



The Bangchak Petroleum Public Company Limited

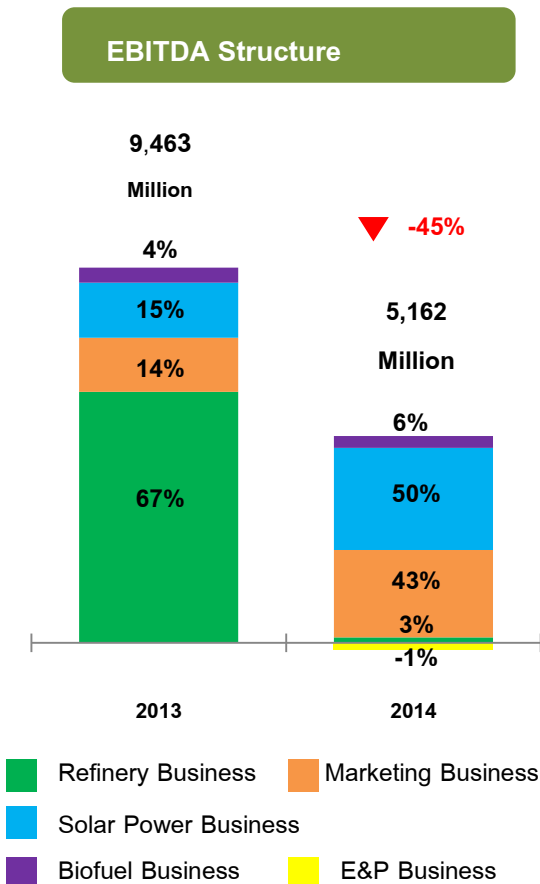
Management Discussion and Analysis of Business Operation

For the year ended December 31, 2014



Executive Summary

For the year ended 2014, the Consolidated Financial Statement recorded a revenue from sale of goods and rendering of services of Baht 183,016 million and net profit of Baht 756 million which was the net profit attributable to owners of the Company of Baht 712 million, or earning per share of Baht of 0.52



For the year, Net profit was decreased by Baht 3,940 million when compared to FY2013 as a result of slowdown in both Thailand and World economic situation, especially the instability of crude price which continued to decline in the second half of the year, there were the major factors that affected the Company performance.

According to the economic condition mentioned earlier, total EBITDA was recorded at Baht 5,162 million, a decrease of Baht 4,300 million which was contributed mainly from a decrease in an EBITDA of refinery business whom recorded an inventory loss. Nevertheless, EBITDA contributions from marketing and solar power business help posted positive earnings for year-end performance. The performance of each business unit was as following;

Refinery business had an average crude run of 86.48 thousand barrel per day as there was an Annual Turnaround Maintenance and a replacement of the Main Column (100 KBD) totaling 46 days and a temporary shutdown of Hydrogen Plant (there was an irregularities in equipment operation, therefore, the unit was temporary seized operation for inspection and reparation) in 3Q/2014. Market GRM was 6.96 \$/BBL and gain from crude and product oil price hedging contract (GRM hedging) of 0.48 \$/bbl. And as the Dubai crude price drop heavily during 3Q/2014 and 4Q/2014, as an evident of an average Dubai Price in FY2014 of 96.66 \$/BBL compared to 105.45\$/BBL in FY2013 resulted in an inventory loss of Baht 5,454 Million. In addition, Refinery business had recognized an insurance compensation for the replacement of the Main Column of Crude Distillation Unit Number 3 of Baht 764 million.



Marketing business had a total sales volume of 5,006 million litre which was relatively to that of last year by which the Industrial market sales volume decreased 4% YoY from the lower average crude run of the refinery while retail market sales volume increased 3% YoY. As the Company continuously focused on such trading channel, it led to an achievement of being the 2nd rank in market share at 15.1% (FY2013 was in the 3rd rank: 14.8%) through sales campaign to boost Gasohol products sales volume especially Gasohol E20 and E85 which yield high marketing margin when compared to other gasohol products together with a refurbishment of service stations to attract more customers. In FY2014, Total marketing margin was 0.71 baht per litre, an increase of 37% YoY which increased in both retail and industrial market.

Solar Power business recorded a higher revenue from the fully commercial operation of Solar Power Plant phase 3 (PPA of 48 MW). As a whole, the total revenue was recorded at Baht 2,692 million and electricity sales were 232 million kWh.

Biodiesel Business had an average daily production rate of 361 Thousand litre per day, a revenue of Baht 5,316 Million, an increase of 21%. The B100 Sales volume was increased 8% from the higher demand of biodiesel from the government's policy of increasing the portion of B100 mixing with diesel from 5% in to 7% (effective since January FY2014) and also a higher average of B100 selling price when compared to last year.

For Exploration and Production business, the Company recognized a result of Nido Petroleum Limited (NIDO) which became a subsidiary of the BCP Group since September 19, 2014 which the Company held 81.41% of common shares. For FY2014, NIDO (from September 20, 2014 to December 31, 2014) recorded a revenue of Baht 325 Million, an EBITDA of Baht -58 Million (included the cost of legal fees, and other professional and consulting fees of Baht 59 Million) and a recorded of impairment in Consolidated Financial Statement of Baht 818 Million.



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

Unit: Million Baht

	Q4 2013	Q3 2014	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Revenue from sale of goods and rendering of services	48,059	46,835	45,749	-5%	-2%	186,490	183,016	-2%
Total EBITDA ^{2/}	1,840	1,429	(1,256)	-168%	-188%	9,463	5,162	-45%
<i>Refinery and Marketing Business (R&M)</i>								
EBITDA Refinery	1,189	113	(2,414)	-303%	N/A	6,336	137	-98%
EBITDA Marketing ^{3/}	116	612	318	173%	-48%	1,366	2,208	62%
<i>Renewable business</i>								
EBITDA Solar Power ^{4/}	412	709	740	80%	4%	1,388	2,572	85%
EBITDA Biofuel ^{5/}	123	54	99	-20%	84%	379	303	-20%
EBITDA Exploration and Production ^{6/}	-	(59)	1	-	-101%	-	(58)	-
Profit attributable to owners of the Company	689	381	(2,489)	-461%	-753%	4,652	712	-85%
Basic earnings (loss) per share (Baht)	0.50	0.28	(1.81)			3.38	0.52	

1/ The Company and its subsidiaries' operating results in 2013 were restated according to the new and revised TFRS that are effective from 1 January 2014.

2/ The difference between total EBITDA and the sum of each business EBITDA was due to the elimination items

3/ EBITDA from Marketing Business and Bangchak Greenet Co.,Ltd

4/ EBITDA from Solar Power Plant Business, Bangchak Solar Energy Co.,Ltd. and its subsidiaries

5/ EBITDA from Bangchak Biofuel Co., Ltd. and share of profit/ (loss) from Ubon Bio Ethanol Co, Ltd

6/ EBITDA from BCP Energy International Pte, Ltd. and its subsidiary

Total Sales Volume in each market category of the Company

Unit: Million Litre

Marketing Business	Q4 2013	Q3 2014	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Retail	754	746	777	3%	4%	2,935	3,016	3%
Industrial	542	475	558	3%	17%	2,070	1,991	-4%
Total	1,295	1,221	1,335	3%	9%	5,005	5,006	0.02%
<i>Wholesale Business</i>								
Petroleum traders in accordance with section 7	193	149	142	-26%	-5%	698	502	-28%
Export	206	283	275	34%	-3%	1,039	902	-13%
Total	398	432	417	5%	-3%	1,737	1,404	-19%
Total Sales Volume	1,694	1,654	1,752	3%	6%	6,742	6,410	-5%

Note: Total sales volume figures excluding the swap amount between petroleum traders in accordance with section 7 and the sales volume of crude

Analysis of the Consolidated Statement of Income

Unit: Million Baht

	Q4/2013 (Restated)	Q3 2014	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Revenue from sale of goods and rendering of services	48,059	46,835	45,749	-5%	-2%	186,490	183,016	-2%
Cost of sale of goods and rendering of services	(45,599)	(45,520)	(47,003)	3%	3%	(177,387)	(178,453)	1%
Gross Profit	2,460	1,314	(1,255)	-151%	-195%	9,103	4,563	-50%
Investment income and other income	93	107	379	308%	254%	1,906	1,197	-37%
Selling and administrative expenses	(1,381)	(1,005)	(1,665)	21%	66%	(4,290)	(4,480)	4%
Gain from crude and product oil price hedging contract	358	176	150	-58%	-15%	804	499	-38%
Gain (loss) from foreign currency forward contracts	(418)	5	(2)	-99%	-144%	(923)	84	N/A
Gain (loss) on foreign exchange	(111)	175	192	-272%	10%	132	674	410%
Reversal of allowance for loss/ (loss) from impairment of assets	54	3	(826)	N/A	N/A	24	(821)	N/A
Share of profit (loss) of associate	4	(10)	10	175%	-209%	34	5	-85%
Profit before finance costs and income tax expense	1,058	765	(3,018)	-385%	-494%	6,789	1,720	-75%
Finance costs	(271)	(392)	(403)	49%	3%	(1,127)	(1,427)	27%
Profit/(loss) before income tax expense	787	373	(3,420)	-535%	N/A	5,662	294	-95%
Income tax (expense) credit	(68)	36	914	N/A	N/A	(932)	463	N/A
Profit for the period	719	410	(2,506)	-449%	-712%	4,730	756	-84%
Owners of the Company	689	381	(2,489)	-461%	-753%	4,652	712	-85%
Non-controlling interests	29	29	(17)	-157%	-159%	78	45	-43%
Earnings per share (Baht per Share)	0.50	0.28	(1.80)			3.38	0.52	

Note: 1/ The Company and its subsidiaries' operating results in 2013 has been restated to be consistent with the new and revised TFRS that are effective for annual periods beginning on or after 1 January 2014.

2/ Expense of product transportation to customer which previously under Selling Expense then reclassified to be under Cost of sale of goods and rendering of services.

Summary of events in 2014

Q1/2014

19th March: The first site of Solar Power business (Phase3) at Prakhonchai District, Buriram Province (PPA of 8 MW) started its commercial operation.

Beginning of 2014: Bangchak, as the first company in Thailand, employ the Transport Management System (TMS) for the whole transportation process, from the order taking to delivering the products directly from the refinery. TMS is the integrated management system enhancing the efficiency of oil delivery system, allowing instant analysis and reporting.

28th March: Company launched the “Bangchak Hi-Diesel”, the technology developed especially for biodiesel engine which contains the additive to enhance the performance and save the energy, increasing the efficiency of the combustion.

Q2/2014

9th April: the Annual General Meeting of Shareholders approved in respect of the allocation of profit from retained earnings for dividend payment for the second-half-year operations of 2013 at the rate of Baht 0.75 per share.

11th April: Company issued Debenture of Baht 10,000 million, sold to institutional investors and major investors, to support company’s investment.

In April: Solar Power Plant Phase 3 (PPA of 48 MW) had commercialized its operation in April which contributed to the totaling production capacity of the Company to 118 MW PPA.

1st May – 15th June: There was an Annual Turnaround Maintenance of refinery, totaling 46 days and a replacement of new Crude Distillation Unit Number 3 from 80 KBD to 100 KBD.

Q3/2014

30th July: Company set up a new subsidiary “BCP Energy International Pte. Ltd. (“BCP Energy”)", which Bangchak holds 100% of its shares, for the purpose of overseas investment, trading, operation and management of the energy, natural resources and petrochemical businesses. BCP Energy entered into a Share Sale Agreement with Petroleum International Investment Corporation to acquire 402.95 million shares (equivalent to 19.66% of total issued shares capital) in Nido Petroleum Limited, which is incorporated in Australia and its principal activities are the exploration and production of petroleum and natural gas. Taking control of NIDO will enable Company to expand the business into exploration and production of petroleum business and form the fundamental development of exploration and production of petroleum business in accordance with the Company's expansion direction.

31st July: Company entered into a share purchase agreement with conditions precedent with Sima Inter Product Co., Ltd. (SIMA) to purchase 7.65 million common shares equivalent to 85% of registered capital of BCP Bioethanol Co., Ltd. which will be established after completing the conditions precedent to the share purchase agreement, for the acquisition of assets related to production and distribution ethanol, including licenses, contracts and other rights from SIMA. However, SIMA had ethanol's production capacity of 150,000 thousand litre per day. Operating in SIMA will support the ethanol's demand of Bangchak.

4th August: BCP Energy entered into a deed to make a Nido recommended tender offer to purchase all the outstanding shared via an off-market takeover. At the end of progress of the Offer, BCP Energy completely achieves a relevant interest in 81.41% of Nido shares (1,781,502,769 fully paid ordinary shares)

25th August: The meeting of board of Directors of the Company had passed the resolution to approve on profit allocation from unappropriated retained earnings for interim dividend payment for Shareholders of the Company at Baht 0.60 per share.

Q4/2014

1st October: Company had temporary shutdown the Hydrocracking Unit for investigating its equipment, totaling 10 days to repair. However, there is no significant impact on its product sales to customers and annual performance.

24th November: The meeting of the board of directors of the Company, resolved to approve the changing the dividend payment policy to "The Company has the policy to pay out dividend to the shareholders at the rate of not less than 30 percent of net profit after deduction of allocation of legal reserve. However, this is subject to the economic situation, the Company's cash flow and investment plans of the Company and its subsidiaries according to the necessary, appropriation and other concerning as the Board of Directors' consideration"

28th November: Bangchak was awarded "SET Award of Honor" for 'Top Corporate Governance Report' in the 9th consecutive years, and was awarded for Corporate Social Responsibility in the 8th consecutive years.

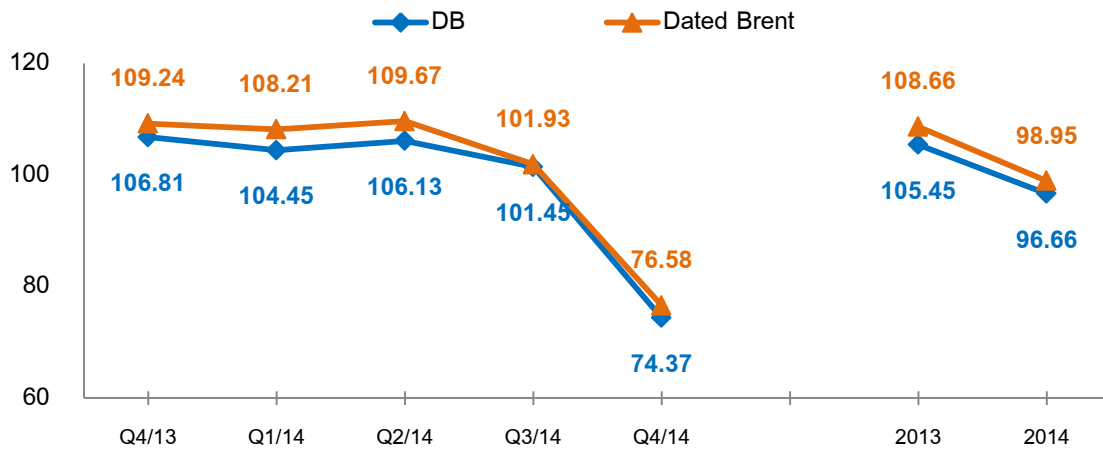
12th December: Nido has entered into a Sale and Purchase Agreement with Otto Energy Limited (Otto) for acquiring 100% of shareholding of Galoc Production Company WLL, a holder of Otto's 33% working interest in the Galoc oil field. Therefore, Nido's interest in Galoc oil field was increased to 55.88% and Nido will obtain operatorship of the project.

19th December: The Board of Directors of the Company resolved to appoint Mr. Chaiwat Kovavisarach, the Company's director, as the President in replacement of Mr. Vichien Usanachote, President, who is due to retire on December 31, 2014 by the President's Employment Contract. The resolution will be effective as of January 1, 2015

Summary of the Company and its subsidiaries' performance by Business unit

Refinery and Marketing Business Performance

Crude Oil Price Situation



	Q4/2013	Q3/2014	Q4/2014			YoY	QoQ	FY2013	FY2014	YoY
	AVG	AVG	MAX	MIN	AVG	%	%	AVG	AVG	%
DB	106.81	101.45	93.50	52.89	74.37	-30%	-27%	105.45	96.66	-8%
Dated Brent	109.24	101.93	94.61	54.98	76.58	-30%	-25%	108.66	98.95	-9%
DTD/DB	2.43	0.48	5.04	-1.87	2.21	-9%	360%	3.21	2.29	-29%

Average Dubai crude oil price in FY2014 decreased by 8.79\$/BBL compared to average price in FY2013, because of the increase in Non-OPEC supply, especially from shale boom in the US. Crude oil price has continuously and deeply declined in the second half of the year, as the OPEC meeting in Vienna on 27 November 2014 decided not to reduce its output from 30 million barrels per day, in order to retain market share in the rising oil supplies situation. Moreover, as the US Federal Reserve had continuously reduced its QE program in every meeting and decided to end the program in October, US dollar has been strengthened, and is a factor to pressure crude oil prices. Furthermore, as global oil supply is growing fast, oil demand was sluggish to catch up. Finally, crude oil price is weighed down by the slowing world economic growth in 2014, especially in Europe, China and Japan.

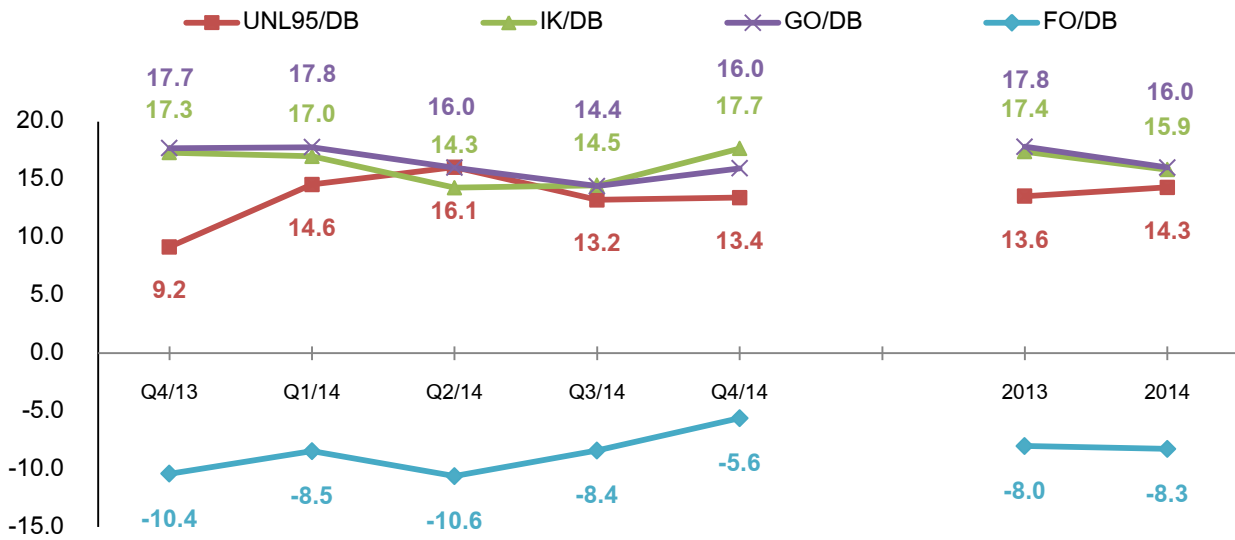
In Q4/2014, the average of Dubai crude oil price was 74.37\$/BBL, dropped by 27.08\$/BBL from Q3/2014. The crude oil price in Q4/2014 had been pressured by many factors. Firstly, the US Federal Reserve (Fed) decided to end its quantitative easing program (QE) in its October meeting, due to the US economic recovery and the improvement outlook for the labour market. As such, US dollar has been continuously strengthened and reached its highest level since April of 2006 in December. Secondly, as inflation rate in the Euro Area declined to -0.20% in December 2014 from 0.3% in November, the European Central Bank (ECB) is expected to launch a new stimulus program

to support the economy. Moreover, the International Monetary Fund (IMF) forecasted global economy to grow at 3.3% in 2014 and 3.8% in 2015, compared to 3.4% in 2014 and 4% in 2015 in its previous estimation. The IMF is concerned by low potential growth Japan, China, Brazil and Eurozone. Thirdly, China's GDP in Q3/2014 grew 7.3% YoY, compare to 7.5% YoY in Q2/2014, according to National Bureau of Statistics data. China economy grew at its slowest rate in the past five and a half year, due to the contraction in real estate sector, lower oil demands and the slowdown in manufacturing sector. The International Energy Agency (IEA) cut its 2014 forecast for global oil demand to grow 670,000 barrels per day, from 900,000 barrels a day in its September estimation. Moreover, the IEA had also forecasted non-OPEC oil supply to grow at 1.9 million barrels a day, mainly from U.S. shale oil growth. As an evidence, US output gained 9.14 million-barrel per day, the highest level since January 1983. Another factor pressuring the supply side was the decision of the OPEC in its meeting in Vienna on 27 November 2014, not to reduce its output from 30 million barrels per day, aiming to maintain its market share. State oil firm Saudi Aramco, Iraq and Kuwait had cut their official selling prices (OSPs) for its Arab Light crude to Asian and US customers. Oil exports from southern Iraq had been continuously increased. Furthermore, the OPEC has cut its next year's average oil demand forecast to be 28.9 million barrels a day, projecting a larger global supply surplus in 2015.

However, crude oil prices had some supporting factors. Firstly, The US GDP had increased 5% in Q3/2014, the fastest pace since the first quarter of 2006. US unemployment rate had slowed down to 5.9%, its 6-year-low. Moreover, Thomson Reuters/University of Michigan's final December reading on the overall index on consumer sentiment came in at 93.6, its best showing since January 2007. These could be implied to good signs of the US economy. Secondly, another support to oil prices is the negotiations over Iran's nuclear program on 24 November 2014, which has not reached its agreement, while the easing on Iran sanction has been extended until the end of June 2015. During the time, Iraq still has a sanction limiting its crude exports. Lastly, the uncertainty on Libya unrest is another supporting factor to crude prices.



Crack Spreads Analysis



	Q4/2013	Q3/2014	Q4/2014			YoY	QoQ	FY2013	FY2014	YoY
	AVG	AVG	MAX	MIN	AVG	%	%	AVG	AVG	%
UNL95/DB	9.18	13.24	16.23	10.45	13.43	46.27%	1.43%	13.55	14.31	5.60%
IK/DB	17.31	14.50	21.83	13.40	17.67	2.08%	21.87%	17.40	15.85	-8.94%
GO/DB	17.7	14.42	18.32	12.57	15.96	-9.82%	10.69%	17.82	16.03	-10.04%
FO/DB	-10.4	-8.39	-2.42	-9.50	-5.60	-46.21%	-33.32%	-8.01	-8.26	3.15%

- An average Gasoline 95 Octane/Dubai (UNL95/DB) in FY2014 was 14.31 USD/barrel, an increased of 0.76\$/BBL from FY2013. As there were more demands from Indonesia during September – November due to 2 refineries maintenance (total production capacity of 588,000 barrels per day). There was also a production cut in Mailiao refinery (production capacity of 540,000 barrels per day) in Taiwan, and a 2-month shut down of Gaoquiao refinery (production capacity 250,000 barrels a day) in China in Q4/2014, which had resulted in short supply during that period. In addition, many US refineries had emergency shutdowns in the fourth quarter, resulting in the US gasoline stock in the week ended 26 September drop by 1.8 million barrels to 208.5 million barrels, the lowest level since November 2012. This leads to higher arbitrage outflows from Asia to the US, when compared to the same period of last year.

In Q4/2014, UNL95/DB was increased by 0.19\$/bbl from Q3/2014. The spread had been driven by the western demand due to many US refineries maintenance. Consequently, the US imported more gasoline from Latin America, Mediterranean and Asia in the early of the quarter. Moreover, Indonesia had increased their gasoline imports to 11.5 million barrels in October from 10 million barrels in September, due to their refineries maintenance production capacity of 588,000 barrels per day during that period. On the supply side, the

gasoline supply had been tighter as a result of an emergency shutdown of the Residue Fluid Catalytic Cracking (RFCC) at Taiwan's refinery with production capacity of 84,000 barrels per day. The cause was a technical problem, led to an estimation of 17-21 days shutdown since early December. As a result, Taiwan's 3 gasoline cargos had to postpone their delivery dates. However, the gasoline spread had been pressured in the second half of quarter due to the overall demands in the region staying low throughout winter. Moreover, the Indonesian demand had slowed down as domestic refineries back from maintenance. In addition, as Indonesian government had lowered its subsidies in gasoline and diesel prices by more than 30%, is expected to pressure Indonesian oil demands. Finally, increasing supplies from South Korea, Japan and Taiwan were also a factor pressuring the crack spread.

- An average of Jet (Kerosene)/Dubai (IK/DB) was 15.85 \$/bbl, a decrease of 1.55\$/BBL from FY2013. As regional demand in Asia was weaker compared to last year, while demand in Europe was also contracted due to its slowing economy. On the supply side, there were further additional supply capacities from new refineries in Asia and the Middle East, resulted in the middle distillate stock in the week ending 4th June 2014 hitting 2.5-year high at 12.626 million barrels.

In Q4/2014, IK/DB was increased by 3.17\$/bbl from Q3/2014. The spread had been supported by higher Jet demands for transportation sector and also Kerosene demands for heating in winter. Another supporting factor was the reduced production of Taiwan's Mailiao refinery (production capacity of 540,000 barrels per day) to 60% of total capacity in November, compared to target at 75%, due to an emergency shutdown of Sulphur Recovery Unit (SRU) with mechanical problem. Chinese Jet fuel stock was continuously decreased, after Chinese local refineries increased their diesel production yield, while China Aviation Oil (CAO) procured more Jet fuel to be delivered around the end of year.

- An average Gasoil/Dubai (GO/DB) was 16.03 \$/bbl in FY2014, a decrease of 1.79 \$/bbl from FY2013 due to a slower demands in the region compared to last year, as well as weakened demands in Europe from its economic slowdown. Moreover, Indonesian demand had been declined as the government's cut its subsidy on fuel prices.

In Q4/2014, GO/DB was increased by 1.54 \$/bbl from Q3/2014. The spread had been driven by the high demand in region as diesel price dropped, especially in Vietnam, Indonesia and the Philippines who had imported more gasoil due to the fishery season. Furthermore, Australian demand is expected to rise during its driving season in summer from December to February. Moreover, the spread had also been supported by higher Indian demand after the raining season and the coming Deepvali festival. In addition, European demand for heating oil will be increased during winter, leading to more arbitrages from the West. Also, the reduced of



production capacity at Taiwan's Mailiao refinery will be another supporting factor for the Gasoil crack spread. In addition, fuel exports from a major new joint-venture refinery between Saudi Aramco and China's Sinopec in Yanbu, namely Yasref (production capacity of 400,000 barrels per day) will be delayed to January from late last year. The refinery is expected to run on full capacity in the second quarter of 2015.

In the contrary, there were some factors pressuring gasoil spread such as overall weaken demands in the region. Also, supply from Taiwan was increased around the end of the quarter, due to the slowing domestic demand. On the supply side, China's gasoil exports had been increased because of its economic slowdown as well as the oversupply from China's new refineries, which is expected to last throughout 2015.

- An average Fuel Oil/Dubai (FO/DB) was -8.26 \$/bbl in FY2014, a decrease of 0.25 \$/bbl from FY2013 due to the lower fuel oil demands compared to last year, especially in China. Chinese teapot refineries and bunker demands had been declined as China's economic slowdown. Moreover, as the flat price was in a high level during the middle of the year, demands from the shipping sector had slowed down. Finally, fuel oil stock in Asia had risen, as supplies from India and Taiwan increased.

In Q4/2014, FO/DB was increased by 2.79 \$/bbl from Q3/2014. The spread had been stronger due to the increased demands from the continuously fallen crude price, which led to the higher imports from South Korea, Hong Kong, Vietnam, as well as Chinese teapot demands which had resumed. On the supply side, OW Bunker, a big Singaporean fuel oil shipping company had gone bankrupted and could affect the concern of a shortage in fuel oil supply to their term contracted customers. As a result, some customers seek for fuel oil in the spot market instead. In the contrary, there was a trend of increased supply as regional refineries resumed from turnarounds in the fourth quarter.

However, demand for fuel oil in Japan for power generation was lower than the same period last year. Moreover, arbitrage from the West is expected to hit its 9-month high in January 2015 at 4.35 million metric tons, an increase of 10% from the end of 2014. Furthermore, the market had reduced the concern of OW Bunker bankruptcy is another pressure factor to fuel oil crack spread.



1) Refinery Business

The table of Refinery business performance

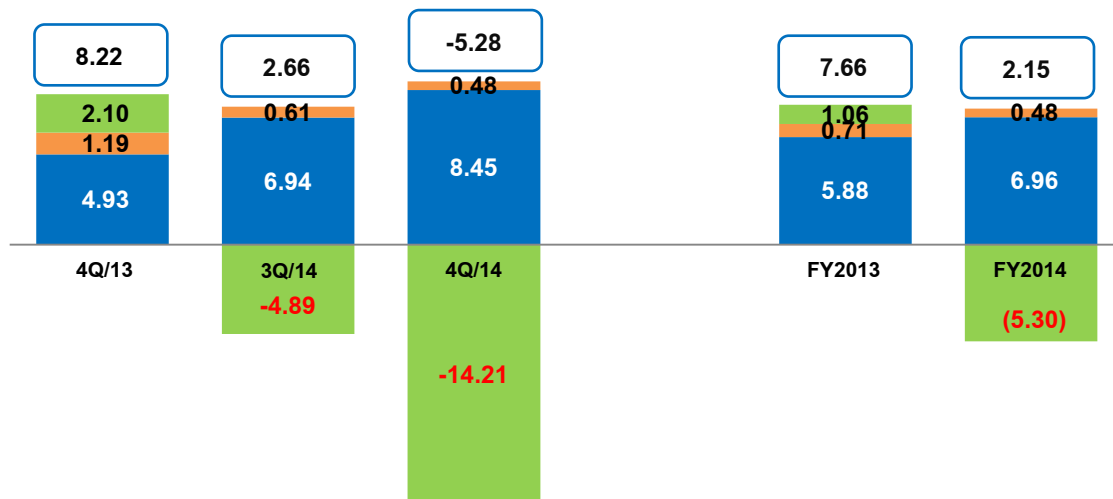
	Q4 2013	Q3 2014	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Average Crude Run (KBD)	101.17	96.99	102.48	1%	6%	99.34	86.48	-13%
Utilization Rate (%)	84%	81%	85%	1%	6%	83%	72%	-13%
Average FX (THB/USD)	31.87	32.25	32.85	3%	2%	30.86	32.63	6%

Unit: Million Baht

	Q4/2013 ^{1/} (Restated)	Q3 2013	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Market GRM	1,464	1,997	2,617	79%	31%	6,579	7,167	9%
GRM Hedging	353	176	150	-58%	-15%	800	499	-38%
Inventory Gain/ (Loss)	622	(1,408)	(4,400)	-808%	213%	1,189	(5,454)	-559%
Total GRM	2,439	766	(1,634)	-167%	-313%	8,568	2,213	-74%
EBITDA	1,189	113	(2,414)	-303%	N/A	6,336	137	-98%

Note: 1/ The Company and its subsidiaries' operating results in 2013 were restated according to the new and revised TFRS that are effective for annual periods beginning on or after 1 January 2014.

Unit: USD/BBL



■ Market GRM ■ GRM Hedging ■ Inventory Gain/(Loss)

In FY2014, Refinery business had an average crude run of 86.48 thousand barrel per day decreased from FY2013 which was at 99.34 thousand barrel per day as a result of the Annual Turnaround Maintenance and a replacement of the Main Column (100 KBD) totaling 46 days, and a temporary shutdown of Hydrogen Plant (there was an irregularities in equipment operation, therefore, the unit was temporary seized operation for inspection and reparation) in 3Q/2014 causing the total average crude run to decrease.

Market GRM was Baht 7,167 million (+9% YoY) which was affected by the lower price of crude oil which narrowed down the spread between Dated Brent and Dubai price to be on average at 2.29\$/BBL compared to 3.21 \$/BBL in FY2013. Especially, during Q3/2014 to Q4/2014 by which the spread was affected by an increase of supply of low sulfur and light crude from West Africa, specifically from Lybia, along with a decrease of crude import of US from West Africa as US's Shale oil production continued to increase. As such, the market GRM was high despite the facts that some of the products crack spread was weaken as the decelerate demand from Asia and Europe.

Refinery Business had Baht 499 million gain from crude and product oil price hedging contract (GRM hedging), and as the crude price drop heavily in the second half of the year, there was an inventory loss of Baht 5,454 million. As a result, total GRM was Baht 2,213 million (-74% YoY). In addition, Refinery business had recognized an insurance compensation for the replacement of the Main Column of Crude Distillation Unit Number 3 of Baht 764 million; comprised of an insurance compensation for Property Damage of Baht 521 million, an insurance compensation for Business Interruption of Baht 243 million. Therefore, Refinery Business had an EBITDA of Baht 137 million (-98% YoY).

In Q4/2014, Refinery business had an average crude run of 102.48 thousand barrel per day which was increased from 3Q/2014 which was at 96.99 thousand barrel per day. There was a temporary shutdown of Hydrogen Plant (there was an irregularities in equipment operation, therefore, the unit was temporary seized operation for inspection and reparation) in Q3/2014 and in the early of October, there was a temporary shutdown of Hydrocracking Unit as there was an irregularities in the Heat Exchanger and it was repaired and back to its operation within October. Nevertheless, the crude run in November and December were high; on average around 105 thousand barrel per day, as such, an average crude run in Q4/2014 was higher.

Market GRM was Baht 2,617 million (+31% QoQ) an increase in the Market GRM was from the seasonal factor which the heating oil demand increased during winter and a travelling demand of long holidays, and a significant drop of Dubai crude price in the quarter from the oversupply issue after the OPEC decided not to cut its production to maintain their market share. As a result, all product crack spreads were widening especially, Gas Oil/Dubai crack spread (GO/DB) and Jet Fuel/Dubai crack spread (IK/DB) which increased by a higher demand from Asia and as the supply of Gas Oil





decreased from the postpone shipment from various refiners in the region and from their turnaround maintenance. Furthermore, Jet Fuel demand for travelling and Kerosene demand for heating oil were both increased during the winter season and Fuel Oil/Dubai crack spread (FO/DB) which was affected by the lower price of crude.

As for Dated Brent crude price, which was the benchmark price for low sulfur crude, the price was increased due to seasonal factor (winter demand) which encouraged European refiners to increase their utilization, hence demand of crude increase. Additionally, the political unrest in Libya which was the major exporters of such crude also supported an increment in the crude price when compared to Dubai crude price. (The spread between Dated Brent and Dubai on average was at 2.21 \$/BBL, an increased from Q3/2014 which was at 0.48 \$/BBL)

Despite a higher Market GRM when compared to the previous quarter, but as the crude price heavily drop, there was an inventory loss of Baht 4,400 million. The Company had Baht 150 million gain from crude and product oil price hedging contract (GRM hedging) resulted in a loss in total GRM of Baht -1,634 million and as Q4/2014 had higher selling and administrative expenses (year-end costs) when compared to the rest of the quarter, Refinery Business had an EBITDA of Baht -2,414 million.



2) Marketing Business and Bangchak Green Net Co., Ltd.

Sales volume in each market category of Marketing Business

Unit: Million Litre

	Q4 2013	Q3 2014	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Retail (Service Stations)	754	746	777	3%	4%	2,935	3,016	3%
Industrial	542	475	558	3%	17%	2,070	1,991	-4%
Total	1,295	1,221	1,335	3%	9%	5,005	5,006	0.02%

Sales volume in each product category of Marketing Business

Unit: Million Litre

	Q4 2013	Q3 2014	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Diesel	712	632	747	5%	18%	2,701	2,668	-1%
UNL 91	14	12	13	-9%	10%	33	49	46%
Gasohol	331	363	371	12%	2%	1,276	1,402	10%
Gasohol 91	130	143	148	14%	4%	525	551	5%
Gasohol 95	88	92	93	6%	2%	346	355	3%
Gasohol E20	81	82	79	-4%	-5%	313	325	4%
Gasohol E85	31	46	50	60%	9%	92	170	84%
Jet Fuel	164	148	148	-10%	0%	695	624	-10%
Fuel Oil	42	39	34	-19%	-13%	189	156	-18%
LPG	14	16	13	-9%	-21%	47	61	31%
Lubricant	17	11	9	-51%	-20%	62	46	-26%
Others	0.48	0.14	0.33	-31%	143%	2	1	-14%
Total	1,295	1,221	1,335	3%	9%	5,005	5,006	0.02%

The table below shows details of Marketing Margin

Unit: Baht per Litre

	Q4/2013 ^{1/} (Restate)	Q3 2013	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Retail Margin (Service Stations)	0.70	0.98	0.93	33%	-5%	0.73	0.98	34%
Industrial Margin	0.19	0.29	0.32	69%	10%	0.23	0.31	35%
Total Marketing Margin^{2/}	0.49	0.71	0.67	39%	-5%	0.52	0.71	37%

Note: Marketing Margin figure was the attributable to the Company only.

1/ The Company and its subsidiaries' operating results in 2013 were restated according to the new and revised TFRS that are effective for annual periods beginning on or after 1 January 2014.

In FY2014, marketing business had a total sales volume of 5,006 million litre which was similar to last year. Due to the Annual Turnaround Maintenance of refinery and the replacement of new main column (100 KBD), totaling 46 days in Q2/2014, the sales volume through industrial market was decreased or has been adjusted in order to maintain the level of sales volume in retail market, as retail market was the first priority market for the Company. As such, industrial sales volume was decreased by 4% YoY while retail sales volume had increased 3% YoY. According to the strategy which the Company had continuously focused on retail market and develop various sales campaign to boost Gasohol products sales volume especially Gasohol E20 and E85 which yield high marketing margin when compared to other gasohol products, the overall gasohol products sales volume had increased by 10% YoY; Gasohol E85 sales volume had increased 84% YoY as a result of its attractive retail price when compared to other gasohol products and higher Gasohol E85 compatible car in the market.

The number of service station was decreased from 1,074 stations in FY2013 to 1,070 stations in FY2014 as the Company had closed inefficient or low thruput per service stations and continuously opened a new one which appealed more to customer together with improving quality and appearance of existing service stations to create thruput per service station growth. Additionally, the Company had continuously expanded E20 and E85 service stations. In FY2014, there were 700 service stations selling Gasohol E20 (FY2013: 678 stations) and 200 service stations selling Gasohol E85 (FY2013: 102 stations).

Total Marketing margin was 0.71 Baht per litre, an increase of 37% YoY. Retail Margin was recorded at 0.98 Baht per litre (+34% YoY) due to the emphasis on selling oil products through retail market and the sales volume growth in Gasohol products, especially in Gasohol E85 product which had a higher margin compared to other products. Furthermore, the cost of ethanol, which was a mixing material for Gasohol products, was decreased. Industrial margin was recorded at 0.31 Baht per litre (+35% YoY) from the easing of competition in industrial market. All in all, marketing business had recorded an EBITDA of Baht 2,208 million, an increase of 62% YoY.

In Q4/2014, total sales volume of Marketing business was 1,335 million litre, an increase of 9% QoQ. Retail sales volume increased by 4% QoQ from travelling season and long holiday at the end of the year, resulted in higher demand for oil products. Industrial sales volume, also, increased by 17% QoQ from a higher average crude run of refinery in Q4/2014. Additionally, the sugar cane harvest season during the quarter helped increased diesel sales volume.

Total Marketing Margin for Q4/2014 was 0.67 Baht per litre, a decrease of 5% QoQ. Retail margin was decreased due to an impact of petroleum price structure readjustment by the government; oil fuel fund was increased since August, and there was an increase in operating and administration expenses during Q4/2014 which was normally higher than other quarter of each year. Therefore, EBITDA was Baht 318 million, a decrease of 48% QoQ.

Renewable Business Performance

3) Solar Power Business

Electricity Sales (Million kWh)	Q4 2013	Q3 2014	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Phase 1	17.32	17.06	17.25	-0.42%	1%	67.34	70.12	4%
Phase 2	19.50	18.87	19.79	1%	5%	59.50	79.07	33%
Phase 3	-	27.57	30.27	-	10%	-	82.34	-
Total	36.82	63.50	67.30	83%	6%	126.84	231.53	83%
Revenue (Million Baht)	431	741	780	81%	5%	1,463	2,692	84%

In FY2014, Solar Power Business recorded total revenue of Baht 2,692 Million, an increase of Baht 1,230 Million (+84% YoY). Solar Power Plant Phase 3 (PPA of 48 MW) had commercialized its operation in April which contributed to the totaling production capacity of the Company to 118 MW PPA. Total Electricity Sales was recorded at 231.53 million kWh, an increase of 104.69 million kWh (+83% YoY).

Solar Power Plant Phase 1 (PPA of 38 MW) recorded an increase in electricity sales of 2.78 million kWh (+4% YoY) from a higher solar irradiation hours. Solar Power Plant Phase 2 (PPA of 32 MW) recorded an increase in electricity sales of 19.57 million kWh (+33% YoY) as it was fully operated for the whole year and from a higher solar irradiation hours. As a result, an EBITDA was recorded at Baht 2,572 Million (+85% YoY)

In Q4/2014, total electricity sales was increased by 3.80 million kWh (+6% YoY). Even though, the solar irradiation during the quarter was lower for all 3 phases when compared to Q3/2014 due to winter season which normally had low solar irradiation hours as the daylight hour was shorter, but as the cool temperature during the quarter, the efficiency of production increased for all phases, especially, phase 3 which had higher irradiation hours and located in the coldest location, therefore, an EBITDA of 4Q/2014 was recorded at Baht 740 Million (+4% QoQ).

4) Biofuel Business

In FY2014, Biofuel business recorded an EBITDA of Baht 303 million, which comprised of an EBITDA from Bangchak Biofuel Co, Ltd. of Baht 298 million and share of profit from Ubon Bio Ethanol Co, Ltd of Baht 5 million.

Table of biodiesel performance by Bangchak Biofuel. Co., Ltd

	Q4 2013	Q3 2014	Q4 2014	YoY (%)	QoQ (%)	FY 2013	FY 2014	YoY (%)
Revenue (Million Baht)	1,263	1,243	1,535	21%	23%	4,401	5,316	21%
Utilization Rate (%)	98%	101%	102%	4%	1%	95%	100%	5%
Average Daily Production Rate (Thousand litre per day)	352	364	366	4%	1%	343	361	5%
B100 Sales Volume (Million litre)	42	47	53	26%	12%	166	179	8%
EBITDA (Million Baht)	119	63	89	-26%	40%	345	298	-14%

In FY2014, Biodiesel business recorded a revenue of Baht 5,316 Million (+21 YoY) due to a growing biodiesel demand from the government's policy of increasing the portion of B100 mixing with diesel from 5% in to 7% (effective since January FY2014) The total B100 Sales volume was 179 Million litre (+8 YoY) and average daily production rate was 361 Thousand litre per day (+5 YoY). B100 price during FY2014 increased as B100 demand increase which caused crude palm oil price to increase. Moreover, the drought within the year affected the crude palm oil supply which pushed the B100 price to be higher (According to Department of Energy Business the B100 reference price was 32.41 Baht per litre in FY2014, compared to 28.95 Baht per litre in FY2013)

However, the gross margin was decreased when compared to last year as the cost of material for production was higher as the evidence of higher average crude palm oil (CPO) cost in FY2014 when compared to FY2013. Even though the price continued to decline from Q1/2014 until Q3/2014 as Indonesia, who was the main CPO producer, increased its CPO export due to its weak domestic demand hence, lower regional CPO price. As a result, Thailand's CPO producer delays their export. Nevertheless, the CPO price slightly rebounded in Q4/2014. Therefore, there was an inventory loss of Baht 5 Million and as the margin per unit of Glycerin (a byproduct of biodiesel production) was weaken, Biodiesel EBITDA was recorded at Baht 298 Million (-14% YoY)

When compared Q4/2014 to Q3/2014, Biodiesel business recorded an increase in revenue of Baht 292 Million (+23 QoQ) from an increase in B100 Sales volume of 6 Million litre (+12 QoQ). There was a slight increase in an average daily production rate. The higher B100 Sales volume was from a higher BCP's diesel sales as BCP was the major buyer of the business and the average B100 selling



price increased 6.8% QoQ from crude palm cyclical factor (as production in the fourth quarter yielded the lowest for the year, hence higher price during such quarter)

The average gross margin for Q4/2014 was higher than previous quarter from the higher sales volume and from an efficient inventory management (buying CPO before its cyclical higher price in the fourth quarter, and selling it after the price had come up) which created a higher average gross margin for both B100 and glycerin. Moreover, as the price of CPO increased in the fourth quarter, there was an inventory gain of Baht 23 Million. Therefore, Biodiesel business recorded an EBITDA of Baht 89 Million (+40% QoQ)



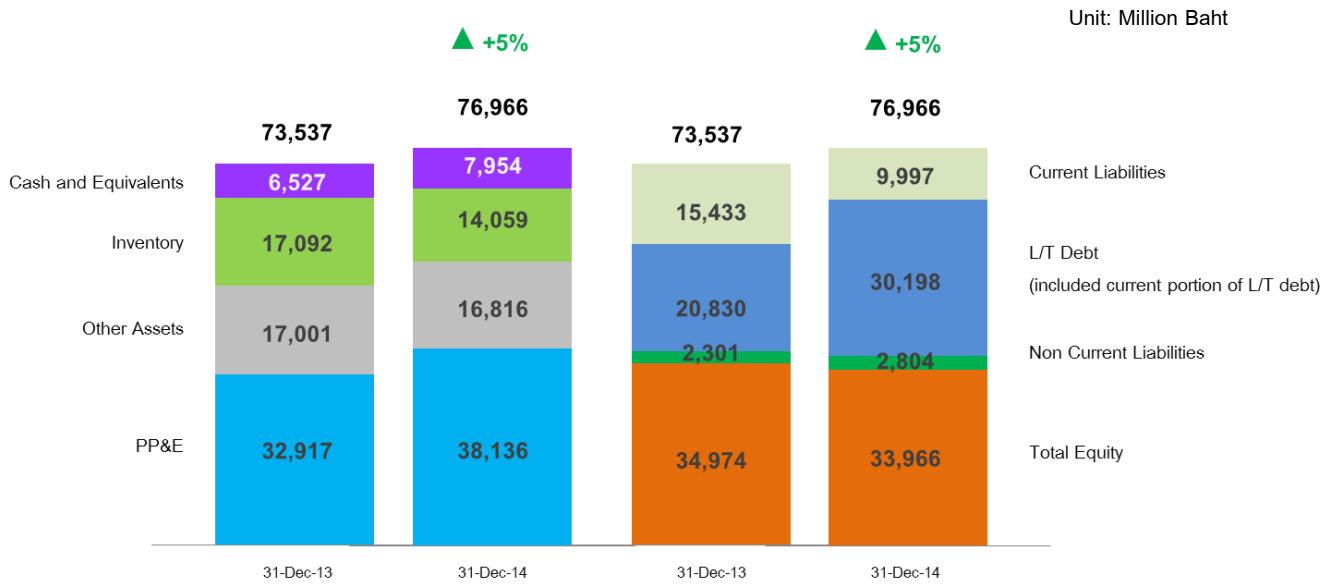
5) Exploration and Production Business

In FY2014, Company has expanded the business into exploration and production of petroleum business. BCP Energy International Pte, Ltd., (“BCP Energy”) a subsidiary of the company has entered into a share purchase agreement of Nido Petroleum Limited (“NIDO”) which is incorporated in Australia and its principal activities are the exploration and production of petroleum and natural gas. Taking control of NIDO will enable Company to expand the business into exploration and production of petroleum business and form the fundamental development of exploration and production of petroleum business in accordance with the Company’s expansion direction. BCP Energy had purchased share of NIDO from Petroleum International Investment Corporation of 402.95 million common shares (equivalent to 19.66% of total issued shares capital) for 0.055 Australian dollars and entered into a bid implementation deed to make a tender offer to purchase all of the outstanding shares. On 19 September 2014, BCP Energy acquired over 61.75% relevant interest thereby NIDO became subsidiary of the Group. After BCP had extended the period of the offer, as at 3 October 2014 which was the date of offer end, BCP Energy has acquired 81.41% equity interest in NIDO.

Exploration and production of petroleum business in FY2014 (from September 20, 2014 to December 31, 2014) recorded a revenue of Baht 325 Million, an EBITDA of -58 Million (included the cost of legal fees, and other professional and consulting fees of Baht 59 Million) and a recorded of impairment in Consolidated Financial Statement of Baht 818 Million.



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



Note: The Company and its subsidiaries' operating results in 2013 were restated according to the new and revised TFRS that are effective for annual periods beginning on or after 1 January 2014.

Assets

As of December 31, 2014, Total Assets of the Company and its subsidiaries were Baht 76,966 million, an increase of Baht 3,428 million when compared to the end of 2013. The changes in assets were mainly from:

- Cash and cash equivalents was increased by 1,427 million (Details are stated under Analysis of the Cash Flow Statement)
- Current Investment was decreased by Baht 109 million from a decreasing in short-term deposit to financial institutions of Baht 95 million for a long-term repayment of Bangchak Solar Energy Limited.
- Trade Accounts Receivable – was decreased by Baht 2,825 million from lower sales value in FY2014, compared to FY2013 due to the oil price reduction, while total sales volume increased, and partly are from a decreasing in exports in FY2014 which was lower than FY2013.
- Other Accounts Receivable was increased by 565 million from the insurance compensation receivable of Baht 243 million, prepaid expenses for Biodiesel plant phase 2 of Baht 100 million and Nido's other receivables of Baht 140 million.
- Inventory was decreased by Baht 3,034 million due to a decreasing in oil price while inventory were increasing from 4.35 million barrels in December 31, 2013 to 4.98 million barrels in this year. In addition, there was a Lower of Cost of Market (LCM) of Baht 992 million.
- Oil fuel fund subsidies receivable was decreased by Baht 449 million. The Company received cash from oil fuel fund, mainly from LPG, Gasohol E85, Gasohol E20 and high-speed Diesel products.
- Investments in subsidiaries was increased by Baht 5,026 million from an investment in Bangchak Solar Energy which the Company held 100% of total share of Baht 1,462 million, an investment



in subsidiaries which the Company held 49% of total share of Baht 1,513 million which were Bangchak Solar Energy (Prachinburi) Company Limited, Bangchak Solar Energy (Chaiyaphum1) Company Limited, Bangchak Solar Energy (Buriram) Company Limited, Bangchak Solar Energy (Buriram1) Company Limited, and Bangchak Solar Energy (Nakornratchasima) Company Limited and investment in NIDO of 81.41%.

- Property, plant and equipment was increased by Baht 5,219 million, from an investment of Solar Power Plant of Baht 3,695 million, refinery machinery and equipment of Baht 2,670 million, and other of Baht 588 million.

Liabilities

As of December 31, 2014, Total Liabilities of the Company and its subsidiaries was Baht 43,000 million, an increase of Baht 4,437 million from end of 2014. The change in liabilities was mainly from:

- Trade Accounts Payable was decreased by Baht 5,760 million, mainly from a decrease in Trade Accounts Payable between related parties of Baht 5,567 million which was from Trade Accounts Payable between the Company and PTT Plc of Baht 5,511 million as in December 31, 2013, in which the due date was on a public holiday but such amount had been paid in January 2014. In addition, value of oil products in December 2014 was lower than December 2013.
- Long-term loans from financial institutions and Debenture (including current portion of long-term loans) was increased by 9,368 million from a Debenture Issuance of Baht 9,987 million (Net from Debenture Issuance expenses of Baht 13 million) and repayment of Long-term loans portion of Baht 1,254 million. There was an increase in USD loans of Baht 33 million due to an adjustment impact in foreign exchange rate and loan amortization of Baht 14 million.

Equities

As of December 31, 2014, Total Equity attributable to owners of the Company was Baht 33,306 million, a decrease of Baht 1,418 million from Net Profit for the year ended 31 December 2014 of Baht 712 million and Dividend Payment of Baht 1,858 million. Other component of equity (foreign currency translation differences for foreign operations) was Baht -272 million. Consolidated book value was Baht 24.19 per share.

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

In 2014, the Company and its subsidiaries had net cash received from operating activities of Baht 6,068 million, net cash used in investing activities of Baht 10,042 million and net cash received in financing activities of Baht 6,389 million. As a result, there was a net increase in cash and cash equivalents of Baht 1,374 million. Cash and cash equivalents on 1 January, 2014 was Baht 6,527 million and there was an effect of exchange rate changes on balances held in foreign currencies of Baht 53 million, when accounted for all activities, cash and cash equivalents as of December 31, 2014 was Baht 7,954 million.

Details of cash received and used are as follows:

Unite: Million Baht

Cash Flows	31 December 2013 ^{1/} (Restated)	31 December 2014
Net cash received (used) from operating activities	5,451	6,068
Net cash received (used) in investing activities	(5,507)	(10,042)
Net cash received (used) in financing activities	(1,422)	5,348
Net increase (decrease) in cash and cash equivalents	(1,478)	1,374
Cash and cash equivalents at 1 January	8,006	6,527
Effect of exchange rate changes on balances Held in foreign currencies	-	53
Cash and cash equivalents at 31 December	6,527	7,954

Note: 1/ The Company and its subsidiaries' operating results in 2013 were restated according to the new and revised TFRS that are effective for annual periods beginning on or after 1 January 2014.

Cash received and used details are as follows:

- 1) The Company and its subsidiaries had net cash received from operating activities of Baht 6,068 million, mainly from
 - Net cash received from operating activities of Baht 6,523 million which was from Net Profit of Baht 756 million added back Non-Cash Expenses of Baht 4,803 million, Finance Costs and Income Tax of Baht 964 million.
 - Cash used in the operating assets of Baht 5,425 million, mainly from an decrease in Inventory of Baht 2,144 million, a decrease in Trade Account Receivable of Baht 3,056 million, other Receivable of Baht 429 million and an increase in Other Assets of Baht 684 million.



- Cash used in operating liabilities of Baht 5,125 million, mainly from a decrease in Trade Accounts Payable of Baht 5,863 million, an increase in Other Payables of Baht 140 million and an increase in Other liabilities of Baht 598 million.
 - Income Tax Paid of Baht 755 million.
- 2) Net Cash used in investing activities of Baht 10,042 million, mainly from
- Investment in property, plant and equipment of Baht 7,337 million which were from an investment in Solar Power Plant of Baht 3,695 million, refinery machinery and equipment of Baht 2,670 million and other of Baht 972 million.
 - Current investment of Baht 109 million.
 - Share payment of Baht 58 million in Fuel Pipeline Transportation Co., Ltd.
 - Net cash outflow on acquisition of subsidiary of Baht 2,479 million.
 - Interest received of Baht 166 million.
 - Leasehold right of Baht 344 million.
 - Purchase of intangible assets of Baht 99 million.
- 3) Net cash received from financing activities of Baht 5,348 million, mainly from
- Debenture Issuance of Baht 9,987 million.
 - Repayment of long-term loans of Baht 1,254 million.
 - Dividend Payment of Baht 1,946 million which was a Dividend Payment of the Company of Baht 1,859 million and payment of Non-control Interest of Baht 87 million.
 - Financial costs of Baht 1,439 million.

Financial Ratios (Consolidated)

	Q4/2013	Q3/2014	Q4/2014	FY2013	FY2014
Profitability Ratios (%)					
EBITDA Margin	3.83%	3.05%	-2.74%	5.07%	2.82%
Profit Margin	1.50%	0.87%	-5.48%	2.54%	0.41%
Return on Equity (ROE) ^{1/}	13.92%	11.12%	2.09%		
Return on Assets (ROA)	9.33%	7.45%	2.29%		

	31-Dec-13	30-Sep-14	31-Dec-14
Liquidity Ratios (times)			
Current Ratio	2.22	2.48	2.86
Quick Ratio	1.18	1.25	1.61
Financial Policy Ratios (times)			
DSCR ^{2/}	4.59	3.55	1.93
Interest bearing debt to Equity	0.63	0.85	0.92
Net Interest bearing debt to Equity	0.42	0.64	0.67

1/ Profit and Total equity attributable to owners of the Company

2/ DSCR in 2013 was excluded prepayment loan of Baht 5,500 million



Financial Ratios Calculation

▪ EBITDA Margin (%)	=	EBITDA / Revenue from sale of goods and rendering of services
▪ Profit Margin (%)	=	Profit attributable to owners of the Company / Revenue from sale of goods and rendering of services
▪ Return on Equity (%)	=	Profit attributable to owners of the Company (Yearly) / Total Equity attributable to owners of the Company (Average)
▪ Return on Assets (%)	=	EBIT (Yearly) / Total Asset (Average)
▪ Current Ratio (times)	=	Current Asset / Current Liabilities
▪ Quick Ratio (times)	=	(Current Asset – Inventory) / Current Liabilities
▪ DSCR	=	EBITDA (Yearly) / (Paid for long-term debt + Finance cost)
▪ Interest Bearing Debt to Equity (times)	=	Interest Bearing Debt / Total equity
▪ Net Interest bearing debt to Equity	=	(Interest Bearing Debt – Cash and cash equivalents – Current investments) / Total equity

Note:

1/ Average Total Equity attributable to owners of the Company

- Yearly = (Total Equity attributable to owners of the Company of the year before + Total Equity attributable to owners of the Company of this year) / 2
- Quarterly = (Total Equity attributable to owners of the Company of the quarter of the year before + Total Equity attributable to owners of the Company the quarter this year) / 2

2/ Average Total Assets

- Yearly = (Total Assets of the year before + Total Assets of the Company of this year) / 2
- Quarterly = (Total Assets of the Company of the quarter of the year before + Total Assets of the Company the quarter this year) / 2

3/ The numerator of ROE is defined as the Profit attributable to owners of the Company and have to be annualized.

4/ The numerator of ROA is defined as EBIT and have to be annualized.

5/ Interest Bearing Debt is defined as Short-term loans + Long-term loans (including Current portion of long-term loans) + Debentures + Finance lease liabilities (including current portion of finance lease liabilities)



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, Bangchak and Bang Pa-in Oil distribution Centre.

Unit: Million Baht

	฿		Δ
	2013	2014	
Material Costs of Product Outputs : Consist of crude oil, ethanol, bio-diesel, chemical, energy and utilities in production	140,011	121,688	-18,323
Material Costs of Non-Product Outputs : Consist of slop and sludge oil, waste water, chemical surplus	118	152	+34
Waste and Emission Control Costs : Consist of maintenance cost of environmental control equipment and depreciation and other fees	175	314	+139
Prevention and Other Environmental Management Costs : Consist of monitoring and measurement cost, environmental management system expenses	6.18	17.17	+11
Total Expenses	140,310	122,170	-18,139
Benefit from by-product and waste recycling : The revenue realization from liquid sulfur, glycerin, waste paper	15.86	19.28	+4

In 2014, total Expenses related to environment decreased by Baht 18,139 million which was mainly from a decrease in Material Costs of Product Outputs due to an Annual Turnaround Maintenance of refinery. Material Costs of Non-Product Outputs was increased by Baht 34 million, Waste and Emission Control Costs and Prevention was increased by Baht 139 million and Other Environmental Management Costs was increased by Baht 11 million, however, Benefit from by-product and waste recycling was increased by Baht 4 million.

Changes in accounting policies

From 1 January 2014, according to the adoption of new and revised TFRS, the Company has changed its accounting policies in the following items which have material effects to financial statements, :

- TFRIC Interpretation 4 – Determining whether an arrangement contains a lease
- TFRIC Interpretation 13 - Customer loyalty programmes

Details can be found under section 3(b) to 3(d) of Footnotes to The Company's Financial Statements.

The impacts to the Company's Financial Statements 2013 are as follows

Statement of Financial Position

Unit: Million Baht

As of 31 December 2013	Before	Effect		After
		TFRIC 4	TFRIC 13	
Assets				
Property, plant and equipment	31,771	1,146	-	32,917
Deferred tax assets	336	(12)	14	338
		1,134	14	
Liabilities and equity				
Other current liabilities	565	-	70	635
Finance lease liabilities (including current portion)	-	1,085	-	1,085
Retained earnings - Unappropriated	21,835	49	(56)	21,828
		1,134	14	

Statement of income for the year ended December 31, 2014

Unit: Million Baht

	Consolidated 2013
Profit before income tax expense – as reported	5,664
Changes before tax as a result of the adoption retrospectively of:	
TFRIC 4 Determining whether an Arrangement contains a Lease	22
TFRIC 13 Customer Loyalty Programmes	(24)
Profit before income tax – restated	5,662
Income tax expense – as reported	(932)
Changes to income tax expense as a result of the adoption retrospectively of:	
TFRIC 4 Determining whether an Arrangement contains a Lease	(4)
TFRIC 13 Customer Loyalty Programmes	4
Income tax expense – restated	(932)
Profit - restated	4,730
Decrease in basic earnings per share (in Baht)	(0.001)