	444	12%
Natural Gas Business	25	35	-29%	17	19	-11%
Pow er & Steam Business	41	42	-2%	34	36	-6%
Others	20	30	-33%	21	22	-5%
Total	**731**	**813**	**-10%**	**569**	**521**	**9%**

Sales

Sales reported at $731 million (equivalent THB 23,088 million) , decreased by $82 million compared to 2Q18 was mainly a decrease of $63 million from coal businesses, a decrease of $1 million from power and steam business, and a decrease of $10 million from natural gas business. Details of revenue were described as follows:

1. Sales from coal business of $645 million or 88% of total revenue separated by source of coal as below:
    - From Indonesia coal mines of $434 million
    - From Australia coal mines of $196 million.
    - From others of $13 million
2. Sales from natural gas business in USA of $ 25 million or 3% of total revenue.
3. Sales from Power and steam of $41 million or 6% of total revenue were from Combined Heat and Power (CHP) plants and solar power plants in China.
4. Others of $20 million represented 3% of total revenue, a decrease of $10 million was mainly from fuel trading business of a subsidiary in Indonesia.

1. Coal Business

Coal sales of $645 million decreased by $63 million or 9% was a net result of an increase of coal sales volume with a decrease of average selling price as following details:

Indonesia Mines		2Q19	2Q18	% Inc.(Dec.)
Sales Volume	Million Tonnes	6.52	5.34	22%
Average selling price	$/Tonne	66.67	78.10	-15%
Average Cost of sales	$/Tonne	47.25	49.79	-5%

Coal Business in Indonesia

- **Sales volume**

  Coal sale volume was 6.52 million tonnes, increased by 1.18 million tonnes or 22%, from higher production capacity operated by new machines and better weather conditions compared to 2Q18 from less rainfall that support operation.

- **Average selling price**

  Average selling price per tonne was $66.67, decreased by $11.43 or 15% from a decrease of the global thermal coal market price compared to 2Q18.

- **Average cost of sales**

  Average cost of sales per tonne was $47.25, decreased by $2.54 or 5%. This included cost of purchase from other sources to blend and match with customer demand. In this quarter, the purchase price was decrease according to a decrease of global coal market price by $28.64 per tonne. Whereas average cost of production per tonne was increased by $0.32 as a result of a higher of stripping ratio that increased from 10.83 to 11.58.

Australia Mines		2Q19	2Q18	% Inc.(Dec.)
Sales Volume	Million Tonnes	2.82	3.78	-25%
Average selling price	A$/Tonne	99.39	94.36	5%
Average Cost of sales	A$/Tonne	88.57	60.53	46%

Coal business in Australia

- **Sales volume**

  Coal sale volume was 2.82 million tonnes, decreased by 0.96 million tonnes or 25% compared to 2Q18, was from a lower of production volume.

- **Average selling price**

  Average selling price per tonne was A$99.39, increased by A$5.03 or 5% compared to 2Q18 , was from export sales as a net result of lower of global coal market price, and an impact from depreciation of AUD currency against USD currency that affected to higher revenue in AUD currency when converted from export sales in USD currency. Average exchange rate of AUD/USD this quarter was $0.6992 (2Q18: $0.7508).

Australia Mines	Sales Volume (Unit: Million Tonnes)			Avg. Price/Tonne (A$/Tonne)		
	2Q19	2Q18	% Inc.(Dec.)	2Q19	2Q18	% Inc.(Dec.)
Domestic	1.50	2.48	-40%	78.87	80.96	-3%
Export	1.32	1.30	2%	122.72	120.00	2%
Total	**2.82**	**3.78**	**-25%**	**99.39**	**94.36**	**5%**

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

  Average domestic selling price per tonne was A$ 78.87, decreased by A$2.09 from a decrease of coal market price. However, average selling price per tonne of export sales was A$122.72, increased by A$2.72 because of a depreciation of AUD currency against USD currency per above mentioned that affected to higher average AUD price per tonne in overall.

- **Average cost of sales**

  Average cost of sales per tonne was A$88.57, increased by A$28.04 from lower of production volume caused from a relocation of Longwall equipment of Mandalong mine and difficulty mining conditions of some mines during this quarter. Production volume of this quarter was less than 2Q18 by 1.15 million tonnes.

2. Natural Gas Business

Natural Gas Business		2Q19	2Q18	% Inc.(Dec.)
Sales Volume	Bcf	17.09	18.40	-7%
Average selling price	$/Mcf	1.40	1.90	-26%
Average Cost of Sales	$/Mcf	1.00	1.02	-2%

Natural gas business in USA

Sales from natural gas business of 2Q19 reported at $25 million, decreased by $10 million or 29% as following details:

- **Sales Volume**

  Natural gas sale volume was 17.09 Billion cubic feet, decreased by 7% compared to 2Q18 due to temporary delay of production in order to minimize production risk for security purpose caused by drilling a new natural gas resource that located nearby.

- **Average Selling Price**
  Average selling price was $1.40 per thousand cubic feet, decreased by 26 % from a decrease of price based on Henry hub natural gas price in USA, net with an increase of pipeline capability and expand to higher price target market.

- **Average Cost of Sale**
  Average cost of sales was $1.00 per Mcf, decreased by $0.02 per Mcf, from efficiency of cost management.

3. Power Business

Sales from Power and Steam of $41 million or 6% of total revenue was from sales from CHP plant and solar power plant in China. Detail is as follows:

Power Business		Combined Heat & Power Plants (CHP)			Solar Power Plants		
		2Q19	2Q18	% Inc.(Dec.)	2Q19	2Q18	% Inc.(Dec.)
Sales Volume	GWh	347.91	325.22	7%	59.64	53.13	12%
Steam Volume	Million Tonnes	0.99	0.98	1%	N/A	N/A	N/A
Average Pow er Tariff	RMB/kWh	0.37	0.39	-5%	0.83	0.82	1%
Average Steam Price	RMB/Tonne	100.35	99.89	0%	N/A	N/A	N/A
Average Cost of Sales	RMB/kWh	0.63	0.67	-7%	0.83	0.82	1%

Combined Heat and Power (CHP) plants in China

Sales from power, steam, and others from 3 CHP plants in China $34 million, decreased by $2 million compared to the same quarter of previous year.

- **Sales Volume**
  An increase of sales volume 22.69 GWh was from higher electricity consumption demand in nearby areas and higher of production capacity of Luannan Power Plant compared to 2Q18.

- **Average Power Tariff**
  A decrease of average power tariff by RMB 0.02 per kWh caused by price adjustment in accordance with local government policy (HEBEI) since 1 September 2018.

- **Average Cost of Sale**
  A decrease of average cost of sales by RMB 0.04 per kWh was from a decrease of coal cost that was main fuel. Average coal cost was RMB 605 per tonne (2Q18: RMB 641 per tonne), decreased by RMB 36 per tonne or 6% from 2Q18.

Solar power plants in China

Sales from solar power plants in China reported an increase of $7 million from 2Q18.

- **Sales Volume**

  An increase of solar power plant sale volume due to weather condition with higher level of light concentration in summer that supported operation better than 2Q18, and has a more solar power plant while there was nil in 2Q18.

- **Average Power Tariff**

  Average power tariff was RMB 0.83, that higher than 2Q18 (RMB 0.82).

- **Average Cost of Sales**

  An increase of average cost of sales of RMB 0.01 per GWh.

Selling expense

Selling expenses reported at $41 million, decreased by $12 million or 22% from a decrease of Domestic Market Obligation from Indonesia mines of $11 million that in line with a decrease of global coal price.

Administrative expense

Administrative expenses reported at $56 million, an increase of $3 million or 6% was mainly from professional fees and others from business expansion to Vietnam and USA.

Royalty fees

Royalty fees reported at $63 million, a decrease of $1 million or 1% was from an increase of royalty fees from Indonesia mines of $2 million as a result of an increase of sales volume net with a decrease of coal sales price compared to 2Q18. Whereas royalty fees from Australia mines was decreased by $3 million caused by a decrease of coal sales volume compared to 2Q18.

Share of profit (Unit : Million USD)	**2Q19**	**2Q18**	**% Inc.(Dec.)**
BLCP	11	18	-39%
Hongsa & Phufai Mining	33	43	-23%
Holding Company of Solar Power in Japan	(0)	(1)	-50%
Coal business in China	34	33	3%
Total	77	93	-17%

Share of profit from joint ventures and associates

Profit sharing from joint ventures and an associate reported $77 million, decreased by $16 million or 17% from 2Q18 with details described as below:

1) A decrease of profit sharing from Hongsa power and PhuFai mining of $10 million was from the effects of exchange rate translation offset with better performance from operation compared to 2Q18.

2) A decrease of profit sharing from BLCP of $7 million according to a decrease of revenue structure based on a power purchase agreement, and an increase of corporate income tax rate according to BOI promotion certificate.

Other expense

Other expense of $13 million comprised of :

1) Interest income of $3 million.

2) Net gain from financial derivatives of $15 million comprised of:

- Unrealized gain from financial derivatives at the end of period of $10 million was gain from coal swap contracts and oil hedging contracts total of $5 million. Also there was gain from cross currency swap contracts, natural gas hedging contracts and foreign exchange rate forward contracts total of $5 million.

- Realized loss from financial derivatives of $5 million was from coal swap contracts, foreign exchange rate forward contracts and interest rate swap contracts.

3) Loss on foreign exchange rate of $41 million was mainly from unrealized loss on foreign exchange rate translation on THB currency borrowings as a result of an appreciation of THB currency against USD currency compared 2Q18. Average exchange rate of USD/THB as of 30 June 2019 was 30.74 (31 March 2019: THB 31.81).

4) Management fee income and others of $10 million was mainly from:

- Reversal of reserved expense since an acquisition date of gas business of $4 million
- Insurance claim of $1 million
- Government subsidy of $1 million from residential steam
- Others of $4 million

Corporate income tax

Corporate income tax of $1 million, decreased by $60 million or 102% was mainly from:

1) A decrease of corporate income tax of $5 million from lesser of operating profits compared to 2Q18.

2) An increase of withholding tax of $1 million was from an increase of withholding tax on interest payment of subsidiaries.

3) A decrease from a recognition of deferred tax assets of $56 million which consisted of a recognition of deferred tax assets of $22 million from tax benefits that can be utilized in the future and from the effects of foreign exchange rate translation on deferred tax assets at the end of period.

4. Statements of Consolidated Financial Position

Statements of Consolidated Financial Position as of 30 June 2019 in comparison with the Statements of Consolidated Financial Position as of 31 December 2018.

Financial Position (Unit: Million USD)			Inc.(Dec.)	
	30-Jun-19	31-Dec-18	Amount	%
Assets	8,518	8,454	64	1%
Liabilities	5,367	5,279	88	2%
Equity	3,151	3,175	(25)	-1%

4.1 Total assets of $8,518 million, an increase of $64 million compared to total assets as of 31 December 2018 with main details described below:

Financial Position (Unit: Million USD)	Assets		Inc.(Dec.)	
	30-Jun-19	31-Dec-18	Amount	%
Cash and Cash equivalent	794	607	187	31%
Short-term investments	22	8	14	175%
Trade accounts receivable and note receivables	286	395	(109)	-28%
Current portion of dividend receivables from related parties	25	10	15	150%
Other current assets	419	375	44	12%
Total Current Assets	1,546	1,395	151	11%
Dividend receivables from related parties	34	210	(176)	-84%
Investments in an associate and joint ventures	1,401	1,374	27	2%
Other investments, net	153	148	5	3%
Property, plant and equipment, net	1,884	1,859	25	1%
Deferred exploration/stripping costs, net	858	869	(11)	-1%
Mining property rights, net	1,690	1,711	(21)	-1%
Goodwill	524	524	-	0%
Other non current assets	428	364	64	18%
Total Non-Current Assets	6,972	7,059	(87)	-1%
Total Assets	8,518	8,454	64	1%

- Cash and cash equivalents of $794 million, an increase of $187 million or 31% (Refer to the explanation in no.5 Consolidated Statement of Cash Flows).

- Current and non-current portions of dividend receivable from related parties of $25 million and $34 million, decreased by $161 million were dividend receivable from a joint venture who operates power business in Thailand and coal business in China. This was a net result from additional declared dividend and received dividend during the period of $174 million and $340 million, respectively and the effects of foreign exchange rate translation at the end of the period of $5 million.

- Investment in joint venture and associates of $1,401 million, increased by $27 million or 2% from addition of investments in electronic vehicle (EV) development business in Japan of $20 million and solar power plant business in Singapore of $1 million, profit sharing recognized by $126 million. Net with dividend received during the period of $174 million, an increase from the effects of foreign exchange rate translation at end of period by $61 million, also 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 $153 million, an increase of $5 million was from addition of investments in solar power projects in Japan of $3 million, net with disposal of bonds from a subsidiary in Indonesia of $2 million. Also, an increase from changes in fair value at the end of period of $4 million.

- Property plant and equipment of $1,884 million, an increase of $25 million was from additions of machine and equipment of coal business, natural gas business and power business total of $134 million, net with depreciation charges for the period of $105 million and a decrease from the effects of foreign exchange rate translation at end of period & others of $4 million.

- Other non-current assets of $428 million, an increase of $64 million was from an increase of deferred income tax assets of $23 million, prepaid tax of subsidiaries in Indonesia of $19 million. Also, an increase of restricted cash of $11 million of a subsidiary in Indonesia and an increase of accrued subsidy income from solar power plants in China of $8 million and others of $3 million.

4.2 Total liabilities of $5,367 million, increased by $88 million compared to total liabilities as of 31 December 2018 with movement details as described below:

Financial Position (Unit: Million USD)	Liabilities		Inc.(Dec.)	
	30-Jun-19	31-Dec-18	Amount	%
Short-term loans from financial institutions	311	512	(201)	-39%
Trade accounts payable	69	116	(47)	-41%
Current portion of long-term borrowings, net	271	370	(99)	-27%
Financial derivative liabilities due in one year	-	88	(88)	-100%
Accrued overburden and coal transportation costs	184	143	41	29%
Financial derivative liabilities due in one year	6	5	1	20%
Other current liabilities	382	475	(93)	-20%
Total current liabilities	1,223	1,709	(486)	-28%
Long-term loans from other company	1,836	1,655	181	11%
Debentures, net	1,789	1,397	392	28%
Financial derivative liabilities, net	26	18	8	44%
Other liabilities	493	500	(7)	-1%
Total non-current liabilities	4,144	3,570	574	16%
Total liabilities	5,367	5,279	88	2%

- Short-term loans from financial institutions of $311 million, a decrease of $201 million was from additional loan of $427 million, net with repayment of $639 million, realized loss on foreign exchange rate of $2 million and an increase from the effects of foreign exchange rate translation at the end of period of $9 million.

- Current portions of long- term loans of $271 million, a decrease of $99 million or 27% was from the net result of an increase from reclassification from non-current portion of $115 million, a decrease from refinancing to be non-current portion of $145 million, also repayment of $70 million, and an increase from the effects of foreign exchange rate translation at the end of period of $1 million.

- Current portions of debenture, a decrease of $88 million was from redemption of whole amount during the period.

- Accrued overburden and coal transportation expenses of $184 million, an increase of $41 million or 28% was mainly from mining operations of subsidiaries in Indonesia.

- Long- term loans of $1,836 million, an increase of $181 million or 11% was net result of additional loan of $215 million, reclassification to current portion of $115 million, refinancing from current portion of $145 million, early repayment of $70 million and an increase from the effects of foreign exchange translation at the end of period of $6 million. Mainly was from THB currency loan as a result of appreciation of THB currency against USD currency. Average exchange rate of THB/USD as of 30 June 2019 was 30.74 (31 Dec 2018: 32.45).

- Debenture of $1,789 million, an increase of $392 million or 28% was from debenture issuance of $314 million and an increase from the effects of foreign exchange translation at the end of period of $78 million.

- Current portion and non-current portion of derivative liabilities of $6 million and $26 million, respectively, total of $32 million was changes in fair value of financial derivatives at the end of period. These consisted of cross currency swap contracts of $ 5 million, interest rate swap contracts of $24 million, oil hedging contracts of $1 million and foreign exchange rate forward contracts of $2 million.

4.3 Shareholders 'equity of $3,151 million, a decrease of $24 million was mainly due to;

Financial Position (Unit: Million USD)	**Equity**		**Inc.(Dec.)**	
	30-Jun-19	**31-Dec-18**	**Amount**	**%**
Equity attributable to owners of the parent	2,544	2,560	(16)	-1%
Non-controlling interests	607	615	(8)	-1%
Total equity	3,151	3,175	(24)	-1%

- An increase of $32 million from net profit for the six -months period of 2019.
- An increase of $53 million from non-controlling interests.
- An increase of $13 million from the effects of foreign exchange rate translation of subsidiaries' financial statements and others.
- 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 $115million from dividend payment.

4.4 Net debt-to-equity ratio as of 30 June 2019 reported at 1.08 times (31 December 2018: 1.07 times).

5. Statement of Consolidated Cash Flow

Statement of consolidated cash flows for the six-month ended 30 June 2019 presented an increase of net cash flow by $187 million (included the effect from unrealized gain on exchange rate translation of $16 million). The consolidated cash flows were divided into:

Statement of Cash Flows (Unit: Million USD)	**Amount**
Cash flows from operating activities	102
Cash flows from investing activities	97
Cash flows from finaning activities	(28)
Net increase in cash and cash equivalents	**171**
Exchange gains on cash and cash equivalents	16
Cash and cash equivalents at the beginning of period	607
Cash and cash equivalents at end of period	**794**

5.1 Net cash inflow from operating activities of $102 million; with major operating items as follows;

- Collections from coal sales of $1,143 million
- Payments to contractors and suppliers of $727million
- Interest payments of $94 million
- Payments of corporate income tax of $71 million
- Royalty fee payments of 119 million
- Others of $30 million

5.2 Net cash inflow from investing activities of $97 million; with major items as follows;

- Payments for machines, equipment and project in progress of $130 million
- Payments for investment in electronic vehicle (EV) development business and solar power business in Japan $25 million
- Payments for deferred charge of mine exploration, mine development and overburden of $61 million
- Payments for short-term investment of $15 million
- Payments for short term loan to related company of $12 million
- Dividend receipts from joint ventures of $340 million

5.3 Net cash outflow from financing activities of $28 million; comprised of

- Receipts from short term and long term loans from financial institutions and others of $956 million.
- Repayments of short term and long term loans from financial institutions and others of $ 869 million.
- Dividend payment to shareholders of $115 million.

6. Coal Reserves

The quantity of sales and remaining of coal reserves for the second quarter ended 30 June 2019:

Source (Unit: Million Tons)	Quantity of Coal Sales and Reserves		
	Reserves as of 31-Mar-19	Sales 2nd Quarter 2019	Reserves as of 30-Jun-19
1. Indonesia			
1.1 Jorong	4.65	0.49	4.16
1.2 Indominco	54.33	3.43	50.90
1.3 Kitadin	1.87	0.39	1.48
1.4 Trubaindo	32.72	1.07	31.65
1.5 Bharinto	133.22	0.64	132.58
2. Australia	319.15	2.83	316.32
3. China			
3.1 Gaohe	132.58	2.25	130.33
3.2 Hebi Zhongtai	16.81	0.32	16.49
Total	**695.33**	**11.42**	**683.91**

7. Natural Gas Reserves

The quantity of sales and remaining of natural gas reserves for the second quarter ended 30 June 2019:

Item (Unit: Million Cubic Feet)	Quantity of Natural Gas Sales and Reserves		
	Reserves as of 31-Mar-19	Sales 2nd Quarter 2019	Reserves as of 30-Jun-19
Natural Gas	1,237,953	17,094	1,220,859
Total	**1,237,953**	**17,094**	**1,220,859**