



Annual Report 2016

The Bangchak Petroleum Public Company Limited

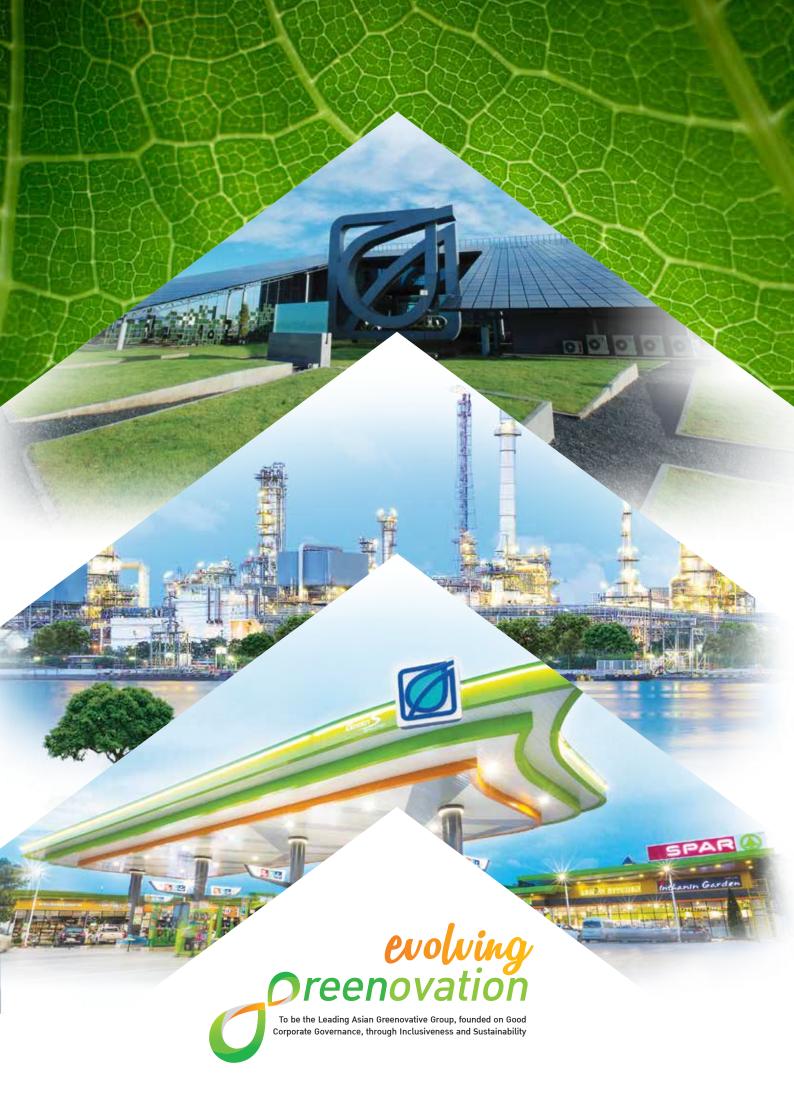


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To be the Leading Asian Greenovative Group, founded on Good Corporate Governance, through Inclusiveness and Sustainability

Mission

Vision

BCP commits in bringing Disruptive and Inclusive Greenovation to Delight our customers, being a trusted partner and Value Creator for all Stakeholders, and promoting Sustainable Development to Society.

We emphasize Inclusive and Sustainable business, pursue Domestic and Overseas expansion, embrace Good Corporate Governance principles, and nurture a High-performance, Learning culture and Happy

Core Values Innovation

Agility & Mobility

Beyond Expectation

Continuous

Development

Pursuit of
Sustainability

Corporate Culture: Sustainable Innovative Business Development in Harmony

with the Environment and Society

Employee Culture: To be virtuous, knowledgeable, and contributive to others



Message from the Chairman



BCP commits in bringing Disruptive and Inclusive Greenovation to Delight our customers.



Being a trusted partner and Value Creator for all Stakeholders.



We emphasize Inclusive and Sustainable business.

Under the "Thailand 4.0" national strategy, The Bangchak Petroleum Public Company Limited's business management focuses on applying innovations to extend business operating efficiency together with competitiveness, strengthening the organization, while expressing socio-environmental responsibility for sustainable development—Bangchak's legacy corporate culture for the past 32 years.

This year we modified our vision to keep pace with business growth for future goals. The vision now reads:

"To be the Leading Asian Greenovative Group, founded on Good Corporate Governance, through Inclusiveness and Sustainability"

We value research and development (R&D) by upgrading our research tasks to Bangchak Initiative Innovation Center (BIIC) to examine work on assorted internal and institutional research findings and strive to grow new businesses, including a bio-products project and a project to administer energy consumption through energy storage.

This year, Bangchak and subsidiaries posted Baht 144.705 billion in revenue from sales and services, EBITDA of Baht 11.363 billion, and a net profit attributable to owners of the Company of Baht 4.773 billion, which translated into Baht 3.47 in earnings per share, a 15% rise from last year.

Our refinery business achieved some 110,000 barrels per day in capacity, which was fairly stable thanks to sound refining plans and sound refining logistical management, resulting in a basic refining margin of US\$5.99 per barrel. With the recovering crude oil price toward the year-end, the business saw Baht 590 million in inventory gain together with Baht 112 million in forward purchases of oil and oil products. The bottom line is that our refinery business posted a 13% rise in EBITDA over last year.

Our marking business boasted a total sales volume of 5,789 million liters, a 7% rise over last year, thanks to the healthy domestic demand for fuels (both retail and industrial markets). The gross marketing margin stood at Baht 0.79 per liter. In November, we unveiled "Bangchak Greenovative Experience", a new format of service station

accommodating current lifestyles of Thais of leading a life while looking after the environment. We also unveiled SPAR, a leading supermarket brand from the Netherlands under a "SPAR 'FRESH & EASY FOOD MARKET" concept, to serve customers with differentiation like fresh food, while promoting community products by developing them and housing them for sale under the SPAR brand.

As for green businesses, in September we listed subsidiary BCPG PCL on the Stock Exchange of Thailand (SET) and ventured into the solar farm business in Japan while relentlessly growing the biofuel and bioethanol businesses. Late this year, Bangchak acquired 50 million more capital in Lithium Americas Corporation for further investment in a lithium mining business in Argentina.

For the past 32 years, Bangchak has valued sustainable business operation in parallel with socio-environmental responsibility through its own projects, whereas today we have passed on and extended our culture to affiliates and all stakeholders. Whether they are business partners, customers, or suppliers, they have a role in socio-environmental stewardship. A case in point is the Green Partnership Project, under which Bangchak service station operators initiated environmental stewardship activities or projects to benefit communities in areas where they did business while ensuring contented employees.

We also set up Oam Suk Social Enterprise Co., Ltd., a full-fledged social enterprise designed to encourage farmers in Chiang Rai to grow rice and engage in organic farming to add value to their produce while upgrading their quality of life.

With our commitment to business development in tandem with socio-environmental stewardship, joint contribution to better Thai lives and to supplement overall economic values at the same time, Bangchak has won acclaim in the forms of prestigious social and environmental achievement awards, granted by numerous domestic and international entities, including recognition of corporate governance and investor relations work.

I therefore wish to express our collective thanks to all our stakeholders—employees, business partners and suppliers, customers, investors, public and private agencies, among others—for their invaluable contribution to Bangchak's secure and sustainable growth.

(Signed) *Pichai Chunhavajira*(Mr. Pichai Chunhavajira)

Chairman

Financial Highlights

Consolidated Financial Statements	2016	2015	2014
Consolidated Finalicial Statements	2010	2015	2014
Statement of Income (Million Baht)			
Sales and service revenue	144,705	151,140	183,016
Gross profit (loss)	11,896	11,454	4,543
EBITDA	11,363	11,081	5,162
Profit (loss) from futures crude and product contracts	107	(407)	499
Profit (loss) from foreign exchange and futures	276	22	758
foreign-currency trading			
Net profit 1/	4,773	4,151	696
Statement of Financial Position (Million Baht)			
Total assets	101,783	81,942	76,966
Total liabilities	57,874	45,959	43,000
Shareholders' equity	43,909	35,983	33,966
Share capital			
Registered share capital	1,377	1,377	1,532
 Issued & fully paid-up share capital 	1,377	1,377	1,377
Financial Ratios (%)			
EBITDA / sales and service revenue	7.85	7.33	2.82
Net profit / sales and service revenue	3.27	2.71	0.41
Rate of return on assets	7.51	8.04	2.29
Debt with interest payable to equity 2/	0.86	0.94	0.92
Net IBD to Equity ^{2/}	0.38	0.59	0.67
Operating outcomes per share (Baht)			
Net earnings per share	3.47	3.01	0.51
Book value per share	28.72	25.77	24.19

 $^{^{1/}}$ Net profit (loss) for the owners of the Company $^{2/}$ Only the equity of the Company

Policy and Business Overview

Vision, Mission, Objectives and Goals, and Business Strategies

This year Bangchak revised its vision, mission, and values as annually practiced to ensure that they are in line with business and investment directions, as well as the business environment, that have changed. The details are as follows:



Evolving Greenovation

To be the leading Asian Greenovation group, founded on good governance, through inclusiveness and sustainability

Mission

Bangchak is committed to bringing disruptive and inclusive Greenovation to delight our customers, being a trusted partner and value creator for all stakeholders, and promoting sustainable development of society.

We emphasize inclusive and sustainable business, pursue domestic and overseas expansion, embrace good corporate governance principles, and nurture a high-performance, learning culture, and happy workplace.

Objectives and goals

Bangchak is determined to be a Thai energy entity that conducts business with concern for the environment and society. It aims to strike a good balance between worth and value, with contribution to a better quality of life of the Thai people.

Valuing sustainable growth of the corporation, Bangchak strives to raise its management excellence to world standards. His Majesty the late King Bhumibol's philosophy of 'Sufficiency Economy' has been embraced in Bangchak's business management. Having learned from this philosophy that doing a profitable business does not mean profiteering, Bangchak appreciates valuable natural resources and will try to meet its vision of becoming "the leading Asian Greenovation group" and meet goals concerning the business, society, and the environment by 2020. Below are the essences.



Business goals

- Refining business group: Achieving the refinery's maximum safety standards, operating efficiency, and
 refining stability with expansion into related businesses, including oil trading
- Marketing business group: Maintaining the second largest domestic market share, developing new
 formats for service stations with outstanding features fitting each location, while offering new amenities,
 such as restaurants and new forms of convenience stores in response to evolving customer behavior
 to win customers' satisfaction and pursue "The Most Admired Brand"
- Green-power business: Investing in power generation from renewable energy through BCPG to produce 1,000 MW

- Bio-based product business: Continuously expanding the bio-based product business, including biodiesel and ethanol, while aiming for further biotechnological development to achieve innovative bio-based products with high value added
- Organization and management: Increasing competitiveness and corporate management to develop
 the company into an excellent employer, forge human resource excellence, relentlessly improve work
 processes, and promote new mindsets to create innovative products.
- Being open, transparent, and auditable: Conducting an open, transparent business which is auditable.
 This includes disclosure of information about transparent business under good corporate governance principles and SET regulations.



Environmental and social objectives

- To become a low-carbon company that minimizes its net carbon dioxide emission and mitigates climate change impacts Bangchak set a goal to become a low-carbon company by continuously improving the refinery's energy and resource efficiency. It also expands investment to the production of alternative/renewable energy, displacing CO2 emission
- Business development along with social and environmental development
 To ensure corporate sustainability, Bangchak engages in business that takes care of society and the environment along while focusing on business growth, including CSR after-process activities and creation of CSV among the business, society, and the environment through CSV/CSR in-process activities.
 Bangchak has, moreover, set an extended goal from CSR/CSV to become a social enterprise to create jobs and revenue, while encouraging people to exercise environmental stewardship where they live.

Business strategies

Bangchak has formulated a 3S Strategy to attain its organizational goals, both in the short term and long term, as detailed below:



Enhancing energy security

Expanding investment to upstream businesses to supply sufficient energy for the business sector and public demand. Seeking new sources of energy, such as through lithium mining.



Developing business for growth and diversifying risks for secure revenue

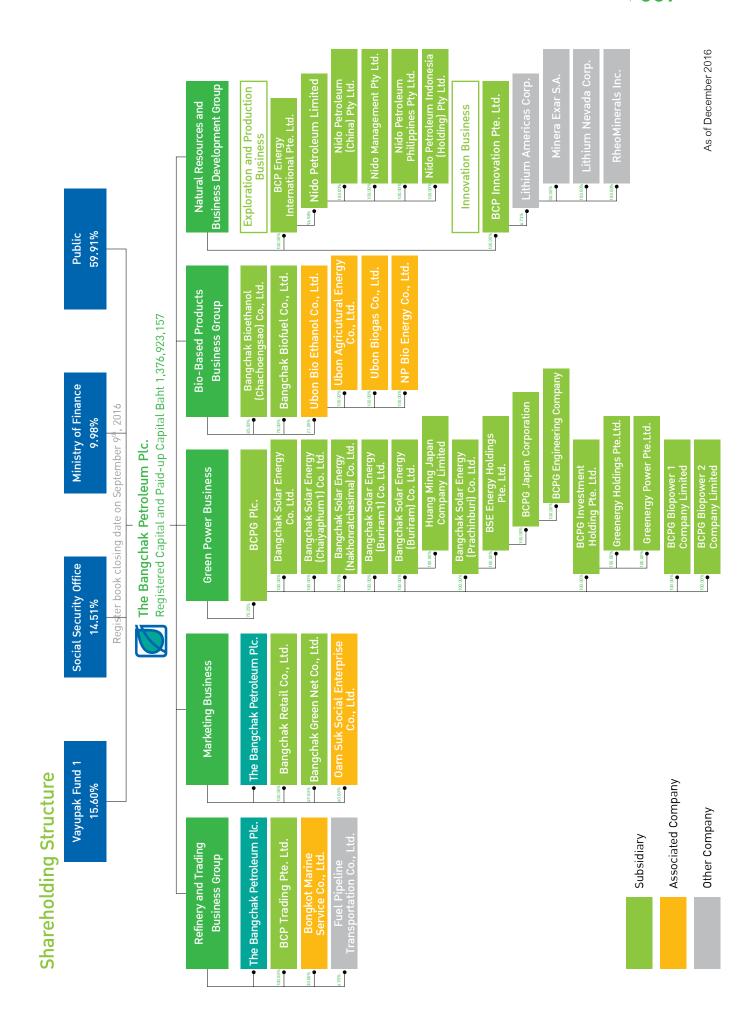
Sustainably creating value for the business by increasing the proportion of new-business income. Bangchak invests in green energy and other businesses by focusing on domestic and overseas businesses with steady returns and low external risks, such as green power plants.



Developing the business pattern that benefits society and the environment

Keeping business development in balance among business, social and environmental value, Bangchak focuses on sustainable development, such as developing service stations under the concept of "Greenovative Experience". Moreover, the company pays attention to water, which is a crucial resource in production processes. Finally, it reduces water usage and reuses waste water to ensure optimal use.

Since the business consumes a large volume of energy, Bangchak has set a goal to become a low-carbon company that minimizes carbon dioxide emission and mitigates climate change impacts.





Refinery and Trading Business Group

Bangchak's complex refinery has a nameplate capacity of 120,000 barrels per day, with gasoline and diesel as the majority of the yields. The quality of its gasohol and diesel products meet the public sector's Euro 4 standard. It focuses on energy stability in its production processes by using electricity and steam derived from its cogeneration power plant, while replacing fuel oil with cleaner-burning natural gas. The company is now ready to raise the efficiency of its processes with the implementation of 3E and YES-R projects.

BCP Trading Pte. Ltd. (BCPT)

Established in Singapore, BCPT engages in commodity trading, encompassing crude oil, petroleum and petrochemical products, chemicals, and downstream businesses. It has an initial registered capital of US\$1 million, wholly owned by Bangchak.

Bongkot Marine Service Co., Ltd.

This joint venture with a registered capital of Baht 240 million, in which Bangchak holds a 30% stake, engages in services and storage businesses together with administration of petroleum products.

Fuel Pipeline Transportation Co., Ltd. (FPT)

FPT engages in the business of fuel transport via an underground multiproduct pipeline from Bangchak Refinery, following the railway route to Chong Nonsi Oil Depot, Don Mueang International Airport Oil Depot, and finally to Bangchak's Oil Depot at Amphoe Bang Pa-in and to FPT. A pipeline connection was made at the Makkasan area in Bangkok with the system of JP One Asset Co., Ltd., to supply aviation fuels to Suvarnabhumi International Airport. FPT's registered capital is Baht 3.660 billion, and Bangchak's stake here is 4.95%.

Marketing Business Group

The Marketing Business Group sells refined fuels to consumers through Bangchak's network of 1,075 service stations nationwide, made up of 460 standard and 615 community service stations as of year-end 2016. To provide convenience to customers, the stations offer supplementary businesses under the operation of Bangchak Retail Co., Ltd., which also distributes products to industrial users together with the transport sector, airlines, vessels, construction sector, and agricultural sector.

Bangchak Green Net Co., Ltd. (BGN)

With a registered capital of Baht 1 million, of which Bangchak holds 49.0%, BGN engages in service station administration and manages the sale of other consumer products at Bai Chak and Lemon Green outlets.

Bangchak Retail Co., Ltd. (BCR)

Founded on January 27, 2016, with a registered capital of Baht 300 million, this wholly-owned subsidiary of Bangchak engages in the food and drink business to accommodate steady growth in the retail business through the SPAR supermarket brand, Inthanin Coffee, and Inthanin Garden premium coffee shop, and other supplementary businesses.

Oam Suk Social Enterprise Co., Ltd.

Oak Suk Social Enterprise's initial registered capital is Baht 10 million, of which Bangchak holds a 40% stake. It engages in the purchase of agricultural produce and organic crops for processing, marketing, distribution, and R&D.

Green Power Business Group

Under PPAs with EGAT and PEA, Bangchak engages in the solar power generation business (solar farm) under the name of "Sunny Bangchak". In 2015 it restructured its green power business by founding BCPG Co., Ltd., to engage and invest in the green power business by selling the solar farm business (phase 1) and transferring to BCPG its common shares in its green power business to BCPG.

BCPG Public Company Limited (BCPG)

With a registered capital of Baht 10 billion, BCPG Plc engages in the business of and investment in green power generation, domestic and abroad. This year BCPG acquired a solar farm in Japan and was chosen to participate in a ground-based solar farm project for an agricultural cooperative. The total capacity under BCPG's contracts is 324 MW, out of the nameplate capacity of about 418 MW. Bangchak has already had BCPG listed on the Stock Exchange of Thailand (SET) with an IPO on September 28, 2016, for 30% of BCPG's paid-up capital. Bangchak holds 70.35% equity in BCPG.

Bangchak Solar Energy Co., Ltd. (BSE)

Wholly owned by BCPG, BSE has a registered capital of Baht 1.8 billion. It manages phase 2 (32 MW) of the solar farm project located in Amphoe Bamnet Narong, Chaiyaphum, and Amphoe Bang Pa-Han, Phra Nakhon Si Ayutthaya, each with a capacity of 16 MW, together with phase 3 (48 MW), operated by five subsidiaries. These are located at Amphoe Kabin Buri, Prachin Buri (16 MW); Amphoe Dan Khun Thot, Nakhon Ratchasima (8 MW) under the operation of Bangchak Solar Energy (Nakhon Ratchasima) Co., Ltd.; Amphoe Prakhon Chai, Buri Ram (8 MW) under the operation of Bangchak Solar Energy (Buri Ram) Co., Ltd.; Amphoe Nong Ki, Buri Ram (8 MW) under the operation of Bangchak Solar Energy (Buri Ram 1) Co., Ltd.; and Tambon Hua Thale, Amphoe Bamnet Narong, Chaiyaphum (8 MW) under the operation of Bangchak Solar Energy (Chaiyaphum 1) Co., Ltd.

BCPG Investment Holdings Pte. Ltd.

With a registered capital of \$\$40,000, BCPG's wholly owned company was founded in Singapore to invest in overseas solar farm businesses. Today in Japan, it boasts a contractual capacity of about 194 MW out of a total nameplate capacity of about 236 MW, of which 20 MW is already in commercial production and 174 MW under development. Besides solar power generation, BCPG plans to invest in several other forms of clean-energy power businesses, including biomass, wind farms, and geothermal power plants.

BCPG Biopower 1 Co., Ltd., and BCPG Biopower 2 Co., Ltd.

Both companies develop and operate biomass power plants with a registered capital of Baht 60 million and Baht 20 million, wholly owned by BCPG.



Bio-Based Products Business Group

Bangchak advocates the blending of ethanol with gasoline and biodiesel with diesel to form Gasohol 91 and Gasohol 95, Gasohol E20, and Gasohol E85, together with Hi-Diesel for distribution. Bio-Based Products Business consists of the following.

Bangchak Biofuel Co., Ltd. (BBF)

BBF has a registered capital of Baht 281.5 million, of which Bangchak holds 70% equity. With crude palm oil as the main raw material, BBF's total biodiesel capacity is now increased to 920,000 liters per day. Located in Amphoe Bang Pa-In, next to Bang Pa-in Oil Depot, Phra Nakhon Si Ayutthaya, BBF is preparing to construct a prototype plant for high-value bio-based products from palm fatty acids to add value. Also to add value to its products, it has initiated a pure glycerine project.

Bangchak Bioethanol (Chachoengsao) Co., Ltd. (BBE)

BBE has a registered capital of Baht 500 million, of which Bangchak holds an 85% stake. Located at Amphoe Phanom Sarakham, Chachoengsao, BBE engages in 99.5% ethanol production with a capacity of 150,000 liters/day, based on fresh cassava and cassava chips to accommodate the steady rising demand for ethanol. It is preparing to expand the capacity to 200,000 liters per day.

Ubon Bio Ethanol Co., Ltd. (UBE)

UBE has a registered capital of Baht 2.740 billion, of which Bangchak holds a 21.28% stake. Located at Amphoe Na Yia, Ubon Ratchathani, UBE engages in the ethanol and tapioca flour business with a current capacity of 400,000 liters per day based on fresh cassava, cassava chips, and molasses to enhance ethanol supply security and accommodate growth in Gasohol E20 and Gasohol E85 sale. Its subsidiary engages in processing cassava into flour with a capacity of 1,400 tons per day and operating a biogas power generation plant derived from the treatment of wastewater derived from flour and ethanol processes.

Natural Resources and Business Development Group

Incorporated in Singapore by Bangchak, BCP Energy International Pte. Ltd. (BCPE) runs and invests in international businesses of energy, petrochemicals, and natural resources. BCPE currently holds common shares in Nido Petroleum Ltd., listed on the Australian stock exchange. Nido Petroleum engages in petroleum exploration and production (E&P) with an investment focus in Southeast Asia.

In 2015, Bangchak set up BCP Innovation Pte. Ltd. in Singapore to engage in overseas innovation-based business through investment in Lithium Americas Corporation, listed on Canada's stock exchange. LAC operates a lithium mining business in Argentina and the US. Commanding soaring demand, lithium serves as a key raw material for batteries.

BCP Energy International Pte. Ltd. (BCPE)

BCPE has a registered capital of US\$111.4 million, wholly owned by Bangchak. BCPE was founded in Singapore to engage and invest in overseas energy, petrochemical, and natural resource businesses. Today, through its common shares, it has invested in 96.98% of Nido Petroleum Ltd.

BCP Innovation Pte. Ltd. (BCPI)

BCPI has a registered capital of US\$5.1 million, wholly owned by Bangchak. Incorporated in Singapore, BCP Innovation Pte. Ltd. (BCPI) runs and invests in overseas innovation businesses. As of December 2016, it invested in 6.7% of the common shares of Lithium Americas Corporation (LAC).

Nido Petroleum Limited (NIDO)

Listed on the Australian stock exchange, Nido Petroleum Limited (Nido) engages in the E&P business with an investment focus in Southeast Asia. It holds rights in producing oil fields, namely Galoc, Nido, and Matinloc in the Philippines with a current combined output of 4,500 barrels per day, as well as rights in fields under development and exploration, namely West Linapacan in the Philippines, and rights in fields under exploration, namely SC6B, SC14D, SC54A, SC54B, SC58, and SC63 in that country. It also owns rights in the Gurita Field of Indonesia.

Lithium Americas Corporation (LAC)

Registered on the Toronto stock exchange, Canada, LAC (6.7% owned by Bangchak) operates a lithium mine for lithium carbonate and lithium hydroxide, key raw materials for batteries with robust trends for batteries of various products, namely hybrid cars, electric cars, assorted electrical appliances, and batteries for large-scale power plants.

LAC is an M&A product between LAC and Western Lithium USA Corporation (WLC) in 2015, both listed on the Toronto stock exchange. It changed its name to WLC and, in 2016, to LAC. Today LAC is developing two mining projects in Argentina and the US. The Argentina project is run by an affiliate named Minera Exar S.A., with production set to begin in 2019 at 25,000 tons per year of lithium carbonate. The US project is run by another affiliate named Lithium Nevada Corporation, with production set to begin in 2019. Full production of lithium is planned at 26,000 tons per year. Finally, WLC's businesses also consist of clay compounds / drilling additives for petroleum E&P well drilling under the operation of RheoMinerals Inc. (formerly Hectatone Inc.), with sale beginning in 2015 at a capacity of 10,000 tons per year.

Transition and milestone development

February

- BCPG Co, Ltd. acquiring SunEdison Japan and Huang Ming Japan
 - BCPG Co, Ltd., a Bangchak subsidiary, took over a solar power plant worth Yen 9,626 million in Japan from the SunEdison Group.
 Of the total installed capacity of 198 MW (contractual capacity of around 164 MW), the plant already had 13 MW in the commercial stage and 185 MW in the development stage.
 - At the end of the first quarter, BPCG acquired the entire shares of Huang Ming Japan Co., Ltd., a company in Japan. Then in the second quarter, Huang Ming Japan inked a deal to buy plots of land and licenses required for the development of two solar plant projects with a combined contractual



 Establishing Bangchak Retail Co., Ltd., a subsidiary

Bangchak Retail Co., Ltd., runs a food and drink business, including Inthanin Coffee and Lemon Kitchen, as well as retail shops, department stores, large and small supermarkets to increase its versatility in the development of non-oil businesses. The company has a registered capital of Baht 300 million, wholly owned by Bangchak.

April

Establishing Bangchak Bioethanol (Chachoengsao) Co., Ltd., a joint venture
 Bangchak changed its investment from buying shares to entering a joint venture with Sima Inter
 Product Co., Ltd., to set up a company whose name was changed from BCP Bioethanol Co.,
 Ltd. to Bangchak Bioethanol (Chachoengsao)
 Co., Ltd. With a registered capital of Baht 500 million, the company had Bangchak holding 85% shares and started its commercial sale on October 3, 2016.

May

- Establishing BCP Trading Pte. Ltd.
 - BCP Trading Pte., Ltd., is a wholly owned subsidiary of Bangchak in Singapore with a registered capital of US\$1 million. The company was tasked with commodity trading, including crude oil, refined products, chemical and petrochemical products, as well as related businesses such as oil price hedging, contracting cargo ships, arranging oil storage places, and oil distribution.
- Rolling out new vision, mission, and values
 The management of Bangchak revised its corporate vision, mission, and values to ensure alignment with the new direction of the operation, investment, and business environment.



Establishing Bongkot Marine Service Co., Ltd., an associated company

With Bangchak holding 30% shares and Prima Marine Co., Ltd., 70%, the joint venture had a registered capital of Baht 240 million and was tasked with the supply of an oil floating storage unit to accommodate Bangchak's expanded refining capacity.

June

 Bangchak Biofuel Co., Ltd., inaugurating second biofuel plant

The plant came on stream and started commercial ethanol production with an installed capacity of 520,000 liters per day for a total installed capacity of 920,000 liters per day.

August

Launching Green S Revolution products
 Bangchak launched products in the gasohol group produced with Green S Revolution, an innovative technology for vehicles with direct injection gasoline Engine (DIG) in particular, to enhance engine efficiency.



September

BCPG Plc. listed and starting trading on SET BPCG Plc. was listed and started trading on September 28. A total of 590 million shares, worth Baht 5.9 billion, were sold to BCP shareholders and general investors, as well as institutional investors and benefactors, to increase its capital.



Establishing Oam Suk Social Enterprise Co.,
 Ltd., a joint venture

Bangchak established Oam Suk Social Enterprise Co., Ltd., a joint-venture company with 40% shares held by Bangchak and 60%

by the Buddhist Economics Foundation. With a registered capital of Baht 10 million, the company runs a business that buys produce, rice, and organic plants, and processes them for sale, in addition to research and development.

November

 Launching SPAR, a new form of supermarket in Bangchak service station

Bangchak Retail Co., Ltd. (BCR), a subsidiary, launched the first SPAR – a new form of supermarket in the Bangchak service station on Ratchaphruek Road. Using the concept of SPAR Fresh & Easy Food Market, SPAR has unique attractions, including fresh food. BCR is also ready to support community products by developing and selling them under the SPAR brand.

SPAR International Co., Ltd., a major retail and wholesale company of the Netherlands, awarded a master license to BCR to expand its business in Thailand, Laos, and Cambodia. Expansion of 50-80 branches per year, both in the service station and stand-alones, is planned.



December

• Increasing capital in Nido Petroleum Limited Bangchak arranged for a capital increase in BCP Energy International Pte., Ltd. (BCPE), a subsidiary, to allow BCPE to increase its common shares in proportion to its shareholding in Nido Petroleum Limited, worth A\$25.94 million, for appraisal drilling in the Mid-Galoc area of the producing Galoc oil field of the Philippines.

- SET Sustainability Award for the second consecutive year in the category of Outstanding Sustainability Awards. The presentation ceremony was held by SET in recognition of listed companies with outstanding sustainable business operations. Awarded companies are honored as role models for other listed companies.
- A top-ten ASEAN listed company with business integrity, according to a survey outcome on business integrity, organized by the ASEAN CSR Network and the National University of Singapore
- Awards won at the '6th Asian Excellence Recognition Awards 2016' event, organized by the Corporate Governance Asia magazine (Hong Kong-based):
 - Best Investor Relations Award for five consecutive years, presented to companies with outstanding investor relations and based on votes and surveys among readers, investors, analysts, etc.
 - Asia's Best CFO Award (Investor Relations) and Best Environmental Responsibility for two consecutive years, based on votes and surveys among readers, investors, analysts, etc.







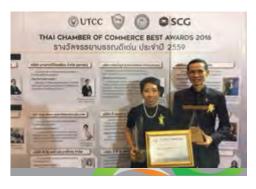
Platinum Award, organized by The Asset magazine (Hong Kong-based), in recognition of Bangchak's
overall outstanding performance (financial, management, corporate governance, social and environmental
responsibility, and investor relations), for the three consecutive year.

Asia Pacific Entrepreneurship Award 2016, Outstanding Category, for corporate leaders' determination
and ability to foster constant business growth with corporate governance and socio-environmental
responsibility, organized by Enterprise Asia, an independent promoter and developer of Asian business
operators









- Asia Responsible Entrepreneurship Award 2016, Health Promotion, for Bangchak's project designed to better the quality of life and health of its refinery's neighboring families, organized by Enterprise Asia, an independent promoter and developer of Asian business operators
- A top-51 listed company on the Thailand Sustainability Investment (THSI) list for the second year in a row, recognized for Bangchak's sustainable business with extensive social and environmental stakeholders and for its management processes for corporate sustainability, which aid investment decisions for quality shares and long-term returns, organized by the Stock Exchange of Thailand (SET)
- Thailand Quality Class (TQC) for the third year in a row, recognized for Bangchak's integrated corporate management system under the Thailand Quality Award criteria and for its display of world-class quality, organized by the Office of Thailand Quality Awards
- CAC membership certificate: This year Bangchak won first recertification since 2013 under the CAC (Collective Action Coalition against Corruption) Project, launched with the cooperation of eight leading organizations, with the Thai Institute of Directors (Thai IOD) as project secretariat
- CG Award 2016 for two consecutive years, for Bangchak's business conduct under corporate governance principles on transparent, credible information disclosure and in upholding integrity, organized by the Thai Chamber of Commerce, Office of the National Counter Corruption Commission, and University of the Thai Chamber of Commerce.











- Certificate for Outstanding Code of Conduct 2016, presented by the Thailand Chamber of Commerce, for Bangchak's business practices under a code of conduct that induces widespread acceptance, credibility, and faith among the public and the Thailand overseas business sectors, organized by the Thailand Chamber of Commerce
- Best Sustainability Report Award 2016, organized by CSR Club, Thai Listed Companies Association, SEC, and Thaipat Institute. The award went to companies with the recognition of Bangchak's valuing of quality reporting under the GRI standard, business integrity, and due regard for stakeholders, society, and the environment. Bangchak has won the award for four consecutive years.
- ESG100 Certificate, for the second year in a row, in recognition of the top 100 listed companies widely acclaimed for ESG (Environmental, Social and Governance), which aids investors' decisions along with financial performance

- Thailand ICT Excellence Awards 2016 for Knowledge Management Project, in recognition of Bangchak's efforts to enhance its competitive edge, providing a role model for others. The award was organized by the National Electronics and Computer Technology Center (NECTEC), Software Park Thailand, and the College of Innovation, Thammasat University.
- Certificate for Friendly Design 2016 in recognition of Bangchak's advocacy of friendly designs and application of the philosophy for the handicapped, the elderly, and the public in an effort to promote a decent society, organized by Thailand's Foundation for Friendly Designs.
- Bangchak earned an overall 'Excellent' score for ten consecutive years, based on the assessment outcomes of a survey on CG report of listed companies for 2016, organized by IOD,.
- Bangchak scored an 'Excellent' 100% in all AGM criteria for eight years under the '2016 Annual General Meeting Assessment Project', organized by the Thai Investors Association.
- Green Industry Level 5: Green Network the highest level of Green Industry Awards in recognition of Bangchak's environment-friendly operations in support of sustainable development. The award aims to honor businesses with continuous improvement and responsibility for society and the environment while encouraging business partners and allies in its supply chain to join the green industry. Initiated by the Ministry of Industry, the Green Industry Award also promotes cooperation with communities and consumers in organizing environmental activities.
- The Best Contact Center Agent in recognition of outstanding call-center service that impresses customers, organized by the Thai Contact Center Trade Association (TCCTA)

Business Description

Revenue Structure

In 2016, revenue from sales and service as shown in the financial statements of BCP and subsidiaries totalled Baht 144,705 million, of which Baht 137,064 million was posted by the Company. Revenue from subsidiaries included Baht 29,286 million from Bangchak Green Net Co., Ltd. (with 49% shares), Baht 6,830 million from Bangchak Biofuel Co., Ltd. (with 70% shares), Baht 3,084 million from BCPG Plc. (with 70.35% shares) and its subsidiaries, Baht 1,503 million from Nido Petroleum Ltd. (an indirect subsidiary with 98.98% shares), Baht 31 million from Bangchak Retail Co., Ltd. (with 100% shares), Baht 263 million from Bangchak Bioethanol (Chachoengsao) (with 85% shares), and Baht 876 million from BCP Trading Pte. Ltd. (with 100% shares). Of the total revenue, Baht 34,232 million represented connected transactions, most of which came from sales of finished products through Bangchak Green Net Co., Ltd. The revenue structure of Bangchak and its subsidiaries

Product/		2016	,	201	5	201	4
Service	Operated by	Revenue (Baht Mill.)		Revenue (Baht Mill.)		Revenue (Baht Mill.)	%
Refined products ^{1/}	BCP and subsidiary	141,257	96.8	147,797	97.3	177,265	95.6
Electricity	BCP and subsidiary	3,084	2.1	3,010	2.0	2,692	1.4
Consumer products	Subsidiary	364	0.3	333	0.2	361	0.2
Others ^{2/}	BCP and subsidiary	1,195	0.8	733	0.5	5,157	2.8
	Total	145,900	100.0	151,873	100.0	185,475	100.0

Note:

^{1/} The proportions of earnings from sales of products in the domestic in 2016, 2015 and 2014 is 91.5%, 89.1%, and 90.3% respectively.

Other revenues (excluding revenue from sales or services) included returns on investment, gains from crude oil salespurchase contracts, oil product futures and currency futures, gains from foreign exchange, and reversal of allowance for impairment losses, profit-sharing from investment in associates, revenue from sales promotional campaigns, land leases, service station rentals, and equipment rentals.

Product and Service Features

The Bangchak Petroleum Public Company Limited is a Thai energy company engaging in business alongside social and environmental stewardship. Its core business - petroleum refining - spans procurement of crude oil from domestic and overseas sources and refining it into various standard products. With a current production capacity of 120,000 barrels per day, Bangchak distributes its refined products to over 1,000 retail stations around the country. It has also spread its wings to other businesses, including power production from solar energy (solar farm) – a green source of energy from nature, biomass energy, petroleum exploration and production, and innovation-oriented businesses. Bangchak's mission is to enhance energy security, while investing in new businesses to keep the organization moving forward and ensure sustainability.

Refinery and Trading Business Group

(with a capacity of 120,000 barrels per day)



Marketing Business Group

(with over 1,000 retail stations)











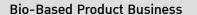






Green-Power Business









Natural Resources and Business Development





Refinery and Trading Business Group

Bangchak boasts a modern complex refinery with a nameplate capacity of 120,000 barrels per day. Most of its yields are high-value gasoline and diesel. The quality of gasohol and diesel from Bangchak refinery meet the public sector's Euro 4 standard. Bangchak was the first in Asia to produce Gasohol E20 of the Euro 5 standard. The product is environmentally friendly with a sulfur content of lower than 10 ppm—fivefold reduction from the Euro 4 standard. The company strives for energy stability in the production process by leveraging electricity and steam derived from its cogeneration power plant, while replacing fuel oil with the cleaner-burning natural gas. Bangchak is now ready to raise the efficiency of its refining processes with the implementation of 3E and YES-R projects to increase the overall production capacity for optimal results.



- Installation and commissioning of Advanced Process Control (APC) at Plant 2 and Plant 4 to raise process efficiency while reducing energy consumption
- Preparedness of processes, oil tanks, oil pipelines, and oil vessels, leading to uninterrupted, efficient refining processes. As a consequence, Bangchak's average capacity this year reached 101,000 barrels per day, higher than the goal of 94,000 barrels per day despite a 45-day planned maintenance turnaround (February 8 March 23). The turnaround proceeded very efficiently and faster than planned, enabling the refinery to constantly maintain its high throughput.
- Planning on crude procurement for high GRMs. Deployed the "roll month" contract to cut crude oil costs, with a resulting annual average market GRM of US\$6.08 per barrel
- Recognizing environmental and safety impacts during the maintenance work, Bangchak added measures to prevent harm to the environment together with safety measures by applying chemical contamination to all corners of the refinery to make it easier to clean equipment and cleaner as well as safer for workers. It upgraded work safety standards and forged a safety culture and awareness among all employees by pioneering the Process Safety Management (PSM) system in the refinery.

Marketing Business Group

This year, over 76% of refined products were sold through Bangchak's retail network of over 1,075 service stations. Of this total, 460 were standard service stations and 615 were community service stations (as of the end of December 2016). Bangchak currently comes in second in market share, encompassing industrial, transport, aviation, marine, construction, and agricultural sectors. In retail marketing, Bangchak stations focus on selling fuels from green, renewable energy, namely Gasohol 91, Gasohol 95, Gasohol E20, Gasohol E85, and Hi-Diesel. This year Bangchak unveiled its newly developed "Green S Revolution" products in the above-mentioned gasohol group, which represent innovation for direct injection gasoline engine (DIG). The new products raise combustion efficiency, enhance engine power, eases combustion pollutants, and preserve the environment. Also available at service stations to provide customers with the utmost convenience are supplementary businesses to attract more patrons to service stations, including a convenience store, a coffee shop, and fast cooked-to-order dishes, as well as lube oil replacement and car wash services.

Banghak's convenience stores sell consumer products at Bai Chak, Lemon Green, Mini Big C stores at service stations occupying more space and close to communities (some 166 stores), and six SPAR supermarkets from the Netherlands, piloted at Bangchak's service station on Ratchaphruek Road in Bangkok in November under the "SPAR Fresh & Easy Food Market" concept. Then there are some 402 Inthanin Coffee outlets, 46 premium Inthanin Garden cafes, and "Lemon Kitchen" fast, cooked-to-order dishes located on the compounds of service stations, at leading educational institutes, and now expanding to premium commercial locations. In addition, Bangchak boasts Green Series business chains, comprising Green Serve, Green Wash, and Green Tyre.



This year Bangchak further developed service stations under the "Greenovative Experience" format to accommodate new Thai lifestyles with a 4Rs process (renewable, recycle, reuse, and reduce). Featured are an installed solar rooftop to generate solar power; an EV charger for electric cars; an automatic plastic bottle collector for recycling into polyester fiber; collection of rainfall and used water to water plants; health-conscious coffee shops' use of biodegradable cups and organic coffee seeds obtained through forest preservation and chemical-free fertilizers; application of energy-saving materials; and addition of green areas.

Apart from fuel products, Bangchak manufactures and sells special lubricating oil and products like transmission fluids, brake fluids, grease, and others under the "BCP Lubricants" brand, selling them to the domestic market through the Bangchak service station network, outlets, plants, and the OEM (original equipment manufacturer) market. A portion of these were exported.

Bio-based product business

Recognizing that renewable energy is imperative for national energy security through reduced trade deficits arising from oil imports, Bangchak promotes ethanol and biodiesel for blending in gasoline and diesel. Its products in this category include Gasohol 91, Gasohol 95, Gasohol E20, Gasohol E85, and Hi-Diesel.

This year Bangchak modified its vision to "Evolving Greenovation" in pursuit of a leading green innovation group of companies with a goal to conduct R&D to extend renewable energy in pursuit of green innovation. The former renewable-energy business unit was therefore restructured into "bio-based product business", made up of:

- Bangchak Biofuel Co., Ltd. (70% owned by Bangchak) engages in the biodiesel business based primarily
 on crude palm oil, with a nameplate capacity of 920,000 liters per day. Today, BBF has produced from
 a second biodiesel (B100) unit with a capacity of 520,000 liters per day, due for completion by this year.
- Bangchak Bioethanol (Chachoengsao) Co., Ltd. (BBE)
 Located at Amphoe Phanom Sarakham, Chachoengsao, BBE (85% owned by Bangchak) engages in ethanol production with a capacity of 150,000 liters/day, with commercial production beginning this year. BBE enhances ethanol supply for Bangchak and accommodates the planned sales growth in E20 and E85 gasohols.
- **Ubon Bio Ethanol Co.**, **Ltd.** (with 21.28% shareholding), located in Na Yia district, Ubon Ratchathani province, produces ethanol and cassava flour. Its capacity is 400,000 liters per day of ethanol.

Green-power business

NIN 2015, Bangchak's clean-power business was restructured with the establishment of BCPG Co., Ltd. (BCPG), to run and invest in the clean power business. To this end, Bangchak sold its common shares in affiliates engaging in clean-power production, namely Bangchak Solar Energy Co., Ltd. and other five affiliates, to BCPG.



This year BCPG successfully listed on the Stock Exchange of Thailand (SET) with an IPO for up to 30% of its paid-up capital after the IPO to invest in more clean-power projects in Thailand and elsewhere.

Today, in Thailand BCPG runs solar farms known as Sunny Bangchak with a combined nameplate capacity of 170 MW, including those run by cooperatives in Ang Thong and Ayutthaya (totaling 12 MW), 7 MW of which went on commercial sale this year. This coming year will see 5 MW added to its generation and sale.

BCPG is striving to grow clean-energy business overseas by acquiring the business of SunEdison Japan, which owns four operating solar farms in Japan with a combined nameplate capacity of 13 MW; under construction and development are 185-MW facilities (as of February 2016). The company later completed the construction of the Nikaho Power Plant with a nameplate capacity of 13 MW and began commercial operation in July. Meanwhile, it acquired a solar farm of Huang Ming Japan Company Limited in Japan, which is under the developmental stage. As of the year-end, BCPG commanded a total nameplate capacity of 26 MW in Japan.

Natural resources and business development business

Incorporated in Singapore by Bangchak, BCP Energy International Pte. Ltd. (BCPE) engages in international businesses concerning energy, petrochemicals, and natural resources. It currently holds common shares in Nido Petroleum Ltd., listed on the Australian stock exchange. Nido Petroleum conducts petroleum exploration and production with an investment focus in Southeast Asia. This year Bangchak recapitalized BCPE to enable it to add shares in Nido for assessment drilling in the Mid-Galoc area of the Galoc oil field from 81.25% to 96.98%.

Recognizing the robust demand trend for lithium for battery application in renewable power plants for enhanced stability in the power transmission system and generation from renewables, with a rising trend for battery application in electric cars, BCPE engages in innovation-based businesses overseas through investment in Western Lithium USA Corporation, later renamed Lithium Americas Corporation, listed on Canada's stock exchange, and ran lithium mines in Argentina and the US.

Finally, this year Bangchak founded Bangchak Initiative and Innovation Center (BIIC) to engage in R&D, management of technology and networks, and incubation of startup businesses to drive Bangchak toward the "Evolving Greenovation" vision, a drive toward Asia's leading green innovation companies equipped with good corporate governance. Above all, its business is to be run with inclusiveness and sustainability.



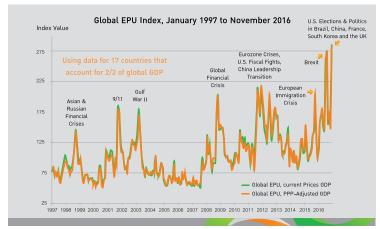
Marketing and competition

2016 Global Economic

Overview

A research by Economic Policy Uncertainty clearly demonstrated that the global economic policies formulated and implemented during 2016-2017 by many countries, particularly those in Europe, have been at the peak of uncertainty in a decade (Figure 1). These uncertainties, combined with the weak economic growth of the US, pushed the global economy to grow lower than earlier predicted.

Global economic policy uncertainty



Notes: Global EPU calculated as the GDP-weighted average of monthly EPU index values for US, Canada, Brazil, Chile, UK, Germany, Italy, Spain, France, Netherlands, Russia, India, China, South Korea, Japan, Ireland, and Australia, using GDP data from the IMF's World Economic Outlook Database. National EPU index values are from www.PolicyUncertainly.com and Baker, Bloom and Davis (2016). Each national EPU Index is renormalized to a mean of 100 from 1997 to 2015 before calculaing the Global EPU Index.

Source: http://www.policyuncertainty.com/

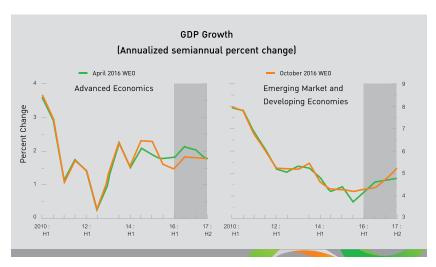
IMF made a global economic growth forecast for 2016 at 3.1%, with a projection to grow higher to 3.4% in 2017. These projections were based on three main contributing factors: economic and financial impacts of Brexit and the political situation of Great Britain, weaker-than-expected US economic growth, and slower economic recovery of emerging and developing economies, driven mainly by China's economic structural shift from manufacturing for export to domestic consumption, resulting in a significant drop in trade and import of raw materials into China. Under these constraints, the central banks of many countries still retain their low-interest monetary policies to stimulate gross domestic product.

Iln their economic review study, IMF thinks that the global economy from 2016 to 2017 is rather complex due to economic uncertainties in many countries, especially those in advanced economies. Following the referendum of Great Britain to pull out of the European Union, the so-called Brexit, the global financial market has been in the doldrums with a lack of confidence in Great Britain's new economic policy. Moreover, trade agreements and all other accords between Great Britain and EU will still be active for several years until replaced by new ones, creating another period of uncertainty. In addition, the US economic policy under the Trump Administration is still unclear, causing the economic growth of the advanced economies to slow down in 2016 to around 1.6%.

However, one significant tangible negative factor for the global economy in 2016-2017 is the economic restructuring of China, particularly the major shift from export- and import-oriented to domestic consumption. The World Bank Group's study on "China's Slowdown and Rebalancing Potential Growth and Poverty Impacts on Sub-Saharan Africa" stated that the economy of Sub-Saharan countries in Africa has been sluggish to contracted due to China's significant drop in demand for commodities, natural resources, and crude oil. The study also concluded that China's economic restructuring was seriously needed, as the region's rapid economic growth rate in previous years was not sustainable and could end up in a hard landing.

The 2017 global economic growth will likely be driven by positive economic adjustment of emerging and developing economies, with anticipated GDP growth rates of 4.2% and 4.6% respectively (Figure 2),

resulting from low-interest monetary policies. IMF confirms strong growth of these economies in 2016, and thinks these countries will be the main players for global economic growth in 2017. The US economic recovery will be another key economic driver for the world in 2017, depending on the US economicpolicyimplemented by President Trump.



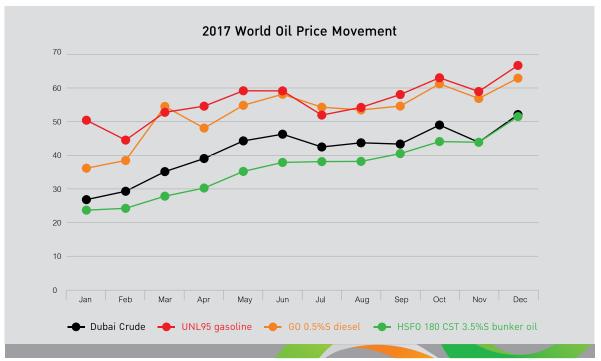
Source: World Economic Outlook october 2016



Crude Oil Market

Dubai crude averaged US\$41.43 per barrel in 2016, a drop of US\$9.41 per barrel, driven down mainly by China's sluggish economy, forcing global oil demand to dive early in the year amid the oversupply, especially from Iran after the lifting of economic sanctions by the US and the EU in late January. Higher production from OPEC to gain a majority of the global market share throughout 2016 added more pressure to the oil price. With anticipation of the US presidential election and predicted aggressive economic stimulation policy, including the Fed fund rate rise in December, the constantly stronger US dollar currency and rising global interest rates pushed the oil price further down.

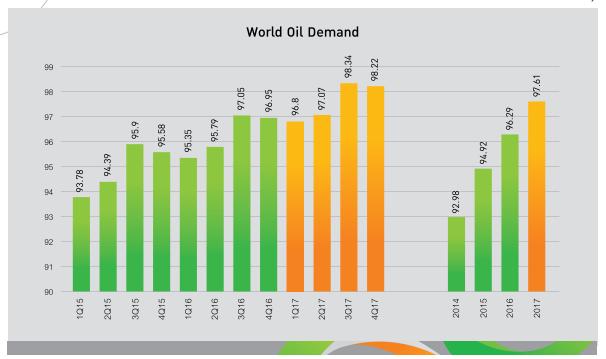
US\$/barrel



US\$/barrel

Products	2015		YoY		
Floudets	Average	Highest	Lowest	Average	%
Dubai Crude	50.84	54.20	22.80	41.43	-18.50
UNL95 gasoline	69.17	70.70	39.31	56.26	-18.67
GO diesel	64.47	65.94	30.29	52.24	-18.98
HSFO bunker oil	45.81	53.39	20.90	36.46	-20.41

Million barrel/day

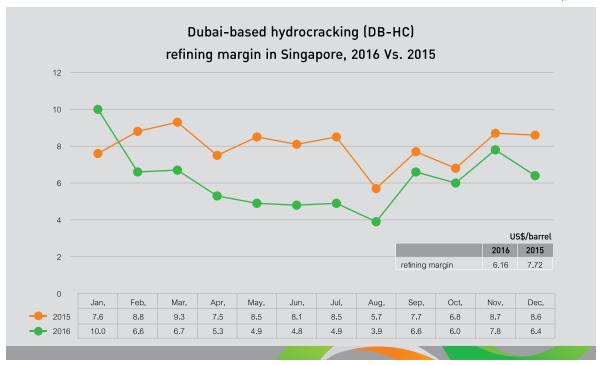


Source: International Energy Agency (IEA)

IEA reported that world oil demand growth rose by 1.94 million barrels per day in 2014, to 1.37 in 2015, and 1.32 in 2016. The 2017 world oil price is expected to rise but to be capped by slower demand growth. Demand for crude oil in Europe is predicted to contract, but will be offset by higher demand from the Middle East.

Following OPEC's and non-OPEC's accord to cut the global supply of crude in late 2016, supply will likely become tighter. The accord was the first true attempt by both blocs after letting the price stay low for more than two years. The total agreed cut was 1.8 million barrels a day for the first half of 2017, intended to stabilize demand-supply into equilibrium sooner. This tighter supply will likely push the oil price up through 2017, but to a limited range, as other global producers not participating in the accord would likely increase their production, particularly shale oil producers in the US. A lot of producers with breakeven lifting costs in the range of US\$50-60 per barrel will resume their production quickly. The 2017 world oil market may also face other demand risks of economic uncertainty in China, new unknown policies of the new US President, government elections in the Netherlands and France, which could add more uncertainty to the Eurozone, the rising interest rate policy of the US leading to stronger US currency, putting more pressure on prices of commodities, including crude oil. All these critical factors are set to cap the rise of the world oil price to the US\$50-50-per-barrel range.

US\$/barrel



Source: Reuters

The 2016 Dubai-based hydrocracking average refining margin in Singapore stood at US\$6.12 per barrel, dropping from US\$7.71 per barrel in 2015, reflecting smaller margins between gasoline and Dubai crude and between diesel and Dubai crude. For the margins between gasoline and Dubai, the lower spread from the 2015 level was caused by higher overall crude runs and switching of refining processes for more gasoline in response to higher demand for transport when the world oil price is low. Moreover, major regional gasoline importers like Indonesia added more gasoline outputs and cut down imports, leading to smaller margins. For the smaller margins between diesel and Dubai, the Chinese sluggish economy and lower demand for diesel were the main reasons. With the shift from manufacturing for export to domestic consumption, the Chinese government reduced its excessive diesel outputs from the industrial sector to improve their manufacturing efficiency and cut down environmental impacts, also leading to lower demand for diesel. Moreover, private refineries in China were allowed for the first time to import crude oil and export refined products directly. This enormous export of refined products was another factor pushing down Asian refining margins.

US\$/barrel

Price	2015		2016		YoY
Filce	Average	Highest	Lowest	Average	%
UNL95 - DB	18.32	25.64	8.07	14.83	-19.11
GO - DB	13.63	14.78	6.61	10.80	-20.78
HSFO - DB	-5.02	1.05	-9.89	-4.97	1.13

The 2017 Dubai-based hydrocracking refining margin in Singapore is projected to fall slightly from the 2016 level due to additional supplies from new Asian refineries, particularly China, after deferment in 2016. Demand for refined products, however, is set to grow at a slower pace, since market support for low oil prices is declining, and in view of the economic impacts on the Asian market from the US international trade policy after the leader transition in the US.

2016 Thai Economic Overview

Economic growth rose from 2.8% recorded in 2015 to 3.2% projected for 2016, reported by the Bank of Thailand. The higher growth rate was driven by a push by the government to accelerate the spending of national budget on both routine expenditures and several new economic stimulus measures, such as for tourism, for household spending, and for private investment under Royal Decree No. 604 for special tax privileges. Other measures implemented during the year were tax reduction for property transfer, leading to more construction work early in 2016, and reduction in personal income taxes, announced in the last quarter. Despite numerous economic measures, several negative factors remained in the Thai economic fundamentals, including sluggish private investment partially stemming from export contraction due to the weaker economy and slower-than-expected economic growth of trading partners, including the US and the EU, and a significant drop in import of raw materials in China resulting from their economic restructuring. Moreover, the Thai household income in 2016 was pressured by the sluggish demand for labor, which in turn depressed consumption in the private sector.

The Bank of Thailand also reported projected inflation of 0.2% for 2016, a rise of 1.1% from the previous year. The inflationary pressure included a rise in the world oil price and commodities and domestic economic growth.

The Thai GDP growth is projected to remain at 3.2%, relatively stable from the 2016 level. Major positive factors are mainly domestic, including higher household purchasing power after the maturation of the First-Car scheme, lowering of personal income taxes and a possible adjustment in the minimum wage, higher private investment, especially in the service industry, and benefits from megaproject infrastructures invested by the government. Export is set to recover mildly following global economic recovery projected by more positive indicators in certain countries, and higher demand for commodities and consumers' products in neighbor countries under explicit economic stimulus measures.

Summary of Thai economy and inflation

Percentage

Economic Growth 2.8	3.2 (3.2)	3.2 (3.2)
		3.2 (0.2)
Headline Inflation -0.9	0.2 (0.3)	1.5 (2.0)
Core Inflation 1.1	0.7 (0.8)	0.8 (1.0)

Actual data

() Monetary policy report, September 2016 Source: https://www.bot.or.th

The 2017 Thai headline inflation is projected to stay at 1.5%, a slight increase from the previous year due to predicted higher oil prices and the weaker Baht. Under this projection, the Dubai crude price will likely be around US\$53.0 per barrel and the exchange rate between the Baht and US\$ will average at 35.50.

There are, however, some negative factors behind this economic projection. Export recovery will likely be very limited due to a very slow pace of global economic expansion, driving the slowdown in manufacturing. A significant uncertainty on world oil prices still remains amid speculations of possible failure to effectively control production under the new quota, following some hiccups since Q3/2016. Thailand would have to rely more on domestic economic mechanisms to drive its economic growth in 2017.

ODomestic Oil Market Competition

In line with the national GDP, domestic demand for refined products rose by 3.15% from 111 million liters/day in 2015 to 115 million liters/day in 2016. The increase was driven up by several economic measures, growth in the service sector, and accelerated spending by state agencies. Even with smaller economic growth as the export sector was under contraction, demand for gasoline and diesel rose by 9.85% and 2.73% respectively due to relatively low retail prices. Sales of gasohol products went up by 10.56%, pushing the market share of gasohol up to 95.4% of the total gasoline market.

Another major factor driving up the demand for gasoline and diesel in 2016 was the government's retail price restructuring, under which retail prices of gasoline and diesel were low, reflecting low world oil prices. Prices of LPG and NGV, however, remained high. The demand for jet fuel in 2016 dropped by 6.7% following the slowdown in the global economy.

Domestic demand for refined products

Product	Demand (million liters/day)				
Product	2016	2015	Growth variation		
Regular Gasoline	1.34	1.37	-2.19%		
Gasohol	27.65	25.01	+10.56%		
Gasoline Group	28.99	26.39	+9.85%		
Jet fuel	17.93	19.22	-6.71%		
Diesel Group	61.71	60.07	+2.73%		
Fuel Oil	6.15	5.60	+9.82%		
Total	114.78	111.28	+3.15%		

Source: Department of Energy Business

Demand for refined products in 2017 is predicted to be stable compared to the 2016 level. This projection is based on higher oil demand, resulting from higher economic growth of the world and Thailand, but capped by projected higher oil prices following the lower production quota imposed by major oil-producing countries.

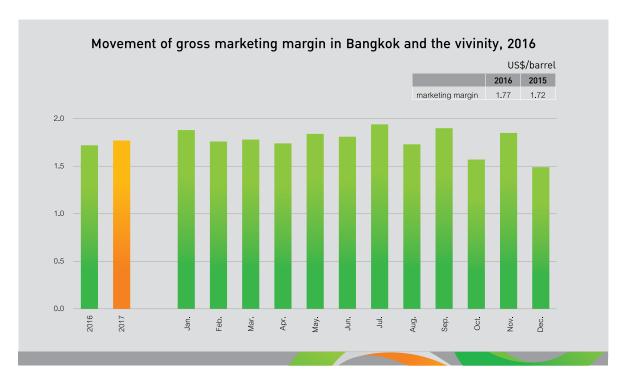
The average domestic supply dropped by 3.89% or 45 KBD from 2015 to 1,088 KBD in 2016. The total crude run was from six main refineries, namely Thai Oil, IRPC, PTT Global Chemical, Esso, SPRC, and Bangchak. The lower supply growth rate was due to major planned annual turnaround of Bangchak and PTT Global Chemical, the shutdown of PTT Global Chemical's Olefins Unit#3.

Average crude run by domestic refineries

Pofinan/	Crude Run (thousand barrels per day, KBD)				
Refinery	2016	2015	Growth variation		
Thai Oil	337	313	7.67%		
IRPC	185	189	-2.12%		
Esso	135	142	-4.93 %		
SPRC	173	182	-4.95%		
PTT Global Chemical	157	193	-18.65%		
Bangchak	101	113	-10.62%		
Total	1,088	1,132	-3.89%		

Source: Energy Policy and Planning Office and The Bangchak Petroleum Public Company Limited

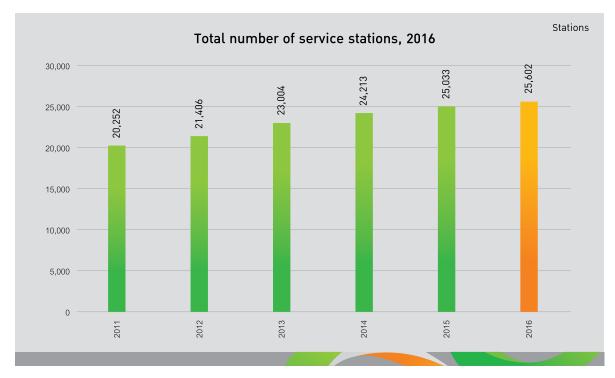
Despite relatively low world oil prices from 2015 to 2016, Thai traders have continuously adjusted retail prices to reflect changes in the cost structure and align with the state policy. The average gross marketing margin in Bangkok and the vicinity, excluding dealers' margins and transport subsidy, rose by Baht 0.05 per liter from 2015 to Baht 1.77 per liter in 2016, reported by the Energy Policy and Planning Office.



Source: Energy Policy and Planning

Demand for refined products began to slow down from the 2015 level amid relatively low retail prices, following the low world oil price and affected by the government's retail price restructuring. Retail prices of gasoline and diesel therefore remained relatively low. The sluggish global economy also put more pressure on the Thai economy. All these factors contributed to the total sales of refined products at all service stations across the country in 2016 to stabilize around the 2015 level.

Even with lower demand and smaller marketing margins for refined products in 2016, traders decided to expand the number of retail stations. This investment decision resulted from the implemented state policy and regulation to cut down reserves of refined products, leading to a lower cost structure and a higher incentive for oil traders to invest. There were 569 more retail stations, bringing the total number nationwide to 25,602 (Figure 6). Specific to Gasohol E20 and E85, 257 and 160 more stations were added respectively during 2016, bringing the total number offering Gasohol E20 and E85 in Thailand to 3,236 and 939 stations. The main reasons for this gasohol consumption expansion are pricing and services. Several non-oil businesses were added to retail stations to generate more revenue, while more and more stations have been modernized for better services and brand image. These improvements constantly provide more options for customers to choose from and higher competitiveness to retail traders. Retail expansion plans also directly support the state's alternative-energy development plan (AEDP) to promote the sales and consumption of more alternative and renewable energy sources, and prepare for a new generation of vehicles. Several oil traders have endorsed the policy to expand their retail businesses into neighboring countries under the ASEAN Economic Community (AEC) framework, where economic growth and demand for refined products are high.



Source: Department of Energy Business

Amid relentless competition among retail oil traders in prices and services, non-oil businesses have been thrown in to improve performance outcomes while service station appearances have undergone constant facelifts, relentlessly adding options for consumers while enhancing competitiveness. Besides, plans have been made to grow the number of alternative-energy service stations in line with the government's Alternative Energy Development Plan (AEDP) and accommodate the number of new vehicles making their ways to the market. Finally, Thailand's several retail oil traders have policies to grow the service station business to neighboring AEC countries with healthy GDPs and oil consumption.

Shareholder Structure

Registered Capital and Paid-up Capital

The Company's registered capital amounted to Baht 1,376,923,157 of which Baht 1,376,923,157 was paid up. An equal number of common shares were issued at a par value of one Baht each.

⊘Shareholders

Top 10 Major Shareholders (as of Septembe 9, 2016)	Number of Shares	Shareholding (%)
1. Vayupak Fund 1	214,866,400	15.60
2. Social Security Office	199,854,297	14.51
3. Ministry of Finance	137,442,767	9.98
4. Thai NVDR Co., Ltd.	87,506,245	6.36
5. Krungsri Dividend Stock LTF	38,826,600	2.82
6. STATE STREET BANK EUROPE LIMITED	38,077,883	2.77
7. AIA Company Limited-DI-LIFE	33,510,069	2.43
8. STATE STREET BANK AND TRUST COMPANY	23,394,698	1.70
9. Bangkok Life Assurance PCL	21,016,800	1.53
10. SCB Open-end Long Term Fund Dividend 70/30	20,587,200	1.50
Top 10 Total	815,082,959	59.20
Grand Total	1,376,923,157	100.00

Shareholders through Thai NVDR Co., Ltd. Who owns more than 0.50% of the paid-up BCP shares

1. N.C.B.TRUST LIMITED-NORGES BANK 5 16,664,70	00 1.21
2. BNY MELLON NOMINEES LIMITED 11,115,50	0.81
3. THE BANK OF NEW YORK MELLON 9,020,600	0 0.66
4. RBC INVESTOR SERVICES BANK S.A. 7,211,900	0 0.52
Total 44,012,70)1 3.20

Source: http://www.set.or.th/set/companyholder. do?symbol=BCP-R

Dividend policy

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

Dividend Payment History BCP

Year	2011	2012	2013	2014	2015	2016 (first half)
Earnings per share (Baht/share)	4.24	3.10	3.38	0.52	3.01	1.79
Annual dividend (Baht/share)	1.65	1.25	1.35	1.00	2.00	0.80
Dividend rate (%)	39	40	40	192	66	45

• Subsidiaries' dividend policies (only dividend-paying ones)

· Bangchak Green Net Co., Ltd.

For a given fiscal year, the holders of preferred shares are entitled to annual dividends equivalent to the average daily interest rates for one-year fix deposits announced by Krungthai Bank Plc plus 3%. Dividends are paid in proportion to each paid-up share value when the dividends are paid out as stated in the resolution of the annual general meeting of shareholders (AGM). For a given year, if the company's profit is less than the dividends calculated for holders of preferred shares, all dividends are to be paid from such profit to holders of preferred shares only, and none is to be paid to holders of common shares. Any outstanding dividends for holders of preferred shares will be carried forward or accumulated to the following year along with those for the holders of common shares. For a given year, if the company's profit exceeds the dividends calculated for holders of preferred shares, the AGM will approve dividends for holders of common shares, case by case.

Bangchak Biofuel Co., Ltd.

Dividend payment must have the approval of an AGM and will be made only when the company has allocated at least 5% of its net profit in a given year as provisional capital until the provisional capital reaches 10% of the registered capital. The Board may consider interim dividend payment to shareholders but not as long as it still has cumulative losses.

BCPG Plc.

This company's dividend payment is no lower than 40% of its net profit according to separate financial statements after deduction of all reserved funds under its regulations and related laws. The Board of Directors' resolution on dividend payment will be raised for the approval of the shareholders at the AGM, except for interim dividend payment, which the Board authorized to approve and make a subsequent report to shareholders' meeting. Dividend payment is subject to each year's economic situation, the company's cash flow, and investment plans of Bangchak and affiliates. The Board, however, will also take into consideration other factors as seen appropriate.

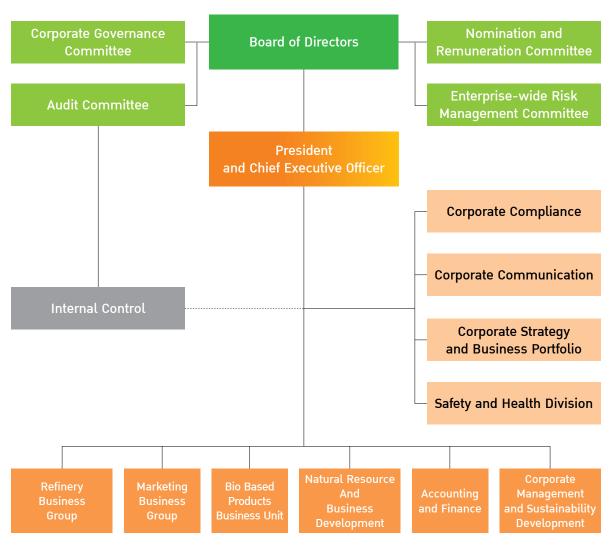
· Bangchak Solar Energy Co., Ltd., and five other companies under project areas

This company's dividend payment is no lower than 80% of the net profit appearing in its particular financial statements after deducting all provisions under the company's regulations and under the law, subject to the cashflow remaining after deducting the company's annual obligations and annual investment plan requirements, together with other considerations considered suitable and essential by its board of directors.



Management Structure

The Board of Directors and the management perform in the best interests of Bangchak and its shareholders under a clear, balanced, and accountable management structure. The Board monitors and ensures that the management implements its policies, plans and strategies, and that there is clear distinction of roles and responsibilities between the Board and the management.



As of December 2016

Notes:

The Audit Committee considers, appoints, transfers, and assesses the performance of the head of Internal Control, in addition to reviewing the unit's independence

1. Board of Directors (As of December 2016)

	Name	e	Position	Appointment date
1.	Mr. Pichai	Chunhavajira	Chairman	April 24, 2012
2.	Prof. Dr. Chai-Anan	Samudavanija	 Vice Chairman (Independent Director) Chairman of the Nomination and Remuneration Committee 	April 24, 2003
3.	Mr. Surin	Chiravisit	 Vice Chairman (Independent Director) Chairman of the Corporate Governance Committee Member and Secretary of the Nomination and Remuneration Committee 	April 8, 2010
4.	Mr. Suthep	Wongvorazathe	 Independent Director Chairman of the Audit Committee Member of the Nomination and Remuneration Committee 	October 30, 2012
5.	Pol.Lt.Gen. Chaiwat	Chotima	 Independent Director Member of the Audit Committee Member of the Nomination and Remuneration Committee 	April 9, 2014
6.	Lt.Gen. Apirat	Kongsompong	 Independent Director Member of the Nomination and Remuneration Committee 	September 26, 2014
7.	Adm. Sucheep	Whoungmaitree	Independent DirectorMember of the Corporate Governance Committee	May 26, 2015
8.	Mr. Krisada	Chinavicharana	 Independent Director Member of the Enterprise-wide Risk Management Committee 	November 23, 2015
9.	General Vitch	Devahasdin	Independent DirectorMember of the Corporate Governance Committee	April 5, 2016 (replacing Dr. Vikrom Koompirochana)
10.	Mrs. Prisana	Prahamkhasuk	Independent DirectorMember of the Audit Committee	April 5, 2016 (replacing Asst.Prof.Dr. Anusorn Tamajai)
11.	Mr. Prasong	Poontaneat	 Director (Representative from Ministry of Finance) Chairman of the Enterprise-wide Risk Management Committee 	April 24, 2012
12.	Mr. Visit	Vongruamlarp	 Director (Representative from Ministry of Finance) Member of the Enterprise-wide Risk Management Committee 	April 8, 2015
13.	M.L. Puntrik	Smiti	 Director (Representative from Social Security Office) Member of the Corporate Governance Committee 	October 27, 2015
14.	Dr. Prasert	Sinsukprasert	 Director Member of the Enterprise-wide Risk Management Committee 	April 5, 2016 (replacing Mrs. Arunporn Limskul)
15.	Mr. Chaiwat	Kovavisarach	 President and Chief Executive Officer Chairman of the Executive Committee Member and Secretary of the Corporate Governance Committee Member and Secretary of the Enterprise-wide Risk Management Committee Secretary to the Board of Directors 	October 30, 2012

Directors whose terms were completed and resigned directors in 2016

Name	Position	Appointment date					
1. Asst.Prof.Dr. Anusorn Tamajai	Independent Director Chairman of the Audit Committee	April 25, 2002 (Completed term on April 5, 2016)					
2. Mrs. Arunporn Limskul	Independent Director Member of the Audit Committee	April 10, 2013 (Completed term on April 5, 2016)					
3. Dr. Vikrom Koompirochana	Independent Director Chairman of the Corporate Governance Committee	April 10, 2013 (Being Independent Director on May 22, 2015) (Completed term on April 5, 2016)					

The names and number of the authorized directors who have authority to sign on behalf of the Company are: Mr. Pichai Chunhavajira jointly with Mr. Chaiwat Kovavisarach with affixation of the Company's seal or any one of these two directors signs jointly with Mr. Chai-Anan Samudavanija or Mr. Surin Chiravisit or Mr. Suthep Wongvorazathe or Mr. Vikrom Koompirochana or Pol.Lt.Gen. Chaiwat Chotima or Lt.Gen.Apirat Kongsompong or Mr. Visit Vongruamlarp or Adm. Sucheep Whoungmaitree or Mrs. Prisana Praharnkhasuk, being two persons, with affixation of the Company's seal.

Board structure

- Board diversity prevails, equipped with a series of skills matching Bangchak's business strategies, which
 are identified through Board Skill Matrix preparation
- The Board consists of 5-15 directors without gender discrimination. Today there are 15 of them, with two female member.
- Independent directors account for more than one-third of the Board. Today there are 9 of them, which exceeds half of the Board, thus conforming to good governance.
- The Chairman cannot be the same person as the President and Chief Executive Officer and does not belong to any subcommittee in view of clear-cut responsibilities and duties.

Independent Directors

There is a need to ensure that independent directors are critical to good governance, looking after the interests of Bangchak and its shareholders by imposing checks and balances on Board decision-making and commanding awareness of their duties with due regard for righteousness and free views from any party's influence. The Board therefore devised definitions and qualifications of independent directors in Section 3 of the corporate governance policy, with stricter shareholding requirements than those of SEC and SET, that is, 0.5% against the legal maximum of 1% of the total eligible voting shares of Bangchak, its parent company, subsidiaries, associates, major shareholder or controller, and independent directors' related parties.

Appointment and dismissal of Directors

- 1. Shareholder's meetings elect Directors through majority voting with one shareholder holding one vote per share held and can elect Directors individually. The candidates with the most votes are to be appointed Directors up to the number open at the meeting. If more candidates receive equal votes than the number of Directors required, the Chairman of the meeting must cast a deciding vote.
- 2. In every Annual General Meeting (AGM), one-third of the Directors must retire. If this number is not a multiple of three, then the number nearest to one-third. The names of the Directors to retire during the first and second year after the Company was registered are to be drawn by lots if not agreed otherwise. For subsequent years, those with the longest terms must retire. The retired Directors can be re-elected.
- 3. Other than the completion of term, a Director may retire for to the following reasons:
 - death
 - · resignation (effective from the date the Company receives the letter of resignation)
 - · lack of qualifications according to the Public Company Limited Act and the Securities and Exchange Act
 - · decision of the shareholders' meeting to resign according to the Public Company Limited Act
 - · court order
- 4. In case a Director's position is vacant due to other reason than the completion of term, the Board of Directors is to elect a candidate with qualifications according to the Company's regulations in the next meeting except when the Director's term is to be completed in less than two months. At least, a three-quarter vote of the Directors present at the meeting is required. The elected Director holds the position until the completion of term of the Director they have replaced.

Policy on Director Nomination

"To nominate Directors, the Company focuses on people with knowledge, capability, experience, sound career profile, leadership, vision, morality, ethics and good attitude toward the organization, who can dedicate adequate time for the Company's benefit. Moreover, consideration was also given to Board diversity and Board skill matrix in order to nominate the directors's qualifications by considering skills which have been missing and also appropriate qualifications in compliance with the structure of Directors and in line with the Company's business strategies. Bangchak will also use Director Pool from the Thai Institute of Directors (IOD) to nominate directors through transparent procedures to bolster the confidence of shareholders."

Directors' Nomination

- 1. Bangchak allows minor shareholders to nominate directors by submitting their names to it
- 2. The Nomination and Remuneration Committee (NRC) reviews Board structure for suitability and Bangchak's strategic needs
- 3. NRC defines the competency and experience for directors to be nominated by using Director Qualifications and Skill Matrix so that they may match Bangchak's goals and strategies
- 4. NRC proceeds with nomination and tables qualified persons for directors in place of those whose terms expire or for additional directors, using IOD's Director Pool as part of the nomination process. NRC is also to nominate directors to its secretary.
- 5. NRC selects those qualified to be directors and tables their names for the Board's endorsement
- 6. The Board endorses the list of directors for subsequent approval by the AGM.

Terms of Directorship

The company decided that directors can serve for maximum consecutive terms as follows:

"The appropriate term for directorship is no more than three consecutive terms (from 2008 onward) except for when a director is deemed suitable to hold the position for a longer period. The Board will consider the independence and effectiveness of the director who is under consideration and defend their decision to the shareholders."

Directors do not hold more than three consecutive terms, meaning that they cannot serve for more than nine years (three years in each term) to allow the Company to find other qualified Directors for the maximum benefit of the Company.

Roles, duties and responsibilities of the Board of Directors

- Carry out duties under laws, objectives and regulations of the Company as well as resolutions of shareholders' meetings with honesty, protect the Company's benefit and have accountability to the shareholders.
- 2. Lead the Company in business administration by defining and reviewing its vision, objectives, main goals, and business strategies, and by pursuing helpful information, while freely expressing views.
- Oversee the management's translation of strategic plans into operational plans, assess the outcomes and steer affiliates by requiring their management to report their performances and other key matters for the Board's acknowledgment every month.
- 4. Manage business for sustainable value, which includes sound performance, creating value with long-term perspectives, ethical and responsible business that benefits or eases socio-environment impacts (Good Corporate Citizen), and resilience to changes.
- 5. Ensure that all Directors and employees are filled with duties of care and those of loyalty, and that they are engaged in transactions free of conflicts of interest.
- 6. Independent and non-executive Directors are prepared to express their opinions freely in formulating strategies, management, use of resources, appointment of Directors and business standard as well as to disagree with other Directors or the administration on conflicts that affect the equality of all shareholders.
- 7. Establish a corporate governance policy and code of conduct to guide Directors and employees, with an annual review and assessment.
- 8. Exemplify compliance with the corporate governance policy and code of conduct, together with the Stock Exchange of Thailand's (SET's) policy on good practices for Directors of lited companies.
- 9. Establish an effective and reliable accounting system, financial report, internal controls and internal audit.
- 10. Establish a system for risk management through appropriate and sufficient risk management guidelines and measures, with regular monitoring.
- 11. Establish a suitable, transparent, and fair executive recruitment system under which executive vice presidents upward must be appointed by the Board.
- 12. Establish a suitable executive compensation system to inspire them and benchmark them with prevailing industry practices, linking it with Key Performance Indicators (KPIs). Short-term compensation means monthly salaries and bonuses; long-term compensation is individually decided, including Employee Stock Option Program (ESOP) and Employee Joint Investment Program (EJIP).
- 13. Appoint a Company Secretary under securities and exchange laws to advise the Board on essential laws and regulations, handle document preparation for Board meetings, handle key Board documents and activities, coordinate compliance with Board resolutions, and disclose the Company Secretary's qualifications and experience in the annual report and on the Company's website.

- 14. Regularly and fully report to the shareholders the corporate status and its outlooks (positive and negative) with adequate rationales.
- 15. Assess and review the performances of itself and the President and Chief Executive Officer each year for improvement.
- 16.Report on one's own portfolio of securities, as well as those of their spouses and children not yet of legal age, in the Company and affiliated companies to the monthly Board of Directors' meeting and must report to the Company without delay in the following cases:
 - · Directors or related person with vested interests in Bangchak's or its affiliates' management
 - Hold shares or debentures in the Company or the subsidiary companies.
- 17.17. Maintain the Company's inside information obtained from their job performance and refrain from exploiting such information for personal or other parties' gains. Undertake no securities transactions at least one month prior to announcement of financial statements and at least three days after such announcement
- 18.Each Director cannot hold the position of Director in more than other two listed companies in the Stock Exchange of Thailand (SET), excluding Directors' current positions as of August 19, 2016, the policy-amending date.

Role of the Chairman, leader of the Board

- Steer, monitor, and ensure efficient performance of the Board in fulfilling the Company's objectives and main goals.
- 2. Ensure full participation by the Directors in advocating a corporate culture of ethics and good corporate governance.
- 3. Set Board meeting agenda in consultation with the President and Chief Executive Officer, with measures to ensure that essential matters are included
- 4. Allocate adequate time for the management to table matters and for Directors to thoroughly discuss important matters
- 5. Promote Directors' exercising of full discretion, their attention to all matters brought to the meetings, and corporate governance matters
- 6. Promote sound relations between the Board and the management. Support the management's management without interfering in day-to-day affairs.

The Board is authorized to approve various matters, including:

- Vision, short-term and long-term strategic plans
- Annual plans and budgets
- · Investment and operation of key projects for Bangchak and affiliates
- Management restructuring
- Dividend policy
- Performance assessment of itself and the President and Chief Executive Officer
- Decision on the President and Chief Executive Officer's compensation
- Appointment of Directors who resign during the year and that of sub-committees
- Designation of Directors authorized to sign and bind Bangchak
- · Appointment of executive vice presidents upward
- Appointment of Directors serving on Bangchak's affiliates and setting of oversight guidelines for such companies.

Board meetings

- · Scheduled monthly meetings for the year are agreed in advance by the Board
- Meetings among the non-management directors and the independent directors at least twice a year, these
 preceded the Board meetings. The intention is to freely discuss general issues on management or
 corporate governance, with subsequent notification to the President and chief executive officer so that the
 management may take actions on such issues.
- Each year, directors should attend no less than 75% of all Board meetings. (Directors should attend the meeting at least 9 of 12 times a year)
- Each year, directors should attend no less than 75% of all Board meetings. (Directors should attend the meeting at least 9 of 12 times a year)

This year the Board held 12 regular meetings, five extra meetings and two annual seminars on corporate strategies with the management to revise the corporate vision and set goals every five years (2015-2020) under Bangchak's vision, mission, and values, together with an assessment of business circumstances.

Orientation of new directors

Bangchak stages lectures and company visits and prepares a directors' manual for new directors to be informed of its business nature and approaches, relevant laws and regulations, corporate governance policy, and other essential information that will prove useful to their efficient performance.

Directors' development

Bangchak encourages its Board to undergo additional study and training to enhance their knowledge of Board roles and duties in efficient management under corporate governance. To this end, it applied for IOD memberships on behalf of all directors to benefit from related intelligence and knowledge accrual. This year the following directors took advantage of such training and study visits:

- Organizing a "Vision and Mega-Trend" seminar for the Board and management team
- · Organizing a lecture on "Growth Trend of Electrical Vehicles" for the Board
- Organizing a visit to a geothermal power plant in New Zealand for the Board.
- Thai Institute of Directors (IOD) Program:
 - Advanced Audit Committee Program (AACP23/2016): Dr. Vikrom Koompirochana
 - Role of the chairman Program (RCP38/2016): Dr. Vikrom Koompirochana
 - Boards that Make a Diffrence (BMD1/2016): Asst.Prof.Dr. Anusorn Tamajai
 - Director Certification Program (DCP221/2016): Adm. Sucheep Whoungmaitree
 - Director Certification Program (DCP229/2016): Dr. Prasert Sinsukprasert

As of today, three directors have attended IOD's Director Accreditation Program (DAP) and nine have attended its Director Certification Program (DCP). Training details appear under "The Board".

Committees

The Board of Directors elected Sub-committees (or Committees) to facilitate the Company's business, undertaking with four sub-committees. The Committees can serve for three years in each term. Details about subcommittee charters appear in the corporate governance policy, publicized on Bangchak's website.

1. Audit Committee (Audit Committee-AC)

The present Audit Committee consists of three Directors, all of whom are Independent Directors and one of whom is specialist in accounting and finance or audit.

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Name Position

Wongvorazathe Chairman and Independent Director with expertise in accounting

and finance

Pol.Lt.Gen. Chaiwat Chotima Member and Independent Director
 Mr. Krisada Chinavicharana Member and Independent Director

4. Mrs. Prisana Praharnkhasuk Member and Independent Director with expertise in accounting

and finance, and graduate accounting

Executive vice president, Secretary

Internal Control

1. Mr. Suthep

Scopes, duties and responsibilities

 To ensure accuracy and adequacy of the Company's financial reporting according to Accounting Principles governed by laws.

- 2. To ensure that the Company has a suitable and efficient internal control system and internal audit and to ensure the efficiency and adequacy of the risk management system.
- 3. To review the performance of the Company to ensure compliance with the securities and exchange law, regulations of the exchange or laws relating to business of the Company.
- 4. To review a connected transaction or transaction that may lead to conflict of interest or acquisition and disposition of assets transaction to ensure compliance with the laws and regulations of the Stock Exchange of Thailand (SET), and that it is reasonable and brings the highest benefit to the Company.
- 5. To inspect and consider with the management on the defects that have been found and on the responses from the management.
- 6. To empower the auditing and investigating of all related parties under the authorization of the Audit Committee and also to authorize hiring of an expert so as to audit and investigate in compliance with the Company's regulations.
- 7. To prepare a report of the Audit Committee and disclose it in the annual report of the Company, and have such report signed by Chairman of the Audit Committee.
- 8. To consider, select, nominate the person who is independent to be the Company's auditor, recommend remuneration of the Company's auditor, recommend the removal of the Company's auditor and, at least once a year, attend the private meeting with an auditor without management.
- 9. To consider auditing scopes and plans of the external auditor and the Internal Control Office so that they are contributory to each other and to reduce double operations as concerns financial auditing.
- 10. To approve the Charter, audit work plans, budget, training plans and manpower of the Internal Control Office
- 11. To appoint, transfer, dismiss, and undertake annual evaluation of the Chief Audit Executive and review the independence of Internal Control Office.
- 12. To review the efficiency and effectiveness of internal control and risk management focusing on the issue of information technology.
- 13. In performing the duty of the Audit Committee, if there is transaction or act which could extremely affect the Company's financial status and the Company's performance, namely
 - · Transaction which lead to conflict of interest
 - Dishonest, extremely unusual or remiss internal control system
 - Breaking the securities and exchange law, regulations of the exchange or laws relating to business of the Company

The Audit Committee has to report it to the Board of Directors so as to modify and revise within prescribed time. If the Audit Committee or executives does not modify and revise within the prescribed time, the Audit Committee is able to report this transaction or act to the Securities and Exchange Commission or the Stock Exchange of Thailand.

14.To perform any other act assigned by the Board of Directors with approval of the Audit Committee.

The external auditor's employment contract may be revoked if it does not perform, neglects its duties, or is engaged in malfeasance.

2. Nomination and Remuneration Committee (NRC)

The Nomination and Remuneration Committee consists of at least three persons, and more than half must be independent directors. At least one member must be knowledgeable or experienced in personnel management. The Chairman of the committee must be an independent director.

Name		Position
1. Prof. Dr. Chai-anan	Samudavanija	Chairman and Independent Director
		(Resigned on January 26, 2017)
2. Mr. Suthep	Wongvorazathe	Member and Independent Director
3. Pol.Lt.Gen. Chaiwat	Chotima	Member and Independent Director
4. Lt.Gen.Apirat	Kongsompong	Member and Independent Director
5. Mr. Surin	Chiravisit	Member and Secretary, Independent Director
		(Appointed as Chairman of NRC on January 26, 2017)

Scopes, duties and responsibilities

- 1. Define required qualifications for potential Directors and President and Chief Executive Officer.
- 2. Recommend qualified candidates for the positions of Directors and President and Chief Executive Officer to the Board of Directors.
- 3. Define criteria of remuneration for Directors and the President and Chief Executive Officer.
- 4. Submit the remuneration for Directors to the Board of Directors and then for the shareholders for approval.
- 5. Submit the remuneration for the President and Chief Executive Officer to the Board of Directors for approval.
- 6. Review and summarize the President and Chief Executive Officer's succession plan every year and report it to the Board of Directors.
- 7. Perform duties assigned by the Board of Directors.

3. Enterprise-wide Risk Management Committee (ERMC)

The Enterprise-wide Risk Management Committee is responsible for the appropriate management of the Company as assigned by the Board of Directors in written form. The Committee has four members, at least one of whom must be knowledgeable in risk management.

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	Name	
	Mr. Prasong Poontaneat	Chairman and Inde

Mr. Prasong Poontaneat
 Mr. Visit Vongruamlarp
 Dr. Prasert Sinsukprasert
 Chairman and Independent Director
 Member and Non-executive Director
 Member and Non-executive Director

4. Mr. Chaiwat Kovavisarach Member and Secretary, Executive Director

Scopes, duties and responsibilities

- 1. Set policy, strategies and objectives of the enterprise-wide risk management.
- 2. Develop enterprise-wide risk management system in view of continuous efficiency.
- 3. Promote enterprise-wide risk management at all levels of the organization.
- 4. Ensure that the Company has appropriate and efficient risk management.
- 5. The Chairman of the Enterprise-wide Risk Management Committee reports the findings to the Board of Directors' next meeting.

Position

6. Perform duties assigned by the Board.

4. Corporate Governance Committee (CGC)

The Corporate Governance Committee consists of four members with at least one expert in corporate governance principles in line with international standards. The Chairman of the committee must be an independent director.

Position

Name		1 OSITION
1. Mr. Surin	Chiravisit	Chairman and Independent Director
2. General Vitch	Devahasdin	Member and Independent Director
3. Adm. Sucheep	Whoungmaitree	Member and Independent Director
4. M.L. Puntrik	Smiti	Member and Non-executive Director
5. Mr. Chaiwat	Kovavisarach	Member and Secretary, Executive Director

Scopes, duties and responsibilities

Name

- 1. Recommend the implementation of corporate governance to the Board of Directors
- 2. Monitor the work of the Committee and the management in compliance with the principles of corporate governance.
- 3. Review the implementation of corporate governance by comparing it with international standards and recommend it to the Board of Directors for continual follow-ups.
- 4. Provide the corporate governance policy to the Company's corporate governance working team.
- 5. Perform duties assigned by the Board.

Summary of Board and Sub-committees meeting attendance

			Meeting	ı attenda	ince / to	otal (tin	nes)		
Names		Board of Directors			Sub-committees				Remarks
		Meetings	Seminar	Total	AC	NRC	ERMC	CGC	
1. Mr. Pichai	Chunhavajira 1/	17/17	2/2	19/19	-	-	-	-	
2. Prof. Dr. Chai-Anan	Samudavanija	5/17	1/2	6/19	-	0/4	-	-	
3. Mr. Surin	Chiravisit 2/	17/17	2/2	19/19	-	4/4	2/2	3/3	
4. Mr. Suthep	Wongvorazathe 3/	17/17	2/2	19/19	12/12	4/4	-	-	
5. Pol.Lt. Gen. Chaiwat	Chotima 4/	17/17	2/2	19/19	7/9	4/4	-	-	
6. Lt.Gen. Apirat	Kongsompong	14/17	2/2	16/19	-	4/4	-	-	
7. Adm. Sucheep	Whoungmaitree	17/17	1/2	18/19	-	-	-	3/3	
8. Mr. Krisada	Chinavicharana 5/	14/17	1/2	15/19	7/9	-	2/2	-	
9. Mr. Prasong	Poontaneat 6/	15/17	1/2	16/19	-	-	5/6	-	
10 Mr. Visit	Vongruamlarp	17/17	2/2	19/19	-	-	6/6	-	
11. M.L. Puntrik	Smiti	16/17	1/2	17/19	-	-	-	2/3	
12. Mrs. Prisana	Praharnkhasuk 4/	10/13	1/2	11/15	7/9	-	-	_)
13. Gen. Vitch	Devahasdin 7/	12/13	1/2	13/15	-	-	-	3/3	Appointed on April 5, 2016
14. Dr. Prasert	Sinsukprasert 8/	11/13	2/2	13/15	-	-	4/4	_	J
15. Mr. Chaiwat	Kovavisarach	17/17	2/2	19/19	-	-	6/6	2/3	

Directors whose terms were completed and resigned directors in 2016

1. Asst.Prof.Dr. Anusor	n Tamajai	4/4	-	4/4	3/3	-	-	- ¬	
2. Mrs. Arunporn	Limskul	4/4	-	4/4	3/3	-	-	-	Completed term on April 5, 2016
3. Dr. Vikrom	Koompirochana	4/4	-	4/4	-	-	-	ر ـ	

Note

 $^{^{\}mbox{\tiny 1/}}$ Chairman did not join any Sub-committees as member.

^{2/} Appointed as Chairman of CGC and dismissed from Chairman of ERMC on April 26, 2016

^{3/} Appointed as Chairman of AC on April 26, 2016

^{4/}Appointed as Member of AC on April 26, 2016

 $^{^{\}mbox{\tiny 5/}}$ Appointed as Member of AC and dismissed from Member of ERMC on April 26, 2016

^{6/}Appointed as Chairman of ERMC on April 26, 2016

^{7/} Appointed as Member of CGC on April 26, 2016

^{8/} Appointed as Member of ERMC on April 26, 2016

Assessment of directors' performances

The Board completes business performance assessment forms at least once a year, which the Company Secretary will arrange for delivery and collection for making an executive summary or the results for presentation at a Board meeting. Directors jointly consider business performance and suggest improvements. Assessment scores are given in percent, with >85% = excellent, >75% = very good, >65% = good, $\le 50\%$ = fair, and ≤ 50 = need improvement. The assessment is summarized below:

1. Individual directors

- Self-assessment relies on three topics, namely responsibility for their roles, training and self-development, and conformance to the corporate governance policy. The overall summary of assessment findings showed an average score of 95.09%, regarded as excellent.
- Cross-assessment by group (3-4 unnamed directors assessing another director) relies on two topics, namely responsibility for their roles and directors' independence. The overall summary of assessment findings showed an average of 96.44%, regarded as excellent.
- 2. Entire Board relies on topics, namely Structure and Skills, Strategic Direction and Planning, Policy, Monitoring and Supervision, Accountability, CEO and Succession, Leadership and Teamwork, and Agendas, Papers, Meetings and Minutes. The overall summary of assessment findings showed an average score of 96.19%, regarded as excellent.
- 3. Sub-committees relies on responsibilities and meetings; the evaluations of all Committees were as follows:
 - Audit Committee, the group evaluation had the average score of 95.80%, rated excellent.
 - Nomination and Remuneration Committee, the group evaluation had the average score of 91.10%, rated excellent.
 - Corporate Governance Committee, the group evaluation had the average score of 95.30%, rated excellent.
 - Enterprise-wide Risk Management Committee, the group evaluation had the average score of 99.58%, rated excellent.

Board Remuneration

- 1) The Board's remuneration comes in three forms: monthly (retainer) remuneration, meeting allowances, and bonus. Such remuneration, made comparable to those of the same industry, is linked to the performance of the Company and individual directors.
- 2) Directors with additional responsibilities, including subcommittee service, shall receive additional remuneration in proportion to such responsibilities.
- 3) In line with good corporate governance, the Board has instituted the reporting of individual directors' remuneration and the management's remuneration which includes disclosure of the remuneration of directors or executives, or both, if they are appointed to other positions in subsidiaries in the annual report.

Policy on Director Remuneration

In setting directors' compensation, Bangchak takes into account suitability for duties, assigned responsibility, and parity with SET-listed industry and business peers of comparable sizes. Such compensation must be attractive enough to inspire quality performance to achieve Bangchak's goals and business directions under a transparent process to bolster shareholders' confidence.

Director Remuneration approved by the 2016 AGM of April 5, 2016, are as follows:

1) Monthly remuneration and meeting allowance

The Board of Directors	Monthly Remuneration (Baht/person)	Meeting Allowance (Baht/person/time) (Only for attending
The Board of Directors	30,000	30,000
The Sub-Committees		
1. The Audit Committee	10,000	15,000
2. The Nomination and Remuneration Committee	-	15,000
3. Enterprise-wide Risk Management Committee	-	15,000
4. Corporate Governance Committee	-	15,000
Other committees that may be appointed in the future by the Board as seen fit and necessary	-	15,000

The Chairman of the Board of Directors and the Chairman of the Sub-Committees shall receive monthly remuneration and meeting allowances higher than those of members by 25 percent, whilst the Vice Chairman of the Board of Directors shall receive monthly remuneration and meeting allowances higher than those of members by 12.5 percent respectively.

2) Bonuses for Directors

0.75 percent of the net profit, but not over 3,000,000 Baht/year per director. The calculated amounts are to reflect individual periods of service. Moreover, the Chairman and Vice Chairman shall receive the bonus higher than those of members by 25 percent and 12.5 percent respectively.

Other Expenses

- 1) Other Essential Business Expenses
 - Position car for the Chairman's business convenience
 - Credit card for the Chairman's business use (up to 500,000 Baht/month)
 - Fleet card for each director's business use (up to 400 liters/month/director)

2) Others

- Annual physical check-ups
- Directors' & Officers' liability insurance (limit of liability: 250 million Baht)

In 2016, the individual remuneration of Directors was as follows:

1	Nom			Remuneration in Baht					
	Nam	es	BOARD	AC	NRC	ERMC	CGC	Bonus	Total
1	. Mr. Pichai	Chunhavajira	1,162,500	-	-	-	-	2,575,596.06	3,738,096.06
2	. Prof. Dr. Chai-Anan	Samudavanija	607,500	-	-	-	-	2,318,036.45	2,925,536.45
3	. Mr. Surin	Chiravisit	1,046,250	-	60,000	37,500	56,250	2,249,589.11	3,449,589.11
4	. Mr. Suthep	Wongvorazathe	930,000	353,750	60,000	-	-	2,060,476.85	3,404,226.85
5	. Pol.Lt. Gen. Chaiwat	t Chotima	930,000	185,000	60,000	-	-	2,060,476.85	3,235,476.85
6	. Lt.Gen. Apirat	Kongsompong	810,000	-	60,000	-	-	2,060,476.85	2,930,476.85
7	. Adm. Sucheep	Whoungmaitree	870,000	-	-	-	45,000	1,236,286.11	2,151,286.11
8	. Mr. Krisada	Chinavicharana	780,000	185,000	-	30,000	-	214,515.40	1,209,515.40
9	. Mr. Prasong	Poontaneat	840,000	-	-	90,000	-	2,060,476.85	2,990,476.85
1	0. Mr. Visit	Vongruamlarp	930,000	-	-	90,000	-	1,507,252.93	2,527,252.93
1	1. M.L. Puntrik	Smiti 1/	840,000	-	-	-	30,000	366,934.23	1,236,934.23
1	2. Mrs. Prisana	Prahamkhasuk 2/	630,000	185,000	-	-	-	-	815,000.00
1	3. Gen. Vitch	Devahasdin 2/	660,000	-	-	-	45,000	-	705,000.00
1	4. Dr. Prasert	Sinsukprasert 2/	660,000	-	-	60,000	-	-	720,000.00
1	5. Mr. Chaiwat	Kovavisarach	930,000	-	-	90,000	30,000	2,060,476.85	3,110,476.85
	тот	AL	12,626,250	908,750	240,000	397,500	206,250	20,770,594.54	35,149,344.54
0	irectors whose ter	ms were complete	ed and resign	ed director	rs in 2016				
1	. Asst.Prof.Dr. Anusorn	Tamajai 3/	240,000	106,250	-	-	-	2,060,476.85	2,406,726.85
2	. Mrs. Arunporn	Limskul 3/	240,000	85,000	-	-	-	2,060,476.85	2,385,476.85
3	. Dr. Vikrom	Koompirochana 3/	240,000	-	-	-	-	2,060,476.85	2,300,476.85
	тотл	AL	720,000	191,250	-	-	-	6,181,430.55	7,092,680.55

Notes

^{1/} M.L. Puntrik Smiti transferred her bonus to the Social Security Fund in compliance with the regulations of the Office of Social Security Fund.

^{2/} Appointed on April 5, 2016

^{3/} Completed term on April 5, 2016

Bonuses for directors whose terms were completed and who resigned in 2015 (performance in 2015 paid in 2016)

Names	BONUS (Baht)	Remarks
Mr. Krairit Nilkuha	553,223.92	Completed term on April 8, 2015
Mr. Sarakorn Kulatham	795,965.02	Resigned on May 22, 2015
Mr. Wirat Uanarumit	795,965.02	Resigned on May 22, 2015
Mr. Auttapol Rerkpiboon	513,707.92	Resigned on May 22, 2015
Mr. Nakorn Silpa-archa 1/	587,094.77	Resigned on October 13, 2015
TOTAL	3,245,956.65	

Notes:

Comparison of Remuneration of Directors in 2015 and 2016

Remuneration	20)15	20	2016		
Remuneration	Directors	Baht	Directors	Baht		
Meeting allowance	15	15,735,000	15	15,290,000		
Bonus	15	3,018,871	15	30,197,982		
TOTAL		18,753,871		45,487,982		

Note:

Bonuses for 2015 performance under the resolution of the 2015 AGM, held on April 8, 2015. (00.75 percent of the net profit, but not over 3,000,000 Baht/year per director. The calculated amounts are to reflect individual periods of service. Moreover, the Chairman and Vice Chairman shall receive the bonus higher than those of members by 25 percent and 12.5 percent respectively.)

Directors' Remuneration due to directorship of subsidiaries, associates, and other companies in 2016

		Total Remuneration in 2016 (Baht)					
Company	Name	Monthly	Meeting	Popus	Subcommittee	Net	
		Remuneration	Allowance	Bonus	Remuneration	total	
BCPG	Mr. Pichai Chunhavajira	381,250	356,250	-	-	737,500	
	Mr. Chaiwat Kovavisarach	101,250	101,250	-	93,750	296,250	
					(Executive and		
					Investment		
					Committee)		
NIDO	Mr. Chaiwat Kovavisarach	81,382.98 AUD\$	-	-	-	2,115,957	
		(per annum)					

Notes:

- BCPG: BCPG Public Company Limited
- NIDO: Nido Petroleum Limited
- Exchange rate AUD\$ 1 equivalent to approximately Baht 26
- Mr. Chaiwat Kovavisarach's director remuneration paid by BCPG as from October 2016, after BCPG listing on SET, is under the regulation on the appointment of a director with entitlement for compensation in a company with joint-venture partners.

¹/Mr. Nakorn Silpa-archa transferred his bonus to the Social Security Fund in compliance with the regulations of the Office of Social Security Fund.

2. Executive Management

The Board has set the roles and duties of the management in Bangchak's day-to-day business management in line with the company's policies, plans, goals, regulations, and rules, as well as Board resolutions, within the approved budget. To this end, they are to conform strictly with integrity and care to maintain Bangchak's and its shareholders' interests to the best of their ability under corporate governance. They are to report updates on conformance to such resolutions together with key performance outcomes to the Board at least monthly. Today the management consists of 14 persons, No. 1 through No. 9 of whom are regarded as executives under SEC's definition (As of December 2016):

Name		Position
1. Mr. Chaiwat	Kovavisarach	President and Chief Executive Officer
2. Mr. Wattana	Opanon-amata	Chief Operation Officer and First Senior Executive Vice President,
		Refinery Business Group
3. Mr. Yodphot	Wongrukmit	Senior Executive Vice President, Corporate Management
		and Sustainability Development
4. Mr. Bundit	Sapianchai	Senior Executive Vice President
5. Mr. Surachai	Kositsareewong	Senior Executive Vice President,
		Accounting and Finance
6. Mr. Pongchai	Chaichirawiwat	Chief Marketing Officer and Senior Executive Vice President,
		Marketing Business Group
7. Mr. Somchai	Tejavanija	Senior Executive Vice President, Natural Resource and Business
		Development
8. Mr. Kiatchai	Maitriwong	Senior Executive Vice President, Bio Based Products Business Unit
9. Mr. Chalermchai	Udomranu*	Senior Executive Vice President, Refinery Business Unit
10.Mr. Phichet	Emwattana	Executive Vice President, Planning and Trading Business
11.Mr. Pichit	Wongrujiravanich	Executive Vice President, Internal Control
12.Mr. Dhanajit	Makarananda	Executive Vice President, Refinery Project Development
13.Mr. Chokchai	Atsawarangsalit	Executive Vice President, Marketing Business and Oil Terminal
14.Mr. Viboon	Wongsakul	Executive Vice President, Retail Business and Marketing Support

^{*}Appointed as senior executive vice president, effective from November 1, 2016.

Succession planning and management development

Under the Board's policy on the President and Chief Executive Officer's nomination, as long as he or she is suitable, an external or internal person may enter the selection process under Bangchak's given circumstances. Suitable persons are selected by NRC, which defines the nomination criteria and method.

To optimize benefit in the selection of the President and Chief Executive Officer, the Board assigns the management to appoint a "Personnel Development and Administration Panel" (PDA) to oversee training and competency development of senior executives. Also, the Board has laid down additional development guidelines for rotation of duties of senior management team members to promote all-round understanding, experience, and preparedness for corporate administration. Any executive from Senior Vice President and Chief Executive Officer upward may apply for nomination as President and Chief Executive Officer if they command the required qualifications.

Procedure

- 1. Define management positions requiring succession planning (President and chief executive officer and all senior executive vice presidents)
- 2. NRC defines the required competency and experience for each position
- 3. NRC specifies the qualified executives to succeed each position
- 4. Assign the President and chief executive officer to assess the performance and competency of qualified executives matching the required competencies needed so as to develop individual development plans (IDPs) to close the competency gaps
- 5. Assign PDA to look after the training and competency development of qualified executives
- 6. The President and chief executive officer institutes rotation of duties of qualified executives and lets senior executive vice presidents attend Board meetings so that they may understand and gain experience to be prepared for corporate administration as a whole
- 7. The President and chief executive officer periodically reports to NRC the performances and development outcomes under IDPs of qualified executives
- 8. Each year, NRC revises and summarizes succession planning outcomes for the President and chief executive officer and senior executive vice presidents for the Board's acknowledgment.

Nomination and appointment of the President and Chief Executive Officer

NRC nominates and reviews the qualifications of senior executives and others under NRC-set guidelines for the Board to appoint as President and chief executive officer. These include the legally required director qualifications and those required by Bangchak's regulations, together with essential skills and experience in Bangchak's best interests and alignment with Bangchak's business directions. The Board appointed Mr. Chaiwat Kovavisarach President and chief executive officer, effective from January 1, 2015, on account of his knowledge of investment in new businesses abroad and his sound financial knowledge, both of which align with Bangchak's business directions.

Performance appraisals of the President and Chief Executive Officer and Senior Executives

Bangchak measures performance outcomes as KPIs (key performance indexes), including its own performance, common practices of peer listed companies of comparable sizes, roles and responsibilities, executive development, and overall economic circumstances. The President and chief executive officer must present his performance in various aspects, including the management of the refinery and marketing business units, business development, and organizational development, while discussing current management outcomes covering successes and obstacles, including the ability to expand business opportunities and competition, social and environmental policies, together with responses to public policies. NRC is to decide on the President and chief executive officer's compensation, which is then forwarded to the Board for approval. The President and chief executive officer earns benefits as the top management executive in addition to the compensation as a director.

Remuneration of Executives

- 1) Executives shall receive short-term remunerations, i.e. salary and bonus, and long-term ones—including employee stock option program (ESOP) and employee joint investment program (EJIP)—which the Board will consider on a case by case basis. These payments serve to motivate executives, are on par with the industry practice, and correlate to each person's key performance index (KPI).
- 2) Executives who serve as a director in a joint venture will be compensated according to the Company's regulations on the appointment of directors of joint ventures. As for the President and chief executive officer who is tasked with additional roles and responsibilities, as a subcommittee member for instance, will be paid according to the Board's decision based on merit of that task or responsibility.
- 3) The Board has ordered a report on the remuneration of executives—including the disclosure of payments made to executives who are appointed a role in a subsidiary—to be included in the Company's annual report in compliance with the Good Governance Policy.

SEC (President and Chief Executive Officer & Senior Executive Vice Presidents)

Domunovation		2015	2016		
Remuneration	Persons	Baht	Persons	Baht	
Salary	8	44,541,334.00	9	48,969,437.00	
Bonus & Retirement pay	8	28,540,391.00	9	39,037,293.00	
Provident fund	8	3,807,850.00	9	4,214,016.00	
Total		76,889,575.00		92,220,746.00	

3. Directors and executives assigned to other companies

The Board appoints representative directors of subsidiaries, associates, and joint ventures under the guidelines for appointment of representative directors in joint ventures. To this end, the President and chief executive officer selects fully qualified persons under such guidelines for the Board's appointment. Each subsequent change is to be reported by the President and chief executive officer for the Board's acknowledgment. Today, the following directors and executives are assigned as directors of subsidiaries, associates, and joint ventures:



● = Chairman ○ = Vice Chairman ≎ = Managing Director/President / = Director

Subsidiaries

Bangchak Green Net Co., Ltd. (BGN)

Bangchak Biofuel Co., Ltd. (BBF)

Bangchak Solar Energy Co., Ltd. (BSE)

Bangchak Solar Energy (Prachinburi) Co., Ltd. (BSE-PRI)

Bangchak Solar Energy (Chaiyaphum1) Co., Ltd. (BSE-CPM1)

Bangchak Solar Energy (Buriram) Co., Ltd. (BSE-BRM)

Bangchak Solar Energy (Buriram 1) Co., Ltd. (BSE-BRM1)

Bangchak Solar Energy (Nakhonratchasima) Co., Ltd. (BSE-NMA)

BSE Energy Holdings Pte. Ltd. (BSE Energy Holding)

BCPG Public Company Limited (BCPG)

BCPG Biopower 1 Co., Ltd. (BCPG Bio Power 1)

BCPG Biopower 2 Co., Ltd. (BCPG Bio Power 1)

BCPG Investment Holding Pte. Ltd. (BCPG Investment Holding)

Bangchak Retail Co., Ltd. (BCR)

Bangchak Bioethanol (Chachoengsao) Co., Ltd. (BBE-CCO)

BCP Energy International Pte.Ltd. (BCPE)

BCP Innovation Pte.Ltd. (BCPI)

BCP Trading Pte. Ltd. (BCPT)

Nido Petroleum Limited (NIDO)

Associated Companies

Ubon Bio Ethanol Co., Ltd. (UBE)

Ubon Bio Gas Co., Ltd. (UBG)

Ubon Agricultural Energy Co., Ltd. (UAE)

NP Bio Energy Co., Ltd. (NPE)

Bongkot Marine Services Co., Ltd. (Bongkot Marine)

Oam Suk Social Enterprise Co., Ltd. (Aom Suk)

Other Companies

Fuel Pipeline Transportation Co., Ltd. (FPT)

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4. Company Secretary

Under the Securities and Exchange law (Articles 89/15 and 89/16), Board Meeting No. 6/2009 appointed Ms. Pakawadee Janrayapes, Senior Vice President, Corporate Compliance (renamed as "Legal and Corporate Compliance" as from February 1, 2017), as Company Secretary, effective from July 1, 2009. Her profile is as follows:

Ms. Pakawadee Junrayapes

- Age 55
- Education / Training
 - Master of Law, Ramkhamhaeng University
 - Bachelor of Law, Thammasat University
 - Thai Barrister at law, The Institute of Legal Education Thai Bar Association Under The Royal Patronage
 - Certificate in Business Law, Thammasat University
 - Certificate in English for Specific Careers (Law), Sukhothai Thammathirat Open University
 - Executive Development Program (EDP 2012), Mnistry of Finance
 - Company Secretary Program (CSP), Thai Institute of Directors (IOD)
 - Director Certification Program (DCP142/2010), Thai Institute of Directors (IOD)
 - Successful Formulation and Execution of Strategy (SFE16/2012), Thai Institute of Directors (IOD)
 - Thailand and the ASEAN Economic Community class 4/2013, King Prajadhipok's Institute
- Experience

The Bangchak Petroleum Public Company Limited

2015 - present: Senior Vice President, Corporate Compliance, and Company Secretary

2011 - 2015 : Vice President, the Secretary to The Board of the Directors Office, and Company Secretary

2009 - 2011 : Senior Manager, the Secretary to The Board of the Directors Office, and Company Secretary

2007 - 2009 : Senior Manager, Legal Office

2004 - 2007 : Manager, Legal Office

2002 - 2004 : Manager, Litigation Division

2002 - 2002 : Manager, Legal Office

Others

2006 - 2008 : Personal Specialist of National Legislative Assembly Member and Sub-Committee on Energy

- Other directorship positions / Other positions at present
 - Other listed companies
 - None -
 - Non-listed companies
 - None -
- Shareholding in the Company: 12,000 shares or 0.000872% (As of September 9, 2016)
- · Familial relationship between directors and executives: None

Scope of duties

- 1. Prepare and maintain key documents, including the Board roster, meeting notices, minutes of Board meetings and shareholders' meetings, annual reports, and reports of vested interests
- 2. Schedule Board meetings and shareholders' meetings under the law and company regulations. Coordinate conformance to the resolutions of Board and shareholders' meetings
- 3. Advise and support the performance of directors and the management under the law and relevant regulations
- 4. Coordinate between the Chairman and the President and chief executive officer together with his management team, which includes coordination between Bangchak and its shareholders
- 5. Encourage the directors, management, and employees to conform to corporate governance
- 6. Perform other lawful tasks and Board-assigned tasks.

5. Personnel

On December 31, 2016, the Company had a total headcount of 1,196:

Employee	Persons
The President and Chief Executive Officer (Corporate Compliance, Corporate	79
Communication, Corporate Strategy and Business Portfolio, Internal Control, Safety and	
Health Division)	
Refinery Business Group	551
Marketing Business Unit	343
Bio Based Products Business Unit	17
Natural Resource and Business Development	22
Accounting and Finance	70
Corporate Management and Sustainability Development	114

Significant changes in number employee for the past three years

None (Total employee in year 2016 were 1,196 persons, which increased slightly to 1,052 persons in year 2014)

Remuneration of employee

Bangchak's policy provides for suitable compensation to employees in line with their performance outcomes. For the short term, this compensation is the bonus, in turn linked to company performance. For the long term, this compensation means the provident fund, a form of welfare that gives employees financial guarantee.

Employee receive remuneration in the form of salary; shift, night shift, overtime, and upcountry pay; operation at the refinery; and discipline remuneration. Employees have the right to apply for membership of "Bangchak Public Company Limited Provident Fund" by choosing the accumulated at a rate of five percent or ten percent of the salary and the Company will pay the same rate to the Fund. In 2016, the Company paid remuneration to the personnel in the form of salary, shift, night shift, overtime, upcountry, refinery stand-by pay, discipline pay, special bonus and other welfare, with a total of 1,628.57 million Baht. The remuneration for President&CEO and Senior executive vice presidents upward is 5.36% of total remuneration of employee.

Personnel development

Bangchak focuses on continuing personnel development for greater operating capability matching corporate goals, policies, and directions—apart from international competitiveness to accommodate the growth of AEC (ASEAN Economic Community). To this end, it appointed a "Personnel Development and Administration Panel" (PDA) to endorse personnel development, define guidelines for personnel administration, define an approach for corporate culture development, and forge a sound employee attitude so that the efficiency of Bangchak's corporate administration may be on a par with business peers and in keeping with its business status and goals. In 2016, training on various topics was provided for staff, with an average training period of 44.92 hours/person/year. Part of the training involved wastewater treatment techniques and environmental laws and industrial environmental management. (Training details are included in the Sustainability Report under the "Employee Stewardship" and "Water Pollution")

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Board of Directors



Chairman and Director with Authorized Signature

- Age 68
- · Education / Training

(Started on April 24, 2012)

- · B.A. (Accounting), Thammasat Univesity
- M.B.A. (Business Administration), Indiana University of Pennsylvania,
- · Honorary Ph.D. (Accounting), Thammasat University
- · Honorary Ph.D. (Financial Management), Mahasarakham University
- · Honorary Ph.D. (Financial Management), Sripatum University
- Public and Private Joint Program (Class 13), National Defence College Certified Auditor
- Director Accreditation Program (DAP49/2006), Thai Institute of Directors (IOD)
- Director Certification Program (DCP143/2011), Thai Institute of Directors (IOD)
- Capital Market Academy, Class 5
- Experience (5 years past experiences)
- 2001 2013 : Director, PTT Exploration and Production Public Company Limited
- 2010 2012 : Chairman, Thaioil Public Company Limited
 2008 2012 : Chairman, Thaioil Ethanol Company Limited
- 2009 2011 : Director, PTT Public Company Limited
 - : Director, IRPC Public Company Limited
- 2005 2011 : Director, Thai Airway International Public
- Company Limited
- 2000 2011 : Director, Thaioil Power Company Limited
 1008 2011 : Director The Bangabak Petrology
- 1998 2011 : Director, The Bangchak Petroleum
 - Public Company Limited
- · Other directorship positions / other positions at present
- Other listed companies
- Chairman, BCPG Public Company Limited
- · Non listed companies
- Member of Board, Bank of Thailand
- President, Thailand Boxing Association
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- · Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Prof. Dr. Chai-Anan Samudavanija

Vice Chairman (Independent Director) and Director with Authorized Signature (Started on April 24, 2003) Chairman of the Nomination and Remuneration Committee

- Age 72
- · Education / Training
- · Doctorate degree, University of Wisconsin (Madison)
- Master's degree, University of Wisconsin (Madison)
- · Bachelor's degree, Victoria University of Wellington, New Zealand
- Certificate, Social Planning, United Nations Asian Institute
- Honorary doctorate (development administration), National Institute of Development Administration
- Honorary doctorate, Edgewood University
- Honorary doctorate and outstanding alumnus, University of Wisconsin (Madison)
- Honorary degree, National Defence College
- Honorary doctorate, Chiang Mai University
- Director Certification Program (DAP82/2010), Thai Institute of Directors (IOD)
- Role of the Compensation Committee (RCC11/2010), Thai Institute of Directors (IOD)
- Advanced Security Management Program (ASMP 5), the Association National Defence College of Thailand under the Royal Patronage of His Majesty the King.
- Experience (5 years past experiences)
- 2014 2015 : Member, the National Reform Council
- 2006 2008 : Member, National Legislative Assembly
 - : Chairman, Standing Committee of Education and Sport
 - : Chairman, Office of the Basic Education Commission
 - : Director, College of Management, Mahidol University
- 2005 2009 : President, The Royal Institute
 - : Chairman, Electricity Generating Authority of Thailand
 - : Chairman, Electricity Generating Public Company Limited
 - : Chairman of Audit Committee, Krungthai Bank Public Company Limited
 - : Director, State Enterprise Policy Committee
 - : Executive Director, National Research Council
 - : Director, Office of the Public Sector Development Commission (OPDC)
- Other directorship positions / other positions at present
- · Other listed companies
- None -
- · Non-listed companies
- Chairman, Institute of Public Policy Studies
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- · Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Vice Chairman (Independent Director) and Director with Authorized Signature (Started on April 8, 2010) Chairman of the Corporate Governance Committee

- Age 69
- · Education / Training
- · LL.M., Chulalongkorn University
- · LL.B., Ramkhamhaeng University
- · B.Ed., Srinakharinwirot University
- Investigation of the criminal case program, Batch#44, The Royal Thailand Police
- · Senior Administrator Program, Batch#29, Ministry of Interior
- Senior Executive Program, Batch#21, Office of The Civil Service Commission
- The National Defence Course, Class 40, National Defence College
- Politics and Government in Democracy for Executives (Class 6), King Prajadhipok's Institute
- Director Certification Program (DCP136/2010), Thai Institute of Directors (IOD)
- How to Develop a Risk Management Plan (HRP1/2012), Thai Institute of Directors (IOD)
- Successful Formulation and Execution of Strategy (SFE17/2013), Thai Institute of Directors (IOD)
- Role of the Nomination and Governance Committee (RNG4/2013),
 Thai Institute of Directors (IOD)
- Advanced Security Management Program (Class 5), The Association National Defence College of Thailand under the Royal Patronage of His Majesty the King.
- Public*private social peace and order management training course, Class 2, Royal Thai Police
- Experience (5 years past experiences)
- 2006 retirement : Secretary General, Social Security Office
- 2005 : Deputy Permanent Secretary, Ministry of Labor,
 Office of the Permanent Secretary for Ministry of Labor
- · Other directorship positions / other positions at present
- Other listed companies
- Senior Consultant, Amata Corporation Public Company Limited
- Non-listed companies
- Member, National Reform Steering Assembly
- Consultant, National Broadcasting and Telecommunication
- Director and Vice President, Bangkok Suvanabhumi University Council
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- · Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



- Age 68
- · Education / Training
- · Master of Business Administration, University of Wisconsin, U.S.A.
- · Bachelor of Business Administration, University of Wisconsin, U.S.A.
- Director Accreditation Program (DAP48/2005), Thai Institute of Directors (IOD)
- Experience (5 years past experiences)
- 2003 2016 : Chairman of Audit Committee and Independent director, Chumporn Palm Oil Industry Public Company Limited
- 2010 2011 : Chairman of the Executive Board, Export-Import Bank of Thailand
- 2009 2011 : Director, Board of Investment of Thailand
- Other directorship positions / other positions at present
- Other listed companies
- Chairman, Khonburi Sugar Public Company Limited
- Chairman, Seamico Securities Public Limited Company
- Chairman, M.K. Real Estate Development Public Company Limited
- Non-listed companies
- Director, Asia Kangnam Company Limited
- Chairman of management committee, KT ZMICO Securities Company Limited
- Director, New Corp Company Limited
- Director, Buntudthong Pattana Company Limited
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None





Independent Director and Director with Authorized Signature (Started on April 9, 2014)

- Age 64
- · Education / Training
- M.Pol.Sc, Eastern New Mexico University, United States of America
- . B.Pol.Sc. Thammasat University
- Top Executive program, Capital Market Academy, class 15
- Advance Security Management Program (3/2011), National Defence College
- The Joint State Private Sector Course (19/2006), National Defence College
- Advanced Police Administration Program, class 17, Institute of Police Administration Development
- Conference concerning Narcotics and launder money Control in others countries i.e. USA, UK, Canada, Germany, Australia, Japan, Hong Kong etc
- Director Certification Program (DCP194/2014) Thai Institute of Directors (IOD)
- Financial Statements for Directors (FSD26/2014) Thai Institute of Directors (IOD)
- Executive Program Class 7, Thailand Energy Academy
- Experience (5 years past experiences)
- 2011 : Commissioner , Narcotics Suppression Bureau
- 2010 : Inspector-General (Inspection Division 8)
- · Other directorship positions / other positions at present
- · Other listed companies
- None -
- Non-listed companies
- Secretary General, Thailand Boxing Association
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Lt.Gen.Apirat Kongsompong

Independent Director and Director with Authorized Signature (Started on September 26, 2014)

- Age 56
- Education / Training
- Master Degree, Master of Business Administration (MBA), Southeastern University, USA
- Bachelor Degree, Chulachomklao Royal Military Academy, Year 1985
- Army Command and General Staff College, Course 47, Year 2006
- Army Command and General Staff College, Course 73, Year 1995
- · Army Aviation Cadet Course Class 25, Year 1991
- Infantry Officer Advance Course, FT.Benning, USA, Year 1989
- American Language Course, Lackland, USAF BASE, USA, Year 1988
- Experience (5 years past experiences)
- 2016 Present : 1st Army Area Commander
- 2015 : 1st Corps Commander
- 2014 : 1st Army Area Deputy Commander
 - : Commanding General, The 1st Division,
 - The King's Guard
- 2013 : Commanding General, 15th Military Circle
- 2012 : Commanding General, 11th Infantry Division
- 2011 : Deputy Commanding General, The 1st Division,
 - The King's Guard
- Other directorship positions / other positions at present
- Other listed companies
- None -
- · Non-listed companies
- 1st Army Area Commander
- Members for the National Legislative Assembly
- Chairman, the Government Lottery Office
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Adm. Sucheep Whoungmaitree

Independent Director and Director with Authorized Signature (Started on May 26, 2015)

- Age 60
- · Education / Training
- Naval Academy (Class 17)
- General Line Officer School (Chief of Navy Cadet)
- · Line Officers School
- · Naval Command & Staff College
- Naval War College
- · The National Defence College
- Electronics Warfare Course and Military Instructor Course, USA
- Field artillery battalion Course and Target Search programs, USA
- Director Certification Program (DCP221/2016), Thai Institute of Directors (IOD)
- Experience (5 years past experiences)
- 2016 Present : Commander-in-Chief, RTF Royal Thai Fleet
- 2015 : Deputy Chief of Staff, Royal Thai Navy
- 2014 : Commander, First Naval Area Command
- 2013 : Commander, Patrol Squadron
- 2011 : Academic Dean, Academic Branch Royal Thai Naval Academy
- Other directorship positions / other positions at present
- Other listed companies
- None -
- · Non-listed companies
- Commander-in-Chief, RTF Royal Thai Fleet
- Member of the National Legislative Assembly
- Director, The Bangkok Dock Company Limited
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Mr. Krisada Chinavicharana

Independent Director

(Started on November 23, 2015)

- Age 53
- · Education / Training
- · Master of Business Administration, M.B.A., USA
- · LL.B., Chulalongkorn University
- Diploma, National Defence College class 54
- Director Certification Program (DCP186/2014) Thai Institute of Directors (IOD)
- Senior Executive Development Program, Year 2010, Office of the Civil Service Commission (OCSC)
- Civil Service Executive Program (Class 56), Office of the Civil Service Commission (OCSC)
- Integrated Proactive Criminal Justice Administration Course, (Batch 4/2006), Office of Justice Affair
- Financial Instrument and Markets 2004, Harvard Business School
- Experience (5 years past experiences)
- 2012 2014 : Financial Policy Advisor, Fiscal Policy Office, Ministry of Finance
- 2009 2012 : Deputy Director-General, Fiscal Policy Office, Ministry of Finance
- · Board of Directors, Krungthai Bank Public Company Limited
- Board of Directors, of Electricity Generating Authority of Thailand (EGAT)
- · Board of Directors, Aeronautical Radio of Thailand LTD,.
- Board of Directors, Bangkok Commercial Asset Management Company Limited
- · Committee, Phayathai Asset Management Company Limited
- · Board of Directors, Islamic Bank of Thailand
- Advisor, Financial, Banking, and Financial Institution Committee
- Director, Windsor Hotel Company Limited
- Other directorship positions / other positions at present
- · Other listed companies
- None -
- Non-listed companies
- Director General, Fiscal Policy Office
- Board Member, The Bank of Thailand
- Member of National Reform Streering Assembly
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None





Independent Director and Director with Authorized Signature

(Started on April 5, 2016)

- Age 62
- · Education / Training
- M.B.A. Tarleton State University, U.S.A.
- BBA. (Accounting) Krirk University
- · BBA. Chulalongkorn University
- Certificate of Insurance, College of Insurance, London
- Sasin Senior Executive Program (SEP13), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Certificate of Completion CFO Certification Program, Federation of Accounting Professions under the Royal Patronage of His Majesty the King
- Certificate of NIDA-Wharton Executive Leadership Program, Wharton University of Pennsylvania
- Director Certification Program (DCP119/2009), Thai Institute of Directors (IOD)
- The Board's Role in Mergers and Acquisitions (M&A1/2011), Thai Institute of Directors (IOD)
- · Capital Market Academy, Class 14, Capital Market Academy
- PTT Executive Leadership Development, GE Crotonville, USA
- Financial and Fiscal Management Program for Senior Executive, Class 1
- Experience (5 years past experiences)
- 2015 2016 : Chairman, TOP Maritime Service Company Limited
- 2014 2015 : Executive Vice President, Finance and Accounting,

Thai Oil Public Company Limited

• 2009 - 2011 : Executive Vice President, Corporate Accounting,

PTT Public Company Limited

- Other directorship positions / other positions at present
- Other listed companies
- Director, Dhipaya Insurance Public Company Limited
- Non-listed companies
- Director, Siam Solar Power Company Limited
- Director, TOA Paint (Thailand) Co., Ltd.
- Director and Chairman of Managerial-Accounting Committee, Federation of Accounting Professions under the Royal Patronage of His Majesty the King
- Member in 10th Workmen's Compensation Fund Committee
- Director, Thai Credit Guarantee Corporation
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- · Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



General Vitch Devahasdin

Independent Director

(Started on April 5, 2016)

- Age 66
- · Education / Training
- Bachelor of Business Administration Major Management Sripatum University
- Chulachomklao Royal Military Academy, Class 22
- Armed Forces Academies Preparatory School, Class 11
- Vajiravudh College
- Experience (5 years past experiences)
- 2014 Present : Member, the National Legislative Assembly
- 2010 Present : Honorary Secretary, Royal Turf Club of Thailand
 - under the Royal Patronage
 : Director, Five Provinces Bordering Forest
 - Preservation Foundation
- 2015 : Petroleum Committee, Department of Mineral Fuels,
- Ministry of Energy
 2010 : Director, Industrial Estate Authority of Thailand
 - : Judge, Military Supreme Court
 - : Royal Guard on Special Assignments
 - : Chairman of the Advisory Board
- · Other directorship positions / other positions at present
- Other listed companies
- None
- · Non-listed companies
- Member, the National Legislative Assembly
 Honorary Secretary, Royal Turf Club of Thailand under the Royal
 Patronage
- Director, Five Provinces Bordering Forest Preservation Foundation
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Mr. Prasong Poontaneat

Director (Started on April 24, 2012)

Chairman of The Enterprisewide Risk Management Committee

- Age 57
- · Education / Training
- Ph.D. in Public Administration, Management for Development College, Thaksin University
- Master of Business Administration (Organization Management),
 Dhurakij Pundit University
- Bachelor of Business Administration in Accounting, Rajamangala University of Technology
- · Bachelor of Laws, Sukhothai Thammathirat Open University
- Director Certification Program (DCP76/2006), Thai Institute of Directors (IOD)
- Top Administrator Program (Class 49), Interior College, Prince Damrong Rajanupab Institute of Research and Development
- Senior Police Officers Course (Class 18), Police College
- Leader Program (Class 14), Capital Market Academy, The Stock Exchange of Thailand
- Leader Program (Class 2), Energy Academy, Thailand Energy Academy
- Diploma, National Defence Course (Class 52/2009), National Defence College
- Experience (5 years past experiences)
- 2014 Present : Director General, Revenue Department
- 2011 2014 : Director General, State Enterprise Policy Office
- 2010 2011 : Director General, Thailand Customs Department
- · Other directorship positions / other positions at present
- · Other listed companies
- Chairman, Airports of Thailand PLC
- Non-listed companies
- Director General, Revenue Department
- Member of University council, Mahasarakham University
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Mr. Visit Vongruamlarp

Director and Director with Authorized Signature

(Started on April 8, 2015)

- Age 68
- · Education / Training
- · Bachelor of Accounting, Thammasat University
- Corporate Governance Program for Director and Senior Management of State Enterprises and Public Organizations (Class 1), King Prajadhipok's Institute
- Directors Accreditation Program (DAP14/2004) Thai Institute of Directors (IOD)
- Directors Certification Program (DCP44/2004) Thai Institute of Directors (IOD)
- Improving the Quality of Financial Reporting (QFR1/2006) Thai Institute of Directors (IOD)
- Executive Development Program, Canada
- Implementation of Small and Medium Industrial Promotion Programs, Philippines
- Project Implementation and Supervision program, Malaysia
 - Workshop on Implementation Finance, Philippines
- Experience (5 years past experiences)
- 2009 : Director, MFC Asset Management PCL
- 2006 2009 : Director and Chairman of Executive Committee, Government Savings Bank
- 2005 2009 : Director, Thammasat University Commerce and Accountancy Alumni
- 2014 2015 : Director Audit Committee, Thammasart University Hospital
- 2008 2016 : Committee, The Property Management Office,
 Thammasat University
- 2007 2015 : Audit Committee, D.T.C. Industries Public Company Limited
- · Other directorship positions / other positions at present
- Other listed companies
- Director, AIRA Factoring PLC.
- Non-listed companies
- Director, Don Muang Tollway Public Company Limited
- Shareholding in the Company: 10,000 shares or 0.000726% directly held (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:



M.L. Puntrik Smiti

Director (Started on October 27, 2015)

- Age 59
- · Education / Training
- · Doctor of Public Administration, Chaiyaphum Rajabhat University
- Master of Public Administration, National Institute of Development Administration
- Diploma, National Defence College, The National Defence Course Class 53
- Diploma, National Defence College, The Joint State * Private Sector Course Class 23
- Senior Administrator Program (Class 50), Prince Damrong Rajanuphab Institute of Research and Development, Ministry of Interior
- Skill development program (Class 3)
- Strategic Leadership for GMS Cooperation program, People's Republic of China
- ILO/SKILLS AP/Japan Regional Workshop and Study on Workplace Training, Japan
- Experience (5 years past experiences)
- 2015 Present : Permanent Secretary, Ministry of Labour
- 2014 : Director-General, Department of Skill Development
- 2013 : Deputy Permanent Secretary, Ministry of Labour Inspectors-General, Ministry of Labour
- Other directorship positions / other positions at present
- · Other listed companies
- None -
- Non-listed companies
- Permanent Secretary, Ministry of Labour
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Dr. Prasert Sinsukprasert

Director (Started on April 5, 2016)

- Age 51
- Education / Training
- · Bachelor of Engineering (Civil), Chulalongkorn University
- Master of Energy Engineering ,George Washington University
- Doctor of Philosophy (Ph.D.) in Energy Management and Policy, University of Pennsylvania
- Experience (5 years past experiences)
- 2014 Present : Deputy Director General , Energy Policy and Planning

Office, Ministry of Energy

• 2013 : Director, International Energy Cooperation Office,

Ministry of Energy

 2009 : Director, Planning Division, Department of Alternative Energy Development and Efficiency,

Ministry of Energy

- Other directorship positions / other positions at present
- Other listed companies
- None -
- Non-listed companies
- Deputy Director General, Energy Policy and Planning Office
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- · Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws: None



Mr. Chaiwat Kovavisarach

President and Chief Executive Officer Director with Authorized Signature

(Started on October 30, 2012 and served as the President Chief Executive Officer since January 1, 2015)

- Age 50
- · Education / Training
- M.Eng., Asian Institute of Technology (AIT)
- M.B.A., Thammasat Univesity
- B.Eng. (Honor), King Mongkut's Institute of Technology Ladkrabang (KMITL)
- Investment Banking, Kellogg Business School, Northwestern University
- Director Certification Program (DCP168/2013), Thai Institute of Directors (IOD)
- Role of the Nomination and Governance Committee (RNG4/2013),
 Thai Institute of Directors (IOD)
- Certificate, National Defence Course (NDC 58), The National Defence College Association of Thailand
- Experience (5 years past experiences)
- 2015 Present : President and Chief Executive Officer, The Bangchak
 Petroleum Public Company Limited
- 2007 2014 : Advisor, Avantgarde Capital Company Limited
- · Other directorship positions / other positions at present
- · Other listed companies
- Vice Chairman, BCPG Public Company Limited
- · Non-listed companies
- Chairman, Bangchak Retail Co.,Ltd.
- Director, Nido Petroleum Ltd.
- Director, Asia Insurance 1950 Public Company Limited
- $\hbox{-} \quad \hbox{Director}\,\hbox{and}\,\hbox{member}\,\hbox{of investment}\,\hbox{committee, Government}\,\hbox{Pension}\,\hbox{Fund}$
- Director, Suan Kulab Witthayalai Alumnus Association Under the Royal Partonage of H.M. the King
- Vice President, AIT Alumni Association (Thailand)
- Director, Prachabodee Social Enterprise Foundation
- Shareholding in the Company: 630,000 or 0.045754% directly held (As of December 31, 2016)
- · Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None

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Executives Management



Mr. Chaiwat Kovavisarach

President and Chief Executive Officer Director with Authorized Signature

(Started on October 30, 2012 and served as the President Chief Executive Officer since January 1, 2015)

- Age 50
- · Education / Training
- M.Eng., Asian Institute of Technology (AIT)
- M.B.A., Thammasat Univesity
- B.Eng. (Honor), King Mongkut's Institute of Technology Ladkrabang (KMITL)
- Investment Banking, Kellogg Business School, Northwestern University
- Director Certification Program (DCP168/2013), Thai Institute of Directors (IOD)
- Role of the Nomination and Governance Committee (RNG4/2013),
 Thai Institute of Directors (IOD)
- Certificate, National Defence Course (NDC 58), The National Defence College Association of Thailand
- Experience (5 years past experiences)
- 2015 Present : President and Chief Executive Officer, The Bangchak
 Petroleum Public Company Limited
- 2007 2014 : Advisor, Avantgarde Capital Company Limited
- · Other directorship positions / other positions at present
- · Other listed companies
- Vice Chairman, BCPG Public Company Limited
- · Non-listed companies
- Chairman, Bangchak Retail Co.,Ltd.
- Director, Nido Petroleum Ltd.
- Director, Asia Insurance 1950 Public Company Limited
- Director and member of investment committee, Government Pension Fund
- Director, Suan Kulab Witthayalai Alumnus Association Under the Royal Partonage of H.M. the King
- Vice President, AIT Alumni Association (Thailand)
- Director, Prachabodee Social Enterprise Foundation
- Shareholding in the Company: 630,000 or 0.045754% directly held (As of December 31, 2016)
- · Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:

 None



Mr. Wattana Opanon-amata

Chief Operation Officer and First Senior Executive Vice President, Refinery Business Group

- Age 60
- · Education / Training
- Ph.D. (Leadership in Society, Business and Politics), Rangsit University
- · M.Eng (Chemical Engineering), Chulalongkorn University
- BS (Chemical Engineering), Chulalongkorn University
- · Mini-MBA (Class 21), Chulalongkorn University
- · Certification of Process Engineer, JCCP, Japan
- Advanced Certification in public administration and public law, King Prajadhipok's Institute (Por.Ror.Mor.6)
- Certification of Enterprisewide Risk Management, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Director Certification Program Refresher Course (RE DCP1/2008),
 Thai Institute of Directors (IOD)
- Director Certification Program (DCP36/2003), Thai Institute of Directors (IOD)
- Audit Committee Program (ACP1/2004), Thai Institute of Directors (IOD)
- Finance for Non-finance Director Course (FND7/2003), Thai Institute of Directors (IOD)
- Certificate of Management of Thinking and Cultural Conflicts, Class 2, National Defence College Alumni Think Tank
- Diploma of Advanced Security Management Program (ASMP 3),
 The National Defence College Association of Thailand
- Certificate of Executive Leadership Program (ELP 5), Nida-Wharton, School of University of Pennsylvania, USA
- Certificate of Senior Executive Program (SEP-24), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Certificate of Advanced Senior Executive Program (ASEP 6 Sasin-Kellogg, School of Management of Northwestern University, USA)
 Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Certificate of Senior Executives Program (CMA 18), Capital Market Academy, Stock Exchange of Thailand
- Certificate of Power of the Kingdom Program Bhumipalung Phandin Class 4, Chulalongkorn University Executive Program
- · Experience
- 2016 Present : Chief Operation Officer and First Senior Executive
 Vice President, Refinery Business Group
- 2013 2016 : First Senior Executive Vice President,
 - Refinery Business Unit
- 2006 2013 : Senior Executive Vice President, Corporate Administration and Information Technology
- 2004 2005 : Senior Consultant, Acting Senior Executive
 - Vice President
- 2001 2004 : Executive Vice President
- 2000 2001 : Senior Vice President, Planning and Supply
 1994 2000 : Senior Vice President, Marketing and Engineering
 - Service
- Director, Government Savings Bank (2014 2015)



- Specialized Committee Member on Analysis of Master of Engineering Program in, King Mongkut's Institute of Technology Ladkrabang, 2011
- Member of the Committee for the Follow-up and Expansion the Reduction of Unequal Distribution of Revenue Project for 2011-2013, The Thai Chamber of Commerce
- · Member of Board of Trustee, ASEAN CSR Network
- Advisor of Corporate Social Responsibility Institute (CSRI), The Stock Exchange of Thailand
- Member of the Application of Sufficiency Economy Movement in private sector sub-committee, Research and Development Institute of Sufficiency Economy Philosophy Foundation
- · Other directorship positions / Other positions at present
- · Other listed companies
- None -
- · Non-listed companies
- Vice Chairman of Chemical Engineering Committee for 2014-2016,
 The Engineering Institute of Thailand under H.M. the King's Patronage
- Committee member, Thailand Business Council for Sustainable Development
- Member of Green Labeling Project Management Committee, Thailand Environment Institute (TEI)
- Member of Certified GHG Emission Reductions for Building Committee, Thailand Environment Institute (TEI)
- Chairman of CSR Club, Thai Listed Companies Association, The Stock Exchange of Thailand (2552-2559)
- Member of the Use and Production Of the Renewable Energy Certification Committee, Thailand Business Council for Sustainable Development (TBCSD) and Thailand Environment Institute Foundation (TEI)
- Member of Social Enterprise Subcommittee, Pidthong Lang Phra, Royal Initiative Discovery Foundation.
- Chairman of the Social Enterprise Execution Committee, Capital (Class 18/2014)

Market Academy

- Fundraising committee, Advanced Security Management Program Class 3, National Defence College
- Member of the Sustainable Development Network Board
- Chairman of CSR and Academic Affairs of Power of the Kingdom Committee Bhumipalung Phandin Class 4, Chulalongkorn University Executive Program
- Chairman of Yuwa Bhumipalung Phandin Generation I of the Kingdom Program Bhumipalung Phandin Class 4, Chulalongkorn University Executive Program
- Director, Fuel Pipeline Transportation Limited
- Director, Oam Suk Social Enterprise Co.,Ltd.
- Director, BCP Trading Pte.Ltd.
- Director, Bongkot Marine Services Co., Ltd.
- Shareholding in the Company: 3,146 shares or 0.000228 % directly held (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:

 None

Mr. Yodphot Wongrukmit

Senior Executive Vice President, Corporate Management and Sustainability Development

- Age 57
- · Education / Training
- · MBA, MTSU, USA
- BA (Economics) (2nd Class Honors), University of the Thai Chamber of Commerce
- · Graduate Diploma National Defence College (NDC 2554)
- NIDA-Wharton Executive Leadership Program # 6/2010
- Graduate Diploma in Public Law and Management # 9/2010, King Prajadhipok's Institute
- Director Certification Program (DCP111/2008), Thai Institute of Directors (IOD)
- Successful Formulation & Execution of Strategy (SFE13/2011), Thai Institute of Directors (IOD)
- Anti-Corruption for Executive Program (ACEP6/2013), Thai Institute of Directors (IOD)
- JCCP "Advanced Marketing" (Japan)
- The Leadership GRID
- Experience
- 2016 present : Senior Executive Vice President, Corporate
 Management and Sustainability Development
- 2013 2015 : Senior Executive Vice President, Corporate Administration and Information Technology
- 2012 : Senior Executive Vice President, Marketing Business
- 2011 : Acting Senior Executive Vice President,
 - Marketing Business
- 2008 : Executive Vice President, Marketing Business
 2007 : Executive Vice President, Retail Marketing
- 2004 : Senior Vice President, Retail Marketing
- 2001 : Vice President, Retail Marketing
 1998 : Senior Manager, Central District
- 1998 : Senior Manager, Central District
 1994 : Manager, North and Central Districts
- · Other directorship positions / Other positions at present
- · Other listed companies
- None -
- · Non-listed companies
- Director, Bangchak Green Net Company Limited
- Director, Provincial Electricity Authority
- Shareholding in the Company: 44,096 shares or 0.003203% (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:



- Age 52
- · Education / Training

Senior Executive Vice President

- Honorary Doctorate of Electrical Engineering, Rajamagala University of Technology Krungthep, Thailand
- Master of Engineering, Asian Institute of Technology (AIT), Thailand
- Bachelor of Engineering, King Mongkut's Institute of Technology Ladkrabang
- Director Accredited Program (DAP28/2004), Thai Institute of Directors (IOD)
- Director Certification Program (DCP53/2005), Thai Institute of Directors (IOD)
- Successful Formulation & Execution the Strategy (SFE1/2008), Thai Institute of Directors (IOD)
- Management in Globalizing Era (Ex-PSM 5), Fiscal Policy Research
- Institute
 Advanced Diploma, Public Administration and Public Law (Class of
- 10th), King Prajadhipok's InstituteDiploma, The joint State-Private Sector Course, National Defence College (Class of 25th)
- Certificate, Program for Senior Executives Class 20 (CMA 20), Capital Market Academy, Stock Exchange of Thailand
- Experience
- The Bangchak Petroleum Public Company Limited
- 2015 present : Senior Executive Vice President
- 2013 : Senior Executive Vice President, Renewable Energy Business
- 2012 : Senior Executive Vice President, Business Development and Strategy
- 1998 : Executive Vice President, Corporate Business
 Development

- Others
- 2004 2008 : Executive Vice President, Finance and Strategy, NFC Fertilizer Public Company Limited
- 1997 : Business Director, Air Liquid (Thailand) Company Limited
 1994 : Marketing Director, PTT Petrochemical Company Limited
 1988 : Commercial Manager, National Petrochemical Public Company Limited
- Other directorship positions / Other positions at present
- · Other listed companies
- President, BCPG Public Company Limited
- · Non-listed companies
- Chairman, Bangchak Solar Energy Company Limited
- Chairman, Bangchak Solar Energy (Prachinburi) Company Limited
- Chairman, Bangchak Solar Energy (Chaiyaphum 1) Company Limited
- Chairman, Bangchak Solar Energy (Buriram) Company Limited
- Chairman, Bangchak Solar Energy (Buriram 1) Company Limited
 Chairman, Bangchak Solar Energy (Nakhonratchasima) Company Limited
- Director, Bangchak Biofuel Company Limited
- Shareholding in the Company: 31,895 shares or 0.002316 % directly held (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



- Age 54
- Education / Training
- Master of Business Administration, Steton School of Economics and Business Administration Mercer University, USA
- BA, Faculty of Commerce and Accounting, Chulalongkorn University
- Director Certification Program (DCP152/2011), Thai Institute of Directors (IOD)
- Director Accreditation Program (DAP49/2006), Thai Institute of Directors (IOD)
- Audit Committee Program (ACP16/2007), Thai Institute of Directors (IOD)
- CFO Certification Program, Federation of accounting professions
- The Training Program on Structured Notes, Thailand Securities Institute
- Frontiers in Infrastructure Finance Distance Learning Course, The World Bank Institute
- Energy Training Program, AON
- Executive Development Program (EDP), Fiscal Policy Research Institute
- Intermediate Certificate Course in Good Governance for Middle Level Executives (#12) Public Director Institute
- Diploma, National Defence College, The National Defence Course Class 2013
- CEDI BABSON Entrepreneurial Leadership Program, Babson College Wellesley, Massachusetts, USA.
- Graduate Diploma in Capital Market Academy (CMA) # 23/2016
- Experience
- The Bangchak Petroleum Public Company Limited
- 2015 present : Senior Executive Vice President, Accounting

and Finance

• 2013 : Senior Executive Vice President, Accounting

and Finance

• 2012 : Acting Senior Executive Vice President,

Accounting and Finance

2009 : Executive Vice President, Accounting and Finance

· Others

• 2012 - 2014 : Director, MCOT Public Company Limited

• 2012 - 2014 : Director, Government Saving Bank

• 2007 - 2009 : Vice President (Administration) and Chief Finance

Officer, Dhanarak Asset Development

Company Limited

• 2005 : Consultant in business, finance, and investment,

Libra Law Office (Thailand)

2004 - 2007 : Independent director and audit committee member,
 Wyncoast Industrial Park Public Company Limited

1998 - 2004 : Vice president, Treasury Department, Small and

- Medium Enterprise Development Bank of Thailand

 Other directorship positions / Other positions at present
- Other listed companies
- None -
- Non-listed companies
- Director, Bangchak Biofuel Company Limited
- Director, Bangchak Bioethanol (Chachoengsao) Company Limited
- Director, BCP Energy International Pte. Ltd.
- Director, BCP Innovation Pte.Ltd.
- Director, BCP Trading Pte.Ltd
- Commissioner of the Arbitration Committee
- Commissioner, The Electronic Transactions Commission
- Shareholding in the Company: None (both directly and indirectly held) (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None





Mr. Pongchai Chaichirawiwat

Chief Marketing Officer and Senior Executive Vice President, Marketing Business Group

- Age 56
- Education / Training
- MBA, Thammasat University
- Master's degree in engineering, Asian Institute of Technology (AIT), Thailand
- Bachelor's degree in engineering, Chulalongkorn University
- Advanced Certificate Course in Public Administration and Law for
- · (PLM.13/2014) King Prajadhipok's Institute
- NIDA-Wharton Executive Leadership Program (7/2014),NIDA-Business School,
- Center for Business Innovation
- TLCA Leadership Development Program (LDP0/2013), Thai Listed Companies Association
- Diploma, Senior Executive Program (SEP25/2012), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Director Certification Program (DCP154/2011), Thai Institute of Directors (IOD)
- Executive Development Program (EDP6/2010), Thai Listed Companies Association

•	Experience				
•	2016-present:		Chief Marketing Officer and Senior Executive		
			Vice President, Marketing Business Group		
•	2015	:	Senior Executive Vice President, Marketing Business Unit		
•	2014	:	Senior Executive Vice President, Marketing Business		
•	2011	:	Executive Vice President, Renewable Energy		
			Business, and Managing Director appointed to		
			Bangchak Biofuel Company Limited		
•	2008	:	Senior Vice President (Managing Director appointed		
			to Bangchak Biofuel Company Limited)		
•	2007	:	Acting Senior Vice President, Commercial Marketing		
			and Lubricants		
٠	2006	:	Vice President, Business		
•	2004	:	Vice President, Retail Marketing		

- 2001 : Senior Manager, Marketing Engineering
- 1998 : Manager, Marketing Engineering
- Other directorship positions / Other positions at present Other listed companies
- None -
- · Non-listed companies
- Chairman, Bangchak Biofuel Co.,Ltd.
- Director, Bangchak Bioethanol (Chachoengsao) Company Limited
- Director, Bangchak Green Net Co.,Ltd.
- Director, Bangchak Retail Co.,Ltd.
- Shareholding in the Company: 44,332 shares; spouse 9,000 shares or 0.003873% (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws: None



Mr. Somchai Tejavanija

Senior Executive Vice President, Natural Resource and Business Development

- Age 54
- · Education / Training
- · MBA, Thammasat University
- · B.ENG (Engineering), Kasetsart University
- Energy Leadership Development for Senior Managers (Class 4), Ministry of Energy
- Executive Development Program (Session 6), Thai Listed Companies Association
- · Director Certification Program (DCP157/2012), Thai Institute of Directors (IOD)
- · Advanced Certificate Course in Public Administration and Law for Executives, King Prajadhipok's Institute
- · Thammasat Leadership Program Class 4, Thammasat University
- · Advanced Security Management Program (ASMP6), The National Defence College Association of Thailand
- Executive Management with Business Development and Investment (IBID3), Institute of Business and Industrial Development
- Successful Formulation & Execution of Strategy (SFE28/2016), Thai Institute of Directors (IOD)

: Senior Executive Vice President, Natural Resource

Experience

• 2016

			and Business Development
•	2014	:	Senior Executive Vice President, Corporate
			Strategy and Business Development
•	2013	:	Executive Vice President, Business Development
			and Strategy
•	2011	:	Executive Vice President, Marketing Business,
			responsible for Retail Marketing, and Acting Vice
			President, Marketing Business Strategy and Planning
•	2010	:	SeniorVicePresident-MarketingBusinessStrategy
			and Planning, Marketing Business
•	2008	:	Senior Vice President-Retail Marketing
•	2006	:	Vice President-Retail Marketing Development
•	2003	:	Vice President-Associated Company
•	2002	:	Assistant Vice President, Metropolitan Area
•	2000	:	Senior Manager, Metropolitan Area

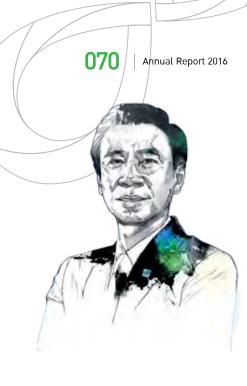
- 1996 : Manager, Metropolitan Area Other directorship positions / Other positions at present
- Other listed companies
- None -
- Non-listed companies
- Director, BCP Energy International Pte. Ltd.
- Director, BCP Innovation Pte. Ltd
- Shareholding in the Company: 28,522 shares or 0.002071% directly held (As of December 31, 2016)
- Familial relationship between directors and executives: None
- · Criminal records on violation of securities and futures contract laws: None



Senior Executive Vice President, Bio Based Products Business Unit

- Age 57
- · Education / Training
- · MBA, Thammasat University
- · BS (Chemical engineering), Chulalongkorn University
- Advanced Certificate Course in Public Administration and law for Executives (PLM 11), King Prajadhipok's Institute
- Director Certification Program (DCP150/2011), IOD
- Executive Development Program (TLCA EDP 10), Thai Listed Companies Association
- Executive Development Program (EDP), Fiscal Policy Research Institute Foundation
- Oil Price Risk Management, Morgan Stanley (USA)
- The Manager Grid, AIM
- Fire & Business Interruption, The Chartered Insurance Institute (CII)
- Energy Leadership Development for Senior Managers (Class 4), Ministry of Energy
- Executive Development Program Coaching for Result, Mahidol University
- Anti-Corruption for Executive Program (ACEP6/2013), Thai Institute of Directors (IOD)
- Management Development Program 2013 (Class 18), Thailand Management Association
- · Leadership Succession Program LSP Class 3, IRDP
- Strategic CFO in Capital Markets Program (Class 1), Thailand Securities Institute (TSI)
- Advanced Management Programme AMP Class 105, INSEAD (Fontainebleau, France)
- Advanced Security Management Program Class 7, The Association National Defence College of Thailand under the Royal Patronage of His Majesty the King
- Experience
- The Bangchak Petroleum Public Company Limited
- 2016 present : Senior Executive Vice President, Bio Based Products Business Unit
- 2015 : Senior Executive Vice President, Renewable Energy Business Unit
- 2014 : Acting Senior Petroleum Refining Executive, Refinery Business
- 2010 : Executive Vice President, Corporate Administration and Information Technology
- 2009 : Senior Consultant
- 2008 : Consultant
- 2007 : Senior Vice President, Planning and Supply
- 2006 : Acting Senior Vice President, Planning and Supply
 2004 : Vice President, Planning, Planning and Supply
 2002 : Assistant Vice President, Business Strategy Office
- 2001 : Senior Manager, Planning and Evaluation,
 - Marketing Business
- 1997 : Senior Manager, Oil Supply

- Others
- Group leader, PRISM Market Outlook, PTT Group
- Course director of BCP Business Supply chain Economic and PTT PRISM Oil Price Risk Management
- Special instructor for refining and supply businesses, Petroleum Institute of Thailand
- Special course instructor and consultant to Ministry of Energy involved in the development of Energy Leadership Development training programs for senior, middle, and junior managers
- Special course instructor of Process Economics, Chulalongkorn University
- Former Vice chairman and committee member, Petroleum Refining Industrial Group, Federation of Thai Industries
- Other directorship positions / Other positions at present
- Other listed companies
- None -
- Non-listed companies
- Vice Chairman, Ubon Bio Ethanol Company Limited
- Vice Chairman, Ubon Agricultural Energy Company Limited
- Vice Chairman, Ubon Bio Gas Company Limited
- Vice Chairman, NP Bio Energy Company Limited
- Managing Director, Bangchak Biofuel Company Limited
- Managing Director, Bangchak Bioethanol (Chachoengsao)
 Company Limited
- Shareholding in the Company: 11 shares or 0.000001% directly held (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws:
 None



Mr. Chalermchai Udomranu

Senior Executive Vice President, Refinery Business Unit

- · Education / Training
- MBA, Thammasat University
- B. Engineering (Electrical), Chulalongkorn University
- Anti-Corruption for Executive Program (ACEP6/2013), Thai Institute of Directors (IOD)
- Director Certification Program (DCP170/2013), Thai Institute of Directors (IOD)
- Sasin Executive Program, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Advanced Certificate Course in Public Administration and Law for Executives, King Prajadhipok's Institute
- Leadership Succession Program (LSP 6), Institute of Research and Development for Public Enterprises
- Experience
- 2016 Present : Senior Executive Vice President, Refinery Business Unit
- : Executive Vice President, Refinery Manufacturing Business
- 2012 : Executive Vice President, Refinery Business
- 2011 : Senior Vice President, Refinery Operation, Refinery Business
- 2009 : Vice President, Refinery Operation, Refinery Business
- : Vice President, Refinery Project 2005
- 2003 : Senior Manager, Refinery Project
- 2001 : Senior Manager, Technical Service Division 2000 : Senior Manager, Maintenance Service Division
- 1997 : Manager, Maintenance Service Division
- Other directorship positions / Other positions at present Other listed companies
- None -
- · Non-listed companies
- Shareholding in the Company: 1,865 shares or 0.000135% (As of December 31, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws: None

Mr. Phichet Emwattana

Executive Vice President, Planning and Trading Business

- Age 50
- · Education / Training
- · MBA, Chulalongkorn University
- · BS (Engineering), Chulalongkorn University
- · Certificate of Senior Executive Program (SEP), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Director Certification Program (DCP174/2013), Thai Institute of Directors (IOD)
- Experience
- 2015 present : Executive Vice President, Planning and Trading Business
- 2014 : Executive Vice President, Marketing Business
- : Senior Vice President, Planning and Logistics, Refinery Business 2012
- : Vice President, Planning and Logistics, Refinery Business 2009
- 2008 : Acting Senior Vice President, Planning and Logistics
- 2007 : Vice President, Corporate Business Development Office 2006
- : Senior Manager, Strategy and Risk Management Office : Senior Manager, Oil Supply and Wholesale Operations
- : Manager, Oil Supply and Wholesale Operations
- · Other directorship positions / Other positions at present
- Other listed companies
- None -
- · Non-listed companies
- Director, BCP Trading Pte.Ltd
- Director, Bongkot Marine Services Co., Ltd.
- Shareholding in the Company: 80 shares or 0.000006% (As of September 9, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws: None

Mr. Pichit Wongrujiravanich

Executive Vice President, Internal Control

- Age 56
- · Education / Training
- · MS (Accounting), Thammasat University
- · BA (Accounting), Thammasat University
- · Higher Certificate in Auditing, Thammasat University
- · Certified Public Accountant, license no. 3766
- Director Accreditation Program (DAP89/2011), Thai Institute of Directors (IOD)
- Audit Committee Program (ACP39/2012), Thai Institute of Directors (IOD)
- Anti-Corruption for Executive Program (ACEP5/2013), Thai Institute of Directors (IOD)
- Executive Development Program (EDP12), Thai Listed Companies Association.
- Director Certification Program (DCP198/2014), Thai Institute of Directors (IOD)
- · Leadership Succession Program (LSP7), Institute of Research and Development for Public Enterprises (IRDP)
- Experience
- 2015 present : Executive Vice President, Internal Control
 2011 : Senior Vice President, Internal Control Office
 2005 : Vice President, Internal Control Office
 1992 : Assistant to Executive Director, Yontrakit Group
- · Other directorship positions / Other positions at present
- · Other listed companies
- None -
- · Non-listed companies
- None -
- Shareholding in the Company: 11,071 shares or 0.000804% (As of September 9, 2016)
- · Familial relationship between directors and executives: None
- · Criminal records on violation of securities and futures contract laws: None

Mr. Dhanajit Makarananda

Executive Vice President, Bioenergy and Energy Crop Business

- Age 57
- Education / Training
- Master of Science in Chemical Engineering, The University of Southwestern Louisiana
- BS (Chemical technology), Chulalongkorn University
- Energy Leadership Development for Senior Managers (Class 5), Ministry of Energy
- Executive Development Program (EDP) 2013, Fiscal Policy Research Institute Foundation
- Senior Executive Program (SEP) 2014, Sasin Graduate Institute of Business Administration
- · Advanced Certificate Course in Public Administration and Law for Executives 2015, King Prajadhipok's Institute
- Experience
- 2016 Present : Executive Vice President, Bioenergy and Energy Crop Business
 2015 : Executive Vice President, Refinery Project Development
- 2015 : Executive Vice President, Associated Company Business, Renewable Energy Business
 2014 : Senior Vice President, Associated Company Business, Renewable Energy Business
- 2013 : Senior Vice President, Refinery Technique, Refinery Business
 2012 : Senior Vice President, Refinery Engineering, Refinery Business
 2011 : Vice President, Refinery Engineering, Refinery Business
 2009 : Vice President, Refinery Technique, Refinery Business
 2004 : Vice President, Operations, Refinery Business
- 2004 : Vice President, Operations, Refinery Business
 2001 : Senior Manager, Refining Operations
 2000 : Senior Manager (Technique and Environment)
- 1997 : Senior Manager (Operations)
- Other directorship positions / Other positions at present
- Other listed companies
- None -
- · Non-listed companies
- None -
- Shareholding in the Company: None (As of September 9, 2016)
- · Familial relationship between directors and executives: None
- · Criminal records on violation of securities and futures contract laws: None

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Mr. Chokchai Atsawarangsalit

Executive Vice President, Marketing Business and Oil Terminal

- Age 48
- · Education / Training
- MBA, Kasetsart University
- · BS (Engineering), Chulalongkorn University
- Company Secretary Program (CSP14/2005), Thai Institute of Directors (IOD)
- Effective Minute Taking (EMT2/2006), Thai Institute of Directors (IOD)
- · Corporate Governance and Social Responsibility (CSR1/2007), Thai Institute of Directors (IOD)
- Director Certification Program (DCP108/2008), Thai Institute of Directors (IOD)
- · Current Issue Seminar (R-CIS1/2009), Thai Institute of Directors (IOD)
- Successful Formulation & Execution of Strategy (SFE3/2009), Thai Institute of Directors (IOD)
- TCLA Executive Development Program (EDP), Thai Listed Companies Association
- · Energy Leadership Development for Senior Managers (Class 6), Ministry of Energy
- · Executive Development Program 2011, Minister of Finance
- · Senior Executive Program (SEP-26), The Sasin Graduate Institute of Business Administration of Chulalongkorn University
- · Certificate Course in Thai Asean Economic Community(Class 3), King Prajadhipok's Institute
- Experience
- 2015 Present : Executive Vice President, Marketing Business and Oil Terminal
- 2015 : Executive Vice President, Exploration and Production, Corporate Strategy and Business Development
 2014 : Senior Vice President, Exploration and Production, Corporate Strategy and Business Development
- 2012 : Senior Vice President, Business Development, Corporate Business Development
- 2009 : Vice President, Business Development, Corporate Business Development
- Vice President, Company Secretariat, and Company Secretary
- 2005 : Senior Manager, Company Secretariat
- 2004 : Senior Manager, Business Strategy and Enterprise Risk Management Office
- 2003 : Manager, Marketing Business
- 2002 : Manager, Business Strategy and Analysis
- 2000 : Manager, Oil Supply
- · Other directorship positions / Other positions at present
- Other listed companies
- None -
- · Non-listed companies
- Director, Bangchak Green Net Co.,Ltd.
- Shareholding in the Company: None (As of September 9, 2016)
- · Familial relationship between directors and executives: None
- · Criminal records on violation of securities and futures contract laws: None

Mr. Viboon Wongsakul

Executive Vice President, Retail Business and Marketing Support

- Age 49
- · Education / Training
- Master of Business Administrative Marketing University of Wisconsin-Whitewater, USA
- Bachelor of Business Administrative Finance & Banking Chulalongkorn University, Bangkok
- · Leadership Development ,Harvard Business School
- Strategic Marketing in Action, IMD Business School, Switzerland
- Senior Executive Program (SEP), Sasin Business School
- Enterprise Leadership ,Insead University
- Experience
- 2015 Present : Executive Vice President, Retail Business and Marketing Support
- 2015 : Executive Vice President, Marketing Business
- 2013 : Vice President, Retail Business Department, PTT Public Company Limited
- 2007 : Deputy Managing Director, Marketing Retail Business Support Department, PTT Retail MGT Co.
- 2006 : Assistant Director Dry Food Merchandise & Buying, Big-C Supercenter Public Co.,Ltd.
 1990 : Regional Manager Asia Pacific Non-Oil Alliances, ExxonMobil Fuels Marketing Business
- : C-Store Manager, Retail Marketing and Investment Retail Strategist, Network Planning, Capital/Opex and Feasibility,
 - ESSO Thailand
 - : International Marketing, Motorola Inc., Chicago USA
- · Other directorship positions / Other positions at present
- Other listed companies
- None –
- Non-listed companies
- Managing Director, Bangchak Retail Co.Ltd.
- Shareholding in the Company: None (As of September 9, 2016)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws: None

Corporate Governance

1. Corporate governance and Anti-corruption

- Policy: Since 2003, the Board of Directors has required a written corporate governance policy, which
 is to be revised annually. This year, Bangchak issued Revision 13 of the policy.
- Training and Publicity:
 - Arranged for all employees to acknowledge and take the annual test on the Corporate Governance and Anti-Corruption Policy. They are required to pass certain criteria to ensure proper understanding.
 The test may be done on the e-HR system or the online knowledge management system ("We Share") (Oct.26-Nov.11, 2016)
 - A talk on corporate governance as part of the orientation for new directors. (Apr.12, 2016)
 - A talk on corporate governance as part of the orientation for new employees. (Jul.5, 2016)
 - Organized the annual CG Day (12th year) under the "In HM the King's Footsteps" theme, with Mr. Banyong
 Pongpanich as the guest speaker giving a talk on "Combating Corruption Time to Get Serious".
 Management and staff jointly pledged to fight corruption, showing their tireless efforts (Nov.11, 2016)
 - For the third year in a row, staged a 2016 business partners' seminar, educating them about the policy formulation and measures against corruption so as to support their roles as allies of the Thai private sector on anti-corruption. (Apr.27, 2016 and Oct.20, 2016)
 - For the third year in a row, issued notifications to stakeholders on Bangchak's "No Gift" policy for the New Year and any other occasion so as to elevate good corporate governance and set a standard for conducting business with all related parties fairly. (Nov.8, 2016)
- Risk Management: Bangchak instituted internal control, risk management, and internal audit systems
 for key business functions, such as procurement and accounting. Bangchak also closely monitored
 the progress of risk management plan on a regular basis.

Bangchak values good corporate governance and anti-corruption alike. To this end, it has enlisted in the league of the UN Global Compact and become one of the first 22 companies to gain membership certification for CAC (Thai Private Sector Collective Action Coalition against Corruption). This year Bangchak won first recertification since 2013.

2. Committees

The Board appointed a number of committees, namely the Audit Committee, Nominating and Remuneration Committee, Corporate Governance Committee, and Enterprise-wide Risk Management Committee, to support its oversight of Bangchak. Details of these committees appear under "Management Structure".

3. Nomination and appointment of directors and the President

Today, Bangchak has 15 directors, 9 of whom are independent ones. Nine are SEC-defined executives, with the President serving as the top executive. Appointment of directors and the President must be reviewed by the Nomination and Remuneration Committee. Bangchak has made it possible for directors and shareholders to play a part in nominating qualified directors, in addition to using the Director Pool of Thai IOD. Details of the qualifications of independent directors and the nomination and appointment of directors and the President appear under "Management Structure".

4. Oversight of subsidiaries, associates, and joint-venture companies

Bangchak runs its businesses through subsidiaries, associates, and joint-venture companies, as detailed under "Shareholding Structure". The Board commands a mechanism for supervising the management and the responsibility of subsidiaries, associates, and joint-venture companies to safeguard the interests of Bangchak's investment capital, including

- Secondment of executives by the Board to serve as directors and executives in those companies proportionate to its own shareholding. Details appear under "Management Structure".
- Definition of an oversight approach for joint-venture companies for representative directors to uphold so that the businesses of subsidiaries, associates, and joint-venture companies may be uniform and in line with Bangchak's policy approach and relevant legislation. Voting or actions on important matters must secure prior approval from the President & CEO, Board, or shareholders, depending on the case.
- Institution of a corporate governance policy and a suitable, watertight internal control system in each of the subsidiaries.
- Supervision of disclosure of these companies' financial status and performance outcomes, as well as engagement in key transactions, must be properly done in line with Bangchak's criteria.

5. Monitoring the Use of Inside Information

The Company has a policy detailing the accepted practices of director, executive and employees and forbidding the disclosure of important secret information to the public for personal or other gains, as well as policies on the buying and selling of Company shares as follows:

- 1. Directors and executives, as well as spouses and offspring, including connected persons, according to Article 258 of the Securities and Exchange Act of 1992 must notify and distribute information about shares held, as well as reporting any changes to SEC every time they buy, sell, transfer, or receive shares within three days of the change to comply with Article 59 or face punishment according to Clause 275 of the Securities and Exchange Act of 1992.
- 2. Notify the Directors and executives of the financial information which affects the price of shares. Avoid buying or selling Company shares one month prior to the disclosure of information and three days after disclosure, as well as not disclosing information to others before it is made available to the public.

The Company also has penalties against employees who use the Company's inside information for personal gains, ranging from a warning to termination of employment.

6. Remuneration for the External Auditor

1) Audit Fee

The Company and its subsidiaries have paid audit fees as follows:

- The Company's External Auditor Mr. Charoen Phosamritlert or Mr. Waiyawat Kosamarnchaiyakij or Mr. Natthaphong Tantichattanon) in the last year
 - none -
- The Audit Company (KPMG Phoomchai Audit Ltd.), persons and businesses related to the external auditor and the Audit Company in the last year totaled 2,007,940 Baht (The Bangchak Petroleum Plc)
- 2) Other fees
 - none -

7. Compliance with corporate governance for listed companies

The Stock Exchange of Thailand (SET) has put in place a "Corporate Governance Principles for Listed Companies, 2012", which consists of principles and good guidelines for listed companies. This year, Bangchak maintained its compliance with corporate governance in five aspects.

1) Shareholders' rights

In the corporate governance policy, the Board defined the rights of the shareholders. Bangchak observed all of SET's corporate governance principles this year.

- A Record Date for the AGM was set so that shareholders may have enough time to review meeting notices and various data ahead of the meeting.
- Informed the shareholders about two months ahead of the meeting so that they may schedule meeting attendance, which exceeds what is required by law.
- Included the Board's opinion for each agenda item and attached the annual report and the proxy form, which contains an explanation of proxy-supporting documents together with meeting notices.
- Allowed the shareholders to submit queries needing Bangchak's explanation on certain points of the agenda for the AGM ahead of the meeting since September 1, 2016.
- Facilitated and promoted attendance by institutional investors by assigning Investor Relations staff to contact them about agenda issues and collect advance proxy forms.
- · Facilitated shareholders on the meeting date:
 - Reserved adequate parking spaces and arranged shuttle buses for them at the BTS Mo-Chit Station in case they were traveling on their own.
 - Adopted the Barcode system for registration and vote-tallying for efficiency and speed.
 - Applied the shareholders' meeting software to registration and vote-tallying for efficiency and transparency.
 - Supplied duty stamps for proxy assignment free of charge.
 - Prepared stickers for those that had already registered for getting in and out of the meeting room without rechecking.
- Before the meeting, the President&CEO clarified the method for voting and vote-tallying for each agenda item, as well as requesting a shareholders' representative to witness vote-tallying.
- During the meeting, allowed the shareholders equal rights for expressing views and posing questions, and recorded key concerns and views in the minutes.
- After the meeting:
 - Publicized the resolutions and vote tallies on each agenda item through SET's channels and Bangchak's website by the evening of the meeting date
 - Publicized the minutes through SET's channels and Bangchak's website, and delivered to the shareholders that expressed views at the meeting.

legal counselor, to serve as an independent inspector to validate the votes and ensure transparency and compliance with the law and company regulations. This included examination of documents of shareholders or their proxies with the right to attend the meeting, quorum, stakeholders whose voting right was not exercised, and whether the voting process followed the company regulation or what was announced by the chair of the meeting, as well as collection of ballots, verification of meeting resolutions, as well as ballot casting. One person representing the shareholders witnessed vote counting at the AGM.

2) Equitable Treatment of Shareholders

In the corporate governance policy, the Board defined a policy for the fair treatment of shareholders beyond what is required by law. Bangchak observed all of SET's corporate governance principles.

- Publicized meeting documents on its website 30 days ahead of the meeting and delivered them to the shareholders 21 days ahead of the meeting.
- Allowed the shareholders to propose additional AGM agenda items and nominate directors from September
 1 to December 31. Bangchak disclosed the criteria and methods at its website and informed the shareholders through SET's channels. The Board's policy is against adding agenda items without prior notice, particularly crucial items for which the shareholders need time to study before making a decision.
- Supported the shareholders' use of proxy forms to steer voting at the meeting (Form B) and nominated six independent directors as proxy alternatives at the meeting.
- Used ballots on every agenda item, particularly that dealing with directors' election where individual
 directors were voted on. To this end, the votes equaled the number of shares held for the election of
 one director.
- Required that directors with vested interests should have no votes and stay outside the meeting on such agenda item, as mentioned in the corporate governance policy.
- Defined practices for employees on the maintaining of Bangchak's confidential information and avoidance
 of benefit-seeking for themselves by exploiting such confidential information, as mentioned in the
 corporate governance policy.

3) Roles of stakeholders

In the corporate governance policy, the Board defined a policy for its roles toward the stakeholders. Bangchak observed all of SET's corporate governance principles. In the corporate governance system, several key groups of stakeholders are found, including customers, employees, business partners, shareholders, investors, creditors, and residents of neighboring areas, society, and the environment. Bangchak values the importance of the rights of all groups, which includes actions violating their rights and intellectual properties. Below are the policy and practices (detailed under "Greenergy Excellence"):

Employees

Bangchak realized that staff is a vital element for business progress. Bangchak, therefore, has in place Individual Development Plans (IDPs) to raise staff knowledge and caliber. Additionally, staff are given competitive and fair compensation, depending on the overall performance of the company, in the short term and the long term. In this regard, an annual salary survey is carried out with other companies in the same industry. The Balanced Scorecard is used to assess individual staff performance against their respective KPIs established. Bangchak, moreover, provided staff welfare exceeding what was required by law, which included the provident fund, medical welfare, shuttle-bus service, staff relations activities, as well as an employee club with various recreational activities.

Customers and Society

The Company is dedicated to improving the quality of products and services for maximum customers' satisfaction. The policy aims to deliver quality goods which meets or exceeds the customer's demands under fair conditions. Bangchak's policy is also to deliver products of desired quality or of quality beyond customers' expectations under fair, responsible treatment of customers, and aims to give adequate, accurate and timely information about the products and services. The Company does not exaggerate or mislead the customer about the quality, quantity or other terms and conditions of the products or services. Company employees protect the customer's secrets and do not use them for personal gains.

Business Partners

Bangchak has a supplier code of conduct and a policy to select and treat business partners with fairness. Company regulations have been drawn up to govern procurement, supply and distribution of petroleum and petroleum products to ensure that business conducted with partners is managed properly and with responsibility for business partners while mutual benefit can be reaped. Additionally, Bangchak has produced a "Business Contact" manual and drawn up a "Dealer/Station Operator Policy" for distribution to business contacts and dealers/station operators so that they may have proper understanding and strictly comply with Bangchak's corporate governance and business ethics. They will also firmly adhere to contract provisions. Whenever any condition cannot be complied with, Bangchak urgently informs the business partner(s) in advance to jointly solve problems.

To select a business partner, Bangchak invites those who are qualified to register with it. Qualified companies are allowed to make offers to compete with others in the same business. The procurement committee then proceeds with the selection, taking into account both price and technical aspects.

Lenders

Bangchak treats lenders fairly, responsibly, and transparently and seeks to fulfill all its contractual and
financial obligations especially guarantee condition, capital management and payment. It does not
engage in dishonest practices and does not conceal information which may cause losses for the lender.
 If the Company cannot fulfill one or more of its obligations, it seeks to notify the lender so that a resolution
can be agreed upon together.

Competitors

The Company conducts business with ethics, transparency, and engages in fair competition with its competitors under the guidance of fair competition. It does not seek to find information about Competitors through dishonest or inappropriate means, for example, bribing a competitor's employees. The Company does not engage in slander or discrediting its competitors.

Shareholders

The Company is determined to follow the principles of corporate governance and is focused on creating a business which has financial stability and sustainability to maximize the value of shares for the benefit of the shareholders.

Communities surrounding the refinery, society, and the environment

- Bangchak conducts its business with adherence to environmental management standards, such as ISO 14000. The Company considers health and safety and the environment an integral part of the business, and has a written guideline on health, safety and the environment for the Directors, Executives, and employees to uphold. This includes promotion of efficient resource consumption and employee training on occupational health, safety, environmental, and energy matters under the "Develop sustainable business, while safeguarding the environment and society" corporate culture.
- The Company produces "Krob Krua Bai Mai" (Leaf Family) newsletter and "Rob Rua Bangchak" (Bangchak Neighbors) magazine for distribution every other month to allow the community to know the goings-on of the Company as well as receiving interesting information, such as how to save energy, how to ensure safety in daily life, and health tips and how to protect the environment. This is another way for the Company to communicate with and take care of communities around its refinery.

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Sanctity of intellectual properties

Bangchak declared its policy on intellectual property management this year to define clear guidelines for the prevention and sanctity of intellectual properties. Compliance with this policy is the direct responsibility of the executives, employees, affiliates, and contractors working on behalf of Bangchak.

Whistleblowing and complaint-filing channels

Bangchak's Board of Directors has laid down measures regarding whistleblowing or concerns about any wrongdoing or misconduct that may lead to fraud involving people in the organization, be they staff or stakeholders. Whistleblowing can also be applied to suspicious financial statements or a lax internal control system. Bangchak has a mechanism to protect staff or whistleblowers by establishing a confidential database accessible only by authorized persons. This is to encourage cooperation from stakeholders in better protecting its interests. If a concern about wrongdoing is raised, a committee comprising members of units relevant to the issue will be set up to launch an investigation, the result of which is forwarded to the whistleblower through:

E-mails: ico@bangchak.co.th
Letters: Internal Control

Bangchak Petroleum PCL

210 Sukhumvit 64, Bangchak, Phra Khanong

Bangkok 10260 Tel. 0-2335-4566.

During 2016, three cases involving scholarship grants and contractual repayment were raised. After investigation by relevant units, no indication of fraud was found.

Contact channels

The Board of Directors Tel: +66 2 335 4638

Fax: +66 2 335 8000

E-mail: bcpsecretary@bangchak.co.th

Company Secretary Tel: +66 2 335 4050

Fax: +66 2 335 8000

E-mail: pakawadee@bangchak.co.th

Investor Relations Tel: +66 2 335 4583

Fax: +66 2 335 8000

E-mail: ir@bangchak.co.th

4) Information disclosure and transparency

In the corporate governance policy, the Board defined a policy for information disclosure and transparency. Bangchak observed all of SET's corporate governance principles.

- Disclosed performance outcomes, company information, and outlooks to analysts and investors (domestic and international) every quarter.
- Distributed key company data and documents, including the memorandum of association, certification, and regulations beyond the corporate governance policy on its website.
- Investor Relations coordinated with analysts, investors, and other parties that need financial data, performance outcomes, company status, and transactions affecting Bangchak.
- Publicized Bangchak's key information regularly through SET's channels, annual information disclosure forms, annual report, and its website in Thai and English.

5) Board responsibilities

In the corporate governance policy, the Board defined a policy for the roles, duties, and responsibilities of the Board. Details appear under "Management Structure", and below are Bangchak's actions taken this year:

- Held an annual corporate strategy seminar with the management to review the vision and set corporate goals.
- Staged a meeting of the independent directors in May and September and a meeting of the nonmanagement directors in April and August.
- Organized a study visit on geothermal businesses in New Zealand to apply to Bangchak's business development.
- Developed performance assessment forms for the Board: individual (self-assessment and cross-assessment), group, and committee.
- Revise and define Bangchak's annual vision, missions, strategies, business plan goals, and budgets
 every year to maximize value to businesses and for shareholders' security. In addition, the Board
 endorses key strategies and policies, particularly financial KPIs (key performance indicators) and work
 plans. Endorsement of KPIs and metric-setting is done early in the year, with periodic tracking.
- Monitored management performance and ensured strategic implementation. Required that progress updates and company performance should be reported each month to Board meetings.
- Instituted an effective internal control system, internal audit, and risk management measures together with regular tracking at Board meetings.
- Instituted a Compliance Division under Corporate Compliance Department, responsible for all units' full
 compliance, including all units' legal control self-assessment, supervision of license renewals through
 an alert system for supervisors and responsible employees. With the Legal unit, educated employees
 on legal knowledge through assorted channels, including Outlook, intercom, and annual legal training.

Bangchak values corporate governance in parallel with the
recruitment of competent people to manage businesses. It recognizes the necessity and benefit of recruiting additional such directors. Today the Board consists of 15 directors.
The Board appointed Mr. Pichai Chunhavajira, a non-management director, as its Chairman due to his proven expertise in company businesses, his leadership and meeting control ability, which produces smooth meetings. Also, Mr. Chunhavajira supports full participation and show of capability by all directors.
Bangchak limits all directors' terms at no more than nine consecutive years (since 2008), with an exception. By Bangchak's nature of business, it needs people with specialized competencies. Given the freedom and efficiency of directors' performance, these people may be suitable on the Board for longer than that.
The Board of Directors are obliged to keep confidence of inside information obtained from their directorship and are not allowed to use such inside information for the benefit of their own or that of others. This includes prohibition to trade shares of Bangchak at least one month before the disclosure of financial statements and at least three days after such disclosure.

8. Conflicts of Interest

Under the corporate governance policy, the guidelines for directors, management and employees stipulated that they must refrain from any act posing potential conflicts of interest with the Company, i.e. any act potentially depriving the Company of its interests or its fair share of interests, including competing with the Company, incurring personal gains from private business dealing with the Company, abuse of Company information for personal gain and holding shares in the Company's business competitors.

The Company, in order to prevent potential conflicts of interest, has set the following forms:

CG Commitment and Conflict of Interests Disclosure Form

To comply with the policy on corporate governance, which forbids directors, management and employees to commit any act which might deprive the Company of its interests, the Company has prepared the above-mentioned form to ensure that all employee acknowledge the CG policy and fill any acts or activities that might be in conflict with the Company's business interests and deliver it to Internal Audit through their supervisors through the e-HR.

· Report of Directors and Management's Stake Form

The Securities and Exchange Act stipulates that directors and the management are to report to the Company his/her or connected persons' stakes connected with the business operations of the Company or its subsidiaries. The Company has therefore prepared the above-mentioned form for its directors and management to fill out and report any change to the Company. The Corporate Secretary will forward a copy of the form to the Chairman of the Audit Committee to ensure that the directors and management perform their duties with integrity.

· Report on connected transactions form

To ensure that transactions between the Company and any related parties or businesses are transparent and comply with SET's rules and regulations, the Company has defined a policy and guidelines on connected transactions and prepared the above-mentioned form for responsible employees to fill out and forward it to the Secretary to the Board with a copy to Internal Audit for acknowledgment.

9. Investor Relations

The Company realizes that its information, both financial and non-financial, affect the decision-making process for investors and stakeholders. Therefore the management values accurate and full disclosure in a regular and timely manner, in accordance with SEC and SET regulations. The Investor Relations department acts as a center for giving out important information to investors. Bangchak allowed all information to be equally publicized, whether financial reports, performance outcomes and business outlooks, data affecting Bangchak stock prices, or quality-assured data disclosed to investors and stakeholders. Directly and indirectly, Bangchak presented its performance outcomes and company information, summarized below:

- Direct: Bangchak staged meetings between its executives and shareholders, stock analysts, investors, and employees via regular activities to present performance outcomes through analyst meetings, roadshows, conference calls, participation in conferences (domestic and abroad), participation in meetings with minor investors at the "Opportunity Day" or at "SET in the City", hosted by SET, or company visits by shareholders to enable them to appreciate company businesses more. In addition, institutional investors (domestic and international) and stock analysts may make appointments with executives to inquire about company data through company visits.
- Indirect: Bangchak provided assorted data, performance outcomes, financial statements, and other information given to SET. Other data were presented through meeting documents, video and audio recordings, and E-Newsletters, as well as other reports submitted to SET on the Company's website www. bangchak.co.th, where interested parties can read and download this information. The Investor's Relations page contains information in Thai and English which is updated frequently.

Report of the Corporate Governance Committee

To the Shareholders

The Board of Directors appointed the Corporate Governance Committee, headed by Mr. Surin Chiravisit, with General Vitch Devahasdin, Adm. Sucheep Whoungmaitree, M.L. Puntrik Smiti and Mr. Chaiwat Kovavisarach serving as members.

In 2016, the committee held a total of three meetings to monitor performance under the plan for developing good corporate governance practices. Below are the essences of the meetings:

1. Rights of Shareholders

- Publicized information concerning the Annual General Meeting of the Shareholders (AGM) on the Company website 32 days ahead of the meeting and mailed the documents to the shareholders 21 days ahead of the meeting.
- Provided a registration stop at the AGM compatible with the number of attending shareholders to speed up registration.
- Allowed shareholders to post questions in advance, to be addressed at the AGM, from September 1, 2016, onward.

2. Equitable Treatment of Shareholders

- Allowed the shareholders to propose AGM agenda items and nominate directors between September 1 and December 31, 2016.
- Proposed six independent directors to whom the shareholders could assign proxies for the AGM.
- Report the securities portfolios and changes of the Board and the executives to the Board at their meeting every month.

3. Roles of stakeholders

Tracked whistleblowers' reports or complaints filed through Internal Control. This year a total of three complaints
were filed on scholarship grants and payment under contracts, but after investigation by responsible units,
no indication of corruption was found in any of these.

4. Disclosure of information and transparency

 Conducted quarterly presentations of Bangchak's performance, data, and outlooks to analysts, local investors, and foreign investors

5. Responsibility of the committee

- · Held the annual strategic seminar with the management to revise the corporate vision and set corporate goals.
- Staged meetings among independent directors in April and August, and ones among non-executive directors in May and September in order for them to debate their concerns

6. Corporate governance policy

- Amended the Corporate Governance Policy (Revision 13) on the maximum number of companies where
 directors may serve, which now stands at no more than two other listed companies. The amendment also
 covered additional duties of the Board Chairman, addition to the code of conduct for investor relations, and
 alteration of contents formats of all sections for greater conciseness and completeness.
- Ensured all employees' responses in acknowledging and completing the annual questionnaire on the CG policy through the e-HR and knowledge management systems to assess their understanding

7. Publicity of corporate governance

Directors and the management were invited speakers on the policy and experience of corporate governance management. The Company also welcomed visiting public and private agencies, together with educational institutions, to its premises to share experiences and observe its corporate governance practices.

8. Public relations to promote the corporate governance culture

- Provided corporate governance training as part of the orientation curriculum for new directors.
- · Provided corporate governance training as part of the orientation curriculum for new employees.
- Staged 2016 CG Day activities under the theme of "In HM the King's Footsteps" by Mr. Banyong Pongpanich, who delivered the "Combating Corruption: Time to Get Serious" lecture. The management and employees together pledged to stay above corruption in a gesture of commitment to relentless resistance to corrupt practices.

9. Anti Corruption

- Issued letters to stakeholders about Bangchak's No-Gift Policy for festive periods and other occasions in an effort to step up corporate governance and lay down a solid foundation for fair treatment to all.
- Staged the 2016 Business Partner Seminar to roll out the "Supplier Code of Conduct" for business partners
 to apply as a guideline for policy-making on environmental, social, and corporate governance actions. Also,
 Bangchak participated as a CAC ally and certified member for the third year in a row.

As a result of its valuing of corporate governance, this year the Company continuous won corporate governance awards.

Regional awards, including

- Asia Pacific Entrepreneurship Award 2016, Outstanding Category, for corporate leaders' determination and ability to foster constant business growth with corporate governance and socio-environmental responsibility, organized by Enterprise Asia, an independent promoter and developer of Asian business operators
- Platinum Award, organized by The Asset magazine (Hong Kong-based), in recognition of Bangchak's overall
 outstanding performance (financial, management, corporate governance, social and environmental
 responsibility, and investor relations), for the three consecutive year.

National awards, including

- CAC membership certificate: This year Bangchak won first recertification since 2013 under the CAC (Collective Action Coalition against Corruption) Project, launched with the cooperation of eight leading organizations, with the Thai Institute of Directors (Thai IOD) as project secretariat
- ESG100 Certificate, for the second year in a row, in recognition of the top 100 listed companies widely acclaimed for ESG (Environmental, Social and Governance), which aids investors' decisions along with financial performance
- CG Award 2016 for two consecutive years, for Bangchak's business conduct under corporate governance
 principles on transparent, credible information disclosure and in upholding integrity, organized by the Thai
 Chamber of Commerce, Office of the National Counter Corruption Commission, and University of the Thai
 Chamber of Commerce.
- Certificate for Outstanding Code of Conduct 2016, presented by the Thailand Chamber of Commerce, for Bangchak's business practices under a code of conduct that induces widespread acceptance, credibility, and faith among the public and the Thai and overseas business sectors, organized by the Thailand Chamber of Commerce

(Signed) Surin Chiravisit

(Mr. Surin Chiravisit)

Chairman, Corporate Governance Committee

December 16, 2016

Report of the Enterprise-wide Risk Management Committee

To the Shareholders

Bangchak highly values good corporate governance, in particular risk management, to ensure that it can efficiently and suitably deal with uncertainty potentially affecting its businesses. The committee performed its Board-assigned duties under the criteria for corporate-wide risk management. This year, this committee consulted the management and the internal auditor at seven meetings, apart from meeting with the Audit Committee. The work this year is summarized below:

- Steered, reviewed the policy, and managed key corporate risks encompassing operational, financial, and compliance risks. As a whole, Bangchak accomplished its goals. This year, ERMC highly valued strategic risks arising from dynamic circumstances by applying the findings on global risks by World Economic Forum 2016 to the analysis of strategic risks that could affect Bangchak's achievement of short-term and long-term goals, while staying vigilant on amended public policies that could affect its operations. The committee also commented on affiliates' risk management for suitable conduct and controlled key corporate risks to manageable levels so as to achieve common goals.
- Oversight and comments on Bangchak's investment: The committee provided comments and remarks on issues
 dealing with risk management of investment projects that deal with current businesses and emerging businesses
 with significance to Bangchak's businesses. Then the outcomes were tabled for the Board's approval so that
 one can be assured that a given business commands suitable risk management and is likely to achieve planned
 goals.
- Supported BCM (Business Continuity Management): The committee monitored BCM tasks and supported
 Bangchak's strategic, process, and resource preparedness in line with ISO 22301:2012. Bangchak should
 extend the BCM scope to affiliates by asking them to form awareness of BCM's criticality and observe BCM drills
 so that they may command efficient BCM systems and become confident in their ability to resume businesses
 promptly, securely, and sustainably if crises should occur.
- Supported development of corporate risk management: The committee added the risk assessment process
 concerning bribery of public officials in keeping with the Constitution's complementary act on the prevention and
 suppression of corruption of 1999 (third amendment, 2015).

The Enterprise-wide Risk Management Committee is committed to ensuring that Bangchak commands proper oversight and due risk management, while staying prepared to support affiliates in developing their own risk management systems. In view of this, one can be assured that Bangchak has efficiently performed its duties in pursuit of all corporate goals.

(Signed) Prasong Poontaneat

(Mr. Prasong Poontaneat)

Chairman, Enterprise-wide Risk Management Committee

December 14, 2016

Report of the Audit Committee

To the Shareholders

On April 26, 2016, at Board Meeting No. 5/2016, the Board decided to change the composition of the Audit Committee by replacing members who had completed their terms. The current committee is headed by Mr. Suthep Wongvorazathe, with Mrs. Prisana Praharnkhasuk, Pol.Lt.Gen. Chaiwat Chotima, and Mr. Krisada Chinavicharana as members.

In 2016, the committee reviewed Key Audit Matters of the external auditor's report along with self-assessment for CAC recertification and arranged meetings with Bangchak's legal officers for an update on significant court litigation cases against Bangchak, the outcomes of which could significantly affect its businesses.

Name	Attendance / Total
Mr. Suthep Wongvorazathe	12 / 12
Mrs. Prisana Praharnkhasuk	7/9
Pol.Lt.Gen. Chaiwat Chotima	7/9
Mr. Krisada Chinavicharana	7/9
Mr. Anusorn Tamajai	3/3
Mrs. Arunporn Limskul	3/3

The committee also held one meeting with the Enterprise-wide Risk Management Committee.

The committee deliberated various matters, summarized below:

1. Reviewed quarterly and annual financial statements, as well as related financial reports, including adequate and timely disclosure of information, compliance with generally accepted accounting principles, accounting standards, and significant changes in accounting policies, together with connected transactions among shareholders and subsidiaries or related companies. This year the committee reviewed Key Audit Matters of the external auditor's report along with self-assessment for CAC recertification and arranged meetings with Bangchak's legal officers for an update on significant court litigation cases against Bangchak, the outcomes of which could significantly affect its businesses.

- 2. Reviewed to ensure that the Company
 - Had instituted a proper, transparent and efficient internal control and internal audit system by monitoring the performance of the internal control office to ensure independence and efficiency. This included transactions for the purchase and sale, as well as financial instruments, of BCPT, a subsidiary
 - Confirmed the independence of the performance of the external auditor
 - Recognized the need for improved business efficiency while minimizing oil losses in its processes, including a visit to the Samut Sakhon Depot Oil Distribution Center.

This year, recognizing the value of knowledge promotion for corporate governance, the committee staged a seminar on internal control for Marketing Business Group officers.

In addition, it supported Internal Control Office's participation in a project to certify IT service management systems (ISO 20000), a project to assess BCM (ISO 22301), and a project to develop audit program script on the ACL system for greater audit efficiency.

- 3. Reviewed the Company's compliance with all accounting standards in effect, laws, SET regulations and laws relevant to its business in a complete and accurate manner and in line with corporate governance principles. The committee's emphasis was that the Company would exceed such standards.
- 4. Selected, nominated and proposed compensation for KPMG Phoomchai Audit Ltd. as the external auditor for 2016 and staged quarterly meetings between the committee and the external auditor to discuss concerns arising from each audit and find prompt solutions to significant ones.
- 5. Reviewed the adequacy of the company's overall risk management process and audited this process under existing risks. This year the committee held a meeting to share views with the ERMC to raise the efficiency and effectiveness of steering the operation of subsidiaries as desired by Bangchak. Below are its recommendations:
 - · Systematize linkage between Bangchak's and subsidiaries' accounting data and expand the role of Bangchak's finance and accounting unit for looking after subsidiaries
 - Develop an IT Master Plan to encompass data forwarding among Bangchak and subsidiaries, including the sharing of resource usage for the back office
 - Form a taskforce for the supervision of subsidiaries' operation to frame their policies and operation rules on the administration of personnel, finance, information, investment risk management, CSR activities, and assorted regulations for alignment with Bangchak's practices

- 6. Actively encouraged and ensured compliance with safety standards and stewardship of the refinery surroundings and nearby communities.
- 7. Revised the Audit Committee Charter in line with the criteria and terms of the Office of the Securities and Exchange Committee (SEC) and SET and the Corporate Governance Policy to ensure confidence of shareholders, business partners, customers and other stakeholders that the Company's business follows such terms and the code of conduct to maintain an efficient internal control system.
- 8. Reviewed the policy and operating manual of the internal control office to cover the roles and responsibilities of the Audit Committee and the internal control office for use as a practical guideline.
- 9. Supported the upgrading of internal auditors on a par with international standards.

Having monitored the Company's performance in 2016 under the scope of authority and assigned responsibility, the Audit Committee approved the way the Company had prepared its financial statements, regarding it as accurate in significant details under generally accepted accounting principles. Connected transactions or items of potential conflicts of interest were adequately disclosed. The Company's internal controls and a risk management process are compatible with its business circumstances, with accurate and complete compliance with the law, SET regulations, and relevant laws.

(Signed) Suthep Wongvorazathe

(Mr. Suthep Wongvorazathe)

Chairman, Audit Committee

February 9, 2017



Report of the Nomination and Remuneration Committee

To the Shareholders

At Meeting No. 14/2015, the Board of Directors appointed the current Nomination and Remuneration Committee, chaired by Prof. Dr. Chai-anan Samudavanija, with Mr. Suthep Wongvorazethe, Pol.Lt.Gen. Chaiwat Chotima, and Lt.Gen. Apirat Kongsompong as members. Mr. Surin Chiravisit served as its member and secretary. To make their performance truly independent, all members are independent directors.

This year, the committee met four times, as summarized below:

Director nomination: The committee nominated directors to fill vacancies caused by retiring directors and those that left their posts before term expiry. Due regard was given to knowledge and competency, experience, sound career records, leadership, vision, righteousness, ethics, good attitude toward Bangchak, and the ability to dedicate enough time for their duties, all of which benefit Bangchak's businesses. It also took into account board diversity and developed a board skill matrix to decide the qualifications to be sought after, with consideration given to missing skills and suitable qualifications to complement Bangchak's Board composition and Board structure under Bangchak's business strategies. The IOD's Director Pool served in the nomination process for new directors. This year, the Nomination and Remuneration Committee endorsed the addition of "Innovation" in the Board Skills Matrix. The current Board consists of 15 directors, 9 of whom are independent, five are non-management, and one is the President&CEO, serving as the sole management director. Their profiles appear under "Board of Directors".

In determining compensation for the Board directors and the President&CEO, the committee took into account commensuration with duties and assigned responsibilities in connection with Bangchak's performance outcomes as well as individual performances, all these to be comparable to peer SET-listed companies in similar industries and businesses. Such compensation must be enough to induce their quality and job performances to achieve Bangchak's defined goals and business directions. Compensation details appear under "Management Structure".

This committee performed its duties independently under good corporate governance to ensure that the nomination and compensation processes are transparent, while fostering confidence among the shareholders and stakeholders.

(Signed) Surin Chiravisit

(Mr. Surin Chiravisit)

Chairman, Nomination and Remuneration Committee

December 14, 2016

Changes in the Securities Portfolios of the Board and the Executive

The Company has notified all Board of Directors and Executives team members about the announcement of the Securities and Exchange Commission (SEC), calling on them to report their portfolios, including those of their spouses and children not yet of age, to SEC within 30 days of their appointment to the Board and the management rank, and to do so with each change in portfolio.

Each month the portfolios and changes of the Board and the executives are reported to the Board at their meeting. These portfolios were as follows.

		Name	Shares as of Year-end 2015	Shares as of Year-end 2016	Increase (Decrease)
Board	of Directors				
1.	Mr. Pichai	Chunhavajira	600,000	-	-
2.	Prof. Dr. Chai-Anan	Samudavanija	-	-	-
3.	Mr. Surin	Chiravisit	-	-	-
4.	Mr. Suthep	Wongvorazathe	-	-	-
5.	Pol.Lt.Gen. Chaiwat	Chotima	-	-	-
6.	Lt.Gen.Apirat	Kongsompong	-	-	-
7.	Adm. Sucheep	Whoungmaitree	-	-	-
8.	Mr. Krisada	Chinavicharana	-	-	-
9	Gen.I Vitch	Devahasdin ^{1/}	N/A	-	-
10.	Mrs. Prisana	Praharnkhasuk ^{1/}	N/A	-	-
11.	Mr. Prasong	Poontaneat	-	-	-
12.	Mr. Visit	Vongruamlarp	10,000	10,000	-
13.	M.L. Puntrik	Smiti	-	-	-
14	Dr. Prasert	Sinsukprasert 1/	N/A	-	-
15.	Mr. Chaiwat	Kovavisarach	490,000	630,000	140,000
Execu	tive Management				
1.	Mr. Wattana	Opanon-amata	3,146	3,146	-
2.	Mr. Yodphot	Wongrukmit	44,096	44,096	-
3.	Mr. Bundit	Sapianchai	31,895	31,895	-
4.	Mr. Surachai	Kositsareewong	-	-	-
5.	Mr. Pongchai	Chaichirawiwat	45,332	53,332	8,000
	- Mr. Pongchai	Chaichirawiwat	44,332	44,332	-
	- Spouse		1,000	9,000	8,000
6.	Mr. Somchai	Tejavanija	28,522	28,522	-
7.	Mr. Kiatchai	Maitriwong	5,011	11	(5,000)
8.	Mr. Chalermchai	Udomranu ^{2/}	N/A	1,865	-

Note: Directors and executives do not have any indirect shareholding (except the executive no. 5).

 $^{^{\}mbox{\tiny 1/}}$ Appointed to the Board on April 5, 2016

^{2/} Appointed as Senior Executive Vice President on November 1, 2016

Bangchak and Sustainability

Bangchak's business relies on creating value for business, society, and the environment in parallel with its proper, systematic, and tangible responses to stakeholders' expectations. To illustrate its determination to corporate improvement to a Greenovation Group, in the middle of this year Bangchak modified its vision and mission from "Greenergy Excellence" to "Evolving Greenovation" while adjusting its core values to "I AM BCP" to prepare the company for change and corporate growth.

Vision



EvolvingTo be the Leading Asian Greenovative Group, founded on Good Corporate Governance, through Inclusiveness and Sustainability

Mission

: BCP commits in bringing Disruptive and Inclusive Greenovation to Delight our customers, being a trusted partner and Value Creator for all Stakeholders, and promoting Sustainable Development to Society.

We emphasize Inclusive and Sustainable business, pursue Domestic and Overseas expansion, embrace Good Corporate Governance principles, and nurture a High-performance, Learning culture and Happy workplace.

Core Values:



AM

Agility & Mobility

Beyond

Expectation

Continuous

Development

Pursuit of

Sustainability

Not only operating in line with the corporate vision, Bangchak has also applied SDGs (Sustainability Development Goals) and international guidelines on sustainability and other development for excellence, including TQA (Thailand Quality Award), ISO 26000 social responsibility standard, and UNGC (UN Global Compact) to form its own approach for sustainable development. Please see additional information in the Sustainability Report, in accordance with Global Reporting Initiative (GRI), at the www.bangchak.co.th website

Internal Control

Below is a summary of opinions of the Board of Directors ("Board") of The Bangchak Petroleum Plc on the adequacy and suitability of the Company's internal control system.

Ocontrol environment

The Company's organizational environment and structure favor implementation of the internal control system. This year, Bangchak made a change to the organizational structure, adding Corporate Compliance to centralize compliance with laws, regulations, and rules of assorted agencies in a clear and tangibly measured way to guide employees' work. Its business goals are deliberated by the Board in a clear and measurable way for use as concrete guidelines for employees. Employee incentives or compensation has undergone a critical analysis for sensibility. A proper organizational structure favors efficient business execution by the management. The management also consistently values business integrity and ethics. Bangchak has stressed to employees the issues of fraud risk and conflicts of interest by improving how information on employees' conflicts of interest is given through the e-HR system for greater convenience and information timeliness.

Bangchak staged 2016 CG Day activities under the theme of "In HM the King's Footsteps" by Mr. Banyong Pongpanich, who delivered the "Combating Corruption: Time to Get Serious" lecture. The management and employees together pledged to stay above corruption in a gesture of commitment to relentless resistance to corrupt practices.

Bangchak continued its emphasis on the No-Gift Policy in an effort to step up corporate governance and lay down a solid foundation for fair treatment of all. This year Bangchak not only won CAC recertification, but also staged an annual business partner seminar for the third straight year to educate and support business partners to become CAC allies.

The Company has instituted measures for whistle-blowing and complaint-filing against violations of the law and the code of conduct, or behavior potentially classified as frauds or malfeasance of those inside the Company or of stakeholders, including inaccurate financial reports or deficient internal controls. The Board has also instituted protective measures for whistle-blowers for stakeholders' greater stewardship of Company benefits.

The Company has appointed the Enterprise-wide Risk Management Committee (ERMC) to define policies, strategies and enterprise-wide risk management goals; evolve such a management system for continual efficiency; support and actively encourage cooperation in risk management at all levels; and ensure suitable and efficient risk management. The company took into consideration risks associated with new ventures to bolster confidence that such businesses are viable and achieve goals. It also evolved a risk management process by integrating the approaches under ISO 31000 (which accounts for company-wide risk management) to achieve operating objectives and align with international standards. This year Bangchak investigated trends and applied the findings of a Global Risk study by World Economic Forum 2016 to delve into strategic risks against short-term and long-term corporate goal achievement, while staying vigilant for amended public policies potentially harming corporate performance and expanding opportunities for corporate innovation.

Stringent and consistent is the Company's valuing of a sound environmental and safety management system to its neighboring communities. It appointed an Organizational Development Committee and BCM Taskforce, charged with system preparation to handle risks and potential crises; defined strategies to keep the company running even during emergencies; appointed a task force to draft business continuity management procedures to make plans comprehensive, ring-fence crises and situations, and enable Bangchak's business to proceed uninterrupted in emergencies and mitigate potential. Bangchak is the first domestic refinery to win ISO 22301 certification (business continuity management) and undergo constant surveillance surveys from the accreditor.

OControl activities

The Company's control activities rely on key performance indicators (KPIs) as a planning and control tool, with segregation of responsibilities for checks and balances. This year, for business suitability, Bangchak revised and redefined the authority and approval authority for various levels. Checks and balances were enforced by units and panels specifically appointed, including the Internal Control, the Investment Committee, and the Enterprise-wide Risk Management Committee. Authority, responsibility and approval of expenditure are defined in writing, along with preparation of documents that favor segmentation and identification of responsible parties should things go wrong. Custodianship and stewardship of Company properties to prevent losses or abuses have been instituted. The Company transactions with long-term obligations are properly monitored for contractual compliance. Measures are in place to prevent self-gains of Company opportunities or benefits. Subsidiaries are properly monitored. Procedures are in place to ensure that the Company observes the law and relevant regulations. Now in place is control self-assessment (CSA) at business levels, section levels, and work process levels throughout the company, as is an annual assessment of performance. This year Bangchak assigned its units to add risk assessment processes concerning bribery of public officials in line with the Constitution's complementary act governing the prevention and suppression of corruption of 1999 (third amendment of 2015). Talks were organized on the treatment

guidelines for sensitive data affecting stock prices. Audits and recertification of ISO 14001, TIS 18001, and ISO 50001 were successfully undertaken. A session on Kaizen (continuous improvement) was held to share experiences and concepts to promote business efficiency while trimming losses. Bangchak's strict, suitable measures govern engagement in transactions with major shareholders, directors, among others, to prevent unlawful transfers of benefits; for instance, such transactions must first secure approval by disinterested parties, transaction data must be disclosed under SEC rules, and data on related parties or businesses under accounting standards must be disclosed.

In addition, a process monitored subsidiaries' performances and formulated their corporate governance policies along with their security, safety, occupational health, environment, and energy policies. The business processes of Bangchak Biofuel, Bangchak Solar Energy, and Bangchak Green Net—all subsidiaries—were reviewed. Finally, Bangchak also advocated its subsidiaries, namely BCPG Plc., Bangchak Biofuel, and Bangchak Green Net, for becoming CAC allies.

OInformation and communication

Bangchak developed its information system and data system for work readiness and security under a policy for IT system safety and a standard for application of the information system and networks. To this end, Bangchak won ISO 27001 certification (IT system security) and won a standard called DCS (Digital Control System) together with ISO/IEC 20000-1:2011 (service management standard). SAP Enterprise Resource Planning (ERP) and SAP ECC 6.0—both of which are internationally accepted—are in force for Bangchak to enable Bangchak to leverage comprehensive corporate data for efficient analytical and operating purposes, it deployed the Security and Safety Management System and e-Budget System for greater business efficiency. Also, this year Bangchak developed an IT Digital Roadmap for 2017-2021, which encompasses all corporate IT projects (both Marketing IT, Refinery IT) and affiliates. IT Operating Models were structured for efficient IT administration and accommodation of corporate needs. Improvements were made to business processes like the Loyalty Card and CRM (Sales & Marketing) while extending the successes of SAP Enterprise Resource Planning (ERP), SAP ECC 6.0, infrastructure, and penetration test.

In these development efforts, Bangchak adhered to the COBIT Framework under the corporate IT security policy and information system deployment standard while remaining committed to corporate governance.

Monitoring and assessment

The Company commands a performance tracking system by having a committee regularly compare performance results against goals, so that factors potentially impacting performance can lead to strategic plan adjustment and goal achievement. An internal audit unit, reporting to the Audit Committee, reviews compliance with the company's formulated internal control system.

Risk Management

Bangchak has introduced risk management to all units, applying related processes under the international COSO ERM and ISO 31000 standards. It has systematically structured risk management, reporting channels, and monitored its outcomes. Risk management at Bangchak falls into corporate, business group, functional, and divisional levels. In addition, Bangchak has transferred risk management to its affiliates to ensure that their risk management plans embrace all components and business processes to accommodate prevailing circumstances that could impact their businesses.

Risk management outcomes

This year Bangchak conducted risk management by first examining internal and external factors that could affect its businesses. For external factors, it reviewed megatrends and data from The Global Risks Report 2016, 11th Edition, published by the World Economic Forum, to come up with risk management plans and identify business opportunities. It found that the risks affecting the core corporate businesses remained energy price shocks, while on the environmental side, climate change, water crisis, extreme weather events, and biodiversity loss and ecosystem collapse are increasingly likely.

As a result, Bangchak assessed the risks and impacts of such factors while drawing up plans to forge confidence in corporate goal achievement as follows:

© Economic risks

To lower risks arising from the highly volatile refining business stemming from the volatile world oil price, Bangchak manages risks to lessen such impacts on short-term and long-term business goals as detailed below:

- Short-term risk management of world oil price volatility
 - Bangchak monitors oil price situations daily to keep track of trading changes in the world market and presents them to executives and relevant parties, proposing oil price hedging contract engagement as seen appropriate. In charge of monitoring of actions and development of rick management systems, devising policies, and setting goals is the appointed Risk Management Committee (RMC). The bottom line is to minimize business volatility that affects business performance.
- · Long-term risk management of world oil price volatility

To lower risks facing the oil business subject to the volatile world oil price, Bangchak has expanded its investment into alternative energy and innovation businesses to grow the proportion of new businesses with steady income streams, which consist of

- Green power: Bangchak founded BCPG Plc, a subsidiary that grows investment and looks after power generation and other renewable-energy businesses, both domestic and overseas
- Bio-based products: Bangchak expanded its biodiesel capacity to 920,000 liters per day. With a larger nameplate capacity after the second biodiesel unit (520,000 liters per day) came on stream, Bangchak's commercial production and sale went ahead in July 2016. Also founded was Bangchak Bioethanol Co., Ltd., with an ethanol capacity of 150,000 liters per day.
- Innovation: Bangchak invested in 6.7% of the lithium mining shares operated by Lithium Americas Corp. to accommodate growth in battery-based alternative energy.

Operating, social, and environmental risks

Bangchak conducts business with primary regard for safety of the environment and society. The management assess risks and their potential impacts on dynamic external and internal surroundings and apply lessons learned to improve its business processes and devise additional plans. At the same time, they develop and heighten safety standards to ensure greater confidence in Bangchak's businesses through the following projects:

- Enhance process stability by completing the PMS (Power Management System) in 2016 and constructing a combined-cycle power plant, due for completion in 2017. This would add power stability for the refinery, thus lowering the likelihood of emergency refining suspension.
- Manage risks through continuous SIL (Safety Integrity Level), RCM (Reliability-Centered Maintenance), and RBI (Risk-Based Inspection) to cover both equipment and processes so as to plan equipment repair well ahead of time and properly, as well as reducing accidents.
- Develop a safety system after TIS/OHSAS 18001. In place are HAZOP (Hazard and Operability Studies) assessment and PSM for safety management throughout refining processes.
- · Prevent river oil spills by requiring double-hull vessels for crude oil and refined-product tankers.
- Develop and constantly improve safety technology for jetty equipment, system, and tools in line with OCIMF (Oil Company International Marine Forum) standards, including modernizing the wharf's firefighting system, devising a plan to develop Quick Release Hook vessel berthing, and installing an additional close-circuited camera system.
- Execute the enclosed ground flare construction project to ease community impacts of gas venting through the flare tower, due for completion by 2018
- Display online air quality on two additional billboards (Sai Jai Thai Foundation on Sanpawuth Road and
 in front of the refinery, near Gate 2, Oil Railway Road) to expand exposure to air quality readings and
 forge wider confidence among communities and society. In total, Bangchak now has six billboards.
- Stage activities for the understanding and awareness of safety for communities around the refinery (schools, temples, and condominiums) through education on evacuation and firefighting, more extensive installation of communication and warning systems for the communities, and invitation for community representatives to observe emergency drills.
- Pay due regard to risks and impacts of global climate change that could affect corporate businesses,
 namely

- Water shortage risks: A Refinery Water Management Taskforce seeks an approach for optimal water management to maintain process stability, including the issuance of measures for water consumption reduction, reuse, and recycling with the reverse osmosis technology
- Natural-disaster risks: Bangchak constructed earth dams (ridges) around its solar farms while diligently monitoring water levels at dams ahead of time to have its plans ready for roll-out.
- Support the formulation of a risk management plan against fraud and corruption so as to promote transparent business under corporate governance in line with the risk assessment of bribery concerning state officials under the Constitution's complementary act governing corruption prevention and suppression of 1999 (amended No. 3 of 2013).

O New business investment risks

Besides alignment with the corporate strategic direction and returns on new businesses, consideration of project risk management in new ventures is most vital. Bangchak requires that each new investment must have a risk management plan approved by ERMC before further approval by the Board. To this end, a clear, systematic project analytical process is mandatory for each project stage or period. Imperative are the following conditions: no impacts on the environment or communities, and consideration of risks for the investment country in question. That way, one can be assured of investment project success as planned.

Business Continuity Management (BCM)

Bangchak has acquired ISO 22302:2012 standard certification covering its former Head Office (10th floor, Building A, Energy Complex), Bangchak Refinery and Bangchak Oil Distribution Center, Central Region Business Office, and Bang Pa-in Oil Distribution Center for four straight years now. This certification underscores Bangchak's readiness to accommodate crises efficiently under international standards while stakeholders can rest assured that Bangchak can handle emergency responses while continuing to deliver its products.

Bangchak has compiled global risks and assessed those from assorted threats to conclude that terrorist acts are now looming as threats. Therefore, this year it staged a simulated drill under the Business Continuity Plan (BCP) to handle threats of sabotage at the refinery and Bang Pa-in Oil Distribution Center. The drill outcomes were then used in amending emergency procedures, securing additional resources to add efficiency to its BCM (business continuity management) processes and extending the system to affiliates. To this end, Bangchak informed affiliates to recognize the value and jointly learn and observe drills so as to achieve an efficient BCM system. That way, they can be assured that, under assorted crises, they can continue to proceed or resume business promptly, securely, and sustainably the way Bangchak can.

Bangchak annually reviews, develops, and improves its corporate risk management processes to enable itself to respond to changing internal and external circumstances by activating efficient risk management plans. The intent is to lower various corporate risks to manageable levels to in turn ensure business achievement against short-term and long-term objectives and goals in a sustainable way.

Connected Transactions

OConnected transactions between shareholders

For the years ended 31 December 2016 and 2015, connected transactions with the shareholders were as follows:

Company	Relationship	Connected transaction	2015 Baht (million)	2016* Baht (million)
PTT Plc	Major	Value of sale of refined products to PTT	4,965.28	-
	shareholder	Other revenues	44.55	-
	until April 30,	• Trade debtors as of the end of the period	-	-
	2016*	Value of purchase of refined products	26,167.28	-
		from PTT		
		• Trade creditors as of the end of the period	-	-
		Creditor to others	-	-
		Finance lease liabilities	-	-
		Service fee for the use of PTT's Si Racha	102.88	-
		Terminal		
		Expenses on natural gas, steam and	1,006.33	-
		electricity		
		Interest expenses	18.45	-
		Other expenses	0.86	-
		Advance payments for utilities	-	-

- * PTT Public Company Limited was the major shareholder until April 30, 2015, resulting in
 - 2016 transactions: No transaction was reported since there was no connection
 - 2015 transactions:
 - List of revenue and expenses shown for January 1 April 30, 2015
 - List of assets and liabilities as of December 31, 2015, no detail is shown since there was no connection.

- © Connected transactions with subsidiaries, jointly-controlled businesses, associated companies and related companies during 2015 and 2016 consisted of the following:
 - 1. Sale of Product and Services: These items are sold and services performed by the Company to subsidiaries, jointly-controlled businesses, associated companies and related companies.

Related company	2015	2015 2016 Relationship for the year e 31 December 2016		
Retated Company	Baht (million)	Baht (million)	Shareholding	Management
Subsidiaries				
Bangchak Green Net Co., Ltd.	27,495.08	28,114.99	- BCP holds 49% shares	- BCP delegates its representatives as directors
BCP Trading Pte. Ltd.	-	304.45	- BCP holds 100% shares	- BCP delegates its representatives as directors
Bangchak Bioethanol (Chachoengsao)	-	2.09	- BCP holds 85% shares	- BCP delegates its representatives as directors
Associated companies				
Ubon Bio Ethanol Co., Ltd.	14.18	13.94	BCP holds 21.28% sharesUbon Bio-Ethanol Co., Ltd.	- BCP delegates its representatives as directors
Ubon Agricultural Energy	24.57	6.87	(associated company) holds	- BCP delegates its
Co., Ltd.			100% shares	representatives as directors

Related company	Jan-Dec 2015*	Jan-Apr 2016*	Relationship for 31 Decen		
Related company	Baht (million)	Baht (million)	Shareholding	Management	
PTT Group conducted related					
businesses until April 30, 2015					
PTT International Trading	434.27	-	- PTT Plc holds shares in this	-	
Co., Ltd.			company		
PTTEP Siam Co., Ltd.	1.66	-	- PTT Plc holds shares in this	-	
			company		
IRPC Plc	715.76	-	- PTT Plc holds shares in this	-	
			company		

2. Purchase of product and services: These items have to do with the Company's purchase of products and/or services from subsidiaries, jointly-controlled businesses, associated companies and related companies.

Dolated company	2015	2016	Relationship for the year ended 31 December 2016		
Related company	Baht (million)	Baht (million)	Shareholding	Management	
Subsidiaries					
Bangchak Green Net Co., Ltd.	1.01	0.41	- BCP holds 49% shares	- BCP delegates its representatives as directors	
Bangchak Biofuel Co., Ltd.	4,352.62	4,982.10	- BCP holds 70% shares	- BCP delegates its representatives as directors	
BCP Trading Pte, Ltd.	-	575.13	- BCP holds 100% shares	- BCP delegates its representatives as directors	
Bangchak Bioethanol (Chachoengsao)	-	263.13	- BCP holds 85% shares	- BCP delegates its representatives as directors	
Associated companies Ubon Bio Ethanol Co., Ltd.	1,300.68	1,373.74	- BCP holds 21.28% shares	- BCP delegates its representatives as directors	
Other related businesses Fuel Pipeline Transportation Co., Ltd.	390.16	430.55	- BCP holds 4.95% shares	- BCP delegates its representative as director	

Dolated assuments	Jan-Dec 2015*	Jan-Apr 2016*	Relationship for the year ended 31 December 2016		
Related company	Baht (million)	Baht (million)	Shareholding	Management	
PTT Group conducted related businesses until April 30, 2015					
IRPC Plc	721.75	-	- PTT Plc holds shares in this	-	
PTT International Trading Co., Ltd.	0.06	-	- PTT Plc holds shares in this company	-	
PTT Global Chemical Plc	152.15	-	- PTT Plc holds shares in this company	-	
Thai Oil Plc	878.45	-	- PTT Plc holds shares in this company	-	
Thai Lube Base Plc	54.48	-	- Connected through PTT Plc	-	
IRPC Oil Co., Ltd.	27.35	-	- Connected through PTT Plc	-	

3. Other revenue from subsidiaries, jointly-controlled businesses, associated companies and related companies.

Related company	2015	2016		the year ended nber 2016
Related Company	Baht (million)	Baht (million)	Shareholding	Management
Subsidiaries				
Bangchak Green Net Co., Ltd.	34.21	11.41	- BCP holds 49% shares PTT Plc holds shares in this company PTT Plc holds shares in this company	- BCP delegates its representatives as directors
Bangchak Biofuel Co., Ltd.	202.68	128.43	- BCP holds 70% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy Co., Ltd.	1,413.39	-	- Indirect Subsidiary through BCPG which BCP holds 70.35% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Prachinburi) Co., Ltd.	185.21	-	 Indirect Subsidiary through BCPG which BCP holds 70.35% shares 	- BCP delegates its representatives as directors
Bangchak Solar Energy (Chaiyaphum1) Co., Ltd.	95.06	-	 Indirect Subsidiary through BCPG which BCP holds 70.35% shares 	- BCP delegates its representatives as directors
Bangchak Solar Energy (Buriram) Co., Ltd.	91.41	-	- Indirect Subsidiary through BCPG which BCP holds 70.35% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Buriram 1) Co., Ltd.	90.81	-	 Indirect Subsidiary through BCPG which BCP holds 70.35% shares 	- BCP delegates its representatives as directors
Bangchak Solar Energy (Nakhonratchasima) Co., Ltd.	92.13	-	 Indirect Subsidiary through BCPG which BCP holds 70.35% shares 	- BCP delegates its representatives as directors
NIDO Petroleum Limited	188.33	226.82	 Indirect Subsidiary through BCP Energy International Pte. Ltd. which BCP holds 100% shares 	- BCP delegates its representatives as directors
BCP Innovation Pte, Ltd.	1.65	0.95	- BCP holds 100% shares	- BCP delegates its representatives as directors
BCPG Plc.	197.39	929.58	- BCP holds 70.35% shares	- BCP delegates its representatives as directors
Bangchak Bioethanol (Chachoengsao) Co., Ltd.	-	0.16	- BCP holds 85% shares	- BCP delegates its representatives as directors
Associated companies Ubon Bio Ethanol Co., Ltd.	0.02	-	BCP holds 21.28% shares	- BCP delegates its representatives as directors
Other related businesses Fuel Pipeline Transportation Co., Ltd.	7.74	8.45	- BCP holds 4.95% shares	- BCP delegates its representative as director

Related company	Jan-Dec 2015*	Jan-Apr 2016*	Relationship for 31 Decem	
iverated company	Baht (million)	Baht (million)	Shareholding	Management
PTT Group conducted related businesses until April 30, 2015 PTTEP Siam Co., Ltd.	0.09	_	- PTT Plc holds shares in this	<u>-</u>
7 7 7 5 3 dai 1 30., Eta.	0.00		company	

4. Interest expenses paid by the Company to subsidiaries for loan guarantees under grant of operating rights.

Related company	2015	2016		the year ended nber 2016	
Retated company	Baht (million)	Baht (million)	Shareholding	Management	
Subsidiaries Bangchak Green Net Co., Ltd.	0.39	0.32	- CP holds 49% shares	- BCP delegates its representatives as directors	

5. Interest expenses paid by the Company to subsidiaries, jointly-controlled businesses, associated companies and related companies.

Dolated community	2015	2016	Relationship for the year ended 31 December 2016		
Related company	Baht (million)	Baht (million)	Shareholding	Management	
Subsidiaries					
Bangchak Green Net Co., Ltd.	16.46	26.66	- BCP holds 49% shares	- BCP delegates its	
				representatives as directors	
Bangchak Solar Energy Co.,	4.07	-	- Indirect Subsidiary through	- BCP delegates its	
Ltd.			BCPG which BCP holds	representatives as directors	
			70.35% shares		
BCPG Plc.	-	0.38	- BCP holds 70.35% shares	- BCP delegates its	
				representatives as directors	
Bangchak Retail Co., Ltd.	-	12.25	- BCP holds 100% shares	- BCP delegates its	
				representatives as directors	
NIDO Petroleum Limited	-	4.16	- Indirect Subsidiary through	- BCP delegates its	
			BCP Energy International	representatives as directors	
			Pte. Ltd. which BCP holds		
			100% shares		

	Jan-Dec	Jan-Apr	Relationship for the year ended	
Related company	2015*	2016*	31 December 2016	
	Baht (million)	Baht (million)	Shareholding	Management
PTT Group conducted related businesses until April 30, 2015				
NPC Safety and Environmental Services Co., Ltd.	1.28	-	- Connected through PTT Plc	-
Energy Complex Co., Ltd.	7.21	-	- PTT Plc holds shares in this company	
PTT ICT Solutions Co., Ltd.	0.03	-	- PTT Plc holds shares in this company	-
PTT Energy Solutions Co., Ltd.	1.79	-	- PTT Plc holds shares in this company	-
PTT Global Chemical Plc	0.03	-	- PTT Plc holds shares in this company	-

- 6. Debtors, advance payments and short-term loans to related businesse
 - 6.1 Trade debtors

Polated company	2015	2016	Relationship for the year ended 31 December 2016	
Related company	Baht (million)	Baht (million)	Shareholding	Management
Subsidiaries				
Bangchak Green Net Co., Ltd.	842.97	1,094.76	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Biofuel Co., Ltd.	0.99	2.49	- BCP holds 70% shares	- BCP delegates its representatives as directors
Bangchak Retail Co., Ltd.	-	5.08	- BCP holds 100% shares	- BCP delegates its representatives as directors
Bangchak Bioethanol (Chachoengsao) Co., Ltd.	-	0.68	- BCP holds 85% shares	- BCP delegates its representatives as directors
Associated companies				
Ubon Bio Ethanol Co., Ltd.	1.57	1.08	- Ubon Bio-Ethanol Co., Ltd. holds 21.28% shares	- BCP delegates its representatives as directors
Ubon Agricultural Energy Co., Ltd.	0.02	0.92	- Ubon Bio-Ethanol Co., Ltd. (associated company) holds 100% shares	- BCP delegates its representative as director
Other related businesses Fuel Pipeline Transportation Co., Ltd.	0.33	0.33	- BCP holds 4.95% shares	- BCP delegates its representative as director

7. Debtors and loans to related businesses

7.1 Loans

2015	2016	Relationship for the year ended 31 December 2016		
Baht (million)	Baht (million)	Shareholding	Management	
3,168.44	2,788.52	- Indirect Subsidiary through BCP Energy International Pte. Ltd. which BCP holds 100% shares	- BCP delegates its representatives as directors	
179.62	-	- BCP holds 100% shares	- BCP delegates its representatives as directors	
6,228.00	-	- BCP holds 70.35% shares	- BCP delegates its representatives as directors	
20.73	17.32	- BCP holds 4.95% shares	- BCP delegates its representative as director	
	Baht (million) 3,168.44 179.62 6,228.00	Baht (million) (million) 3,168.44 2,788.52 179.62 - 6,228.00 -	Baht (million) 3,168.44 2,788.52 - Indirect Subsidiary through BCP Energy International Pte. Ltd. which BCP holds 100% shares 179.62 - BCP holds 100% shares 6,228.00 - BCP holds 70.35% shares	

7.2 Other debtors

Related company	2015	2016	Relationship for the year ended 31 December 2016	
	Baht (million)	Baht (million)	Shareholding	Management
Subsidiaries				
Bangchak Solar Energy	0.39	0.39	- Indirect Subsidiary through	- BCP delegates its
Co., Ltd.			BCPG which BCP holds 70.35% shares	representatives as directors
NIDO Petroleum Limited	87.12	-	 Indirect Subsidiary through BCP Energy International Pte. Ltd. which BCP holds 100% shares 	- BCP delegates its representatives as directors
BCP Innovation Pte, Ltd.	1.65	-	- BCP holds 100% shares	- BCP delegates its representatives as directors
BCPG Plc.	38.07	213.88	- BCP holds 70.35% shares	- BCP delegates its representatives as directors
Bangchak Bioethanol (Chachoengsao) Co., Ltd.	-	0.03	- BCP holds 85% shares	- BCP delegates its representatives as directors

8. Creditors of related businesses 8.1 Trader creditors

Related company	2015	2016	Relationship for the year ended 31 December 2016	
	Baht (million)	Baht (million)	Shareholding	Management
Subsidiaries				
Bangchak Green Net Co., Ltd.	2.89	2.41	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Biofuel Co., Ltd.	241.50	243.12	- BCP holds 70% shares	- BCP delegates its representatives as directors
BCP Trading Pte, Ltd.	-	306.71	- BCP holds 100% shares	- BCP delegates its representatives as directors
Bangchak Bioethanol (Chachoengsao) Co., Ltd.	-	84.69	- BCP holds 85% shares	- BCP delegates its representatives as directors
Associated companies Ubon Bio Ethanol Co., Ltd.	113.29	128.06	- Ubon Bio-Ethanol Co., Ltd. holds 21.28% shares	- BCP delegates its representatives as directors

8.2 Other creditors

Related company	2015	2016	Relationship for the year ended 31 December 2016		
	Baht (million)	Baht (million)	Shareholding	Management	
Subsidiaries Bangchak Green Net Co., Ltd.	0.36	0.56	- BCP holds 49% shares	- BCP delegates its representatives as directors	
BCPG Plc.	-	0.03	- BCP holds 70.35% shares	- BCP delegates its representatives as directors	
Bangchak Retail Co., Ltd.	-	17.32	- BCP holds 100% shares	- BCP delegates its representatives as directors	
Other related businesses Fuel Pipeline Transportation Co., Ltd.	30.08	41.02	- BCP holds 4.95% shares	- BCP delegates its representatives as directors	

Other non- current assets.

Doloted company	2015 2016 Re			the year ended nber 2016
Related company	Baht (million)	Baht (million)	Shareholding	Management
Subsidiaries Nido Petroleum Limited	-	176.74	- Indirect Subsidiary through BCP Energy International Pte. Ltd. which BCP holds 100% shares	- BCP delegates its representatives as directors

Other current liabilities: These items are the Company's demanded guarantee payment for operating contracts with subsidiaries companies.

Doloted company	2015	2016		the year ended nber 2016
Related company	Baht (million)	Baht (million)	Shareholding	Management
Subsidiaries				
Bangchak Green Net Co., Ltd.	29.40	29.72	- BCP holds 49% shares	- BCP delegates its representatives as directors
BCPG Plc.	0.23	6.00	- BCP holds 70.35% shares	- BCP delegates its representatives as directors

Other non-current liabilities: These items are the Company's revenue received in advance for land lease from related companies.

Dolated community	2015	2016	Relationship for the year ended 31 December 2016					
Related company	Baht (million)	Baht (million)	Shareholding	Management				
Subsidiaries BCPG Plc.	5.45	-	- BCP holds 70.35% shares	- BCP delegates its representatives as directors				
Other related businesses Fuel Pipeline Transportation Co., Ltd.	3.45	2.97	- BCP holds 4.95% shares	- BCP delegates its representatives as directors				

1. Connected transactions with PTT Plc (PTT Plc was the major shareholder until April 30, 2015)

Orders for crude oil supplies between BCP and PTT, which is BCP's crude oil supplier for sale to industrial operators under the terms of feedstock supply agreements, are designed to enhance BCP's capability for sourcing feedstock for its processes. As for the sale of refined products, PTT notifies BCP six months in advance of its orders. A meeting is held each month to confirm orders, for which pricing follows market prices.

BCP entered into a 10-year contract with PTT, starting on August 3, 2009, for natural gas purchase to feed BCP's processes. Pricing was agreed in the contract with the terms and conditions considered normal business practice.

BCP entered into a contract with PTT for the use of PTT's Si Racha petroleum and gas terminal service. The 15-year contract, which started on January 1, 2009, involves receipt, storage and distribution of oil products. The service charge was agreed in the contract with the terms and conditions considered normal business practice.

BCP entered into an agreement with PTT to operate NGV fueling stations. The Company earned income from land use and station operation at the rates agreed in the contract, with the terms and conditions considered normal business practice.

BCP entered into an agreement with PTT on February 25, 2008, for the sale/purchase of electricity and steam. Under the contract, PTT is the investor in the construction of a plant with a capacity to produce 90 tons per hour of steam and 19.7 megawatts of electricity, while BCP is the sole buyer of all products at the prices agreed in the contract with the terms and conditions considered normal business practice. Commercial production started in June 2010.

2. Connected transactions with Bangchak Green Net Co., Ltd.

Bangchak Green Net managed Bangchak service stations and consumer product sales at Lemon Green and Bai Chak outlets. These connected transactions followed normal business practices, relied on market prices and followed the details stated in the operating right agreements.

3. Connected transactions with Bangchak Biofuel Co., Ltd.

A subsidiary company, Bangchak Biofuel was set up to produce and sell biodiesel. These connected transactions followed normal business practices, relied on market prices and followed details stated in the operation contracts.

4. Connected transactions with Bangchak Solar Energy Co., Ltd.

Bangchak Solar Energy Co., Ltd. (an indirect subsidiary through BCPG Plc.) was formed to run the solar-farm business known as "Sunny Bangchak" Phase 1 with a 38-MW capacity located at Amphoe Bang Pa-In, Phra Nakhon Si Ayutthaya. The service fees were at arm's length and market prices, detailed as stated in the operating agreement.

5. Connected transactions with Bangchak Solar Energy (Prachinburi) Co., Ltd.

A subsidiary company of BCPG Plc., operated a power plant to produce electricity from solar cell, at Amphoe Kabin Buri, Prachin Buri. These connected transactions followed normal business practices, relied on market prices and followed details stated in the operation contracts.

6. Connected transactions with Bangchak Solar Energy (Chaiyaphum1) Co., Ltd.

A subsidiary company of BCPG Plc., operated a power plant to produce electricity from solar cell, at Amphoe Bamnet Narong, Chaiyaphum. These connected transactions followed normal business practices, relied on market prices and followed details stated in the operation contracts.

7. Connected transactions with Bangchak Solar Energy (Buriram) Co., Ltd.

A subsidiary company of BCPG Plc., operated a power plant to produce electricity from solar cell, at Amphoe Prakhon Chai, Buri Ram. These connected transactions followed normal business practices, relied on market prices and followed details stated in the operation contracts.

8. Connected transactions with Bangchak Solar Energy (Buriram 1) Co., Ltd.

A subsidiary company of BCPG Plc., operated a power plant to produce electricity from solar cell, at Amphoe Nong Ki, Buri Ram. These connected transactions followed normal business practices, relied on market prices and followed details stated in the operation contracts.

9. Connected transactions with Bangchak Solar Energy (Nakhonratchasima) Co., Ltd.

A subsidiary company of BCPG Plc., operated a power plant to produce electricity from solar cell, at Amphoe Dan Khun Thot, Nakhon Ratchasima. These connected transactions followed normal business practices, relied on market prices and followed details stated in the operation contracts.

10. Connected transactions with BCP Energy International Pte, Ltd.

A subsidiary company in Singapore, BCP Energy International Pte, Ltd. was set up to engage in businesses concerning energy, petrochemical, and natural resource abroad. These connected transactions followed normal business practices, relied on market prices.

11. Connected transactions with BCP Innovation Pte, Ltd.

A subsidiary company in Singapore, BCP Innovation Pte, Ltd. was set up to engage in businesses concerning innovation. These connected transactions followed normal business practices, relied on market prices.

12. Connected transactions with BCP Trading Pte. Ltd.

A subsidiary company in Singapore, BCP Trading Pte. Ltd. was set up to trade commodities which include crude oil, petroleum products, petrochemicals and other related chemicals and to conduct other businesses that would benefit the company including but not limited to hedging, chartering, storage and distribution. These connected transactions followed normal business practices, relied on market prices.

13. Connected transactions with Nido Petroleum Limited

Nido Petroleum Limited (an indirect subsidiary in Australia) was formed to run the petroleum exploration and production business. These connected transactions followed normal business practices, relied on market prices.

14. Connected transactions with BCPG Plc.

A subsidiary company of BCPG Plc. was set up to operate a power plant to produce electricity from solar cell. These connected transactions followed normal business practices, relied on market prices and followed details stated in the operation contracts.

15. Connected transactions with Bangchak Retail Co., Ltd

The Company's associated company, is engaged in franchise businesses and intellectual property. The transaction with this company followed normal business practices, relied on market prices and followed details stated in the operation contracts.

16. Connected transactions with Bangchak Bioethanol (Chachoengsao) Co., Ltd.

The Company's associated company, is engaged in cassava-based ethanol production. The plant can run on fresh cassava and cassava chips. The ethanol was used in the production of gasohol. The transaction with this company followed normal business practices, relied on market prices and followed details stated in the operation contracts.

17. Connected transactions with Ubon Bio Ethanol Co., Ltd.

The Company's associated company, is engaged in cassava-based ethanol production. The plant can run on fresh cassava and cassava chips. The ethanol was used in the production of BCP's gasohol and most was exported to China. The transaction with this company followed normal business practices, relied on market prices and followed details stated in the operation contracts.

18. Connected transactions with Ubon Agricultural Energy Co., Ltd.

Transactions with Ubon Agricultural Energy Co., Ltd, a connected company as a result of Ubon Bio-Ethanol Co., Ltd. (BCP's associated company), holding shares in this company, followed normal business practices and market prices.

19. Connected transactions with Fuel Pipeline Transportation Co., Ltd.

BCP entered into contracts with this company to take its oil products from Bangchak Depot to its Bang Pa-in Depot and sell them to its customers in the Central, North and Northeast under normal business conditions and market prices.

20. Connected transactions with Thai Oil Plc (Connected transactions until April 30, 2016)

Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices

21. Connected transactions with Thai Lube Base Plc (Connected transactions until April 30, 2016)

Transactions with this company, a connected company through PTT, followed normal business practices and market prices.

22. Connected transactions with PTT Global Chemical Plc (Connected transactions until April 30, 2016)

(a company founded through the amalgamation of PTT Aromatics and Refining Plc and PTT Chemical Plc) Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.

23. Connected transactions with IRPC Plc (Connected transactions until April 30, 2016)

Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.

24. Connected transactions with NPC Safety and Environmental Services Co., Ltd. (Connected

transactions until April 30, 2016)

Service fees with this company, a connected company through PTT, followed normal business practices and market prices.

25. Connected transactions with PTT International Trading Co., Ltd. (Connected transactions until April 30, 2016)

Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices

26. Connected transactions with PTT ICT Solutions Co., Ltd. (Connected transactions until April 30, 2016)

Payment for the rights to use Microsoft software from this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.

27. Connected transactions with PTTEP Siam Co., Ltd. (Connected transactions until April 30, 2016)

Other services fees with this company, a connected company through PTT, followed normal business practices and market prices.

28. Connected transactions with Energy Complex Co., Ltd. (Connected transactions until April 30, 2016)

The deposit payments, office rents and office service fees with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.

29. Connected transactions with PTT International Trading DMCC Co., Ltd. (Connected transactions until April 30, 2016)

Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.

30. Connected transactions with IRPC 0il Co., Ltd. (Connected transactions until April 30, 2016) Transactions with this company, a connected company through PTT, followed normal business practices and market prices.

31. Connected transactions with Star Petroleum Refining Co., Ltd. (Connected transactions until April 30, 2016)

Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.

32. Connected transactions with ThaiOil Energy Service Co., Ltd. (Connected transactions until April 30, 2016)

The services fees with this company, a connected company through PTT, followed normal business

practices and market prices.

33. Connected transactions with PTT Energy Solutions Co., Ltd. (Connected transactions until April 30, 2016)

Other services fees with this company, a connected company through PTT, followed normal business practices and market prices.

34. Connected transactions with PTT Exploration and Production Plc (Connected transactions until April 30, 2016)

Other services fees with this company, a connected company through PTT, followed normal business practices and market prices.

These transactions were undertaken in the normal course of business, with none taken as extraordinary transactions. No siphoning of interests occurred among BCP, subsidiary companies, connected companies and shareholders. Approvals were scrutinized by the President, who duly approved them as authorized by Company regulations.

Disclosure of connected transactions follow the rules of the Office of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET), as well as the accounting standards concerning the disclosure of information concerning connected parties and businesses, as defined by the Federation of Accounting Profession of Thailand.

O Policy for future connected transactions

In undertaking future connected transactions, BCP will continue its product and oil pipeline transport service transactions with connected companies, since these represent normal business practices in the same industry. The pricing of products and services follow market practices and/or the details stipulated in commercial contracts. However, in such cooperation, BCP takes into consideration its best interests. The Audit Committee and the Internal Audit Office are to supervise and review BCP's business to ensure its conformance to securities and SET laws, as well as the requirements, announcements, or regulations of SET. In addition, for whichever transactions involving BCP executives, they are not allowed to cast their votes in meetings. Major connected transactions must be reviewed and approved by the Board.

Financial Status and Operational Results

Management's Discussion and Analysis of Business Operation

For the year ended December 31, 2016

Executive Summary

©Summary of the Company and its subsidiaries' operating result for the second quarter ended 31st December 2016

In 2016, the consolidated financial statement recorded revenue from sale of goods and rendering of services of Baht 144,705 million, and Net Profit of Baht 4,729 million which was the Net Profit attributable to owners of the Company of Baht 4,773 million, or earning per share of 3.47 Baht.

EBITDA Structure of the Company and its subsidiaries.

Unit: Million Baht

	Q4/2015	Q3/2016	Q4/2016	YoY	QoQ	2015	2016	YoY
Total Revenue	35,136	36,686	40,481	15%	10%	151,140	144,705	-4%
Total EBITDA	1,401	2,798	3,287	135%	17%	11,081	11,363	3%
EBITDA Refinery 1/	130	1,503	2,367	N/A	57%	5,097	5,756	13%
EBITDA Marketing ^{2/}	549	607	(3)	-101%	-101%	2,497	2,527	1%
EBITDA Power Plant 3/	865	612	795	-8%	30%	3,005	2,559	-15%
EBITDA Biofuel 4/	113	(65)	131	16%	303%	355	326	-8%
EBITDA Exploration and Production ^{5/}	(26)	171	71	371%	-59%	472	323	-32%
EBITDA Others ^{6/}	(56)	(31)	(73)	-29%	-137%	(171)	(129)	-25%
Profit attributable to owners of the Company	(112)	1,178	1,131	N/A	-4%	4,151	4,773	15%
Basic earnings per share (Baht)	(80.0)	0.86	0.82			3.01	3.47	15%
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Note:

^{1/}EBITDA from Refinery Business of the Company, BCP Trading Pte. Ltd. and Bongkot Marine Services Co., Ltd.

^{2/}EBITDA from Marketing Business of The Company, Bangchak Greenet Co.,Ltd., and Bangchak Retail Co., Ltd.

^{3/}EBITDA from Power Plant Business of BCPG Plc. and its subsidiaries

^{4/}EBITDA from Bangchak Biofuel Co., Ltd., Bangchak Bioethanol (Chachoengsao) Co., Ltd., and Ubon Bio Ethanol Co, Ltd.

^{5/}EBITDA from Nido Petroleum Limited

^{6/}EBITDA from BCP Energy International Pte, Ltd., BCP Innovation Pte. Ltd., and others

In 2016, Bangchak refinery's average crude run was decreased compared to 2015, from the annual turnaround maintenance between 8th February - 23rd March totaling 45 days. However, total sales volume was increased by 5% YoY, especially in sales volume through retail market (service stations), since the company had reserved its oil products to sell during refinery's maintenance period. This was according to the company's strategy to serve the retail market as its main priority, in response to the boosted domestic demand due to the declining retail oil product prices, the economic recovery and the consecutive tourism growth from 2015. Consequently, total marketing margin was slightly increased compare to previous year.

Average Dubai crude oil price in 2016, compared to 2015, was decreased by 18% (average Dubai crude oil price in 2016 and 2015 was 41.43 and 50.84 \$/BBL respectively), due to the lower oil demand from China earlier this year. In addition, OPEC's crude oil production continuously to hit its highest production record in 2016. However, the crude oil price during the end of the year was supported by the supply-reduction deal of The Organization of the Petroleum Exporting Countries (OPEC) and 12 non-OPEC countries. Consequently, the company recorded an inventory gain of Baht 590 million and its subsidiaries recorded an inventory loss of Baht 98 million, resulted in an inventory gain of Baht 488 million as a group.

In 2016, The Company and its subsidiaries recorded a gain from crude and product oil price hedging contract of Baht 107 million, a gain from foreign currency forward contracts of Baht 39 million, and a gain on foreign exchange of Baht 237 million, from Bath appreciation. While the company's strategy focusing on business expansion lead to non recurring higher cost of selling and administrative expenses related to acquisition and establishing subsidiaries company activities, resulting in a decline in some business performance. However, the consolidated performance of the company and its subsidiaries was superior to previous year. As a result, in 2016, the Company and its subsidiaries recorded a total EBITDA of Baht 11,356 million, increased 3% YoY.

The summary of business performance by sector were as follows:

Bangchak refinery's average crude run was recorded at 101.39 KBD, decreased from the annual turnaround maintenance (TAM). However, crude run was steadily higher than the target of 96 KBD afterwards. Market GRM was recorded at 5.99 \$/BBL, reduced from last year, since Dated Brent/Dubai crack spread (DTD/DB) expanded while most of the products crack spreads dropped, especially in Gas Oil/Dubai crack spread (GO/DB), which was the majority of Bangchak's refining products, was decreased by 19% YoY. Despite the spread issue, Market GRM had been driven by cost reduction from quality improvement project and Co-generation system that saves cost of electricity with thermal energy. In addition, the crude oil prices was increased at the end of the year, resulted in an inventory gain of Baht 590 million refinery business, and a gain from crude and product oil price hedging contract of Baht 112 million. EBITDA was increased by 13% YoY.

Marketing business sales volume was 5,789 million litres, increased by 7% YoY, from the rise in domestic oil demand in both retail and industrial markets, supported by the declining retail oil product prices and a growth in tourism sector. The company's retail market share remained in the 2nd rank at 15.1%, as the

company prioritizes its selling of finished products through service stations and opening new and quality service stations. Total marketing margin was 0.79 baht per litre, increased by 3% YoY. In 2016, marketing business incurred in a higher cost of selling and administrative expenses, resulting from the sales volume oriented strategy and business expansion, by establishing Bangchak Retail Co., Ltd. to operate non-oil business. Consequently, EBITDA was slightly decreased from the previous year.

Solar Power business which is currently operated by BCPG Plc., a subsidiary of the company, recorded an increase in total revenue by 2%YoY. Its solar power business in Japan had the total electricity sales of 19.50 million kWh from the operating projects, and two of agricultural cooperatives solar farms have started the commercial operation with PPA of 7 MW. However, solar power business in Thailand recorded a lower total electricity sales by 8.93 kWh (-3%) YoY, mainly from decreasing in irradiation hours of all the 3 phases and the lower average electric price (exclude adder). Solar Power business recorded a higher selling, general and administrative expenses comparing to the previous year, due to the cost of acquiring SunEdison (Japan), preparing project under construction and development, and its initial public offering (IPO) which lead to diminishing EBITDA by 15% YoY.

Biofuel business recorded a revenue of Baht 7,093 million, increased by 31% YoY, due to Bangchak Biofuel. Co., Ltd.'s 2nd biodiesel plant and Bangchak Bioethanol (Chachoengsao) Co., Ltd.'s ethanol plant commencement. B100 sales volume grew in reponse to the new biodiesel Plant. However, in order to cope with the rising crude palm oil price earlier this year, the government announced a reduction in B100 mixing portion with diesel since July (B100 portion in with diesel: 25 July reduced from 7% to 5%, 25 August reduced from 5% to 3%, and 25 November increased from 3% to 5%). As a result, Biodiesel business was unable to reach its target production, and recorded the average daily production rate at 406 thousands litres. Moreover, the volatility of the crude palm oil prices resulted in the Baht 143 million inventory loss for the year (including allowance for loss on decline in value of inventories (LCM) of Baht 7 million). Consequently, biodiesel business EBITDA was decreased by 23% YoY. However, ethanol business recorded an additional EBITDA from Bangchak Bioethanol (Chachoengsao) Co., Ltd, and a higher share of profit from Ubon Bio Ethanol Co., LTD. In sum, biofuel business record an EBITDA of Baht 326 million, decreased by 8% YoY.

Exploration and Production Business recorded a revenue of Baht 1,503 million, with the total sales volume of 995,880 barrels. The decline in revenue followed the fact that the average selling price per cargo dropped as the market price was lower and the sale volume decreased as the production volume declined in accordance with the Natural-Decline Production Curve. However, Nido is still focusing on its cost saving program on both the expenses in production and selling, general and administrative responding to the low crude oil price environment. In 2016, The Board of Directors of the company resolved to inject AUD 25.94 million into BCP Energy International Pte., Ltd. (BCPE) for taking all the entitlement right under Nido Petroleum Limited's pro rata entitlement offer of new ordinary shares. The proceeds will be used to finance Nido's participates interest share of the cost of drilling the Galoc appraisal well. BCPE's stake in Nido was increased from 81.25% to 96.98%.

Consolidated Statement of Income

Consolidated Statement	t of fileoffi	<u> </u>					OTIIL WIIII	on ban
	Q4/2015	Q3/2016	Q4/2016	YoY	QoQ	2015	2016	YoY
Revenue from sale of goods and rendering of services	35,136	36,686	40,481	15%	10%	151,140	144,705	-4%
Cost of sale of goods and rendering of services	(33,097)	(33,774)	(36,721)	11%	9%	(139,686)	(132,809)	-5%
Gross Profit	2,039	2,912	3,759	84%	29%	11,454	11,896	4%
Investment income and other income	99	113	404	309%	258%	543	754	39%
Selling and administrative expenses	(1,672)	(1,473)	(2,071)	24%	41%	(5,175)	(6,189)	20%
Gain (loss) from crude and product oil price hedging contract	(312)	11	(66)	79%	-703%	(407)	107	126%
Gain (loss) from foreign currency forward contracts	24	13	(32)	-230%	-341%	(155)	39	125%
Gain (loss) on foreign exchange	92	156	(253)	-375%	-263%	178	237	33%
Reversal of allowance for gain/(loss) from impairment of assets	(70)	3	31	145%	802%	(65)	37	157%
Share of profit (loss) of associate	4	(1)	16	318%	N/A	12	21	69%
Profit before finance costs and income tax	203	1,734	1,788	778%	3%	6,385	6,902	8%
expense Finance costs	(412)	(369)	(415)	1%	13%	(1,615)	(1,484)	-8%
Profit/(loss) before	(208)	1,365	1,372	759%	1%	4,770	5,418	14%
income tax expense	(200)	1,303	1,372	159/0	1 /0	4,770	3,410	14 /0
Income tax (expense)	17	(233)	(164)	N/A	-30%	(673)	(689)	2%
Profit for the period	(191)	1,132	1,209	733%	7%	4,097	4,729	15%
Owners of the Company	(112)	1,178	1,131	N/A	-4%	4,151	4,773	15%
Non-controlling interests	(79)	(47)	77	198%	266%	(53)	(44)	18%
Earnings per share (Baht per Share)	(0.09)	0.86	0.82	N/A	-4%	3.01	3.47	15%

Unit: Million Baht

In 2016, the company and its subsidiaries recorded a Net Profit attributable to owners of the Company of Baht 4,773 million, an increase of Baht 623 million (15% YoY) when compared to 2015, with details as follows:

- 1. Total revenue from sale of goods and rendering of services of Baht 144,705 million, a decrease of 4% YoY, mainly from the reduction in finished oil product sales volume from the previous year. However, total sales volume increased by 5% YoY, and expanded in every sales channels of the company.
- 2. Gross Profit was recorded at Baht 11,896 million, increased 4% YoY. Even Market GRM was 5.99 \$/BBL, decreased by 3.06 \$/BBL, compared to 2015. However, Gross Profit of biodiesel Business was decreased due to the higher average the crude palm oil (CPO) price, which is the raw material for B100 production. In 2016, the Company and its subsidiaries recorded an Inventory Gain of Baht 488 million, while in 2015, there was an Inventory Loss totaling of Baht 4,434 million.
- 3. Investment income and other income was recorded at Baht 754 million, an increase of Baht 221 million (+39% YoY). As in Q4/2016, there was a profit from bargain purchase of Baht 227 million, from the acquisition of Solar Power business of Sun Edison in Japan.
- 4. Selling and administrative expense was recorded at Baht 6,189 million, an increase of 20% YoY, mainly due to the increased expense of BCPG Plc., of Baht 555 million and Bangchak Retail Co., Ltd of Baht 136 million. Mainly from the Baht 385 million increment of expense related to human resources, as the number of employee increased, and advisory expenses for the company. Advertising expense and other expense for the company's strategy focusing on increase of sale volume and business expansion. Moreover, an increase of depreciation and amortization in 2016.
- Gain from crude and product oil price hedging contract of Baht 107 million from the gain from oil product hedging, while in 2015, the Company recorded loss from crude and product oil price hedging contract of Baht 407 million.
- 6. Gain on foreign currency forward contracts at Baht 39 million, an increase of 125% YoY, from the appreciation of Thai Baht against US Dollar compared to the previous year, while in 2015, the Company recorded loss on foreign currency forward contracts of Baht 155 million.
- 7. Gain on foreign exchange was recorded at Baht 237 million, an increase of 33% YoY from the appreciation of Thai Baht against US Dollar compared the previous year. However, the weakening of Japanese Yen resulting in a loss on foreign exchange of business in Japan of Baht 86 million.
- 8. The company and its subsidiaries recorded a gain on reversal of an impairment loss of Baht 37 million, from the increment of Contingent Resource estimates in Exploration and Production Business, while in 2015 recorded impairment loss of Baht 65 million.
- 9. Finance costs was recorded at Baht 1,484 million, a decrease of 4% YoY, due to the partial prepayment of long-term loan from financial institutions.
- 10. In 2016, BCP Innovation Pte. Ltd., a subsidiary of the company, recorded a gain from a change in fair value of asset available for sale, LAC (Lithium Americas Corp.), of Baht 235 million, which will be recorded in other comprehensive income.

Performance of each company details are as follows:

Statement of Income of the company and its subsidiaries

Statement of Income of the company and its sub	sidiaries	Unit: Baht Milion
2016	Revenue from sale of goods and rendering of services	Net Profit
The Bangchak Petroleum Plc.	137,064	4,502
Bangchak Green Net Co., Ltd.	29,286	82
Bangchak Biofuel Co.,Ltd.	6,830	117
BCPG Plc. Group	3,084	1,541
Bangchak Retail Co., Ltd.	31	(89)
Bangchak Bioethanol (Chachoengsao) Co.,Ltd.	263	22
Nido Petroleum Ltd.	1,503	(568)
Other ^{1/}	876	35

Note:

Summary of events in 2016

- January 2016 BCPG Plc., a subsidiary of The Company, has signed Purchase and Sale Agreement to purchase the entire solar power plant business of Sun Edison in Japan with total Power Purchase Agreement (PPA) of 164 Megawatts (MW) (installed capacity of 198 MW), within the Budget of JPY 9,626 million (equivalent to THB 2,915 million).
- February 2016 Company has set up two new subsidiaries in accordance with the Company's Board of Directors Meeting as follow
 - BCPG investment Holdings Pte., Ltd. and BSE Energy Holdings Private Pte., Ltd., which were established in Singapore with the objectives of investment holdings.
 - Bangchak Retail Co., Ltd., which was established in Thailand with the objectives to engage in businesses related to food, beverages, consumer product, wholesale and retail sale, transportation, education, and warehouse.
- February 2016 There was an Annual Turnaround Maintenance of Bangchak refinery, totaling 45 days (between 8th February - 23rd March 2016).
- April 2016 BCPG Plc., a subsidiary of The Company, has purchased the entire solar power plant business of Huang Ming Japan Co., Ltd., for 2 solar power plant projects in Japan with total Power Purchase Agreement (PPA) of 30 Megawatts (MW) (installed capacity of 36 MW).
- April 2016 The Company's Annual General Meeting of Shareholders of the Company resolved to approve the profit allocation from retained earnings for dividend payment for the second-half-year operations of 2015 at the rate of Baht 1.00 per share.
- April 2016 The Company has reported to the Stock Exchange of Thailand, on the change of investment scheme of BCP Bioethanol Co., Ltd., from ordinary shares purchase to be joint venture investment with SIMA Inter Product Co., Ltd. The new company will be renamed from "BCP Bioethanol Co., Ltd." to "Bangchak Bioethanol (Chachoengsao) Co., Ltd." The Company hold 85% shares in the joint venture company.
- May 2016 The Company has reported to the Stock Exchange of Thailand on the establishment of a new subsidiary company in Singapore "BCP Trading Pte. Ltd. (BCPT)" in Singapore, with the objectives to trade

^{1/}BCP Energy International Pte. Ltd., BCP Innovation Pte. Ltd., BCP Trading Pte. Ltd.,

- commodities which include crude oil, petroleum products, petrochemicals and other related chemical and to conduct other business. The Company hold 100% shares in BCPT.
- May 2016 The Company has reported to the Stock Exchange of Thailand on the establishment of joint venture company "Bongkot Marine Services Co., Ltd." with the objectives to engage in businesses related to floating storage unit (FSU). The Company hold 30% shares and Prima Marine Co., Ltd. hold 70% shares in the joint venture company
- July 2016 Bangchak Biofuel Co., Ltd. started the new 2nd Biodiesel Plant commercial production and sales, with an average production capacity of 450 thousands litres per day.
- August 2016 The Company launched the new technology "Green S Revolution" for all of its gasohol products.
 The technology is an innovation for new gasoline engines using direct injection gasoline (DIG) system, and will help enhance engines efficiency
- August 2016 The Company's Board of Directors meeting resolved to approve on profit allocation of the unappropriated retained earnings for interim dividend payment for Company's shareholders at Baht 0.80 per share.
- September 2016 BCPG Plc., a subsidiary of the company has finished the initial public offering (IPO) process
 of its ordinary shares which are listed in the Stock Exchange of Thailand. Newly issued shares of 590 million
 shares were offered at Baht 10 per share (Par value = Baht 5 per share). The IPO resulted in the Company's
 shareholding in BCPG Plc. to be 70.35%.
- September 2016 The Company has reported to the Stock Exchange of Thailand on the establishment of a new associated company "Oam Suk Social enterprise Co., Ltd." with the objectives to engage in business related to the procurement of agricultural products, rice, and other organic crops for processing, marketing, distribution, and research and development. The Company hold 40% shares and Buddhist Economic Foundation holds 60% shares in the associated company.
- October 2016 The Company has reported to the Stock Exchange of Thailand on the equity injection into BCP Energy International Pte., Ltd. (BCPE), for BCPE to take up all of its pro rata entitlement under the Nido Petroleum Limited's entitlement offer representing AUD 25.94 million in proceeds, to fund appraisal wells program in the Mid-Galoc area of Galoc oil field in Philippines, which NIDO and other stakes of Galoc field will use for further development of the field. After the capital increase completed BCPE's shareholding in Nido increased from 81.25% to 96.98%.
- November 2016 Bangchak Retail Co., Ltd., which is a subsidiary of The Company, launched the SPAR
 Supermarket from the Netherlands at Bangchak Ratchapruek Service Station, Bangkok for the first time. The
 supermarket will operate under the concept "SPAR FRESH & EASY FOOD MARKET", to provide customers
 with a distinct advantage, such as excellent fresh food, and promote the community by developing and selling
 products under the brand SPAR.

Summary of the Company and its subsidiaries' performance by Business unit 1. Refinery Business

Crude Oil Price
Unit: \$/BBL

	-									
	Q4/2015	Q3/2016		Q4/2016		YoY	QoQ	2015	2016	YoY
	AVG	AVG	MAX	MIN	AVG	%	%	AVG	AVG	%
Dubai (DB)	40.68	43.19	54.20	41.90	48.25	19%	12%	50.84	41.43	-19%
Dated Brent (DTD)	43.76	45.86	55.41	41.91	49.33	13%	8%	52.39	43.73	-17%
DTD/DB	3.09	2.67	4.98	-0.91	1.08	-65%	60%	1.55	2.30	49%
						1				

Crude Oil Price Situation

naverage Dubai crude oil price in 2016, compared to 2015, was decreased by 9.14 \$/BBL due to lower oil demand as China's economic growth was slowdown. Meanwhile, the western countries sanction on Iran had been lifted in January which put more pressure on crude oil price as more supply from Iran could potentially flow into the market. OPEC's crude oil production also continued hitting highest output record in 2016 as OPEC countries wanted to increase their market share before supply-reduction deal in December. Furthermore, the U.S. dollar had continued to strengthen as expectation that the U.S. economy under president-election Donald Trump will expand at a faster pace and the FED raises interest rates in December. All these factors are bearish sentiments to crude oil prices.

In Q4/2016, average Dubai crude oil price was 48.25\$/BBL, increased by 5.06 \$/BBL from the average price in the previous quarter. The oil price was supported by the supply-reduction deal of The Organization of the Petroleum Exporting Countries (OPEC) in November. OPEC agreed to curb production for the first time since 2008 by 1.2 million barrels per day, which produced around 33.7 million barrels per day, to 32.5 million barrels per day. Moreover, 12 non-OPEC countries also made commitments to cut output by 0.56 million barrels per day in December, led by Russia, Oman and Mexico excluded the U.S. Thus, the overall reduction deal between OPEC and other producers would cut almost 1.76 million barrels per day in oil output starting from January 2017 for six months. In addition, the national oil companies of both OPEC and non-OPEC, including top producer in Saudi Arabia, Kuwait, UAE and Russia, had notified customers in Asia that they would reduce volume for crude delivery in order to comply with the agreement in mid-December. Market also expected other producers would have preliminary cut crude output from January 2017 onwards as well.

However, there are some pressures for crude oil price as OPEC's output hit a record high in November, rising to 33.87 million barrels per day. Moreover, a hike in The U.S. interest rate in mid-December has made flow of money away from commodities into the U.S. dollar that hovered near a 14-year peak against a basket of major currencies. Furthermore, production at the major Libyan oilfield of Sharara and El Feel had gradually resumed after the lifting of a two-year pipeline blockade. Lastly, Crude oil price was also pressured on prospect of rising US shale production as working oil production rigs had increased from the lowest level 316 rigs in May to more 529 rigs in the last week of 2016.

For comparing of Dated Brent/Dubai crack spread in 2016 and 2015, the spread was increased by 0.75\$/BBL in 2016. The spread was supported by lower light crude supply due to the U.S. oil production decline in the early year. In addition, Nigeria's oil supply was lower as strike problems. While Chinese demand decreased as slowdown economic growth as also supported crack.

However, the average Dated Brent/Dubai spread in Q4/2016 was 1.08 \$/BBL, the spread was decreased by 1.59 \$/BBL compared to previous quarter. The spread was pressured by higher light crude oil supply from Libyan and shale oil productions in the U.S. have recovered to continue rising from the middle year. Meanwhile, heavy crude oil was support as OPEC and non-OPEC agreed to curb production for 6 months starting in January 2017.

Crack Spread	ds								Un	it: \$/BBL
	Q4/2015	Q3/2016		Q4/2016		YoY	QoQ	2015	2016	YoY
	AVG	AVG	MAX	MIN	AVG	%	%	AVG	AVG	%
UNL95/DB	18.72	11.59	17.86	11.98	14.59	-22%	26%	18.33	14.83	-19%
IK/DB	14.04	11.11	13.78	10.82	12.27	-13%	10%	13.85	11.56	-17%
GO/DB	13.71	10.93	14.78	9.48	12.04	-12%	10%	13.63	10.80	-21%
FO/DB	-6.56	-4.27	1.05	-5.92	-1.63	75%	62%	-5.03	-4.97	-1%
						1				

Crack Spreads Analysis

 An average Mogas/Dubai crack spread in 2016 decreased by 3.50 \$/BBL, compared to 2015, driven by lower gasoline import from Indonesia according to the start of new Residue Fluid Catalytic Cracker in the fourth quarter of 2015. Indian gasoline demand also slowdown for the first time in almost two and a half years due to severe flooding. Moreover, the higher retail price in Korea led to lower gasoline demand. In addition, the first round of Chinese product export quotas for 2016 were higher than the previous year as the government allowed independent refineries to export oil product for the first time.

An average Mogas/Dubai crack spread in the Q4/2016 was 14.59 \$/BBL, compared to the average of 11.59\$/BBL in Q3/2016. The spread had been supported by gasoline demand growth due to 50% tax break on vehicle with 1.6 liter or smaller engines which expired in last December. In India, 500 and 1,000 rupee demonetization led to a temporary surge in gasoline sales, as the government allowed the use of these scrapped notes for payments at fuel stations until mid-December. Moreover, summer season in Africa region also supported gasoline demand. On the supply side, the crack spread was supported by the peak of refineries maintenance of the year in October that led to one-year lowest level of light distillates stock in Singapore. The major refinery in India had fire incident during the maintenance period that caused the delay in startup. Lastly, Colonial pipeline Line 1 in the U.S., which carries gasoline capacity 1.37 million barrels per day from the Gulf coast to Far East and North, shut down because of explosion and leak for one week in November.

An average of Jet (Kerosene)/Dubai crack spread was decreased by 2.29 \$/BBL in 2016, compared to 2015. This was due to warmer winter in 2016 compared to previous year in Asia, led to lower demand for heating. Moreover, kerosene demand in India declined 10.6% compared to the previous year as LPG demand remained record highs which displacing the kerosene demand.

An average of Jet (Kerosene)/Dubai crack spread in Q4/2016 was 12.27 \$/BBL, compared to the average of 11.11\$/BBL in Q3/2016. The spread had been supported by the increasing demand for heating compare to the previous quarter as winter began.

An average of Gasoil/Dubai crack spread in 2016 decreased by 2.83 \$/BBL, compared to 2015. This was due to the overall demand weakened as a result of warmer than usual winter in many regions which led to decreasing heating oil demand compare to the previous year. Furthermore, Chinese oil demand also decreased as slowdown growth of industry sector. According to China's environmental problems, the government cut working hours for coal miners that led to lower diesel demand about 6% in 2016 compare to the previous year. Moreover, the market still remained oversupplied with plenty of diesel.

An average of Gasoil/Dubai crack spread was 12.04 \$/BBL, compared to the average of 10.93 \$/BBL in the previous quarter. The spread had been driven by strong diesel demand in China from uptick in coal mining activities for power, and tighter scrutiny on truck overloading has also leading to higher freight mileage for diesel trucks. Moreover, Indian's diesel demand was increased after the monsoon has passed in November 2016 and Indian economic plan to boost country's GDP from 16% to 25% by 2025, implied to upcoming higher diesel demand. On the supply-side, supply also declined from refineries maintenances in both Saudi Arabia and India in Q4/2016.

• The average of Fuel Oil/Dubai crack spread slightly increased by 0.06 \$/barrel in 2016, compared to 2015. This was because the overall bunker demand increased. It is also driven by demand from South Korea and Japan for electricity generation in the late 2016. While, the fuel oil arbitrage inflow from Europe to Asia was slowdown due to higher Russian fuel oil export tax effective in 2017.

The average of Fuel Oil/Dubai crack spread was -1.63 \$/BBL, compared to an average of -4.27 \$/BBL in Q3/2016. The spread had been stronger because the higher demand in fuel oil in power generation in Japan as nuclear power plant shut down for routine maintenance in December. In addition, the nuclear situation in South Korea was also supportive for fuel oil demand as the five nuclear units were taken offline in September following the earthquake and by that time it was unclear when these units would be able to come back until it restarted again in December. Meanwhile, the other four nuclear units in South Korea also shut down for scheduled maintenance in October. Moreover, the tight fuel oil market was partly due to strong demand from Pakistan which suffered from a hydroelectric power shortage because some dams was unable to operate due to low water levels. There was also an increase in bunker demand in the last quarter due to higher shipping activities before year end. On the supply-side, crack remained strong due to lower arbitrage inflows from Russia as higher fuel oil export tax starting in 2017 that forced the refineries to upgrade their units for high valued products throughput.

Refinery Business Performance

	Q4/2015	Q3/2016	Q4/2016	YoY	QoQ	2015	2016	YoY
Average Crude Run (KBD)	114.37	115.59	113.82	0%	-2%	112.94	101.39	-10%
Utilization Rate (%)	95%	96%	95%	0%	-1%	94%	84%	-10%
Average FX (THB/USD)	36.00	35.01	35.57	-1%	2%	34.40	35.47	3%
(Unit: Million Baht)								
Market GRM	3,023	2,092	2,416	-20%	15%	12,838	7,887	-39%
GRM Hedging	(339)	11	(74)	-78%	-774%	(472)	112	124%
Inventory Gain/ (Loss)1/	(1,631)	120	907	-156%	658%	(4,354)	590	114%
Total GRM	1,053	2,223	3,250	209%	46%	8,012	8,588	7%
EBITDA	130	1,503	2,367	N/A	57%	5,097	5,756	13%
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Note:

^{1/} Inventory Gain/ (Loss) in Q3/2016 was included a reversal of LCM.

Unit: Million Litre

Market GRM and Crude Run

Market GRM (\$/BBL) Crude Run (KBD) 114 116 114 113 101 9.05 7.98 5.62 5.99

Total GRM



Total Sales Volume in each market category of the Company

Total Sales Volume in each	cii iiiai ket c	ategory or	tile compe	iiiy			Offic. IVII	IIIOH LIUE
Marketing Business	Q4/2015	Q3/2016	Q4/2016	YoY	QoQ	2015	2016	YoY
Retail	851	879	921	8%	5%	3,285	3,609	10%
Industrial	538	503	570	6%	13%	2,124	2,180	3%
Total	1,390	1,382	1,492	7%	8%	5,410	5,789	7%
Wholesale Business								
Petroleum traders in accordance with section 7	154	260	258	68%	-1%	653	807	24%
Export	278	259	247	-11%	-5%	1084	934	-14%
Total	432	519	505	17%	-3%	1,738	1,741	0%
Total Sales Volume	1,822	1,902	1,997	10%	5%	7,148	7,530	5%
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Note:

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

For the year 2016, Bangchak refinery's average crude run was 101.39 KBD compared to 112.94 KBD in 2015, as a result of the annual turnaround maintenance (TAM) between 8th February - 23rd March, totaling of 45 days. However, after the annual turnaround maintenance, the refinery's average crude run was steadily higher than 110 KBD. The consistently high crude run was a result of the well-planned production process, refining logistics system management, together with the YES-R projects which enabled a consistent and smooth production process.

Market GRM was decreased to Baht 4,952 Million (-39%) when compared to last year, from the expansion in Dated Brent/Dubai crack spread in 2016 to be at an average of 2.30 \$/BBL, compared to 1.55 \$/BBL in 2015, as a result of lower light crude supply earlier this year. Moreover, most products crack spreads were contracted, especially Gas Oil/Dubai crack spread (GO/DB), Bangchak refinery's major products, which was pressured down from a weaker demand and the market oversupply situation of diesel product. Gasoline/Dubai crack spread (UNL95/DB) was driven down by the lower gasoline imports from Indonesia and increased supply from China. Jet (Kerosene)/Dubai crack spread (IK/DB) was narrower from the lower demand for heating oil. However,

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Fuel Oil/Dubai crack spread slightly increased from the higher demand in fuel oil. All these factors put more pressure on market GRM. In 2016, Bangchak refinery's cost of production was decreased from quality improvement projects and the Co-generation power plant which help reduce of the cost of electricity with thermal energy.

The continuity of upward trend in crude oil prices, especially during Q4/2016, resulted in an inventory gain of Baht 590 million in 2016 (including a reversal of allowance for loss on decline in value of inventories (LCM) of Baht 105 million). Refinery business recorded a gain from crude and product oil price hedging contract of Baht 112 million. As a result, in 2016, total GRM was recorded at Baht 8,588 million (+7%), and refinery business EBITDA was recorded at Baht 5,756 million (+13% YoY)

In Q4/2016, an average crude run was 113.82 KBD or 95% utilization rate. Market GRM was increased by Baht 324 million (+15% QoQ), due to the contraction of Dated Brent/Dubai crack spread in Q4/2016 to be at 1.08 \$/ BBL, compared to 2.67 \$/BBL in the last quarter, from higher light crude oil supply from Libya and the recovered shale oil productions in the U.S. Moreover, most of petroleum products crack spread was increased when compared to the previous quarter, from a significant increase in Gasoline/Dubai crack spread (UNL95/DB) which was driven up by the demand increased from China, India and Africa. On the supply side, Gasoline crack spread was supported by the supply reduction, as many refineries enter their maintenance period of the year. Moreover, Gas Oil/Dubai crack spread (GO/DB) and Jet (Kerosene)/Dubai (IK/DB) crack spread was improved by an increase of oil demand. Fuel Oil/Dubai crack spread (FO/DB) had been stronger because the higher fuel oil demand for power generation in Japan, South Korea and Pakistan. On the supply-side, Fuel Oil crack remained strong due to lower arbitrage inflows from Russia. By these factors, market GRM was increased. As a result, in Q4/2016, Refinery business recorded a total GRM at Baht 3,250 million (+46% QoQ) Moreover, by the higher of crude oil price in this quarter, inventory gain was recorded at Baht 907 million. However, there was a loss from crude and product oil price hedging contract of Baht 74 million. Consequently, EBITDA was recorded at Baht 2,367 million (+57% QoQ).

2. Marketing Business

Marketing Business	Marketing Business Unit: Million Litre										
Sales Volume (Million Litre)	Q4/2558	Q3/2559	Q4/2559	YoY	QoQ	2558	2559	YoY			
Retail (Service Stations)	851	879	921	8%	5%	3,285	3,609	10%			
Industrial	538	503	570	6%	13%	2,124	2,180	3%			
Total	1,390	1,382	1,492	7%	8%	5,410	5,789	7%			
Sales volume in each produc	t category	(Million L	itre)								
LPG	30	12	14	-53%	19%	78	73	-7%			
Gasoline	6	11	11	87%	5%	37	42	13%			
Gasohol	398	423	416	4%	-2%	1,513	1,650	9%			
Jet Fuel	181	187	225	24%	20%	678	822	21%			
Diesel	727	694	771	6%	11%	2,914	2,992	3%			
Fuel Oil and Others	48	56	55	14%	-2%	190	211	11%			
Total	1,390	1,382	1,492	7%	8%	5,410	5,789	7%			
Total Marketing Margin (Baht / Litre)	0.90	0.80	0.56	-38%	-31%	0.76	0.79	3%			
EBITDA (Million Baht)	549	607	(3)	-101%	-101%	2,497	2,527	1%			

In 2016, marketing business continued to expand its sales volume. The sales volume was 5,789 million litres, an increase of 379 million litres (+7%) compared to the previous year. The sales volume was higher both in the retail and industrial market, as the declining retail oil product prices and a growth in tourism had boosted domestic oil demand.

The number of service stations at the end of 2016 was 1,075 stations. There were 55 newly opened service stations during the year and the company closes down some stations with less than target sales volume. Most of newly service stations were standard stations with modern image and include other non-oil businesses such as Inthanin coffee shops, minimarts, commercial partner of leading brands etc., in order to better meet with customers' need. The company also improves quality and appearance of existing service stations to expand the thruput per service station. Moreover, in November, the company launched "Bangchak Greenovative Experience", the new model of service stations to meet the lifestyles of modern people in Thailand, with engaging environmental conservation, and launched the SPAR Supermarket from the Netherlands which is one of the world's largest retailer and wholesaler. Bangchak is the sole master licensee in Thailand. SPAR Thailand will operate under the concept "SPAR FRESH & EASY FOOD MARKET" to provide customers with a distinct advantage from the quality of fresh food and service. Moreover, there are community products under the brand SPAR according to Bangchak's policy, to increase its competitive advantage in retail market. Sales volume through retail market (service stations) was increased by 324 million litres (+10%), as the decline in retail oil product prices helped spur domestic oil demand, especially in the gasohol 95 sales volume which was increased by 31% YoY, as a result of the retail price dropped stimulating consumption. Moreover, the company continued to maintain its 2nd rank of market share in retail sales volume, its market share from January to December 2016 was at 15.1%.

Sales volume through industrial market was increased by 56 million litres (+3%), from the economic recovery and the continuous growth in tourism sector, resulting in an expansion in the tourism-related industrial transportation. The decline in oil prices also helped inducing industrial factories to switch from other sources of energy to oil products. Moreover, there were temporary shut down of some refineries during the year, enable the company to expand its sales volume in such period.

Total marketing margin in 2016 was at 0.79 Baht per litre, increased by 3%, as the lower crude oil price affected production cost, while oil product prices adjusted slower to the changing cost, but at the end of the year, marketing margin was decreased from a higher crude oil price. In 2016, marketing business had higher cost of selling and administrative expenses resulting from the comppany's sales volume oriented strategy and business expansion. Also from the establishment of Bangchak Retail Co., Ltd. to operate non-oil businesses. Consequently, marketing business recorded an EBITDA of Baht 2,527 million, slightly increased compared the previous year.

In Q4/2016, when compared to Q3/2016, Total sales volume increased by 110 million litres (+8%) from the previous quarter. The higher sales volume both in retail and industrial market was due to the travelling season and year-end long holiday, resulted in the rise of oil demand.

Sales volume through retail market (service stations) increased by 42 million litres (+5%), resulted in an expansion of diesel sales volume from the previous quarter. However sales volume of gasohol product was slightly decreased, as the flooding in Thailand's southern region at the end of November 2016 affected service stations in this area.

Sales volume through industrial market increased by 67 million litres (+13%), especially in Jet fuel and diesel products, from the seasonal factor in year-end travelling season and sugar cane harvesting time of the sugar industrial customers, supported the increase in diesel sales volume.

Total marketing margin in Q4/2016 was at 0.56 Baht per litre (-31%). Retail margin decreased from the unchanged retail oil product prices in October and from the company's policy to fix oil price in December, to support the consumers during the travelling season, while increasing crude oil prices in the quarter increased the company's crude oil cost. Industrial margin decreased as the market oversupply situation of finished products led to the higher competition. In Q4/2016, marketing business incurred in a higher cost of selling and administrative expenses related human resources, sales promotion, and service stations maintenance. As a result, in Q4/2016, marketing business recorded an EBITDA of Baht -3 million.

3. Power Plant Business

Power Plant Business Performance

Power Plant Business Performan	ice						Unit: Milli	ON KVVN
	Q4/2015	Q3/2016	Q4/2016	YoY	QoQ	2015	2016	YoY
Revenue (Million Baht)	766	785	757	-1%	-4%	3,024	3,084	2%
Electricity Sales (Million kWh)								
Solar Power Business – Thailand (PPA of 118 MW)	66.40	61.01	63.02	-5%	3%	263.32	254.40	-3%
Solar Power Business – Japan (PPA of 11 MW)	N/A	8.07	4.90	N/A	-39%	N/A	19.50	N/A
Total Electricity Sales	66.40	69.07	67.93	2%	-2%	263.32	273.90	4%
EBITDA (Million Baht)	865	612	795	-8%	30%	3,005	2,559	-15%
					$ \setminus $			

Linit: Million kWh

In 2016 when compared to 2015, Power Plant business recorded an increase in total revenue by Baht 60 million (+2%), mainly from the additional revenue recognized from the acquisition of Solar Power business in Japan, which currently has an operation plant with a PPA of 20 MW.

For the year 2016, Solar Power business in Thailand (PPA of 125 MW) recorded a lower total electricity sales by 8.93 kWh (-3% YoY), primarily as a result of a decrease in irradiation hours of all the 3 phases, from the higher amount of rainfall this year, while last year experienced a draught from the El Niño phenomenon. Also, the reduction in revenue was partly due to the decreased average electric price (exclude adder). Nevertheless, in December 2016, the solar farms for Agricultural Cooperatives which BCPG Plc. supports have started the commercial operation for 2 plants (PPA of 7 MW), from the total of 3 plants (total PPA of 12 MW). The Agricultural Cooperatives solar farm which is situated in Bang Pa-In district, Ayutthaya province was effected by the water penetration in the construction site, thus has to delay its construction process, but there was no other damage, and the plant is expected to start the commercial operation within 1H2017. For Solar Power business in Japan (operating plant with PPA of 20 MW), total electricity sales from the operating projects was 19.50 million kWh during the year.

In 2016, Power Plant business recorded an increase in selling, general and administrative expenses when compared to the previous year, due to the expenses incurred from the acquisition of the entire solar power business of SunEdison in Japan, the expenses from preparation of other projects under construction and development, and the expenses incurred from the initial public offering (IPO) of newly issued ordinary shares. As a result, Solar Power business recorded an EBITDA of Baht 2,559 million (-15% YoY)

In Q4/2016 when compared to Q3/2016, Solar Power business recorded a decline in total revenue by Baht 28 million (-4% QoQ). Solar Power business in Thailand (PPA of 125 MW) recorded a higher total electricity sales by 2.01 MW (+3%), mainly due to the increment in electricity sales of Phase 2 and 3 by about 5%, even though the solar irradiation hours was lower due to the shorter daylight hours in winter season, but the cool temperature during the quarter led to the superior production efficiency. Moreover, there was an additional electricity sales from the commercial operation start of 2 Agricultural Cooperatives solar farms in December. The electricity sales from solar power plant phase 1, however, was reduced by 3%, due to the solar irradiation hours in the area which dropped more than the other phases. For Solar Power business in Japan, total electricity sales declined by 3.17 kWh (-39%), as a result of the lower solar irradiation hours of all phases, especially in Nikaho project (PPA of 8.8 MW), from the shorter daylight hours and the snow during winter season in Japan.

For Q4/2016, selling, general and administrative expense increased from the previous quarter, from the expenses related to human resources which normally rise during the end of the year. Moreover, there was a loss on foreign exchange of Baht 219 million, from the rapid depreciation of the Japanese Yen during the quarter. As a result, in Q4/2016, power plant business recorded an EBITDA of Baht 795 million (-8% YoY) and (+30% QoQ).

4. Biofuel Business

In 2016, Biofuel business recorded an EBITDA of Baht 326 million, which comprised of EBITDA from Bangchak Biofuel Co, Ltd. of Baht 262 million, EBITDA from Bangchak Bioethanol (Chachoengsao) Co., Ltd. of Baht 42 million, and a share of profit from Ubon Bio Ethanol Co, Ltd of Baht 21 million.

In Q4/2016, Biofuel business recorded an EBITDA of Baht 131 million, which comprised of EBITDA from Bangchak Biofuel Co, Ltd. of Baht 70 million, EBITDA from Bangchak Bioethanol (Chachoengsao) Co., Ltd. of Baht 46 million, and a share of profit from Ubon Bio Ethanol Co, Ltd of Baht 16 million.

Biodiesel business performance by Bangchak Biofuel. Co., Ltd

	Q4/2015	Q3/2016	Q4/2016	YoY	QoQ	2015	2016	YoY
Revenue (Million Baht)	1,423	1,553	1,189	-16%	-23%	5,414	6,830	26%
Utilization Rate (%)	102%	56%	49%	-52%	-12%	101%	80%	-21%
Average Daily Production Rate (Thousands of litres per day)	367	452	398	9%	-12%	365	406	11%
B100 Sales Volume (Million litre)	57	44	39	-31%	-11%	199	215	8%
EBITDA (Million Baht)	109	(60)	70	-36%	215%	342	262	-23%
Average Sales Price (Source: Department of Energy Business, Ministry of Energy)								
B100 (Baht / Litre)	28.26	37.62	33.58	19%	-11%	30.93	35.11	14%
Crude Palm Oil (CPO) (Baht / Kg.)	24.97	33.96	30.13	21%	-11%	27.27	31.95	17%

In 2016, when compared to 2015, Biodiesel business recorded a revenue increment of Baht 1,416 million (+26%), partly as a result of the growth in B100 sales volume by 16 million litres (+8%), due to the expansion of its customer base in preparation for the new 2nd Biodiesel Plant which started its commercial operation in July 2016. (2nd plant has an average production capacity of 450 thousands litres per day, resulting in the total production capacity of Biodiesel business to be 810 thousands litres per day). The increment in revenue was also due to the higher B100 average price which rose as the crude palm oil (CPO) price elevated, as the draught caused oil palm supply to drop from last year. However, in order to handle with the rising crude palm oil price earlier this year, the government announced a reduction in B100 mixing portion with diesel from July onwards. As a result, Biodiesel business was unable to utilize its production capacity according to plan, and recorded an 80% utilization rate, or an average daily production rate of 406 thousands litres.

In 2016, Biodiesel business recorded a decline of Gross Margin when compared to last year, primarily due to the Baht 143 million Inventory Loss for the year (including allowance for loss on decline in value of inventories (LCM) of Baht 7 million), as the government reduced the portion of B100 mixing with diesel, leading to CPO and B100 average price contraction during the time. While in 2015, Inventory Loss was recorded at Baht 19 million. Nevertheless, Biodiesel business recorded a Baht 17 million income from the delayed construction penalty fee of the 2nd Biodiesel Plant. From the reasons mentioned, Biodiesel business recorded an EBITDA of Baht 262 million (-23%) YoY.

In Q4/2016, when compared to Q3/2016, Biodiesel business recorded a revenue decline of Baht 364 million (-23%), partly due to the reduction in B100 sales volume by 5 million litres (-11%), as the government changed the B100 mixing portion with diesel, led to the decrease in B100 demand when compared to the previous quarter. (B100 mixing portion with diesel: 25th July reduced from 7% to 5%, 25th August reduced from 5% to 3%, and 25th November increased from 3% to 5%). The decrease in revenue was also due to the 11% drop in B100 price, as the crude palm oil (CPO) price declined.

For Q4/2016, Biodiesel business recorded an Inventory Loss of Baht 28 million (including a reversal of allowance for loss on decline in value of inventories (LCM) of Baht 54 million), while in Q3/2016 Inventory Loss was recorded at Baht 153 million (including allowance for loss on decline in value of inventories (LCM) of Baht 61 million). As a result, in Q4/2016, Biodiesel business recorded an EBITDA of Baht 70 million (-36%) YoY and (+215%) QoQ.

Fuel Ethanol business performance by Bangchak Bioethanol (Chachoengsao) Co., Ltd.

	Q3/2559	Q4/2559	2559		
Revenue (Million Baht)	0	263	263		
Utilization Rate (%)	N/A	83%	83%		
Average Daily Production Rate (Thousands of litres per day)	N/A	125	125		
Ethanol Sales Volume (Million litre)	N/A	11	11		
EBITDA (Million Baht)	(3)	46	42		
Average Sales Price (Source: Department of Energy Business, Ministry of Energy)					
Ethanol (Baht / Litre)	23.14	23.11	23.12		

For Fuel Ethanol business, on September 21st, 2016, Ethanol plant (production capacity of 150 thousands litres per day) of Bangchak Bioethanol (Chachoengsao) Co., Ltd., a subsidiary of the company, has started its commercial operation, and started selling its Ethanol product in October 2016. The Average Daily Production Rate was recorded at 125 thousands of litres per day, or 83% utilization rate. As a result, in the year 2016, Fuel Ethanol business recorded an EBITDA of Baht 42 million.

5. 5) Exploration and Production Business

Exploration and Production Business Performance

	Q4/2015	Q3/2016	Q4/2016	YoY	QoQ	2015	2016	YoY
Production Volume ^{1/} (barrels per day net to Nido)	3,189	2,838	2,631	-17%	-7%	3,172	2,860	-10%
Sales Volume (barrels net to Nido)	411,008	196,474	203,903	-50%	4%	1,285,969	995,885	-23%
Revenue (Million Baht)	620	644	327	-47%	-49%	2,344	1,503	-36%
EBITDA (Million Baht)	(26)	171	71	226%	-59%	472	323	-32%
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Note:

In 2016 when compared to 2015, Exploration and Production business recorded a revenue of Baht 1,503 million, a decrease of Baht 841 million from the previous year, partly due to the average selling price per cargo which dropped from last year, as global crude oil price decreased by 19% YoY (average Dubai crude oil price in 2016 and 2015 was 41.43 and 50.84 \$/BBL respectively). The decline in revenue was also due to a reduction in sales volume, corresponding to the production volume which was lower according to the Natural-Decline Production Curve. For the year 2016, Galoc oil field recorded a total production volume of 1,873,150 barrels (1,046,707 barrels net to Nido), and Nido & Matinloc oil field recorded a total production volume of 126,365 barrels (32,632 barrels net to Nido). Total sales volume for the year was 995,885 (net to Nido).

In Q4/2016 when compared to Q3/2016, Exploration and Production business recorded a revenue decline of Baht 317 million, as in the quarter, Nido has realized revenue of 1 cargo of oil sold which was the cargo sold in November 2016, while in the previous quarter, Nido has realized revenue of 2 cargoes of oil sold. The selling price per cargo in the quarter was slightly lower than the last quarter, which was consistent to the global crude oil price which declined in November, the month which Nido recorded sales.

In Q4/2016, Galoc oil field recorded an Uptime of 99.95%, and a production volume of 4,709 barrels per day (2,631 barrels per day net to Nido). The details of crude oil selling during the quarter, as disclosed by the Nido Petroleum Limited (NIDO) in the Australian Securities Exchange (ASX) were as follows:

- Galoc oil field in November sold 1 cargo totaling of 347,977 barrels (194,448 barrels net to Nido) with FOB price of 44.62 \$/BBL.
- Nido & Matinloc oil field totaling 35,875 barrels (9,455 barrels net to Nido).

Further, Nido still focus on its cost saving program on both the expenses related to production and selling, general and administrative expenses, in response to the low crude oil price environment. As a result, in 2016, the selling, general and administrative expenses was decreased by 26% YoY. From the reasons mentioned,

^{1/} production volume of Galoc oil field only

in 2016, Exploration and Production business recorded an EBITDA of Baht 323 million (-32% YoY), and in Q4/2016 recorded an EBITDA of Baht 71 million (+226% YoY), and (-59% QoQ).

Moreover, in 2016, the Board of the Directors of the company resolved to inject equity into BCP Energy International Pte. Ltd. (BCPE) for BCPE to take up all of its pro rata entitlement under the Nido Petroleum Limited's entitlement offer representing AUD 25.94 million in proceeds, to fund appraisal wells program in the Mid-Galoc area of Galoc oil field in Philippines, which NIDO and other stakes of Galoc field will use for further development of the field. As a result, BCPE's shares in Nido has increased from 81.25% to 96.98%.





Assets

As of December 31, 2016, Total Assets of the Company and its subsidiaries were Baht 101,783 million, an increase of Baht 19,841 million when compared to the end of 2015. The changes in assets were mainly from:

- Cash and cash equivalents were increased by Baht 11,415 million. Details are stated under Analysis of the Cash Flow Statement.
- Current Investment was decreased by Baht 2,800 million from the withdrawal of the company's short term fixed deposits in financial institutions of Baht 3,500 million, but for BCPG Plc. increased by Baht 700 million.
- Trade Accounts Receivable were increased by Baht 788 million, due to a higher total sales volume and selling price per unit in December 2016, compared to December 2015. Meanwhile, Trade Accounts Receivable of Nido Petroleum Ltd. was declined.
- Other Accounts Receivable was increased by Baht 449 million, mainly from an increase in prepaid expense of the Company and BCPG Plc., for the solar power plant preparation.
- Inventory was increased by Baht 615 million, mainly due to the price per unit of finished oil which was increased from higher crude oil prices in the end of the year. However, volume of finished oil inventory was slightly decreased. In addition, inventory of Bangchak Biofuel Co, Ltd., and Nido Petroleum Ltd. was increased compare to the previous year.
- Investment in subsidiaries increased by Baht 5,494 million, primarily from the capital increase in BCPG Plc. of Baht 3,300 million, BCP Innovation Pte. Ltd. of Baht 181 million, Bangchak Retail Co., Ltd. of 800 million, Bangchak Bioethanol (Chachoengsao) Co., Ltd. of Baht 425 million, BCP Trading Pte. Ltd. of Baht 35 million, and BCP Energy International Pte. Ltd. of Baht 702 million. Moreover, the Company recorded gain on reversal of an impairment loss of Nido Petroleum Ltd. of Baht 51 million. However, the elimination of related parties transaction resulted in the consolidated financial statement showing total investment in subsidiaries of Baht 0.

- Investment in associates increased from Bongkot Marine Services Co., Ltd. (The Company hold 30% shares) and Oam Suk Social enterprise Co., Ltd. (The Company hold 40% shares)
- Property, plant and equipment were increased by Baht 6,418 million, primarily from Baht 3,780 million investment in refinery machinery and equipment of the company and of Bangchak Biofuel Co, Ltd., Marketing and office equipment of Baht 1,415 million. For BCPG Plc., the increment was from an acquisition of solar power business of Baht 1,530 million, and construction work in progress of Baht 3,053 million. An increase from Bangchak Bioethanol (Chachoengsao) Co., Ltd. of Baht 855 million, and other of Baht 143 million. Meanwhile, depreciation for the year was recorded at Baht 4,491 million.
- Intangible Assets increased by Baht 2,234 million, mainly from the company's investment in SAP license, the acquisition of solar power business in Japan, and the right to sell electricity of the Solar Power Plant in Japan of BCPG Plc.
- Other non-current assets were increased by Baht 872 million, mainly from leasehold right improvement, other long-term investments of BCP Innovation Pte. Ltd (from an investment in LAC), and maintenance fee of the Solar Power Plant in Japan of BCPG Plc.

Liabilities

As of December 31, 2016, Total Liabilities of the Company and its subsidiaries was Baht 57,875 million, an increase of Baht 11,916 million, mainly from:

- Short-term loans from financial institutions of the Company and its subsidiaries was Baht 7,444 million.
- Trade Accounts Payable were increased by Baht 3,772 million, from the higher value of crude oil purchase in December 2016 than in December 2015. And, a higher finished oil imports.
- Other payables were increased by Baht 388 million, from payables of construction work in progress in solar power plant of BCPG Plc. of Baht 176 million, Cash Dividends Payable of Baht 90 million and other payable from subsidiaries, but decreased from the hedging contracts liabilities of Baht 160 million.
- Other liabilities were increased by Baht 656 million, from the Contingent Liability of BCPG Plc.
- Long-term loans from financial institutions (including current portion of long-term loans) were decreased by Baht 1,516 million, primarily due to company's long-term loan prepayment, but increased partly from the loan draw down of the company's subsidiaries.
- Other non-current liabilities were increased by Baht 516 million, mostly from an increase in employee benefit obligations by Baht 198 million, and deferred tax expense of Baht 320 million.

Equities

As of December 31, 2016, Total Equity of the Company and its subsidiaries was Baht 39,542 million, an increase of Baht 4,062 million. The Consolidated book value was Baht 28.72 per share. The changes in equity were mainly from:

- Retained Earnings were increased by Baht 2,225 million, from Net Profit for the year of Baht 4,773 million, dividend payment of Baht 2,478 million, and an actuarial loss of Baht 70 million.
- Paid in Capital in Excess of Par Value was increased by Baht 1,594 million, from newly issued ordinary shares of BCPG Plc. and Nido Petroleum Ltd.
- Other component of equity were increased by Baht 242 million, by gain from foreign currency translation differences for foreign operations of Baht 7 million, and change in fair value of available for sale assets of Baht 235 million.

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

In 2016, the Company and its subsidiaries had net cash received from operating activities of Baht 13,288 million, net cash used in investing activities of Baht 8,154 million, net cash received in financing activities of Baht 6,391 million. As a result, the Company and its subsidiaries had an increase in Cash and cash equivalents of Baht 11,525 million, as there was Cash and cash equivalents of Baht 7,872 million on January 1, 2016 and an effect of exchange rate changes on balances held in foreign currencies of Baht -110 million, resulting in Cash and cash equivalents as of December 31, 2016 at Baht 19,287 million.

Details of cash received and used are as follows:

Cash Flows Unit: Million Baht

Cash Flows	31-Dec-15	31-Dec-16
Net cash received (used in) operating activities	12,032	13,288
Net cash received (used in) investing activities	(11,342)	(8,154)
Net cash received (used in) financing activities	(892)	6,391
Net increase (decrease) in cash and cash equivalents	(202)	11,525
Cash and cash equivalents as at 1 January	7,954	7,872
Effect of exchange rate changes on balances held in foreign currencies	120	(110)
Cash and cash equivalents as at 30 September	7,872	19,287

- The Company and its subsidiaries had net cash received from operating activities of Baht 13,288 million, mainly from
 - Net cash received from operating activities of Baht 11,286 million which was from Net Profit of Baht 4,729 million added back Non-Cash Expenses of Baht 4,384 million, Finance Costs and Income Tax credit of Baht 2,173 million.
 - Cash used in the operating assets decreased by Baht 1,767 million, mainly increased from Inventory
 of Baht 515 million, Trade Accounts Receivable increase of Baht 797 million, Other Receivables increase
 of Baht 189 million, and Other Assets increase of Baht 266 million.
 - Cash from operating liabilities increased by Baht 4,185 million, mainly increased from in Trade Accounts
 Payable of Baht 3,775 million, Other Payables of Baht 87 million, and other liabilities of Baht 323 million.
 - Income Tax Paid of Baht 416 million.
- 2) Net Cash used in investing activities of Baht 8,154 million, mainly from
 - Investment in property, plant and equipment of Baht 9,250 million, an investment in refinery machinery and equipment, marketing and office equipment of the company of Baht 4,791 million, an investment in Biodiesel plant machinery and equipment of Baht 404 million, construction work in progress in solar power plant of BCPG Plc. of Baht 3,053 million, from Bangchak Bioethanol (Chachoengsao) Co., Ltd. of Baht 855 million, and from Bangchak Retail Co., Ltd. of Baht 272 million.
 - Other long-term investments increased by Baht 168 million, and current investment decreased by Baht 2,799 million.
 - Net cash outflow on acquisition of subsidiary of Baht 963 million, from the acquisition of solar power business of SunEdison in Japan and purchase of shares in joint venture of Baht 44 million.
 - Leasehold right of service stations increased by Baht 451 million, and purchase of intangible assets increased by Baht 492 million.

- Received cash from the disposal of other investment in ASEAN Potash Chaiyaphum Public Company Limited of Baht 203 million.
- Received cash from interest received of Baht 209 million, and dividend received of Baht 3 million.
- 3) Net cash used in financing activities of Baht 6,391 million, mainly from
 - Received cash from short-term loan from financial institution of Baht 7,362 million, from the company of Baht 7,190 million, Bangchak Biofuel Co, Ltd., of Baht 120 million, BCPG Plc. of Baht 7 million, and Ubon bio Ethanol Co, Ltd., of Baht 45 million.
 - Received cash from long-term loan from financial institution of the company and its subsidiaries of Baht 9,611 million. (Bangchak Biofuel Co, Ltd., of Baht 617 million, BCPG Plc. of Baht 8,569 million, and Bangchak Bioethanol (Chachoengsao) Co., Ltd. of Baht 425 million.)
 - BCPG Plc. received cash from selling of equity of Baht 5,711 million.
 - Long-term loan from financial institution repayment of Baht 12,032 million, from the company of Baht 11,230 million, and BCPG Plc. of Baht 802 million.
 - Dividend payment of 2,753 million and financial costs of Baht 1,641 million.

Financial Ratios (Consolidated)

Profitability Ratios (%)

	Q4/2015	Q3/2016	Q4/2016	2015	2016
EBITDA Margin	3.99%	7.63%	8.12%	7.33%	7.85%
Profit Margin	-0.54%	3.08%	2.99%	2.71%	3.27%
Return on Equity (ROE) 1/	12.07%	9.52%	12.73%		
Return on Assets (ROA)	8.04%	5.99%	7.51%		
			1		

Note:

Liquidity and Financial Policy Ratios (times)

Elquidity and i manerat i oney itatios (til	1100)			
		31-Dec-15	30-Sep-16	31-Dec-16
Liquidity Ratios				
Current Ratio		3.22	2.80	1.69
Quick Ratio		1.89	1.94	1.13
Financial Policy Ratios				
Interest bearing Debt to Equity		0.94	0.91	0.86
Net Interest bearing Debt to Equity		0.59	0.45	0.38
		Q4/2015	Q3/2016	Q4/2016
DSCR		3.73	1.56	1.76

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

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Financial Ratios Calculation

ÉBITDA 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 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, aiming to enable the benefit of its usage for other organizations as well as for the company. 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

Environment	Managemen	t Accounting.	FMΔ
LIIVII OIIIIIEIIL	Managemen	i Accountina.	LIVIA

	2015	2016	\triangle
Material Costs of Product Outputs	93,032	73,360	(19,672)
: Consist of crude oil, ethanol, biodiesel, chemical, energy and utilities in production			
Material Costs of Non-Product Outputs : Consist of slop and sludge oil, waste water, chemical surplus	42	77	35
Waste and Emission Control Costs : Consist of maintenance cost of environmental control equipment and depreciation and other fees	398	315	(83)
Prevention and Other Environmental Management Costs : Consist of monitoring and measurement cost, environmental management system expenses	12	25	13
Total Expenses	93,484	73,777	(19,707)
Benefit from by-product and waste recycling	(17)	(16)	2

In 2016, total expenses related to environment decreased by Baht 19,707 million (-21%) when compared to last year. The main reason was due to a decrease in the Material Costs of Product Outputs which was reduced by Baht 19,672 million, from the global oil price which dropped by 19% from the previous year, and from the refinery's turn around annual maintenance which led to the lower crude run from 112.94 KBD in 2015 to 101.39 KBD this year. This was in accord with the Material Costs of Non-Product Outputs which was increased by Baht 35 million, from the higher slop and sludge oil. Meanwhile, Waste and Emission Control Costs was decreased by Baht 83 million (-21%), primarily from the reduction in depreciation of emission control equipment by Baht 109 million. Prevention and Other Environmental Management Costs was slightly increased.

Benefit from by-product and waste recycling decreased by Baht 2 million (-10%) during the year, as liquid sulfur and glycerin value was lower by Baht 3.3 million, and the sellable residue metal scrap value were reduced by Baht 1.7 million.

Executive management's prospects to tendencies and strategies in 2017

Economic outlook

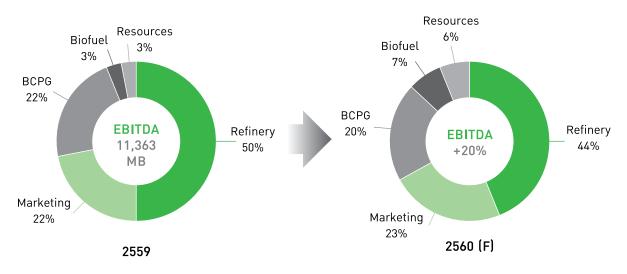
According to IMF World Economic Outlook, 2017 global economic activity is projected to accelerate, but volatile, following the 3 main factors. Firstly, the political situation of the United Kingdom (UK) after the referendum to secede from EU (Brexit), which would post a huge effect on European economic and monetary situation, especially in the UK. Secondly, the recovery of the US economy after the downturn in 2016. Lastly, the slowdown growth in emerging and developing countries, which was mainly due to the changing Chinese economic policy which aim to focus on domestic consumption instead of imports and exports. As a result, Central banks in many countries are expected to maintain their policy interest rates at a low level, in order to support the country's Gross Domestic Product.

For Thai economy in 2017, the Bank of Thailand forecasted a further improvement from the previous year, leading by domestic factors. Household purchasing power tend to expand after the depletion of first-car scheme leasing debt, the personal income tax restructuring and the increase of minimum wage. Private investment sector is likely to be recovered due to the prospective growth in service sector and positive externality of Thai government mega infrastructure projects. Export sector is expected to slightly recover from the positive factors in some trading partners, and economic stimulus policies in the neighboring countries.

Oil market situation outlook

Due to the oil production cut agreement of both OPEC and non-OPEC group, crude oil price is expected to increase to around 50-55 \$/BBL, resulting in the increment of Shale oil rig counts. However, crude oil price is expected to be more steady at around 50 – 60 \$/BBL, as other oil producers tends to resume their production if crude oil price rise to a higher level. Moreover, the oil market may face demand risk from the slowdown economic situation, notably in China, the uncertainty in the Eurozone political situation, and the increment of political interest rate in the US which would result in the appreciation of the USD and the adverse effect on the commodity products, including oil prices. The Bangchak Petroleum Plc. expects average Dubai crude oil price in 2017 to stay between 50 – 60 \$/BBL, while average Dated Brent/Dubai crack spread (DTD/DB) is forecasted to be narrower than in 2016, and stay between 0.8 – 1.8 \$/BBL, pressured by the inclination of the US Shale oil (of which characteristic is light grade) production return, while OPEC oil production cut agreement helped limiting heavy grade crude oil supply. For crack spread situation, Gross Refinery Margin on Dubai crude oil for the Hydrocracking refineries in Singapore is expected to slightly decline from 2016, due to the new commercial operation start of a number Asian refineries. On the other hand, finished oil product demand tends to decelerate, as the effect of the lower oil price which support demand is limited, and the possibility of the Asian economy to be effected by the change of US trading policy, after the new president is elected.

The Bangchak Petroleum Group's Business outlook in 2017

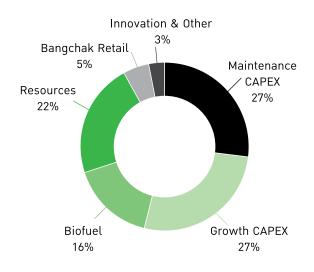


In the year 2017, the company's managements expects the company and its subsidiaries' business performance to be superior to 2016, as the group's EBITDA is planned to expand around 20% YoY. This is achievable as several of the company's business units' performances are believed to improve, especially the Refinery business, of which utilization rate is expected increase from the plan to run at full capacity, as there is no Annual Turnaround Maintenance (TAM) this year. Biodiesel and Fuel Ethanol business also plan to boost its utilization rates. As well as marketing business which will be using a more solid marketing strategies, both in service stations and Non-oil business, to push forward the company's market share continuously. Moreover, the crude oil price which projected to be at a level higher than 50 \$/BBL, is beneficial to the Resources businesses performance to improve. Important factors for each business are as follows:

Business	Substantial Estimation
Refinery	 Plans a higher crude run at an average of 111 KBD (93% Utilization) Gross Refinery Margin (GRM) is expected at 6 – 7 \$/BBL Refinery Improvement programs are continued, in order to expand GRM.
Marketing	 Sales volume are expected at 530 million litres per month, and the portion of retail markat would be increased from 62% to 65%. Marketing Margin (MKM) is anticipated at 0.75 – 0.80 Baht/Litre Plans to open 100 new service stations, focusing main roads and strategic locations, with modern image and include other non-oil businesses in order to meet with customers' need. The quality and appearance of existing service stations will also be improved. Plans to expand Inthanin coffee shop by an additional of 120 branches, and SPAR by an additional of 55 branches, to increase an ability to compete in retail business.
Biofuel	 Biodiesel business estimated a 20% expansion in sales volume, as the company expects the government to maintain B100 mixing portion in diesel at 5%. Production rate is planned at 710,000 Litres / Day. Fuel Ethanol business will realize full year performance, and production rate is planned at 130,000 Litres / Day. The possibility of business restructuring is being considered in response to Thailand 4.0 policy in Biotech.
Resources	 E&P business is expected to record a performance improvement from the higher crude oil price. Galoc oil field production is estimated at 2,000 barrels / day. E&P business is open for new investment opportunities. Nido still focus on its cost saving program on both the expense related to production and Selling, General and Administrative expenses. The additional investment in 50 million newly issued common shares of Lithium Americas Corp., at the price of CAD 0.85 per share, investment value totaling of CAD 42.50 million, is expected to be completed in April 2017. The proceeds will be utilized for development of Lithium mining projects of Minera Exar S.A. (Cauchari Olaroz Project) in Argentina, which is expected to start production in 2019.

Capital Expenditure Plan in 2017

In the year 2017, the company and its subsidiaries projects its Capital Expenditure to be Baht 18,500 million (excluded BCPG Plc.) Details for the Capital Expenditure as follows:



Unit: THB Million	Capital Expenditure Projection
Maintenance CAPEX	5,000
Growth CAPEX	5,000
Biofuel	3,000
Resources	4,000
Bangchak Retail	1,000
Innovation & Other	500
Total	18,500

Declaration of the Directors' Responsibility for the Financial Statements

The Board of Directors of the Bangchak Petroleum Plc has prepared the Company's financial statements to show its financial status and performance for 2012 under the Public Company Limited Act of 1992, the Accounting Act of 2000, the Securities and Exchange Act of 1992, and the announcement of the Capital Market Supervisory Board concerning the criteria, conditions, and reporting method for the disclosure of information on financial status and performance of companies that issue securities.

The Board recognizes its duties and responsibility for directing a listed company, particularly the responsibility for financial statements of the Company and its subsidiaries – including financial information that appears in the annual report of 2016. Such statements have been prepared under generally accepted accounting standards, which regularly complies with a suitable accounting policies and due and reasonable discretion exercised in the preparation of financial statements. Adequate significant information has been disclosed in the notes to these financial statements for transparent use by shareholders and investors at large.

The Board has instituted and maintained effective risk management and internal control systems to become reasonably confident of accurate, complete, and adequate accounting information to retain Company assets and prevent frauds or significant anomalies in operation.

The Audit Committee, acting on behalf of the Board, has been assigned responsibility for the quality of financial reports and internal control system, and its opinions duly appear in its own report found in this publication.

It is our view that the Company's internal control system is, on the whole, satisfactory and can reasonably assure us that the financial statements of the Company and its subsidiaries ended December 31, 2016 are reliable under generally accepted accounting standards, legally sound, and acceptable to relevant regulations.

(Signed) *Pichai Chunhavajira* (Mr. Pichai Chunhavajira)
Chairman of the Board

(Signed) Chaiwat Kovavisarach

[Mr. Chaiwat Kovavisarach]

President and Chief Executive Officer

Independent Auditor's Report

To the shareholders of The Bangchak Petroleum Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of The Bangchak petroleum Public Company Limited and its subsidiaries (the "Group") and of The Bangchak Petroleum Public Company Limited (the "Company"), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2016, the consolidated and separate statements of income and comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2016 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions under the Royal Patronage of His Majesty the King that is relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

Business acquisition

Refer to Notes 3 (a) and 4 to the financial statements.

The key audit matter

During 2016, the Group completed the acquisition of Solar business in Japan. The Group engaged independent appraiser independence & qualification. independent appraiser to provide valuation of the fair value of the assets and liabilities acquired. The fair value assessment of intangible assets are based on estimates and significant assumptions. In addition, the Group has additional contingent consideration, appropriateness of additional contingent consideration the estimation of additional contingent consideration estimated by the management. I considered the inherently uncertain, therefore, this is focus area in my audit.

How the matter was addressed in the audit

My audit procedures included evaluating the I challenged the significant assumptions. I engaged KPMG valuation specialist to assist in verifying the methodology adopted in determining fair value and testing the mathematical accuracy. I assessed the required judgment by the management and is adequacy of the group's disclosures in respect of the business acquisition.

Calculation of recoverable amount of oil exploration & production assets

Refer to Notes 3 (l) and 9 to the financial statements.

The key audit matter

The outlook for oil market continues to be challenging of reduced demand growth. As a result, future oil prices are still continuing to fluctuate. The recoverable amount calculated is based on value in use. The value in use is derived from discounted cash flow projections which reflect a number of assumptions and estimates by the management, therefore, this is focus area in my audit.

How the matter was addressed in the audit

My audit procedures included testing of the due to excess of crude oil supply against a backdrop calculation of recoverable amount prepared by the management. I assessed the key assumptions estimated by the management with reference to internally and externally derived sources after taking into account the historical forecasting accuracy. I consulted with KPMG valuation specialists when considering the appropriateness of the discount rate. I performed sensitivity analysis around the key assumption. I considered the adequacy of the disclosures.

Valuation of inventories

Refer to Notes 3(g) and 10 to the financial statements.

The key audit matter

realizable value to be lower than cost.

How the matter was addressed in the audit

Inventories are measured at the lower of cost and net | I verified the appropriateness of the net realizable realizable value. As a result of fluctuation in crude oil value calculation. I checked the selling prices of and oil products price which may cause the net finished goods with the reference market price. I considered the adequacy of the disclosure of inventories.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, management is responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's and the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business
 activities within the Group to express an opinion on the consolidated financial statements. I am responsible
 for the direction, supervision and performance of the group audit. I remain solely responsible for my audit
 opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

(Signed) Natthaphong Tantichattanon

(Natthaphong Tantichattanon)

Certified Public Accountant

Registration No. 8829

KPMG Phoomchai Audit Ltd. Bangkok

16 February 2017

Statement of Financial Position

		Consolidated	financial	Separate fi	nancial
		stateme	nts	stateme	ents
		31 Decen	nber	31 Decei	mber
Assets	Note	2016	2015	2016	2015
			(Baht)		
Current assets					
Cash and cash equivalents	6	19,286,650,258	7,871,868,029	8,872,401,610	5,468,589,618
Current investments	7	1,719,320,377	4,518,563,720	1,000,000,000	4,500,000,000
Trade accounts receivable	5,8	6,021,982,449	5,234,363,216	6,474,986,368	5,311,536,208
Other receivables	5,9	1,190,737,850	742,471,470	745,835,401	505,703,600
Short-term loans to related parties	5	-	-	-	389,616,500
Current portion of long-term loans to related parties	5	-	-	-	302,800,000
Inventories	10	14,560,471,060	13,944,669,465	13,458,131,958	13,247,975,779
Oil fuel fund subsidies receivable		894,078,150	825,115,582	894,078,150	825,115,582
Other current assets		477,256,635	489,417,534	153,151,581	438,646,215
Asset classified as held for sale	7		173,236,050		173,236,050
Total current assets	_	44,150,496,779	33,799,705,066	31,598,585,068	31,163,219,552
Non-current assets					
Investments in subsidiaries	5,11	-	-	11,638,763,688	6,144,718,811
Investments in associate and joint ventures	5,12	839,622,815	774,329,976	807,549,520	763,229,520
Long-term loans to related parties	5	-	-	2,788,518,160	8,883,635,060
Other long-term investments	7	739,467,997	328,398,837	310,276,940	136,357,385
Investment properties	13	359,602,729	459,340,000	359,602,729	459,340,000
Property, plant and equipment	14	46,461,888,655	40,043,905,957	26,913,328,283	24,990,584,721
Leasehold rights	15	1,939,042,196	1,643,500,554	1,939,042,196	1,643,500,554
Intangible assets	16	5,012,615,898	2,778,845,972	330,026,698	204,870,296
Deferred tax assets	17	546,509,432	559,603,859	510,065,205	550,203,092
Other non-current assets	5,18	1,733,613,488	1,554,686,417	1,153,478,979	863,924,906
Total non-current assets		57,632,363,210	48,142,611,572	46,750,652,398	44,640,364,345
Total assets	_	101,782,859,989	81,942,316,638	78,349,237,466	75,803,583,897

Statement of Financial Position

		Consolidated	financial	Separate fi	nancial
		stateme	ents	stateme	ents
		31 Decem	nber	31 Decei	nber
Liabilities and equity	Note	2016	2015	2016	2015
			(Baht)		
Current liabilities					
Short-term loan from financial institutions	19	7,444,017,507	-	7,189,248,722	-
Trade accounts payable	5,20	8,766,153,610	4,994,448,174	8,290,994,795	4,475,029,203
Other payables	5,21	3,092,612,227	2,754,650,682	1,720,024,218	1,875,305,879
Current portion of long-term loans					
from financial institutions	19	1,697,384,523	1,026,315,586	300,153,846	880,840,541
Current portion of debenture	19	2,000,000,000	-	2,000,000,000	-
Excise tax and oil fuel fund payable		1,069,026,480	777,803,136	1,069,026,480	777,803,136
Income tax payable		492,705,145	77,873,228	475,130,095	54,785,693
Short-term provisions	4	502,155,651	-	-	-
Other current liabilities	5	1,011,954,349	857,598,429	919,149,821	826,216,458
Total current liabilities	_	26,076,009,492	10,488,689,235	21,963,727,977	8,889,980,910
Non-current liabilities					
Long-term loans from financial institutions	19	14,457,827,965	16,647,688,123	3,401,230,769	14,051,226,841
Debentures	19	13,987,569,976	15,984,205,787	13,987,569,976	15,984,205,787
Deferred tax liabilities	17	600,686,417	280,470,359	-	-
Liabilities on long-term lease		38,068,420	43,373,684	38,068,420	43,373,684
Employee benefit obligations	22	1,769,716,139	1,571,345,064	1,709,201,552	1,513,980,322
Provision for the decommissioning cost		869,591,180	847,873,770	-	-
Other non-current liabilities	5	74,855,730	95,245,649	37,031,893	60,074,579
Total non-current liabilities		31,798,315,827	35,470,202,436	19,173,102,610	31,652,861,213
Total liabilities		57,874,325,319	45,958,891,671	41,136,830,587	40,542,842,123

Statement of Financial Position

The Bangchak Petroleum Public Company Limited and its Subsidiaries

		Consolidated	financial	Separate fi	nancial
		stateme	nts	stateme	ents
		31 Decen	nber	31 Decei	mber
Liabilities and equity	Note	2016	2015	2016	2015
			(Baht)		
Equity					
Share capital	23				
Authorised share capital	_	1,376,923,157	1,376,923,157	1,376,923,157	1,376,923,157
Issued and paid-up share capital		1,376,923,157	1,376,923,157	1,376,923,157	1,376,923,157
Additional paid-in capital:					
Share premium on ordinary shares	24	11,157,460,051	11,157,460,051	11,157,460,051	11,157,460,051
Capital surplus on registered					
and paid-up share reduction	24	189,617,759	189,617,759	189,617,759	189,617,759
Surplus from the change in the ownership					
interest in subsidiaries	24	1,612,670,404	18,621,225	-	-
Retained earnings					
Appropriated					
Legal reserve	24	153,164,346	153,164,346	153,164,346	153,164,346
Unappropriated		24,931,575,363	22,706,157,789	24,335,241,566	22,383,576,461
Other components of equity		121,325,051	- 120,962,723	<u> </u>	
Total equity attributable to owners					
of the Company		39,542,736,131	35,480,981,604	37,212,406,879	35,260,741,774
Non-controlling interests	11	4,365,798,539	502,443,363	<u>-</u> .	
Total equity		43,908,534,670	35,983,424,967	37,212,406,879	35,260,741,774
Total liabilities and equity	_	101,782,859,989	81,942,316,638	78,349,237,466	75,803,583,897

(Pichai Chunhavajira) Chairman

(Chaiwat Kovavisarach) Chief Executive Officer and President

Statement of Income

The Bangchak Petroleum Public Company Limited and its Subsidiaries

		Consolidate	d financial	Separate f	inancial
		statem	ents	statem	ents
		For the year ende	d 31 December	For the year ende	d 31 December
	Note	2016	2015	2016	2015
			(Bah	t)	
Revenue from sale of goods					
and rendering of services	5,25,34	144,705,285,799	151,140,356,979	137,064,282,581	144,346,156,871
Cost of sale of goods					
and rendering of services	5 _	(132,809,348,889)	(139,686,216,222)	(128,552,154,583)	(135,749,445,007)
Gross Profit		11,895,936,910	11,454,140,757	8,512,127,998	8,596,711,864
Investment income	5,26	190,539,682	248,495,773	1,346,487,355	2,616,783,493
Other income	5,27	336,578,056	294,386,903	307,493,794	444,144,004
Selling expenses	5,28	(3,785,916,892)	(3,215,083,173)	(2,717,840,484)	(2,332,965,512)
Administrative expenses	5,29	(2,402,834,948)	(1,960,320,790)	(1,481,398,326)	(1,516,808,059)
Gain (loss) from crude and product oil price					
hedging contract		107,345,883	(406,596,647)	111,862,612	(471,971,840)
Gain (loss) from foreign currencies					
forward contract		39,383,009	(155,416,710)	39,383,009	(161,933,060)
Gain on foreign exchange		236,778,252	177,589,625	311,723,858	22,373,076
Reversal of allowance for loss (loss) from					
impairment of assets	14	36,801,552	(64,877,240)	49,077,265	128,802,744
Share of profit of associate and joint ventures	12	20,972,839	12,402,069	-	-
Gain on bargain purchase	4	226,592,414		-	
Profit before finance costs and					
income tax expense		6,902,176,757	6,384,720,567	6,478,917,081	7,325,136,710
Finance costs	32	(1,483,796,026)	(1,614,563,861)	(1,208,326,628)	(1,463,223,916)
Profit before income tax expense		5,418,380,731	4,770,156,706	5,270,590,453	5,861,912,794
Income tax expense	33	(688,972,397)	(672,775,197)	(768,290,528)	(735,727,507)
Profit for the year	=	4,729,408,334	4,097,381,509	4,502,299,925	5,126,185,287
Profit (loss) attributable to:					
Owners of the Company		4,773,384,169	4,150,763,667	4,502,299,925	5,126,185,287
Non-controlling interests	_	(43,975,835)	(53,382,158)		
Profit for the year	=	4,729,408,334	4,097,381,509	4,502,299,925	5,126,185,287
Earnings per share					
Basic earnings per share	35	3.47	3.01	3.27	3.72

(Pichai Chunhavajira) Chairman (Chaiwat Kovavisarach)
Chief Executive Officer and President

Statement of Comprehensive Income

	Consolidate	ed financial	Separate f	inancial
	staten	nents	statem	ents
	For the year ende	ed 31 December	For the year ended	d 31 December
Note	2016	2015	2016	2015
		(Bah	nt)	
Profit for the year	4,729,408,334	4,097,381,509	4,502,299,925	5,126,185,287
Other comprehensive income (loss)				
Item that will not be reclassified to profit or loss				
Defined benefit plan actuarial losses, net of income tax	(70,168,351)	(184,597,800)	(72,216,497)	(187,823,494)
	(70,168,351)	(184,597,800)	(72,216,497)	(187,823,494)
Items that are or may be reclassified subsequently to profit or loss				
Foreign currency translation differences for				
foreign operations	17,310,716	99,021,611	-	-
Net change in fair value of				
available-for-sale investment 7	234,920,598	14,592,245		
	252,231,314	113,613,856		
Other comprehensive income (loss) for				
the year, net of income tax	182,062,963	(70,983,944)	(72,216,497)	(187,823,494)
Total comprehensive income for the year	4,911,471,297	4,026,397,565	4,430,083,428	4,938,361,793
Total comprehensive income (loss) attributable to				
Owners of the Company	4,945,586,505	4,099,028,960	4,430,083,428	4,938,361,793
Non-controlling interests	(34,115,208)	(72,631,395)	<u> </u>	
Total comprehensive income for the year	4,911,471,297	4,026,397,565	4,430,083,428	4,938,361,793

Statement of Changes in Equity
The Bangchak Petroleum Public Company Limited and its Subsidiaries

Consolidated financial statements

									Omer component				
					1	Retained earnings	earnings		of equity				
				Capital surplus on	Share premium on			Currency	Fair value changes in	Total other	Equity attributable	Non-	
		Issued and paid-up		registered and paid-up	subsidiaries of			translation	available-for-sale	components	to owners	controlling	
	Note	share capital	Share premium	share reduction	the Company	Legal reserve	Unappropriated	differences	investment	of equity	of the Company	interests	Total equity
	l						(Baht)						
Year ended 31 December 2015													
Balance at 1 January 2015		1,376,923,157	11,157,460,051	189,617,759	18,621,225	153,164,346	20,666,883,964	(253,758,024)		(253,758,024)	33,308,912,478	657,058,218	33,965,970,696
Transactions with owners, recorded directly in equity													
Contributions by and distributions to													
owners of the Company													
Share-based payment transactions			•			,	501,606	•			501,606		501,606
Dividends to owners of the Company	36						(1,927,461,440)				(1,927,461,440)	(81,983,460)	(2,009,444,900)
Total contributions by and distributions to													
owners of the Company	ı						(1,926,959,834)				(1,926,959,834)	(81,983,460)	(2,008,943,294)
Total transactions with owners, recorded directly in equity	Į	,	,				(1,926,959,834)				(1,926,959,834)	(81,983,460)	(2,008,943,294)
Comprehensive income (loss) for the year													
Profit or (loss)			•				4,150,763,667				4,150,763,667	(53,382,158)	4,097,381,509
Other comprehensive income (loss)	J	i	,	,			(184,530,008)	118,203,056	14,592,245	132,795,301	(51,734,707)	(19,249,237)	(70,983,944)
Total comprehensive income (loss) for the year	1	İ					3,966,233,659	118,203,056	14,592,245	132,795,301	4,099,028,960	(72,631,395)	4,026,397,565
Balance at 31 December 2015		1,376,923,157	11,157,460,051	189,617,759	18,621.225	153,164,346	22,706,157,789	(135,554,968)	14,592,245	(120,962,723)	35,480,981,604	502,443,363	35,983,424,967

The accompanying notes are an integral part of these financial statements.

5,855,119,086 3,013,638,406 4,729,408,334 4,911,471,297

182,062,963

43,908,534,670

4,945,586,505 (34,115,208) 39,542,736,131 4,365,798,539

242,287,774 121,325,051

249,512,843 234,920,598

(128,187,792) 7,367,176

24,931,575,363 4,703,298,731

153,164,346

1,612,670,404

189,617,759

11,157,460,051

1,376,923,157

Total comprehensive income (loss) for the year

Balance at 31 December 2016

146,954

84,068,082 5,770,904,050

The Bangchak Petroleum Public Company Limited and its Subsidiaries Statement of Changes in Equity

									Other component			
					Surplus from the	Retained earnings	eamings		of equity			
				Capital surplus on	change in			Currency	Fair value changes in	Total other	Equity attributable	Non-
		Issued and paid-up		registered and paid-up	ownership interest			translation	available-for-sale	components	to owners	controlling
	Note	share capital	Share premium	share reduction	in subsidiaries	Legal reserve	Unappropriated	differences	investment	of equity	of the Company	interests
							(Baht)					
Year ended 31 December 2016 Balance at 1 January 2016		1.376.923.157	11.157.460.051	657,719,681	18.621.225	153.164.346	22.706.157.789	(135.554.968)	14.592.245	(120.962.723)	35.480.981.604	502.443.363
		6						(not rate)		(and the team)		
Transactions with owners, recorded directly in equity												
Contributions by and distributions to												
owners of the Company												
Share-based payment transactions		٠				•	537,166				537,166	
Dividends to owners of the Company	36						(2,478,418,323)				(2,478,418,323)	(363,599,523)
Total contributions by and distributions to												
owners of the Company			•				(2,477,881,157)				(2,477,881,157)	(363,599,523)
Changes in ownership interests in subsidiary												
Acquisition of subsidiary with non-controlling interests	4	•	,	,		1	,	,	•		•	146,954
Increase in investment in subsidiary												000
without a change in ownership interest Acquisition of non-controling interests without a		•				1	,					84,068,082
change in control	11	,	,	,	1,594,049,179			,		,	1,594,049,179	4,176,854,871
Total changes in ownership interests in subsidiary					1,594,049,179						1,594,049,179	4,261,069,907
Total transactions with owners, recorded directly in equity	χ.				1,594,049,179		(2,477,881,157)		,	٠	(883,831,978)	3,897,470,384
								Ì	Ì	ì	ì	
Comprehensive income for the year Profit or (loss)				,	,		4,773,384,169				4,773,384,169	(43,975,835)
Other comprehensive income (loss)		٠	٠			,	(70,085,438)	7,367,176	234,920,598	242,287,774	172,202,336	9,860,627

537,166

35,983,424,967

Total equity

Consolidated financial statements

(2,842,017,846) (2,841,480,680)

The accompanying notes are an integral part of these financial statements.

Statement of Changes in Equity
The Bangchak Petroleum Public Company Limited and its Subsidiaries

Separate financial statements

Sauch and Paid-up Pa								
Issued and registered and paid-up paid-up paid-up registered and paid-up Note share capital Share premium share reduction Legal reserve Unappropriated e					ľ	Retained	earnings	
paid-up registered and paid-up Legal reserve Unappropriated e Note share capital Share premium share reduction (Baht) 153.64.346 19,372,676,108 32 36 - - - - (1,927,461,440) (1 - - - - (1,927,461,440) (1 - - - - (1,927,461,440) (1 - - - - - - - - - - - - -			Issued and		Capital surplus on			
Note share capital Share premium share reduction Legal reserve Unappropriated e 1,376,923,157 11,157,460,051 189,617,759 153,164,346 19,372,676,108 32 36 - - - (1,927,461,440) (1 - - - (1,927,461,440) (1 - - - - 4,938,361,793 5 - - - - 4,938,361,793 4 1,376,923,157 11,157,460,051 189,617,759 153,164,346 22,383,576,461 35			paid-up		registered and paid-up			Total
1,376,923,157 11,157,460,051 189,617,759 153,164,346 19,372,676,108 32 36		Note	share capital	Share premium	share reduction	Legal reserve	Unappropriated	equity
36 - - - (1,927,461,440) (1) - - - (1,927,461,440) (1) - - - (1,927,461,440) (1) - - - (1,927,461,440) (1) - - - (1,927,461,440) (1) - - - (1,927,461,440) (1) - - - (1,927,461,440) (1) - - - - (1,927,461,440) (1) -					(Baht)			
1,376,923,157 11,157,460,051 189,617,759 153,164,346 19,372,676,108 32	131 December 2015							
36 - (1,927,461,440) (1 - (1,927,461,440) (l January 2015		1,376,923,157	11,157,460,051	189,617,759	153,164,346	19,372,676,108	32,249,841,421
y 36	ns with owners, recorded directly in equity ions to owners of the Company							
<td>to owners of the Company</td> <td>36</td> <td></td> <td></td> <td></td> <td></td> <td>(1,927,461,440)</td> <td>(1,927,461,440)</td>	to owners of the Company	36					(1,927,461,440)	(1,927,461,440)
year - - - (1,927,461,440) (1 year - - 5,126,185,287 5 - - - (187,823,494) - - - 4,938,361,793 4 year 1,376,923,157 11,157,460,051 189,617,759 153,164,346 22,383,576,461 35	sactions with owners, recorded							
year - - 5,126,185,287 5 . - (187,823,494) . - 4,938,361,793 4 . - 4,938,361,793 4 . - 4,938,576,461 35	in equity			1		•	(1,927,461,440)	(1,927,461,440)
	sive income for the year							
	SSC				•		5,126,185,287	5,126,185,287
4,938,361,793 1,376,923,157 11,157,460,051 189,617,759 153,164,346 22,383,576,461 3	prehensive income (loss)			1			(187,823,494)	(187,823,494)
1,376,923,157 11,157,460,051 189,617,759 153,164,346 22,383,576,461	chensive income for the year	1		1			4,938,361,793	4,938,361,793
	11 December 2015		1,376,923,157	11,157,460,051	189,617,759	153,164,346	22,383,576,461	35,260,741,774

The accompanying notes are an integral part of these financial statements.

Statement of Changes in Equity
The Bangchak Petroleum Public Company Limited and its Subsidiaries

Separate financial statements

Retained earnings	Issued and Capital surplus on registered and paid-up Total	Note share capital Share premium share reduction Legal reserve Unappropriated equity	1,376,923,157 11,157,460,051 189,617,759 153,164,346 22,383,576,461 35,260,741,774	irectly in equity my 36 - (2.478418.323) (2.478418.323)			4,	ar - (7,2,210,497) (72,210,497) (72,210,497)	
	Issued and paid-up		Year ended 31 December 2016 Balance at 1 January 2016 1,376,923,1	Transactions with owners, recorded directly in equity Distributions to owners of the Company Dividends to owners of the Company	rded	Comprehensive income for the year	Profit or loss	Orner comprehensive income (loss) Total comprehensive income for the year	

The accompanying notes are an integral part of these financial statements.

Statement of Cash Flows

	Consolidated		Separate fi	
	stateme		statem	
	For the year ended		For the year ended	
	2016	2015	2016	2015
		(Baht)		
Cash flows from operating activities				
Profit for the year	4,729,408,334	4,097,381,509	4,502,299,925	5,126,185,287
Adjustments for				
Depreciation	4,461,315,330	4,465,625,941	2,985,385,356	3,186,401,021
Amortisation	273,062,194	242,840,119	241,696,109	240,356,112
(Reversal of) allowance for bad and doubtful debts expense	(2,093,327)	(265,525)	(1,686,752)	547,028
Unrealised loss on foreign exchange	90,197,777	270,237,527	46,512,908	430,395,860
Reversal of allowance for loss on decline in value of				
inventories	(98,220,697)	(881,650,321)	(104,946,031)	(887,298,737)
(Reversal of) allowance for loss from impairment of assets	(36,801,552)	64,877,240	(49,077,265)	(128,802,744)
(Gain) loss on disposal of property, plant and equipment	(8,022,464)	74,964,514	(8,504,377)	75,061,787
Investment Income	(190,539,682)	(248,495,773)	(1,346,487,355)	(2,616,783,493)
Gain on disposal of other investment	(29,466,450)	-	(29,466,450)	-
Gain on disposal of investment in subsidiaries to related party	-	-	-	(173,645,000)
Gain on bargain purchase	(226,592,414)	-	-	-
Provision for employee benefit	144,830,349	144,533,333	126,582,137	138,566,343
Deferred revenue	(5,291,890)	(1,531,570)	(5,291,890)	(1,531,570)
Provision for customer loyalty programmes	32,395,610	22,908,705	32,395,610	22,908,705
Share of profit of associate and joint ventures,				
net of income tax expense	(20,972,839)	(12,402,069)	-	-
Finance costs	1,483,796,026	1,614,563,861	1,208,326,628	1,463,223,916
Income tax expense	688,972,397	672,775,197	768,290,528	735,727,507
	11,285,976,702	10,526,362,688	8,366,029,081	7,611,312,022
Changes in operating assets and liabilities				
Trade accounts receivable	(797,156,673)	807,464,878	(1,155,834,771)	999,153,391
Other receivables	(188,574,430)	652,340,347	(90,316,331)	519,568,549
Inventories	(515,394,543)	1,287,325,856	(103,464,769)	997,220,531
Other current assets	107,382,974	1,412,243,054	260,190,470	1,373,151,507
Other non-current assets	(372,916,284)	(64,048,491)	(345,781,302)	(64,359,991)
Trade accounts payable	3,775,098,036	(1,007,121,583)	3,819,431,817	(1,144,521,302)
Other payables	87,073,428	(402,594,442)	(145,066,349)	(411,686,231)
Other current liabilities	353,724,888	(416,380,375)	407,013,407	(112,958,202)
Employee benefit obligations	(30,820,589)	(29,061,584)	(21,631,528)	(28,338,664)
Other non-current liabilities	(232,241)	(56,351,711)	(26,531,405)	(66,811,257)
Cash generated from operating activities	13,704,161,268	12,710,178,637	10,964,038,320	9,671,730,353
Income tax paid	(416,418,362)	(677,222,726)	(341,531,082)	(530,269,535)
Net cash from operating activities	13,287,742,906	12,032,955,911	10,622,507,238	9,141,460,818

Statement of Cash Flows

The Bangchak Petroleum Public Company Limited and its Subsidiaries

	Consolidate	d financial	Separate fi	nancial
	statem	ents	stateme	ents
	For the year ende	d 31 December	For the year ended	131 December
	2016	2015	2016	2015
		(Bahı)	
Cash flows from investing activities				
Interest received	208,870,513	211,751,409	438,572,304	292,525,857
(Increase) decrease in current investments	2,799,243,344	(3,895,872,961)	3,500,000,000	(4,500,000,000)
(Increase) decrease in long-term investments	(168,467,365)	(164,788,726)	(168,467,365)	12,518,274
Net cash outflow from issue of				
subsidiary's share capital	-	-	(5,264,320,450)	(3,761,201,842)
Net cash outflow for investment in joint ventures	(44,320,000)	-	(44,320,000)	-
Net cash outflow on acquisition of subsidiary	(962,736,249)	(2,407,131,997)	-	-
Cash inflow from disposal of investment in subsidiaries	-	-	-	4,085,103,300
Cash inflow from capital distribution from subsidiary	-	-	-	2,300,000,000
Dividend received	3,229,001	1,989,194	654,256,649	2,253,116,298
Cash inflow from disposal of other investment	202,702,500	-	202,702,500	-
Purchase of property, plant and equipment	(9,369,842,540)	(4,644,673,923)	(4,852,250,678)	(3,457,736,154)
Sale of property, plant and equipment	119,768,394	53,322,851	118,316,297	52,571,775
Loans to related parties	-	-	(2,120,000,000)	(6,667,122,000)
Repayment of loans from related party	-	-	8,675,200,000	648,234,000
Increase in leasehold right	(451,289,296)	(390,100,277)	(451,289,296)	(390,100,277)
Purchase of intangible assets	(491,623,542)	(107,259,638)	(184,775,649)	(54,488,813)
Net cash from (used in) investing activities	(8,154,465,240)	(11,342,764,068)	503,624,312	(9,186,579,582)
Cash flows from financing activities				
Financial cost paid	(1,641,398,827)	(1,615,148,027)	(1,202,594,210)	(1,439,062,873)
Increase in long term loans from financial institutions	7,361,836,346	-	7,189,248,722	-
Proceeds from issuance of subsidiary's share capital	75,000,150	-	-	-
Proceeds from issuance of debentures	-	2,996,100,000	-	2,996,100,000
Proceeds from long - term loans	9,610,567,418	1,122,011,539	-	-
Repayment of long - term loans	(12,032,224,433)	(1,356,122,669)	(11,230,555,747)	(825,494,128)
Dividend paid	(2,753,528,225)	(2,039,444,891)	(2,478,418,323)	(1,927,461,440)
Net proceeds from subsidiaries' shares				
issuance without change in control	5,770,904,051	_	_	
Net cash from (used in) financing activities	6,391,156,480	(892,604,048)	(7,722,319,558)	(1,195,918,441)
Net increase (decrease) in cash and cash equivalents	11,524,434,146	(202,412,205)	3,403,811,992	(1,241,037,205)
Cash and cash equivalents as at 1 January	7,871,868,029	7,954,246,322	5,468,589,618	6,709,626,823
Effect of exchange rate changes on balances	.,,,	.,,,	-,,,	-,,020,023
held in foreign currencies	(109,651,917)	120,033,912	_	_
Cash and cash equivalents as at 31 December	19,286,650,258	7,871,868,029	8,872,401,610	5,468,589,618
	, 0,00 0,200	.,,000,027	-,-:-,,	-, 5,000,010

Non-cash transactions

During the first quarter of 2016, BCP Innovation Pte, Ltd., a subsidiary of the Company and incorporated in Singapore converted the entire loan from the Company to equity amounting USD 5 million (approximate Baht 179.26 million).

The accompanying notes are an integral part of these financial statements.

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1	General information
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18	Other non-current assets
19	Interest-bearing liabilities
20	Trade accounts payable
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22	Employee benefit obligations
23	Share capital
24	Additional paid-in capital and reserves
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26	Investment income
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The Bangchak Petroleum Public Company Limited and its Subsidiaries

These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements, and were approved and authorized for issue by the Board of Directors on 16 February 2017.

1 General information

The Bangchak Petroleum Public Company Limited, the "Company", is incorporated in Thailand and has its registered office as follows:

Head office : 555/1, Energy Complex Building A, Floor 10th, Vibhavadi Rangsit Road,

Chatuchak, Chatuchak, Bangkok.

Refinery plant : 210 Moo 1, Soi Sukhumvit 64, Sukhumvit Road, Bangchak, Phakanong,

Bangkok.

The Company was listed on the Stock Exchange of Thailand on 23 April 1993.

On 30 April 2015, PTT Public Company Limited had divested its entire shareholding in the Company to Vayupak Fund 1 and Social Security Office.

On 31 December 2016 and 2015, major shareholders of the Company during the period were Vayupak Fund 1 and Social Security Office holding 15.60% and 14.31% of issued and paid-up capital respectively.

The principal businesses of the Company are operating an oil refinery and marketing the finished products through its service stations under its company's brand. The Company's oil market includes consumers in various sectors, such as transportation, aviation, shipping, construction, industrial and agriculture. The sale of oil is also made through the major and the minor oil traders.

Details of the Company's subsidiaries as at 31 December 2016 and 2015 were as follows:

Name of the entity	Type of business	Country of incorporation	Ownershi (p interest %)
		•	2016	2015
Direct subsidiaries				
The Bangchak Green Net Co., Ltd.	Manage BCP service stations and consumer goods retailer	Thailand	49.00	49.00
The Bangchak Biofuel Co., Ltd.	Production and distribution of biodiesel	Thailand	70.00	70.00
BCPG Public Co., Ltd. (Formerly : BCPG Co., Ltd.)	Holding and Operating in renewable energy	Thailand	70.35	100.00
Bangchak Retail Co., Ltd.	Operating food centre and consumer goods retailer	Thailand	100.00	-
Bangchak Bioethanol (Chachoengsao) Co., Ltd.	Production and distribution of ethanol	Thailand	85.00	-
BCP Energy International Pte. Ltd.	Holding and Operating in international business	Singapore	100.00	100.00

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Name of the entity	Type of business	Country of incorporation	Ownershi (p interest %)
		-	2016	2015
Direct subsidiaries (contin	ue)			
BCP Innovation Pte. Ltd.	Holding and Operating in international business	Singapore	100.00	100.00
BCP Trading Pte. Ltd.	Trading of petroleum commodities and relevant business	Singapore	100.00	-
Indirect subsidiaries				
Subsidiaries of BCPG Public Co., Ltd. Group (see note 5)	Holding and Operating in renewable energy	Thailand/ Singapore/Japan	100.00	100.00
Nido Petroleum Limited Group	Exploration and production of petroleum	Australia	96.98	81.41

2 Basis of preparation of the financial statements

(a) Statement of compliance

The financial statements are prepared in accordance with Thai Financial Reporting Standards (TFRS); guidelines promulgated by the Federation of Accounting Professions ("FAP"); and applicable rules and regulations of the Thai Securities and Exchange Commission.

The FAP has issued new and revised TFRS effective for annual accounting periods beginning on or after 1 January 2016. The initial application of these new and revised TFRS has resulted in changes in certain of the Group's accounting policies. These changes have no material effect on the financial statements.

In addition to the above new and revised TFRS, the FAP has issued a number of other new and revised TFRS which are effective for annual financial periods beginning on or after 1 January 2017 and have not been adopted in the preparation of these financial statements. Those new and revised TFRS that are relevant to the Group's operations are disclosed in note 41.

(b) Basis of measurement

The financial statements have been prepared on the historical cost basis except items described in accounting policy.

(c) Functional and presentation currency

The financial statements are presented in Thai Baht, which is the Company's functional currency. All financial information presented in Thai Baht has been rounded in the notes to the financial statements to the nearest million unless otherwise stated.

(d) Use of judgements and estimates

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

Information about significant areas of estimation uncertainties that have a significant risk of resulting in a material adjustments to the amounts recognised in the financial statements is included in the following notes:

Note 4	Acquisition of business
Note 14	Impairment test: key assumption underlying recoverable amounts
Note 17	Recognition of deferred tax assets: availability of future taxable profit against with
	tax losses carried forward can be used
Note 22	Measurement of defined benefit obligations: key actuarial assumptions

Measurement of fair values

A number of the Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities

Fair value hierarchy

When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or liability might be categorised in different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

Further information about the assumptions made in measuring fair values is included in note 37.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

3 Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these financial statements.

(a) Basis of consolidation

The consolidated financial statements relate to the Company and its subsidiaries (together referred to as the "Group") and the Group's interests in associate and joint ventures.

Business combinations

The Group applies the acquisition method for all business combinations when control is transferred to the Group other than those with entities under common control.

The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The acquisition date is the date on which control is transferred to the acquirer. Judgment is applied in determining the acquisition date and determining whether control is transferred from one party to another.

Goodwill is measured as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree, less the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date.

Consideration transferred includes the fair values of the assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, and equity interests issued by the Group. Consideration transferred also includes the fair value of any contingent consideration and share-based payment awards of the acquiree that are replaced mandatorily in the business combination. If a business combination results in the termination of pre-existing relationships between the Group and the acquiree, then the lower of the termination amount, as contained in the agreement, and the value of the off-market element is deducted from the consideration transferred and recognised in other expenses.

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

Transaction costs that the Group incurs in connection with a business combination, such as legal fees, and other professional and consulting fees are expensed as incurred.

Acquisitions from entities under common control

Business combinations of entities or businesses under common control are accounted for using a method similar to the pooling of interest method and in accordance with the Guideline issued in 2009 by the FAP.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Business combinations arising from transfers of interests in entities that are under the control of the shareholder that controls the Group are accounted for as if the acquisition had occurred at the beginning of the earliest comparative period presented or, if later, at the date that common control was established; for this purpose comparatives are revised. The assets and liabilities acquired are recognised at the carrying amounts recognised previously in the Group controlling shareholder's consolidated financial statements. The components of equity of the acquired entities are added to the same components within Group equity. Any cash paid for the acquisition is recognised directly in equity.

Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

Non-controlling interests

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

Loss of control

When the Group loses control over a subsidiary, it derecognises the assets and liabilities of the subsidiary, and any related non-controlling interests and other components of equity. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

Interests in equity–accounted investees

The Group's interests in equity-accounted investees comprise interests in associates and a joint venture.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associates and joint ventures are accounted for using the equity method. They are recognised initially at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity—accounted investees, until the date on which significant influence or joint control ceases.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated. Unrealised gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(b) Foreign currencies

Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate at the reporting date.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to the functional currency at the exchange rates at the dates of the transactions.

Foreign currency differences are generally recognized in profit or loss. However, foreign currency differences arising from the translation of the following items are recognized in other comprehensive income:

 available-for-sale equity investments (except on impairment in which case foreign currency differences that have been recognized in other comprehensive income are reclassified to profit or loss)

Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to Thai Baht at the exchange rates at the reporting date.

Goodwill and fair value adjustments arising on the acquisition of foreign operations are stated at exchange rates at the reporting date.

The revenues and expenses of foreign are translated to Thai Baht at rates approximating the exchange rates at the dates of the transactions.

Foreign exchange differences are recognised in other comprehensive income and accumulated in the translation reserve, except to extent that the translation difference is allocated to non-controlling interest.

When a foreign operation is disposed of in its entirety or partially such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. If the Group disposes of part of its interest in a subsidiary but retains control, then the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of an associate or joint venture while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely in the foreseeable future, exchange gains and losses arising from such a monetary item are considered to form part of a net investment in a foreign operation and are recognised in other comprehensive income, and presented in the foreign currency translation reserve in equity until disposal of the investment.

(c) Derivative financial instruments

Derivative financial instruments are used to manage exposure to foreign exchange, interest rate arising from operational, financing and investment activities. Derivative financial instruments are not used for trading purposes. However, derivatives that do not qualify for hedge accounting are accounted for as trading instruments.

(d) Hedging

Hedge of future foreign currency transactions

Gains and losses from forward exchange contracts and currency swaps used to hedge anticipated future currency transactions are deferred until the forecasted transaction occurs. Where the hedged item is a recognised asset or liability, it is translated at the contracted forward rates. Transaction fee and discounts are amortised to profit and loss on a straight-line basis over the life of the agreements.

Hedge of interest rates

Interest differentials under swap arrangements are accrued and recorded as adjustments to the interest expense relating to the hedged loans.

Crude oil and oil products forward contract / crack spread of crude oil and oil products

Difference between the fixed prices of contracts and the settlement prices are recognised in the statement of income in the period in which the contracts mature.

(e) Cash and cash equivalents

Cash and cash equivalents in the statements of cash flows comprise cash balances, call deposits and highly liquid short-term investments. Bank overdrafts that are repayable on demand are a component of for the purpose of the statement of cash flows.

(f) Trade and other accounts receivable

Trade and other accounts receivable are stated at their invoice value less allowance for doubtful accounts.

The allowance for doubtful accounts is assessed primarily on analysis of payment histories and future expectations of customer payments. Bad debts are written off when incurred.

(f) Inventories

Inventories are measured at the lower of cost and net realisable value.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Cost is calculated using the weighted average cost principle, and comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition. In the case of manufactured inventories and work-in-progress, cost includes an appropriate share of production overheads based on normal operating capacity.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

(g) Non-current assets held for sale

Non-current assets that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. The assets are measured at the lower of their carrying value and fair value less cost to sell.

(h) Investments

Investments in associates, subsidiaries and joint ventures

Investments in associates, subsidiaries and joint ventures in the separate financial statements of the Company are accounted for using the cost method. Investments in associates and joint ventures in the consolidated financial statements are accounted for using the equity method.

Investments in other debt and equity securities

Debt securities that the Group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are stated at amortised cost, less any impairment losses. The difference between the acquisition cost and redemption value of such debt securities is amortised using the effective interest rate method over the period to maturity.

Debt securities and marketable equity securities, other than those securities held for trading or intended to be held to maturity, are classified as available-for-sale investments. Available-for-sale investments are, subsequent to initial recognition, stated at fair value, and changes therein, other than impairment losses and foreign currency differences on available-for-sale monetary items, are recognised directly in equity. Impairment losses and foreign exchange differences are recognised in profit or loss. When these investments are derecognised, the cumulative gain or loss previously recognised directly in equity is recognised in profit or loss. Where these investments are interest-bearing, interest calculated using the effective interest method is recognised in profit or loss.

Equity securities which are not marketable are stated at cost less any impairment losses.

The fair value of financial instruments classified as available-for-sale is determined as the quoted bid price at the reporting date.

Disposal of investments

On disposal of an investment, the difference between net disposal proceeds and the carrying amount together with the associated cumulative gain or loss that was reported in equity is recognised in profit or loss.

If the Group disposes of part of its holding of a particular investment, the deemed cost of the part sold is determined using the weighted average method applied to the carrying value of the total holding of the investment.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

(h) Investment properties

Investment properties are properties which are held to earn rental income, for capital appreciation or for both, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purposes.

Investment properties are stated at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self-constructed investment property includes the cost of materials and direct labour, and other costs directly attributable to bringing the investment property to a working condition for its intended use and capitalised borrowing costs.

No depreciation is provided on land.

(i) Property, plant and equipment

Recognition and measurement

Owned assets

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and capitalised borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised net within other income in profit or loss.

Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated based on the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. The estimated useful lives are as follows:

Buildings	20 - 30	years
Machinery, equipment refinery plants and terminal	2 - 30	years
Equipment solar plants	5 - 25	years
Marketing and office equipment	5 - 20	years
Vehicles	5	years

No depreciation is provided on freehold land, platinum catalyst and assets under construction.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

Oil and Gas Properties

When the technical and commercial feasibility of an undeveloped oil or gas field has been demonstrated, the field enters its development phase. The costs of oil and gas assets are transferred from exploration and evaluation expenditure and reclassified into development phase.

The costs of oil and gas properties include past exploration and evaluation costs, pre-production development costs and the ongoing costs of continuing to develop reserves for production as well as decommission costs.

Depletion charges are calculated using a unit of production method over the life of the estimated Proved plus Probable reserves.

(j) Leasehold right

Leasehold rights are the rights obtained from the land lease contracts, which are amortised on a straight-line method over the contractual period.

Leasehold rights are presented at cost deducted by accumulated amortisation and impairment losses.

(k) Intangible assets

Other intangible assets

Other intangible assets that are acquired by the Group and have finite useful lives are measured at cost less accumulated amortization and accumulated impairment losses.

Subsequent expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognized in profit or loss as incurred.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Amortizations

Amortization is based on the cost of the asset, or other amount substituted for cost, less its residual value.

Amortization is recognized in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use, since this most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset.

The estimated useful lives for the current and comparative years are as follows:

Right to use and cost of development

of computer software 3-8 years
Feed-in Tariff power purchase agreement 20 years
Right to connect electrical transmission line 20-25 years

Amortization methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

Exploration and Evaluation Expenditure

Exploration and evaluation expenditure is stated at cost as intangible assets and is accumulated in respect of each identifiable area of interest. These costs are capitalised until the viability of the area of interest is determined.

Accumulated costs in relation to an abandoned area are written off through profit or loss in the period in which the decision to abandon the area is made.

Once an area of interest enters the development phase, exploration and evaluation expenditures are transferred to oil and gas properties.

(l) Impairment

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated.

An impairment loss is recognised if the carrying amount of an asset exceeds its recoverable amount. The impairment loss is recognised in profit or loss unless it reverses a previous revaluation credited to equity, in which case it is charged to equity.

When a decline in the fair value of an available-for-sale financial asset has been recognised directly in equity and there is objective evidence that the value of the asset is impaired, the cumulative loss that had been recognised directly in equity is recognised in profit or loss even though the financial asset has not been derecognised. The amount of the cumulative loss that is recognised in profit or loss is the difference between the acquisition cost and current fair value, less any impairment loss on that financial asset previously recognised in profit or loss.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Calculation of recoverable amount

The recoverable amount of held-to-maturity securities carried at amortised cost is calculated as the present value of the estimated future cash flows discounted at the original effective interest rate.

The recoverable amount of available-for-sale financial assets is calculated by reference to the fair value

The recoverable amount of a non-financial asset is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Reversals of impairment

An impairment loss in respect of a financial asset is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised in profit or loss. For financial assets carried at amortised cost and available-for-sale financial assets that are debt securities, the reversal is recognised in profit or loss. For available-for-sale financial assets that are equity securities, the reversal is recognised in other comprehensive income.

Impairment losses recognised in prior periods in respect of other non-financial assets are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(m) Interest-bearing liabilities

Interest-bearing liabilities are recognised initially at fair value less attributable transaction charges. Subsequent to initial recognition, interest-bearing liabilities are stated at amortised cost with any difference between cost and redemption value being recognised in profit or loss over the period of the borrowings on an effective interest basis.

(n) Trade and other accounts payable

Trade and other accounts payable are stated at cost.

(o) Employee benefits

Defined contribution plans

Obligations for contributions to defined contribution plans are expensed as the related service is provided.

Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognised asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any application minimum funding requirements.

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognized immediately in OCI. The Group determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Other long-term employee benefits

The Group's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. Remeasurements are recognized in profit or loss in the period in which they arise.

Short-term employee benefits

Short-term employee benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

Share-based payments

The grant-date fair value of equity-settled share-based payment awards granted to employees is generally recognised as an expense, with a corresponding increase in equity, over the vesting period of the awards. The amount recognised as an expense is adjusted to reflect the number of awards for which the related service and non-market performance conditions are expected to be met, such that the amount ultimately recognised is based on the number of awards that meet the related service and non-market performance conditions at the vesting date. For share-based payment awards with non-vesting conditions, the grant-date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

The fair value of the amount payable to employees in respect of share appreciation rights, which are settled in cash, is recognised as an expense with a corresponding increase in liabilities, over the period that the employees become unconditionally entitled to payment. The liability is remeasured at each reporting date and at settlement date. Any changes in the fair value of the liability are recognised as personnel expenses in profit or loss.

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(p) Provisions

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance cost.

(q) Share capital

Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares are recognised as a deduction from equity.

(r) Revenue

Revenue excludes value added taxes and other sales taxes and is arrived at after deduction of trade discounts and volume rebates.

Sale of goods and services rendered

Revenue is recognised in profit or loss when the significant risks and rewards of ownership have been transferred to the buyer. No revenue is recognised if there is continuing management involvement with the goods or there are significant uncertainties regarding recovery of the consideration due, associated costs or the probable return of goods. Service income is recognised as services are provided.

Income from sale of electricity

Income from the sale of electricity is recognised in profit or loss in accordance with delivery units supplied as stipulated in the contract. Income from the sale of electricity for entities within Thailand is entitled to receive ADDER for a period of 10 years from the commencement of commercial sales. Thereafter, subsequent to this initial period income from sale of electricity is recognised at normal rates.

Income from operating rights

Income from operating right is recognised in accordance with the timing of the rights utilization and with conditions as stipulated in the contract.

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Loyalty programmes

The Group has a customer loyalty programme whereby customers are awarded credits (Points) entitling customers to the right to purchase products from the Group at a discount or qualify for a free gift. The fair value of the consideration received or receivable in respect of the initial sale is allocated between the Points and the other components of the sale. The amount allocated to the Points is estimated by reference to the fair value of the right to purchase products at a discount or fair value of the free gift. The fair value is estimated based on the amount of the discount adjusted to take into account the expected forfeiture rate. Such amount is deferred and revenue is recognised only when the Points are redeemed and the Group has fulfilled its obligations to supply the products. The amount of revenue recognised in those circumstances is based on the number of Points that have been redeemed in exchange for discounted products, relative to the total number of Points that is expected to be redeemed. Deferred revenue is also released to profit or loss when it is no longer considered probable that the Points will be redeemed.

Investments

Revenue from investments comprises dividend and interest income from investments and bank deposits.

Dividend income

Dividend income is recognised in profit or loss on the date the Group's right to receive payments is established.

Interest income

Interest income is recognised in profit or loss as it accrues.

(s) Finance costs

Finance costs comprise interest expense on borrowings unwinding of the discount on provisions and contingent consideration.

Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

(t) Lease payments

Payments made under operating leases are recognised in profit or loss on a straight line basis over the term of the lease. Lease incentives received are recognised in profit or loss as an integral part of the total lease expense, over the term of the lease.

Contingent lease payments are accounted for by revising the minimum lease payments over the remaining term of the lease when the lease adjustment is confirmed.

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(u) Income tax

Income tax expense for the year comprises current and deferred tax. Current and deferred tax are recognised in profit or loss except to the extent that they relate to a business combination, or items recognised directly in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the following temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and jointly-controlled entities to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(v) Earnings per share

The Group presents basic earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the year.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

(w) Segment reporting

Segment results that are reported to the Group's president (the chief operating decision maker) include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

4 Business acquisition

On 15 and 18 February 2016, BSE Energy Holding Private Limited and BCPG Investment Holding Private Limited (indirect subsidiaries of the Company and incorporated in Singapore) completed the acquisition of entire solar power business of SunEdison Group in Japan within the budget of JPY 9,626 million (approximately Baht 2,915 million) with total capacity of 198 Megawatts portfolio (Plants in operation with a total capacity of 13 Megawatts / Plants Under Construction with total a total capacity of 27 Megawatts / Projects Under Development with a total capacity of up to 158 Megawatts) through the purchase of 100% equity interest of SunEdison Japan Corporation, SunEdison Japan Debt Financing Pte. Ltd. and SunEdison TK Investor 1 Pte. Ltd. from SunEdison International LLC and SunEdison Energy Holding (Singapore) Pte. Ltd. as per the Purchase and Sale Agreement (condition precedents) on 29 January 2016, the Group has already paid JPY 4,256 million (approximately Baht 1,275.33 million) and will settle the remaining based on the success rate of project under development within the next 18 months. In addition, in accordance with condition under the Purchase and Sale Agreement, the Group and SunEdison agreed to adjust the purchase price of the business between the financial information prepared by SunEdison's management and the audited financial information by other auditors. The preliminary audit resulting in an adjustment amounting to JPY 70.61 million (approximately Baht 21.15 million) in favor position of the Group to refund, however, the price adjustment is in process of SunEdison's consideration. During the year from acquisition date until 31 December 2016, the business contributed revenue of JPY 904 million (approximately Baht 294.32 million) and net loss of JPY 509 million (approximately Baht 165.61 million) to the Group's results. If the acquisition had occurred on 1 January 2016, management estimates that consolidated revenue would have been Baht 294.32 million and consolidated loss for the year ended 31 December 2016 would have been Baht 165.61 million. In determining these amounts, management has assumed that the fair value adjustments, determined provisionally, that arose on the date of acquisition would have been the same if the acquisition had occurred on 1 January 2016.

Management believes that by acquired this business will enable the group to expand their investment, development and operating renewable energy business within Asia.

The purchase under this condition is in accordance with TFRS 3 (revised 2015) Business Combinations, requires the recognition of assets, liabilities and contingent liabilities acquired at the acquisition date at fair value. The Group hired an independent appraiser to determine the fair value of assets and liabilities acquired during the measurement period, which must not exceed one year from the acquisition date to reflect new information obtained about facts and circumstances that existed as of the acquisition date. Finalisation of the fair value of assets and liabilities acquired from business acquisition was completed in the 4th quarter of 2016.

The following summarises the major classes of consideration transferred, and the recognised amounts of assets acquired and liabilities assumed at the acquisition date:

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Consideration transferred

 Cash
 1,275.33

 Contingent consideration
 488.46

 Total
 1,763.79

The Group's has loans to subsidiaries within the group amounting JPY 4,256 million (approximately Baht 1,275.33 million) for the acquisition of solar power business and repayment of loan and accrued interest in which solar power business owe to SunEdison Group amounting JPY 3,358 million (approximately Baht 1,006.13 million) in accordance with condition under business acquisition.

Contingent consideration

In accordance with condition under the Purchase and Sale Agreement, the Group has additional contingent consideration to be paid based on the success rate of project under development within July 2017 with a maximum amount of JPY 2,527 million (approximately Baht 757 million). The Group recognised the contingent consideration of JPY 1,630 million (approximately Baht 488 million) for the project in which the Group expecting to be successfully developed in accordance with the agreement. Furthermore, the Group has additional contingent consideration for the solar radiation yield incentive for 5 projects if the solar radiation reach a certain level with a maximum amount of JPY 2,454 million (approximately Baht 769 million). The yield incentive measurement period is 1 year. The management has made an assessment of the yield incentive by using report from independent appraiser in which prepared prior to business acquisition and concluded that it is unlikely to reach the certain level to make an additional payment. In addition, as at 31 December 2016, SunEdison Group has not yet confirmed on the appointment of the joint independent appraiser to reassess the yield incentive in which can resulting in yield incentive measurement within 1 year period not in accordance with condition under the Purchase and Sale Agreement. Consequently, the Group has not recognized any related liability for the additional contingent consideration.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Identifiable assets acquired and liabilities assumed

	Book value	Adjustments	Fair Value
		(in million Baht)	
Cash and cash equivalents	354.28	-	354.28
Trade accounts receivable	23.93	-	23.93
Other receivables	408.23	-	408.23
Other current assets	107.33	-	107.33
Property, plant and equipment	1,410.35	-	1,410.35
Intangible asset	109.22	1,680.43	1,789.65
Other non-current assets	54.57	-	54.57
Other payables	(457.64)	-	(457.64)
Short-term loan from financial institutions	(80.33)	-	(80.33)
Current portion of long-term loans from			
SunEdison Group**	(776.85)	-	(776.85)
Current portion of long-term loans from financial			
institutions	(47.76)	-	(47.76)
Other current liabilities	(5.23)	-	(5.23)
Long-term loans from SunEdison Group**	(144.50)	-	(144.50)
Long-term loans from financial institution	(1,167.22)	-	(1,167.22)
Long-term provisions	(35.45)	-	(35.45)
Deferred tax liabilities	(6.10)	(442.86)	(448.96)
Total identifiable assets and liabilities	(253.17)	1,237.57	984.40
Less: non-controlling interests	(0.15)		(0.15)
Net assets and liabilities acquired	(253.32)		984.25
Repayment of loan** and accrued interest from			
SunEdison Group under the condition of			
business acquisition	1,006.13		1,006.13
Net assets and liabilities acquired by the Group	752.81		1,990.38
Gain on bargain purchase			(226.59)
Consideration transferred			1,763.79

The fair value of the intangible asset determined by independent appraiser based on income approach using the estimated future cash flows discounted to present value with operating period of 20 years under Feed-in Tariff power purchase agreement. The key assumptions included forecast revenue and discount rates.

The business acquisition included the acquisition of Godo Kaisha Natosi (formerly: SunEdison Japan SPC 19 Godo Kaisha) the owner of project in Suimei which has legal dispute with a third party ("Plaintiff"). The plaintiff filed Godo Kaisha Natosi and 3 project initiators (collectively called "Defendant") to Tokyo District court that it has right over such project. The estimated claim is approximately JPY 2.2 billion together with the delinquent charge at 6% per annum starting from April 2015. The defendant has jointly and severally responsibilities. On 30 September 2016, the plaintiff and Godo Kaisha Natosi as a co-defendant, has settled the legal dispute whereby the Judge confirmed that the plaintiff dismissed the claim. Therefore, Godo Kaisha Natosi was officially released from the case.

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Filing for restructuring under chapter 11 of the U.S. Bankruptcy Code of SunEdison Group

On 21 April 2016, SunEdison Group has filed for restructuring under chapter 11 of the U.S. Bankruptcy Code with the U.S. Bankruptcy Court. Currently, the Court has granted relief requested to operate in the ordinary course. The Group believes that this event will not have material impact to the acquisition of solar power business in Japan from SunEdison per the Purchase and Sales agreement signed between the Group and SunEdison on 29 January 2016 with completion of the condition precedents, settled the payment and completion of share transferred on 15 and 18 February 2016. Currently, the conditions within the Purchase and Sales agreement is in full force and effect thereafter SunEdison filed for restructuring under chapter 11 of the U.S. Bankruptcy Code.

Acquisition-related costs

The Group incurred acquisition-related costs of Baht 107.91 million related to external legal fees, due diligence and other costs which were included in administrative expenses in the consolidated statement of income for the Group's period which incurred.

5 Related parties

For the purposes of these financial statements, parties are considered to be related to the Group if the Group has the ability, directly or indirectly, to control or joint control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group and the party are subject to common control or common significant influence. Related parties may be individuals or other entities.

Relationship with related parties were as follows:

Name of entities	Country of incorporation/nationality	Nature of relationships
Vayupak Fund 1	Thailand	Major shareholder, some common directors
Social Security Office	Thailand	Major shareholder, some common directors
Ubon Bio Ethanol Co., Ltd.	Thailand	Associate, Shareholding 21.28 %
Ubon Agricultural Energy Co., Ltd.	Thailand	Indirect associate, representative from the Company as director
Fuel Pipeline Transportation Ltd.	Thailand	Shareholding, representative from the Company as director
Bangchak Green Net Co., Ltd.	Thailand	Subsidiary, Shareholding 49 % and representative from the Company as director
Bangchak Biofuel Co., Ltd.	Thailand	Subsidiary, Shareholding 70 % and representative from the Company as director
BCPG Public Company Limited (Formerly : BCPG Co., Ltd.)	Thailand	Subsidiary, Shareholding 70.35 % and representative from the Company as director
Bangchak Retail Co., Ltd.	Thailand	Subsidiary, Shareholding 100 % and representative from the Company as director
Bangchak Bioethanol (Chachoengsao) Co., Ltd.	Thailand	Subsidiary, Shareholding 85 % and representative from the Company as director

Name of entities	Country of incorporation/nationality	Nature of relationships
BCP Energy International Pte Ltd.	Singapore	Subsidiary, Shareholding 100 % and representative from the Company as director
BCP Innovation Pte. Ltd.	Singapore	Subsidiary, Shareholding 100% and representative from the Company as director
BCP Trading Pte. Ltd.	Singapore	Subsidiary, Shareholding 100% and representative from the Company as director
Bangchak Solar Energy Co., Ltd.	Thailand	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, some common directors
Bangchak Solar Energy (Prachinburi) Co., Ltd.	Thailand	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, some common directors
Bangchak Solar Energy (Chaiyaphum1) Co., Ltd.	Thailand	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, some common directors
Bangchak Solar Energy (Buriram) Co., Ltd.	Thailand	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, some common directors
Bangchak Solar Energy (Buriram1) Co., Ltd.	Thailand	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, some common directors
Bangchak Solar Energy (Nakhon Ratchasima) Co., Ltd.	Thailand	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, some common directors
BCPG Biopower 1 Co., Ltd	Thailand	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, and representative from the subsidiary as director
BCPG Biopower 2 Co., Ltd.	Thailand	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, and representative from the subsidiary as director
BCPG Investment Holdings Pte. Ltd.	Singapore	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, some common directors
BSE Energy Holdings Pte. Ltd.	Singapore	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, and representative from the Company as director
BCPG Japan Corporation (Formerly : SunEdison Japan Corporation)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, and representative from the subsidiary as director
Greenergy Holdings Pte. Ltd. (Formerly: SunEdison Japan Debt Financing Pte. Ltd.)	Singapore	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, and representative from the subsidiary as director

Name of entities	Country of incorporation/nationality	Nature of relationships
Greenergy Power Pte. Ltd. (Formerly: SunEdison TK Investor 1 Pte. Ltd.)	Singapore	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, and representative from the subsidiary as director
Tarumizu Solar Solutions Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 51% by subsidiary
Nakatsugawa PV Godo Kaisha	Japan	Indirect Subsidiary of the subsidiary, affiliate in TK investment
Godo Kaisha Inti (Formerly: SunEdison Japan SPC 4 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Takamori PV Godo Kaisha	Japan	Indirect Subsidiary of the subsidiary, affiliate in TK investment
Nojiri PV Godo Kaisha	Japan	Indirect Subsidiary of the subsidiary, affiliate in TK investment
God Kaisha Aten (Formerly : SunEdison Japan SPC 7 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Nikaho PV Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Gotenba 2 PV Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Horus (Formerly : SunEdison Japan SPC 10 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Yabuki PV Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Komagane PV Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Helios (Formerly : SunEdison Japan SPC 13 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Lugh (Formerly : SunEdison Japan SPC 14 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Phoenix (Formerly : SunEdison Japan SPC 15 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Gotenba 1 PV Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Komagane Land Lease Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Nagi PV Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Natosi (Formerly : SunEdison Japan SPC 19 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Amaterasu (Formerly : SunEdison Japan SPC 20 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary

Name of entities	Country of incorporation/nationality	Nature of relationships
Godo Kaisha Mithra (Formerly : SunEdison Japan SPC 21 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Sol (Formerly : SunEdison Japan SPC 22 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Saule (Formerly : SunEdison Japan SPC 23 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Shamash (Formerly : SunEdison Japan SPC 24 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Pusan (Formerly : SunEdison Japan SPC 25 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Apolo (Formerly : SunEdison Japan SPC 26 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Surya (Formerly : SunEdison Japan SPC 27 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Nagi Land Lease Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Rangsi (Formerly : SunEdison Japan SPC 29 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Dazbog (Formerly: SunEdison Japan SPC 30 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Narang (Formerly : SunEdison Japan SPC 31 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Malina (Formerly: SunEdison Japan SPC 32 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
Godo Kaisha Legba (Formerly: SunEdison Japan SPC 33 Godo Kaisha)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
J2 Investor Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
J1 Investor Godo Kaisha	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary
BCPG Engineering Company (Formerly: SunEdison Construction Company)	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, and representative from the subsidiary as director
Godo Kaisha Tarumi Takatoge	Japan	Indirect Subsidiary of the subsidiary, affiliate in TK investment

Name of entities	Country of incorporation/nationality	Nature of relationships
Huang Ming Japan Company Limited	Japan	Indirect subsidiary of the Company, Shareholding 100% by subsidiary, and representative from the subsidiary as director
Nido Petroleum Limited Group	Australia	Indirect Subsidiary, Shareholding 96.98 % and representative from the Company as director
Bongkot Marine Services Company Limited	Thailand	Joint venture, 30% shareholding by the Company, representative from the Company as director
Oam Suk Social Enterprise Company Limited	Thailand	Joint venture, 40% shareholding by the Company, representative from the Company as director
Key management personnel	Thailand	Persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of the Group.
PTT Public Company Limited Group		Nature of relationships until 30 April 2015
PTT Public Company Limited	Thailand	Major shareholder, some common directors
PTT ICT Solutions Co., Ltd.	Thailand	Major shareholder as the Company's shareholder
PTT International Trading Pte. Ltd.	Singapore	Major shareholder as the Company's shareholder
IRPC Plc.	Thailand	Major shareholder as the Company's shareholder
Thai Oil Plc.	Thailand	Major shareholder as the Company's Shareholder
Energy Complex Co., Ltd.	Thailand	Major shareholder as the Company's shareholder
PTT Global Chemical Plc.	Thailand	Major shareholder as the Company's shareholder
Star Petroleum Refining Co.,Ltd.	Thailand	Major shareholder as the Company's shareholder
PTT Energy Solutions Co.,Ltd.	Thailand	Major shareholder as the Company's shareholder
NPC Safety and Environmental Service Co., Ltd.	Thailand	Related Company of Major Shareholder
Thai Lube Base Plc.	Thailand	Related Company of Major Shareholder
IRPC Oil Co., Ltd.	Thailand	Related Company of Major Shareholder
PTTEP Siam Co., Ltd.	Thailand	Related Company of Major Shareholder
PTT Tank Termianl Co.,Ltd.	Thailand	Related Company of Major Shareholder

The Bangchak Petroleum Public Company Limited and its Subsidiaries

The pricing policies for particular types of transactions are explained further below:

Transactions Pricing policies Sale of goods Market price/ Contractually agreed prices Rendering of service Contractually agreed prices Market price/ Contractually agreed prices Purchase of goods/raw materials Receiving of services Contractually agreed prices Management service fee Contractually agreed prices Royalty expense Contractually agreed prices Contractually agreed rate with reference to market rate Interest expense

Significant transactions with related parties for the year ended 31 December 2016 and 2015 of which significant transactions with PTT Public Company Limited group for 2015 were the transactions up until 30 April 2015 as follows;

	Consolidated financial statements		Separate financial statements	
Year ended 31 December	2016	2015	2016	2015
2000 0000000 01 2 00000000			ion Baht)	
Subsidiaries		,	,	
Sales of goods	-	-	28,421.53	27,495.08
Purchases of goods	-	-	5,820.77	4,353.63
Other income	-	-	109.05	204.18
Dividend income	-	-	861.03	2,181.13
Interest income	-	-	327.27	206.96
Interest expenses	-	-	0.32	0.39
Other expenses	-	-	43.45	20.53
Associate and indirect associate				
Sales of goods	20.81	38.75	20.81	38.75
Purchase of goods	1,373.74	1,300.68	1,373.74	1,300.68
Other income	-	0.02	-	0.02
Key management personnel Key management personnel compensation				
Short-term employee benefits Post-employment benefits and other	218.87	163.63	130.40	137.65
long-term benefits	8.59	11.78	7.31	11.78
Total key management personnel				
Compensation	227.46	175.41	137.71	149.43
Other related parties				
Other income	5.22	5.75	5.22	5.75
Pipeline transportation expenses	430.55	390.16	430.55	390.16
Dividend income	3.23	1.99	3.23	1.99
PTT Public Company Limited Group				
Sales of goods	-	6,123.20	-	6,116.97
Purchases of raw materials	-	29,036.31	-	29,007.85
Other income	-	44.64	-	44.64
Service expense	-	102.88	-	102.88
Other expense	-	11.20	-	11.20
Interest expenses	-	18.45	-	18.45

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Balances as at 31 December 2016 and 2015 with related parties (as at 31 December 2015, no outstanding balances with PTT Public Company Limited Group because of the termination of related parties since 30 April 2015) were as follows:

	Consolidated financial statements		Separ financial st	
	2016	2015	2016	2015
	2010	(in millio	n Baht)	_010
Trade accounts receivable - related parties Subsidiaries		(**************************************	,	
The Bangchak Green Net Co., Ltd.	_	_	1,094.76	842.97
The Bangchak Biofuel Co., Ltd.	-	-	2.49	0.99
Bangchak Retail Co., Ltd.	_	_	5.08	-
Bangchak Bioethanol (Chachoengsao)	_	_	3.00	_
Co., Ltd.	-	-	0.68	-
Associate and indirect associate				
Ubon Bio Ethanol Co., Ltd.	1.08	1.57	1.08	1.57
Ubon Agricultural Energy Co., Ltd	0.92	0.02	0.92	0.02
Other related parties				
Fuel Pipeline Transportation Limited	0.33	0.33	0.33	0.33
•	2.33	1.92	1,105.34	845.88
Less allowance for doubtful accounts	-	-	-	-
Net	2.33	1.92	1,105.34	845.88
Bad and doubtful debts expense for				
the year				
Other receivables - related parties Dividend receivable Subsidiary				
BCPG Public Co., Ltd.	_	-	210.00	_
Other accounts receivable			210.00	
Subsidiaries			3.88	20.07
BCPG Public Co., Ltd.	-	-	3.88 0.39	38.07 0.39
The Bangchak Solar Energy Co., Ltd. Bangchak Bioethanol (Chachoengsao)	-	-	0.39	0.39
Co., Ltd.	-	-	0.03	-
Nido Petroleum Limited	-	-	-	87.12
BCP Innovation Pte. Ltd.	-	-	-	1.65
Total		-	214.30	127.23

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Loans to related parties	Ra	te	Consolidated financial statements		Separate financial statements	
	2016	2015	2016	2015	2016	2015
	(%	<i>6)</i>		(in mil	lion Baht)	
Short-term loans						
Subsidiaries						
BCP Innovation Pte. Ltd.	2.00	2.00	-	-	-	179.62
BCPG Public Co., Ltd. 2	2.5-4.22	2.5-4.22				210.00
			-	-	-	389.62
		_				
Long-term loans						
Subsidiaries						
Nido Petroleum Limited	5.48-8.87	6.36	-	-	2,788.52	3,168.44
BCPG Public Co., Ltd.	2.5-4.22	2.5-4.22	-	-	-	6,018.00
Total		_	_	_	2,788.52	9,186.44
Less current portion due wi	ithin one y	ear _				(302.80)
Total loans to related par	ties	_			2,788.52	8,883.64

Movements during the year ended 31 December 2016 and 2015 of loans to related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2016	2015	2016	2015
		(in mil	lion Baht)	
Short-term loans				
Subsidiaries				
At 1 January	-	-	389.62	-
Increase	-	-	620.00	380.99
Decrease	-	-	(1,000.98)	-
Effect of change in exchange rates	-	-	(8.64)	8.63
At 31 December	_			389.62
Long-term loans				
Subsidiaries				
At 1 January	-	_	9,186.44	-
Increase	-	-	1,500.00	9,552.14
Decrease	-	_	(7,845.20)	(648.23)
Effect of change in exchange rates	-	_	(52.72)	282.53
Less current portion due within one year	-	_	-	(302.80)
At 31 December			2,788.52	8,883.64

The Bangchak Petroleum Public Company Limited and its Subsidiaries

	Consolidated financial statements 2016 2015		Separate financial statements 2016 2015	
		(in millio	on Baht)	
Trade accounts payable - related parties Subsidiaries		,	,	
Bangchak Green Net Co., Ltd.	-	_	2.41	2.89
Bangchak Biofuel Co., Ltd.	-	-	243.12	241.50
Bangchak Bioethanol (Chachoengsao) Co., Ltd.	_	_	84.69	_
BCP Trading Pte. Ltd.	_	_	306.71	_
Associate			200.71	
Ubon Bio Ethanol Co., Ltd.	128.06	113.29	128.06	113.29
Total	128.06	113.29	764.99	357.68
1 otal	120.00	110.27	704.77	237.00
Other accounts payable - related parties Subsidiaries				
Bangchak Green Net Co., Ltd.	_	_	0.56	0.36
BCPG Public Co., Ltd.	_	_	0.03	0.50
Bangchak Retail Co., Ltd.	_	_	17.32	_
Other related party	-	-	17.32	-
Fuel Pipeline Transportation Ltd.	41.02	30.08	41.02	30.08
Total	41.02	30.08	58.93	30.44
Total	41.02	30.00	30.73	30.44
Investment in subsidiaries (Note 11)			11,638.76	6,144.72
Investment in associate and joint ventures (Note 12)	839.62	774.33	807.55	763.23
Other non-current assets Indirect subsidiary				
Nido Petroleum Limited	-	-	176.74	_
Other related party				
Fuel Pipeline Transportation Ltd.	17.32	20.73	17.32	20.73
Total	17.32	20.73	194.06	20.73
Other current liabilities Subsidiaries				
The Bangchak Green Net Co., Ltd.	_	_	29.72	29.40
BCPG Public Co., Ltd.	_	_	6.00	0.23
Total			35.72	29.63
10001				27.00
Other non-current liabilities Subsidiary				
BCPG Public Co., Ltd. Other related party	-	-	-	5.45
Fuel Pipeline Transportation., Ltd.	2.97	3.45	2.97	3.45
Total	2.97	3.45	2.97	8.90
1 0001	2.71	J.7 J	4.71	0.70

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Significant agreements with related parties

Fuel Pipeline Transportation Agreement

During 1997, the Company entered into a fuel pipeline transportation agreement with a related company. The related company will provide transportation service of fuel products to Don-muang and Suvarnabhumi International Airport and transportation service for petroleum products to fuel depot at Bang-pa-in. The agreement has no specified expiry date and can be terminated by either party by giving at least 60 days written notice for termination to the other party.

Bio-diesel Sales and Purchase Agreement

During 2008, the Company entered into a Bio-diesel Sales and Purchase Agreement with a subsidiary for a period of seven years to start from the commencement of the Bio-diesel Plant's commercial operations. The Company will purchase bio-diesel oil at yearly average volumes not less than 60% of maximum bio-diesel production capacity at the market prices as stipulated in the agreement.

During 2014, the Company entered into a Bio-diesel Sales and Purchase Agreement with a subsidiary for a period of eight years to start from the commencement of the Bio-diesel Plant's 2 commercial operations. The Company will purchase bio-diesel oil at yearly average volumes not less than 60% of maximum bio-diesel production capacity at the market prices as stipulated in the agreement.

Bio-ethanol Sales and Purchase Agreement

During 2016, the Company entered into a Bio-ethanol Sales and Purchase Agreement with a subsidiary to start from the commencement of the Bio-diesel Plant's commercial operations. The Company will purchase bio-diesel oil at yearly average volumes not less than 70% of maximum bio-diesel production capacity at the market prices as stipulated in the agreement.

Service Station Operating Right Agreement

During 2013, the Company entered into Service Station Operating Right Agreement which include the right to operate related business within service station with a subsidiary for a period of 5 years. The subsidiary agreed to pay the fee at agreed prices as stipulated in the agreement. For mutual interest under the agreement, the subsidiary agreed to purchase the finish oil products at contractually agreed prices. During the third quarter of 2015, the Company signed the memorandum of understanding to cancel the operating right fee in the contract and agree the incremental selling price of oil product to the subsidiary as stipulated in the memorandum.

Store Operation Right Agreement

During 2013, the Company entered into Store Operation Right Agreement with a subsidiary for a period of 5 years to operate retail stores within service stations under the Company's brand. The subsidiary agreed to pay the fee under agreed prices as stipulated in the agreement. During the third quarter of 2015, the Company signed the memorandum of understanding to cancel the operating right fee in the contract.

Management Service

The Company entered into management service agreement with subsidiaries for general management service. The Company agreed to provide human resources to manage operation process in accordance with subsidiaries' direction. Management service fees and conditions are as stipulated in the agreement.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Land rental Agreement

In December 2015, the Company has entered into land rental agreement with BCPG Public Co., Ltd., a subsidiary for the purpose of 38 MW solar farm project at Bang Pa-In establishment and related objectives. The agreement term is for a period of 22 years effective from 1 December 2015 to 30 November 2037. The rental fee is stipulated in the same agreement.

In October 2016, the Company has entered into additional land rental agreement with BCPG Public Co., Ltd., a subsidiary for the purpose of related objectives of solar farm project. The agreement term is for a period of 21 years 2 months effective from 1 October 2016 to 30 November 2037. The rental fee is stipulated in the same agreement.

Building space and control room rental Agreement

In December 2015, the Company has entered into building space, control room and electricity system room rental agreement related to 38 MW solar farm project at Bang Pa-In with BCPG Public Co., Ltd., a subsidiary of the company. The agreement term is for a period of 3 years effective from 1 December 2015 to 30 November 2018. The rental fee is stipulated in the agreement.

Inthanin's Assets purchase and Sales Agreement

During 2016, the Company entered into Purchase and Sales Agreement to sell assets related to Inthanin business (included building, construction, equipment and intellectual property) with Bangchak Retail Co., Ltd., a subsidiary of the Company totaling Baht 100.91 million with conditions stipulated in the agreement.

Loan Agreement

The Company has an unsecured loan agreement with Nido Petroleum Limited, an indirect subsidiary of the Company for the credit facility of USD 120 million. The loan bears interest and repayment schedule as stipulated in the agreement. Subsequently during the first quarter of 2016, the Company has restructured a loan with the subsidiary by revision of interest rate and repayment conditions.

In November 2015, the Company has entered into unsecured loan agreement with BCPG Public Co.,Ltd., a subsidiary of the Company for the credit facility of Baht 3,028 million, repayable in 20 instalments on semi-annually basis with the first payment due in March 2016. The loan bears interest and repayment schedule as stipulated in the agreement. Subsequently, in January 2016, the Company has terminated the loan agreement and entered into the new agreement with the same terms and conditions as stipulated in the previous agreement. During the second quarter of 2016, the Company received an early repayment of the entire loan.

In November 2015, the Company has entered into unsecured loan agreement with BCPG Public Co.,Ltd., a subsidiary of the Company for the credit facility of Baht 3,100 million with repayment schedule in January 2016. The loan bears interest and conditions as stipulated in the agreement. The subsidiary has drawdown totalling Baht 2,990 million. Subsequently, in January 2016, the Company has entered into another loan agreement to extend the repayment schedule to May 2017 with the same terms and conditions as stipulated in the previous agreement. During the first quarter of 2016, the Company received an early repayment of the entire loan.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

In December 2015, the Company has entered into unsecured loan agreement with BCPG Public Co.,Ltd., a subsidiary of the Company for the credit facility of Baht 830 million with repayment schedule in January 2016. The loan bears interest and conditions as stipulated in the agreement. The subsidiary has first drawdown totaling Baht 210 million. Subsequently, in January 2016, the Company has entered into another loan agreement to extend the repayment schedule to December 2016 with the same terms and conditions as stipulated in the previous agreement. During the first quarter of 2016, the Company received an early repayment amounting Baht 210 million. Subsequently, in April 2016, the subsidiary has drawdown amounting Baht 620 million. During the second quarter of 2016, the Company received an early repayment of the entire loan.

In February 2016, the Company has entered into unsecured loan agreement with BCPG Public Co., Ltd., a subsidiary of the Company for the credit facility of Baht 2,000 million with repayment schedule in December 2017. The loan bears interest and conditions as stipulated in the agreement. The first drawdown was Baht 1,500 million. During the second quarter of 2016, the Company received an early repayment of the entire loan.

In July 2015, the Company has entered into unsecured loan agreement with BCP Innovation Pte. Ltd., a subsidiary of the Company for the credit facility of USD 5 million. The loan bears interest and repayment schedule as stipulated in the agreement. Subsequently, in January 2016, the Company has entered into consecutive loan agreement to extend the repayment schedule to February 2016 with the same terms and conditions as stipulated in the previous agreement. During the first quarter of 2016, the Company converted the entire loan to the ordinary shares of the subsidiary.

Crude oil forward contract

In December 2016, the Company has entered into a crude oil forward contract with a certain indirect subsidiary. The Company will purchase crude oil at fix quantity and price as stipulated in the agreement. The contract will be settled in January 2016. As at 31 December 2016, the Company has outstanding crude oil hedging contract amounting 80,000 barrels.

Guarantee agreement

BCPG Public Co., Ltd., a subsidiary of the Company entered into guarantee agreement with BCPG Engineering Company, a indirect subsidiary of the Company in accordance with solar power system operation and maintenance contract which BCPG Engineering Company has with Tarumizu Solar Solution Godo Kaisha in the event that BCPG Engineering Company causes damage to the assets within the power plant of Tarumizu Solar Solution Godo Kaisha and is not able to compensate. The guarantee agreement is JPY 28.02 million per annum with a guarantee facility totaling JPY 280.20 million covering the period of operation and maintenance of power system from solar energy contract. Under the conditions within the loan agreement between Tarumizu Solar Solutions Godo Kaisha and certain financial institution, it is specified that the parent company is responsible for the guarantee of possible damage loss.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

6 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2016	2015	2016	2015
		(in millio	n Baht)	
Cash on hand	110.18	101.52	0.62	0.62
Cash at banks - current accounts	8,313.07	828.64	293.99	72.42
Cash at banks - savings accounts	8,576.50	6,726.23	6,577.79	5,395.55
Highly liquid short-term investments	2,286.90	215.48	2,000.00	-
Total	19,286.65	7,871.87	8,872.40	5,468.59

The currency denomination of cash and cash equivalents as at 31 December was as follows:

	Consolidated financial statements		Separate financial statements		
	2016	2015	2016	2015	
	(in million Baht)				
Thai Baht (THB)	16,376.70	6,929.15	8,245.02	5,370.49	
United States Dollars (USD)	2,058.16	698.94	627.38	98.10	
Others	851.79	243.78	-	-	
Total	19,286.65	7,871.87	8,872.40	5,468.59	

As at 31 December 2016, certain indirect subsidiaries has a restricted deposits at financial institution totaling Baht 734.47 million (2015: Baht 131.62 million) under the long-term loan agreement with several financial institutions which required such indirect subsidiaries to obtain a permission on withdrawal of restricted deposits with the financial institution.

7 Investments

	Consolidated financial statements		Separate financial statements	
	2016	2015	2016	2015
		(in millio	n Baht)	
Current investment				
Short-term deposits at financial institutions	1,719.32	4,518.56	1,000.00	4,500.00
· -	1,719.32	4,518.56	1,000.00	4,500.00
Other long-term investments Available-for-sale equity security Lithium Americas Corp. (Formerly: Western Lithium USA Corporation)	429.19	192.04	-	-
Non-marketable equity securities				
Fuel Pipeline Transportation Ltd.	234.03	65.57	234.03	65.57
Core Flexible Fund (CORE)	112.46	112.46	112.46	112.46
Less: Allowance for impairment	(39.24)	(44.71)	(39.24)	(44.71)
Non-marketable equity securities - net	736.44	325.36	307.25	133.32

The Bangchak Petroleum Public Company Limited and its Subsidiaries

	Consolidated financial statements		Separ financial st	
	2016	2015	2016	2015
		(in million	ı Baht)	
Other long-term investments (continue)			,	
Debt securities held to maturity				
Government bonds	3.00	3.00	3.00	3.00
Add: Premium on investments	0.03	0.04	0.03	0.04
Debt securities held to maturity - net	3.03	3.04	3.03	3.04
Other long-term investments	739.47	328.40	310.28	136.36
Total	2,458.79	4,846.96	1,310.28	4,636.36

Movement of available-for-sale equity security during the year ended 31 December was as follows:

	Consolidated		Separate		
	financial sta	atements	financial st	atements	
	2016	2015	2016	2015	
		(in millio	n Baht)		
Other long-term investments					
Available-for-sale equity security					
At 1 January	192.04	-	-	-	
Acquisition	-	177.31	-	-	
Valuation adjustment	234.92	14.59	_	-	
Effect of movement in exchange rate	2.23	0.14	-	-	
At 31 December	429.19	192.04	-	-	

Investments of the Group and the Company as at 31 December 2016 and 2015 were denominated entirely in Thai Baht, except for investment in available-for-sale equity security of Lithium Americas Corp. which was dominated in Canadian Dollar.

Disposal of investment

On 28 December 2015, the Company has entered into Sale and Purchase Agreement with S Group AEC (Thailand) Company Limited to sell total ownership in ASEAN Potash Chaiyaphum Public Company Limited totaling 1.93 million shares or approximately 10.66% of the paid up capital for a total consideration of Baht 202.70 million. The transaction was completed on 14 January 2016, therefore, as at 31 December 2015, the Company has reclassified other long term investment in ASEAN Potash Chaiyaphum Public Company Limited to asset classified as held for sale.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

8 Trade accounts receivable

		Consolic	lated	Separ	ate
		financial sta	atements	financial sta	atements
	Note	2016	2015	2016	2015
			(in million	ı Baht)	
Related parties	5	2.33	1.92	1,105.34	845.88
Other parties		6,039.71	5,254.31	5,389.68	4,487.53
Total	_	6,042.04	5,256.23	6,495.02	5,333.41
Less: allowance for doubtful ac	counts	(20.06)	(21.87)	(20.03)	(21.87)
Net	-	6,021.98	5,234.36	6,474.99	5,311.54
(Reversal of) bad and doubtful					
debts expense for the year	_	(1.23)	(1.36)	(1.69)	0.55

Aging analyses for trade accounts receivable were as follows:

	Consolidated financial statements		Separate financial statements	
	2016	2015	2016	2015
		(in million	n Baht)	
Related parties		,	,	
Within credit terms	2.33	1.92	1,105.34	845.88
Less: allowance for doubtful accounts	-	-	-	-
Net	2.33	1.92	1,105.34	845.88
Other parties				
Within credit terms	5,902.57	5,163.78	5,258.35	4,402.35
Overdue:	,	,	,	,
Less than 3 months	115.81	66.89	110.01	61.65
3-6 months	0.64	0.58	0.64	0.50
6-12 months	0.89	0.50	0.89	0.47
Over 12 months	19.80	22.56	19.79	22.56
	6,039.71	5,254.31	5,389.68	4,487.53
Less: allowance for doubtful accounts	(20.06)	(21.87)	(20.03)	(21.87)
Net	6,019.65	5,232.44	5,369.65	4,465.66
Total	6,021.98	5,234.36	6,474.99	5,311.54

The normal credit term granted by the Group ranges from 1 days to 90 days.

The currency denomination of trade accounts receivable as at 31 December was as follows:

	Consoli	idated	Separ	ate
	financial st	tatements	financial sta	atements
	2016	2015	2016	2015
		(in millio	on Baht)	
Thai Baht (THB)	4,706.45	4,136.36	5,486.54	4,413.09
United States Dollars (USD)	1,299.46	1,098.00	988.45	898.45
Others	16.07	-	-	-
Total	6,021.98	5,234.36	6,474.99	5,311.54

The Bangchak Petroleum Public Company Limited and its Subsidiaries

9 Other receivables

		Consol	idated	Separ	ate
		financial s	tatements	financial sta	atements
	Note	2016	2015	2016	2015
			(in millio	n Baht)	
Related parties	5	-	-	214.30	127.23
Other parties	•	_			_
Receivable from oil hedging					
contracts		9.79	7.70	9.79	7.70
Prepaid expenses		428.93	314.84	386.44	237.70
Advance payment for solar site					
preparation		352.48	-	-	-
Other accounts receivable		399.54	419.93	135.31	133.07
Total	-	1,190.74	742.47	745.84	505.70

10 Inventories

	Consoli financial st		Sepa financial st	
	2016	2015	2016	2015
		(in millio	n Baht)	
Crude oil	8,455.71	5,565.79	8,133.28	5,331.14
Finished oil products	5,117.59	7,656.83	4,599.02	7,351.95
Other raw materials	9.14	-	-	-
Materials and supplies	919.20	878.18	830.39	776.14
Consumer products	45.99	18.03	-	-
Semi-finished products	124.94	49.56	-	-
	14,672.57	14,168.39	13,562.69	13,459.23
Less: allowance for obsolete and slow				
moving	(104.85)	(106.70)	(104.56)	(106.30)
allowance for decline in value	(7.25)	(117.02)	-	(104.95)
Net	14,560.47	13,944.67	13,458.13	13,247.98

As at 31 December 2016 and 2015, the Company's inventories included petroleum legal reserve of 395.98 million liters with approximated value of Baht 4,877.02 million and 377.45 million liters with approximated value of Baht 3,988.14 million, respectively.

The cost of inventories which is recognized as an expense and included in 'cost of sale of goods' for the year ended 31 December 2016 amounting to Baht 69,794.23 million (2015: Baht 87,779.69 million).

The Bangchak Petroleum Public Company Limited and its Subsidiaries

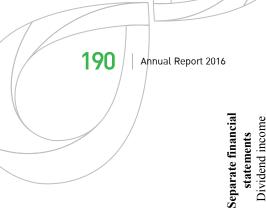
11 Investments in subsidiaries

	Sepa	rate
	financial s	tatements
	2016	2015
	(in millio	on Baht)
Subsidiaries		
At 1 January	6,144.72	8,459.50
Acquisitions	5,443.58	3,761.20
Disposals	-	(3,911.46)
Capital distribution	-	(2,300.00)
Reversal of impairment loss	50.46	135.48
At 31 December - net	11,638.76	6,144.72

Notes to the Financial Statements
The Bangchak Petroleum Public Company Limited and its Subsidiaries

Investments in subsidiaries as at 31 December 2016 and 2015, and dividend income for the years then ended were as follows:

					Se	parate financ	Separate financial statements	S				
	Ownership interest	interest	Paid-up capital	apital	Cost	+2	Impairment	nent	At cost - net	- net	Dividend income	ncome
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
	(%)						(in million Baht)	n Baht)				
Direct Subsidiaries												
The Bangchak												
Green Net Co., Ltd.	49.00	49.00	1.00	1.00	0.49	0.49	ı	ı	0.49	0.49	ı	30.38
The Bangchak												
Biofuel Co., Ltd.	70.00	70.00	281.50	281.50	197.05	197.05	ı	ı	197.05	197.05	105.03	191.24
BCPG Public Co., Ltd.	70.35	100.00	9,950.00	3,700.00	7,000.00	3,700.00	ı	ı	7,000.00	3,700.00	756.00	ı
Bangchak Retail Co.,												
Ltd.	100.00	1	800.00	ı	800.00	ı	ı	ı	800.00	ı	ı	1
Bangchak Bioethanol												
(Chachoengsao) Co.,												
Ltd.	85.00	1	500.00	ı	425.00	ı	ı	ı	425.00	ı	ı	1
BCP Energy												
International Pte Ltd.	100.00	100.00	3,635.95	2,933.57	3,635.95	2,933.57	(639.42)	(88.689)	2,996.53	2,243.69	ı	ı
BCP Innovation Pte.												
Ltd.	100.00	100.00	184.54	3.49	184.54	3.49	ı	ı	184.54	3.49	ı	ı
BCP Trading Pte. Ltd.	100.00	1	35.15	ı	35.15	1	1	1	35.15	1	1	1
Total				•	12,278.18	6,834.60	(639.42)	(889.88)	11,638.76	6,144.72	861.03	221.62



The Bangchak Petroleum Public Company Limited and its Subsidiaries

Notes to the Financial Statements

Direct Subsidiaries until 1 December 2015

The Bangchak Solar Energy Co., Ltd.

The Bangchak Solar Energy (Prachinburi) Co., Ltd.

The Bangchak Solar Energy (Chaiya-phum1) Co., Ltd.

The Bangchak Solar Energy (Burirum) Co., Ltd.

The Bangchak Solar Energy (Burirum1) Co., Ltd. The Bangchak Solar Energy (Nakhon Ratchasima) Co.,Ltd.

Total

nents	l income	2015	on Baht)	1,409.99	183.51	94.21	90.56	96.68	91.28	1,959.51	2,181.13
statements	Dividend income	2016	(in million Baht)	•	ı		1		'	'	861.03

The Bangchak Petroleum Public Company Limited and its Subsidiaries

All subsidiaries were incorporated in Thailand, except BCP Energy International Pte. Ltd., BCP Innovation Pte. Ltd. and BCP Trading Pte. Ltd. which were incorporated and operating in Singapore.

Change in investment in subsidiaries

On 27 January 2016, the Company established Bangchak Retail Company Limited in Thailand, representing a 100% ownership with initial registered capital of Baht 300 million (divided into 30 million shares at par value of Baht 10 per share) for the purposes of operating food and beverage centre. The subsidiary had called up 25% of entire shares at Baht 10 each totaling Baht 75 million. Subsequently, on 8 July 2016, the subsidiary had called up additional 75% of registered capital of Baht 300 million (divided into 30 million shares at par of Baht 10 per share). The Company paid the called up shares totalling Baht 225 million on 1 August 2016. Subsequently, at the extraordinary shareholder's meeting of Bangchak Retail Co.,Ltd. held on 20 September 2016, the shareholders approved the increase in the company's registered share capital from Baht 300 million (divided into 30 million shares at par value of Baht 10 per share) to Baht 800 million (divided into 80 million share at par value of Baht 10 per share). The Company fully paid the new issued shares at Baht 10 per share totalling Baht 500 million on 22 September 2016.

During the first quarter of 2016, BCP Innovation Pte. Ltd, a subsidiary of the Company, had converted short-term loan amounting USD 5 million or approximately Baht 179.26 million to share capital and had called up and received USD 0.05 million or approximately Baht 1.79 million.

On 2 May 2016, the Company established Bangchak Bioethanol (Chachoengsao) Company Limited in Thailand, representing a 85% ownership with initial registered capital of Baht 1 million (divided into 10,000 shares at par value of Baht 100 per share) for the purposes of production and distribution of ethanol. The subsidiary had called up 100% of entire shares at Baht 100 each totaling Baht 0.85 million. Subsequently, at the first ordinary shareholder's meeting of Bangchak Bioethanol (Chachoengsao) Co.,Ltd. held on 30 June 2016, the shareholders approved the increase in the company's registered share capital from Baht 1 million (divided into 0.01 million shares at par value of Baht 100 per share) to Baht 500 million (divided into 5 million share at par value of Baht 100 per share). The Company hold 85% of ownership interest and paid the call up shares totalling Baht 424.15 million on 13 July 2016.

On 10 May 2016, the Company established BCP Trading Pte. Ltd., incorporated in Singapore for trading of petroleum commodities and relevant business. The Company has 100% shareholding with registered capital of USD 1 million divided into 1 million shares at par value of USD 1 per share. The subsidiary called up for 1 share and received a payment of USD 1. Subsequently, on 14 July 2016, the Company paid 100% of registered capital of BCP Trading Pte. Ltd. totalling USD 1 million.

At the Extraordinary Meeting of Shareholders of BCP Energy International Pte. Ltd., held on 7 October 2016, the shareholders approved the increase of registered share capital from USD 91.31 million (divided into 91.31 million shares at par value of USD 1) to USD 111.41 million (divided into 111.41 million shares at par value of USD 1) in order to fund exploration in the Mid-Galoc area of NIDO Petroleum Limited. The Company had fully paid the registered share capital amounting USD 20.10 million, approximately Baht 702.3 million, on 20 October 2016.

At the Extraordinary Meeting of Shareholders of NIDO Petroleum Limited., held on 19 October 2016, the shareholders approved the increase of registered share capital from USD 151.57 million (divided into 43.76 million shares at par value of USD 3.46) to USD 170.85 million (divided into 448.21 million shares at par value of USD 0.38). On 22 November 2016, the subsidiary had paid the call up of the increased of registered share capital resulting in the Company's ownership interest increased from 81.41% to 96.98%. The Group recognized a decrease of non-controlling interests amounting Baht 45.93 million.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

At the annual general meeting of the shareholder of BCPG Public Co., Ltd. held on 24 March 2016, the shareholders approved the increase of registered share capital from Baht 3,700 million (divided into 740 million shares at par value of Baht 5 per share) to Baht 10,000 million (divided into 2,000 million shares at par value of Baht 5 per share). The Company had paid the call up of the increased of registered share capital for 660 million shares at Baht 5 each amounting Baht 3,300 million on 25 March 2016.

Initial public offering of BCPG Public Co., Ltd. ordinary shares

On 28 September 2016, BCPG Public Co., Ltd. completed its Initial Public Offering by issuing 590 million new ordinary shares with an offering price of Baht 10 per share (par value of Baht 5 per share) on the Stock Exchange of Thailand.

Details of the change in ownership are as follows:

	Consolidated
	financial statements
	(in million Baht)
Consideration received	5,900.00
Less Transaction costs from issuance of BCPG Public Co., Ltd.	
ordinary shares	(129.10)
Net	5,770.90
Dilution of ownership interest to non-controlling interest	(4,222.78)
Change in parent's equity	1,548.12
Dilution of ownership interest to non-controlling interest	(4,222.78)

As a result of Initial Public Offering, the Company's ownership interest in BCPG Public Co., Ltd. decreased from 100.00% to 70.35%.

The impairment of investment in subsidiary

During the year ended 31 December 2016, the Company has allowance for impairment loss in investment in BCP Energy International Pte Ltd. Baht 639.42 million (2015: Baht 689.88 million) due to the lower recoverable amount than the carrying amount of the investment of BCP Energy International Pte Ltd. in NIDO Petroleum Limited.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Investments in associate and joint ventures **12**

	Consolic	lated	Separate				
	financial sta	tements	financial st	atements			
For the year ended 31 December	2016	2015	2016	2015			
•		(in million	ı Baht)				
Associate							
At 1 January	774.33	761.93	763.23	763.23			
Share of net profit of associate	21.26	12.40	-	-			
At 31 December	795.59	774.33	763.23	763.23			
Joint ventures							
At 1 January	-	_	-	-			
Increase	44.32	_	44.32	_			
Share of net loss of joint ventures	(0.29)	-	-	-			
At 31 December	44.03	-	44.32	-			
Total							
At 1 January	774.33	761.93	763.23	763.23			
Increase	44.32	-	44.32	-			
Share of net profit of associate and							
joint ventures	20.97	12.40	_	_			
At 31 December	839.62	774.33	807.55	763.23			

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Investments in associate as at 31 December 2016 and 2015, and dividend income from those investments for the years then ended, were as follows:

Consolidated financial statements

lend me 2015	1 1	1	1	1 1
Dividend income 2016 20	. .			-
y - net 2015	774.33			774.33
At equity - net 2016 2015	795.59	43.06	0.97	44.03
rment 2015	.	1		1 1
Impairment 2016 201 <i>:</i> aht)	1 1		1	1 1
method 2015 (in million Baht,	774.33			774.33
Equity method 2016 2015 (in millior	795.59	43.06	76.0	44.03
ethod 2015	763.23	1		763.23
Cost method 2016 2019	763.23	43.32	1.00	44.32
capital 2015	2,740.00	ı	ı	
Paid-up capital 2016	2,740.00	144.40	2.50	
ship sst 2015	21.28	ı	ı	
Ownership interest 2016 20	21.28	s 30.00	40.00	
	Associate Ubon Bio Ethanol Co., Ltd.	Joint ventures Bongkot Marine Services Co., Ltd.	Oam Suk Social Enterprise Co., Ltd.	Total

None of the Group's equity-accounted investee is publicly listed and consequently does not have published price quotations.

Notes to the Financial Statements
The Bangchak Petroleum Public Company Limited and its Subsidiaries

	pue	ne	2015			1	•								1	•		
	Dividend	income	2016			1						•			י	•		
		y - net	2015			763.23	763.23					ı					163.33	703.23
		At equity - net	2016			763.23	763.23					43.32			1.00	44.32	77 100	cc./00
Separate financial statements		ent	2015	3aht)		ı	1								1			
		Impairment	2016	(in million Baht)		- I	- I					, 			1	1		
eparate fina	100t to 20	ethod 2015	2015			763.23	763.23					'			1	•	263 23	7.63.73
S		Cost m	2016			763.23	763.23					43.32			1.00	44.32	77 100	66./00
		Paid-up capital	2015			2,740.00						1						
		Paid-up	2016			2,740.00						144.40			2.50			
	hip	st	interest 2016 2015 (%)			21.28									1			
	Ownership	intere	2016	(%) (%)		21.28						30.00			40.00			
					<i>Associate</i> Ubon Bio Ethanol	Co., Ltd.		Joint ventures	Bongkot	Marine	Services	Co., Ltd.	Oam Suk Social	Enterprise	Co., Ltd.			

None of the Company's equity-accounted investee is publicly listed and consequently does not have published price quotations.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Associate

The summary of financial data of the associate of the Company and the reconciliation between the summary of financial data and the book value of the Group interests were as follows:

	Udon Bio Etnanoi	Co., Lta.
	2016	2015
	(in million B	aht)
Revenue	3,550.38	3,663.42
Profit for the year	99.94	58.28
Other comprehensive income	-	-
Total comprehensive income	99.94	58.28
Non-controlling interests	-	-
Owners of the Company	99.94	58.28
Current assets	1,209.67	1,205.96
Non-current assets	5,783.53	5,726.91
Current liabilities	(2,477.00)	(2,434.40)
Non-current liabilities	(1,585.88)	(1,668.08)
Net assets	2,930.32	2,830.39

The reconciliation of the summarised financial information to the carrying amount of the Group's interest in this company.

	Ubon Bio Ethano	l Co., Ltd.
	2016 (in million E	2015 Baht)
Non-controlling interests	-	-
Owners of the Company	2,930.32	2,830.39
Group interests in net assets at 1 January	774.33	761.93
Total comprehensive income of the Group	21.26	12.40
Carrying amount of interest in investee at 31 December 2016	795.59	774.33

Immaterial joint ventures

The following is summarized financial information for the Group's interest in immaterial joint ventures based on the amounts reported in the Group's consolidated financial statements:

Immaterial joint ventures

For the year ended 31 December 2016	(in million Baht)
Carrying amount of interests in immaterial joint ventures	44.32
Group's share of:	
- loss for the year	(0.29)
- Other comprehensive income	-
- Total comprehensive income (loss)	(0.29)

The Bangchak Petroleum Public Company Limited and its Subsidiaries

13 Investment Property

	Consoli	dated	Separate			
	financial st	atements	financial st	atements		
	2016	2015	2016	2015		
		(in millio	on Baht)			
Cost						
At 1 January	459.34	459.34	459.34	459.34		
Transfer to property, plant and equipment	(99.74)	-	(99.74)	-		
At 31 December	359.60	459.34	359.60	459.34		
Depreciation and impairment losses						
At 1 January	-	-	-	-		
At 31 December						
Net book value						
At 1 January	459.34	459.34	459.34	459.34		
At 31 December	359.60	459.34	359.60	459.34		

During 2016, the Company transferred partial of investment property amounting Baht 99.74 million to land, since the Company starting the land development for the construction of oil service station.

Investment property were revalued as at 31 December 2016 and 2015 by an independent professional valuer, at market comparison value with appraised value totalling Baht 793.21 million (2015: Baht 1,013.21 million).

The Bangchak Petroleum Public Company Limited and its Subsidiaries

14 Property, plant and equipment

(a) The Group

Notes to the Financial Statements
The Banachak Betraleum Bublic Company Limited and its St

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					Consolidated Exploration	Consolidated financial statements	ments				
			Machinery,		and						
			equipment		production	,					
			refinery	Electricity	Jo	Marketing				Construction	
			plants and	producing	petroleum	and office	Platinum		Other	work in	
	Land	Buildings	terminal	equipments	assets	equipments	catalyst	Vehicles	assets	progress	Total
					(in	(in million Baht)					
Depreciation and impairment											
losses											
At 1 January 2015	(15.81)	(660.54)	(16,694.88)	(693.65)	(3,000.56)	(3,497.30)	ı	(174.72)	ı	1	(24,737.46)
Acquired though business											
acquisition	1	ı	•	1	(1,602.73)		1	1	ı	1	(1,602.73)
Depreciation charge for the year	1	(96.65)	(2,720.10)	(400.10)	(875.19)	(342.34)	ı	(29.94)	(1.31)	1	(4,465.63)
(Losses) reversal of impairment											
losses	1.73	ı	0.02	1	(58.20)	4.33	ı	ı	ı	1	(52.12)
Transfers	1	1	ı	3.07	ı	(83.68)	1		ı	1	(80.61)
Disposals	1	18.09	320.77	518.12	•	163.66	1	11.00	ı	1	1,031.64
Effect of movement											
in exchange rate	1	(6.45)	1	1	(273.62)	1	1	1	1	1	(280.07)
At 31 December 2015 and											
1 January 2016	(14.08)	(745.55)	(19,094.19)	(572.56)	(5,810.30)	(3,755.33)	1	(193.66)	(1.31)		(30,186.98)
Depreciation charge for the year	1	(125.27)	(2,661.39)	(483.93)	(757.04)	(400.02)	1	(32.36)	(1.31)	i	(4,461.32)
(Losses) reversal of impairment											
losses	1.90	İ	(0.19)	1	38.19	1.30	1	1	İ	1	41.20
Transfer	1	(0.96)	1		1	96.0	1	ı	1	•	1
Disposals	1	20.21	1,284.64	1	1	235.49	ı	22.19	ı	1	1,562.53
Effect of movement											
in exchange rate		0.64	1	3.77	32.19	90.0	1	0.01		1	36.67
At 31 December 2016	(12.18)	(850.93)	(20,471.13)	(1,052.72)	(6,496.96)	(3,917.54)	•	(203.82)	(2.62)	•	(33,007.90)

Notes to the Financial Statements
The Bangchak Petroleum Public Company Limited and its Subsidiaries

Construction Other work in assets progress Total	- 1,015.50 37,043.44 - 1,092.68	- 1,015.50 38,136.12	26.47 3,466.17 40,043.91	26.47 3,466.17 40,043.91	25.16 5,095.88 46,461.89	25.16 5,095.88 46,461.89
Vehicles	60.71	60.71	95.18	95.18	129.87	129.87
ements Platinum catalyst	239.26	239.26	239.26	239.26	239.26	239.26
Consolidated financial statements eploration and oduction of Marketing etroleum and office Platin assets equipments catal	1,364.27	1,364.27	1,474.62	1,474.62	2,340.69	2,340.69
Exploration and production of petroleum assets	1,076.72	1,076.72	2,731.07	2,731.07	1,958.69	1,958.69
Electricity producing equipments	9,008.95	9,008.95	8,607.69	8,607.69	10,523.00	10,523.00
Machinery, equipment refinery plants and terminal	21,518.02 1,092.68	22,610.70	20,475.69	20,475.69	21,737.46	21,737.46
Buildings	1,376.26	1,376.26	1,531.05	1,531.05	2,163.80	2,163.80
Land	1,383.75	1,383.75	1,396.71	1,396.71	2,248.08	2,248.08
	Net book value At 1 January 2015 Owned assets Assets under finance leases		At 31 December 2015 and 1 January 2016 Owned assets Assets under finance leases		At 31 December 2016 Owned assets Assets under finance leases	

The Bangchak Petroleum Public Company Limited and its Subsidiaries

On 31 August 2016, a subsidiary has entered into Assets Sale and Purchase Agreement for ethanol production consisting of land, buildings, machinery and equipment from another company totaling Baht 829.91 million.

As at 31 December 2016, certain subsidiaries have mortgaged its land, buildings and machinery as collateral with financial institutions for credit facilities totaling Baht 16,156.97 million (2015: Baht 5,005.08 million).

Capitalised borrowing costs relating to construction of the new factory amounted to Baht 122.64 million (2015: Baht 47.96 million), with a capitalization rate of 3.85-5.59% (2015: 4.64-4.83%) (see note 32).

The gross amount of the Group's fully depreciated plant and equipment that was still in use as at 31 December 2016 amounted to Baht 6,180.05 million (2015: Baht 6,039.55 million)

Calculation of recoverable amount of oil exploration & production assets in Nido Petroleum Limited

The outlook for oil market continues to be challenging due to excess of crude oil supply against a backdrop of reduced demand growth. As a result, future oil prices is still continuing to fluctuate. The recoverable amount of petroleum exploration and production assets calculated based on value in use which was the estimated future cash flows are discounted to their present value. The key assumptions used in the cash flow projections include the oil prices, oil reserve, production profile, discount rates, and capital expenditure. The key assumption were estimated by the Management. The forecast oil price are based on the world market and upon past experience of the industry. Production profiles are based on a proved and probable reserve certified by independent expert (Gaffney, Cline & Associates) and also the long-term view of global supply and demand. The discount rate is derived from weighted average cost of capital of 7.98% (2015: 7.79%). The capital expenditure was determined based on project management estimation and long term planning.

The Group recognized reversal of impairment loss and impairment loss in consolidated statement of income for the year end 31 December 2016, 2015 and 2014 as follows;

	Consolid	ated financial	statements
	2016	2015	2014
		(in million Bah	it)
(Reversal of) impairment losses			
Property, plant and equipment	(38.19)	58.20	883.98
Intangible assets	-	-	269.95
Total	(38.19)	58.20	1,153.93

The sensitivity analysis in the key assumption was estimated. The calculations were performed assuming a change to the variable being tested only. It is estimated that if the oil price assumption for all future years were to be increased by around 7.64%, this would cause the reversal of the remaining allowance for impairment loss.

Notes to the Financial Statements
The Bangchak Petroleum Public Company Limited and its Subsidiaries

			Machinery,	S	Separate financial statements	al statements				
	Land	Buildings	equipment refinery plants and terminal	Electricity producing equipments	Marketing and office Plat equipments cat (in million Baht)	Platinum catalyst Baht)	Vehicles	Other	Construction work in progress	Total
Cost At 1 January 2015	985.34	759.21	38,629.16	3,522.28	4,678.48	239.27	206.27	ı	96.76	50,010.77
Additions		•	1,322.95	ı	ı		ı	ı	2,188.23	3,511.18
Transfers	20.00	68.6	544.20	(12.09)	539.10	ı	62.84	27.78	(1,127.58)	64.14
Disposals	(8.77)	(37.75)	(1,613.13)	(3,510.19)	(206.02)	1	(9.13)		1	(5,384.99)
At 31 December 2015 and	12 700	40	30 003 10		79 110 5	10000	90 000	100	0.051.41	40.301.10
1 January 2016	780.37	cc.1c/	38,883.18		9,011.50	77.657	86.667	8/./7	2,051.41	48,201.10
Additions		1	27.15		1	ı	1	ı	5,042.06	5,069.21
Transfers	335.89	24.50	2,085.48	1	1,288.90		45.59	ı	(3,758.10)	22.26
Disposals		(15.40)	(1,349.39)		(390.40)	•	(20.79)	•	'	(1,775.98)
At 1 December 2016	1,332.46	740.45	39,646.42	1	5,910.06	239.27	284.78	27.78	3,335.37	51,516.59
Depreciation and impairment losses	3						3			
At I January 2015	(15.81)	(490.03)	(16,499.08)	(387.72)	(3,423.72)	ı	(156.36)	ı	ı	(20,972.72)
Depreciation charge for the period	1	(37.31)	(2,675.37)	(133.46)	(312.62)		(26.33)	(1.31)	1	(3,186.40)
Reversal of impairment losses	1.73	1	0.02	•	4.34	ı	1		1	60.9
Transfer	•	•	1	3.06	(83.68)	ļ	ı	1	•	(80.62)
Disposals	•	18.01	319.60	518.12	158.53	'	8.87	-	-	1,023.13
At 31 December 2015 and										
1 January 2016	(14.08)	(509.33)	(18,854.83)		(3,657.15)	•	(173.82)	(1.31)		(23,210.52)
Depreciation charge for the period	ı	(35.94)	(2,565.42)	ı	(355.42)		(27.30)	(1.31)	1	(2,985.39)
(losses) reversal of impairment										
losses	1.90	1	(0.19)	ı	1.30	1	1	ı	ı	3.01
Transfer		(0.96)	1	1	96.0	1		1	ı	1
Disposals	1	15.29	1,283.34	•	270.39	•	20.62	,	•	1,589.64
At 31 December 2016	(12.18)	(530.94)	(20,137.10)		(3,739.92)	•	(180.50)	(2.62)	•	(24,603.26)

Notes to the Financial Statements

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Ē	Total		1,092.68			24,990.58	24,990.58	26,913.33	26,913.33
Construction	work in progress	92'066	ı	92.066		2,051.41	2,051.41	3,335.37	3,335.37
,	Other	,	ı	'		26.47	26.47	25.16	25.16
	Vehicles	49.91	1	49.91		86.16	86.16	104.28	104.28
cial statements	Platinum catalyst on Baht)	239.27	ı	239.27		239.27	239.27	239.27	239.27
Separate financial statements Marketing	and office Plat equipments cat:	1.254.76		1,254.76		1,354.41	1,354.41	2,170.14	2,170.14
	producing equipments	3.134.56	ı	3,134.56		' '	1		
Machinery, equipment refinery plants	and terminal	21.037.40	1,092.68	22,130.08		20,028.35	20,028.35	19,509.32	19,509.32
	Buildings	269.18	ı	269.18		222.02	222.02	209.51	209.51
	Land	969.53	ı	969.53		982.49	982.49	1,320.28	1,320.28
		Net book value At 1 January 2015 Owned assets	Assets under finance leases		At 31 December 2015 and 1 January 2016	Owned assets A seets under finance leases		At 31 December 2016 Owned assets	Assets midel illiance reases

1,291.79 million and also cancelled Cogeneration Purchase and Sales Agreement for steam and electricity with the said company. The Company reversed assets and liabilities under financial lease which were previously recognized in accordance with Thai Financial Reporting Interpretations Committee 4 (TFRIC 4) Determining whether an arrangement contains a lease. On 28 May 2015, the Company entered into Cogeneration Power Plant Purchase Agreement with PTT Public Company Limited for a consideration of Baht

Capitalised borrowing costs relating to construction of the new plant amounted to Baht 74.52 million (2015: Baht 27.47 million), with a capitalization rate of 4.34-5.59% (2015: 4.64 - 4.83%) (see note 32). The gross amount of the Company's fully depreciated plant and equipment that was still in use as at 31 December 2016 amounted to Baht 6,128.40 million (2015: Baht 5,989.05 million).

The Bangchak Petroleum Public Company Limited and its Subsidiaries

15 Leasehold rights

	Consolidated and Separate
	financial statements
	(in million Baht)
Cost	,
At 1 January 2015	2,714.69
Additions	383.60
Disposals	(6.50)
At 31 December 2015 and 1 January 2016	3,091.79
Addition	412.43
Disposals	(58.36)
At 31 December 2016	3,445.86
Amortisation and impairment losses	
At 1 January 2015	(1,318.94)
Amortisation charge for the year	(130.12)
Disposals	0.86
Impairment losses	(0.09)
At 31 December 2015 and 1 January 2016	(1,448.29)
Amortisation charge for the year	(116.68)
Disposals	47.15
Reversal of impairment losses	11.00
At 31 December 2016	(1,506.82)
Net book value	
At 1 January 2015	1,395.75
At 31 December 2015 and 1 January 2016	1,643.50
At 31 December 2016	1,939.04

On 27 February 2004, The Treasury Department permitted the Company to settle by instalments, the leasehold fee of Baht 551.63 million for an extension of the lease agreement of state-owned land on which the Company's refinery is located. The initial lease agreement, which due for expiration on 1 April 2015, will be extended for period of 18 years under the new lease agreement, which will expire on 31 March 2033. The Company has extended the amortisation period of existing leasehold rights to 31 March 2033, which corresponds to the period of the new agreement. The annually instalments of the leasehold fee are as followed;

Period	(in million Baht)
The year 2007 - 2009	137.90
The year 2010 - 2012	183.88
The year 2013 - 2015	229.85
Total	551.63

As at 31 December 2016 and 2015, there is no remaining liability from the leasehold rights.

Notes to the Financial Statements The Bangchak Petroleum Public Company Limited and its Subsidiaries

16 Intangible assets

Consolidated financial statements

Total	2,540.71	855.75	106.22	(32.30)	346.08		3,816.46		1,789.65	483.83	31.71	(4.42)	17.11	6,134.34
Intangible assets under development	,	•	•	•	•				25.11	154.27	20.30	•	(8.56)	191.12
nnect Feed-in Tariff on power purchase t agreement (in million Baht)	1	•							1,680.43				47.11	1,727.54
Right to connect power distribution system (in milli	20.60		17.82	(20.60)			17.82		84.11	11.41	11.41	(4.14)	1.36	121.97
Exploration and evaluation expenditure	2,065.40	855.75	51.68	(11.50)	346.08		3,307.41			54.81			(22.80)	3,339.42
Right to use and cost of development of computer software	454.71	•	36.72	(0.20)	•		491.23			263.34		(0.28)		754.29
	Cost At 1 January 2015	Acquired through business acquisition	Additions	Disposals	Effect of movements in exchange rates	At 31 December 2015 and	1 January 2016	Acquired through business acquisition	(note 4)	Additions	Tranfers	Disposals	Effect of movements in exchange rates	At 31 December 2016

Consolidated financial statements

Notes to the Financial Statements

The Bangchak Petroleum Public Company Limited and its Subsidiaries

	Right to use and cost of		Right to connect			
	development of computer	Exploration and evaluation	power distribution	Feed-in Tariff power purchase	Intangible assets under	
	software	expenditure	system (in mii	agreement agreement (in million Baht)	development	Total
Amortisation			-			
At 1 January 2015	(232.12)	(658.76)	(2.02)	•	•	(892.90)
Amortisation for the year	(49.25)		(0.82)	•	•	(50.07)
Disposals	0.20		2.78	•	•	2.98
Effect of movements in exchange rates	•	(97.62)		•	•	(97.62)
At 31 December 2015 and						
1 January 2016	(281.17)	(756.38)	(0.00)	,	•	(1,037.61)
Amortisation for the period	(64.16)		(4.48)	(22.47)		(91.11)
Disposals	0.20	•	0.00		•	0.29
Effect of movements in exchange rates	•	5.32	0.19	1.20	•	6.71
At 31 December 2016	(345.13)	(751.06)	(4.26)	(21.27)		(1,121.72)
Net book value						
At 1 January 2015	222.59	1,406.64	18.58	•	,	1,647.81
At 31 December 2015 and						
1 January 2016	210.06	2,551.03	17.76	•	•	2,778.85
At 31 December 2016	409.16	2,588.36	117.71	1,706.27	191.12	5,012.62

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Separate financial statements

	Sepai	ate illialiciai statellicitis	
	Right to use and cost of development of computer software	Right to connect power distribution system (in million Baht)	Total
Cost			
At 1 January 2015	441.73	20.60	462.33
Additions	36.67	-	36.67
Disposals	(0.20)	(20.60)	(20.80)
At 31 December 2015 and			
1 January 2016	478.20	-	478.20
Additions	184.89	-	184.89
Disposals	(0.28)	-	(0.28)
At 31 December 2016	662.81		662.81
Amortisation			
At 1 January 2015	(226.69)	(2.03)	(228.72)
Amortisation for the year	(46.83)	(0.75)	(47.58)
Disposals	0.19	2.78	2.97
At 31 December 2015 and			
1 January 2016	(273.33)	-	(273.33)
Amortisation for the year	(59.66)	-	(59.66)
Disposals	0.21	-	0.21
At 31 December 2016	(332.78)		(332.78)
Net book value			
At 1 January 2015	215.04	18.57	233.61
At 31 December 2015 and	204.07		204.07
1 January 2016	204.87		204.87
At 31 December 2016	330.03		330.03

The Bangchak Petroleum Public Company Limited and its Subsidiaries

17 Deferred tax

Deferred tax assets and liabilities as at 31 December were as follows:

	Cor	nsolidated fin	ancial statem	ents
	Ass	ets	Liabi	lities
	2016	2015	2016	2015
		(in milli	on Baht)	
Total	860.22	835.33	(914.40)	(556.20)
Set off of tax	(313.71)	(275.73)	313.71	275.73
Net deferred tax assets (liabilities)	546.51	559.60	(600.69)	(280.47)
	S	eparate finan	cial statemen	ts
	Ass	ets	Liab	ilities
	2016	2015	2016	2015
		(in milli	on Baht)	
Total	628.45	611.52	(118.38)	(61.32)
Set off of tax	(118.38)	(61.32)	118.38	61.32
Net deferred tax assets	510.07	550.20		_

Notes to the Financial Statements
The Bangchak Petroleum Public Company Limited and its Subsidiaries

			At 31	December 2016			170.96	279.14	346.92	29.21	1	33.99	860.22		(351.10)	(450.89)	(1.13)	(94.58)	(16.70)	(914.40)	(54.18)
				Exchange differences			•	(1.12)		(0.68)			(1.80)		4.82	(12.67)		0.34	90.0	(7.45)	(9.25)
icial statement		Acquired through	business	acquisition (Note 4)	Baht)		•	•	•	•	•	ı	1		•	(442.86)		(6.10)	ı	(448.96)	(448.96)
Consolidated financial statement	(Charged)/Credited to:		Other	comprehensive income	(in million Baht)		•	•	17.54	•	•	•	17.54			ı		ı		•	17.54
	(Charged)/			Profit/loss (Note 33)			(14.47)	22.82	22.78	(6.80)	(20.99)	5.81	9.15		82.26	4.64	0.07	14.04	(2.80)	98.21	107.36
			At 1	January 2016			185.43	257.44	306.60	36.69	20.99	28.18	835.33		(438.18)		(1.20)	(102.86)	(13.96)	(556.20)	279.13
						Deferred tax assets	Loss from impairment of assets	Property, plant and equipment	Employee benefit obligation	Loss carry forward	Inventories	Others	Total	Deferred tax liabilities	Property, plant and equipment	Intangible assets	Leasehold rights	Provision for the decommissioning cost	Others	Total	Net

Notes to the Financial Statements

The Bangchak Petroleum Public Company Limited and its Subsidiaries

			Consolidated financial statement	ncial statement		
		(Charged)	(Charged)/Credited to:			
	At 1		Other	Acquired through		At 31
	January 2015	Profit/loss (Note 33)	comprehensive income	business acquisition	Exchange differences	December 2015
Deferred tax assets			(in million Bant)	ı Baht)		
Loss from impairment of assets	215.55	(30.12)	•	1	1	185.43
Property, plant and equipment	223.05	17.62	•	3.10	13.67	257.44
Employee benefit obligation	237.45	22.99	46.16	1	•	306.60
Loss carry forward	460.18	(426.30)	•		2.81	36.69
Inventories	•	20.99	•	•	•	20.99
	39.40	(11.28)	•	1	90.0	28.18
	1,175.63	(406.10)	46.16	3.10	16.54	835.33
Deferred tax liabilities						
Inventories	(131.77)	131.77				
Property, plant and equipment	(403.06)	273.93	1	(266.84)	(42.21)	(438.18)
Leasehold rights	(1.27)	0.07			ı	(1.20)
Provision for the decommissioning cost	(82.00)	(13.04)	ı	ı	(7.82)	(102.86)
Finance lease liabilities	(0.77)	0.79	ı		(0.02)	
Income from insurance compensation	(48.66)	48.66	•		•	
		(13.26)	1	ı	(0.70)	(13.96)
	(667.53)	428.92	ı	(266.84)	(50.75)	(556.20)
	508.10	22.82	46.19	(263.74)	(34.21)	279.13
				`		

Notes to the Financial Statements
The Bangchak Petroleum Public Company Limited and its Subsidiaries

		Separate fin (Charged	Separate financial statements (Charged) / credited to	
	At 1 January 2016	Profit/loss (Note 33) (in mi	ss Other comprehensive) income (in million Baht)	At 31 December 2016
Deferred tax assets Loss from impairment of assets	185.43	(14.47)		170.96
Property, plant and equipment	74.21	7.52	1	81.73
Employee benefit obligation	302.79	20.99	18.05	341.83
Inventories	20.99	(20.99)		ı
Others	28.10	5.83	ı	33.93
Total	611.52	(1.12)	18.05	628.45
Deferred tax liabilities Property, plant and equipment Leasehold rights Total	(60.12) (1.20) (61.32)	(57.13) 0.07 (57.06)		(117.25) (1.13) (118.38)
Net	550.20	(58.18)	18.05	510.07

Notes to the Financial Statements

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		Separate fina (Charged)	Separate financial statements (Charged) / credited to	
	At 1 January 2015	Profit/loss (Note 33) (in mil	is Other comprehensive) income (in million Baht)	At 31 December 2015
Deferred tax assets Loss from impairment of assets Demostry release and againment	215.55	(30.12)	•	185.43
Employee benefit obligation	233.79	22.05	46.95	302.79
Inventories	1	20.99	•	20.99
Loss carry forward	421.74	(421.74)	•	ı
Others	37.57	(9.47)	•	28.10
Total	998.53	(433.96)	46.95	611.52
Deferred tax liabilities		,		
Inventories	(131.77)	131.77	•	•
Property, plant and equipment	(162.91)	102.79	I	(60.12)
Leasehold rights	(1.27)	0.07	1	(1.20)
Income from insurance compensation	(48.66)	48.66	1	1
Total	(344.61)	283.29		(61.32)
Net	653.92	(150.67)	46.95	550.20

The Bangchak Petroleum Public Company Limited and its Subsidiaries

18 Other non-current assets

	Consoli	dated	Separ	ate
	financial st	atements	financial statements	
	2016	2015	2016	2015
		(in millio	n Baht)	
Fixed deposit for staff welfare	513.19	511.88	513.19	511.88
Investment in service stations	180.57	160.14	180.57	160.14
Deposit	640.09	538.29	225.70	124.60
Others	399.76	344.38	234.02	67.30
Total	1,733.61	1,554.69	1,153.48	863.92

19 **Interest-bearing liabilities**

	Consolidated		Separate	
	financial st	atements	financial s	tatements
	2016	2015	2016	2015
		(in millio	on Baht)	
Current				
Short term loan from financial institutions				
secured	89.77	-	-	-
unsecured	7,354.25		7,189.25	
	7,444.02		7,189.25	
Current portion of long-term loans from financial institutions				
secured	1,397.23	145.48		
unsecured	300.15	880.84	300.15	880.84
unsecured	1,697.38	1.026.32	300.15	880.84
Debenture	1,097.38	1.020.32	300.15	000.04
unsecured	2,000.00		2,000.00	
unsecured	2,000.00		2,000.00	
Total Current	11,141.40	1,026.32	9,489.40	880.84
Total Current	11,141.40	1,020.32	9,409.40	000.04
Non-current				
Long -term loans from financial institutions				
secured	11,056.60	2,596.46	-	_
unsecured	3,401.23	14,051.23	3,401.23	14,051.23
	14,457.83	16,647.69	3,401.23	14,051.23
Debenture				
unsecured	13,987.57	15,984.21	13,987.57	15,984.21
	13,987.57	15,984.21	13,987.57	15,984.21
Total Non-current	28,445.40	32,631.90	17,388.80	30,035.44
Total	39,586.80	33,658.22	26,878.20	30,916.28

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Details of the Group's loans from financial institutions as at 31 December 2016 was as follows:

		Facilities	Interest	
Short-term loans fro	Currency om financia	(million) ul institutions	Interest Rates (%) p.a.	Repayment Terms
The Company	USD	200	LIBOR plus a margin	The principle will be repayable on 29 December 2017
Subsidiary	Baht	120	Fixed Interest Rate	The principle will be repayable on 27 January 2017
Subsidiary	Baht	45	Fixed Interest Rate	The principle will be repayable on 17 January 2017
Long-term loans fro	m financia	l institutions		January 2017
The Company	Baht	4,200	Fixed Interest Rate	Semi-annually in 26 instalments starting in March 2013
The Company	Baht	3,500	THBFIX 6M plus a margin	Semi-annually in 23 instalments starting in December 2011
Subsidiary	Baht	2,049	Fixed Deposit Rate plus a margin	Quarterly in 24 instalments starting in January 2017
Subsidiary	Baht	400	THBFIX 6M plus a margin	Semi-annually in 13 instalments starting in August 2017
Subsidiary	Baht	170	THBFIX 6M plus a margin	Semi-annually in 11 instalments starting in August 2018
Subsidiary	Baht	450	THBFIX 6M plus a margin	Semi-annually in 15 instalments starting in December 2016
Subsidiary	Baht	270	THBFIX 6M plus a margin	Semi-annually in 15 instalments starting in December 2016
Subsidiary	Baht	750	FDR 6M plus a margin	Semi-annually in 27 instalments starting in December 2016
Subsidiary	Baht	1,050	THBFIX 6M plus a margin	Semi-annually in 17 instalments starting in December 2017
Subsidiary	Baht	630	THBFIX 6M plus a margin	Semi-annually in 17 instalments starting in December 2017
Subsidiary	Baht	1,750	FDR 6M plus a margin	Semi-annually in 29 instalments starting in December 2017
Subsidiary	JPY	4,200	JPYTIBOR 6M plus a margin	Semi-annually in 27 instalments starting in December 2016
Subsidiary	JPY	570	JPYTIBOR 6M plus a margin	Semi-annually in 15 instalments starting in December 2016
Subsidiary	JPY	9,800	JPYTIBOR 6M plus a margin	Semi-annually in 29 instalments starting in December 2017

The Bangchak Petroleum Public Company Limited and its Subsidiaries

		Facilities	Interest	
	Currency	(million)	Interest Rates (%) p.a.	Repayment Terms
Subsidiary	JPY	1,330	JPYTIBOR 6M plus a margin	Semi-annually in 17 instalments starting in December 2017
Subsidiary	Baht	1,508	THBFIX 6M plus a margin	Semi-annually in 20-34 instalments starting in August 2013
Subsidiary	USD	12	Fixed Interest Rate	Semi-annually in 34 instalments starting in August 2013
Indirect subsidiary	JPY	1,366	Fixed Interest Rate	Quarterly in 68 instalments starting in September 2016
Indirect subsidiary	JPY	1,000	Fixed Interest Rate	Quarterly in 68 instalments starting in September 2016
Indirect subsidiary	JPY	900	Fixed Interest Rate	Quarterly in 68 instalments starting in September 2016
Indirect subsidiary	JPY	700	Fixed Interest Rate	Quarterly in 68 instalments starting in September 2016
Indirect subsidiary	JPY	4,176	Fixed Interest Rate	Quarterly in 34 instalments starting in September 2017

The loan agreements contain certain conditions such as maintaining certain financial ratios and transfer right of any agreements. These loans are secured by mortgage of the land, building, land improvement and infrastructure and machinery.

The loan agreements contain certain conditions and restrictions such as maintaining of certain debt to equity ratio, debt service coverage ratio and current ratio.

As at 31 December 2016, the Group and the Company had unutilised credit facilities totalling Baht 9,918 million and Baht 9,695 million, respectively (2015: Baht 11,925 million and Baht 11,665 million, respectively).

The Company entered into a sponsor support agreement with a subsidiary under the conditions as stipulated in the loan agreement with a financial institution to provide support in the event that the subsidiary cannot repay the loan in accordance with loan schedule which has a minimum facility of Baht 400 million. In case a subsidiary cannot find insurance protection for flood, the Company is responsible to repair subsidiary's power plant to normal condition.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Debentures

Detail of debentures as at 31 December 2016 and 2015 were as follows;

	Consolidated		Separate	
	financial s	tatements	financial s	statements
	31 December	31 December	31 December	31 December
	2016	2015	2016	2015
		(in millio	on Baht)	
Debentures	16,000.00	16,000.00	16,000.00	16,000.00
Less Unamortized deferred expenses				
on debentures	(12.43)	(15.79)	(12.43)	(15.79)
	15,985.57	15,984.21	15,987.57	15,984.21
Less Current portion due within		-		
one year	2000.00	-	2000.00	-
Total	13,987.57	15,984.21	13,987.57	15,984.21

On 3 March 2015, the Company issued long-term debentures which are named-registered, unsubordinated, unsecured with a face value of Baht 1,000 each with interest payment dates on 30 June and 30 December. The details are as follows:

Amount (in million Baht)	Interest rate (per annum)	Term (Years)	Maturity Date
2,000	4.72	12	3 March 2027
1,000	5.05	15	3 March 2030

On 11 April 2014, the Company issued long-term debentures which are named-registered, unsubordinated, unsecured and no bond holder representative with a face value of Baht 1,000 each with interest payment dates on 30 June and 30 December. The details are as follows:

Amount (in million Baht)	Interest rate (per annum)	Term (Years)	Maturity Date
2,000	3.73	3	11 April 2017
2,000	4.35	5	11 April 2019
2,000	4.81	7	11 April 2021
2,000	5.18	10	11 April 2024

On 30 April 2012, the Company issued long-term debentures which are named-registered, unsubordinated, unsecured and no bond holder representative with a face value of Baht 1,000 each with interest payment dates on 30 June and 30 December. The details are as follows:

Amount (in million Baht)	Interest rate (per annum)	Term (Years)	Maturity Date
2,000	4.92	7	30 April 2019
1,000	5.35	10	30 April 2022

The Bangchak Petroleum Public Company Limited and its Subsidiaries

In connection with the terms of the rights and responsibilities of the debentures issuer, the company, as the issuer, has to comply with certain restrictions and conditions as stipulated therein, such as maintaining certain financial ratios etc.

The periods to maturity of interest-bearing liabilities as at 31 December were as follows:

	Consolidated financial statements		Separate financial statement	
	2016	2015	2016	2015
		(in mill	ion Baht)	
Within one year	11,141.40	1,026.32	9,489.40	880.84
After one year but within five years	12,849.54	19,330.51	7,696.21	17,705.94
After five years	15,595.86	13,301.39	9,693.59	12,329.50
Total	39,586.80	33,658.22	26,878.20	30,916.28

Secured interest-bearing liabilities as at 31 December were secured on the following assets:

	Consolidated financial statements		Separate financial statements	
	2016	2015	2016	2015
		(in millic	n Baht)	
Property, plant and equipment	16,156.97	5,005.08	-	-
Total	16,156.97	5,005.08	-	_

The currency denomination of interest-bearing liabilities as at 31 December were as follows:

	Consolidated financial statements		Separate financial statements	
	2016	2015	2016	2015
		(in millio	on Baht)	
Thai Baht (THB)	28,133.51	26,457.58	19,688.95	23,715.64
United States Dollars (USD)	7,189.25	7,200.64	7,189.25	7,200.64
Japanese Yen (JPY)	4,264.04	-	-	-
Total	39,586.80	33,658.22	26,878.20	30,916.28

20 Trade accounts payable

		Consol	idated	Sepa	rate	
		financial st	tatements	financial statements		
	Note	2016	2015	2016	2015	
		(in million Baht)				
Related parties	5	128.06	113.29	764.99	357.68	
Other parties		8,638.09	4,881.16	7,526.00	4,117.35	
Total	- -	8,766.15	4,994.45	8,290.99	4,475.03	

The Bangchak Petroleum Public Company Limited and its Subsidiaries

The currency denomination of trade accounts payable as at 31 December were as follows:

	Consol financial s		Sepa financial s	
	2016	2015	2016	2015
		(in milli	on Baht)	
Thai Baht (THB)	7,675.61	4,685.84	7,984.28	4,475.03
United States Dollars (USD)	1,075.61	271.09	306.71	-
Others	14.93	37.52	-	-
Total	8,766.15	4,994.45	8,290.99	4,475.03

21 Other payables

		Conso	lidated	Sepa	ırate	
		financial s	financial statements		tatements	
	Note	2016	2016 2015		2015	
			(in milli	on Baht)		
Related parties	5	41.02	30.08	58.93	30.44	
Other parties	-	_				
Accrued expenses		1,135.07	973.60	809.42	903.08	
Liabilities from forward contract		74.75	235.69	74.75	235.69	
Payable for project construction		342.12	-	-	-	
Other accounts payable		1,499.65 1,515.28 776.92 70				
Total	- -	3,092.61	2,754.65	1,720.02	1,875.31	

22 Employee benefit obligations

	Consol financial s		Separate financial statements		
	2016	2015	2016	2015	
		(in millio	n Baht)		
Statement of financial position obligations for:					
Post-employment benefits	1,726.84	1,530.55	1,674.22	1,484.46	
Other long-term employee benefits	42.88	40.80	34.98	29.52	
Total	1769.72	1,571.35	1,709.20	1,513.98	
For the year ended 31 December					
Statement of income:					
Recognised in profit or loss					
Post-employment benefits	138.62	140.20	122.53	134.74	
Other long-term employee benefits	6.21	4.33	4.05	3.83	
Total	144.83	144.53	126.58	138.57	
Recognised in other comprehensive income:					
Actuarial losses recognised in the year	87.71	230.75	90.27	234.78	
Cumulative actuarial losses recognised	370.40	282.69	376.99	286.72	

The defined benefit plans expose the Group to actuarial risks, such as longevity risk, currency risk, interest rate risk and market (investment) risk.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Movement in the present value of the defined benefit obligations:

	Consolidated financial statements		Separate financial statements	
	2016			
	2016 2015 2016 201 (in million Baht)			
Defined benefit obligations at 1 January	1,513.98	1,168.97		
Include in profit or loss:				
Acquired through business acquisition	5.68	8.24	-	-
Benefits paid by the plan	(30.82)	(29.06)	(21.63)	(28.34)
Current service costs and interest	144.83 144.53 126.58			
Included in other comprehensive income				
Actuarial loss	87.71	230.75	90.27	234.78
Effect of movement in exchange rate	(9.03)	28.38	-	-
Defined benefit obligations at 31 December	1,769.72	1,571.35	1,709.20	1,513.98

Actuarial losses recognised in other comprehensive income (loss) arising from:

	Consolic financial sta		Separ financial st		
	2016	2015	2016	2015	
		(in millio	n Baht)		
Demographic assumptions	3.34	(52.80)	4.47	(52.08)	
Financial assumptions	226.36	247.23	226.14	246.67	
Experience adjustment	(141.99)	36.32	(140.34)	40.19	
Total 87.71 230.75 90.27					

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date (expressed as weighted averages).

	Consolio financial st		Separa financial sta	
	2016	2015	2016	2015
		%		
Discount rate	2.26-5.4	2.3-4.8	3.1	3.4
Future salary growth	3-6	3-6	6	6
Turnover rate	0-63	0-64	0-8	0-7

Assumptions regarding future mortality have been based on published statistics and mortality tables.

At 31 December 2016, the weighted-average duration of the defined benefit obligation was 16 - 32 years (2015: 16 - 32 years).

Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

	Consol	idated	Sepa	ırate
	financial statements		financial s	statements
		(in millio	n Baht)	
Defined benefit obligation 31 December 2016	Increase	Decrease	Increase	Decrease
Discount rate (1% movement)	(187.10)	219.25	(182.10)	213.65
Future salary growth (1% movement)	209.07	(187.51)	200.15	(174.74)
Turnover rate (1% movement)	(75.40)	65.73	(73.56)	64.59

	Consolidated financial statements		Sepa	arate
			financial	statements
		(in millio	n Baht)	
Defined benefit obligation 31 December 2015	Increase	Decrease	Increase	Decrease
Discount rate (1% movement)	(199.69)	236.94	(166.76)	196.32
Future salary growth (1% movement)	164.60	(147.60)	185.08	(160.95)
Turnover rate (1% movement)	(65.48)	57.54	(64.19)	56.78

Although the analysis does not take account of the full distribution of cash flows expected under the plan, it does provide an approximation of the sensitivity of the assumptions shown.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

23 Share capital

	Par value	20	16	201	15
	per share	Number	Baht	Number	Baht
	(in Baht)		(million shares	/ million Baht)	
Authorised					
At 1 January					
ordinary shares	1	1,376.92	1,376.92	1,376.92	1,376.92
At 31 December					,
ordinary shares	1	1,376.92	1,376.92	1,376.92	1,376.92
Issued and paid-up					
At 1 January					
ordinary shares	1	1,376.92	1,376.92	1,376.92	1,376.92
At 31 December					
ordinary shares	1	1,376.92	1,376.92	1,376.92	1,376.92

24 Additional paid-in capital and reserves

Share premium

Section 51 of the Public Companies Act B.E. 2535 (1992) requires companies to set aside share subscription monies received in excess of the par value of the shares issued to a reserve account ("share premium"). Share premium is not available for dividend distribution.

Capital surplus on registered and paid-up share reduction

On 6 July 2004, the Company registered with the Ministry of Commerce, the reduction in the Company's registered share capital from Baht 1,032,761,220 to Baht 843,143,461 and the paid-up share capital from Baht 753,040,940 to Baht 563,423,181. These changes were due to the reduction of 189,617,759 shares held by the Siam DR Co., Ltd. to be consistent with the number of "Depository Receipts of BCP's Ordinary Shares (DR)" which were issued and offered by the Siam DR Co., Ltd. The Company received consent from the Siam DR Co., Ltd. for reducing the mentioned number of shares without capital payback. The Company proceeded the share reduction to Capital on registered and paid-up share reduction account.

Surplus from the change in the ownership interest in subsidiaries

Change in parent's ownership interest in subsidiaries within equity comprises of effect from dilution of percentage of holding of the Company in a subsidiary and difference from changes in parent's ownership interest in subsidiaries that do not result in a loss of control.

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 (1992) Section 116 requires that a company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward (if any), to a reserve account ("legal reserve"), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Other components of equity

Currency translation differences

The currency translation differences account within equity comprises all foreign currency differences arising from the translation of the financial statements of foreign operations, as well as from the translation of liabilities that hedge the Company's net investment in a foreign operation.

Fair value changes in available-for-sale investments

The fair value changes in available-for-sale investments account within equity comprises the cumulative net change in the fair value of available-for-sale investments until the investments are derecognised or impaired.

Movements in reserves

Movements in reserves are shown in the statements of changes in equity.

25 Operating segments

The Group has six reportable segments, as described below, which are the Group's strategic divisions. The strategic divisions offer different products and services, and are managed separately because they require different technology and marketing strategies. For each of the strategic divisions, the chief operating decision maker (CODM) reviews internal management reports on at least a quarterly basis. The following summary describes the operations in each of the Group's reportable segments.

Segment 1	Refinery
Segment 2	Marketing
Segment 3	Electricity
Segment 4	Biofuel
Segment 5	Exploration and production of petroleum
Segment 6	Others

Information regarding the results of each reportable segment is included below. Performance is measured based on segment profit before tax, financial costs, depreciation and amortization, gain on foreign exchange and impairment losses on assets (Group's EBITDA), as included in the internal management reports that are reviewed by the Group's CODM. Group's EBITDA is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

Notes to the Financial Statements The Bangchak Petroleum Public Company Limited and its Subsidiaries

				2016				
					Exploration and			
					production of			
	Refinery	Marketing	Electricity	Biofuel (in millio	fuel petroleum (in million Baht)	Others	Eliminations	Total
External revenue	27,581.72	110,688.41	3,083.91	1,847.88	1,503.37		- (108 043 13)	144,705.29
Total revenue	130,377.05	110,690.98	3,082.91	7,093.11	1,503.37		(108,043.13)	144,705.29
Group's EBITDA Depreciation and amortization Gain on foreign exchange	5,756.23	2,527.47	2,559.45	326.01	322.58	(128.76)	•	11,362.98 (4,734.38) 236.78
impairment of assets Finance costs								36.80 (1,483.80)
Income tax expense Profit for the year								(688.97) 4,729.41
Interest revenue	48.86	110.88	27.76	0.59	0.21	1 (- 0	188.30
Financial costs Depreciation and amortisation	929.12 2,597.89	133.98 640.33	370.42 603.52	42.52 123.15	238.11 761.19	0.64 8.30	(230.99) -	1,483.80 4,734.38
Segments assets Investments in associate	52,887.93	11,228.52	25,485.05	4,831.66	6,832.41	517.29	•	101,782.86
and joint ventures Capital expenditure	43.06 4,089.42	1,705.35	3,231.24	795.59	39.60	0.97		839.62 10,337.73

Notes to the Financial Statements
The Bangchak Petroleum Public Company Limited and its Subsidiaries

		ıtions Total	- 151,140.36	0.84)	0.84) 151,140.36	(173.43) 11,081.24 (4,708.47) 177.59 (64.88) (100.76) (1,614.56) (672.78) 4,097.38	(207.07) 246.51 (204.91) 1,614.56 - 4,708.47	- 81,942.32 - 774.33 - 8,523.45
		s Eliminations		- (111,200.84)	(111,200.84)		0.13 (207 1.93 (204 10.06	.45
	tion tion	um Others	4.28	1	4.28	471.72 (170.64)	0.34 0 277.34 1 878.49 10	839.05 2,449.45 - 1 128.11 -
2015	Exploration and production of	pet	(in million Baht) 1,061.38 2,344.28	2.62	4.00 2,344.28	354.61 47	0.82 C 10.12 277 60.63 878	4
		B		4,352.62	04 5,414.00		1 9	7
		ng Electricity	3,010.04		6 3,010.04	1 3,005.10	13.60 202.36 504.64	15,424.83
		Marketin		ı	114,268.06	2,497.31	242.95 173.07 557.63	12,720.48
		Refinery	30,456.94	106,847.88	137,304.82	5,096.57	195.74 1,154.65 2,697.02	43,908.68
			External revenue	Inter-segment revenue	Total revenue	Group's EBITDA Depreciation and amortization Gain on foreign exchange Impairment loss on assets Others Finance costs Income tax expense Profit for the year	Interest revenue Financial costs Depreciation and amortization	Segments assets Investments in associate Capital expenditure

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Geographical segments

In presenting information on the basis of geographical segments, segment sales are based on the entity's country of domicile. Segment non-current assets (exclude derivatives and deferred tax) are based on the geographical location of the assets.

Geographical information

	Revenue		
	2016	2015	
	(in millio	n Baht)	
Thailand	133,846.26	135,251.08	
Malaysia	3,948.73	7,687.80	
Japan	253.31	-	
Korea	1,379.63	1,485.06	
Philippines	35.06	45.29	
Singapore	2,953.66	2,179.13	
Others	2,288.64	4,492.00	
Total	144,705.29	151,140.36	
	Non-curre	ent assets	
	2016	2015	
	(in millio	n Baht)	
Thailand	48,413.68	42,514.94	
Japan	6,065.40	_	
Philippines	2,486.66	4,956.84	
Singapore	0.23	-	
Indonesia	113.81	102.72	
Australia	6.07	8.51	
Total	57,085.85	47,583.01	

Major customer

Revenues from one customer of the Group's 1 and 2 segments represents approximately Baht 14,103 million (2015: Baht 14,481 million) of the Group's total revenues.

26 Investment income

		Consoli financial st		Sepa financial s	
	Note	2016	2015	2016	2015
			(in millio	n Baht)	
Dividend income					
Related parties	5	3.23	1.99	864.26	2,183.12
		3.23	1.99	864.26	2,183.12
Other investment income		187.31	246.51	482.23	433.66
Total		190.54	248.50	1,346.49	2,616.78

The Bangchak Petroleum Public Company Limited and its Subsidiaries

27 Other income

	Consolidated		Separate		
	financial st	tatements	financial s	tatements	
	2016	2015	2016	2015	
		(in millio	on Baht)		
Fee for land utilisation and management fee for					
NGV service station	66.78	88.87	59.79	82.13	
Income from insurance compensation	-	75.64	-	75.64	
Gain on disposal of investment in subsidiaries	29.47	-	29.47	173.65	
Management service fee for subsidiaries	-	-	69.47	32.63	
Others	240.33	129.88	148.76	80.09	
Total	336.58	294.39	307.49	444.14	

28 Selling expenses

	Consolidated		Separate	
	financial s	tatements	financial statements	
	2016	2015	2016	2015
		(in millic	on Baht)	
Personnel	1,015.37	964.38	466.92	434.72
Advertising	437.45	312.54	341.40	216.00
Depreciation and amortisation	572.84	509.99	562.32	501.14
Distribution	248.96	256.86	248.59	256.86
Rental	195.23	160.82	189.60	160.82
Others	1,316.07	1,010.49	909.01	763.43
Total	3,785.92	3,215.08	2,717.84	2,332.97

29 Administrative expenses

	Consolidated		Separate		
	financial	statements	financial	statements	
	2016	2015	2016	2015	
		(in mil	llion Baht)		
Personnel	1,150.91	809.93	636.69	568.83	
Advertising	159.92	169.17	131.29	165.18	
Depreciation and amortisation	195.53	128.25	138.69	116.30	
Professional and consultant fees	480.45	268.55	177.40	193.85	
Others	416.02	584.42	397.33	472.65	
Total	2,402.83	1,960.32	1,481.40	1,516.81	

The Bangchak Petroleum Public Company Limited and its Subsidiaries

30 Employee benefit expenses

		Consol	idated	Sepa	rate
		financial s	tatements	financial st	atements
	Note	2016	2015	2016	2015
			(in millio	n Baht)	
Management					
Wages and salaries		170.33	108.83	94.46	85.69
Contribution to provident funds		5.08	7.55	4.21	6.02
Pension		8.59	11.78	7.31	11.78
Others		43.46	47.25	31.73	45.94
	5	227.46	175.41	137.71	149.43
Other employees	•				
Wages and salaries		1,800.04	1,483.69	934.97	800.80
Contribution to provident funds		97.59	81.43	76.15	66.09
Pension		144.19	132.75	119.28	126.79
Others		634.54	546.32	452.68	436.17
	•	2,676.36	2,244.19	1,583.08	1,429.85
Total		2,903.82	2,419.60	1,720.79	1,579.28

Defined contribution plans

The defined contribution plans comprise provident funds established by the Group for its employees. Membership to the funds is on a voluntary basis. Contributions are made monthly by the employees at rates ranging from 5% to 10% of their basic salaries and by the Group at rates ranging from 5% to 10% of the employees' basic salaries. The provident funds are registered with the Ministry of Finance as juristic entities and are managed by licensed Fund Manager.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

31 Expenses by nature

The statements of income include an analysis of expenses by function. Expenses by nature disclosed in accordance with the requirements of various TFRS were as follows:

	Consolidated		Separate	
	financial st	atements	financial s	tatements
	2016	2015	2016	2015
		(in millio	n Baht)	
Included in cost of sales of goods:		,	Ź	
Changes in inventories of finished goods and				
work in progress	(2,463.86)	2,014.02	(2,752.93)	2,068.28
Raw materials and consumables used	68,706.38	86,647.01	69,794.23	87,799.69
Tax expenses and oil fuel fund	26,520.22	26,099.92	26,520.22	26,099.92
Depreciation	3,906.44	4,006.57	2,495.21	2,760.71
Reversed of loss on decline in value of				
inventories	(109.77)	(881.65)	(104.95)	(887.30)
Included in selling expenses:				
Depreciation	408.88	354.35	398.36	345.53
Included in administrative expenses:				
Depreciation	146.00	104.71	91.82	80.16
work in progress Raw materials and consumables used Tax expenses and oil fuel fund Depreciation Reversed of loss on decline in value of inventories Included in selling expenses: Depreciation Included in administrative expenses:	26,520.22 3,906.44 (109.77) 408.88	2,014.02 86,647.01 26,099.92 4,006.57 (881.65)	(2,752.93) 69,794.23 26,520.22 2,495.21 (104.95) 398.36	87,799.6 26,099.9 2,760.7 (887.3

32 Finance costs

		Consolidated		Separate	
		financial s	statements	financial s	tatements
	Note	2016	2015	2016	2015
			(in millio	on Baht)	
Interest expense					
Financial institutions		727.58	824.42	435.23	697.27
Debentures		762.03	735.73	762.03	735.73
Total interest expense		1,489.61	1,560.15	1,197.26	1,433.00
Amortisation of transaction					
costs capitalised		105.42	35.39	82.13	30.90
Others finance costs		11.41	66.99	3.46	26.79
Less Amount included in the cost of qualifying assets:					
- Property, plant and equipment					
under construction	14	(122.64)	(47.96)	(74.52)	(27.47)
Net		1,483.80	1,614.57	1,208.33	1,463.22

The Bangchak Petroleum Public Company Limited and its Subsidiaries

33 Income tax expense

		Consolidated		Separate	
		financial s	tatements	financial statements	
	Note	2016	2015	2016	2015
Current tax expense			(in millio	n Baht)	
Current year		872.34	695.59	786.12	585.06
Under (over) provided in prior years		(76.01)	0.01	(76.01)	-
	_	796.33	695.60	710.11	585.06
Deferred tax expense	_				
Movements in temporary differences	17	(107.36)	(22.82)	58.18	150.67
	_	(107.36)	(22.82)	58.18	150.67
Total	- -	688.97	672.78	768.29	735.73

Reconciliation of effective tax rate	Consolidated financial statements			
	2	2016	2	2015
	Rate	(in million	Rate	(in million
	(%)	Baht)	(%)	Baht)
Profit before income tax expense		5,418.38		4,770.16
Income tax using the Thai corporation tax rate	20.00	1,083.68	20.00	954.03
Effect of difference tax rates in foreign				
jurisdictions		(40.62)		(23.73)
Income not subject to tax / Expenses that are				
deductible at a greater amount		(524.90)		(373.06)
Expenses not deductible / Other adjustments		182.86		169.13
Current year losses for which no deferred tax				
assets was recognised		103.05		13.64
Under (over) provided in prior years		(76.01)		0.01
Others		(39.09)		(67.24)
Total	12.72	688.97	14.10	672.78

Reconciliation of effective tax rate	Separate financial statements				
	2	2016	2	2015	
	Rate	(in million	Rate	(in million	
	(%)	Baht)	(%)	Baht)	
Profit before income tax expense		5,270.59		5,861.91	
Income tax using the Thai corporation tax rate	20.00	1,054.12	20.00	1,172.38	
Income not subject to tax / Expenses that are					
deductible at a greater amount		(200.18)		(495.09)	
Expenses not deductible / Other adjustments		(9.64)		58.44	
Under (over) provided in prior years		(76.01)		-	
Total	14.58	768.29	12.55	735.73	

Income tax reduction

Revenue Code Amendment Act No. 42 B.E. 2559 dated 3 March 2016 grants a reduction of the corporate income tax rate to 20% of net taxable profit for accounting periods which begin on or after 1 January 2016.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

34 Promotional privileges

By virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520, the Group has been granted privileges by the Board of Investment relating to Petroleum Refinery process, production of Biodiesel and production of electricity from solar cell. The privileges granted include:

Production of Biodiesel and production of electricity from solar cell

- (a) Exemption from payment of import duty on machinery approved by the Board;
- (b) Exemption from payment of income tax for certain operations for a period of eight years from the date on which the income is first derived from such operations.

Production of Ethanol

- (a) Exemption from payment of import duty on machinery approved by the Board;
- (b) Exemption from payment of income tax for certain operations for a period of six years from the date on which the income is first derived from such operations.

As promoted companies, the Group must comply with certain terms and conditions prescribed in the promotional certificates.

Summary of revenue from promoted and non-promoted businesses:

			Consolidated fi	inancial stateme	ents	
		2016			2015	
					Non-	
	Promoted	Non-promoted		Promoted	promoted	
	businesses	businesses	Total	businesses	businesses	Total
			(in mill	ion Baht)		
Export sales	31.99	12,314.64	12,346.63	43.80	16,481.16	16,524.96
Local sales	7,678.94	158,912.92	166,591.86	6,672.84	159,798.67	166,471.51
Eliminations	-	-	(34,233.20)	-	-	(31,856.11)
Total Revenue	7,710.93	171,227.56	144,705.29	6,716.64	176,279.83	151,140.36
			C			
		2016	Separate iina	ancial statement	2015	
	-	2010				
	D . 1	3.7		D 1	Non-	
	Promoted	Non-promoted	m . 1	Promoted	promoted	
	businesses	businesses	Total	businesses	businesses	Total
			(in mill	ion Baht)		
Export sales	-	10,249.33	10,249.33	-	14,136.89	14,136.89
Local sales		126,814.95	126,814.95	734.08	129,475.19	130,209.27
Total Revenue		137,064.28	137,064.28	734.08	143,612.08	144,346.16

The Bangchak Petroleum Public Company Limited and its Subsidiaries

35 Earnings per share

Basic earnings per share

The calculation of basic earnings per share for the years ended 31 December 2016 and 2015 were based on the profit for the years attributable to ordinary shareholders of the Company and the number of ordinary shares outstanding during the years as follows:

	Consolidated financial statements		Sepa financial s	
	2016 2015		2016	2015
	(Restated)			
	(in million Baht / million shares)			
Profit attributable to ordinary				
shareholders of the Company (basic)	4,773.38	4,150.76	4,502.30	5,126.19
Number of ordinary shares outstanding	1,376.92	1,376.92	1,376.92	1,376.92
Earnings per share (basic)				
(in Baht)	3.47	3.01	3.27	3.72

36 Dividends

At the Board of Directors meeting of the Company held on 25 August 2016, the meeting approved the appropriation of interim dividend from retained earnings as of 30 June 2016 at Baht 0.8 per share, amounting to Baht 1,101.52 million. The dividend was paid to the shareholders on 20 September 2016.

At the Annual General Meeting of the Shareholders, held on 5 April 2016, the shareholders approved a full year performance of 2015 dividend payment at the rate of Baht 2.00 per share, totalling Baht 2,753.62 million, of which Baht 1.00 per share, totalling Baht 1,376.69 million was paid as an interim dividend for the first half year of 2015 on 9 September 2015. The remaining dividend was paid for the second half year of 2015 at the rate of Baht 1.00 per share, totalling Baht 1,376.90 million. The dividend was paid to the shareholders on 21 April 2016.

At the Board of Directors meeting of the Company held on 14 August 2015, the meeting approved the appropriation of interim dividend from retained earnings as of 30 June 2015 at Baht 1 per share, amounting to Baht 1,376.69 million. The dividend was paid to the shareholders on 9 September 2015.

At the Annual General Meeting of the Shareholders, held on 8 April 2015, the shareholders approved a full year performance of 2014 dividend payment at the rate of Baht 1.00 per share, totalling Baht 1,376.91 million, of which Baht 0.60 per share, totalling Baht 826.14 million was paid as an interim dividend for the first half year of 2014 on 19 September 2014. The remaining dividend was paid for the second half year of 2014 at the rate of Baht 0.40 per share, totalling Baht 550.77 million. The dividend was paid to the shareholders on 23 April 2015.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

37 Financial instruments

Financial risk management policies

The Group is exposed to normal business risks from changes in market interest rates and currency exchange rates and from non-performance of contractual obligations by counterparties. The Group does not hold or issue derivative financial instruments for speculative or trading purposes.

Risk management is integral to the whole business of the Group. The Group has a system of controls in place to create an acceptable balance between the cost of risks occurring and the cost of managing the risks. The management continually monitors the Group's risk management process to ensure that an appropriate balance between risk and control is achieved.

Capital management

The Board's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board monitors the return on capital, which the Group defines as result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows because debt securities and loan interest rates are mainly floated. The Group is primarily exposed to interest rate risk from its borrowings (Note 19). The Group mitigates this risk by ensuring that the majority of its debt securities and borrowings are at fixed interest rates and uses derivative financial instruments, principally interest rate swaps, to manage exposure to fluctuations in interest rates on specific debt securities and borrowings.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

The effective interest rates of interest-bearing financial liabilities as at 31 December and the periods in which those liabilities mature or re-price were as follows:

	Ecc. 4:	Co	onsolidated fina	ncial statemen	ts
	Effective interest rate (% per	Within 1 year	After 1 year but within 5 years	After 5 years	Total
	annual)		(in millio	on Baht)	
2016					
Current Loans from Financial institutions	0.3 - 4.2	9,141.40	_	_	9,141.40
Debenture	3.7	2,000.00	_	_	2,000.00
Non-current		,			,
Loans from Financial institutions	0.3 - 4.2	-	6,353.92	8,103.91	14,457.83
Debenture	3.7 - 5.3		6,495.62	7,491.95	13,987.57
Total		11,141.40	12,849.54	15,595.86	39,586.80
2015					
2015 Current					
Loans from Financial institutions	2.6 - 5.2	1,026.32	_	_	1,026.32
Non-current	2.0 0.2	1,020.52			1,020.52
Loans from Financial institutions	2.2 - 5.2	-	13,335.02	3,312.67	16,647.69
Debenture	3.7 - 5.3		5,995.49	9,988.72	15,984.21
Total		1,026.32	19,330.51	13,301.39	33,658.22
		S	Separate finai	ncial statemer	ıte
	Effective	5	After 1 year	iciai statemei	its
	interest	Within 1	but within 5	After 5	Total
	rate	year	years	years	
	(% per				
2017	annual)		(in milli	ion Baht)	
2016 Current					
Loans from Financial institutions	1.8 - 4.2	7,489.40	_	_	7,489.40
Debenture	3.7	2,000.00	_	-	2,000.00
Non-current		,			,
Loans from Financial institutions	1.7 - 4.2	-	1,200.62	2,200.61	3,401.23
Debenture	4.3 - 5.3	-	6,495.59	7,491.98	13,987.57
Total		9,489.40	7,696.21	9,692.59	26,878.20
2015					
Current					
Loans from Financial institutions	3.3 - 4.2	880.84	_	-	880.84
Non-current					
Loans from Financial institutions	2.2 - 4.2	-	11,710.46	2,340.77	14,051.23
Debenture	3.7 - 5.3		5,995.48	9,988.73	15,984.21
Total		880.84	17,705.94	12,329.50	30,916.28

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Foreign currency risk

The Group is exposed to foreign currency risk relating to purchases and sales which are denominated in foreign currencies. The Group primarily utilizes forward exchange contracts with maturities of less than one year to hedge such financial assets and liabilities denominated in foreign currencies. The forward exchange contracts entered into at the reporting date also relate to anticipated purchases and sales, denominated in foreign currencies, for the subsequent period.

At 31 December, the Group and the Company were exposed to foreign currency risk in respect of financial assets and liabilities denominated in the following currencies:

		Consol	idated	Sepa	rate
		financial s	tatements	financial s	tatements
	Note	2016	2015	2016	2015
			(in millio	n Baht)	
USD and others					
Cash and cash equivalents	6	2,909.95	942.72	627.38	98.10
Trade accounts receivable	8	1,315.53	1,098.00	988.38	898.45
Receivable from oil hedging contracts		9.79	33.71	9.79	7.70
Trade accounts payable	20	(1,090,54)	308.61	(306.71)	-
Other current liabilities		(112.59)	(9.62)	(100.24)	(9.62)
Short term loans	19	(7,189.25)	-	(7,189.25)	-
Long term loans	19	(4,264.04)	(7,200.63)	-	(7,200.63)
Gross statement of financial position expo	osure	(8,421.15)	(5,444.43)	(5,970.58)	(6,206.00)
Currency forwards	<u>.</u>	(535.76)	(1,109.05)	(535.76)	(1,109.05)

Credit risk

Credit risk is the potential financial loss resulting from the failure of a customer or counterparty to settle its financial and contractual obligations to the Group as and when they fall due.

Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount. At the reporting date there were no significant concentrations of credit risk. The maximum exposure to credit risk is represented by the carrying amount of each financial asset in the balance sheet. However, due to the large number of parties comprising the Group's customer base, Management does not anticipate material losses from its debt collection.

Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Fair values of financial assets and liabilities

As at 31 December 2016 and 2015, fair value of financial assets and liabilities is taken to approximately the carrying value, except the following items;

	Consolidated financial statements						
		Carrying value			Fair va	alue	
	Current	Non-current	Total (in	Level 1 million Baht)	Level 2	Level 3	Total
31 December 2016 Financial assets							
Equity securities							
available for sale	-	429.19	429.19	429.19	-	-	429.19
Cross currency and							
interest rate swap							
contracts	-	-	-	-	43.04	-	43.04
Crude and product							
oil price hedging					25.56		25.56
contracts	-	-	-	-	35.56	-	35.56
Financial liabilities	2 000 00	12 005 55	15.007.57				15 115 54
Debentures	2,000.00	13,987.57	15,987.57	-	17,117.54	=	17,117.54
Long-term loans	300.15	2 401 22	2 701 20		2.762.67		2.562.65
(fixed rate)	300.13	2,401.23	2,701.38	-	2,762.67	=	2,762.67
Forward exchange	65.59		65.50		57.64		57.CA
contracts Cross currency and	05.57	-	65.59	-	57.64	-	57.64
interest rate swap							
contracts	-	_	_	_	219.54	_	219.54
Crude and product					217.54		217.54
oil price hedging							
contracts	-	-	-	-	290.42	-	290.42
	Separate financial statements Carrying value Fair value						
	Current	Non-current	Total	Level 1	Level 2	Level 3	Total
			(in	million Baht)			
31 December 2016							
Financial assets							
Crude and product							
oil price hedging					25.56		25.56
contracts	-	-	-	-	35.56	-	35.56
Financial liabilities	• • • • • • •						
Debentures	2,000.00	13,987.57	15,987.57	-	17,117.54	-	17,117.54
Long-term loans	300.15						
(fixed rate)	300.13	2,401.23	2,701.38	-	2,762.67	-	2,762.67
Forward exchange	65.59		(5.50		57.64		57.64
contracts Cross currency and	03.37	-	65.59	-	57.64	-	57.64
interest rate swap							
contracts	-	_	_	_	42.59	_	42.59
Crude and product					72.57		74.57
oil price hedging							
contracts	-	-	-	-	290.42	-	290.42

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Consolidated financial statements

			Consolidate	d financial stat	tements		
		Carrying value			Fair v	alue	
	Current	Non-current	Total	Level 1	Level 2	Level 3	Total
			(in	million Baht)			
31 December 2015							
Financial assets							
Equity securities							
available for sale	-	192.04	192.04	192.04	-	-	192.04
Cross currency and							
interest rate swap					40.12		40.10
contracts	-	-	-	-	40.12	-	40.12
Financial liabilities							
Debentures	-	15,984.21	15,984.21	-	17,296.84	-	17,296.84
Long-term loans							
(fixed rate)	300.15	2,701.38	3,001.53	-	3,059.57	-	3,059.57
Forward exchange							
contracts	100.20	-	100.20	-	93.52	-	93.52
Cross currency and							
interest rate swap							
contracts	-	-	-	-	82.94	-	82.94
Crude and product oil price hedging							
contracts					240.22		240.22
	-	-	-	-	249.32	-	249.32
			Separate 1	financial staten	nents		
		Carrying value	-		Fair v	alue	
	Current	Non-current	Total	Level 1	Level 2	Level 3	Total
	Current	Non-current			Level 2	Level 3	Total
			(in	million Baht)			
31 December 2015							
Financial assets Crude and product							
oil price hedging							
contracts	_	_	_	_	443.55	_	443.55
Financial liabilities					115.55		113.33
Debentures	_	15,984.21	15,984.21	_	17,296.84	-	17,296.84
Long-term loans		,	•		,		ŕ
(fixed rate)	300.15	2,701.38	3,001.53	_	3,059.57	_	3,059.57
Forward exchange		,	,		,		,
contracts	100.20	-	100.20	-	93.52	-	93.52
Cross currency and							
interest rate swap							
contracts	-	-	-	-	82.94	-	82.94
Crude and product oil							
price hedging contracts							
contracts	-	-	-	-	692.87	-	692.87

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Level 2 fair values for simple over-the-counter derivative financial instruments are based on broker quotes. Those quotes are tested for reasonableness by discounting expected future cash flows using market interest rate for a similar instrument at the measurement date. Fair values reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Group and counterparty when appropriate.

38 Commitments with non-related parties

	Consolidated		Separate	
	financial st	atements	financial st	tatements
	2016	2015	2016	2015
		(in millio	n Baht)	
Capital commitment				
Construction projects	1,828.16	882.00	47.07	18.84
Total	1,828.16	882.00	47.07	18.84
Non-cancellable operating lease				
commitments				
Within one year	2,112.34	2,148.92	504.43	523.29
After one year but within five years	2,230.84	4,140.92	1,907.30	2,176.96
After five years	2,780.40	2,051.57	2,736.04	2,051.57
Total	7,123.58	8,341.41	5,147.77	4,751.82
Other commitment				
Bank guarantees	660.21	1,018.25	623.52	1,016.55
Total	660.21	1,018.25	623.52	1,016.55

The Company entered into 12.56 million barrels oil price hedging contracts with foreign oil traders for the periods between January 2017 and December 2018.

The Company entered into foreign currency selling forward contracts cover the period to December 2018 amounting to USD 28.20 million equivalents to Baht 950.93 million.

The Company entered into foreign currency buying forward contracts cover the period to June 2017 amounting to USD 11.61 million equivalents to Baht 415.17 million.

The Company entered into an interest rate swap contract for the following loan agreements by swap from float rate to fixed rate as stipulated in the agreements. The details are as follows:

Facility Due date
(in million Baht)
1,000 30 December 2018

The Bangchak Petroleum Public Company Limited and its Subsidiaries

39 Contingent liabilities and contingent assets

The Company (the fifth defendant) was co-accused with the Ministry of Finance (the first defendant) for alleged land right transgression and a demand for Baht 1,055 million in compensation. The land in question is located at the pier of the Refinery that the Company lodged against the Ministry of Finance. On 3 June 2009, the Appeal court upheld the civil court verdict to dismiss the case. This was re-appealed with the Supreme Court and currently under petition to Supreme Court.

The Company has utilized the tax privilege on the allowance for corporate income tax calculation for its 2006 tax payment which was in accordance with the announcement of the Director General of the Revenue Department regarding the corporate income tax (No. 156) "Criteria, procedures and conditions for the exemption of corporate income tax for the companies that registered its shares in the Stock Exchange of Thailand according to the Securities and Exchange Acts for payments of investment or extension, modification, addition or improvement of assets but not the repair of assets according to Section 65 Tri (5) of the Revenue Codes" and change in inventory costing method from first in first out to weighted average cost which was approved by The Revenue Department. The Revenue Department has examined and assessed the additional income tax payment totaling Baht 50 million that had previously been submitted by the Company and filed for appeal. Subsequently on 20 July 2011, the Revenue Department issued its verdict ruling to dismiss the return of the tax payment. The Company has submitted a petition to the Central Tax Court to revoke the Revenue Department's ruling and the Central Tax Court ruled in favour of the Company. Subsequently, the Revenue Department re-appealed to The Supreme Court and the matter is currently under the Supreme Court's proceeding.

During the second quarter of 2016, the Company (the first defendant) was co-accused with another company (the second defendant) for alleged breach of a lubricant product distribution contract for a claim totalling Baht 45.64 million. Subsequently, the plaintiff filed additional claim against the Company for alleged breach of a contract as a result of ceasing lubricant product distribution for a claim totalling Baht 688.28 million. Currently, both cases are under consideration of the civil court. The Company confirmed that it has correctly complied with the conditions.

40 Events after the reporting period

At the Board of Directors' meeting held on 16 February 2017, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2016 dividend payment at the rate of Baht 1.8 per share, of which Baht 0.8 per share was paid as an interim dividend on 20 September 2016 as disclosed in note 36. Thus, the remaining dividend will be at the rate of Baht 1.0 per share payable to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on 5 April 2017.

At the Board of Directors' meeting held on 17 January 2017, the Board approved the additional investment by BCP Innovation Pte. Ltd. (subsidiary of the Company) in Lithium Americas Corp., a listed company in the stock exchange of Canada, which is developing Lithium mining projects. The subsidiary will purchase 50 million shares of Lithium Americas Corp. at the price of CAD 0.85 per share, the total investment value is CAD 42.50 million.

On 25 February 2017, the company within NIDO Petroleum Ltd. Group, an indirect subsidiary of the Company, signed a binding rig contract with Golden Close Maritime Corp. Ltd to drill petroleum well in Philippines

The Bangchak Petroleum Public Company Limited and its Subsidiaries

On 27 January 2017, BCPG Public Company Limited (subsidiary of the company) has signed a Term Sheet with CAIF III Pte. Ltd. to acquire the entire interest in CapAsia ASEAN Wind Holdings Cooperatief U.A., holding Company in Netherlands holding 40% equity in PetroWind Energy Inc. ("PWEI") which incorporated in the Philippines and operating wind power project with 36 Megawatts wind power project and a development of 14 Megawatts wind power project which located in Nabas, the Philippines. The transaction is subject to the signing of Share Purchase Agreement and the completion of the conditions precedence under the agreement, including the approval from relevant Government agencies.

41 Thai Financial Reporting Standards (TFRS) not yet adopted

A number of new and revised TFRS have been issued but are not yet effective and have not been applied in preparing these financial statements. Those new and revised TFRS that may be relevant to the Group's operations, which become effective for annual financial periods beginning on or after 1 January 2017, are set out below. The Group does not plan to adopt these TFRS early.

IFRS	1 opic
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TAS 1 (revised 2016)	Presentation of Financial Statements
TAS 2 (revised 2016)	Inventories
TAS 7 (revised 2016)	Statement of Cash Flows
TAS 8 (revised 2016)	Accounting Policies, Changes in Accounting Estimates and Errors
TAS 10 (revised 2016)	Events after the Reporting Period
TAS 12 (revised 2016)	Income Taxes
TAS 16 (revised 2016)	Property, Plant and Equipment
TAS 17 (revised 2016)	Leases
TAS 18 (revised 2016)	Revenue
TAS 19 (revised 2016)	Employee Benefits
TAS 21 (revised 2016)	The Effects of Changes in Foreign Exchange Rates
TAS 23 (revised 2016)	Borrowing Costs
TAS 24 (revised 2016)	Related Party Disclosures
TAS 26 (revised 2016)	Accounting and Reporting by Retirement Benefit Plans
TAS 27 (revised 2016)	Separate Financial Statements
TAS 28 (revised 2016)	Investments in Associates and Joint Ventures
TAS 33 (revised 2016)	Earnings per Share
TAS 34 (revised 2016)	Interim Financial Reporting
TAS 36 (revised 2016)	Impairment of Assets
TAS 37 (revised 2016)	Provisions, Contingent Liabilities and Contingent Assets
TAS 38 (revised 2016)	Intangible Assets
TAS 40 (revised 2016)	Investment Property
TAS 104 (revised 2016)	Troubled Debt Restructuring
TAS 105 (revised 2016)	Accounting for Investments in Debt and Equity Securities
TAS 107 (revised 2016)	Financial Instruments: Disclosure and Presentation
TFRS 2 (revised 2016)	Share-based Payment
TFRS 3 (revised 2016)	Business Combinations
TFRS 5 (revised 2016)	Non-current Assets Held for Sale and Discontinued Operations
TFRS 6 (revised 2016)	Exploration for and Evaluation of Mineral Resources
TFRS 8 (revised 2016)	Operating Segments
TFRS 10 (revised 2016)	Consolidated Financial Statements
TFRS 12 (revised 2016)	Disclosure of Interests in Other Entities
TFRS 13 (revised 2016)	Fair Value Measurement
TSIC 15 (revised 2016)	Operating Leases – Incentives

The Bangchak Petroleum Public Company Limited and its Subsidiaries

Торіс
Evaluating the Substance of Transactions in the Legal Form of a Lease
Changes in Existing Decommissioning, Restoration and Similar
Liabilities
Interim Financial Reporting and Impairment
Customer Loyalty Programmes
Levies
Accounting guidance for derecognition of financial assets and financial
liabilities

The Group has made a preliminary assessment of the potential initial impact on the consolidated and separate financial statements of these new and revised TFRS and expects that there will be no material impact on the financial statements in the period of initial application.

General Information and Other Key Information

Company Information

- The Bangchak Petroleum Public Company Limited Registration No. 0107536000269
- © Company establishment and Commercial operation November 8, 1984 and April 1, 1985

ONature of Business:

Management of 120,000-barrel/day Bangchak Refinery and sales of refined fuel products

OCustomers:

- The public, via Bangchak service stations and those of dealers nationwide
- · Industrial sector, including industrial plants
- Transport and service sectors, including airliners, ocean-going vessels, hotels, trucks, and construction work
- Agricultural sector, via Bangchak community service stations
- Overseas export markets.

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Internal Control Office

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The Secretary to the Board of the Directors Office

Tel. 0-2335-4000, 4584, Fax. 0 2335 8000

Email: bcpsecretary@bangchak.co.th

· Company Website

http://www.bangchak.co.th



1. Head Office:

555/1 Energy Complex, 10th Floor, Building A, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900 Tel. 0-2140-8999, Fax. 0-2140-8900

* The Company's head office is relocated to 2098 M Tower Building, 8th Floor, Sukhumvit Road, Bangchak, Phrakanong, Bangkok 10260, Thailand.

2. Bangchak Refinery and Terminal:

210 Soi Sukhumwit 64, Bangchak, Phra Khanong, Bangkok 10260 Tel. 0-2335-4999

3. Central Region Business Office and Bang Pa-In Terminal:

99 Moo 9, Tambon Bang Krasan, Amphoe Bang Pa-in, Ayutthaya 13160 Tel. 0-3535-0289, 0-3535-0292, Fax. (Central Region Business Office) 0-3535-0290, Fax. (Bang Pa-In Terminal) 0-3527-6920

4. Northern Region Business Office:

87/9 Yee-wan Building, 3rd Floor, Thung Hotel Road, Tambon Wat Ket, Amphoe Muang, Chiang Mai 50000 Tel. 0-5330-0484, Fax. 0-5330-0485

5. Northeastern Region Business Office:

499 Moo 12, Mitraphab Road, Tambon Muang Kao, Amphoe Muang, Khon Kaen 40000 Tel. 0-4326-1751-52, 0-4326-1789,791, Fax. 0-4326-1790

6. Southern Region Business Office:

Room 402, 4th Floor, P.C. Tower, 91/1 Moo 1, Kanchanawithi Road, Tambon Bang Kung, Amphoe Muang, Surat Thani 84000 Tel. 0-7722-4790-2, Fax. 0-7722-4793

7. Samut Sakhon Oil Distribution Center:

100/149 Moo 1, Tambon Tha Chin, Amphoe Muang, Samut Sakhon 74000 Tel. 0-3482-0519-520

8. Si Racha Oil Distribution Center:

115/14 Moo 10, Tambon Thung Sukhla, Amphoe Si Racha, Chon Buri 20230, Tel. 0-3849-3179, Fax. 0-3849-3129

9. Rayong Oil Distribution Center:

1, 3B Road, Tambon Map Ta Phut, Amphoe Muang, Rayong 21150, Tel. 0-3860-9389, Fax. 0-3860-9413

10. Surat Thani Oil Distribution Center:

104/1 Moo 2, Surat-Pak Nam Road, Tambon Bang Kung, Amphoe Muang, Surat Thani 84000 Tel. 0-7727-5056-8

11. Song Kla Oil Distribution Center:

13/1 Moo 6, Tambon Sa Ting Mor, Amphoe Singha Nakorn, Song Kla 90280 Tel. 0-7433-2782

12. Suksawat Lubricant Oil Distribution Center:

196 Moo 1, Suksawat Road, Tambon Pak Khlong Bang Pla Kot, Amphoe Phra Samut Chedi, Samut Prakan 10290

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BCPG Public Company Limited

99/1 Moo (Highway No. 3048), Tambon Bang Krasan, Amphoe Bang Pa-in, Ayudtthaya 13160 Tel. 0-2619-0778

Fax. 0-2619-0779

Email: info@bcpggroup.com

Website: http://www.bcpggroup.com

Bangchak Green Net Co., Ltd.

223/94 Country Complex, Building A, 19th Floor, Sanpahwut Rd., Bangna, Bangna, Bangkok 10260 Tel. 0-2367-2699

Fax. 0-2745-7945

Bangchak Retail Co., Ltd.

223/94 Country Complex, Building A, 18th Floor, Sanpahwut Rd., Bangna, Bangna, Bangkok 10260 Tel. 0-2335 4995

Fax. 0-2361 2252

Bangchak Biofuel Co., Ltd.

28 Moo 9 (Highway No. 3048), Tambon Bang Krasan, Amphoe Bang Pa-in, Ayudtthaya 13160

Tel. 035-276-500

Fax. 035-276-549

Website: http://www.bangchakbiofuel.co.th

Bangchak Bioethanol (Chachoengsao) Co., Ltd.

96/10-11 Moo 7, Tambon Koh Kanoon, Amphoe Panomsarakham, Chachoengsao 24120

Tel. 038-090-670-2 Fax. 038-090-673

Bangchak Solar Energy Co., Ltd.

99/1 Moo (Highway No. 3048), Tambon Bang Krasan, Amphoe Bang Pa-in, Ayudtthaya 13160

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Fax. 035-276-014

Bangchak Solar Energy (Buriram) Co., Ltd.

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Fax. 035-276-014

Bangchak Solar Energy (Nakhonratchasima) Co., Ltd.

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BCP Innovation Pte. Ltd.

8 Marina Boulevard # 05-02, Marina Bay Financial Centre, Singapore 018981

BCP Trading Pte. Ltd.

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Representative Tel. 0-2230-1478

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