

# THE BANGCHAK PETROLEUM PLC

No. 103/2012

26 December 2012

**Company Rating:** A-

**Outlook:** Stable

**New Issue Rating:** -

**Rating History:**

Date	Company	Issue (Secured/ Unsecured)
06/07/12	A-/Alert Neg	-/A-
04/04/12	A-/Sta	-/A-
12/10/10	A-/Sta	-
05/11/09	BBB+/Pos	-
05/11/08	BBB+/Sta	-

**Rating Rationale**

TRIS Rating affirms the company and issue ratings of The Bangchak Petroleum PLC (BCP) at “A-”. The ratings reflect the proven operating record of BCP’s refinery, the integration of the refining and marketing businesses, BCP’s diversification into other energy-related businesses, and the support BCP receives from PTT PLC (PTT). The ratings also take into consideration BCP’s ability to manage its operation after the fire accident, the fluctuations in oil prices and gross refining margins (GRM), and the uncertainty of global economy.

The rating affirmation is to remove the CreditAlert with “negative” implication placed on the company and issue ratings of BCP since 6 July 2012, following the fire accident at BCP’s refinery on 4 July 2012. After the CreditAlert removal, TRIS rating assigns “stable” outlook for the ratings of BCP with an expectation that BCP will smoothly operate its complex refinery and sustain its market position in the retail segment.

BCP was established in 1985 and listed on the Stock Exchange of Thailand (SET) in 1993. The company owns and operates an oil refinery, located in Bangkok, with a capacity of 120 thousand barrels per day (KBD). The company operates service stations under the “Bangchak” brand nationwide, with 1,063 stations as of September 2012. BCP also operates a 38-megawatt (MW) solar power plant located in Bang Pa-in, Ayudhya province. As of September 2012, PTT held 27.2% interest of BCP, the Ministry of Finance (MOF) held 10.0%, and the remaining 62.8% was held by the public.

As a complex refinery, BCP is able to process a variety of crude oils, especially heavy and sour crude. The complex refinery also yields high proportions of valuable products. For the first nine months of 2012, the company’s product mix was diesel (54%), gasoline (20%), fuel oil (13%), and jet fuel (11%). Refined products sold by its marketing arm through its service stations accounted for approximately 60% of total sales volume. The remainder (40% of sales volume) was sold to industrial customers. In the first nine months of 2012, BCP was the third largest oil retailer in Thailand with a market share of 13.8%.

On 4 July 2012, there was a fire accident at BCP’s refinery. The entire refinery ceased operation for 10 days. The fire was ignited at the gas oil stripper near by the 80 KBD crude distillation unit (CDU). This unit was shut down for almost four months and resumed operation on 6 November 2012. The property damage caused by the fire is estimated at approximately Bt800 million, which is expected to be mostly covered by an insurance claim, while its business interruption claim is in negotiation process. The fire incident has had little impact on BCP’s overall performance. Although crude intake fell to 70.0 KBD in the first nine months of 2012, from 85.7 KBD in 2011, its earnings before interest, tax, depreciation and amortization (EBITDA) from refining business was Bt3,971 million. BCP’s base GRM was impressive at US\$14.03 per barrel during the third quarter of 2012 due to the widened spread of refined products price to crude prices and BCP’s ability to adjust crude intake to yield more high value products such as diesel. In the third quarter of 2012, the refinery product mix was diesel (57%), gasoline (21%), fuel oil (11%), and jet fuel (9%). Despite a refinery’s shutdown during the third quarter of 2012, BCP’s sales volume through its marketing arm decreased only 3.2% (year-on-year – y-o-y) to 339.5 million liters per month (ML/MO). The slight drop reflected BCP’s ability to manage inventory and logistics, as well as the cooperation among

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refineries affiliated with PTT. The company's sales through service stations continued to grow, rising by 2.7% (y-o-y) to 207.8 ML/MO, while sales to industrial customers decreased by 11.3% (y-o-y) to 132 ML/MO in the third quarter of 2012.

BCP has diversified into the renewable energy business by developing and operating a solar power plant since 2011. BCP has operated a 38 MW solar power plant. This site suspended operations in mid-October 2011 due to the severe flood. After the flood, all damaged properties were repaired and replaced. All costs associated with the flood damage were covered by insurance and by the construction contractor. The first 8 MW started up on 2 April 2012, while the remaining 30 MW started up on 16 July 2012. This plant is expected to contribute Bt400 million of EBITDA in 2012 and Bt740 million of EBITDA per year from 2013 onward. BCP is now developing new solar power plants with combine capacity of 80 MW, expected to start operation in 2013 and 2014. The renewable energy segment will partially cushion the company's overall EBITDA from the volatility of the oil refining and marketing segments.

For the first nine months of 2012, BCP's performance remained satisfactory. Despite a refinery shutdown for three months and a wide swing in petroleum prices, the company's EBITDA was manageable at Bt5,732 million. BCP's financial profile is sound. Its capital structure remained satisfactory, with a debt to capitalization ratio of 42.2% as of September 2012. BCP's capital expenditures for new projects between 2013 and 2016 are budgeted at Bt24,300 million in total. The expenditures are for solar power projects, refinery improvements and debottleneck, and an expansion of the marketing network. With EBITDA expected to be Bt7,000-Bt9,000 million per year, BCP's leverage may slightly increase during the investment period.

### Rating Outlook

The "stable" outlook reflects the expectation that BCP will smoothly operate its complex refinery and sustain its market position in the retail segment. The investments in solar power projects will generate reliable streams of income and partially offset the fluctuations in the refining segment.

## The Bangchak Petroleum PLC (BCP)

<b>Company Rating:</b>	A-
<b>Issue Ratings:</b>	
BCP194A: Bt2,000 million senior debentures due 2019	A-
BCP224A: Bt1,000 million senior debentures due 2022	A-
<b>Rating Outlook:</b>	Stable

### KEY RATING CONSIDERATIONS

#### Strengths/Opportunities

- Efficient complex refinery
- A leader in renewable energy
- Diversification into energy-related businesses
- Strengthened market share through service station network
- Financial and business support from PTT

#### Weaknesses/Threats

- Fluctuations in oil prices and gross refining margins
- Uncertainty of government policies regarding renewable energy
- Uncertainty of global economy

### CORPORATE OVERVIEW

BCP was established in 1985 as a state-owned oil refining and marketing company. The company was transformed into a public company and listed on the SET in 1993. After a capital increase in May 2006, PTT became the major shareholder of BCP. As of September 2012, PTT

held 27.2% of BCP, the MOF held 10.0%, and the remaining 62.8% was held by the public. BCP owns and operates an oil refinery located in Bangkok with a refining capacity of 120 KBD, accounting for 11% of Thailand's refining capacity. As of September 2012, the company operated 1,063 service stations under the "Bangchak" brand. BCP also operates a 38-MW solar power plant located in Bang Pa-in, Ayudhya province.

BCP's refinery is categorized as a complex refinery, which is able to process a variety of crude oils, especially heavy and sour crude. The complex refinery also yields high proportions of valuable products. In the first nine months of 2012, the product mix comprised diesel (54%), gasoline (20%), fuel oil (13%), jet fuel (11%), and internal use and loss (2%).

In the first nine months of 2012, BCP's total sales were Bt121,294 million, comprising the refining segment (95.8%), the marketing segment (4.0%), and the solar power segment (0.2%). EBITDA for the first nine months of 2012 was Bt5,732 million, generated by refining segment

(69.3%), marketing segment (26.3%), and solar power segment (4.5%).

**Table 1: BCP's Revenue and EBITDA Breakdown by Line of Business**

Unit: %

	2009	2010	2011	Jan- Sep 2012
<b>Sales (Bt mil.)</b>	<b>108,681</b>	<b>136,369</b>	<b>158,610</b>	<b>121,294</b>
Refining	95.9	96.4	96.5	95.8
Marketing	4.1	3.6	3.5	4.0
Solar power	-	-	-	0.2
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>EBITDA (Bt million)</b>	<b>12,325</b>	<b>6,165</b>	<b>9,108</b>	<b>5,732</b>
Refining	88.0	78.1	85.7	69.3
Marketing	12.0	21.9	14.2	26.3
Solar power	-	-	0.2	4.5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: BCP

### RECENT DEVELOPMENTS

#### ▪ **Solar power project restarted after severe flood**

BCP has developed and operates a 38-MW solar power plant, located adjacent to the company's oil terminal in Ayudhya province. This site was developed in two phases. In August 2011, the first phase of 8 MW started up, while the remaining 30 MW was under construction. However, operations were suspended at this site in mid-October 2011 due to the severe flood. After the flood, all damaged properties were repaired and replaced. All costs associated with the flood damage were covered by insurance and by the construction contractor. The first 8-MW unit resumed operation on 2 April 2012, while the remaining 30-MW unit started up on 16 July 2012. This project holds a power purchase agreement (PPA) with the Provincial Electricity Authority (PEA) for 8 MW and with the Electricity Generating Authority of Thailand (EGAT) for 30 MW. In addition, the project has also been granted an adder tariff of Bt8 per kilowatt hour (kWh) for 10 years. This plant is expected to contribute Bt400 million of EBITDA in 2012 and Bt740 million of EBITDA per year from 2013 onward.

#### ▪ **Fire accident at BCP's refinery**

On 4 July 2012, there was a fire accident at BCP's refinery. The fire started at the gas oil stripper near the 80-KBD CDU. Fire damaged the gas oil stripper column, the kerosene stripper column, and a part of main distillation column. The entire plant was halted for 10 days after the accident. The unaffected units, including the 40-KBD CDU and the Hydro-cracking unit (HCU), resumed operation on 14 July 2012. The affected units were shut down for almost four months and resumed operation on 6

November 2012. All damaged properties and related equipment were replaced and repaired. The cost of the damage is estimated at approximately Bt800 million, which will be mostly covered by an insurance claim. The business interruption insurance claim is under negotiation.

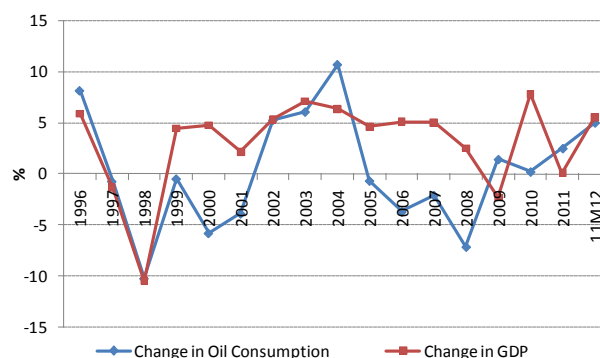
### INDUSTRY ANALYSIS

#### ▪ **Strong economic recovery pushes up oil consumption**

Consumption of petroleum products has been largely driven by the transportation sector, which accounts for over 68% of total consumption nationwide. Classified by oil type, diesel accounts for the largest portion (57.6%) as it is used mainly in the transportation sector, followed by gasoline (21.4%), jet fuel (14.2%), fuel oil (6.8%), and kerosene (0.1%). In 2012, domestic oil consumption was driven by higher economic growth and more vehicle sales, due to the economic stimulus policies of the government such as the first-car policy.

In addition, the average Dubai oil price in 2012 remained unchanged from the 2011 level. Domestic consumption of oil in 2012 also grew because the Thai economy recovered quickly after the flood crisis in 2011. Aggregate oil consumption increased to 32.6 billion liters in the first 11 months in 2012, rising by 5.0% from the same period of the prior year. Because the government's regulations have kept diesel prices below Bt30 per liter since December 2010, diesel consumption increased by 7.6% y-o-y to 18.7 billion liters in the first 11 months of 2012.

**Chart 1: GDP Growth and Oil Consumption Growth in Thailand**



Sources: 1) National Economic and Social Development Board (NESDB)

2) Energy Policy and Planning Office (EPPO)

Note: Change in GDP in Jan-Nov 2012 is NESDB's estimated GDP growth in 2012 (5.5%)

Oil consumption in 2013 is expected to increase moderately. This is mainly due to the mixed effects of several factors: an anticipated slowdown in the Thai economy, global economic uncertainty, the rising

amount of vehicles in the country, and the government's intervention in the prices of petroleum products. According to the Office of the National Economic and Social Development Board (NESDB), the latest gross domestic product (GDP) growth projection for 2013 was 4.5%-5.5%.

▪ **Demand for renewable fuels grows steadily**

Reflecting the government incentives to encourage the consumption of alternative energy, more renewable fuels have been consumed since 2008. In the first 11 months of 2012, gasohol consumption increased by 3.2% y-o-y to reach 4.0 billion liters, or 57.3% of the total amount of gasoline consumed (including gasohol).

Since May 2011, the government has enforced a rule that all diesel sold at service stations must be only one bio-diesel specification. The proportion of 100% bio-diesel (B100) blended with fossil fuel-derived diesel has been adjusted, reflecting the availability of crude palm oil throughout the nation. Since 1 November 2012, the type of diesel fuel sold at service stations was changed from bio-diesel B4 to bio-diesel B5. In addition, the sale of 91-octane gasoline will be officially banned on 1 January 2013. The consumption of renewable fuels will therefore grow substantially. However, when considering the replacement of fossil fuel-derived oil with a renewable fuel, consumers generally examine price, technical reliability, and availability.

▪ **Demand for LPG as auto fuel increases strongly**

Since 2005, demand for liquefied petroleum gas (LPG) for transportation purposes has increased rapidly. The annual growth rate of LPG consumption has been quite high, averaging a 24.2% growth per year over the past seven years. The reason for the rapid growth is because the price of LPG is regulated by the government, while oil prices vary along with global market conditions. In 2011, rising oil prices made LPG consumption surge to a record high of 920 thousand tonnes, eclipsing the previous peak of 776 thousand tonnes in 2008.

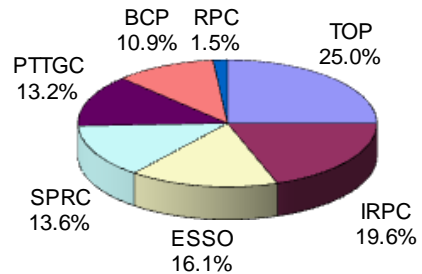
During 2012, the government partly liberalized the LPG retail price in the automobile sector, but the price is maintained at a relatively low level. For the first 11 months of 2012, LPG consumption in the automobile sector increased to 969 thousand tonnes, a rise of 16.6% y-o-y.

**Refining Business:**

In Thailand, there are seven oil refining companies with a total refining capacity of 1,099 KBD. The total refining capacity has remained static since 2008. The biggest refining company in terms of capacity is Thai Oil PLC (TOP), with a capacity of 275 KBD, followed by IRPC

PLC (renamed from Thai Petrochemical Industry PLC or TPI), and Esso (Thailand) PLC (ESSO).

**Chart 2: Refining Capacity (2012)**



Source: Petroleum Institute of Thailand (PTIT)

- Note:
- TOP = Thai Oil PLC
  - IRPC = IRPC PLC (renamed from Thai Petrochemical Industry PLC (TPI))
  - ESSO = Esso (Thailand) PLC
  - SPRC = Star Petroleum Refining Co., Ltd.
  - PTTGC = PTT Global Chemical PLC (formerly known as PTT Aromatics and Refining PLC (PTTAR))
  - BCP = The Bangchak Petroleum PLC
  - RPC = Rayong Purifier PLC

▪ **A rebound in the refinery utilization rate**

Thai refined oil products are mostly consumed in the domestic market. Due to refinery turnarounds, sustained high oil prices and the effects of the flood, the refinery capacity utilization rate (CUR) dropped to 86.4% in 2011 from 88.1% in 2010. The recovery of the Thai economy after the flood, however, pushed the refinery CUR up to 89.0% in the first nine months of 2012, despite a fire in BCP's refinery.

The major feedstock for refining companies is crude oil. The crude oil consumed in Thailand in 2011 was 85.7% imported. Over 77% of crude imports were sourced from the Middle East. The cost of crude oil used in the Thai refineries is determined by the world market. The ex-refinery price of refined oil products in Thailand is based on product prices in Singapore, which is the international oil trading center in the region. It is apparent that the average GRM for the Thai refining industry follows the trends of oil price. Because oil prices were rising during the past few years, the industry average GRM increased to approximately US\$10.9 per barrel in 2012, from US\$8.2 per barrel in 2011 and US\$5.6 per barrel in 2010.

**Retailing Business:**

Service stations are the downstream business of the oil industry. As of September 2012, there were 20,126 petrol stations nationwide, more than the 19,493 stations open in December 2011. There are currently 10 petrol

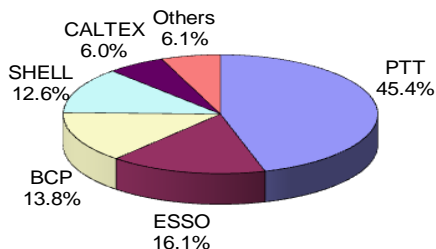
station brands operating in Thailand, five of which purchase refined oil from related companies. As of September 2012, PTT operated the largest number of service stations (1,389), followed by BCP (1,063), The Shell Company of Thailand Ltd. (SHELL, 538), ESSO (517), and Chevron (Thailand) Co., Ltd. (owner of the CALTEX brand, 375).

▪ **Intense competition in oil retailing**

Competition in the oil retailing segment remains intense as the major players fight to retain market share. A low marketing margin (the spread between the wholesale price and the retail price of fuel) and lower sales volumes have caused some unprofitable stations to close. Competition takes various forms, such as price cutting, promotional campaigns, advertising, the appearance of service stations, and the quality of services offered. Moreover, major operators combine their service stations with convenience stores, coffee shops, fast food outlets, car care centers, or perhaps bank branches to attract consumers and earn non-fuel income to complement thin margins.

The rise in the consumption of alternative fuels, such as gasohol and bio-diesel, has led to an increase in the sales volumes of service stations which sell these alternative fuels. In terms of average monthly sales volume through branded service stations, PTT dominated the market in the first nine months of 2012 with a 45.4% share, followed by ESSO (16.1%), BCP (13.8%), SHELL (12.6%), and CALTEX (6.0%). Compared with 2011, ESSO, BCP, and SHELL gained market share in the first nine months of 2012. Their respective market shares rose by 0.5%, 0.4%, and 0.1%, respectively. On the other hand, PTT and CALTEX saw their market shares decline by 0.5% and 0.3%, respectively, over the same period.

**Chart 3: Market Share by Average Monthly Sales Volume through Service Stations (Jan-Sep 2012)**



Source: Department of Energy Business

Note: PTT = PTT PLC  
 ESSO = Esso (Thailand) PLC  
 BCP = The Bangchak Petroleum PLC  
 SHELL = The Shell Company of Thailand Ltd.  
 CALTEX = Owned by Chevron (Thailand) Co., Ltd.

▪ **Marketing margins strengthen in 2012**

The retail prices and marketing margins of gasoline and diesel fluctuate according to market forces. Unlike the ex-refinery prices in Thailand, which reflect daily Singapore spot market prices, there is a lag between the rise or fall in the ex-refinery price and the price at service stations. The rigid adjustment of retail prices causes fluctuations in the marketing margin. The marketing margin mostly moves in the opposite direction with the oil price trend. In 2012, the average marketing margin across the industry increased to Bt1.63 per liter, from Bt1.40 per liter in 2011.

▪ **Strict regulatory controls**

The oil industry in Thailand is strictly regulated by the government. There are many laws and regulations that govern the industry. Two important laws that regulate oil refining companies and oil trading activities are the Fuel Trade Act, B.E. 2543, and the Act on Oil Control, B.E. 2542. The National Energy Policy Council was established in 1992 to look after national energy policies, such as energy prices, tax rates, and subsidies. The government used the Oil Fund to stabilize domestic petroleum prices by subsidizing petroleum refiners for the difference between the regulated prices and market prices.

The government has encouraged the consumption of renewable fuels in order to reduce the nation's reliance on imported oil. Recently, on 1 November 2012, the policy mandating the use of bio-diesel B5 came into effect. The sale of 91-octane gasoline will be banned on 1 January 2013. The government has planned to float the price of LPG for household use since the beginning of 2013. However, the plan has been continually delayed. Since June 2012, the LPG price in the industrial segment has been partially floated and it now matches worldwide prices, as long as the price does not exceed Bt30.13 per kilogram (kg.). The prices of the Natural Gas for Vehicles (NGV) and LPG used in the transport sector were gradually floated, starting from January 2012. However, the price liberalization plans were suspended in August 2012.

**BUSINESS ANALYSIS**

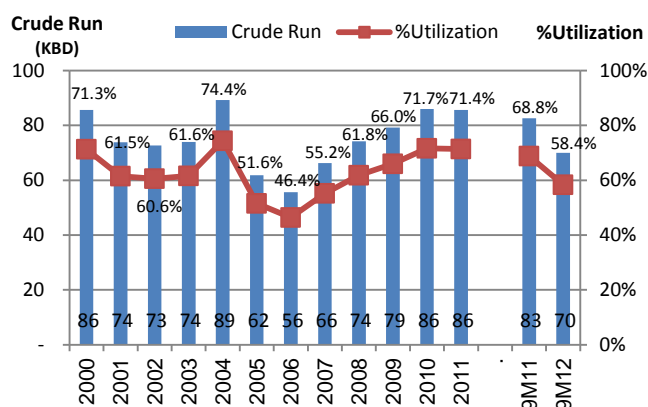
BCP's business profile reflects its competitive edge stemming from its complex refinery, the integration with the marketing segment, and diversification into renewable energy. As a complex refinery, the company can process a variety of crude, while the integration with marketing segment partly stabilizes the company's overall margin. The diversification into renewable energy businesses, especially solar power, is expected to generate a reliable stream of income, which will help to cushion the company's overall EBITDA from the volatilities of the oil business.

▪ **Fire reduced crude run**

BCP's refinery comprises two CDU units, a 40-KBD unit and an 80-KBD unit. The two units provide operational flexibility. After upgrading the refinery to a complex refinery in late 2009, the refinery crude run was over 85 KBD, or greater than a 70% utilization rate. The higher utilization rate reflected the refinery configuration that yielded a higher portion of valuable products.

In the first nine months of 2012, the average refinery crude run dropped to 70.0 KBD, a 58.4% utilization rate. The drop was the result of a refinery annual turnaround and a shutdown of the 80-KBD CDU for the whole third quarter of 2012, after the fire accident on 4 July 2012. During July-October 2012, the company could only fully utilize the 40-KBD CDU and HCU.

**Chart 4: BCP's Crude Run and Utilization Rate**



Source: BCP

▪ **Domestic crude is still a major source of feedstock**

BCP has used a high portion of domestic crude for many years. The use of domestic crude has a number of advantages. The freight cost is considerably lower than imported crude. Domestic crude also has a lower sulfur content compared with imported crude. The lower sulfur content adds value for the refined products. In addition, the delivery period for domestic crude is also shorter, which reduces the risk of a timing mismatch between the selling prices of the refined products and the feedstock cost.

**Table 2: BCP's Crude Mix**

Unit: %

Source	2008	2009	2010	2011	Jan-Sep 2012
Middle East	3	2	1	7	8
Far East	5	43	40	38	41
Domestic	92	55	59	56	50
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Total (MMbbl)</b>	<b>26.7</b>	<b>30.4</b>	<b>31.1</b>	<b>28.7</b>	<b>20.5</b>

Source: BCP

In the first nine months of 2012, the portion of Far East crude increased to 41%, reflecting refinery's ability to process a variety of crudes. Domestic crude continued to be major feedstock in the first nine months of 2012, comprising 50% of all crude used. Looking forward, the proportion of domestic crude to total feedstock is expected to remain at 50%-60%. The crude mix depends on the blending characteristics needed to optimize the HCU and to provide the greatest gross refinery margin to the company in each period.

▪ **Product mix yields great product value**

As a complex refinery, BCP's refinery yields a high proportion of valuable products by utilizing the HCU. A low value refined product, fuel oil, can be cracked and transformed into high value refined products, such as diesel and jet fuel. In the first nine months of 2012, the product mix comprised diesel (54%), gasoline (20%), fuel oil (13%), jet fuel (11%), and internal use and loss (3%).

**Table 3: BCP's Utilization Rate and Product Mix**

Unit: %

	2009	2010	2011	Jan-Sep 2012
<b>Product Utilization</b>				
Capacity (KBD)	120	120	120	120
Crude run (KBD)	79	86	86	70
Utilization rate	66	72	72	58
<b>Product Mix</b>				
Gasoline	16	19	19	20
Jet fuel	10	11	12	11
Diesel	39	50	51	54
Fuel oil	28	17	15	13
Internal use/loss	5	3	3	3

Source: BCP

▪ **BCP's GRM continued to improve**

BCP's base GRM has continued to increase, climbing from US\$5.63 per barrel in 2010 to US\$6.71 per barrel in 2011 and US\$7.43 per barrel in the first nine months of 2012. This rise was partly from the reduction in fuel oil portion and yield more high value products. In addition, the higher base GRM was supported by higher demand for diesel and fuel oil, which widened the spread of the product prices, compared with the crude oil price.

**Table 4: BCP's Gross Refining Margin**

Unit: US\$/barrel

	2008	2009	2010	2011	Jan-Sep 2012
<b>BCP-GRM</b>					
Base GRM	6.79	3.98	5.63	6.71	7.43
Hedging	(0.25)	5.62	0.03	(0.18)	0.68
Inventory effect	(5.57)	3.16	0.43	2.71	0.91
<b>Total GRM</b>	<b>0.97</b>	<b>12.76</b>	<b>6.09</b>	<b>9.24</b>	<b>9.02</b>
<b>Thailand</b>	<b>9.21</b>	<b>3.96</b>	<b>5.56</b>	<b>8.16</b>	<b>10.79</b>

Sources: BCP and EPPO

▪ **Fire accident has little effect on BCP's refinery performance**

In the third quarter of 2012, the company could only utilize the 40-KBD CDU, as the 80-KBD CDU was shut down for the whole quarter for repairs after the fire. The crude run in this quarter was only 38.7 KBD. However, the company's base GRM was impressive at US\$14.03 per barrel in the third quarter of 2012.

There were two factors that lifted up the base GRM. Firstly, the company demonstrated its ability to adjust the crude intake to yield higher proportions of high value products. In the third quarter of 2012, the refinery product mix was diesel (57%), gasoline (21%), fuel oil (11%), and jet fuel (9%). In addition, the high base GRM also reflected the widened spread between the prices of refined products and crude oil. The company's base GRM was US\$7.43 per barrel in the first nine months of 2012, up slightly from US\$7.13 per barrel in the first nine months of 2011.

**Table 5: BCP's Utilization Rate and Product Mix (Jan-Sep 2012)**

Unit: %

	1Q12	2Q12	3Q12	Jan-Sep 2012
<b>Product Utilization</b>				
Capacity (KBD)	120	120	120	120
Crude run (KBD)	101	71	39	70
Utilization rate	84	59	33	58
<b>Product Mix</b>				
Gasoline	20	18	21	20
Jet fuel	12	10	9	11
Diesel	53	53	57	54
Fuel oil	13	16	11	13
Internal use/loss	2	3	2	3

Source: BCP

**Table 6: Reference Price Spreads for Refined Products over Dubai Crude**

Unit: US\$/barrel

	1Q12	2Q12	3Q12	Jan-Sep 2012
<b>Dubai price (DB)</b>	<b>116.11</b>	<b>106.50</b>	<b>106.40</b>	<b>109.61</b>
Spread				
Gasoline	14.25	13.96	16.23	14.75
Gas oil	16.24	15.35	19.29	17.15
Fuel oil	(0.55)	(1.31)	(2.42)	(1.98)
<b>BCP's base GRM</b>	<b>6.68</b>	<b>4.85</b>	<b>14.03</b>	<b>7.43</b>

Sources: BCP

▪ **Support from PTT**

PTT, the major shareholder of BCP, is the exclusive crude supplier and purchases at least 30% of BCP's refined products. PTT also invested in a cogeneration power plant on the BCP site to supply electricity to BCP's refinery. BCP's refinery is also connected to a natural gas pipeline from a terminal in Samutprakan province. This connection allows

BCP to use natural gas in the production process instead of fuel oil. In addition, natural gas will be fed into a hydrogen plant to produce hydrogen for use in the HCU. The cooperation among refineries affiliated with PTT is another valuable support for BCP's refinery business. The cooperation had shown during the shutdown of BCP's 80-KBD CDU in the third quarter of 2012. Refineries such as TOP and IRPC increased their utilization rates and supplied refined oil to BCP. With this assistance, BCP had sufficient refined products to serve demand from its marketing segment.

▪ **Sales through marketing arm continued to increase**

BCP's sales volume through the marketing segment continued to increase, driven by growth in demand, an effective marketing strategy, and the efforts to penetrate into the aviation fuel and other industrial segments. The company's marketing campaign has included loyalty programs via "Bangchak Gasohol Club" and "Bangchak Diesel Club", a service station improvement program, and the partnership with Big C Supercenter PLC (Big C) to establish convenience stores (Mini Big C) in BCP's service stations. These marketing campaigns are aimed to increase the sales volume in the next five years.

**Table 7: Sales Volume in Marketing Segment**

Unit: Million liter/month

	2008	2009	2010	2011	Jan-Sep 2012
Retail sales	191	195	202	205	219
% Growth (y-o-y)	6.5	2.4	3.3	1.7	7.7
Industrial sales	69	102	125	145	156
% Growth (y-o-y)	(4.8)	47.6	22.9	16.1	11.0
<b>Total sales volume</b>	<b>259</b>	<b>297</b>	<b>327</b>	<b>350</b>	<b>375</b>
<b>% Growth (y-o-y)</b>	<b>3.3</b>	<b>14.4</b>	<b>10.0</b>	<b>7.2</b>	<b>9.0</b>

Source: BCP

**Table 8: Sales Volume in Marketing Segment in 2012 (Quarterly)**

Unit: million liter/month

	1Q12	2Q12	3Q12	Jan-Sep 2012
Retail sales	223	226	208	219
% Growth (y-o-y)	14.9	5.6	2.7	7.7
Industrial sales	187	148	132	156
% Growth (y-o-y)	44.9	3.5	(11.3)	11.0
<b>Total sales volume</b>	<b>410</b>	<b>374</b>	<b>340</b>	<b>375</b>
<b>% Growth (y-o-y)</b>	<b>28.1</b>	<b>4.8</b>	<b>(3.2)</b>	<b>9.0</b>

Source: BCP

In the first nine months of 2012, the sales volume through the marketing segment continued to increase, despite a refinery shutdown in the third quarter of 2012. The sales volume through the marketing segment increased by 9.0% (y-o-y) to 375 ML/MO. The increase reflected solid growth in the first half of 2012. In the third quarter of 2012, BCP's sales volume through the marketing

arm dropped by 3.2% (y-o-y) to 339.5 ML/MO, mainly from a drop in industrial segment. BCP reserved refined products to serve the retail segment. In the third quarter of 2012, the retail sales grew by 2.7% (y-o-y) to 208 ML/MO, while industrial sales dropped by 11.3% (y-o-y) to 132 ML/MO.

▪ **BCP has maintained its position as the third-largest retailer through service stations**

The consumption of gasohol and bio-diesel has risen rapidly for two reasons: the rise in oil prices, and the government's policies to support the use of bio-fuels by enlarging the retail price gap between bio-fuels and fossil fuels. In addition, the government will halt the sale of 91-octane gasoline on 1 Jan 2013, which will result in increasing demand for gasohol. As a leading bio-fuel producer, BCP should benefit from the government's policy regarding renewable energy. BCP's market share in the oil retailing segment increased from 13.4% in 2011 to 13.8% in the first nine months of 2012. BCP has maintained its rank as the third-largest oil retailer through service stations for three years since January 2010.

**Table 9: BCP's Sales Volume through Service Stations and Market Share**

	2008	2009	2010	2011	Jan-Jun 2012
BCP (ML/MO)	189	191	189	194	207
% Growth (y-o-y)	8.4	0.8	(0.7)	2.6	6.6
Market (ML/MO)	1,354	1,390	1,375	1,446	1,498
% Growth (y-o-y)	(1.4)	2.7	(1.1)	5.2	4.3
<b>Market share (%)</b>	<b>14.0</b>	<b>13.7</b>	<b>13.8</b>	<b>13.4</b>	<b>13.8</b>

Sources: BCP and Department of Energy Business (DOEB)

▪ **More stable marketing margin**

The integration of oil refining operations with a retail marketing network can help diversify a refiner's earnings and cash flow because refining margins usually move in the opposite direction from marketing margins. In addition, retail network enables a company to run a refinery at a higher utilization rate and obtain a better refinery margin by minimizing the proportion of exports that are sold at discounted prices.

At times when wholesale fuel prices in Thailand have rapidly increased, the government has intervened occasionally in the retail market to reduce the economic effect of higher energy prices. Fuel retailers are usually not able to adjust the retail prices fast enough to match the rising wholesale prices. After oil prices collapsed in the second half of 2008, the pressure on the retail price was eased off; the retail price could be adjusted accordingly, resulting in a widening margin. In the first nine months of 2012, BCP's net retail marketing margin increased to

Bt0.85 per liter; the total net marketing margin also rose, climbing to Bt0.65 per liter.

**Table 10: BCP's Marketing Margin**

Unit: Bt/liter

	2008	2009	2010	2011	Jan-Sep 2012
Net retail marketing margin	0.65	0.79	0.80	0.75	0.85
Total net marketing margin	0.60	0.57	0.60	0.58	0.65

Source: BCP

▪ **Solar farm projects are reliable sources of income**

After the successful start-up of the first phase of the solar power plant at the Bang Pa-in terminal, the company is now developing new solar power plants with a combined capacity of 80 MW. The new phases are expected to start operation between 2013 and 2014. All phases are granted an adder tariff of Bt8/kWh for 10 years, a tax exemption for eight years plus a 50% tax discount for an additional five years under the investment privileges of the Board of Investment (BOI). The locations of the new solar power plants are spread out over central and northeastern Thailand. The solar power business is expected to generate EBITDA of Bt2,740 million a year after 2014. This will partially cushion the company's overall EBITDA from the volatility of the oil refining and marketing segments.

**Table 11: BCP's Solar Power Project Portfolio**

Phase		#1	#2	#3	Total
Installed capacity	MW	44	50	75	170
Contracted capacity	MW	38	32	48	118
Investment	Bt mil.	4,200	3,800	5,700	13,700
Expected EBITDA	Bt mil.	740	800	1,200	2,740
Expected COD			Within 2013	Within 2014	

Source: BCP

**FINANCIAL ANALYSIS**

BCP's financial policy is moderately conservative. The company has a policy to maintain the net debt to capitalization ratio below 50% and the net debt to EBITDA ratio lower than 3 times. BCP's liquidity is sufficient to ride out the cyclical nature of the refinery business.

▪ **Satisfactory performance despite the fire accident**

BCP's financial performance remained satisfactory. The company's total revenue increased by 16.3% to Bt158,610 million in 2011, mainly driven by the rise in oil prices. The operating profit margin before depreciation and amortization increased from 3.5% in 2010 to 5.6% in 2011 due to an increase in base GRM and stock gain.

Although the 80-KBD CDU was shut down for the entire third quarter of 2012, BCP's total revenue increased



by 2.4% y-o-y to Bt121,294 million. The increase was driven by rising oil prices, as well as the increase in sales volume. The company's EBITDA was manageable at Bt5,732 million. The refinery base GRM was satisfactory at US\$7.4 per barrel in the first nine months of 2012, compared with US\$7.1 per barrel in the same period of 2011.

However, due to the shutdown of the 80-KBD CDU in the third quarter of 2012, the company had to purchase refined oil from other refineries, including imports. The products were then resold to customers. These transactions generated thin profit margins. As a result, the company's operating profit margin before depreciation and amortization dropped to 3.5% in the first nine months of 2012.

▪ **Cash flow continues to improve**

After the refinery upgrade in 2009, funds from operations (FFO) was enhanced to over Bt4,000 million a year. In 2011, BCP's FFO increased to Bt8,566 million, reflecting a higher profitability, including stock gain. In the

first nine months of 2012, FFO was Bt4,839 million. The company's FFO is expected to be more stable after 2014 when the full operation of solar power projects were realized. BCP's debt service ability should improve as FFO rises and becomes more stable.

▪ **Capital structure remained satisfactory**

The company's capital structure remained satisfactory. Despite the company's total debt increased to Bt22,774 million at the end of September 2012 to finance the solar power project, its total debt to capitalization ratio was moderate at 42.2% as of September 2012. BCP's capital expenditures for new projects between 2013 and 2016 are budgeted at Bt24,300 million in total. The expenditures are for solar power projects, refinery improvements and debottlenecking, and an expansion of the marketing network. With EBITDA expected to be Bt7,000-Bt9,000 million per year, BCP's leverage may slightly increase during the investment period, but is still below its policy of less than 50%.

**Financial Statistics and Key Financial Ratios\***

Unit: Bt million

	Jan-Sep 2012	2011	2010	2009	2008	2007
Sales	121,294	158,610	136,369	108,681	129,042	94,979
Gross interest expense	666	916	893	916	1,127	681
Net income from operations	3,092	6,320	2,422	6,817	185	1,760
Funds from operations (FFO)	4,839	8,566	4,268	7,870	1,044	2,872
Capital expenditures	2,966	5,193	1,319	3,380	7,703	2,308
Total assets	67,078	61,603	58,413	53,891	42,540	44,978
Total debt	22,774	18,582	19,617	15,920	15,678	11,041
Shareholders' equity	31,178	29,879	22,780	25,953	19,763	21,225
Operating income before depreciation and amortization as % of sales	3.5	5.6	3.5	5.1	1.3	4.6
Pretax return on permanent capital (%)	8.4**	17.0	10.4	27.3	2.0	10.4
Earnings before interest, tax, depreciation and amortization (EBITDA) interest coverage (times)	9.1	10.7	7.0	12.6	1.3	6.1
FFO/Total debt (%)	21.2**	46.1	21.8	49.4	6.7	26.0
Total debt/capitalization (%)	42.2	38.3	46.3	38.0	44.2	34.2

\* Consolidated financial statements

\*\* Non-annualized

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