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Management Discussion and Analysis for Business Operation

For the second quarter ended June 30, 2013

1. Executive Summary

At the end of second quarter of 2013, the Consolidated Financial Statement recorded a total revenue of Baht 45,105 million, an increase of 11.75% compared to the same period last year. Average crude run was at 95.61 thousand barrel per day which increased 35.06% over 2Q2012. However revenue in this quarter decreased by 4.61% when compared to 1Q2013 from a slightly lower utilization rate.

Net profit was at Baht 407 million, or an earnings per share of Baht 0.30, which improved from a Net Loss of Baht 385 million in 2Q2012. However, in this quarter there were loss from inventory of Baht 919 million and gain from crude and product oil price hedging contract of 197 million.

The Company and its subsidiaries' operating results are summarized as below;

(Unit: Baht Million)	2Q		YoY	1Q	QoQ
	2013	2012	%	2013	%
Revenue	45,105	40,362	11.75	47,283	-4.61
EBITDA	1,496	(203)	836.95	3,478	-56.99
• EBITDA (Refinery Business and BBF)	638	(1,004)	163.55	2,816	-77.34
• EBITDA (Marketing Business and BGN)	466	697	-33.14	444	4.95
• EBITDA (Solar Power Plant and BSE)	392	107	266.36	218	79.82
Net Profit ^{1/}	407	(385)	205.71	2,198	-81.48
Earnings per share (Baht)	0.30	(0.28)	207.14	1.60	-81.25

1/ Excluding the profit attributable to Non-controlling interests.

During the second quarter of 2013, the average Dubai crude oil price changed in the range of 96.74 to 108.36 \$/barrel with an average price of 100.80 \$/barrel which was 5.39 \$/bbl and 7.27\$/bbl lower than the average price levels in 2Q2012 and 1Q2013 respectively. Crude oil price were pressured by the lower demand in crude oil resulted from the scheduled maintenance of refineries especially in Asia, the ongoing economic slowdown in Europe and China. On the other hand, the crack spreads had been pressured by declining demand after the end of winter season.

The market Gross Refinery Margin (GRM) was recorded at 5.68 \$/bbl and total GRM was at 2.92 \$/bbl (including the stock loss of 3.52 \$/bbl). When combined with Marketing Margin (MKM) of 2.78 \$/bbl, Gross Integrated Margin (GIM) was 5.70 \$/bbl.



Company's projects progress status are shown as follow:

Project	Details	Progress
1. Refinery Business Project		
1.1 Tail Gas Treating Unit Project	The project helps decreasing in emission of Sulfur Dioxide from the Sulfur Recovery Unit. The total project value is approximately USD 37 million.	The structural work was finished and current work stage is the installation of equipment, piping and electrical systems, which are on schedule. Project completion is expected to be around the end of 2013.
2. Marketing Business Project		
2.1 Gasohol Promotion Project	The project aims to promote and expand the use of gasohol through increasing numbers of E20 and E85 service stations, including sales promotion through gasohol club card.	At the end of the 2Q2013, the Company had a monthly average sales volume of 26.5 million litres for E20 and of 6.7 million litres for E85. The number of E20 service stations and E85 service stations to be 655 and 68 stations, respectively.
2.2 Mini BigC in Bangchak Service Stations	The cooperation between the Company and BigC. BigC invests and operates Mini BigC convenient stores in Bangchak Service Stations. Bangchak will receive benefits in terms of revenue sharing. The cooperation will also bring in new customer base for Bangchak service stations.	At the end of the 2Q2013, there were 29 branches of Mini BigC in Bangchak service station, in which 22 branches were opened after the end of 2012. Company planned to expand branches of Mini BigC to 70 branches within this year.
3. Renewable Energy Business Project		
3.2 Electricity Generation from Solar Energy – Solar Power Plant Phase 3	The electricity generation from solar energy with a total power purchase agreement (PPA) of 48 MW supplied to PEA. The project will be located in the east and northeast of Thailand.	The project is during the earth leveling process and expected to start construction in September 2013. Target Project Completion is expected to be in May, 2014



2. Operating Result

2.1 Summary of the Operating Results on consolidated basis

	3 Month period ended 30 June		YoY	3 Month Period ended 31 March	QoQ
	2013	2012	%	2013	%
Revenue from sale of goods and rendering of services	45,105	40,362	11.75	47,283	-4.61
Cost of sale of goods and rendering of services	(44,069)	(39,316)	12.09	(44,320)	-0.57
Gross Profit	1,036	1,045	-0.86	2,963	-65.04
Other Income	1,641	140	1,072.14	101	1,524.75
Selling and Administrative Expenses	(1,004)	(901)	11.43	(924)	8.66
Reversal of allowance for loss (loss) from inventory write – down	8	(1,065)	-100.75	-	-
Gain from crude and product oil price hedging contract	197	388	-49.23	19	936.84
Gain (loss) from foreign currencies forward contract	(1,068)	(354)	201.69	614	-273.94
Gain (loss) on foreign exchange	(53)	19	-378.95	201	-126.37
Reversal of allowance for loss (loss) from impairment of assets	(34)	96	-135.42	8	-525.00
Share of profit (loss) of associate	4	(9)	-144.44	25	-84.00
Profit (loss) before finance costs and income tax expense	728	(641)	-213.57	3,007	-75.79
Finance costs	(241)	(204)	18.14	(268)	-10.07
Reversal of (income tax expense)	(66)	476	-113.87	(520)	-87.31
Profit (loss) for the period	420	(369)	-213.82	2,219	-81.07
Non-controlling interests	13	15		21	
Owners of the Company	407	(385)		2,198	
Basic earnings (loss) per share (in Baht)	0.30	(0.28)		1.60	



At the end of the second quarter of 2013, the Consolidated Statement of Income recorded a net profit of Baht 420 million. Net profit of the Company was Baht 248 million, Bangchak Green Net Co., Ltd. (BGN)'s net profit of Baht 16 million, Bangchak Biofuel Co., Ltd. (BBF)'s net profit of Baht 45 million and Bangchak Solar Energy Co., Ltd. (BSE)'s net profit of Baht 159 million. Share of profit from associate of Baht 4 million, Non-controlling interests of Baht 13 million, the profit attributable to the owners of the company was Baht 407 million.

- **Refinery and Biofuel Business** recorded EBITDA of Baht 638 million, an increase of 163.55% compared to the same period of last year but decrease 77.34% compared to 1Q2013. Market GRM was Baht 1,485 million, an increase of 51.13% compared to the same period of last year but decrease 30.87% compared to 1Q2013. This quarter reported loss from inventory of Baht 919 million and gain from crude and product oil price hedging contract of Baht 197 million.
- **Marketing Business and BGN** recorded EBITDA of Baht 466 million, a decrease of 33.14% from the same period of last year. The total average sales volumes from all market channels was at 1,724.17 million litre in this quarter, which increased 23.36% compared to the same period of last year but decrease 1.88% compared to 1Q2013
- **Solar Power Plant Business** recorded EBITDA of Baht 392 million from the operation of Solar Power Plant Phase 1 (38 MW PPA) at Ayutthaya province and the Commercial Operations of Phase 2 (32 MW PPA) at Chaiyaphum province and Ayutthaya province.

2.2 Performance Summary

2.2.1 Crude Oil Price Situation

In the second quarter of 2013, the average Dubai crude oil price was \$100.78, lower by \$7.29 from an average of previous quarter. Oil prices were pressured by lower demand for crude oil after the end of winter season. Refineries maintenance, especially in the Americas and Asia, during the late of first quarter to the second quarter had slow down the oil demand. On the other side, supply has been rising from Tight Oil production in the U.S. The U.S.'s commercial stock of crude oil has risen to the highest level in the last several decades. Crude oil prices have also been under pressure from global economic outlook after the International Monetary Fund (IMF) estimates that the global economy in 2013 will grow 3.3%, which was revised down from the previous level of 3.5% because of the ongoing economy slowdown in Europe and the Chinese economy that just grew by 7.7% in the first quarter compared to 7.9% in the fourth quarter 2012. All these factors have made IEA, OPEC and EIA lowered their oil demand forecast in 2013. Moreover, the dollar strength against all major currencies has created pressure on oil prices after The U.S. Federal Reserve (FED) has identified that they may lower the purchase of bonds (QE) by the end of this year and stop the purchase of bonds by mid-



2014 if the U.S. economy recovers as expected. The U.S. economic data released during the second quarter has shown that the economy improved to be so.

However, oil prices have got some supports after the European Central Bank (ECB) cut interest rates to a record low at 0.50% which helped stimulate the purchase of commodities, including oil. In addition, the Bank of Japan (BOJ) has also injected money into the system to stimulate the economy. Lastly, the return of refinery turnarounds, product stockpiling for summer in third quarter, unrest in the Middle East and emergency stop of crude oil production in the North Sea Buzzard had help supporting the oil prices.

Crack Spreads Analysis

For the petroleum products market, the average Mogas/Dubai crack spread in the second quarter was \$14.54 compared to an average of \$18.15 in the previous quarter. The spread was pressured by lower seasonal demand while supply has increased after refineries return from turnarounds in May, including the ongoing Chinese gasoline exports due to the new capacity increase that outpaced its domestic demand. However, the crack spread was improved in later of the quarter as stockpiling demand from Muslim countries, driving season in U.S. and refinery outage in Australia, Saudi Arabia, India and Malaysia.

The average of Jet (Kerosene)/Dubai crack spread was \$15.30 compared to an average of \$20.17 in the previous quarter. The spread has been narrowed because of the declining demand after ending of winter season and slower jet demand in Europe due to economic slowdown. The Gasoil/Dubai crack spread was \$16.75 compared to \$19.52 in the previous quarter. The spread was pressured by slower industrial demand in Indonesia, more export from China and increase of supply from Korea after maintenance period. However, the spread has improved from pickup in demand when summer and Ramadan demand came in the late of the second quarter and also from the emergency shutdown from refineries in Australia, Saudi Arabia, India and Malaysia. China had lowered its diesel export because the export quota for first half 2013 had reached.

The average of Fuel Oil/Dubai crack spread was -\$3.66 compared to an average of -\$7.30 in the previous quarter. The spread was likely to increase throughout the second quarter. Although western arbitrage inflows to Asia were made up, most of them were off-spec fuel oil that needed to be blended but lacking of blending component from the Middle East due to refinery turnarounds made the on-spec supply shortage. Moreover, the spread have been strengthened because of increase import from Korea due to the shutdown of nuclear power plants for maintenance. However, in the late of the quarter the spread had weakened a bit pressured by lowered demand from China's private refineries (Teapot), slower bunker demand and increase in fuel oil output as more refineries come online.



The table of oil price and crack spreads comparison

Unit: USD/bbl

Price	2Q2013			2Q2012	Changes	YoY	1Q2013	Changes	QoQ
	MAX	MIN	AVG (A)	AVG (B)	(A)-(B)	%	AVG (C)	(A)-(C)	%
DB	108.36	96.74	100.80	106.19	-5.39	-5.08	108.09	-7.29	-6.74
UNL95/DB	19.47	9.69	14.54	13.93	0.61	4.38	18.15	-3.61	-19.89
IK/DB	17.73	13.20	15.30	15.96	-0.66	-4.14	20.17	-4.87	-24.14
GO/DB	20.74	13.77	16.75	15.38	1.37	8.91	19.52	-2.77	-14.19
FO/DB	-0.75	-7.11	-3.65	-1.26	-2.39	-189.68	-7.30	3.65	50.00

*2013 GO/DB based on Gasoil 0.05% sulfur, in 2012 was based on Gasoil 0.50% sulfur

2.2.2 Refinery Business and Bangchak Biofuel Co., Ltd.

Refinery Business	Second Quarter				YoY	First Quarter		QoQ
	2013		2012		(%)	2013		(%)
Average Crude Run (KBD)	95.61		70.79		35.06	99.95		-4.34
Utilization Rate (%)	79.67%		58.99%		35.06	83.30%		-4.34
Average FX (THB/USD)	30.02		31.43		-4.49	29.94		0.27
	Baht Million	\$/bbl	Baht Million	\$/bbl	YoY (%)	Baht Million	\$/bbl	QoQ (%)
Market GRM	1,484.51	5.68	982.30	4.85	51.13	2,147.33	7.97	-30.87
GRM Hedging	197.31	0.76	188.58	0.93	4.63	19.31	0.07	921.80
Gain/Loss from Inventory	(919.10)	(3.52)	(1,379.26)	(6.81)	33.36	560.62	2.08	-263.94
Total	762.72	2.92	(208.38)	(1.03)	466.02	2,727.25	10.12	-72.03
Adjusted EBITDA*	2,575.60		660.15		290.15	1,523.50		69.06

* Adjusted EBITDA refers to EBITDA excluding impact of Inventory and foreign currencies forward contract

For the second quarter of 2013, Refinery's average crude run capacity was at 95,610 barrel per day (an average utilization rate of 79.67%), an increase of 35.06% from the same period last year due to the annual planned shutdown in 2Q2012. However, in this year, there was an inspection in some units of refinery which affected the crude run capacity.



Refinery's Base Performance EBITDA was Baht 1,484.51 million (5.68 \$/bbl) increased from the same period last year which was Baht 982.30 million (4.85\$/bbl), or an increase of 51.13%. Main reason was from an increasing in crack spreads of Company's main finished products. However, when compared to Base Performance EBITDA in 1Q2013 which was Baht 2,147.55 million, Base Performance EBITDA in this quarter was decreased by 30.87%, resulting from the shutdown for inspection of Vacuum distillation Unit and Hydrogen Plant.

In this quarter, the Company had changed the reporting of GRM Hedging and Gain/Loss from inventory's calculation by excluding impacts of Gain/Loss from foreign currencies forward contract.

Refinery business had a gain from crude and product oil price hedging contract on GRM of Baht 197.31 million (0.76 \$/bbl). Loss from inventory was Baht 919.10 million (3.52 \$/bbl) which consisted of loss from price effect of Baht 927.33 million (3.55\$/bbl) and the record of LCM of Baht 8.13 million (0.03 \$/bbl). Total GRM was Baht 762.72 million (2.92\$/bbl)

In addition, Refinery business had recognized insurance compensation of Baht 1,518 million. EBITDA in this quarter was Baht 588.15 million, increased from the same period last year which was at negative Baht 1,073 million. Adjusted EBITDA, which was EBIDA excluding impact from inventory gain (loss) and gain (loss) from foreign currencies forward contract, was Baht 2,575.60 million, increased from the same period of last year which was Baht 1,915.45 million or 290.15% increase. Adjusted EBITDA in this quarter was increased for Baht 1,052.11 million, or an increase of 69.06% when compared to 1Q2013.

Bangchak Biofuel Co., Ltd., operated at an average capacity of 354,080 litre per day and its total sales volume was increased to 40.79 million litre from the same period last year but decreased by 3.82 million litre from 1Q2013. The average price of B100 product was decreased from 33.44 Baht/litre in 2Q/2012 to 23.10 baht/litre in this quarter (30.92% decrease) as price of Crude Palm Oil (CPO) continuously dropped from 30.19 baht/litre in 2Q/2012 to be 20.46 baht/litre in this quarter. As a result, EBITDA in this quarter was Baht 64 million.

In summary, Refinery business and biofuel had EBITDA of Baht 638 million, increased from negative Baht 1,004 million in 2Q2012 but decreased 77.34% from Baht 2,816 million in 1Q2013.



2.2.3 Marketing Business and Bangchak Green Net Co., Ltd.,

Average sales volume in each market category of the Company

Unit: Million Litre

	2Q2013	2Q2012	YoY (%)	1Q2013	QoQ (%)
Marketing Business	1,237.32	1,123.12	10.17	1,256.14	-1.50
Retail	727.46	679.09	7.12	729.21	-0.24
Industrial	509.86	444.02	14.83	526.93	-3.24
Wholesale Business	486.85	274.57	77.31	501.07	-2.84
PTT	159.73	127.94	24.85	147.04	8.63
Export	281.58	106.19	165.17	254.06	10.83
Other	45.54	40.45	12.58	99.97	-54.45
Total	1,724.17	1,397.69	23.36	1,757.21	-1.88

In the second quarter of 2013 the total average sales volumes from all market channels was Baht 1,724.17 million litre or 23.36% growth compared to the same period of last year but decreased 1.88% from 1Q2013.

An average sales volume through Marketing business was 1,237.32 million litre a or 10.17% growth compared to the same period of last year but decreased 1.50% compared to the first quarter of 2013. Retail marketing business was at 727.46 million litre which was 7.12% growth, mainly from the increasing of sales volume of Gasohol E20 and Gasohol E85 at a growth rate of 105.52% and 328.13% respectively when compared to the same period last year. Gasohol E20 and Gasohol E85's sales volume also increased by the expansion number of E20 and E85 service stations in which total number were 655 and 68 stations, respectively at the end of 2Q2013.

Industrial sales volume was increased to 509.86 million litre or 14.83% increase compared to 2Q2012 but decreased from 1Q2013 due to Refinery's drop in crude run, so the Company decreased the sales through Industrial marketing business.

For Wholesale business, an average sale in this period was at 486.85 million litre, an increase of 77.31% from the same period last year. Export sales increase by 165.17% mainly from an export of Fuel very low sulfur (FOVS) product and Vacuum Gas Oil (VGO).



Average sales volume in each product category of only marketing business

Unit: Million Litre

	2Q2013	2Q2012	YoY (%)	1Q2013	QoQ (%)
Diesel	663.21	620.17	6.94	708.92	-6.45
Gasohol	324.24	280.49	15.60	298.56	8.60
<i>UNL 91</i>	<i>0.00</i>	<i>89.38</i>	<i>N/A</i>	<i>6.92</i>	<i>N/A</i>
<i>Gasohol 91</i>	<i>135.06</i>	<i>99.81</i>	<i>35.32</i>	<i>127.31</i>	<i>6.09</i>
<i>Gasohol 95</i>	<i>89.76</i>	<i>47.95</i>	<i>87.19</i>	<i>80.73</i>	<i>11.19</i>
<i>Gasohol E20</i>	<i>79.43</i>	<i>38.65</i>	<i>105.51</i>	<i>69.05</i>	<i>15.03</i>
<i>Gasohol E85</i>	<i>19.99</i>	<i>4.70</i>	<i>325.32</i>	<i>14.55</i>	<i>37.39</i>
Jet Fuel	172.46	152.45	13.13	179.51	-3.93
Fuel Oil	46.19	58.70	-21.31	50.24	-8.06
LPG	12.61	2.37	432.07	4.53	178.37
Lubricant	18.41	8.17	125.34	13.79	33.50
Other	0.19	0.76	-75.00	0.58	-67.24

The table below shows the Marketing Margin

Unit: Baht per Litre

	2Q2013	2Q2012	YoY (%)	1Q2013	QoQ (%)
Retail Margin	0.80	1.13	-29.20	0.68	17.65
Industrial Margin	0.29	0.47	-38.30	0.25	16.00
Total	0.59	0.87	-32.18	0.50	18.00



For the second quarter of 2013, Retail Margin was at 0.80 baht per litre, a decrease of 29.20% compared to the same period last year but increased 17.65% compared to 1Q2013. The main reason was from the increase in raw material cost from using ethanol produced from cassava. Industrial Margin was at 0.29 baht per litre, a decreased of 38.30% compared to the same period last year but increase 16% when compared to 1Q2013

Total Marketing Margin was Baht 725.77 million and EBITDA of Baht 475.20 million, a decrease of Baht 226 million or 32.24% from the same period last year but increase of Baht 89 million or 23.08% compared to 1Q2013

In summary, Marketing business and Bangchak Green Net had combined EBITDA of Baht 466 million, a decrease of Baht 697 million or decrease 33.09% from the same period last year but increase from Baht 444 million or increase 4.99% compared to 1Q2013.

2.2.4 Solar Power Plant Business

Total EBITDA from Solar Power Plant Phase 1 (38 MW) at Bang Pa In District, Ayutthaya province and Solar Power Plant Phase 2 (32 MW) at Bamnet Narong District, Chaiyaphum province and Bang Pa-Han District, Ayutthaya province was Baht 392 million.



1. Analysis of the Financial Position of the Company and its subsidiaries (Consolidated)

(Unit: Million Baht), (% of total assets)

Financial Position	30 June 2013		31 December 2012		Δ
Current assets	36,714	50.82%	37,107	52.37%	-394
Investments in associates	752	1.04%	723	1.02%	+29
Proper, plant and equipment	31,511	43.62%	29,919	42.23%	+1,592
Other non-current assets	3,269	4.53%	3,104	4.38%	+165
Total assets	72,246	100.00%	70,853	100.00%	+1,393
Current liabilities	16,892	23.38%	18,218	25.71%	-1,326
Long-term borrowings (including current portion of long-term loans)	20,257	28.04%	19,023	26.85%	+1,234
Other non-current liabilities	1,382	1.91%	1,290	1.82%	+92
Total liabilities	38,531	53.33%	38,530	54%	+1
Total equity attributable to owners of the Company	33,509	46.38%	32,143	45.37%	+1,366
Non-controlling interests	207	0.29%	180	0.25%	+26
Total equity	33,716	46.67%	32,323	45.62%	+1,392
Total liabilities and equity	72,246	100.00%	70,853	100.00%	+1,393



Assets

As of June 30, 2013, Total Assets of the Company and its subsidiaries were Baht 72,246 million compared to the end of 2012 which was at Baht 70,853 million. The changes in assets were mainly from:

- Cash as of June 30, 2013 was Baht 4,007 million, decreased by Baht 3,998 million (Detail is stated under Analysis of the Cash Flows Statement).
- Trade Accounts Receivable was Baht 7,574 million, decreased by Baht 163 million which was mainly from Trade Accounts Receivable of Related Parties.
- Inventory was Baht 21,295 million, increased by Baht 2,120 million which was mainly from inventory of crude oil.
- Oil Fuel Fund subsidies receivable was Baht 1,459 million, increased by Baht 637 million from last year, mainly for LPG, gasohol E85 and E20 products.
- Property, plant and equipment were Baht 31,511 million, increased by Baht 1,592 million, mainly from Solar Power Plant Phase 2 (PPA of 32 MW) and partly from Solar Power Plant Phase 3 which were during earth leveling process.

Liabilities

As of June 30, 2013, Total Liabilities of the Company and its subsidiaries were Baht 38,531 million compared to the end of 2012 which was at Baht 38,530 million. The changes in liabilities were mainly from:

- Accounts Payable was Baht 12,827 million, decreased by Baht 827 million which was mainly from the crude oil transaction between the Company and PTT Plc. and other related company.
- Other Payables were Baht 2,452 million, decreased by Baht 338 million which were mainly from decrease in Accrued Expenses and decrease in payments due to contractors.
- Long-term loans from financial institutions and Debentures was Baht 19,007 million, increased by Baht 944 million which was mainly from increase of Long-term loan of Bangchak Solar Energy Co., Ltd. for the Solar Power Plant Phase 2 (PPA of 32 MW), however there was a scheduled loan repayment by the Company.

Equities

As of June 30, 2013, the Consolidated Total Equity was Baht 33,716 million, increased by Baht 1,392 million which resulted from the first 6 months net profit of Baht 2,640 million and dividend paid of Baht 1,247 million, with a book value of Baht 24.34 per share.



2. Analysis of the Cash Flows Statement of the Company and its subsidiaries (Consolidated)

In the second quarter of 2013, the Company and Subsidiaries had net cash used from operating activities of Baht 544 million, net cash used in investing activities of Baht 2,978 million and net cash used for financing activities of Baht 477 million, as a result there was a net decrease in cash and cash equivalents of Baht 3,998 million. Cash and cash equivalents at 1 January, 2013 was Baht 8,006 million, so cash and cash equivalents as of Jun 30, 2013 accounted for Baht 4,007 million.

Details of cash received and used are as follows:

Unit: Million Baht

Cash Flows	For 6 month period ended	
	30 June 2013	30 June 2012
Net cash used from operating activities	(544)	3,725
Net cash used in investing activities	(2,978)	(1,766)
Net cash used in financing activities	(477)	(985)
Net decrease in cash and cash equivalents	(3,998)	974
Cash and cash equivalents at 1 January	8,006	4,021
Cash and cash equivalents at 30 June	4,007	4,995

Cash received and used details are as follows:

- Net cash used of Baht 544 million from operating activities which comprised of net profit of Baht 2,640 million. The adjustments were Non-Cash Expenses of Baht 2,272 million, Finance costs and Income tax expense of Baht 1,095 million. Cash from operating activities were
 - Cash of Baht 3,596 million used in the operating assets, which were an increase in Inventory Baht 2,118 million, Trade Accounts Receivable decreased Baht 194 million, Other receivables increased Baht 391 million and Other current assets increased 1,282 million
 - Cash of Baht 2,377 million decreased from operating liabilities, which were Trade Accounts Payable decreased Baht 877 million, Other Payables decreased Baht 1,270 million and Accrued Expenses decreased Baht 230 million.
 - Income Tax Paid of Baht 578 million
- Net cash used in investing activities of Baht 2,978 million, mainly from
 - Investment in Property, Plants and Equipment of Baht 2,840 million
 - Investment in Other Assets of Baht 186 million
 - Current Investment of Baht 15 million
 - Interest received of Baht 63 million



3. Net cash used in financing activities of Baht 477 million, mainly from

- Proceeds from long – term loans of Baht 1,788 million
- Finance costs paid of Baht 514 million
- Repayment of long – term loans of Baht 503 million
- Dividend paid of Baht 1,247 million

3. Financial Ratios (Consolidated)

	2Q2013	2Q2012	Δ	1Q2013	Δ
Profitability Ratios (%)					
EBITDA Margin	3.32	-0.50	+3.82	7.35	-4.04
Profit Margin ¹	0.90	-0.95	+1.85	4.65	-3.75
Return on Equity (ROE)	1.27	-1.29	+2.56	6.61	-5.34
ROE (excluding inventory Gain/Loss)	3.51	2.26	+1.25	5.17	-1.67
Return on Assets-ROA	0.60	-0.60	+1.20	3.11	-2.51
ROA (excluding inventory Gain/Loss) (%)	1.65	1.05	+0.59	2.43	-0.79

	30 June 2013	31 December 2012	Δ	31 March 2013	Δ
Liquidity Ratios (times)					
Current Ratio	2.02	2.42	-0.40	1.90	+0.13
Quick Ratio	0.85	0.99	-0.14	0.96	-0.11
Financial Policy Ratios					
DSCR	3.21	2.45	+0.75	6.46	-3.26
Interest bearing debt to Equity ²	0.60	0.64	-0.03	0.55	+0.06
Net Interest bearing debt to Equity ²	0.48	0.47	+0.01	0.29	+0.19

1 Profit attributable to the owners of the Company, excluding the profit attributable to Non-controlling interests

2 Solely from the total equity attributable to owners of the Company



Financial Ratios Calculation

- EBITDA Margin (%)	=	EBITDA / Revenue
- Profit Margin (%)	=	Profit attributable to owners of the Company / Revenue
- Return on Equity (%)	=	Profit attributable to owners of the Company / Average Total Equity attributable to owners of the Company in quarter this year and the year before
- Return on Equity (Excl. Inventory) (%)	=	Profit attributable to owners of the Company – (Inventory Gain(Loss)*(1-Tax rate)) / Average Total Equity attributable to owners of the Company in quarter this year and the year before
- Return on Assets (%)	=	Profit attributable to owners of the Company / Average Total Asset in quarter this year and the year before
- Return on Assets (Excl. Inventory) (%)	=	Profit attributable to owners of the Company – (Inventory Gain(Loss)*(1-Tax rate)) / Average Total Asset in quarter this year and the year before
- Current Ratio (times)	=	Current Asset / Current Liabilities
- Quick Ratio (times)	=	(Current Asset – Inventory) / Current Liabilities
- DSCR	=	(EBITDA – Inventory Gain/Loss) / (Paid for long-term debt + Financial cost)
- Interest Bearing Debt to Equity (times)	=	(Current portion of short-term and long-term loans from financial institutions + Debentures) / Total equity attributable to owners of the Company
- Net Interest bearing debt to Equity	=	(Current portion of short-term and long-term loans from financial institutions + Debentures – Cash and cash equivalents – Current investments) / Total equity attributable to owners of the Company



4. Environment Management Accounting (EMA)

Having the environmental concerns and social responsibilities, the Company has prepared the environmental management accounting report since 2005. The environmental cost accounting helps the Company to keep track with the information which is useful for enhancing the environmental management effectiveness, and resource utilization. The Environmental Cost Accounting report covers refinery business unit, company and Bang Pa-in Oil distribution Centre.

(Unit : Million Baht)	2Q		Δ
	2013	2012	
Material Costs of Product Outputs : Consist of crude oil, ethanol, bio-diesel, chemical, energy and utilities in production	31,129.90	29,199.45	+1,930.45
Material Costs of Non-Product Outputs : Consist of slop and sludge oil, waste water, chemical surplus	15.13	54.06	-38.93
Waste and Emission Control Costs : Consist of maintenance cost of environmental control equipment and depreciation and other fees	42.90	38.40	+4.50
Prevention and Other Environmental Management Costs : Consist of monitoring and measurement cost, environmental management system expenses	1.84	1.32	+0.52
Benefit from by-product and waste recycling : The revenue realization from liquid sulfur, glycerin, waste paper	(1.26)	(6.05)	-4.80

Environmental cost in the second quarter of 2013, in total, increased from the same period last year around Baht 1,896.54 million. More than 99% were Material Costs of Product Outputs. The average crude run were 95.61 KBD which was increased from 70.74 KBD in the same period last year.

- Material costs of non-product outputs were increased by Baht 1,930.45 million or 6.61%
- Waste and Emission Control Costs and Prevention and Other Environmental Management Costs were increased 11.71% and 39.39%, respectively.
- Material Costs of Non-Product Outputs was decreased Baht 38.93 million or 72.01% since there was no annual turnaround in this year therefore, the slop and sludge oil quantity for the reproduction decreased.
- Benefit from by-product and waste recycling was decreased as a result from liquid sulfur price reduced 1.68 Baht/Litre. However, glycerin was increased 0.06 Baht/Litre compared to the same period last year.



Air pollution

As for environmental monitoring, the Company regularly measures stack-air quality to ensure that the total suspended particulate masses (TSPs), nitrogen oxides (NOx) and sulfur dioxide (SO₂) are superior to those announced by the Ministry of Industry and as required in environment impact assessment (EIA) reporting.