



**Annual Information Filing**

**As of December 31, 2014**

**THE BANGCHAK PETROLEUM PUBLIC COMPANY LIMITED**

(English Translation)

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## **1. Policy and Business Overview**

### **1.1 Vision, Objectives, Goals, and Strategies**

Bangchak Petroleum Public Company Limited was established to conduct its energy business in 1984. The Company strives to strike a balance between business value and social and environmental value. Bangchak Petroleum PCL has constantly applied the Sufficiency Economy philosophy, corporate governance, and social responsibility concept to business management for goal achievement. To grow its business base, this year Bangchak started to move into the petroleum exploration and production (E&P) business to secure national energy and grow sustainable value.

In 2014, Bangchak was completing three decades of sustainable growth in parallel with stewardship of the environment and society. Through the years, Bangchak has adhered to its business culture (Develop sustainable business, while safeguarding the environment and society). Meanwhile, it has also continually applied the Sufficiency Economy principles, good governance, and social responsibility to its business management so as to achieve corporate goals. Bangchak is committed to business development to grow into a “Green Energy Company”, striking a fine balance between business value and environmental/social worth.

In creating business value, Bangchak sets a goal of growth to add sustainable value in tandem with social and environmental stewardship. Specifically, it restructured its refining income, formerly accounting for 70% to 30% for the marketing business. Recognizing high volatility facing the refining business, from volatile oil prices and refining margins subject to global and regional economies, which affect its performance, Bangchak sets its goal in 2020 for the EBITDA from refining business and marketing business at 50% versus EBITDA from emerging businesses at 50%, including clean-energy business and other energy businesses. These emerging businesses command steady income and low risks posed by external factors. They include solar power generation and other alternative energy, including biodiesel production from palm oil, ethanol production from Energy Crops, biogas and biomass energy, including petroleum exploration and production (E&P) business to secure oil supply.



One of Bangchak's goals is to invest in developing current businesses through investment in the 3E Project, encompassing Efficiency, Energy, and the Environment. To elaborate, it seeks to develop the Continuous Catalyst Regeneration to replace the old unit with efficient technology, marked by efficiency, improved energy consumption, and longer operating periods before maintenance. Also, it seeks to erect a cogeneration power plant to raise its energy stability and consume natural gas, a greener fuel, while heightening safety and environmental. In addition, Bangchak has planned its marketing business expansion by setting a goal for sales volumes of 120 thousand barrels per day (KBD); developing high-quality products and services to match consumers' needs; and modernizing its service station format while growing its service station network to cover more high-potential areas. That way, Bangchak service stations may become rest areas with diverse services matching customers' needs and maximizing their satisfaction.

For new-venture investment, Bangchak still focuses on alternative energy business, including ethanol production, crude palm oil-based biodiesel, solar power plant, geothermal energy, waste-to-energy power plant, biogas energy, and biomass gas to sustain and promote the growing demand for alternative/renewable energy. At the same time, Bangchak is moving to invest in the petroleum exploration and production business (E&P) so as to enhance oil and energy security, as well as constantly investing in other promising businesses in and outside Thailand.

In the meantime, Bangchak focuses on organizational development. Eyeing system and work process development for greater efficiency, transparency, and international competitiveness, Bangchak has applied the TQA (Thailand Quality Award) criteria to its own development efforts in its stride toward management excellence. To achieve this, it focuses on clear operational approaches with comprehensive implementation so that the approaches can be assessed and improved, then coordinated under uniform directions toward corporate goals. In personnel development, Bangchak strives to become Thailand's Best Employer by defining personnel improvement plans under the framework of four main factors for today's human resources administration: employee engagement, efficient corporate administration, an interesting and attractive employer brand, and high-performance culture.



Besides managing businesses to boost value in a secure, continued manner, Bangchak relies on a policy to create Green Society by erecting a model, marked by Green Process (preserve the environment at every stage of production), Green Product (sell alternative/renewable energy that is environment-friendly), and Green Office (green hiring and procurement, application of energy-saving corporate resources). At the same time, the Company must expand its Green Society network to its affiliates, business partners, and stakeholders, which include society and communities around its refinery. This is achieved through its Thailand Go Green activities, purchase of used vegetable oil, and continual environmental/social promotional activities. Finally, the Company's goal is to continually foster innovations of the Green Society network and expand in ASEAN, with an ultimate aim to become ASEAN's Innovative Green and Clean Company Leader in the future.

With the concept of sustainable management to strike a balance between value and worth, Bangchak has included a social and environmental KPI as a corporate KPI, thus enabling it to properly cascade its social and environmental goals into action through its sections and departments. In other words, various action plans must link to or must not conflict with such goals. The direction for social and environmental management relies on key strategies for managing sustainable businesses as follows.

1. Open, Transparent and Verifiable

The Company adheres to an open, transparent and verifiable policy in its operations. Operational data are transparently disclosed under good corporate governance and The Stock Exchange of Thailand rules. Applying proactive environmental management, it discloses online data on quality of air and effluents around the refinery by posting electronic sign board at the entrance to the refinery and surrounding communities.

2. Socially and Environmentally Friendly Business Models (Ongoing process)

As Bangchak's culture is to develop sustainable business, while safeguarding the environment and society, the Company is determined to do business in such a way that not only can it sustain continuous growth, but also simultaneously generate positive impacts on society and the environment. Such a model that the Company has been operating successfully is the cooperation model of petrol stations operated by agricultural



cooperatives. Also, Bangchak buys agricultural products of communities for use as its sales promotional giveaways to grow these products' markets, while giving these products access to consumers. Bangchak joined the Ministry of Agriculture and Cooperatives, Ministry of Energy, and Bank for Agriculture and Agricultural Cooperatives in developing a new business of turning deserted orange plantations into an oil palm plantation to generate income for Rangsit farmers in line with the public sector's alternative/renewable energy promotion plan. An indirect benefit is that Rangsit areas can absorb water further to counteract land subsidence and floods that may ruin Bangkok Metropolis.

### 3. Carbon Neutral Company

Aware that the refining business consumes a large amount of energy and emits considerable carbon dioxide, Bangchak therefore aims to become a Low-Carbon Company to minimize impacts from its refining business as a result of its continuous efforts on clean energy business development, for instance, a 118-MW PPA solar power plant, palm oil biodiesel plants, cassava-based ethanol production plants, diesel production from algae, energy efficiency improvement or the use of clean fuels in the refinery.

Such balanced business management goals backed by determined and ethical staff—committed to the employee culture and values—, these will enable the Company to add value to business as well as society and the environment and become an organization of sustainable growth.

## **1.2 Transition and milestone development**

### **2014**

Bangchak and its subsidiaries earned Baht 183,016 million in sales and service revenue. EBITDA amounted to Baht 5,162 million. Net finance costs Baht 1,427 million. Reversal of allowance for loss from impairment of assets equaled Baht 821 million, while gain from foreign exchange and others was reported at Baht 674 million. Depreciation and amortization totaled Baht 3,294 million, whereas income tax credit amounted to Baht 463 million. These led to a net profit to Bangchak of Baht 756 million, resulting in net earnings of Baht 711.6 million to the owners of the Company and Baht 44.8 million to non-controlling interests.



## Refining business

This year Bangchak planned a 46-day major turnaround period including maintenance for CDU and auxiliary units from May 1<sup>st</sup> to June 15<sup>th</sup>, which contributed to a net average throughput of 86.5 thousand barrels per day (KBD), a 13% drop from last year's 99.3 KBD. To prepare for this shutdown, reserve petroleum products were stocked to meet customers' demand while fulfilling legal requirements and, equally important, managing inventories at suitable volumes without affecting the refinery's operation so as to lower the risk arising from oil price volatility. The year's average GRM stood at US\$6.96 per barrel exclusive of hedging and stock gains/losses, which exceeded that of last year (US\$5.76 per barrel). Despite the drops in price spreads between nearly all products and Dubai crude this year, the Company was buoyed by low imported crude oil bills, which plummeted from last year, as seen in the price of the Dated Brent, a reference crude for North Sea and African crude (low-sulfur crude). The price drop stemmed from shale oil production in the US, which slashed its own crude oil imports from West African countries. Several economic factors influenced the demand-supply of the oil refining businesses worldwide, particularly those prone to price volatility. Therefore, to enable Bangchak to achieve goals while taking care of the environment, the Company took the following actions:

- Maintained new crude oil supply which yields low-sulfur fuel oil for exports and have more economic return than selling fuel oil for domestic consumption.
- Established Operational Excellence Enhancement, strived for Plant Reliability, and prevented Unplanned Shutdowns through plans encompassing Personnel and Process Safety Excellence, Process Safety Management System. For Efficiency and Reliability Excellence, the Company constantly managed risks through SIL (Safety Integrity Level), RCM (Reliability Centered Maintenance), and RBI (Risk-Based Inspection) for all processes and equipment. As for Environmental Protection Excellence, the Company commissioned experts to upgrade the standards for refinery environmental practices, safety, and work processes, thus garnering recognition worldwide. Besides valuing refinery safety, environment, and process equipment, the Company minimized risks of oil leaks in the transport system by requiring that all crude oil and petroleum product vessels are to be double-hulled.
- Regularly improved refining efficiency by executing the 3E (Efficiency, Energy, and Environment) Project to add value to products by installing a CCR (Continuous Catalytic Regeneration unit) in place of



the old one, which will improve consumption of energy and lengthening of turnaround cycles. A construction plan of cogeneration power plants for greater energy stability, and striving to raise its safety level and environmental stewardship.

- Achieved ISO 50001:2011 certification for energy management under the ANAB (American National Accreditation Board), echoing the success in developing and upgrading the standards for energy management systems at Bangchak Refinery and Oil Distribution Centers on a par with world-class refineries.

Regarding its participation in community and social development near the refinery, Bangchak promoted employees' participation in activities with communities to foster trust, friendship, benefit, and safety. Amid current, diverse urban communities (in particular the mushrooming growth of condominiums), Bangchak's plans and targets broke down into three phases: forming relationship, welcoming opportunities to think and participate in activities, and participating in development and driving toward self-reliance. In designing projects, the Company takes into account relationship and responses to the lifestyles of target groups. This year Bangchak initiated a community panel seminar to echo community ideas, leading to extension of qualitative activities that addressed public issues in Thai society—notably education, development of youths, and the environment, all top priorities of such communities. As for the Company's participation in the development of communities and society farther from the refinery, Bangchak strives to keep Thai society happy under the belief that “sustainable happiness is sharing”, which explains why the Company ran knowledge-sharing projects on social and environmental responsibility to grow allies in establishing a Green Society, including business partners, service stations, and the public. In addition, Bangchak continually organized emergency plan training and training on chemicals for communities, schools, and nearby condominiums to strengthen their confidence in safety. Communication formats for emergencies were modified and clarified for individual communities. With the clarity and determination for social and environmental responsibilities, Bangchak became ready in ideas and practices to lead and drive allies as well as stakeholders toward a Green Society, in which Bangchak's business partners command business caliber for responsible environmental as well as social improvement.





## Marketing business

Bangchak's marketing business posted a total sales volume through all markets of average 86.3 KBD (417 million liters a month), a 0.1% gain over last year's 86.2 KBD. The total sales volume of clear fuels through the Company's service stations has risen by 6% as a result of constant network expansion of service stations, its re-imaging, and the introduction of Bangchak Hi Diesel product. Meanwhile, sales through the industrial market dropped by 3% because of the administration of distributed volumes in line with reduced outputs coinciding with the major turnaround maintenance.

Committed to leadership in alternative/renewable energy, Bangchak held on to the market leadership for E85 gasohol and No. 2 for E20 gasohol products. Its service stations across the country successfully sold gasohol and diesel of Euro IV standard as required by the government. In addition, the Company constantly improved the efficiency of products, for instance by selling Euro V E20 gasohol for the first time in Asia in early 2013; its sulfur content is below 10 ppm, a fivefold reduction from that of Euro IV. Ongoing during the year were Bangchak's image refurbishment and expansion of service stations for higher standard, sales promotion launches, and capability improvement. As a result, this year Bangchak's market share for all clear fuels sold through service stations rise to No. 2 from No. 3 last year, registering 249 million liters per month (Source: Department of Energy Business, November 2014) (a 5.9% rise over last year's 235 million liters per month), which exceeded the growth rate of national service stations of just 3.5% over the year. Still, with domestic supply still outstripping domestic demand, the marketing business drew fierce competition, prompting Bangchak to take several key measures to add sales volumes and maintain its customer base:

- Expanded and improved its service station network in high-potential areas and constantly improved the settings of service stations. As of year-end 2014, the Company's network commanded 444 standard service stations together with 626 community service stations, for a total of 1,070 Bangchak-brand stations, recognized in "Brand of Choice survey" done by research agency since 2009 as the second top brand for a fifth consecutive year. Bangchak service stations also participated in Ministry of Commerce's project to improve proper sale volume measurement to ensure consumers that oil companies do not shortchange them. Bangchak service stations were duly certified under this project for accurate volumetric measurement, standard



quality, good services, and hygienic settings. Compared with service stations of other brands, Bangchak won the highest number of awards for quality and excellence in services.

- “Best Service Station Toilets 2014” by Bangkok Metropolis Administration: The Bangchak Service Station Udomsuk 45 Branch won the unique distinction of being the sole service station chosen for the award, with the clean standard, equipped with amenities and available around the clock. The station’s nice-smelling toilets, located in safe and secure areas, can accommodate the handicapped, the elderly, and pregnant women. Bangchak won this award of the Bangkok Metropolitan Administration for the second successive year, in 2013 taking the accolade with the Vibhavadi Rangsit Branch.
- Constantly improved product quality. This year the Company launched “Bangchak Hi-Diesel”, a high-quality new product with better performance due to the Hi Clean additive, which promotes complete combustion, clean engines, and full-strength performance. As a result, consumers save fuels, while the Hi Power additive gives more power to engines.
- Continually promoted and expanded sales of Gasohol E20, and Gasohol E85. The Company raised the number of service stations selling Gasohol E20 by 22, and selling Gasohol E85 by 98. Service stations selling E20 and E85 nationwide currently number 700 and 200 respectively.

#### **Bangchak Service Stations selling Gasohol E20 and E85**

	As of year-end 2014	
	Stations	Increment
Gasohol E20	700	+22
Gasohol E85	200	+98

- Executed CRM (Customer Relationship Management) through the Bangchak Gasohol Club Card and Bangchak Diesel Club Card to establish long-term engagement and maintain customer bases. Cardholders accrue points from fuel, food, and service purchases at service stations. In addition, Bangchak developed the “Bangchak Card Connects Thais” for customers of community service stations to expedite their refueling and allow the stations to launch sales promotional activities or customer relationship activities suiting individual locations. As of year-end 2014, Bangchak Gasohol Club cardholders numbered 993,491; Bangchak Diesel Club cardholders, 296,815; and Bangchak Card Connects Thais cardholders, 191,750.



- Promoted and improved the image of service station's non-oil businesses to generate income and offer complete services serving the need of modern customers. Bangchak joined renowned food & beverage allies like McDonald's, Black Canyon, and KFC in serving customers at service stations located on main roads. It also expanded and launched Big C Mini convenience stores by 29 branches in 2014, bringing the total to 91. Finally, the Inthanin Coffee outlets, both in and outside Bangchak service stations, grew by 24 during the year to 320 outlets.
- Bangchak lubricants received ISO 9001 (quality management standard) certification and ISO/TS16949 (automotive industry quality management standard) certification, which the latter is the first for a Thai company. Bangchak regularly improves its products. This year the Company issued GE ECO, a lubricant designed for eco-cars and hybrid cars, as well as newer models. To popularize and lead them to greater acceptance of quality, it also staged sales promotional activities for products. A case in point was the "Bangchak Lubricants for Engine Fitting, Fitting You" project, which the Company supported and launched sales booth at Thai Fight boxing matches. Bangchak also constantly focused on lubricant market expansion to the industrial sector and markets in neighboring countries.

The Company has conducted fair marketing business in tandem with environmental stewardship and social services all along, including its cooperation with agricultural cooperatives in buying farmers' products for giveaway items as sales promotional goods to create jobs and decentralize income to rural areas, thus supporting efforts to strengthen community economies. This year Bangchak service stations organized three sales giveaway promotions in support of community goods: seedless velvet tamarind (*dialium cochinchinensis*), roast rice tea/roast rice green tea, and organic brown rice.

Besides the Bangchak Card Project, the Gasohol Club card is part of the Company's environmental stewardship showing data on carbon dioxide reduction each time Bangchak's customers vehicles get a tank refill. The Gasohol and Diesel Club Card holders can donate points of fuel refill into cash to the charity for public interest. With Bangchak's policy to establish a Green Society, the Company launched a Green Partnership Project to enable service stations to be part of fair business practices together with the stewardship of the environment and society, and in line with the Sufficiency Economy principles. This is to be achieved through CSR in



Process, striving for stewardship of consumers, the environment, society, and employees. In addition, Bangchak extended its support to the “Thai Golfers’ Development toward Excellence” project to develop professional golfers into world-class ones, including “Pro Waen” Pornanong Phatlum, who has continually received Bangchak’s support.

## Renewable energy business

**The biodiesel business:** this year posted an average capacity of 360,000 liters per day, 100% in utilization rate, which met the current biodiesel demand for Bangchak and then more for sale to external business partners to generate income. Bangchak Biofuel Co., Ltd., secured approval from its board of directors to construct a second phase B100 unit with an additional capacity of 450,000 liters per day under an investment outlay of Baht 1.8 billion. An EPC contract was signed in December 2014, with construction underway. Production and commercial sales are expected by the third quarter of 2016.

**The solar power business:** In 2014, Bangchak fulfilled its 118-MW PPA. Phase 3 of the project, with a 48-MW capacity, consists of 16 MW at Amphoe Kabin Buri, Prachin Buri; 8 MW at Amphoe Dan Khun Thot, Nakhon Ratchasima; 8 MW at Amphoe Prakhon Chai, Buri Ram; 8 MW at Amphoe Nong Ki, Buri Ram, and 8 MW at Tambon Hua Tha-le, Amphoe Bamnet Narong, Chaiyaphum. All projects have been completed and started commercial operation since April 2014.

**Ethanol business:** Bangchak acquired 583,000 common shares in Ubon Bio Ethanol Co., Ltd., equivalent to 21.28% of total common shares. Its ethanol plant located in Amphoe Na Yia, Ubon Ratchathani, is capable of producing 400,000 liters a day of ethanol from fresh cassava, cassava chips, and molasses. The plant began commercial production in January 2013, and produced ethanol for sale to Bangchak and major business partners. This year’s output averaged 250,000 liters per day, roughly 62% in utilization rate. Bangchak plans to acquire a 150,000-liter-per-day ethanol plant in Chachoengsao province, which is expected to produce and realize commercial sales in 2015.

**Petroleum Exploration and Production business:** In 2014, Bangchak moved into the oversea investment. BCP Energy International Pte. Ltd. (BCP Energy) was set up in Singapore to engage in businesses concerning energy, petrochemical, and natural resources abroad. BCP



Energy has acquired 402,951,875 common shares (81.4%) in Nido Petroleum Ltd., which is listed on the Australian securities exchange and engages in oil and gas exploration and production with a focus on Southeast Asian resources. Nido has expanded its investment by signing a share purchase agreement with Otto Energy Ltd. (Otto) to acquire all shares of Galoc Production Company WLL (GPC), a subsidiary of Otto. GPC is a 33% shareholder in the Galoc oil field in the Philippines. If the shareholders' meeting of Otto endorses such transaction, Nido will see its shareholding in the Galoc field rise from 22.88% to 55.88% and assume the operatorship of the field.

### **Organizational capability development**

Bangchak has adopted the Thailand Quality Award (TQA) criteria in developing its organizational capability in conjunction with business development to strive for sustainability in human resource development as well as business growth. These guidelines include effective work structural architecture supporting current and future businesses, work process efficiency improvement suitable for all situations, information system and technological modernization, and support of innovations for all employees, aiming to become a knowledge-based organization.

### **Human resource quality and innovation improvement**

With a strong commitment to the continuous development of its workforce, Bangchak has defined a clear policy on job rotation to broaden staff skills in preparation for career path development and for current job requirements and expected knowledge and competency in line with the Company vision and business goals. The Competency Base Management System has been adopted to develop human resources systematically. As for personnel development, the Company set the preparation of a successor pool and systemization of career management plans, and continuous learning through various channels. In addition, a jointly developed Knowledge Management Portal with PTT Group of companies was initiated for the sharing of valuable information resources of skills, technologies, financial knowledge, and lessons learned. Moreover, the Company promoted innovation projects in the organization, including employee group activities and cross-functional teams, including the Cascade Project for Innovation, Community of Practice (CoP), and Kaizen activities to promote sharing of knowledge and experiences among them. It also launched innovation projects for



summer intern students. The ultimate aim of all these activities and projects is to drive Bangchak toward an entity of innovation.

To upgrade its assessment standard for personnel caliber and administration system, Bangchak applied for participation in the Best Employer Project for Thailand, which helped it detect aspects for further improvement. The exercise added assessment of other aspects besides employee engagement, namely employer brand, leadership, and high-performance culture. The first year's assessment score for Bangchak was 66, versus the goal of 60. A roadmap was prepared to constantly close the gaps.

### **Organizational restructuring in response to strategic directions**

In response to the need for sustainable growth and the need to meet customers' demand more effectively, organizational restructuring was undertaken with the creation of a Business Development and Strategy Group, directly responsible for defining the business strategies and plans coherently with business development plans. Additional work units were integrated at service stations, with a focus on more development of food, snacks, and drinks. More emphasis on work process improvement and innovations was added to materialize physical values in the near future.

### **Preparedness of work process efficiency improvement**

To assess, identify, and mitigate risks at all levels impacting business goals, an Enterprise Risk Management (ERM) system was launched. This year the Company introduced Scenario Planning for assessing changing circumstances that are likely to produce risks and wield long-term impacts on the organization's goals. Scenario planning is regularly presented for the review and monitoring of risk management plans at ERMC (Enterprise Risk Management Committee) and PRMC (Price Risk Management Committee) meetings. Bangchak also achieved ISO 22301:2012 certification for BCM for a second consecutive year. Furthermore, this year the Company organized a review of enterprise work processes for greater flexibility and efficiency, as well as a workshop to review knowledge about Lean Process for executives and supervisors across the board.

### **Information system and technological modernization**

To meet the requirements of instant information and technologies to operate all work processes safely, effectively, and smoothly,



modernization of information system and technology is a prerequisite. Today's common is the perception of fast technological changes, which could wield strong impacts—positive and negative ones. Recognizing the value of IT systems, which lead to convenience, safety, and effectiveness, Bangchak has applied its systems of customers' opinion-sharing and data collection, and more service provision through the IT system and mobile applications. Cases in point were customers' complaint and feedback input through the SAP Call Center and the communication and direct inputting of goods and service-related data through the social media. Besides, data can find rapid applications to efficiently meet the highly dynamic needs of consumers.

In addition, the Company has internationalized IT systems in support of work within the organization. For instance, it adjusted SAP SRM (Supplier Relationship Management) to link its databases to the SAP ERP system for greater efficiency. The Company also modified the BCP Knowledge Management System to accommodate modern, diverse functions to support knowledge-sharing within the organization, including experts and employees of PTT Group. Consequently, knowledge can be linked and extended within the same group of companies and become increasingly efficient.

### **Awards of 2014**

- SET Award of Honor from the 'SET Awards 2014' event, organized by the Stock Exchange of Thailand (SET) in conjunction with the Money and Banking magazine:
  - Top Corporate Governance Report Award for nine consecutive years, in recognition of listed companies with outstanding corporate governance reports
  - Best Corporate Social Responsibility Award for eight consecutive years, in recognition of listed companies with outstanding social responsibility in business conduct.

Bangchak also won the Outstanding Investor Relations Award and the Outstanding Corporate Social Responsibility Award.

- Awards won at the 'Asia Pacific Entrepreneurship Awards 2014' event, organized by Enterprise Asia, a non-governmental



organization in pursuit of entrepreneurship development across the region:

- Outstanding Entrepreneurship Award for two consecutive years, presented to business leaders who have shown outstanding performances and tenacity in developing successful businesses with due regard for social and environmental responsibility.
- Green Leadership Award in recognition of Bangchak's outstanding environmental responsibility in its production and distribution processes of 'green' renewable energy, as well as production of biodiesel derived from used vegetable oil, in Singapore.
- Awards won at the 'Corporate Governance Asia Recognition Awards 2014 - THE BEST OF ASIA' event, organized by the Corporate Governance Asia magazine (Hong Kong-based):
  - Corporate Governance Asia Recognition Award 2014: Asia's Icon on Corporate Governance, presented to companies with outstanding performances and tenacity in developing corporate governance in the region. Bangchak has won this award for four consecutive years.
  - Asian Corporate Director Recognition Award 2014 for four consecutive years. The award is presented to business leaders who create business growth with due regard for social and environmental responsibility as well as elevating domestic corporate governance.
- Awards won at the '4<sup>th</sup> Asian Excellence Recognition Awards 2014' event, organized by the Corporate Governance Asia magazine (Hong Kong-based):
  - Asia's Best CEO Award (Investor Relations) for two consecutive years, in recognition of outstanding leaders in investor relations





- and based on votes and surveys among readers, investors, analysts, etc.
- Best Investor Relations Award for three consecutive years, presented to companies with outstanding investor relations and based on votes and surveys among readers, investors, analysts, etc.
  - Platinum Award from 'The Asset Corporate Awards 2014' event, 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 fourth consecutive year.
  - Bangchak is ranked among the 17 companies with the top scores of over 90 based on corporate governance surveys of Thai publicly listed companies under the ASEAN CG Scorecard 2013/2014 program. ASEAN CG Scorecard is a mean benchmark in assessing and ranking corporate governance performances of listed companies in the six participating ASEAN member countries (Indonesia, Malaysia, Philippines, Singapore, Vietnam and Thailand) to ascertain the improving corporate governance standard in the region. ASEAN CG Scorecard Thailand was organized by the Office of the Securities and Exchange Commission (SEC) in conjunction with SET and the Thai Institute of Directors (IOD).
  - Bangchak is among the 19 listed companies which have attained Level 4 (the top level) and are certified by the Collective Action Coalition (CAC) from the Anti-Corruption Progress Indicator Assessment for Thai Listed Companies 2014, organized by SEC in conjunction with Thaipat Institute.



- CSR Recognition Award 2014, presented by SET in recognition of listed companies with outstanding performances in integrating CSR with their business processes.
- Best Sustainability Report Award 2014, organized by CSR Club, Thai Listed Companies Association, SEC, and Thaipat Institute. The award went to companies with outstanding information disclosure and reporting policies with an emphasis on social responsibility and CSR-in-Process for business conduct. Bangchak has won the award for two consecutive years.
- Best Green Office Award (Gold Level), awarded to organizations which have passed the 'green office' mean standard indicators at the Thailand Environment Day and the National Natural Resources and Environmental Conservation Volunteering Day 2014: "Clean City, People Happy", held in honor of HM the King's 87<sup>th</sup> Birthday Anniversary by the Ministry of Natural Resources and Environment and the Ministry of Interior.
- Asian Company Secretary of the Year Award 2014, presented to Asian company secretaries who have demonstrated strong perseverance in overseeing companies and directors in strict compliance with applicable laws and regulations, as well as in continually developing corporate governance. The award was conferred at the '2<sup>nd</sup> Asian Company Secretary and Compliance Officer of the Year Recognition Awards 2014' event, organized by the Corporate Governance Asia magazine (Hong Kong-based)
- Based on the assessment outcomes of a survey on CG report of listed companies for 2014, organized by IOD, Bangchak earned an overall 'Excellent' score for eight consecutive years.



- Bangchak scored an ‘Excellent’ 100% in all AGM criteria for six consecutive years under the ‘2014 Annual General Meeting Assessment Project’, organized by the Thai Investors Association.
- Certificate from the “Full-Liter Gas Station Development Project” for meter accuracy, good quality service, and hygiene of service stations. From a total 253 service stations in Bangkok and its vicinity, Bangchak’s 68 stations have been certified, and its Vibhavadi Rangsit branch was the first to receive the award. The event was organized by the Department of Internal Trade, Ministry of Commerce.
- Certificate for Asia’s Best Companies 2014, presented by the Finance Asia magazine. Bangchak has been honored as Thailand’s Best Mid-Cap company and a top-10 company with the best dividend payment, based on an opinion survey among over 330 Asia’s investors, fund managers, and analysts.
- Certificate for Outstanding Call Center 2014, presented by the Office of the Consumer Protection Board (OCPB) to companies with social responsibility awareness, standard service quality, timely solution handling, and customers’ satisfaction.
- Carbon Neutral Certificate in recognition of its efforts to cut greenhouse gas emission, presented at the “Together We Fight Global Warming” event by Thailand Greenhouse Gas Management Organization (Public Organization) (TGO).
- CSR Plaque, presented to organizations with outstanding corporate social responsibility performances in community economic programs, producing youths of virtues, citizen awareness, and environmental and energy conservation, etc., by the Ministry of Social Development and Human Security, on its 12<sup>th</sup> founding anniversary.



- Outstanding Enterprise Plaque, presented by the Social Security Office (SSO) in recognition of its outstanding discipline and responsibility in the payment of provident fund in strict compliance with the prescribed time and conditions.
- Plaque for Quality Activities Support, presented by the Department of Industrial Promotion at the '28<sup>th</sup> QCC Thailand' event.
- ISO22301:2012: Business Continuity Management System (BCMS), which covers procurement, production, distribution, storage, and delivery of petroleum products, presented by the ISO Management System Certification Institute (Thailand).
- ISO/IEC27001:2005: Information Security Standard for the Management of Distributed Control System (DCS), in recognition of Bangchak's awareness of documented information security and easy access to information for all parties.
- ISO500001:2001: International-standard energy management systems, presented by the American National Accreditation Board (ANAB) for Bangchak's success in the development of energy management systems in its refinery's production processes and distribution centers with efficiency comparable with that of leading international refineries.

## 2013

- Bangchak hired internationally accepted experts to review the operating safety of the overall refinery system and equipment with a HAZOP (Hazard and Operability Study) and it was completed, with a continuous improvement plan defined to push Bangchak's refining safety to a higher standard than those of other international refineries.
- In addition, a tail gas treating unit, a treatment unit at the end of the process, was completely installed and commissioned within the



government's timeframe, thus sharply reducing sulfur dioxide emission from the sulfurization unit by 90%.

- Bangchak values the stewardship of Safety Health Environmental and Energy (SHEE). In 2013, the Ministry of Industry awarded to Bangchak a CSR-DIW Level 5 award of its achievement to operate responsibly to society through its community social network toward sustainable development. This achievement, combined with the already awarded Green Industry 4, will lead Bangchak toward Green Industry 5. Moreover, Bangchak is introducing ISO 50001, the international standard for energy management, to help manage its entire energy management system.
- The Company increased its retail volume by expanding distribution channels. Full-scale service stations located in high-potential areas were selected for such expansion. In 2013, there were two main truck service stations, located at SuperK, Chonburi province and Suratthani airport.
- Bangchak is determined to improve its service station image: clean, modern, and catering more to customers' needs. Focusing on continuous improvement of quality, Bangchak service stations earned the following awards:
  - Quality, Safe, and Attractive Service Stations: Department of Energy Business, for the fourth consecutive year, covering 178 stations
  - Trusted Brands Gold Awards (Service Stations): Reader's Digest Magazine, for the third year, following a survey of brands and services in which consumer confidence is high for quality, catering to consumers' needs, social responsibility, and innovative ideas for products
  - Brand of Choice: Based on a survey by a third-party research company in 2013, Bangchak service stations ranked second most popular among domestic service stations for the fifth consecutive year.
- Bangchak continually promoted and expanded sales of Gasohol E20, and Gasohol E85. The Company raised the number of service stations selling Gasohol E20 by 97, and selling Gasohol E85 by 51. To accommodate newer car models, service stations selling E20 and E85 nationwide currently number 678 and 102 respectively.
- In April 2013 Bangchak entered an Exclusive Partnership, a long-term business joint venture agreement with Big-C Supercenter PCL, which calls for development and installation of 500 Big C-Mini stores in Bangchak's service stations nationwide. Meanwhile, 55 new Big C-Mini stores were added, bringing the total chain to 62.



- The Company has constantly stressed expansion of its lubricant market to the industrial sector and markets in neighboring countries, staged sales promotional activities, improved quality products further, and improved lubricant containers to ease application while being green.
- **Renewable energy business:** Bangchak has been focusing on the development of new businesses to increase its business value and diversify its revenue portfolio to reduce risk exposure in certain business areas under uncertain, dynamic market and volatile oil price situations. It strictly adheres, however, to its business principles in focusing its production and marketing in parallel with environmental stewardship and social contribution to sustainable growth and financial integrity of the organization. Below are the business moves made by Bangchak.
  - **Biodiesel Business:** Since 2009, the company has invested in a biodiesel plant on its property in Bang Pa-in, known as Bangchak Biofuel Co., Ltd. The company was set up in support of the public policy on alternative-energy promotion while generating income for farmers. In 2013, total biodiesel production averaged 343,000 liters per day, equivalent to a 97% capacity utilization rate.
  - **Solar Power Business:** “Sunny Bangchak” entered a 118-MW power purchase agreement (PPA) with the Electricity Generating Authority of Thailand (EGAT) and Provincial Electricity Authority (PEA), with an incentive adder rate of Baht 8 per unit. Bangchak Solar Energy Co., Ltd., was founded to manage and operate solar power generation. Bangchak’s first phase of 38-MW PPA has been commercially operated since 2012, at Bang Pa-In district, Ayutthaya. Phase 2 consists of 32-MW PPA solar power generation including two solar power generating units of 16 MW PPA each at Amphoe Bamnet Narong, Chaiyaphum, and Amphoe Bang Pa-Han, Ayutthaya, commissioned in 2013.
  - **Ethanol business:** Bangchak acquired 583,000 common shares in Ubon Bio Ethanol Co., Ltd., equivalent to 21.28% of the total common shares. Its ethanol plant located in Amphoe Na Yia, Ubon Ratchathani, is capable of producing 400,000 liters a day of ethanol from fresh cassava, cassava chips, and molasses. The plant began commercial production in January 2013 and supplied ethanol to Bangchak and major oil customers. In 2013, the plant was operating at a 62% capacity utilization rate.
- **Organizational capability development:** Bangchak has adopted the Thailand Quality Award (TQA) criteria in developing its organizational capability in conjunction with business development to



strive for sustainability in human resource development as well as business growth. In 2013, Bangchak won the Thailand Quality Class (TQC) for the second year.

- **Human resource quality improvement:** With a strong commitment to the continuous development of its workforce, Bangchak has defined a clear policy on job rotation to broaden staff skills in preparation for career path development and for current job requirements and expected knowledge and competency in line with the Company vision and business goals. The Competency Base Management System has been adopted to develop human resources systematically. Continuous learning through various channels, including Knowledge Management (KM), cross-functional and cross-divisional group activities such as QCC Kaizen, Community of Practice (COP), and BCP Blog Award exemplified the systems and tools in promoting knowledge and work experience sharing and leading it to an innovation organization. In addition, a jointly developed Knowledge Management Portal with PTT Group of companies was initiated for the sharing of valuable information resources of skills, technologies, financial knowledge, and lessons learned. The Employee Engagement program was introduced to support effective performance appraisals, a system to ensure high standard organizational capability development. Several activities have been organized to assess employee satisfaction and employee loyalty to the organization. Their outcomes have been increasingly positive. Bangchak and its employees continue to strictly adhere to good governance and its corporate culture on social contribution.
- **Organizational restructuring in response to strategic directions and innovation development :** In response to the need for sustainable growth and the need to meet customers' demand more effectively, organizational restructuring was undertaken with the creation of a Business Development and Strategy Business Unit, directly responsible for defining the business strategies and plans coherently with business development plans. Additional divisions were set up to focus on development of food, snacks, and drinks at service stations. More emphasis on work process improvement and innovations was added to materialize physical values in the near future.
- **Preparedness of work process efficiency improvement:** To assess, identify, and mitigate risks at all levels impacting business goals, an Enterprise Risk Management (ERM) system was launched and integrated with a Business Continuity Management (BCM) system to minimize and prevent disruptions to critical work processes, as part of emergency preparedness. The system has responded favorably and



effectively to Bangchak as well as stakeholders, leading Bangchak to comply with the ISO22301 Business Continuity Management Award. Moreover, a continual review of work processes throughout the organization under the Lean Concept operations management continues to improve Bangchak's overall efficiency.

- **Information system and technological modernization:** To meet the requirements of instant information and technologies to operate all work processes safely, effectively, and smoothly, modernization of information system and technology is a prerequisite. Bangchak has installed an enterprise resource planning system, SAP ERP Version 6.0, through an enterprise network to provide 24/7 access to all employees under ISO27001, a reliable system standard for network and data center. An additional system, Digital Control System (DCS), was implemented at distillation unit control rooms to ensure the utmost reliability of refining operations.

#### Awards of 2013

- Board of the Year Award for Distinction Practices in Good Corporate Governance in the "Board of the Year Awards 2013" contest, awarded by the Thai Institute of Directors (IOD). The contest was organized in conjunction with the Stock Exchange of Thailand, The Thai Chamber of Commerce and Board of Trade of Thailand, Federation of Thai Industries, Thai Bankers' Association, Thai Listed Companies Association (TLCA), and the Federation of Thai Capital Market Organizations.
- SET Awards of Honor, presented at the SET Awards 2013 event, organized by the Stock Exchange of Thailand (SET) and Finance and Banking Magazine:
  - Top Corporate Governance Report Award, in its eighth straight year. This award honors listed companies with outstanding reports on compliance with corporate governance
  - Best Corporate Social Responsibilities Award, in its seventh straight year. This award honors listed companies with outstanding social responsibility practices.In addition, the Company won an Outstanding Investor Relations Award.
- Membership Certificate of the Private Sector Collective Action Coalition Against Corruption (CAC). Among CAC's 249 signatory companies, Bangchak was one of the 22 certified founding members during Thailand's 4<sup>th</sup> National Conference on Collective Action Against Corruption in 2013. CAC was initiated through the cooperation of eight leading organizations, with IOD as its secretary.





- Thailand Quality Class (TQC) Award of 2013, organized by the National Quality Award Office. This award honors entities with integrated organizational management systems under the National Quality Award guidelines, as well as world-standard quality.
- Recognition Awards 2013 “THE BEST OF ASIA”, organized by Corporate Governance Asia Magazine:
  - Asian Corporate Director Recognition Award 2013, in its third consecutive year, this award honors the Company leader with his contributions in growing the business, social responsibility, environmental protection and also efforts in raising the standards of corporate governance practice in the country.
  - Corporate Governance Asia Recognition Award 2013, in its third consecutive year, this award is given in recognition to the Company’s continuing commitment to the development of Corporate Governance in the region.
- Gold Award, presented at The Asset Corporate Awards 2013, in its third year, organized by The Asset Magazine. This award honors based on the magazine’s consideration of corporate governance, social responsibility, environment responsibility, financial, and investor relations aspects.
- The assessment outcome of a survey on corporate governance reports of listed companies of 2013, given by Thai Institute of Directors (IOD), showed that the Company commanded ‘excellent’ rating.
- A perfect score of 100 under a project to assess the quality of organizations for the Annual General Meeting of Shareholders (AGM) 2013, organized by the Thai Investor Association.
- Best Investor Relations Award, in its second year, honors companies with outstanding investor relation, given by votes from the readers of magazine, investors, analysts, etc., presented at 3<sup>rd</sup> Asian Excellence Recognition Awards 2013 event, organized by Corporate Governance Asia Magazine.
- CSRI Recognition 2013 Award (General Category), presented by the Corporate Social Responsibility Institute in honor of Bangchak’s committed and successful development of social responsibility implementation.
- Exemplary Sustainability Report Award 2013 for Bangchak’s information disclosure, reporting policy with emphasis on social responsibility, and CSR in process for business conduct, organized by the CSR Club, TLCA, Office of the Securities and Exchange Commission (SEC), and Thaipat Institute.



- CSR-DIW Advanced Award Level 5 (the top level), CSR-DIW Continuous Award, and CSR-DIW Supply Chain Award, recognized by the Department of Industrial Works, for Bangchak's plant operation with social responsibility and community networking in performing public service activities for sustainable development.
- Trusted Brands Gold Awards 2013 in the Service Station Category for the third year in a row, voted by the readers of Reader's Digest Magazine for consumers' trust, quality, value, understanding of consumers' needs, social responsibility, and creativity in marketing new products.
- Distinction Winner Awards on Website Branding and Website Corporate Communication at the Communicator Awards 2013 event, in recognition of Bangchak's creativity in marketing and communication, organized by International Academy of The Visual Arts.
- ICT Excellence Awards (under the category of Core Process Improvement Project) in recognition of entities with excellence in IT and communication management for the Audit Management System, presented at the Thailand ICT Excellence Awards 2013, sponsored by the Thailand Management Association and the National Electronics and Computer Technology Center.
- Carbon Offset Certification for Organization – Bangchak was Thailand's first entity to win this certificate from the Thailand Greenhouse Gas Management Organization (Public Organization)
- Certification for Bangchak's river terminal, Thailand's first Chao Phraya River oil terminal issued by Marine Department to win this acclaim, formally known as the Statement of Compliance of a Port Facility under The International Code for the Security of Ships and Port Facilities (ISPS Code).
- The Quality and Safety Service Stations Award, presented by the Department of Energy Business and designed to raise the quality of service stations nationwide. Bangchak won this award for the fourth consecutive year, totaling 178 stations: 68 gold, 64 silver, and 46 bronze medals.

## 2012

- **Solar power plant:** "Sunny Bangchak" Bangchak signed a power purchase agreement with the Electricity Generating Authority of Thailand and the Provincial Electricity Authority. The first phase operated in Bang Pa-in, Ayutthaya province. The first set of power generators of 8 megawatts was completed, with the commercial sales date beginning on April 2<sup>nd</sup>, 2012; the second set of 30



megawatts, on July 16<sup>th</sup>, 2012. The company launched a public learning center for alternative energy through many exhibits and activities, including solar energy, wind energy, wave energy, and oil-bearing algae, in addition to the 4D “Greenergy the Adventure” film.

- **Biodiesel production:** Since 2009, the Company has invested in a biodiesel plant on its property in Bang Pa-in, known as Bangchak Biofuel Co., Ltd. The company was set up in support of the public policy on alternative-energy promotion while generating income for farmers. In 2012, Bangchak Biofuel underwent de-bottlenecking to raise its capacity from 300,000 to 360,000 liters per day to accommodate the rising biodiesel demand.
- **Ethanol production:** The Company acquired 583,000 common shares (or 21.28% of the total shares) in Ubon Bio Ethanol Co., Ltd., located in Amphoe Na Yia, Ubon Ratchathani, with a 400,000 liters per day capacity. The plant can run on fresh cassava, cassava chips, and molasses.
- Raised the sales volume by expanding the number of service stations in areas with high potential. It launched the maiden flagship “Green Station” on Vibhavadi Rangsit Road, a sizeable station featuring modern looks and environmental friendliness complete with amenities and non-oil businesses.
- The first Bangchak service station in Myanmar was launched in Myawaddy, with quality fuel products on sale.
- Bangchak continually promoted and expanded sales of Gasohol E20, and Gasohol E85. In 2012, the Company raised the number of service stations selling Gasohol E20 by 127, and selling Gasohol E85 by 21, making total number selling E20 and E85 nationwide 581 and 51 respectively.
- The Company continued to stress the quality of service and the image of Bangchak service stations of cleanliness, modern looks, and responsiveness to more customers’ needs. In 2012, Bangchak service stations came in second in a Brand of Choice survey (fourth consecutive year) by research company. Due to the advancement and popularity of communication technologies, the Company has developed iPhone and Android smartphone applications to inform users of immediate retail price movement of Bangchak’s products and location of Bangchak service stations nationwide.
- Bangchak promoted and improved the image of non-oil businesses at service stations to grow income and embrace comprehensive



services, including sales of consumer products at Baichak and Lemon Green outlets. In 2012, the Company in conjunction with Big C Supercenter PLC launched “Big C-Mini” convenience stores at seven sizeable service stations, designed to ease customers’ needs, with a plan to expand these to other service stations nationwide. In addition, the Company has introduced a new car-care service called Green Series.

- The Company continued to manage Inthanin coffee shops, among others. They are now found in educational institutions nationwide, office buildings, and department stores to make the name better known. The Company has also undertaken a project to promote well-behaved youths for society by showing recent, attractive short films about alternative energy, environmental stewardship, and energy conservation. Meant to stress living one’s life under the Sufficiency Economy and volunteering for public services, the films were screened at 12 Inthanin coffee shops in 12 educational institutions from 232 Inthanin coffee shops nationwide (as of December 2012).
- Bangchak has constantly stressed expansion of its lubricant market to the industrial sector and markets in neighboring countries, staged sales promotional activities, improved quality products further, and improved lubricant containers to ease application while being green. The total sales turnover of lubricants for the year grew a healthy 23% to about 2.9 million liters per month.
- Employee engagement was Bangchak’s focus, as evident in such engagement for the year exceeding that of the year before, with a promising outlook, according to a world-class consultant company
- Information technology was promoted as a tool to enhance the efficiency and transparency of work processes, including the development of SAP ERP 6.0 and Auto Desk Plant Design, improvement of IT Disaster Recovery to accommodate BCM, and improvement of the Storage Expansion System.

#### Awards of 2012

- SET Awards of Honor, presented at the SET Awards 2012 event, organized by the Stock Exchange of Thailand (SET) and Finance and Banking Magazine:
  - Top Corporate Governance Report Award, in its seventh straight year. This award honored listed companies with outstanding reports on compliance with corporate governance



- Best Corporate Social Responsibilities Award, in its sixth straight year. This award honored listed companies with outstanding social responsibility practices.

In addition, the Company won an Outstanding Corporate Social Responsibility Award and Outstanding Investor Relations Award.

- Recognition Awards 2012 “THE BEST OF ASIA”, organized by Corporate Governance Asia Magazine:
  - Asian Corporate Director Recognition Award 2012, this award honored Dr. Anusorn Sangnimnuan as the Company’s leader with his contributions in growing the business, social responsibility, environmental protection and also efforts in raising the standards of corporate governance practice in the country.
  - Corporate Governance Asia Recognition Award 2012, this award was given in recognition to the Company’s continuing commitment to the development of Corporate Governance in the region.
- Outstanding Entrepreneur Award honors Dr. Anusorn Sangnimnuan with his contributions in growing the business, corporate governance, and social & environmental responsibility., presented at ASIA PACIFIC ENTREPRENEURSHIP AWARDS 2012 THAILAND” , organized by Enterprise Asia, a leading NGO for entrepreneurship development in Asia.
- Gold Award, presented at The Asset Asian Awards 2012, organized by The Asset Magazine. This award honors based on the magazine’s consideration of management, corporate governance, financial, social responsibility, and investor relations aspects.
- Best Investor Relations Award honors companies with outstanding investor relation, given by votes from the readers of magazine, investors, analysts, etc., presented at 2<sup>nd</sup> Asian Excellence Recognition Awards 2012 event, organized by Corporate Governance Asia Magazine.
- IP Champion 2012, in recognition of successful creative entrepreneurs that effectively applied intellectual properties in commercial senses and were commercially outstanding, sponsored by the Department of Intellectual Property, Ministry of Commerce.
- ICT Excellence Awards (under the category of Thai software application) in recognition of entities with excellence in IT and communication management for the e-Legal System, presented at the Thailand ICT Excellence Awards 2011, sponsored by the Thailand Management Association and the National Electronics and Computer Technology Center.

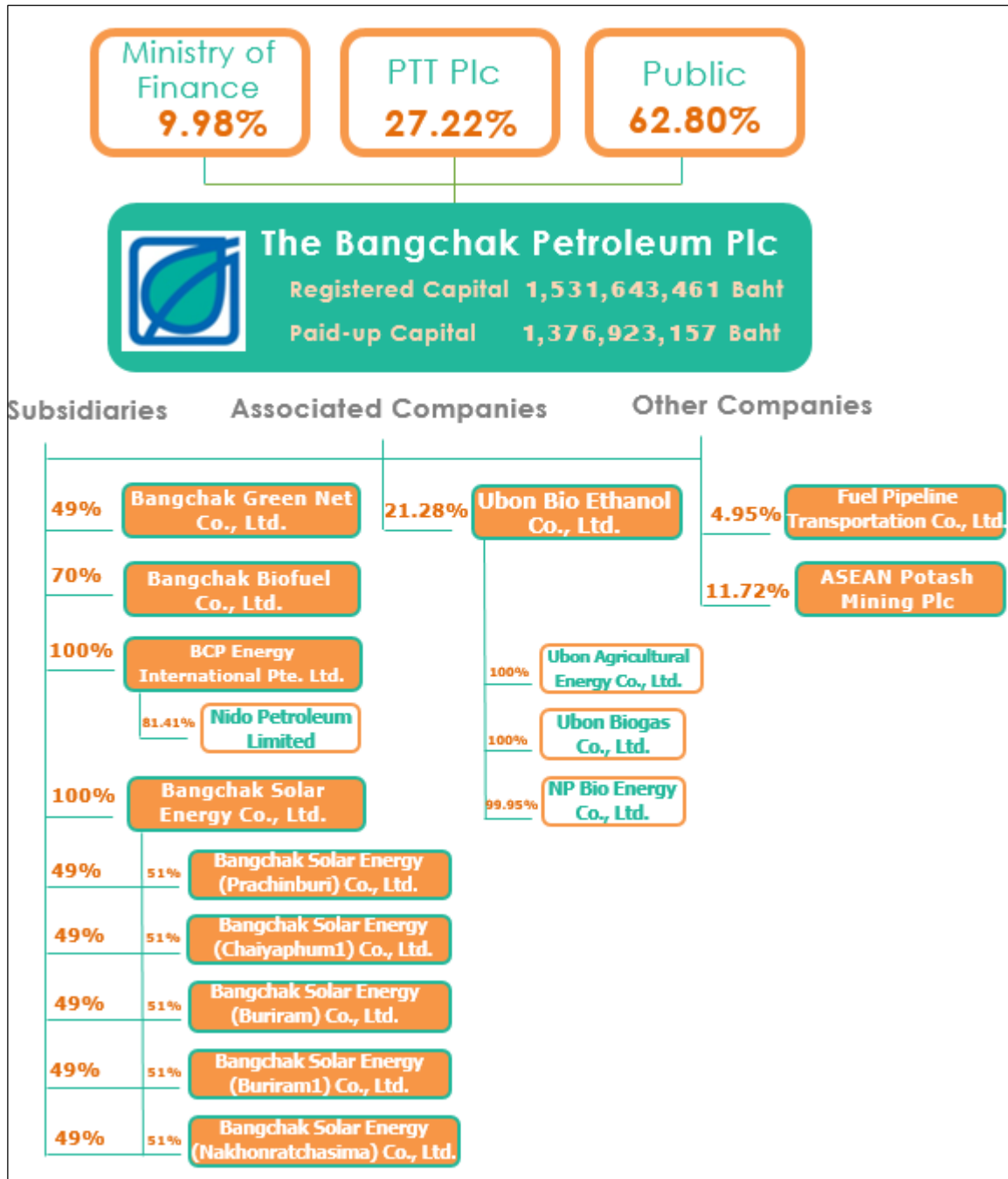


- The assessment outcome of a survey on corporate governance reports of listed companies of 2012, given by Thai Institute of Directors (IOD), showed that the Company commanded 'excellent' ratings in over all categories.
- An excellent score for its quality under the Annual General Meeting (AGM) for 2012 project, given by the Thai Investors Association.
- First prize in the category of clean and pleasant service stations under the Clean and Pleasant Bangkok Project 2012, and clean toilets in compliance with the standard of Department of Health, Ministry of Public Health, in recognition of Bangchak's Vibhavadi Rangsit service station (Thailand's first green station), sponsored by Bangkok Metropolitan Administration. The prizes promoted and upgraded the environmental standards of buildings and public places.
- ISO/IEC 27001:2005 standard certification, under the category of information security management, presented by Bureau Veritas (Thailand) Co., Ltd.
- The Certificate of Green Industry Level 4 (Green Culture), given by Ministry of Industry, which certified that the Company had a systematic environmental management, including the monitoring and continuing development.



## 1.2 Shareholding Structure

### Equity Chart of Bangchak Petroleum Plc and Other Companies



### Bangchak Green Net Co., Ltd. (BGN)

Bangchak Green Net Co., Ltd. was set up to manage service stations and *Inthanin* coffee shops, and sell consumer products in *Lemon Green* and *Bai Chak* convenience stores to support the continued expansion of its retail business.

**Bangchak Biofuel Co., Ltd. (BBF)**

Bangchak Biofuel Co., Ltd. is located in Amphoe Bang Pa-in, Ayutthaya. It was set up to develop and produce domestic alternative fuels, with a 360,000-liter per day biodiesel plant running mainly on crude palm oil, with management philosophy is centered on environmental care. The design and construction of its wastewater treatment system yield high water quality that meets the standard of the Department of Industrial Works. In addition, the company's artificial pond leverages natural re-treating of wastewater before recycling it to plants and processes. This closed system is an extremely effective consumption of water. Today, BBF is constructing its second biodiesel unit with a capacity of 450,000 liters per day, which will raise its B100 capacity to 810,000 liters per day.

**Bangchak Solar Energy Co., Ltd. (BSE)**

Bangchak operates a photovoltaic (PV) power generation plant, known as Sunny Bangchak, in its first phase with a capacity of 38-MW PPA in Bang Pa-in District, Phra Nakhon Si Ayutthaya, with the first commercial sales date in April 2012. Promoting the solar power plant at Bang Pa-in as Thailand's first integrated learning center and alternative-energy tourist attraction, it founded Bangchak Solar Energy Co., Ltd. (BSE), a wholly owned subsidiary, to manage the project. The second phase, with a capacity of 32-MW PPA (16 MW PPA at Bamnet Narong District, Chaiyaphum, and 16-MW PPA at Bang Pahan, Phra Nakhon Si Ayutthaya), had their first commercial sales dates on March 6<sup>th</sup> and April 5<sup>th</sup>, 2013 respectively. Phase three, with a capacity of 48-MW PPA, is in five locations: Kabin Buri District, Prachin Buri; Dan Khun Thot, Nakhon Ratchasima; Prakhon Chai District, Buri Ram; Nong Ki District, Buri Ram; and Bamnet Narong, Chaiyaphum. The entire project having been completed and commercially operated in April 2014. Hence, the company has fulfilled the production and sale of power from its solar farm under its PPA (power purchase agreement) of 118 MW.

**BCP Energy International Pte.Ltd. (BCPE)**

BCP Energy International Pte. Ltd. (BCP Energy) was set up in Singapore to engage in businesses concerning energy, petrochemical, and natural resources abroad. BCP Energy has acquired 402,951,875 common shares (81.4%) in Nido Petroleum Ltd., which is listed on the Australian Securities Exchange and engages in oil and gas exploration and production with a focus on Southeast Asian resources. Nido Petroleum has produced oil from the Galoc field and the Nido & Mantiloc Block A and Block B in the Philippines, totaling 8,000 barrels per day. Its shareholding in such resources are 22.88%, 22.49%, and 28.28%. In





addition, it is in the process of developing the West Linapacan oil field in the Philippines and exploring for crude oil in the Baronang, Cakalang PSC, and Gurita PSC fields in Indonesia.

**Ubon Bio Ethanol Co., Ltd. (UBE)**

Ubon Bio Ethanol Co., Ltd. manufactures ethanol from fresh cassava roots and cassava chips, with a capacity of 400,000 liters per day or 132 million liters per year. UBE also has few subsidiaries which were set up to transmute cassava, and own the biogas power plant which use the water that comes out from the production processing.

**Fuel Pipeline Transportation Co., Ltd. (FPT)**


Fuel Pipeline Transportation Co., Ltd. was set up to manage fuel transportation through a network of underground, multi-product pipelines starting from the Bangchak Refinery in parallel with the railway leading to the Chongnonsri and Don Muang depots, and finally to the Company's Bang Pa-in Depot and FPT. This route was extended near the Makkasan area to Suvarnabhumi Airport to transport aviation fuel by JP-One Asset Co., Ltd.

**ASEAN Potash Mining Public Co., Ltd. (APMC)**

ASEAN Potash Mining Public Co., Ltd. was set up to explore and produce potash around Amphoe Bamnet Narong, Chaiyaphum, for the manufacturing and the retailing of potassium chloride fertilizers. This project arose from collaboration among ASEAN member countries to capitalize on the natural resources of member countries.



## 2. Business Description

A leading Thai petroleum company that imports crude oil from the Middle East, the Far East and indigenous sources and refining it into products with a maximum crude-processing capacity of 120,000 barrels per day, Bangchak Petroleum Plc operates more than 1,000 service stations under the  trademark and has grown its businesses to solar power plant and biofuel business. To grow its business base, in 2014, Bangchak moves into the petroleum exploration and production (E&P) business to secure national energy and grow sustainable value.

The company's complex refinery produces high-value gasoline and diesel products. Gasoline, gasohol, and diesel supplied by Bangchak's refinery all meet the EURO IV quality specifications set by the public sector. Bangchak was the first Asian company to come up with EURO 5-standard E20 gasohol with less than 10 ppm in sulphur content, a five-fold reduction from that under the Euro 4 standard. In addition, the refinery is highly energy-efficient with the purchase of power and steam from a cogeneration power plant (invested by PTT) and the use of clean-burning natural gas to power its processes in place of low-sulfur fuel oil.

In 2014, more than 70% of the refined products are sold directly to consumers through the company's own nationwide network of service stations. **The retail network consisted of 444 standard service stations and 626 community service stations (as of December 2014)** with direct distribution to users in the transportation, aviation, shipping, construction, industrial and agricultural sectors. Bangchak service stations focus on selling green alternative fuels, including Gasohol 91, 95, E20, and E85 and Hi-Diesel with biodiesel meet the criteria set by Ministry of Energy, and serves customers with supplementary businesses on their compounds. These businesses include the sale of consumer products at **Bai Chak and Lemon Green shops, and cooperation with Big C Supercenter Plc in launching Mini Big C convenience stores** at large service stations located close to communities, with a variety of goods. Bangchak service stations also house a service center for maintaining and changing lubricating oil and for car wash, collectively known as **the Green Series, namely Green Serve, Green Wash, Green Wash the Premium, Green Wash Auto Care, and Green Tyre**. Finally, they house over 320 **Inthanin** Coffee shops, which is now found at service stations and leading educational institutions, and are expanding to various key commercial locations. Currently, 17 Bangchak service stations sell NGV as an option for consumers. In addition to fuel products, **the company produces and**



**sells “Bangchak” lubricants oil and special lubricant products (transmission fluid, brake fluid, grease and others).** Apart from sales to domestic markets through the network of Bangchak service stations, shops, factories and OEM (original equipment manufacturer) market, the company exports its products under BCP LUBRICANTS brand.

Recognizing the significance of alternative energy, which benefits national energy security and lowers trade imbalances resulting from fuel imports, the company promoted alternative energy by blending ethanol with gasoline and biodiesel with diesel to obtain 91-octane and 95-octane gasohols together with E20 and E85, as well as Hi-Diesel. In order to ensure continued support to this effort, **the company set up Bangchak Biofuel Co., Ltd.**, to centralize biodiesel production. The 360,000-litre/day plant, worth over Baht 1,000 million, is located next to Bang Pa-in Depot in Amphoe Bang Pa-in, Ayutthaya province, and runs primarily on crude palm oil. To lower risks from uncertain supply of crude palm oil, the company initiated a project to turn deserted orange groves into oil palm plantations. At present, it has rented 1,200 rai of land in Nakhon Nayok province as an experiment site for the concept. It acquired common shares in Ubon Bio-Ethanol Co., Ltd. (UBE), located in Amphoe Na Yia, Ubon Ratchathani province, with a capacity of 400,000 litres per day. Another purpose is to enhance the security of ethanol supply to accommodate the company’s expansion plan for E20 and E85 gasohol sales. In addition, Bangchak has expanded the scope of its business to solar power plant project (through Sunny Bangchak) and signed a power purchase agreement with Electricity Generating Authority of Thailand (EGAT) and Provincial Electricity Authority (PEA) for an 8 baht/unit adder under a 118-megawatt (MW) power purchase agreement (PPA). In 2014, Bangchak invested overseas by forming BCP Energy International Pte. Ltd. in Singapore to engage in international energy, petrochemical, and natural resource businesses, which include branching investment into the upstream business. This company acquired common shares of Nido Petroleum Limited, which is listed on the Australian securities exchange and engages in oil and gas E&P with a focus on Southeast Asian resources.



## **Revenue Structure**

In 2014, revenue from sale of goods and rendering of services from the consolidated financial statements of the company and its subsidiaries totaled Baht 183,016 million, consisting of Baht 178,300 million from the company and the following from its subsidiaries, Baht 32,697 million from BGN. (where the Company holds 49% equity), Baht 5,317 million from BBF (where the Company holds 70% equity), Baht 1,879 million from BSE (where the Company holds 100% equity), and Baht 325 million from Nido Petroleum Limited (where the company's subsidiary holds 81.41% equity). Of this income, Baht 35,502 million was accounted for by connected transaction items, most of which came from selling refined products to Bangchak Green Net. Below is the revenue structure by product and service from all companies in 2012-2014.

Product/Service	Operated by	2014		2013		2012	
		Revenue (Baht Mill.)	%	Revenue (Baht Mill.)	%	Revenue (Baht Mill.)	%
Refined products <sup>1/</sup>	BCP and subsidiary	179,957	97.0	184,444	97.4	164,482	97.8
Consumer products	Subsidiary	361	0.2	578	0.3	764	0.5
Others <sup>2/</sup>	BCP and subsidiary	5,157	2.8	4,367	2.3	2,916	1.7
<b>Total</b>		<b>185,475</b>	<b>100.0</b>	<b>189,389</b>	<b>100.0</b>	<b>168,162</b>	<b>100.0</b>

Note: 1/ The proportions of earnings from sales of products in the domestic in 2014, 2013 and 2012 is 90.2%, 86.6% and 91.5% respectively.

2/ Other earnings, namely interest receivable, earnings from solar power plant revenue, hedging gain, profit from exchange rates, loss adjustment from impairment assets, earnings from sales promotions, land lease, service station lease, equipment lease etc.

**2.1 Products and Services** Bangchak sells four product groups, namely:

1) **Fuels** : comprising of

1.1) **LPG**

LPG is a mixture of hydrocarbons, that is, propane and butane, bottled in the form of liquid in high-pressured iron cylinders. LPG is mostly used as cooking gas in households and can also be used in the industrial sector, such as for refrigerator-paint heating, tobacco heating, glass cutting, iron welding, and iron sheet cutting. Besides, it is used to fuel gasoline-engine vehicles.



## 1.2) Gasoline

Gasoline is for gasoline-fuelled vehicles. The quality of gasoline is classified by its octane number, which indicates resistance to engine knocking. Earlier, Bangchak sold 95-octane and 91-octane gasoline under the Gasoline Greenplus 95 and Gasoline Greenplus 91 as the marketing names. Then, in 2001, the company started to sell gasohol, a blend of gasoline and ethanol (ethyl alcohol) or 99.5% pure alcohol produced from sugar cane and tapioca (cassava) at the ratio of 10%, launching under the marketing names of Gasohol Super Fast 95 and Gasohol Super Fast 91. The new products are compatible with gasoline vehicles and have been confirmed by a number of motorists that no engine modification is needed.

Gasohol offers benefit in many areas, for instance, reduction of air pollution, financial savings for import avoidance of MTBE (Methyl Tertiary Butyl Ether), reduction of impacts from high oil price, and shoring up of crop prices – which draw investment and employment to rural areas. In December 2007, Bangchak discontinued the sale of gasoline Greenplus 95 following the government's alternative energy policy to promote biofuels and improve the environment.

In January 2008, Bangchak started marketing E20 gasohol, a blend of gasoline and ethanol at the ratio of 80:20, offering an octane rating of 95 under the Ministry of Energy's standards. The fuel is compatible with vehicles designed for E20.

In November 2008, Bangchak introduced E85 gasohol to the market. A mixture of gasoline and ethanol at the ratio of 15:85, with an octane rating higher than 100. The fuel follows the standards of E85 in the US and Europe and is compatible with vehicles designed for E85. It cleans the engine and can best reduce pollution from engine combustion compared with other fuels.

In November 2011, Bangchak was successful in producing and marketing gasohol under the Euro4 standard with a tenfold reduction of sulphur and 2.5-fold reduction of benzene. The fuel completes combustion and reduces toxic vapor, thus benefiting the environment and clean air. The product was launched even earlier than the official enforcement on January 1, 2012.

In March 2013, Bangchak became the first in Asia to sell E20 gasohol of the Euro 5 standard, under which the sulphur content is lower than 10 ppm or a fivefold reduction from that of Euro 4 standard. It can thus better reduce pollution caused by engine combustion. Moreover, the new fuel is produced with the Supertech formula, which contains two additives, namely Boost up Cleaner, a detergent that benefits complete combustion.



### 1.3) Aviation fuels

Intended for commercial jets, Jet fuels must be clean and absolutely pure. They have extremely low freezing points with specified gravities and heat values. Jet fuels produce clean combustion with its properties remaining constant throughout the operation.

### 1.4) High-speed diesel

High-speed diesel is for vehicles with diesel engine, such as cars, trucks, fishing trawlers, passenger boats, and tractors.

In 2004, Bangchak took part in the Department of Alternative Energy Development and Efficiency's research on the production and use of biodiesel, a kind of alternative energy produced from crops that is comparable in quality to diesel. Biodiesel lowers air pollution while offering savings from oil imports. As a result of continuous development, Bangchak's diesel is a blend of 5% of biodiesel with the conventional diesel, with a commercial name of Biodiesel PowerD B5. It can be used with diesel vehicles without engine modification. (The mixing ratio of biodiesel is subject to the government's directive.)

In April 2010, Bangchak started selling a new type of diesel, Bangchak Super Power D of the Euro 4 standard, in which two US-certified additives were blended. One is Super Power, which enhances complete combustion. The other is Super Clean, which cleans the injection device, thus making the engine work at its full capacity. With Bangchak's emphasis on being the leader in fuel quality and environmental friendliness, the new Bangchak Super Power D lessens pollution from combustion and reduces the sulphur content by sevenfold, while also reducing carbon monoxide, hydrocarbon, nitrogen oxide, and dust particles. The fuel was launched one year and a half ahead of the government's enforcement ( which forced on January 1<sup>st</sup>, 2013).

In March 2014, the company launched "Bangchak Hi-Diesel", a high-quality new product with better performance due to the Hi Clean additive, which promotes complete combustion, clean engines, and full-strength performance. As a result, consumers save fuels, while the Hi Power additive gives more power to engines.

### 1.5) Fuel oil

Fuel oil is part of the crude with a high boiling point. It is largely used in the industrial and transport sectors. It also powers marine vessels and power generation. Produced fuel oil is low sulfur with high quality and environment friendly.



**2) Lubricants:** Lubricants are used to coat engine surfaces to reduce friction so as to slow down the engine's wear and tear while helping in cooling, power transmitting, and cleaning of soot and metal dirt caused by friction. Bangchak sells three types of lubricant products:

### 2.1 Auto lubes

Bangchak's auto lubes comprise the GE Series for gasoline vehicles and the D3 Series for diesel vehicles, lubricant for two-stroke engines, transmission oil, and brake fluid, and so forth.

### 2.2 Industrial lubricants

Lubricants in this category include hydraulic oil, industrial gear oil, heat transfer oil, turbine oil, air compressor oil, and cutting fluid.

### 2.3 Grease

Grease products comprise of multi-purpose grease, heavy-duty and heat-resistant grease, and food-grade grease.

Bangchak lubricants meet API standards, European standards, and standards set by major car manufacturers. In 2008, Bangchak was awarded ISO 9001 : 2008 from The United Kingdom Accreditation Service (UKAS) and Thailand's National Accreditation Council (NAC) for its integrated lubricant business (ranging from procurement, product development, and marketing), and ISO/TS 16949 : 2009 International Automotive Task Force (IATF) for its product development and for being the first in Thailand entrusted for producing lubricants for the automotive industry.

**3) Feedstock for refineries and petrochemical plants:** comprising

### 3.1 Straight Run Fuel oil (Long Residue)

This is an intermediate raw material for feeding the refining process with a cracking unit.

### 3.2 Reformate

Reformate is petrochemical feedstock. It is extracted to produce aromatics or gasoline.

### 3.3 Isomerate

Isomerate is feedstock for petroleum refining processes in the production of gasoline.

**4) By-product:** Sulphur, which is naturally associated with oil, is considered a by-product. Sulphur can be extracted for several direct uses, such as for blending in the production of sulphur acid, car tires,



pesticides, fertilizer, bleaching, sugar, and shampoo, and for production of sulphur compounds.

## **2.2 Marketing and Competition**

### **Refining Business**

- Bangchak is determined to develop products to satisfy the market and customers with an emphasis on environment-friendliness ('green'). The company, moreover, expanded its logistics cooperation with business partners to achieve cost-effectiveness and reduce manufacturing and marketing limitations. Regarding refining process upgrading and production efficiency control, the implementation of the Product Quality Improvement Project has rendered Bangchak's crude sourcing more flexible, while creating more added value to products in the long run.
- The company maintained new crude oil supply which yields low-sulfur fuel oil for exports and is thus more financially attractive than domestic consumption.
- Bangchak established operational excellence enhancement, strived for plant reliability, and prevented unplanned shutdowns through plans encompassing personnel and process safety excellence. To this end, it focused on managing high-risk processes and formalized its process safety management system. For efficiency and reliability excellence, it constantly managed business risks through SIL (Safety Integrity Level), RCM (Reliability-Centered Maintenance), and RBI (Risk-Based Inspection) for all processes and equipment. For environmental protection excellence, the company commissioned experts to upgrade the standards for refinery environmental practices, safety, and work processes, thus garnering recognition worldwide. Besides valuing refinery safety, environment, and process equipment, the company minimized risks of oil leaks in the transport system by requiring that all crude oil and petroleum product vessels are to be double-hulled.
- The company regularly improved refining efficiency by executing the 3E (Efficiency, Energy, and Environment) Project to add value to products by installing a catalytic reforming unit in place of the obsolete one with efficient CCR (continuous catalyst regeneration), improved consumption of energy, lengthening of turnaround cycles, construction plan of cogeneration power plants for greater energy stability, and striving to raise its safety level and environmental stewardship.
- Bangchak achieved ISO 50001:2011 certification for energy management under the ANAB (American National Accreditation Board), echoing the success in developing and upgrading the





standards for energy management systems at Bangchak Refinery and Oil Distribution Centers on a par with world-class refineries.

Marketing Business comprises of two sectors, namely the retail market and industrial market.

- Retail market – Bangchak embarked on its retail network restructuring with an emphasis on investment in strategic locations to generate higher income and sell higher volumes. As the leader in alternative energy is still the highlight, Bangchak also undertook its station rebranding, particularly along major roads, with a focus on service upgrading to impress customers by providing training and knowledge to station operators and workers. The Mystery Shopper project was also initiated to ensure service standards. Bangchak, in addition, joined PTT in launching NGV refueling stations while continuously expanding its non-oil businesses, namely Inthanin Coffee shop; the Green Series backyard services, which are Green Wash , Green Serve, and Green Auto Service; and Big C-Mini, in cooperation with Big C Supercenter Plc. In 2014, the company emphasized on rebranding community service stations in order to build confidence to new cooperatives which interested and ready to operate new service stations. It is good opportunity to expand network and marketing channel through cooperatives, and it could generate income to the community.
- Industrial Market – Products in the industrial market mostly involve aviation fuel, diesel, fuel oil, and lubricants. Bangchak’s Jet A-1 is sold to Thai Airways International Plc. In the diesel market, where price competition has become fiercer due to the need to release refined volumes that exceed domestic demand, Bangchak turned to exports to neighboring countries. For the fuel oil, price competition was still strong, following a sharp fall in demand. Bangchak, therefore, maintains its sales standard by focusing on quality products and services while keeping close ties with major customers. In the lubricant market, Bangchak managed to expand exports to neighboring countries.

### **Industry and competition**

The refining business faces tough competition in the regional market because prices are dictated by the location of the refinery. Therefore, refineries are found scattered around the locations where demand exists. Unlike the crude oil industry, the competition at the global level depends on the quality of crude oil and the field’s geographical conditions.



**In the refining industry, there are two main types of refinery, namely:**

- **Hydroskimming is Simple Refinery** with distillation processes. The simple process separates components of crude into light oil (gasoline), middle distillates (aviation fuel and diesel), and heavy oil (fuel oil), the proportions of which depend on the properties of crude.
- **Conversion Cracking is Complex Refinery** with a cracking unit, a process added to the distillation process. Conversion cracking turns some heavy oil into lighter products of higher value. However, this type of refinery requires some additional investment in the cracker and bears higher operating costs.

In general, yields from a Simple Refinery vary from those from a Complex Refinery, depending on the following factors:

- (1) The desired products, such as gasoline, diesel, and fuel oil
- (2) The type of crude, such as sweet crude, sour crude, light crude, and heavy crude
- (3) Some special specifications of the desired products, such as the sulphur content.

Thailand experienced slow growth throughout 2014 with economic expansion of 0.7%. Even though political tensions have eased, the overall economy still featured declining private investment and higher household debts. The former was caused by the relocation of manufacturing bases of various businesses to neighboring countries due to Thailand's higher labor costs and low production technology that could not keep up with modern market's demand. The agricultural sector encountered falling prices, while the export sector was hampered by the slow recovery of Thailand's trading partners. Even worse, budget disbursement could not be much expedited despite the government's short-term economic stimulus package. The tourism sector managed to pick up toward the end of the year. In addition to negative impacts from Thailand's own economic structure, the country was hurt by the US's QE lifting and the stronger dollar, as well as the sluggish economies of trading partners. The situation, as a result, hindered fund flows into Thailand, while the Thai Baht became weaker than in the previous year. The value of the Thai currency averaged Baht 32.62 to the dollar, moving between Baht 31.92 and 33.24 per dollar. In 2015, the Baht is to be closely watched. Positive factors would be a situation in European countries, China, Japan, and Russia, which would still have to struggle with their economies with the need to maintain QE measures to feed more funds into the market. On the other hand, the Baht could weaken with the US's improved economy. The Fed, meanwhile, is expected to increase the



interest rate. Even though the lower oil price has been favorable for the public's cost of living and the cost of manufacturing sector, the Thai economy would still have to struggle with household debts, falling prices of agricultural products, and the shrinking export and manufacturing sectors. The situation may prompt the Bank of Thailand to lower the interest rate to shore up the economy. Investors would still be worried about Thailand's general elections following enactment of the new constitution. These would, not surprisingly, discourage economic expansion. The Office of National Economic and Social Development Board (NESDB) on February 16, 2015, predicted that the Thai economy in 2015 would expand slowly between 3.5% and 4.5%

### Domestic oil business

In 2014, Thailand recorded 1,222 million barrels per day of total refining capacity with a daily average of 1,020 million barrels, a decrease of 2.9% from that of 2013. In 2015, domestic refining capacity is bound to rise from the previous year, since there is no plan for turnaround maintenance shutdown among local refineries.

### Refining Capacities and Average Crude Run of Domestic Refineries 2014

Refinery	Type	Capacity (thousand barrels/day)	Average crude run (thousand barrels/day)	Capacity utilization (%)
Thaioil	Complex	275	282.8	102.84
IRPC	Complex	215	174.0	80.93
Esso	Complex	177	134.1	75.76
SPRC	Complex	155	162.7	104.97
PTTGlobal Chemical	Complex	280	188.5	67.32
Bangchak	Complex	120	86.1	71.75
<b>Total</b>		<b>1,222</b>	<b>1,028.2</b>	<b>84.1</b>

Source: Department of Energy Business

### Marketing business

Domestic demand for fuels during 2014 rose from last year by 0.8%, representing total demand of 878,300 barrels (139.6 million liters per day). Amid the more relaxed political climate, the Thai economy still moved slowly under the country's economic structure. Demand for products in the gasoline group increased by 5.9% in response to NEPC's decision to discontinue the sale of 91-octane gasoline on January 1<sup>st</sup>, 2013, to promote domestic renewable/alternative energy. Demand for aviation



fuels, on the contrary, declined as a result of domestic political turbulence, as well as the slow economies in Europe, Japan, and China, which deterred tourists.

### Domestic demand for fuels (million liters per day)

Product	2014	2013	2012
Gasoline	1.5	2.1	8.9
Gasohol	21.9	20.5	12.2
Gasoline group	23.4	22.6	21.1
Diesel group	57.7	57.2	56.2
Aviation fuel	15.1	15.2	14.0
Fuel oil	5.9	5.9	6.5
LPG	37.6	37.6	36.8
<b>Total</b>	<b>139.6</b>	<b>138.5</b>	<b>134.6</b>
<b>(KBD)</b>	<b>878</b>	<b>871</b>	<b>846</b>

Source: Department of Energy Business

It is expected that domestic fuel demand in 2015 would grow after receiving a push from the decreasing world oil price and foreign investors' interest in ASEAN. The inauguration of Asean Economic Community (AEC) at the end of 2015 should drive fuel demand up. Demand for gasohol, meanwhile, is expected to rise further in line with the higher number of vehicles and the government's policy to promote renewable/alternative energy. Yet, Thailand's economy is still fragile and lacks confidence from foreign investors. Oil demand in the industrial sector, therefore, will not soar, while the household sector will still struggle with debts, which limits individuals' daily spending.

As for the number of service stations, at the end of 2014, a total of 24,213 stations were registered, an increase of 5.3% from 23,004 stations last year. Among major oil companies, PTT and Esso stations have increased by 2.9% and 1.0%. On the contrary, the number of Shell and Bangchak stations has declined by 5.0% and 0.4%.

As a result of the government's promotion of alternative energy through the discontinued sale of 91-octane gasoline as of January 1<sup>st</sup>, 2013, onward, the number of service stations selling E20 and E85 gasohol has



increased. As of December 31<sup>st</sup>, 2014, E20 and E85 were available at 2,665 and 596 stations, an increase of 620 and 316. Domestic oil traders revealed their plans to continuously expand their sale of renewable/alternative energy in response to the government's Alternative Energy Development Plan (AEDP) and the larger number of vehicles. Oil retailers have now improved their stations' features and appearances with supplementary services and facilities to provide consumers with more choices while enhancing their competitiveness. Some domestic oil retailers are trying to stretch their networks into neighboring countries to capitalize on the imminent AEC.

### Number of service stations

Unit : station

Oil trader	2014 <sup>1/</sup>	2013	2012
PTT	1,505	1,462	1,404
Shell	489	515	533
Esso	511	516	512
Bangchak	1,070	1,074	1,067
Chevron	359	366	371
PTTRM	147	148	146
Others	20,132	18,923	17,373
<b>Total</b>	<b>24,213</b>	<b>23,004</b>	<b>21,406</b>

Source: Department of Energy Business

Remarks: <sup>1/</sup> number of stations as of December 31<sup>st</sup>, 2014

During the year, the average sales volume of oil products through service stations around the country was 1,655.2 million liters per month, an increase of 4.0% from last year, in which 1,591.8 million liters per month was recorded on average. Bangchak's sales volume through service stations increased by 6.2%, with a market share increase of 0.3% in this sector.

### Sales volume of fuels through service stations for 2013 - 2014

Operator	Average Sales volume (million liters/month)			Market share (%)		
	2014	2013	Δ	2014	2013	Δ
PTT	610.1	608.2	0.3%	36.9	38.6	-1.3
Bangchak	250.5	235.9	6.2%	15.1	14.8	0.3
Esso	240.8	239.8	0.4%	14.5	15.1	-0.5
Shell	211.9	201.6	5.1%	12.8	12.7	0.1



Thai Oil	105.4	74.0	42.4%	6.4	4.7	1.7
PTTRM	102.1	103.0	-0.9%	6.2	6.5	-0.3
Chevron	85.9	87.3	-1.6%	5.2	5.5	-0.3
Susco Group	24.6	25.9	-5.0%	1.5	1.6	-0.1
PTG Energy	18.4	12.1	52.0%	1.1	0.8	0.4
Others	4.6	3.2	45.3%	0.3	0.2	0.1
IRPC	0.9	0.7	23.5%	0.1	0.04	0.01
<b>Total</b>	<b>1,655.2</b>	<b>1,591.8</b>	<b>4.0%</b>	<b>100</b>	<b>100</b>	

Source: Department of Energy Business and Bangchak Petroleum PLC.

In lubricant market, the sluggish economy impacted business with the industrial group, depressing sales (exclusive of lube base oil) for the year to 3.4 million liters per month, a 4.6% drop from 3.5 million liters per month last year. In view of domestic sales volumes through Article 7 traders, however, Bangchak's sales were up by 2.3%, reaching 2.5 million liters per month, versus 2.4 million liters per month last year—which topped the percentage recorded by domestic sales volumes nationwide through Article 7 traders (a negative 3.2%).

**Product distribution and distribution channels:** Bangchak products are distributed through:

**1.1) Service stations** – This is the usual retail channel, which is, through service stations scattered around the country. Also in this category are community service stations, intended for sale to members. All products are delivered via road tankers.

**Bangchak's retail stations are operated in five formats, namely :**

	<b>Station Format</b>	<b>Number (station)</b>	<b>Share (%)</b>
1.	<b>Company-Owned, Company-Operated stations (COCO):</b> Bangchak is the investor and operates the station through Bangchak Green Net Co., Ltd. Bangchak takes control of the policy and business model. COCO stations are mostly large stations located on major roads, and, under Bangchak's direct supervision, serve as prototype stations.	182	17.01
2.	<b>Company-Owned, Dealer-Operated stations (CODO):</b> Bangchak is the investor and land owner, while the station management is carried out by experienced operators, who rent the stations.	63	5.89



<b>Station Format</b>		<b>Number (station)</b>	<b>Share (%)</b>
<b>3.</b>	<b>Joint Venture stations (JV):</b> This is a joint investment between Bangchak and operators interested in running the service station business.	75	7.01
<b>4.</b>	<b>Dealer-Owned, Dealer-Operated stations (DODO):</b> The operator is the station owner, land owner, and sole investor, as well as a distribution agent.	124	11.59
<b>5.</b>	<b>Co-Operative stations (CO-OP):</b> These stations are invested by the community. In most cases, the community is the land owner and investor.	626	58.50
<b>Total</b>		<b>1,070</b>	<b>100.00</b>

Remarks: Bangchak Petroleum PLC, as of December 31, 2014.

**1.2) Industrial sale** – This sales channel serves industrial plants and businesses with fuel demand for heating and producing products and services, such as food, textiles, paper, chemical, iron, and metal industries. Customers deal direct with the company, and deliveries are arranged by road tankers, except for some factories with their own piers.

**1.3) B2B** – This channel serves businesses with large purchase volumes like airlines, cargo/passenger, land and marine transport companies, as well as construction companies. These customers deal direct with the company, and deliveries are carried out by pipeline (for airlines), boat, and truck.

**1.4) Sale to other oil companies** – This is the sales channel among large and medium-sized oil traders who own oil depots. Purchased products are distributed through customers' own networks to end-customers. Deliveries are normally carried out by pipeline or customers' trucks.

**1.5) Sale to refineries and petrochemical plants** – This is the sale of refined products in the form of feedstock to petroleum or petrochemical production process, such as naphtha for the aromatics unit. Deliveries are normally carried out by boat.

**1.6) Export sale** – Deliveries are normally carried out by marine vessel to overseas oil traders.

**Types of customer** – Bangchak's customers can be classified by purchasing method:

**1) Outlet & End-User Customers** – This group of customers are those buying Bangchak brand oil products through stations operated by either the company, dealers, or communities. Also in this group are corporate



customers like factories, construction companies, airlines, cargo and passenger boats, and government agencies and state enterprises.

**2) Supply Sales Customers** – These customers are small and large agents, such as PTT, who order finished products from Bangchak for further distribution. Deliveries are made direct to customers' sites or outlets in their networks.

**3) Sale to domestic refineries and petrochemical plants** – Oil refineries and petrochemical plants normally order finished products from Bangchak for feedstock.

**4) Export Customers** – These customers are overseas oil traders who buy Bangchak oil to feed their production process, such as Low Sulphur Waxy Residue (LSWR) sold to customers in Singapore, Malaysia, and China to fuel power generators and feed their cracking units for producing higher-value gasoline and diesel for further distribution.

### **Bangchak's sales volume, categorized by type of customer**

Unit: thousand barrels/day

Type	2014		2013		2012	
	Volume	%	Volume	%	Volume	%
1. Outlet & End-User Customers	82.3	68.2	83.7	69.4	77.0	76.7
2. Supply Sales Customers	-	-	0.1	0.1	0.1	0.1
3. Sale to domestic refineries and petrochemical plants	16.5	13.7	16.4	13.6	12.7	12.6
4. Export Customers	19.6	16.3	20.4	16.9	10.6	10.6
Total	118.4	100.0	120.6	100.0	100.4	100.0

Source : Bangchak Petroleum PLC.





## **Sales value of Bangchak's products and services**

Products	2014		2013		2012	
	million baht	%	million baht	%	million baht	%
<b><u>Domestic Sale</u></b>						
1. High-speed diesel	81,991	44.7	86,663	53.2	78,492	48.2
2. Fuel oil	3,467	1.9	4,098	2.5	6,449	4.0
3. Gasoline	49,591	27.0	47,744	29.3	43,341	26.6
4. Other products and services	17,240	9.4	20,625	12.7	20,556	12.6
<b>Total domestic sale</b>	<b>152,289</b>	<b>86.9</b>	<b>159,130</b>	<b>86.8</b>	<b>148,838</b>	<b>91.4</b>
<b><u>Export sale</u></b>						
1. High-speed diesel	3,237	1.8	2,126	1.3	1,341	0.8
2. Fuel oil	15,966	8.7	19,014	11.7	10,542	6.6
3. Gasoline	2,422	1.3	1,314	0.8	1,196	0.7
4. Other products and services	1,345	0.7	1,777	1.1	812	0.5
<b>Total export sale</b>	<b>22,970</b>	<b>13.1</b>	<b>24,231</b>	<b>13.2</b>	<b>13,961</b>	<b>8.6</b>
<b><u>Combined sales value</u></b>						
1. High-speed diesel	85,228	46.5	88,789	54.5	79,833	49.0
2. Fuel oil	19,433	10.6	23,112	14.2	16,991	10.6
3. Gasoline	52,013	28.4	49,058	30.1	44,537	27.3
4. Other products and services	18,585	10.1	22,402	13.8	21,438	13.1
<b>Total sales value</b>	<b>175,259</b>	<b>100.0</b>	<b>183,361</b>	<b>100.0</b>	<b>162,799</b>	<b>100.0</b>
<b>% increase/decrease</b>	<b>-4.42</b>		<b>12.63</b>		<b>3.74</b>	

Source : Bangchak Petroleum PLC.

### **2.3 Supplies of products and services**

#### **1) Production capacity and production volume**

Bangchak's complex refinery, located on 210 Sukhumvit 64, Phra Khanong, Bangkok, boasts a refining capacity of 120,000 barrels per day and performs a 24-hour operation.

Production capacity (measured in 'barrels per day') means the refining system, piping system, and storage system that receive crude for turning into finished products at the maximum volume per day through the quality improvement system, piping system, blending system, storage system, and product distribution system. Every 24 months, Bangchak shuts down the system for maintenance, which normally lasts about 30 days, to keep up or upgrade the system's performance. The shutdown schedule depends on operational and economic circumstances.



Bangchak has, over time, upgraded and expanded its refining unit, while increasing storage tanks. Today's operation is considered efficient with high safety standards and environment management, which exceed standards.

### Bangchak's refining capacity and refining volume

Unit: thousand barrels/day

	2014	2013	2012
Nameplate capacity			
: thousand barrels per refining day	120	120	120
: thousand barrels per calendar day (A)	113.4	113.4	113.4
Output volume (by product)			
1. Diesel	42.4	48.5	39.9
2. Fuel oil	14.9	16.8	9.3
3. Gasoline	17.5	20.0	14.9
4. Aviation fuel, kerosene	8.6	10.8	7.7
5. LPG	2.9	2.5	0.8
6. Products for internal use and product loss during operation	0.0	0.7	0.9
Total output volume (B)	86.5	99.3	73.4
% increase of output volume	-12.9	35.4	-14.4
% of capacity utilization (B/A)	76.2	87.6	64.7

Source: Bangchak Petroleum PLC.

Remarks: 1/ Bangchak runs refining operation with three shifts of staff working eight hours per shift. Maintenance shutdowns are regularly scheduled to keep up or upgrade the refining process.

2/ The crude run does not equal the refining capacity because additives are excluded.

3/ The gasoline output excludes the amount of MTBE and ETOH in the production of GSH and ULR.

- In August 2003, Bangchak hired Universal Oil Products (UOP) to assess the refinery's efficiency, with the following findings:

**1. Inspection:** At all times, Bangchak has kept its refining machinery in good operating conditions. All materials in the refinery are tidily kept, which supports easy work flow. Similarly, work tools are kept in good conditions. According to staff interviews, UOP found no negative comments about the conditions of tools and machines in the refining process.

Regarding the life of Bangchak Refinery, in UOP's view, a lot of refineries in North America, which have been running for over 50 years, possess similar refining technology to that of Bangchak. Therefore, there is no limitation for Bangchak Refinery, which



conducts regular inspection and maintenance, in carrying on its operation for a comparable period.

- 2. Reliability:** Overall, Bangchak Refinery is highly reliable as a result of preventive maintenance and equipment condition monitoring. By UOP's inspection experience, Bangchak Refinery is better managed than many other refineries in North America.
- 3. Process Control:** UOP found that Bangchak Refinery is equipped with good control and safety systems, and conforms to the government's regulations.
- 4. Offsites, Utilities and Refinery Oil Loss:** Utilities and the various supporting systems were able to support the output volume. These systems are steam and power generation, water supply, waste management, air and nitrogen system, and the crude and product storage system. UOP also discovered that Bangchak's production system was well managed and did not harm the environment. The refinery should, therefore, maintain these standards.
- 5. Process Technologies:** Overall, existing technologies were found capable of responding to refining demand. However, new technology may be required to cope with the expected change in demand.

- In 2004, Bangchak hired UOP LLC and Foster Wheeler Corporation, which are the proprietors of world-class refining technologies from the US, to conduct a technological inspection and provide investment options for upgrading the refining efficiency and reducing the production of fuel oil. They recommended that Bangchak install a vacuum distillation unit and hydrocracking unit, together with other supporting units, to reduce the production of fuel oil from 30% to 10% of the total production. This became Bangchak's Product Quality Improvement Project (PQI).
- On August 29, 2005, the Board of Directors agreed on an investment in a hydrocracking unit to facelift Bangchak Refinery from a simple refinery into a complex one, capable of producing products of higher values.
- On April 21, 2006, Bangchak hired CTCI Overseas Corporation Limited and CTCI (Thailand) Co., Ltd., to construct a hydrocracking unit. Starting in May 2006, the entire project required 30 months for construction and a test run.
- In 2009, the Product Quality Improvement Project (PQI) was brought on stream and its commercial operation started in December, turning Bangchak Refinery into a complex refinery with higher capability. The refinery can take on a wider variety of crude oil and produce finished products of higher values.



- In 2013, realizing the need to upgrade the refinery's efficiency and reliability, particularly its safety and environmental conservation, Bangchak initiated projects gearing towards world-class excellence, namely:

### **1. Safety**

- Commissioning outside safety experts, that is, from DuPont, to assess the management system and provide recommendations on improvement of the refinery's process safety management
- Commissioning outside safety experts, that is, from Foster Wheeler, to help in risk analysis, as well as analytical and assessment techniques to identify risks and find out obstacles in the production process through HAZOP (Hazard and Operability Study)
- Being continuously successful in the reassessment of TIS 18001 / OHSAS 18001 standards

### **2. Reliability & Engineering**

- Commissioning outside safety experts, this is, from DuPont, to assess the management system and provide recommendations for improvement of the refinery's asset integrity management
- Commissioning engineering experts, that is, from Quest Integrity Service, to assess the management system and provide recommendations on improvement of the refinery's inspection management, and arranging for more stringent equipment inspection, that is, Risk Based Inspection (RBI), to ensure that vital refining equipment, especially those subjected to high pressure, are always ready for operation
- Improving the reliability of controlling equipment using the Safety Integrity Level (SIL) technique together with installation of highly reliable equipment
- Improving reliability of the power system
- Improving the machinery maintenance system, that is, the Reliability Centered Maintenance (RCM)

### **3. Process Technologies**

- The start-up of Tail Gas Treating Unit (TGTU) helped reduce contaminants from the stack emissions of the sulphur recovery unit.

### **4. Process Control**

- Some software was upgraded and the number of monitoring screens for the Distributed Control System (DCS) was increased.



## 5. Utilities

- The raw water production unit was upgraded by using the reverse osmosis technology.
- The wastewater management unit was upgraded and installed with a filter press unit and a reverse osmosis system.

## 2) Refining process

- **Fractional Distillation** – The refining process starts from breaking up crude oil into fractions in the refining unit by heating it at 370 degrees Celsius. Then, 60% - 70% of the crude will vaporize to the top of the refining column, where it finds the lowest temperature. When that vapor cools down, it condenses into a liquid and flow onto layers of trays, depending on their boiling points, as detailed below:
  1. The top layer, with the lowest temperature, is LPG.
  2. The second layer is Light Virgin Naphtha (LVN).
  3. The third layer is Heavy Virgin Naphtha (HVN) (both LVN and HVN will be blended with some additives to produce gasoline).
  4. The fourth layer is kerosene and aviation fuel.
  5. The fifth layer is diesel.
  6. The remaining liquid crude stays at the bottom of the distillation column, where the temperature is the highest. The liquid is known as the “Atmospheric Residue”.

Vaporization and condensation of crude oil from one tray to another is an ongoing steady-state process in a separate pipe placed beside the distillation column. This separate part is known as a ‘straight run’. Yields from the straight run process, including diesel, contain high cetane and ignite easily, thus easing complete combustion and making engines clean. The resulting fuel oil still has some blend of light yields, making it easy to ignite, thus giving complete combustion. While the excess air can be reduced, resulting in lower fuel and maintenance costs in the long run.

- **Treating:** Treating is to make quality improvement to crude and products by removing unwanted contents, such as sulphur. Treating units include the gas treating unit, naphtha production unit, low-sulphur diesel production unit of Euro 4 standard, and fuel oil treating unit, as well as gasoline production unit of Euro 4 standard.
- **Conversion:** Conversion is the process of changing oil molecule structures to achieve an oil product of higher quality and value. Conversion units include the gasoline production unit (isomerization, reforming) and fuel oil conversion unit.



- **Blending:** Blending is to mix at least two products together or to mix some additives into a product to achieve a product of higher quality.

**Fuel oil upgrading unit:** Since demand for fuel oil has been falling over time while Bangchak realizes the optimal use of resource, fuel oil produced in the straight run process is treated to achieve cleaner products of higher value, for example, fuel gas, cooking gas (LPG), light naphtha, heavy naphtha, aviation fuel, and diesel.

The above-mentioned treating method starts from moving the fuel oil from the distillation column to the vacuum distillation unit to remove Vacuum Gas Oil. The fuel oil molecules will then be broken up into fractions to produce the desired products. Here, hydrogen from the hydrogen production unit is fed in to help molecule fractioning complete. At the bottom of the vacuum distillation column, heavy fuel oil will be further treated for sale.

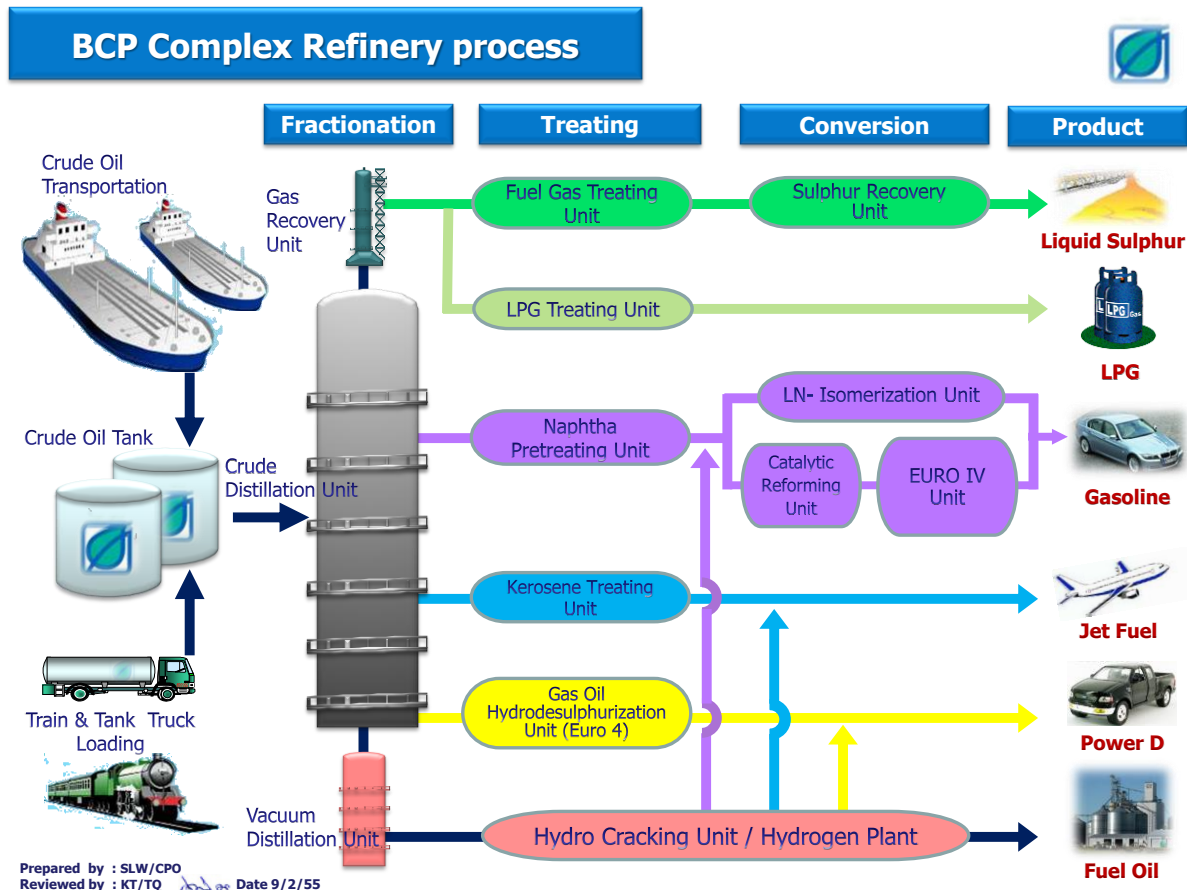
Products derived from molecule fractioning, comprising fuel gas, cooking gas (LPG), light naphtha, heavy naphtha, aviation fuel, and diesel, will be sent to the product separation unit.

Fuel gas obtained from the process will be refined by removing the sulphur content. Treated fuel oil, diesel after sulphur content removal under the Euro 4 standard, aviation fuel, and cooking gas are kept in storage tanks for sale.

**Low-sulphur diesel production unit of Euro 4 standard** – This is quality improvement for diesel, using hydrogen in combination with a catalyst under specified pressure. By the Euro 4 standard, sulphur content in diesel will be reduced sevenfold to achieve a highly pure product, which will be kept in storage tanks for sale.

Light naphtha and heavy naphtha will be sent to the naphtha production unit to reduce the sulphur content by tenfold under the Euro 4 standard. The product will then be sent to the gasoline production unit (reforming) to raise the octane number before flowing further to the production unit of Euro 4 standard gasoline.

**Production unit of gasoline / gasohol of Euro 4 standard** – This is the quality improvement for gasoline by using hydrogen, in combination with a catalyst under specified pressure, to reduce the benzene content under the Euro 4 standard. The product will be highly pure with ten times less sulphur content and 3.5 times less benzene. The product is kept in the storage tanks for sale.



### 3) Raw materials and suppliers

The main raw material of the refining business is 'crude oil', natural hydrocarbons created by compression of organic materials, that is, animals and plants, over millions of years under the earth's surface. Thailand holds its own crude sources at various places, such as the along the seams of Phitsanulok and Kamphaeng Phet provinces, in Suphan Buri province, Sukhothai, Fang district in Chiang Mai, and in the Gulf of Thailand. However, the volume of crude oil produced indigenously is not enough to satisfy the demand posed by the seven domestic refineries. Thus, most of the crude needs to be imported. The major import sources of crude are countries in the Middle East like the UAE, Qatar, Saudi Arabia, Iran, and Dubai, as well as those in Southeast Asia, such as Malaysia, Indonesia, Brunei, the Philippines, and Australia. Crude imports from the Middle East require 15 – 20 days for transport and those from the Far East require 3-7 days. Normally, Bangchak keeps a crude stock of around 33 days in running its refinery.



### Indigenous sources of crude oil (unit: thousand barrels/day)

Crude Field	Production Capacity					
	2014 <sup>1/</sup>		2013		2012	
	Volume	%	Volume	%	Volume	%
Sirikit	28,035	20.4	32,889	22.0	28,423	19.1
Tantawan	1,597	1.2	2,754	1.8	3,748	2.5
Benchamas	22,691	16.5	20,652	13.8	25,439	17.1
Vichienburi	3,426	2.5	1,186	0.8	1,375	0.9
Jasmine	9,756	7.1	10,478	7.0	10,408	7.0
Big Oil Project	24,141	17.5	29,816	19.9	28,281	19.0
Others	48,091	34.9	51,706	34.6	51,303	34.4
<b>Total</b>	<b>137,737</b>	<b>100</b>	<b>149,481</b>	<b>100</b>	<b>148,977</b>	<b>100</b>

Source: Energy Policy and Planning Office, Ministry of Energy

Remark 1/ As of November 30, 2014

To achieve its goal on crude procurement security at the lowest cost and desired quality, Bangchak sources crude oil from both indigenous and overseas sources at suitable proportions, taking into consideration refining economics. Also, there are times when Bangchak orders petroleum products for sale, known as physical swaps with other producers.

In 2014, Bangchak procured indigenous crude oil from many fields, 24.3% of which is crude from Benchamas Field, 20.3% from Sirikit (Phet), 17.0% from Pattani Field, and 13.0% from Songkhla, as details below:

### Indigenous sources of crude oil (unit: thousand barrels)

Crude Field	2014		2013		2012	
	Volume	%	Volume	%	Volume	%
1. Sirikit (Phet)	3,341	20.3	5,150	29.9	6,618	47.6
2. Pattani	2,797	17.0	1,938	11.2	1,729	12.4
3. Jasmine	1,426	8.7	1,597	9.3	1,131	8.1
4. Benchamas	4,011	24.3	4,080	23.7	1,927	13.9
5. Tantawan	-	0.0	489	2.8	208	1.5
6. Na Sanun East	1,214	7.4	277	1.6	344	2.5
7. Arthit Condensate	542	3.3	0	0.0	-	-
8. Type 2	-	0.0	86	0.5	34	0.2
9. North Central	-	0.0	618	3.6	597	4.3
10. Songkhla	2,143	13.0	2,050	11.9	295	2.1





11. BP (U-Thong / Kamphaeng Saen)	59	0.4	75	0.4	92	0.7
12. Arunothai	214	1.3	218	1.3	222	1.6
13. Sang Kajai	39	0.2	45	0.3	44	0.3
14. Phu Horm Condensate	100	0.6	101	0.6	115	0.8
15. POE Night	16	0.1	20	0.1	21	0.2
16. Wichian Buri	46	0.3	69	0.4	99	0.7
17. L 33	16	0.1	17	0.1	26	0.2
18. L53/48	38	0.2	87	0.5	268	1.9
19. Bung krathiem	0	0.0	1	0.0	1	0.0
20. Jakkawan Condensate	0	0.0	0	0.0	-	-
21. Bongkhot Condensate	0	0.0	0	0.0	-	-
22. Nang Nuan	0	0.0	0	0.0	-	-
23. Nong Phak Chee	44	0.3	65	0.4	4	0.0
24. L 53 type 3	139	0.8	170	1.0	18	0.1
25. L 53/48 type 4	63	0.4	67	0.4	-	-
26. L53-2	28	0.2	1	0.0	61	0.4
27. NSE-F6	0	0.0	6	0.0	47	0.3
28. Bua Luang	95	0.6	0	0.0	-	-
29. Manorah	104	0.6	0	0.0	-	-
30. Others	0	0.0	0	0.0	-	-
<b>Total</b>	<b>16,475</b>	<b>100</b>	<b>17,227</b>	<b>100</b>	<b>13,901</b>	<b>100</b>

Source: Bangchak Petroleum PLC.

This year, imported crude is detailed below: Crude from the Far East fields are Labuan, Bunga Orkid, and Bunga Kekwa from Malaysia; Seria Light Export Blend from Brunei; Pangkah from Indonesia; while Murban was imported from the UAE in the Middle East. Details of imported crude appear in the following table:


**Overseas sources of crude oil (unit: thousand barrels)**

Type of crude	Country	2014		2013		2012	
		Volume	%	Volume	%	Volume	%
Far East							
La buan	Malaysia	1,867	12.5	2,652	14.6	4,220	32.6
Bu-nga Orkid	Malaysia	1,402	9.4	4,500	24.7	3,045	23.5
Bu-nga Kekwa	Malaysia	1,078	7.2	1,604	8.8	1,285	9.9
Dulang	Malaysia	0	0.0	191	1.0	-	-
Seria Light Export E	Brunei	2,005	13.4	3,815	21.0	1,070	8.3
Champion	Brunei	625	4.2	0	0.0	-	-
Buck-ho	Vietnam	366	2.4	0	0.0	-	-
Tapis	Malaysia	0	0.0	0	0.0	607	4.7
Dai Hung	Vietnam	0	0.0	0	0.0	288	2.2
Tapis	Malaysia	0	0.0	287	1.6	-	-
Geragai	Indonesia	0	0.0	806	4.4	-	-
Masa	Malaysia	0	0.0	512	2.8	-	-
Miri	Malaysia	0	0.0	285	1.6	-	-
Pangkah	Indonesia	1,030	6.9	175	1.0	-	-
Kapal	Malaysia	198	1.3	0	0.0	-	-
Bentara	Malaysia	96	0.6	0	0.0	-	-
T Jai-ack Trenk	Vietnam	310	2.1	0	0.0	-	-
Uncanny	Australia	71	0.5	0	0.0	-	-
<b>Total from Far East source</b>		<b>9,048</b>	<b>60.5</b>	<b>14,826</b>	<b>81.5</b>	<b>10,515</b>	<b>81.2</b>
Middle East							
Murban	U.A.E.	560	3.7	1,385	7.6	1,888	14.57
Marib Light	Yemen	217	1.5		0.0	-	-
Macila	Yemen	329	2.2		0.0	-	0.0
<b>Total from Middle East source</b>		<b>1,106</b>	<b>7.4</b>	<b>1,385</b>	<b>7.6</b>	<b>1,888</b>	<b>14.6</b>
Other sources							
Sty Barrow	Australia	539	3.6		0.0	-	-
Enfield	Australia	0	0.0	1,150	6.3	551	4.3
Pyrenees	Australia	0	0.0	554	3.0	-	-
Montara	Australia	3,957	26.5	281	1.5	-	-
Koebo	Nigeria	300	2.0		0.0	-	-
<b>Total from other sources</b>		<b>4,796</b>	<b>32.1</b>	<b>1,985</b>	<b>10.9</b>	<b>551</b>	<b>4.3</b>
<b>Grand Total</b>		<b>14,950</b>	<b>100</b>	<b>18,195</b>	<b>100</b>	<b>12,954</b>	<b>100</b>

Source: Bangchak Petroleum PLC.

In addition to crude oil, Bangchak procures semi-finished products to make finished products, while some finished products are also procured for sale.



### Bangchak's Cost of Feedstock

Crude Type	2014		2013		2012	
	Million Baht	%	Million Baht	%	Million Baht	%
<u>Cost of indigenous feedstock</u>						
1. Crude and semi-finished products	64,870	43.4	65,925	44.1	52,499	37.4
2. Finished products	29,602	19.8	17,626	11.8	35,002	24.9
<b>Total</b>	<b>94,472</b>	<b>63.1</b>	<b>83,551</b>	<b>55.8</b>	<b>87,501</b>	<b>62.3</b>
<u>Cost of imported feedstock</u>						
1. Crude and semi-finished products	50,889	34.0	64,078	42.8	49,906	35.5
2. Finished products	4,892	3.3	1,977	1.3	3,045	2.2
<b>Total</b>	<b>55,781</b>	<b>37.3</b>	<b>66,055</b>	<b>44.2</b>	<b>52,951</b>	<b>37.7</b>
<u>Combined costs of indigenous and imported feedstock</u>						
1. Crude and semi-finished products	115,759	77.4	130,003	86.9	102,405	72.9
2. Finished products	34,494	23.1	19,603	13.1	38,047	27.1
<b>Total feedstock cost</b>	<b>150,253</b>	<b>100</b>	<b>149,606</b>	<b>100</b>	<b>140,452</b>	<b>100</b>

Source: Bangchak Petroleum PLC.



### **3. Risk Factors**

Since 2004, Bangchak has established risk management processes, valuing management practices to avert risks impacting its businesses. In addition, it has applied risk management processes under COSO ERM and ISO 31000 to ensure goal achievement and readiness to constantly face evolving circumstances. The company has defined a companywide risk management policy, to which all executives and employees must adhere, while keeping risks manageable. The company's Enterprisewide Risk Management Committee (ERMC) steers risk management practices for efficiency.

This year, high volatility marked economic and political circumstances, as well as it did the crude oil price, in turn affecting the supply-demand of consumers and the oil business. However, Bangchak has successfully applied risk management tools to operational risks, new project risks, and business continuity management risks to complete all planned tasks, as described below.

#### **1. Economic risks**

This year, severe oil-price volatility ruled as the world oil price plummeted as a result of the emerging crude oil glut and the stagnant world economy. Bangchak had engaged in crude oil and petroleum product price hedging, which enabled it to ease losses. In addition, it expanded its solar farm capacity to 118 MW, since this business can generate a steady stream of revenue. It also expanded the biofuel investment in a biodiesel plant based on crude palm oil, going from 360,000 to 810,000 liters per day in 2016. The company also acquired shares in another ethanol plant based on cassava and molasses, with a capacity of 150,000 liters per day. This added to Bangchak's ethanol capacity in another company of 400,000 liters per day to 550,000 liters per day, thus lowering Bangchak's risk of raw-material shortage for alternative energy products while accommodating the spiraling domestic demand.

#### **2. Social risks**

The company is committed to running its businesses with primary regard for the safety of communities and society, with constant assessment of risks and potential impacts of evolving external and internal circumstances. It applies lessons learned to the improvement of processes and preparation of additional plans. In addition, the company hired world-class experts to refine, revise, develop, and upgrade the audit



of safety standards and bolster confidence in operation through these actions:

- Revision of Hazard and Operability Study, means the study incorporation views in order to redesign safety standards inclusively, equipped with the prevention of undesirable events to keep machinery operating at a higher standard and with safety. This ensures that design work incorporates various aspects of world-class operation and safety.
- Upgrading of the safety standard from TIS/OHSAS 18001 to process safety management, for which international experts from Du Pont Company served as consultants for the systematization of safety management related to refining processes and high-risk process management.
- Preparedness under Bangchak's emergency response system and an adequate firefighting system for all sites to put out internal fire incidents and aid communities around the refinery, including the number of fire engines, CCTVs, and safety officers.

To show its concerns for community and society safety, Bangchak regularly staged activities to not only promote knowledge and understanding, but also cultivate safety awareness for surrounding communities, including schools, temples, condominiums, and residences. Activities included basic firefighting, thorough installation of communication systems and community alarms, and community observation at the company's stage 3 emergency plan drills.

### **3. Environmental risks**

Environmental impacts tend to be sensitive and attract considerable social interest, easily wreaking havoc on business, particularly when Bangchak is the guilty party. Therefore, the company is determined to take care of and pay great attention to environmental matters by implementing proactive policies of prevention and work efficiency improvement to cover as many business risks as possible, including the following actions.

- Requiring double-hull crude oil and petroleum product transport vessels
- Installing additional reverse-osmosis water treatment systems for an improved quality of effluents for reuse, while cutting the volumes of effluents and raw-water consumption. As a result, Bangchak successfully lowered effluents by 25% and plans to achieve 80% by 2020.
- Investigating construction of an enclosed ground flare to ease the impacts of flaring on communities by 2015.



#### **4. Business continuity management risks**

In 2014, Bangchak achieved certification of ISO 22301-2012 (business continuity management) for its head office, Bangchak Refinery, Bangchak Oil Distribution Center, Central Region Business Office, and Bang Pa-in Oil Distribution Center, as assessed by MASCI (Management System Certification Institute (Thailand)). This certification promotes stakeholders' confidence that the company can continue its business uninterrupted during crises.

This year the company staged drills under this plan in case of oil leaks during offloading to lower the impacts on the public, working with IESG (Oil Industry Environmental Safety Group) and government agencies like the Department of Energy Business, Marine Department, Port Authority of Thailand, Phra Khanong District Office, Phra Khanong Metropolitan Police Station, Bureau of Disaster Prevention and Mitigation of Bangkok Metropolitan Administration, and stakeholders in the vicinity. The outcomes of the drill will find their way to the improvement of plan procedures.

**4. Review of business assets**

Asset	Ownership	Book value Baht million <sup>1/</sup>	Obligation
Refinery land	Long-term lease	402	None
Other properties	Ownership	970	None
Buildings	Ownership	269	None
Machinery & distillation tower equipment	Ownership	21,037	None
Power generators	Ownership	3,135	None
Sales and office equipment	Ownership	1,255	None
Platinum catalysts <sup>2/</sup>	Ownership	239	None
Vehicles	Ownership	50	None
Works in progress	Ownership	991	None
<b>Total</b>	-	<b>27,320</b>	-

**Note:**

- 1/ This year Bangchak set aside Baht 64 million in allowance (reversal of) for impairment of land property, machinery, and equipment, consisting of Baht 16 million in property, Baht 15 million in machinery and distillation tower equipment, and Baht 33 million in sales and office equipment.
- 2/ "Platinum catalysts": platinum-based catalysts (found in the octane enhancement unit's reactor), the contents of which are set by their producers.

**Trademarks**

Trademark	Number of registered trademarks	Goods/services under trademark	Expiry <sup>1</sup>
<b><u>Copyrights</u></b>			
1. Bangchak leaf	11	All fuels, cold tissue paper, pure drinking water, plastic polymers, pens, pencils, notebooks, folders, asphalt, activated carbon	Aug. 30, 2019 Oct. 15, 2019 Aug. 20, 2016
2. GRENA ZENITH SJ	1	Lubricant	Nov. 5, 2016
3. ISO GREEN	1	Gasoline	Jun. 10, 2024
4. GE GOLD	6	Synthetic gasoline-engine lubricant	Jan. 13, 2023 Feb. 12, 2022 Nov. 20, 2021 Dec. 25, 2021 Jan. 15, 2017



Trademark	Number of registered trademarks	Goods/services under trademark	Expiry <sup>1</sup>
5. GE GOLD SM	1	Synthetic gasoline-engine lubricant	Jan. 15, 2017
6. GE PLUS	4	Gasoline-engine lubricant	Jan. 13, 2023 Nov. 20, 2021 Dec. 25, 2021 Jan. 15, 2017
7. GE SILVER	3	Semi-synthetic gasoline-engine lubricant	Nov. 4, 2024 Dec. 25, 2021 Jan. 15, 2017
8. Green Plus	1	Gasoline	Sep. 14, 2024
9. Green Plus 91	1	Gasoline	Sep. 14, 2024
10. Green Plus 95	1	Gasoline	Sep. 14, 2024
11. LOWCOST	1	All fuels	Jun. 23, 2015
12. BANGCHAK MAXDRIVE	1	Gasoline additive	Dec. 25, 2016
13. D3 GOLD	1	Synthetic diesel-engine lubricant	Oct. 9, 2023
14. D3 TURBO	1	Diesel-engine lubricant	Jan. 25, 2021
15. D3 TURBO PLUS	1	Semi-synthetic diesel-engine lubricant	Jan. 15, 2017
16. D3 EXTRA	1	Diesel-engine lubricant	Jan. 25, 2021
17. D3 EXTRA PLUS	1	Diesel-engine lubricant	Jan. 15, 2017
18. D3 PICK UP	1	Diesel-engine lubricant	Jan. 25, 2021
19. D3 PICK UP PLUS	1	Diesel-engine lubricant	Jan. 15, 2017
20. D3 MAX	1	Diesel-engine lubricant	May 14, 2017
21. D3 COMMONRAIL	1	Diesel-engine lubricant	Oct. 30, 2018
22. D3 COMMONRAIL TURBO	1	Diesel-engine lubricant	Oct. 30, 2018
23. SUPER HDX	1	Diesel-engine lubricant	Jan. 15, 2017
24. POWER D B5	1	High-speed diesel	May 20, 2019
25. BANGCHAK POWER D	1	High-speed diesel	Jul. 10, 2018
26. LEMON GREEN <sup>™</sup>	1	Drinking water	Feb. 23, 2019
27. SUPER POWER D B5 (EURO 4)	2	Diesel-engine lubricant Diesel	Nov. 3, 2020 May 2, 2022
28. SUPER POWER D (EURO 4)	2	Diesel-engine lubricant Diesel	Nov. 3, 2020 May 2, 2022
29. INTHANIN COFFEE	2	Coffee drinks, biscuits, bakery products, juices	Sep. 29, 2015
30. PREMIO INTHANIN	5	Drinks, biscuits, cups, plates, tokens, water bottles, pens	Feb. 13, 2021





Trademark	Number of registered trademarks	Goods/services under trademark	Expiry <sup>1</sup>
31. INTHANIN PREMIO BY BANGCHAK	3	Water bottles, water containers, cups, plates, food, bowls, pens	Feb.13, 2021
32. INTHANIN PREMIO COFFEE BY BANGCHAK	5	Drinks, biscuits, tokens, shirts, caps, umbrellas, sunshades	Feb.13, 2021
33. GE NGV	1	Semi-synthetic gasoline-engine lubricant	Dec. 25, 2021
34. GE PLATINUM	1	Synthetic gasoline-engine lubricant	Dec. 25, 2021

### **Service Marks**

Service logo	Number of registered logos	Goods/service under logo	Expiry <sup>1</sup>
<b><u>Copyrights</u></b>			
1. Bangchak leaf	3	Goods sales management	Dec. 20, 2018
2. Bangchak colored strips, Bangchak characters, and Bangchak leaf	1	Vehicle service station	Aug. 6, 2023
3. Colored strips and Bangchak leaf	1	Vehicle service station	Aug. 6, 2023
4. Colored strips	1	Vehicle service station	Nov. 3, 2023
5. Bangchak colored strips	1	Vehicle service station	Aug. 6, 2023
6. Hornbill photo	1	Goods sales management	Oct. 10, 2016
7. GRENA CARCARE	1	Vehicle cleaning, maintenance & repair	Feb. 23, 2019
8. Gold food plate (black & white)	1	Sale of goods, foods, and drinks	Sep. 4, 2023
9. Gold food plate (colored)	1	Sale of goods, foods, and drinks	Sep. 4, 2023
10.LEMON GREEN <sup>®</sup>	2	Goods sales management	Feb. 23, 2019 Nov. 18, 2023
11. GREEN AUTO SERVICE	1	Automotive maintenance & repair	Jul. 24, 2015
12.GREEN SERVE	1	Vehicle maintenance	Sep. 1, 2015
13.Green Wash	1	Vehicle cleaning & lubrication	Sep. 1, 2015
14.GREEN WASH AUTOCARE	2	Vehicle cleaning	Jul. 25, 2016
15.GREEN WASH EXPRESS	1	Vehicle cleaning	Jul. 25, 2016
16.GREEN BIKE EXPRESS	1	Motorbike maintenance	Jul. 25, 2016



Service logo	Number of registered logos	Goods/service under logo	Expiry <sup>1</sup>
17. GREEN TYRE EXPRESS	2	Tyre sale & mending	Aug. 15, 2016
18. GREEN WASH THE PREMIUM	1	Vehicle cleaning	May 20, 2019
19. INTHANIN COFFEE	3	Food & fresh coffee business management	Sep. 29, 2015 Nov. 10, 2015
20. INTHANIN PREMIO COFFEE BY BANGCHAK	2	Food & fresh coffee business management	Feb. 13, 2021
21. PREMIO INTHANIN	2	Food & fresh coffee business management	Feb. 13, 2021
22. Baichak	1	Food & drink sale	Mar. 15, 2021
23. Baichak Mart	2	Food & drink sale	Jan. 18, 2022 Apr. 1, 2023

### **Trademarks and Service Marks advertised abroad**

Trademark	Number of registered trademarks	Goods/services under trademark	Expiry
1. Bangchak leaf and Chinese characters (registered in PRC (China))	1	Gasoline, diesel, and lubricants	Dec. 27, 2020
2. Bangchak leaf and BANGCHAK LUBRICANTS - Registered in Myanmar <sup>®</sup> - Registered in LPDR (Laos)	2	Fuel products	- Mar. 20, 2023
3. Bangchak leaf and BCP LUBRICANTS (Registered in Myanmar <sup>®</sup> )	1	Fuel products	-
4. Bangchak leaf and BANGCHAK (Registered in Myanmar <sup>®</sup> )	2	Fuel products, service stations	-
5. Bangchak leaf and characters (Registered in Laos)	2	Fuel products, service stations	Mar. 20, 2023
6. Bangchak leaf and BCP LUBRICANTS (Registered in Vietnam)	1	Fuel products	Jul. 13, 2022
7. Bangchak leaf and BCP LUBRICANTS (Registered in Cambodia)	1	Fuel products	Jul. 5, 2022



Trademark	Number of registered trademarks	Goods/services under trademark	Expiry
8. Bangchak leaf and BCP LUBRICANTS (Registered in Lebanon)	1	Fuel products	Feb. 26, 2029
9. INTHANIN COFFEE (Registered in Burma)	2	Food & fresh coffee business management	-
10. BAICHAK MART (Registered in Burma)	1	Food & drink sale	-
11. GREEN SERVE (Registered in Burma)	1	Vehicle maintenance	-
12. Bangchak leaf and BANGCHAK (Registered in Burma)	2	Fuel products & Vehicle service station	-
13. Bangchak leaf and BCP (Registered in Burma)	2	Fuel products & Vehicle service station	-
14. Bangchak leaf and BANGCHAK (Registered in Cambodia)	2	Fuel products & Vehicle service station	Nov. 23, 2023
15. Bangchak leaf (Registered in PRC (China))	1	Fuel products	Jan. 6, 2021

### **Trademarks and Service Marks under deliberation in Thailand**

Trademark	Number of registered trademarks	Goods/services under trademark	Remarks
1. GE SYNTECH	1	Semi-synthetic gasoline engine lubricant	Filed Jun. 17, 2013
2. Colored strips, Bangchak leaf, and three leaves	1	Vehicle service stations	Filed Sep. 25, 2013
3. BUBBLY TEA	1	Food & drink sale	Filed Jun. 5, 2014
4. HURRICANE ICE	1	Food & drink sale	Filed Jun. 5, 2014
5. Nom Pang Milk and Bread	1	Food & drink sale	Filed Jun. 5, 2014
6. Moo Yim	1	Food & drink sale	Filed Aug. 4, 2014
7. WASH PRO	1	Vehicle cleaning, maintenance & repair	Filed Nov. 19, 2014



### **Trademarks and Service Marks under deliberation abroad**

Trademark	Number of registered trademarks	Goods/services under trademark	Remarks
1. Bangchak leaf BCP LUBRICANTS registered in - PRC - LPDR - Jordan - Kenya - OAPI countries	5	Fuel products	Filed on: Aug. 7, 2012 Nov. 20, 2013 Nov. 24, 2013 Nov. 26, 2013 Dec. 6, 2013
2. INTHANIN COFFEE registered in PRC, Vietnam, LPDR, and Cambodia	4	Food & fresh coffee business management	Filed on Sep. 2, 3, 4 and 5, 2013
3. BAICHAK MART registered in PRC, Vietnam, LPDR, and Cambodia	4	Miscellaneous goods for consumers' convenience	Filed on Sep. 2, 3, 4 and 5, 2013
4. GREEN SERVE registered in PRC, Vietnam, LPDR, and Cambodia	4	Vehicle maintenance	Filed on Sep. 2, 3, 4 and 5, 2013
5. Bangchak leaf and BANGCHAK, registered in - PRC (China) - LPDR (Laos) - Vietnam	6	Fuel products & service stations	Filed on: Sep. 27, 2013 Sep. 30, 2013 Sep. 30, 2013
6. Bangchak leaf and BCP registered in - PRC (China) - LPDR (Laos) - Vietnam - Cambodia	8	Fuel products & service stations	Filed on: Sep. 27, 2013 Sep. 30, 2013 Sep. 30, 2013 Oct. 1, 2013



### **Trademarks under transfer process in PDRC**

Trademark	Number of registered trademarks	Goods/services under trademark	Remarks
1. BCP	1	Fuel products	-

#### **Note:**

- Registered trademarks and service logos are in effect 10 years from registration dates and extendable every 10 years
- Belongs to Bangchak Green Net Co., Ltd., a subsidiary
- In registering trademarks in Myanmar, one must submit declaration(s) of trademark ownership and place advertisement(s) to that effect in local newspapers every 2-3 years

### **Policy of investment in subsidiaries**

As of December 31, 2014, Bangchak Petroleum invested in the following subsidiaries:

1. Bangchak Green Net Co., Ltd., with a registered capital of Baht 1 million and 49% shareholding
2. Bangchak Biofuels Co., Ltd., with a registered capital of Baht 281.5 million and 70% shareholding
3. BCP Energy International Pte. Ltd., with a registered capital of US\$ 89.5 million and 100% shareholding
4. Nido Petroleum Limited, with a registered capital of AUS\$ 169.6 million and 81.4% shareholding
5. Bangchak Solar Energy Co., Ltd., with a registered capital of Baht 4,100 million and 100% shareholding
6. Bangchak Solar Energy (Prachinburi) Co., Ltd., with a registered capital of Baht 1,400 million and 49% shareholding. Bangchak Solar Energy holds the rest.
7. Bangchak Solar Energy (Chaiyaphum 1) Co., Ltd., with a registered capital of Baht 780 million and 49% shareholding. Bangchak Solar Energy holds the rest.
8. Bangchak Solar Energy (Buriram) Co., Ltd., with a registered capital of Baht 755 million and 49% shareholding. Bangchak Solar Energy holds the rest.
9. Bangchak Solar Energy (Buriram 1) Co., Ltd., with a registered capital of Baht 765 million and 49% shareholding. Bangchak Solar Energy holds the rest.



10. Bangchak Solar Energy (Nakhon Ratchasima) Co., Ltd., with a registered capital of Baht 760 million and 49% shareholding. Bangchak Solar Energy holds the rest.

### **Supervision of subsidiaries**

In charge of managing Bangchak's service stations, Bangchak Green Net coordinates and defines a core policy under which management of all stations may follow the same direction as Bangchak's marketing policy. Effective from October 1, 2003, Bangchak delegated its representatives to replace resigning directors of the subsidiary, thus increasing the number of Bangchak representatives on Bangchak Green Net's board of directors to a majority. As a result, Bangchak has since controlled the operating and finance policies of Bangchak Green Net.

Set up to produce biodiesel for sale to Bangchak and other customers, Bangchak Biofuel coordinates and defines a core policy to forge a uniform business direction. To this end, Bangchak delegated four senior executives to serve as directors out of six on the board of the joint venture. In the first five years of the company's founding, the manager or managing director of this company came from Bangchak's nomination, thus enabling Bangchak to control the operating and financial policies of Bangchak Biofuels.

Set up to operate solar power generation and sell it to the Electricity Generating Authority of Thailand and the Provincial Electricity Authority, Bangchak Solar Energy was wholly owned by Bangchak. Its five wholly owned subsidiaries were founded to operate solar power projects in different regions. Bangchak delegated senior executives to serve as directors of each of these companies, thus enabling it to control the operating and financial policies of Bangchak Solar Energy.

The operating approaches and the preparation of financial statements for these three subsidiaries follow Bangchak's directions. All their financial statements, including the five subsidiaries of Bangchak Solar Energy, have been consolidated and reported in Bangchak's financial statements since 2003, 2008, 2011, and 2012 respectively to allow efficient consolidated performance measurement.



## 5. Legal disputes

Below are details as of December 31, 2014, about Bangchak's ongoing legal dispute(s) to which the company is a party; which could significantly affect its business; and which did not result from routine business conduct.

- Bangchak was sued as a joint defendant (defendant No. 5) together with the Ministry of Finance (defendant No. 1) in a tort on the eviction of plaintiff from state property around the Bangchak Refinery pier, rented from the Ministry of Finance. The damages demanded amounted to Baht 1,055 million. On June 3, 2009, the Civil Court read the verdict of the Appeal Court dismissing the case, against which the plaintiff filed an appeal to the Supreme Court, which is considering the case.



## **6. General information and other key information**

Bangchak Petroleum Plc was founded in response to a Cabinet resolution of June 19, 1984. Its structure allows unity, with freedom of administration and business flexibility as in private companies. Registered as a private company limited under the Civil and Commercial Code, Bangchak began operating as a limited company on November 8<sup>th</sup>, 1984.

Bangchak began its business on April 1<sup>st</sup>, 1985. It transformed into a public company limited on April 23<sup>rd</sup>, 1993, and securitized its stocks on the Stock Exchange of Thailand (SET) on August 2<sup>nd</sup>, 1994. Currently, its registered capital amounts to Baht 1,531 million, of which Baht 1,377 million was paid up.

Bangchak's petroleum business ranges from crude oil procurement from abroad and domestic sources. At its complex refinery with a nameplate capacity of 120,000 barrels per day, the oil is refined into petroleum products. It also sells products to consumers through its nationwide network of service stations and to oil-trading companies by pipeline, boat, or land transport for subsequent sale to consumers through other networks of service stations and other channels. Bangchak also exports its petroleum products. In addition, it operates a solar power generation plant (the Sunny Bangchak Project), the first phase of which (located at Bang Pa-in District, Phra Nakhon Si Ayutthaya) has a capacity of 38 MW; electricity was first commercialized in April 2012.

### **General information**

- Company Name : The Bangchak Petroleum Public Company Limited
- Head Office : 555/1 Energy Complex Building A, Floor 10th Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900
- Nature of business : Nature of business: An oil refinery with a nameplate capacity of 120,000 barrels per day, a petroleum business covering retail and wholesale, and solar power generation with a capacity of 38-MW PPA.





- Registration No. : 0107536000269
- Telephone : 0-2140-8999
- Fax : 0-2140-8900
- Website : <http://www.bangchak.co.th>
- Company establishment: November 8, 1984
- Commercial operation : April 1, 1985
- Registered capital (as of December 31, 2014) 1,531,643,461 Baht, of which Baht 1,376,923,157 was paid up, dividing into 1,531,643,461 shares, at 1 Baht per share.
- Shareholders of BCP (as of December 31, 2013)
  - PTT Plc 375 Million shares 27.22%
  - Ministry of Finance 137 Million shares 9.98%
  - Minor Shareholders 865 Million shares 62.80%
  - Total 1,377 Million shares 100.00%
- Customers
  - 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.
  - Electricity Generating Authority of Thailand (EGAT) and Provincial Electricity Authority (PEA)
- Office and Terminals
  - Head Office: 555/1 Energy Complex, 10<sup>th</sup> Floor, Building A, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900  
Tel. 0-2140-8999, Fax 0-2140-8900
  - Bangchak Refinery and Terminal: 210 Sukhumwit 64 Road, Bangchak, Phra Khanong, Bangkok 10260  
Tel. 0-2335-4999, 0-2331-0047, Fax 0-2335-4009



- Central Region Business Office and Bang Pa-In Terminal: 99 Moo 9, Tambon Bang Krasan, Amphoe Bang Pa-in, Ayutthaya 13160  
Tel. 0-3535-0260, 0-3527-6999, Fax (Central Region Business Office) 0-3535-0290, Fax (Bang Pa-In Terminal) 0-3527-6920
- Northern Region Business Office: 87/9 Yee-wan Building, 3<sup>rd</sup> Floor, Thung Hotel Road, Tambon Wat Ket, Amphoe Muang, Chiang Mai 50000  
Tel. 0-5330-0484, Fax 0-5330-0485
- Northeastern Region Business Office: 499 Moo 3, Mitraphab Road, Tambon Muang Kao, Amphoe Muang, Khon Kaen 40000  
Tel. 0-4326-1789-92, 0-4326-1751-3, Fax 0-4326-1750
- 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
- Samut Sakhon Oil Distribution Center: 100/149 Moo 1, Tambon Tha Chin, Amphoe Muang, Samut Sakhon 74000  
Tel. 0-3482-0974, Fax –none-
- 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
- Rayong Oil Distribution Center: 1, 3B Road, Tambon Map Ta Phut, Amphoe Muang, Rayong 21150, Tel. 0-3860-9389, Fax 0-3860-9413
- 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, Fax 0-7728-2943
- Song Kla Oil Distribution Center: 13/1 Moo 6, Tambon Sa Ting Mor, Amphoe Singha Nakorn, Song Kla 90280  
Tel. 0-7433-2782, Fax 0-7433-2783
- Suksawat Lubricant Oil Distribution Center: 196 Moo 1, Suksawat Road, Tambon Pak Khlong Bang Pla Kot, Amphoe Phra Samut Chedi, Samut Prakan 10290  
Tel. 0-2815-6997-8, Fax 0-2815-6996
- Subsidiaries
  - Bangchak Green Net Co., Ltd.  
223/94 Country Complex, Building A, 19th Floor, Sanpawut Rd., Bangna, Bangna, Bangkok 10260  
Tel. 02-3672-699  
Fax. 02-7457-9452



- Bangchak Biofuel Co., Ltd.  
28 Moo 9 (Highway No. 3048), Tambon Bang Krasan, Bang Pa-in District, Ayudthaya 13160  
Tel. 035-276-500  
Fax. 035-276-549  
Website: <http://www.bangchakbiofuel.co.th>
- Bangchak Solar Energy Co., Ltd.  
99/1 Moo (Highway No. 3048), Tambon Bang Krasan, Bang Pa-in District, Ayudthaya 13160  
Tel. 035-276-000  
Fax. 035-276-014  
E-mail: [info-sunny@bangchak.co.th](mailto:info-sunny@bangchak.co.th)
- Bangchak Solar Energy (Prachinburi) Co., Ltd.  
99/1 Moo (Highway No. 3048), Tambon Bang Krasan, Bang Pa-in District, Ayudthaya 13160  
Tel. 035-276-000  
Fax. 035-276-014  
E-mail: [info-sunny@bangchak.co.th](mailto:info-sunny@bangchak.co.th)
- Bangchak Solar Energy (Chaiyaphum 1) Co., Ltd.  
99/1 Moo (Highway No. 3048), Tambon Bang Krasan, Bang Pa-in District, Ayudthaya 13160  
Tel. 035-276-000  
Fax. 035-276-014  
E-mail: [info-sunny@bangchak.co.th](mailto:info-sunny@bangchak.co.th)
- Bangchak Solar Energy (Buriram) Co., Ltd.  
99/1 Moo (Highway No. 3048), Tambon Bang Krasan, Bang Pa-in District, Ayudthaya 13160  
Tel. 035-276-000  
Fax. 035-276-014  
E-mail: [info-sunny@bangchak.co.th](mailto:info-sunny@bangchak.co.th)
- Bangchak Solar Energy (Buriram 1) Co., Ltd.  
99/1 Moo (Highway No. 3048), Tambon Bang Krasan, Bang Pa-in District, Ayudthaya 13160  
Tel. 035-276-000  
Fax. 035-276-014  
E-mail: [info-sunny@bangchak.co.th](mailto:info-sunny@bangchak.co.th)
- Bangchak Solar Energy (Nakhonratchasima) Co., Ltd.  
99/1 Moo (Highway No. 3048), Tambon Bang Krasan, Bang Pa-in District, Ayudthaya 13160  
Tel. 035-276-000  
Fax. 035-276-014  
E-mail: [info-sunny@bangchak.co.th](mailto:info-sunny@bangchak.co.th)



- BCP Energy International Pte. Ltd.  
8 Marina Boulevard # 05-02, Marina Bay Financial Centre,  
Singapore 018981
- Nido Petroleum Limited  
Aquila Centre, Level 3, 1 Preston Street, COMO WA 6152,  
Australia  
Tel. +61 8 9474 0000  
Fax. +61 8 9474 0099  
E-mail: [reception@nido.com.au](mailto:reception@nido.com.au)  
Website: [www.nido.com.au](http://www.nido.com.au)



## **7. Securities and Shareholder Information**

### **Common Shares**

As of year-end 2014, the company's registered capital amounted to Baht 1,531,643,461 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.

### **Loans and Debenture**

As of December 31, 2014, Bangchak's domestic and offshore loans (in the form of long-term Bank loans) amounted to Baht 15,110.04 million, and domestic debentures (specifying holders, unsubordinated, unsecured, and no holders' representatives) amounted to Baht 13,000 million, the latter of which are due for redemption as follows: Baht 2,000 million in 2017, Baht 4,000 million in 2019, Baht 2,500 million in 2021, Baht 1,000 million in 2022, and Baht 3,500 million in 2024. These are rated at A- by Tris Ratings Co., Ltd., with a stable outlook. Details about these loans and debentures appear in the notes to the financial statements for the year ended on December 31, 2014.

### **Shareholders**

<b>Top 10 Major Shareholders (as of September 9, 2014)</b>	<b>Number of Shares</b>	<b>Shareholding (%)</b>
1. PTT Plc	374,748,571	27.22
2. Ministry of Finance	137,442,767	9.98
3. Thai NVDR Co., Ltd.	64,873,004	4.71
4. STATE STREET BANK EUROPE LIMITED	43,450,960	3.16
5. AIA Company Limited-DI-LIFE	36,272,969	2.63
6. Krungsri Dividend Stock LTF	35,917,300	2.61
7. Social Security Office (2 cases)	26,528,826	1.93
8. Deutsche Bank AG Singapore (DCS) a/c The Navis Asia Navigator Master Fund	25,052,900	1.82
9. HSBC (SINGAPORE) NOMINEES PTE LTD	20,590,909	1.50
10. Bangkok Life Assurance PCL	20,201,200	1.47
<b>Top 10 Total</b>	<b>785,079,406</b>	<b>57.03</b>
<b>Grand Total</b>	<b>1,376,923,157</b>	<b>100.00</b>



• **Shareholders through Thai NVDR Co., Ltd.**

<b>Major Shareholders (as of September 9, 2014)</b>	<b>Number of Shares</b>	<b>Shareholding (%)</b>
1. CHASE NOMINEES LIMITED	12,640,100	19.48
2. BNY MELLON NOMINEES LIMITED	9,684,300	14.93
3. THE BANK OF NEW YORK MELLON	8,219,000	12.67
4. RBC INVESTOR SERVICES BANK S.A.	7,124,300	10.98
<b>Total</b>	<b>37,667,700</b>	<b>58.06</b>
<b>Grand Total</b>	<b>64,873,004</b>	<b>100.00</b>

Note: The shareholders no. 1 and 2 who were nominee account. The company's investigation at Thailand Securities Depository Co., Ltd., found that the ultimate shareholders' name could not be disclosed.

**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.

**Subsidiaries' dividend policies**

• **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.**

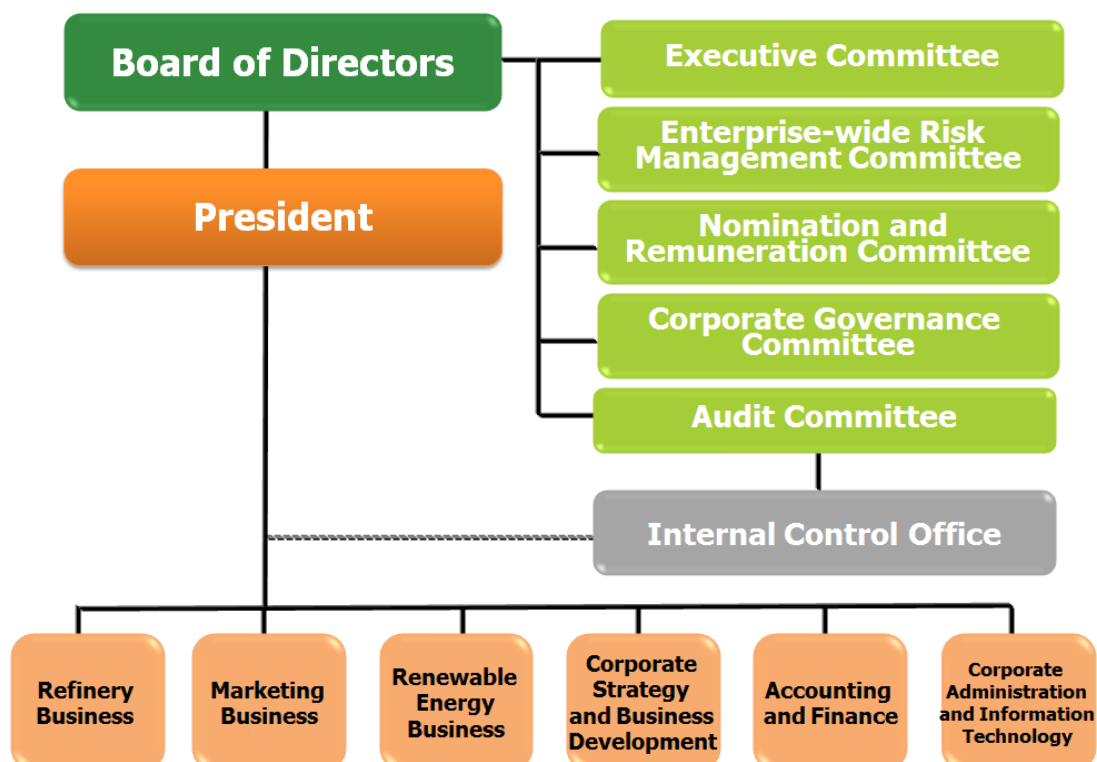
Dividend payment must have the approval of an AGM and will be made only when the company has allocated at least 5% of its net profit in a given year as provisional capital until the provisional capital reaches 10% of the registered capital. The Board may consider interim dividend payment to shareholders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

- **Bangchak Solar Energy Co., Ltd., and its subsidiaries**

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. However, it is subject to the cash flow 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.



## 8. Management Structure



Note: The Audit Committee determines and evaluates the Internal Control Office's annual performance to ensure corporate governance and the independence of the Internal Control Office.

### 1. Board of Directors

According to the company's regulations, the Board of Directors consists of at least five and no more than fifteen directors and at least half of the directors must reside in the Kingdom without sex discrimination. The directors must carry out their duties under the laws, objectives and regulations of the company, as well as the resolutions of shareholders' meetings, safeguarding the company's benefit and assign Company Executives to work on their behalf. For instance, the President has the authority to allocate the annual budget, pay for the company's activities according to the contract or other commitments as approved by the authorized person, administration and procurement and sale of petroleum products, and so forth.

The Board of Directors consists of 15 directors as follows:

Name	Position
1. Mr. Pichai Chunhavajira	Chairman
2. Prof. Dr. Chai-Anan Samudavanija	Vice Chairman (Independent Director)





3. Asst.Prof.Dr. Anusorn Tamajai	Independent Director
4. Mr. Surin Chiravisit	Independent Director
5. Mr. Suthep Wongvorazathe	Independent Director
6. Mrs. Arunporn Limskul	Independent Director
7. Pol.Lt.Gen. Chaiwat Chotima	Independent Director
8. Maj.Gen.Apirat Kongsompong	Independent Director
9. Mr. Krairit Nilkuha	Director
10. Mr. Prasong Poontaneat	Director
11. Mr. Sarakorn Kulatham	Director
12. Mr. Chaiwat Kovavisarach	Director
13. Mr. Vikrom Koompirochana	Director
14. Mr. Wirat Uanarumit	Director
15. Mr. Vichien Usanachote	President and Secretary to the Board of Directors

Note: The names and number of the authorized directors who have authority to sign on behalf of the company are: Mr. Pichai Chunchavajira jointly with Mr. Vichien Usanachote with affixation of the company's seal or any one of these two directors signs jointly with Mr. Chai-Anan Samudavanija or Mr. Krairit Nilkuha or Mr. Sarakorn Kulatham or Mr. Surin Chiravisit or Mr. Chaiwat Kovavisarach or Mr. Suthep Wongvorazathe or Mr. Vikrom Koompirochana or Pol.Lt.Gen. Chaiwat Chotima or Maj.Gen.Apirat Kongsompong or Mr. Wirat Uanarumit, being two persons, with affixation of the company's seal.

### **Independent Directors**

The present Board of Directors consists of 7 Independent Directors, which is more than one third of all Directors. According to the company's policy, the Chairman of the Board must not be the same person as the President. Additionally, the Chairman must not hold any position in the appointed Sub-committee (sometimes called Committee) in view of clear-cut responsibilities and duties. The Board of Directors gives consent of the definition and qualifications of Independent Directors, the regulations of which are more stringent than those of the Securities and Exchange Commission (SEC) and Stock Exchange of Thailand (SET), as committed to good governance as follows:

1. Hold no more than 0.5 % of the overall shares in the company, subsidiaries, associated companies, or person(s) with potential conflicting interests.
2. Take no part in the administration, including not being an employee, personnel, permanent advisor, professional advisor to the company such as an auditor, lawyer or authorized person of the company or subsidiaries, or associated companies, or person(s) with potential conflicting interests and with no invested interest for no less than two years and can attend the Directors' meetings with independent opinions.



3. Have no business connection, no invested interest, whether directly or indirectly, financially or administratively, including not being a client, partner, supplier, trade or creditor/debtor of the company, subsidiaries, associated companies, or person(s) with potential conflicts of interest and thus lacking independence.
4. Are not close relatives of the Executives or major shareholders of the company, subsidiaries, or associated companies, or person(s) with potential conflicting interests and not appointed as a representative to protect the interest of Directors and/or major shareholders.

### **Directors from major shareholders**

1. Mr. Krairit Nilkuha Representative from Ministry of Finance
2. Mr. Prasong Poontaneat Representative from Ministry of Finance
3. Mr. Sarakorn Kulatham Representative from PTT Plc
4. Mr. Chaiwat Kovavisarach Representative from PTT Plc
5. Mr. Vikrom Koompirochana Representative from PTT Plc
6. Mr. Wirat Uanarumit Representative from PTT Plc

Note: Board Meeting No. 12/2014 of December 19<sup>th</sup>, 2014, appointed Mr. Chaiwat Kovavisarach, as President, effective from January 1<sup>st</sup>, 2015, which in effect removed him from PTT Plc's representation.

### **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 Article 68 of the Public Company Limited Act 1992



- decision of the shareholders' meeting to resign according to Article 76 of the Public Company Limited Act 1992
  - 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.

### **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**

1. Each newly elected Director must attend an orientation course on the company's business.
2. 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.
3. Define the company's policy and direction and monitor and supervise management so that they may work efficiently and effectively according to the company's policy and regulations under corporate governance practices so as to maximize economic value and shareholders' wealth.
4. Follow-up on the company's activities at all times and act according to the laws and regulations pertaining to the company's contracts by assigning management to report the company's performance and



- important matters to the Board of Directors at its monthly meeting so that the company's business would run effectively.
5. Regularly and truthfully report to the shareholders on the company's situations, including the company's future trends, either positive or negative angle, with sufficient rationale.
  6. Ensure that the company possesses an effective and reliable accounting system, financial report, internal controls and internal audit.
  7. Regularly review the corporate governance policy.
  8. Play an important role in risk management through appropriate and sufficient risk management guidelines and measures, with regular monitoring.
  9. Ensure that management treats all stakeholders ethically and equally.
  10. Independent and external Directors are prepared to express their opinions freely about formulating strategies, management, use of resources, appointment of Directors and business standard as well as to disagree with other Directors or the administration in conflicts that affect the equality of all shareholders.
  11. If necessary, the Board of Directors may seek professional opinions from external advisers on company performance at the expense of the company.
  12. Appoint a Company Secretary according to the Securities and Exchange Act in order to prepare and maintain documents and other matters as determined by the Capital Market Supervisory Board as well as to facilitate the Board's and the company's business, such as meetings of the Board and shareholders. The secretary also regularly provides the Directors and the company with legal advice and reminds them of the various regulations that they need to know and comply with, as well as ensuring that Directors and the company disclose correct, complete and transparent information.
  13. Provide a code of conduct, code of ethics as working guidelines in the company.
  14. Undertake no securities transactions at least one month before budget announcement and at least three days after budget announcement.
  15. 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 subsidiaries to the monthly Board of Directors meeting and must report to the company without delay in the following cases:
    - Have vested interests, whether direct or indirect, in any of the company's contracts within the accounting year.



- Hold shares or debentures in the company or the subsidiaries companies.
16. Attend at least one training course organized by Thai Institute of Directors Association (IOD), such as Director Accreditation Program (DAP) or Director Certification Program (DCP) or equivalent, to increase expertise at work.
  17. The Directors who are not executives must annually evaluate the President.
  18. The Directors who are not executives and Independent Directors may convene among themselves as necessary at least twice a year to discuss relevant management problems without the management's attendance, and report the findings of the meeting to the President.
  19. Each Director cannot hold a Director position in a listed company in SET and subsidiary company more than four companies.

**According to laws, the company's article of association and regulations, the key matters reserved for the Board's approval including the annual business plan and budget, dividend policy, management restructuring.**

### **Meetings of the Board of Directors**

The Board of Directors set the timetable for its official meetings in advance. The Chairman and the President jointly consider the items to be included in the agenda. The meeting is set once every month on the last Tuesday of the month, with additional extraordinary meetings as appropriate. The Secretary to the Board of Directors Office ("SBO") will send out invitation letters with the agenda attached and complete meeting documents to each Director at least seven days in advance so that the Directors may have sufficient time to study and review the documents before the meeting and ask additional questions to the vice president of SBO. Each Director may add other significant businesses as matters for deliberation at the meetings by informing SBO.

According to corporate governance policy, **Each Board meeting should be attended by at least three-quarters of all directors, and voting is to be decided by a majority of at least three-quarters of all attending directors. 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)

In the meetings, **the Chairman of the Board provides leadership and control to ensure smooth meetings, while encouraging all directors to fully participate and display capability.** The minutes of meetings



are undertaken in written form with complete information. The certified minutes are maintained, so that Directors and relevant persons can check, with a good filing system. Amendments cannot be made without the consent of the Board. Each meeting lasts approximately three hours.

In 2014, the Board convened in twelve general meetings. Moreover, the company held an annual seminar between the Board and the management on organizational strategies to review its vision and set organizational goals for 2015-2020 in line with its vision, mission, and values together with assessment of business settings and situations. The seminar included a study tour in Thermal Waste Treatment Plant at Vienna, Austria. The detail of each Director's meeting attendance is as follows:

	Names	Meeting attendance/all meetings (Times)			Remark
		General meetings	Seminar	Total	
1	Mr. Pichai Chunhavajira	12/12	1/1	13/13	
2	Prof. Dr. Chai-Anan Samudavanija	11/12	1/1	12/13	
3	Asst.Prof.Dr. Anusorn Tamajai	12/12	1/1	13/13	
4	Mr. Surin Chiravisit	12/12	1/1	13/13	
5	Mr. Suthep Wongvorazathe	11/12	1/1	12/13	
6	Mrs. Arunporn Limskul	12/12	1/1	13/13	
7	Pol.Lt.Gen. Chaiwat Chotima	9/9	1/1	10/10	Started on Apr. 9 <sup>th</sup> , 2014
8	Maj.Gen.Apirat Kongsompong	2/3	1/1	3/4	Started on Sep. 26 <sup>th</sup> , 2014
9	Mr. Krairit Nilkuha	12/12	1/1	13/13	
10	Mr. Prasong Poontaneat	11/12	1/1	12/13	
11	Mr. Sarakorn Kulatham	12/12	1/1	13/13	
12	Mr. Chaiwat Kovavisarach	12/12	1/1	13/13	
13	Mr. Vikrom Koombirochana	12/12	1/1	13/13	
14	Mr. Wirat Uanarumit	2/2	1/1	3/3	Started on Oct. 27 <sup>th</sup> , 2014
15	Mr. Vichien Usanachote	12/12	1/1	13/13	Retired on Dec. 31 <sup>st</sup> , 2014 by the Contract
16	Gen. Dapong Ratanasuwan	8/8	0/0	8/8	Resigned on Aug. 29 <sup>th</sup> , 2014
17	Mr. Supattanapong Punmeechaow	7/9	0/0	7/9	Resigned on Sep. 25 <sup>th</sup> , 2014



**According to corporate governance policy, the Board of Directors agreed on joint meetings for independent Directors in June and October, and for non-executive Directors in July and November, before the Board of Directors meeting.** The non-executive Directors and Independent Directors convened without the management's attendance to discuss general problems of the company's management and corporate governance, then inform the President so that the management may take due action.

### **Assessment of directors' performances**

In line with the corporate governance policy and to let the directors jointly review their performances and shortcomings for further improvement, the Board developed a performance assessment form for directors to be filled at least annually. With a scoring system of 100%; >85%=excellent, >75%=very good, >65%=good, >50%=fair, ≤50%=improvement needed, the summary of this assessment was presented to the Board:

#### **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 95.5%, 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 96.2%, regarded as excellent.

**2) Entire Board\*** relies on eight 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 85.0%, 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 97.3%, rated excellent.
- Nomination and Remuneration Committee, the group evaluation had the average score of 90.8%, rated excellent.
- Corporate Governance Committee, the group evaluation had the average score of 95.0%, rated excellent.
- Enterprise-wide Risk Management Committee, the group evaluation had the average score of 96.3%, rated excellent.



- \* *For continuously improving the assessment of directors' performances, in 2014 Bangchak commissioned Governance Matters, a seasoned consultant on corporate governance from Australia for public and private governance with over 20 years' experience, to assess performance of the entire board.*

### **Orientation for New Directors**

The company organized an orientation course for new Directors by presenting an overview of the company's business, as follows:

- Operational framework (laws, cabinet decisions, regulations, rules)
- Information on the company's business profile and activities
- The company's important projects
- Organizational and business development
- Corporate governance policy
- Corporate social responsibility

In addition, the company organized company visits for new Directors, including the refinery, terminal and service stations and provided the information files of the Board of Directors and the Executives in pdf file as a handbook/introduction of the company to the new Directors as a guideline to oversee the company's activities in the following topics:

- The company's vision, mission, value statement and objectives
- Organizational and business development
- Profiles summaries of Directors and the Executives
- Qualifications and remuneration of Directors
- Roles, duties and responsibilities of Directors
- Management structure
- Information on the company's establishment
- Corporate governance policy and risk management handbook
- The company's memorandum of association, company affidavit, regulations and rules

### **Training of the Board of Directors**

The company promotes opportunities for the Board of Directors to pursue further study and training so as to increase knowledge and understanding of corporate governance principle, rules and regulations, as well as roles and duties of the Board of Directors so that they may work efficiently and ethically. In 2014, the Directors who attended the training courses / seminars organized by the IOD and other organizations are as follows:

- Advanced Audit Committee Program (AACP15/2014): Asst.Prof.Dr. Anusorn Tamajai
- Director Certification Program (DCP194/2014): Pol.Lt.Gen. Chaiwat Chotima





- Financial Statements for Directors (FSD25/2014): Pol.Lt.Gen. Chaiwat Chotima
- Successful Formulation and Execution of Strategy (SFE20/2014) : Mr. Vikrom Koombirochana

At present, there are 6 and 10 out of 15 Directors had attended the Director Accreditation Program (DAP) and Director Certification Program (DCP), respectively. The company also applied all Directors for IOD membership to receive news and information. When the company received documents announcing news on training courses and documents attached to the training courses concerning the Board of Directors, such information would be forwarded to the Directors for further study.

Summary of the Board of Directors' attendance in major training course as follows:

	<b>Names</b>	<b>DAP</b>	<b>DCP</b>	<b>Remark</b>
1	Mr. Pichai Chunhavajira	2006	2011	
2	Prof. Dr. Chai-Anan Samudavanija	2010	-	
3	Asst.Prof.Dr. Anusorn Tamajai	2004	2003	
4	Mr. Surin Chiravisit	-	2010	
5	Mr. Suthep Wongvorazathe	2005	-	
6	Mrs. Arunporn Limskul	-	2012	
7	Pol.Lt.Gen. Chaiwat Chotima	-	2014	Started on April 9, 2014
8	Maj.Gen.Apirat Kongsompong	-	-	Started on September 26, 2014
9	Mr. Krairit Nilkuha	-	-	
10	Mr. Prasong Poontaneat	-	2006	
11	Mr. Sarakorn Kulatham	-	-	
12	Mr. Chaiwat Kovavisarach	-	2013	
13	Mr. Vikrom Koombirochana	2007	-	
14	Mr. Wirat Uanarumit	-	2001	Started on October 27, 2014
15	Mr. Vichien Usanachote	-	2006	Retired on December 31, 2014 by the Contract
16	Gen. Dapong Ratanasuwan	2011	-	Resigned on August 29, 2014
17	Mr. Supattanapong Punmeechaow	-	2010	Resigned on September 25, 2014



## 2. Committees

The Board of Directors elected Sub-committees (or Committees) to facilitate the company's business, undertaking with five sub-committees as follows:

### 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. Their responsibilities are assigned by the Board of Directors in written form in the Audit Commission charter. Their meetings are to be convened at least once per quarter. The names of the Audit Committee are:

<b>Name</b>	<b>Position</b>
1. Asst.Prof.Dr. Anusorn Tamajai	Chairman and Independent Director with expertise in accounting and finance
2. Mr. Suthep Wongvorazathe	Member and Independent Director
3. Mrs. Arunporn Limskul	Member and Independent Director

*\*If necessary, the Audit Committee may seek advice from outside independent advisers, the expense paid by the company.*

### Scopes, duties and responsibilities

- 1) To ensure accuracy and adequacy of the company's financial reporting according to the Accounting Principles governed by laws.
- 2) To ensure that the company has suitable and efficient internal control system and internal audit and to assure the efficiency and adequacy of the risk management system.
- 3) To review the company performance 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 to ensure compliance with the laws and regulations of the Exchange.
- 5) To inspect and consider with the management on the defects that have been found out and on the responses from the management.
- 6) To empower the auditing and investigating all related party under the authorization of the Audit Committee and also to authorize in hiring an expert so as to audit and investigate in compliance with the company's regulations.
- 7) To prepare a report on monitoring activities of the Audit Committee and disclose it in an 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 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 support each other and to reduce double operations as concerns financial auditing.
  - 10) To approve charter, audit work plans, budget, training plans and manpower of the Internal Control Office
  - 11) To appoint, transfer, and undertake annual evaluation of the Vice President of Internal Control Office and review the independence of Internal Control Office.
  - 12) To review the efficiency and effectiveness of information technology which involving internal control and risk management.
  - 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
    - (1) transaction which lead to conflict of interest
    - (2) dishonest, extremely unusual or remiss Internal Control system
    - (3) breaking the securities and exchange law, regulations of the exchange or laws relating to business of the company,The Audit Committee has to report the company's Board of Directors so as to modify and revise within prescribed time. If the Audit Committee or executives does not modify and revise within 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.

## **2. Nomination and Remuneration Committee (NRC)**

In compliance with the corporate governance principle of directors in a listed company on SET, the Board of Directors appoints the Nomination and Remuneration Committee to nominate and define criteria for transparent and fair remuneration to Directors and the senior executives in compliance with the charter of the Nomination and Remuneration Committee as follows:

### **Policy on Director Nomination**

"In its nomination of directors, the company values those that are knowledgeable, competent, and experienced, and command a sound career background, leadership, great vision, morality, ethics, and attitudes beneficial to the company. They must be able to devote adequate time to their duties to benefit the company's business. In addition, the company takes into account Board diversity and develops a



board skill matrix to identify the qualifications of those needed, especially the missing skills and qualifications for the prevailing Board's components and structure under its business strategies. It also relies on IOD's Director Pool as a nomination tool. To bolster shareholders' confidence, the process must be transparent."

### **Policy on Director Remuneration**

"To provide remuneration for Directors, the company will take into consideration the appropriateness of duties and responsibilities as assigned and compared with listed companies on SET with a similar industry and business size. The remuneration for the Directors is sufficient to induce the Directors to work with quality and meet the objectives and business direction as determined by the company through transparent procedures, giving confidence to the shareholders".

Moreover, the Board of Directors sets the following procedures for the official and transparent nomination of Directors, as follows:

1. The company gives minor shareholders opportunities to submit names of candidates as potential Directors to the company.
2. The Nomination and Remuneration Committee reviews the structure of Directors in line with the company's strategies.
3. Define new Directors' qualifications in terms of knowledge, competing and experience in compliance with the company's objectives and strategies by using the Director Qualifications and Skill Matrix tool.
4. The Committee defines the qualifications needed for the replacement or additional appointment and submits the names of the qualified candidates to the Secretary of the Committee.
5. The Committee selects qualified candidates and submits their name to the Board of Directors for approval.
6. The Board agrees on the list of qualified candidates and submits their names to the AGM for approval.

The Nomination and Remuneration Committee hold at least three meetings a year. At present, there are five members with at least one member with expertise in personnel management as follows:

<b>Name</b>	<b>Position</b>
1. Prof. Dr. Chai-anan Samudavanija	Chairman and Independent Director
2. Mr. Surin Chiravisit	Member and Independent Director
3. Mr. Suthep Wongvorazathe	Member and Independent Director
4. Pol.Lt.Gen. Chaiwat Chotima	Member and Independent Director
5. Mr. Wirat Uanarumit	Member and Secretary, Non-executive Director



### **Scopes, duties and responsibilities**

1. Define required qualifications for potential Directors and President.
2. Recommend qualified candidates for the positions of Directors and President to the Board of Directors.
3. Define criteria of remuneration for Directors and the President.
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 to the Board of Directors for approval.
6. Review and summarize the President'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 an independent director and knowledgeable in risk management as follows:

<b>Name</b>	<b>Position</b>
1. Mr. Krairit Nilkuha	Chairman and Non-executive Director
2. Maj.Gen.Apirat Kongsompong	Member and Independent Director
3. Mr. Prasong Poontaneat	Member and Non-executive Director
4. Mr. Vichien Usanachote	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.
6. Perform duties assigned by the Board.

### **4. Corporate Governance Committee (CGC)**

The Corporate Governance Committee is responsible for ensuring that the whole organization has corporate governance in compliance with the



guidelines and policy of corporate governance as set by the Board of Directors in written form, as well as continuously improving the principles of corporate governance in line with international standards. The present Committee consists of four members with at least one expert in corporate governance principles in line with international standards as follows:

<b>Name</b>	<b>Position</b>
1. Mr. Vikrom Koopirochana	Chairman and Non-executive Director
2. Mr. Sarakorn Kulatham	Member and Non-executive Director
3. Mr. Krairit Nilkuha	Member and Non-executive Director
4. Mr. Vichien Usanachote	Member and Secretary, Executive Director

### **Scopes, duties and responsibilities**

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.

### **5. Executive Committee (EXC)\***

*\* The Board meeting of August 25<sup>th</sup>, 2014, replaced Strategic Business Investment Committee (SBIC) with an appointed EXC.*

The Executive Committee consists of no less than three persons, up to two of whom can be from the management ranks. It can appoint up to two advisers.

<b>Name</b>	<b>Position</b>
1. Mr. Chaiwat Kovavisarach	Chairman and Non-executive Director



<b>Name</b>	<b>Position</b>
2. Mr. Surin Chiravisit	Member and Independent Director
3. Mr. Vikrom Koopirochana	Member and Non-executive Director
4. Mr. Vichien Usanachote	Member and Secretary, Executive Director
5. Dr. Anusorn Sangnimnuan	Advisor
6. Senior Executive Vice President, Corporate Strategy and Business Development	Secretary

### **Scopes, duties and responsibilities**

1. Monitor and assess performance outcomes against corporate strategies addressing such conditions and develop the organization in a sustainable way with due regard for current businesses, limitations, diversity, and ability to grow businesses in and outside Thailand in line with the Board's directions, goals, and policies.
2. Screen and monitor projects and investment opportunities in line with Bangchak's strategies before bringing their views up for the Board's approval.
3. Provide recommendations and monitor the organizational structure and financial structure that suit Bangchak and bring them up for the Board's approval.
4. Review and monitor HR development plans, IT systems, and business process re-design plans to accommodate the organizational structure and HR retention plans in line with emerging strategies with due regard for Bangchak's sustainability.
5. Perform Board-assigned duties.  
And have the authority to:
  1. Endorse the transfer of senior vice presidents and executive vice presidents
  2. Endorse the hiring of project advisers/consultants worth up to US\$1.5 million
  3. Appoint and set compensation for advisers to the Executive Committee
  4. Issue directives and summon data from the management as seen fit.



## The meetings of the Sub-committees

	Name	Committees						Remark
		AC	NRC	ERMC	CGC	EXC*	SBIC	
1	Mr. Pichai Chunhavajira <sup>1/</sup>	-	-	-	-	-	-	
2	Prof. Dr. Chai-Anan Samudavanija	-	10/10	-	-	-	-	
3	Asst.Prof.Dr. Anusorn Tamajai	12/12	-	-	-	-	-	
4	Mr. Surin Chiravisit <sup>2/</sup>	-	10/10	11/11	-	7/7	-	
5	Mr. Suthep Wongvorazathe	12/12	10/10	-	-	-	-	
6	Mrs. Arunporn Limskul	12/12	-	-	-	-	-	
7	Pol.Lt.Gen. Chaiwat Chotima <sup>3/</sup>	-	8/8	-	-	-	-	Started on April 9 <sup>th</sup> , 2014
8	Maj.Gen.Apirat Kongsompong <sup>4/</sup>	-	-	0/1	-	-	-	Started on September 26, 2014
9	Mr. Krairit Nilkuha <sup>5/</sup>	-	-	12/12	1/1	-	-	
10	Mr. Prasong Poontaneat	-	-	10/12	-	-	-	
11	Mr. Sarakorn Kulatham	-	-	-	3/3	-	-	
12	Mr. Chaiwat Kovavisarach <sup>6/</sup>	-	2/2	2/2	-	7/7	8/8	
13	Mr. Vikrom Koopirochana <sup>7/</sup>	-	-	-	3/3	7/7	-	
14	Mr. Wirat Uanarumit <sup>8/</sup>	-	2/2	-	-	-	-	Started on October 27 <sup>th</sup> , 2014
15	Mr. Vichien Usanachote <sup>9/</sup>	-	-	11/12	3/3	6/7	8/8	Expiry of his contract on December 31 <sup>st</sup> , 2014
16	Gen. Dapong Ratanasuwan	-	-	-	2/2	-	-	Resigned on August 29 <sup>th</sup> , 2014
17	Mr. Supattanapong Punmeechaow	-	6/6	-	-	-	-	Resigned on September 25 <sup>th</sup> , 2014

\* The Board meeting of August 25<sup>th</sup>, 2014 replaced SBIC with an appointed EXC.

- Note
- 1/ Chairman did not join any Committee as member.
  - 2/ Appointed as Member of EXC on August 25<sup>th</sup>, 2014 and dismissed from member of ERMC on October 27<sup>th</sup>, 2014
  - 3/ Appointed as Member of NRC on April 29<sup>th</sup>, 2014
  - 4/ Appointed as Member of ERMC on October 27<sup>th</sup>, 2014
  - 5/ Appointed as Member of CGC on October 27<sup>th</sup>, 2014
  - 6/ Appointed as Chairman of SBIC and EXC on January 28<sup>th</sup>, 2014 and August 25<sup>th</sup>, 2014, respectively. Dismissed from member of ERMC and NRC on January 28<sup>th</sup>, 2014 and April 29<sup>th</sup>, 2014, respectively.
  - 7/ Appointed as member of EXC and CGC on August 25<sup>th</sup>, 2014 and October 27<sup>th</sup>, 2014, respectively.
  - 8/ Appointed as Member of NRC on October 27<sup>th</sup>, 2014
  - 9/ Appointed as member of SBIC and EXC on January 28<sup>th</sup>, 2014 and August 25<sup>th</sup>, 2014, respectively.

### 3. Company Secretary

The Board of Directors appoints Ms. Pakawadee Junrayapes, vice president of the secretary to the Board of Directors office, as the Company Secretary responsible for providing legal and regulatory advice to the Board of Directors and the Executives and oversee the Board of Directors' activities, as well as coordinate to ensure that the resolutions





of the Board of Directors and the shareholders are in compliance with the company's corporate governance. Ms. Pakawadee Junrayapes has the profile summary as follows:

Ms. Pakawadee Junrayapes

Vice President and Company Secretary

The Secretary to The Board of the Directors Office, Corporate Administration and Information Technology

- Age 53
- 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), Ministry 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-
    - 2011-present : 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



The Company Secretary main duties and responsibilities are as follows:

- Give preliminary advice to Directors concerning to laws, company rules and regulations and ensure correct and continuous compliance, as well as reporting on important changes to the Directors.
- Organize shareholders and the Board of Directors meetings to be in compliance with the company's laws and regulations.
- Prepare minutes of the shareholders and the Board of Directors meetings, as well as monitor the implementation of the shareholders and the Board of Directors resolutions.
- Ensure the disclosure of information and information technology report under responsibilities to the company's monitoring office in compliance with the company's rules and regulations.
- Communicate with general shareholders on their rights and the company's news.
- Oversee the activities of the Board of Directors.

#### 4. Executive Management

The Company's Executive Management (or Management) consists of ten persons, namely:

<b>Name</b>	<b>Position</b>
1. Mr. Vichien Usanachote	President
2. Mr. Wattana Opanon-amata	First Senior Executive Vice President, Refinery Business
3. Mr. Yodphot Wongrukmit	Senior Executive Vice President, Corporate Administration and Information Technology
4. Mr. Bundit Sapianchai	Senior Executive Vice President, Renewable Energy Business
5. Mr. Surachai Kositsareewong	Senior Executive Vice President, Accounting and Finance
6. Mr. Pongchai Chaichirawiwat	Senior Executive Vice President, Marketing Business
7. Mr. Somchai Tejavanija	Senior Executive Vice President, Corporate Strategy and Business Development
8. Mr. Kiatchai Maitriwong	Acting Senior Petroleum Refining Executive, Refinery Business
9. Mr. Chalermchai Udomranu	Executive Vice President, Refinery Business
10. Mr. Phichet Emwattana	Executive Vice President, Marketing Business

#### **The Board of Directors' regulations on scopes, duties and responsibilities of the Executive Management**

The Board of Directors defines the roles, duties and responsibilities of the Executive Management as follows:



1. Manage the company's daily operations in compliance with the company's policy, action plans, objectives, regulations and rules as set by the Board of Directors.
2. Manage operations according to the resolutions of the meetings of the Board of Directors with the allocated budget with strictness, honesty, protecting the best interest of the company and the shareholders.
3. Regularly report performance and update on the work according to the resolutions and the company's important performance to the meeting of the Board of Directors at least once a month.
4. Manage the company's activities in compliance with corporate governance practices as set by the Board of Directors.
5. Refrain from running the business or participate in similar businesses in competition with the company's business, whether for one's own interest or interest of others, with the exception that one's respective superior and the Internal Control Office have been informed and approves such activity.
6. The President's service as director of other companies or any other position in a business organization must have a prior approval of the Board. Similarly, other executives from vice president upward must have a prior approval of the President. An exception to this is directorship in a joint-venture company, which must have a prior approval of the Board.
7. All senior executives including the first four senior executives after the President, and all those who hold the equivalent position to the fourth senior-most executive, as well as the executive in accounting and finance at the same level as the vice president, must refrain from securities trading at least one month before the announcement of the company's financial statements and at least three days after such announcement. They have to report the ownership of securities of their own, their spouse and their children not yet of legal age, held in the company and subsidiaries to the Board of Directors every month and must promptly report to the company in the following cases:
  - Direct and indirect vested interests with any contract concluded by the Company during the accounting year.
  - Possess shares or debentures of the company and its Subsidiaries companies.
8. Must participate in courses related to the company's business and daily operation at the company's expense, to enhance knowledge and skills to perform duties. As for the Senior Executive Vice Presidents, the Board of Directors encourage them to participate in the Director Certification Program (DCP) organized by the Thai Institute of Directors Association (IOD) or equivalent to enhance



understanding of the Director's roles and responsibilities that would lead to effective management of the Company.

### **Stipulations of the Board of Directors concerning the succession plan and improvement of Executives**

The Board of Directors sets a policy to nominate the President and Vice Presidents with appropriate qualifications which any person whether external or internal the company can apply. The purpose is to suit the company's situations at that particular time and to prepare company personnel to work in case the President or Senior Executives could not perform their duties or complete their term. It is also designed to reduce the risk or impact of the non-continuity in the company's management. The succession plan is thus set. The qualified person is selected by the Nomination and Remuneration Committee, which sets a succession plan for the President and the Senior Executive Vice Presidents under the following procedures:

1. Determine an executive position that needs a succession plan, consisting of the President and Senior Executive Vice Presidents of all business departments.
2. The Nomination and Remuneration Committee determines the competency, experiences and the required level of each position.
3. The Nomination and Remuneration Committee selects qualified executives for the succession in each business department.
4. Assign the President to evaluate the performance and competency of the qualified executives against the required competency to set a plan to develop each person to reduce the competency gap.
5. Assign the Personnel and Management Committee to take charge of training and the development of the competency of qualified executives.
6. The President stipulates the rotation of duties of qualified executives and instructs the Senior Executive Vice Presidents and Executive Vice Presidents to attend the meetings of the Board of Directors to acquire better understanding, experience and readiness in general organizational management.
7. The President regularly reports the performance and the improvement, according to the individual development plan, of the qualified executive to the Nomination and Remuneration Committee.
8. The Nomination and Remuneration Committee annually reviews and summarizes the succession plans for the President and Senior Executive Vice Presidents and reports them to the Board of Directors.



## Appointment of Executives

According to the company's rules, the Board of Directors promotes executives at the level of department. The Board of Directors assigns the Nomination and Remuneration Committee to select executives at the level of Senior Executive Vice President before submitting their names to the Board of Directors.

According to the Board of Director resolution, assign the President to select qualified candidates, appoint as a Director in the associated companies, and submits their names to the Board of Directors for approval. In cases of any changes, The President has to report it to the Board of Directors.

Director and Executives who served positions in the Subsidiaries, associated and other companies

NO	Name	Subsidiaries								Associated companies and other companies						
		BGN	BBF	BSE	BSE-PRI	BSE-CPM1	BSE-BRM	BSE-BRM1	BSE-NMA	BCPE	NIDO	UBE	UBG	UAE	NPE	FPT
1.	Mr. Chaiwat Kovavisarach										/					
2.	Mr. Vichien Usanachote		●								/	●				
3.	Mr. Yodphot Wongrukmit	/														
4.	Mr. Bundit Sopianchai		/	●	●	●	●	●	●			/	●	●	●	
5.	Mr. Surachai Kositsareewong	/	/	/						/						
6.	Mr. Pongchai Chaichirawiwat	/														
7.	Mr. Somchai Tejavanija			/						/						/
8.	Mr. Kiatchai Maitriwong			/												
9.	Mr. Phichet Emwattana															/
10.	Mr. Dhanajit Makarananda		★													
11.	Mr. Chokchai Atsawarangsalit				/	/	/	/	/							
12.	Ms. Revadee Pornpatkul			★	★	★	★	★	★							
13.	Ms. Naree Jiamwattanasuk	★														

● = Chairman    ★ = Managing Director    / = Director

### Note:

Subsidiaries companies in which Bangchak directly or indirectly holds more than 50% of total voting stocks, or can influence in the company's financial and management policies



Associated companies	companies in which Bangchak or its subsidiaries altogether hold from 20% to 50% of total voting stocks, or take part in decision-making on financial and management policies.
BGN	Bangchak Green Net Co., Ltd.
BBF	Bangchak Biofuel Co., Ltd.
BSE	Bangchak Solar Energy Co., Ltd.
BSE-PRI	Bangchak Solar Energy (Prachinburi) Co., Ltd. (BSE's Subsidiary)
BSE-CPM1	Bangchak Solar Energy (Chaiyaphum1) Co., Ltd. (BSE's Subsidiary)
BSE-BRM	Bangchak Solar Energy (Buriram) Co., Ltd. (BSE's Subsidiary)
BSE-BRM1	Bangchak Solar Energy (Buriram 1) Co., Ltd. (BSE's Subsidiary)
BSE-NMA	Bangchak Solar Energy (Nakhonratchasima) Co., Ltd. (BSE's Subsidiary)
BCPE	BCP Energy International Pte. Ltd.
NIDO	Nido Petroleum Limited (BCPE's Subsidiary)
UBE	Ubon Bio Ethanol Co., Ltd.
UBG	Ubon Bio Gas Co., Ltd. (UBE's Subsidiary)
UAE	Ubon Agricultural Energy Co., Ltd. (UBE's Subsidiary)
NPE	NP Bio Energy Co., Ltd. (UBE's Subsidiary)
FPT	Fuel Pipeline Transportation Co., Ltd.
APMC	ASEAN Potash Mining Plc

### **Evaluation of the President and Executives**

Non-executive Directors are to evaluate the performance of the President every year. Each year, the Board of Directors evaluates the performance of the President in the form of KPIs against the KPIs stated in the objectives in the hiring contract and action plan that were submitted to the Board of Directors. The President must present his performance in various fields, such as management of the refinery business, marketing business, new business and organizational development, as well as in terms of success, obstacles and social & environment policy and capability to expand opportunities and business competition while responding to the government's assorted policies.

Moreover, senior executive vice president must report their annual performance in the form of KPIs to the Nomination and Remuneration Committee.

### **5. Remuneration of Directors**

The Nomination and Remuneration Committee fairly and sensibly sets the remuneration for Directors in line with the responsibilities of Directors, the financial status, and against other companies listed on SET in a similar industry or business size, as well as comparing the average of listed companies from a survey of remuneration rates of registered Directors of IOD by setting the remuneration in the forms of meeting allowances and bonus. The Directors assigned as Members in



various Committees receive additional compensation to reflect additional responsibilities. The company has sought permission to pay Directors from the meeting of the shareholders as follows:

### 1) Monthly remuneration and meeting allowance

	Monthly remuneration (Baht per person)	Meeting allowance (Baht per meeting) (only the Directors who attended the meeting)	Remark
<b>The Board of Directors</b>	<b>30,000</b>	<b>30,000</b>	<b>The resolutions of the 2014 Annual General Meeting of Shareholders on April 9<sup>th</sup>, 2014</b>
<b>Audit Committee</b>	<b>10,000</b>	<b>15,000</b>	
<b>Nomination and Remuneration Committee</b>	<b>-</b>	<b>15,000</b>	
Enterprise-wide Risk Management Committee	-	15,000	The remuneration of other Committees appointed by the Board of Directors is under the consideration of the Board of Directors on the basis of appropriateness and in line with the Members' duties and responsibilities.
Corporate Governance Committee	-	15,000	
Strategic Business Investment Committee (Aborted on August 25, 2014)	-	15,000	
Executive Committee* (Appointed on August 25, 2014)	10,000	15,000	

The Chairman of the Board of Directors and the Committees receive monthly remuneration and meeting allowances amounting to 25 percent higher than other Directors, and the Vice Chairmen receive monthly remuneration and meeting allowances amounting to 12.5 percent higher than other Directors do.

### 2) Bonuses for Directors

The bonus for each Director is set at 0.75 percent of net profit but altogether no more than 30,000,000 Baht/year for all Directors. However, the President and Vice Presidents receive 25 percent and 12.5 percent higher bonuses respectively.

### 3) Other Essential Business Expenses

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



#### 4) Others

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

In 2014, the individual remuneration of Directors was as follows:

Name	Remuneration in Baht								Net total
	BOARD	AC	NRC	ERMC	CGC	EXC	SBIC	BONUS	
1 Mr. Pichai Chunhavajira	937,500	-	-	-	-	-	-	2,173,916	3,111,416
2 Prof. Dr. Chai-Anan Samudavanija	843,750	-	168,750	-	-	-	-	1,956,524	2,969,024
3 Asst.Prof.Dr. Anusorn Tamajai	780,000	375,000	-	-	-	-	-	1,739,130	2,894,130
4 Mr. Surin Chiravisit	780,000	-	135,000	180,000	-	145,000	-	1,739,130	2,979,130
5 Mr. Suthep Wongvorazathe	750,000	300,000	135,000	-	-	-	-	1,739,130	2,924,130
6 Mrs. Arunporn Limskul	750,000	300,000	-	-	-	-	-	1,262,656	2,312,656
7 Pol.Lt.Gen. Chaiwat Chotima <sup>1/</sup>	570,000	-	105,000	-	-	-	-	-	675,000
8 Maj.Gen.Apirat Kongsompong <sup>2/</sup>	180,000	-	-	-	-	-	-	-	180,000
9 Mr. Krairit Nilkuha	780,000	-	-	243,750	15,000	-	-	1,739,130	2,777,880
10 Mr. Prasong Poontaneat	720,000	-	-	165,000	-	-	-	1,739,130	2,624,130
11 Mr. Sarakorn Kulatham	780,000	-	-	-	45,000	-	-	1,739,130	2,564,130
12 Mr. Chaiwat Kovavisarach	750,000	-	30,000	30,000	-	3,331,250	150,000	1,739,130	6,030,380
13 Mr. Vikrom Koopirochana	780,000	-	-	-	48,750	145,000	-	1,262,656	2,236,406
14 Mr. Wirat Uanarumit <sup>3/</sup>	150,000	-	15,000	-	-	-	-	-	165,000
15 Mr. Vichien Usanachote	780,000	-	-	180,000	45,000	-	120,000	1,739,130	2,864,130
<b>TOTAL</b>	<b>10,331,250</b>	<b>975,000</b>	<b>588,750</b>	<b>798,750</b>	<b>153,750</b>	<b>3,621,250</b>	<b>270,000</b>	<b>20,568,792</b>	<b>37,307,542</b>

Since the Independent Directors (No. 2-8) did not hold the positions of Directors in subsidiaries or equivalent, there was no remuneration for holding the position.

Note 1/ Appointed as Member on April 9<sup>th</sup>, 2014

2/ Appointed as Member on September 26<sup>th</sup>, 2014

3/ Appointed as Member on October 27<sup>th</sup>, 2014

#### Directors who completed their terms and resigned during 2014

Name	Remuneration in Baht								Net total
	BOARD	AC	NRC	ERMC	CGC	EXC	SBIC	BONUS	
1. Gen. Dapong Ratanasuwan <sup>1/</sup>	480,000	-	-	-	37,500	-	-	1,739,130	2,256,630
2. Mr. Supattanapong Punmeechaow <sup>2/</sup>	480,000	-	90,000	-	-	-	-	300,178	870,178
<b>TOTAL</b>	<b>960,000</b>	<b>-</b>	<b>90,000</b>	<b>-</b>	<b>37,500</b>	<b>-</b>	<b>-</b>	<b>2,039,308</b>	<b>3,126,808</b>





Note 1/ Resigned on August 29<sup>th</sup>, 2014  
2/ Resigned on September 25<sup>th</sup>, 2014

### Directors who completed their terms and resigned during 2013 (and received bonuses for 2013 performance, payable in 2014)

	Name	Remuneration in Baht					Net total	
		BOARD	AC	NRC	ERMC	CGC		BONUS
1.	Mr. Issra Shoatburakarn <sup>1/</sup>	-	-	-	-	-	476,474	476,474
2.	Mr. Suphon Tubtimcharoon <sup>1/</sup>	-	-	-	-	-	476,474	476,474
3.	Mr. Nuttachat Charuchinda <sup>2/</sup>	-	-	-	-	-	1,438,952	1,438,952
<b>TOTAL</b>		-	-	-	-	-	<b>2,391,900</b>	<b>2,391,900</b>

Note 1/ Completed their term on April 10<sup>th</sup>, 2013  
2/ Resigned on October 30<sup>th</sup>, 2013

### Comparison of Remuneration of Directors in 2013 and 2014

Remuneration	2013		2014	
	Directors	Baht	Directors	Baht
Meeting allowance	14	14,437,500	15	17,826,250
Bonus	14	25,000,000	15	25,000,000
<b>TOTAL</b>		<b>39,437,500</b>		<b>42,826,250</b>

Note: Bonuses for 2013 performance under the resolution of the 2013 AGM, held on April 10<sup>th</sup>, 2013, and payable in 2014

## 6. Remuneration of Executives

The Company evaluates the performance of executives every year in the form of KPIs by comparing them with the objectives in the hiring contract and/or action plan presented to the President and/or the Board of Directors, which will be connected to the rate received according to the Board of Directors' regulations. As for the President, the evaluation will be undertaken every year as well by the non-executive Directors as detailed above.

The Nomination and Remuneration Committee sets remuneration which reflects the performance and remuneration according to the standard of various companies in the same industry and submit appropriate remuneration to the Board of Directors for further consideration and approval.

The President and the executives from Executive Vice President upward of the company, totaling ten persons, received a total of Baht 85,038,866 in remuneration in 2014, detailed as follows:



## Remuneration and Provident Fund of Senior Executives

Remuneration	2013		2014	
	Persons	Baht	Persons	Baht
Salary	9	51,041,079	10	55,703,816
Bonus & Retirement pay	9	25,332,389	10	24,807,602
Provident fund	9	4,353,318	10	4,527,448

## 7. Personnel

On December 31<sup>st</sup>, 2014, the Company had a total headcount of **1,052**:

Employee	Persons
The President and Internal Control Office	30
Refinery Business	505
Marketing Business	294
Renewable Energy Business	15
Corporate Strategy and Business Development	29
Accounting and Finance	76
Corporate Administration and Information Technology	103

### Remuneration of employee

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 2014, 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 1,295 million Baht.

### Significant changes in number employee for the past three years

- None (Total employee in year 2012 were 1,027 persons, which increased slightly to 1,052 persons in year 2014)

### Human Resource Development

Continuously, the company has focused on personnel development to strengthen their capability and enable their work to correspond to its goals, policies, and directions and enable the company to remain



internationally competitive so as to accommodate the growth of the ASEAN Community (Further details are included in the Sustainability Report).



## **9. Corporate Governance**

The Board of Directors is fully committed to conducting its business under the principles of good corporate governance to ensure that the company performs its operations with efficiency, transparency and accountability toward all stakeholders. In 2014, the company conformed to corporate governance principles in the following aspects:

### **1. Compliance with the Principles of Good Corporate Governance for Listed Companies 2012**

The Stock Exchange of Thailand (SET) has instituted “The Principles of Good Corporate Governance for Listed Companies 2012 “ which consist of principles and best practices related to corporate governance for use by listed companies. The company, throughout 2013, has continuously adopted such principles in executing its business, which can be divided into five areas as follows:

#### **1.1 Rights of Shareholders**

The Board has defined a policy on the rights of shareholders in the Corporate Governance Policy, section 7, with the practices as follows:

- The 2014 Annual General Meeting of Shareholders (AGM) was held on Wednesday, April 9<sup>th</sup>, 2014 at Bangkok International Trade & Exhibition Centre (BITEC), located near BTS Bangna station, which is conveniently accessible.
- The company applied the record date for the AGM to give shareholders more time to examine meeting notices and related information ahead of the meeting.
- Shareholders were informed of the meeting two months ahead of the meeting date, which is or and above the standard required by law, to allow shareholders time to plan his or her schedule.
- Meeting documents were disseminated 40 days before the meeting date via website and 21 days via mail.
- Opinions of the Board were included for every agenda item and an annual report was attached as well as a proxy form, with details of documents and supporting evidence needed, together with meeting documents.
- Contact numbers were provided for additional inquiries by shareholders.
- Allowed shareholders to post questions in advance since August 30<sup>th</sup>, 2013, to be addressed at the 2014 AGM.
- Facilitated and promoted institutional investors' attendance at the shareholders' meeting. Bangchak's investor relations officers made inquiries about agenda issues and collected proxy forms in advance.
- Facilities were provided to shareholders on the date of the meeting as follows:
  - Ample parking spaces were reserved and free transport provided from BTS Bangna station to the meeting venue.
  - Registration points were increased and the barcode system used in registration and ballot counting for efficiency and speed.
  - The Thailand Securities Depository Company Limited's (TSD's) AGM system was used in the registration and ballot counting for efficiency and transparency.
  - Stamp duties to affix to the proxy form were provided to proxies free of charge.



- Stickers were provided to registered shareholders to ease their access to the meeting without re-verifying the document.
- The President, before the meeting, informed shareholders of the voting and counting procedures for the resolution of each agenda.
- During the meeting, the shareholders were given equal opportunities to express their views and raising queries. Significant views and queries were recorded in the minutes of the meeting.
- Afterward, the minutes of the meeting were disseminated to the shareholders via the Company's website and SET's channel.

**For the 2014 AGM, the company invited Mr. Visith Uevirojnangkoorn, independent legal consultant, and Mr. Wutipong Vechayanon, the company's legal consultant to serve as the referees to ensure that the meeting was conducted in a transparent ways and in compliance with the laws and the company's Regulations for the following matters:**

1. Verification process for documents and evidence of shareholders or proxy holders
2. Quorum of the meeting
3. Abstention of stakeholders
4. Vote casting and vote counting procedures in compliance with the company's regulations / as informed by Chairman.
5. Monitoring of ballot collecting and verification of voting results and resolutions.

**Because of its continual improvement, the company has received a perfect score of 100 for its quality under the 2014 AGM project, given by the Thai Investors Association.**

## **1.2 Equitable Treatment of Shareholders**

The Board has defined its policy on equitable treatment of shareholders in its corporate governance, section 7, in addition to those defined by the law, with practices as follows:

- Allowed the shareholders to propose AGM agenda items and nominate directors between August 30 and December 31, with related rules and procedures disclosed on the company's website, and posted a notice of the meeting via SET's media channels. The company makes it a policy not to add any agenda items without prior notification, especially essential agenda items which need time for investigation before making decisions.
- Encouraged shareholders to use Proxy Form B with stipulated direction for voting and a list of six independent directors, any of whom they can appoint as their proxy in the meeting.
- Used ballot papers on every agenda, especially the agenda on election of directors, in which shareholders can vote for each individual nominee. The vote is in proportion to the number of shares held.
- Defined guidelines for employees in the corporate governance policy, section 9, on safeguarding the company's confidential information and restraining from using the company's confidential information for their own gains.
- Stipulated the duties of directors and the management in the good corporate governance statement, section 5, in refraining from trading of company shares at least a month before the disclosure of financial statements and three days



- after the disclosure, as well as in reporting to the Board on their shares held every month.
- Provided various communication channels so that shareholders can have equal access to the information.

### 1.3 Role of Stakeholders

The Board has defined its policy on the roles of the company towards stakeholders in its corporate governance policy, section 7, as follows:

- “1)The Board recognizes and values the rights of stakeholders as defined by laws, human rights and fair labor treatment, locally and internationally, and promotes cooperation between the company and its stakeholders in forging prosperity, creating jobs and creating a sustained, stable financial status for the business. The Board ensures that the stakeholders’ rights are protected and well-treated.
- 2) The Board takes into consideration the benefits derived and the stakeholders’ assistance in forging its competitiveness and profitability.
- 3) The Board 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

Methods of filing a complaint or inquiry

E-Mail [ico@bangchak.co.th](mailto:ico@bangchak.co.th)

Mail The Internal Control Office

The Bangchak Petroleum Plc

210 Sukhumvit 64, Bangchak, Phra Khanong, Bangkok 10260

Tel : 0-2335-4566 Fax : 0-2331-6530”

The company monitored reports concerning whistle-blowing and complaints filed to the Internal Control Office. This year, 26 complaints were filed. After fact-finding by responsible units, only one involved potential corrupt practices, another was under investigation, and in another case the company could not establish contact with the complainant.

In corporate governance, there are various groups of stakeholders which the company takes into consideration their rights over and above those stated by the law, as well as not taking actions which might violate the rights of stakeholders and intellectual properties. This can be summarized below. (Further details are included in the Sustainability Report)

#### Employees

The company recognizes that employees are the driving force, and encourages the training of employees to increase their competency. Moreover, the company ensured that employees were fairly treated and received suitable, fair compensation and welfare compatible with their performance assessment levels and the company’s own performance outcomes in comparison with market and industry peers. This included a provident fund, medical welfare, commuter buses, labor relations activities, and an employee’s association consisting of assorted clubs for their recreation after a day’s work.



### Customers and Society

The company is dedicated to improving the quality of products and services for maximum customers' satisfaction. 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. Company employees protect the customer's secrets and do not use them for personal gains.

### Suppliers / Contractors

Bangchak's code of conduct governs hiring and purchasing, its policy governs fair selection and treatment of business partners, and its regulations deal with the procurement and sales of petroleum and refined products. The purpose is to ensure that its business with partners may proceed properly and responsibly, as well as judicious coordination in both sides' interests. In addition, Bangchak has issued a business contact manual and policy guidelines for its service station agents to ease business partners' contact with Bangchak and enable its operators/agents to conduct business under good governance and a proper code of conduct, while strictly honoring various agreements or conditions. If it is impossible to observe any of these, one must notify business partners in advance to jointly deliberate solutions.

### 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.

### The Community around the Refinery, Society, and the Environment

The company considers health and safety and the environment as 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 corporate culture "Develop sustainable business, while safeguarding the environment and society".

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.



#### **1.4 Disclosure and Transparency**

The Board has defined its policy on Disclosure and Transparency in its corporate governance policy, section 8, with practices as follows:

- Every quarter, performance outcomes, corporate information, and business outlooks were presented to analysts and investors, both domestic and abroad.
- Posted on Bangchak's website its memorandum of association, company affidavit, regulations, and the corporate governance policy.
- Organized shareholders' visits to the Sunny Bangchak Project at Amphoe Bang Pa-in, Ayutthaya province.
- The company has an investor relations section to communicate with analysts, investors and other persons who might seek information on financial statements, corporate performance and status as well as any transactions which might affect the company.
- Regularly disseminate the company's important news via SET, information disclosure forms, annual report and the company's website, in both Thai and English.
- In place are policies and measures for complaint-making (whistleblowing) by employees or other stakeholders about wrongdoings, violations of the code of conduct, or suspected malfeasance cases involving employees, including false financial reports or shortcomings in the internal control system. Also in place is a mechanism to protect whistleblowers, consisting by keeping their data confidential. This way, stakeholders may take part in guarding the company's interests more efficiently.

#### **1.5 Responsibilities of the Board**

The Board has defined its policy on the roles, duties and responsibilities of the Board in its corporate governance statement, section 3, with practices as follows:

- Staged meetings among independent directors in June and October, and ones among non-executive directors in July and November.
- Organized a study tour on Thermal Waste Treatment Plant in Vienna, Austria in compliance with the company's growth and development clean-energy business and other energy businesses.
- Developed the Board's performance assessment forms for the Board for individual self-assessment and cross-assessment as well as the entire Board, and for the subcommittees alike.
- Took part in defining a vision, mission, strategy, business targets, and budget each year to maximize economic value to the company business and shareholders' security. The Board also approves essential strategies and policies, in particular, key performance indicators (KPIs) relating to financial and planning matters which the Board had earlier approved (indicators and targets) and monitor them from time to time.
- Followed up on the management's execution by assigning the management to report the company's performance and operations to the Board every month.
- Ensured that the company had efficient internal controls, internal audit, and risk management measures in place and regularly reported to the Board on its performance.
- Appointed is a Law Office in charge of corporate legal matters, including compliance, to ensure that all units completely and accurately comply with laws.





This is achieved by developing legal control self-assessment for all corporate units; supervising license renewals through a reminder system for superiors and employees, and so on; and educating employees through assorted channels like Outlook, internal broadcast, and annual training in laws.

## 2. Corporate Governance Policy

The Board has had a written corporate governance policy since 2003 for its executives and employees to adhere to:

- **Accountability** for all decisions made and actions taken
- **Responsibility**, or being responsible for one's duties
- **Transparency** in regard to information disclosure and being open to scrutiny
- **Equitable Treatment** to all concerned parties
- **Vision to Create Long-Term Value**
- **Ethics** and virtue.

The corporate governance policy, section 3, stipulates the roles, duties and responsibilities of the Board in reviewing the policy regularly. In 2014, the Board developed and provided support to the execution of good corporate governance as follows:

- Revised the Corporate Governance Policy (11th revision) by including a policy on director nomination, minimum meeting attendances by directors, and a Board quorum during voting in Section 3 (Board of Directors), executives' service as another entity's directors in Section 5 (the management), rights of shareholders in Section 7 (rights and equitability of shareholders and Bangchak's role toward stakeholders), and treatment of employees in Section 9 (guidelines for directors, executives, and employees).
- Amended the corporate governance policies of subsidiaries (Bangchak Green Net, Bangchak Biofuel, and Bangchak Solar Energy), first revision, by adding sections' principles and guidelines, including the addition of Section 2 (anti-corruption).
- 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.

The company also launched public relations activities to promote the good corporate governance culture as follows:

- Provided corporate governance training as part of the orientation curriculum for new directors and staff.
- Organized CG Day 2014 activities under the "Bangchak's 30-year Journey, Building on Virtue toward Sustainability" theme, featuring employee shows narrating Bangchak's background of the past 30 years and its readiness to build on virtue toward sustainability.

Playing a role in disseminating good corporate governance principles to the public, directors and executives were invited to share their knowledge and experience on the company's good corporate governance on various occasions.

## 3. Anti-corruption

Bangchak values good corporate governance and anti-corruption alike. The company 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). In addition, the company has demonstrated its commitment to anti-corruption, as summarized below.

- Issued a policy on rejection of gifts and notifying others outside the company of this policy during festivals and any other period in a move to upgrade its corporate governance and set a good standard for engagement in fair businesses with all related parties.
- Organized a business partner seminar for the year, educating them and supporting their moves to join CAC.

#### 4. Conflicts of Interest

Under the corporate governance policy, section 9, the guidelines for directors, management and employees stipulated that they must refrain from any act posing potential conflicts of interest with the company, for instance, 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 (No. 4) B.E. 2551 (2008) 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.



## 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.

Furthermore, in the Board Meeting, Directors and executives must report changes in shares held every month, and must notify the company without delay if:

- They are stakeholders directly or indirectly from the contracts that the company makes during the fiscal year.
- They hold shares or bonds in the company and its subsidiaries.

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

### 6.1 Audit Fee

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

- The company's External Auditor (Mr. Winid Silamongkol or Mr. Vairoj Jindamaneepitak or Mr. Charoen Phosamritlert) in the last year totaled 0 Baht.
- The Audit Company (KPMG Phoomchai Audit Ltd.), persons and businesses related to the external auditor and the Audit Company in the last year totaled 3,993,279 Baht (Bangchak Petroleum Plc: 1,945,973 Baht, Bangchak Green Net Ltd.: 706,372 Baht, Bangchak Biofuel Ltd.: 243,960 Baht and Bangchak Solar Energy Ltd. and its subsidiaries: 1,096,974 Baht)

### 6.2 Other fees

- none -

## 7. 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 and ensuring that financial reports as well as important information which affects the value of the company's shares, such as the financial statements, the business performance report, MD&A report and analysis for each quarter and year, are distributed in a timely and regular manner, and complying with SEC regulations. This is for the benefit of investors both in



Thailand and abroad. The company produces a performance report and provides information to investors, shareholders and stakeholders directly and indirectly as follows:

- Directly: The company keeps analysts, investors and employees updated regularly through analyst meetings, company road shows, E-newsletters, conference calls and attending conferences organized by various institutions, meeting with minor investors on SET's Opportunity Day, or company visits to other listed companies through the Federation of Thai Industries. These activities would allow potential investors, shareholders in listed companies, analysts and Federation of Thai Industries members to have access to the company's management information and activities. Related parties can also make appointments to ask for information about business updates and can attend the company visit programs as well. Moreover, those who cannot attend analyst meetings can access the information through videotaped sessions, which are put on the website in Thai and English.

#### **A Summary of Investor Relations Activities in 2014**

Activity	Number (times)
Foreign Roadshow	6
Local Roadshow	2
Analyst Meetings	4
Opportunity Day (organized by the SET)	4
Company Visit	25
Conference Call	8
Answering Inquiries by E-mail/telephone	3-4/day
E-newsletter	4
Site Visit	4
Shareholder and Minor Investors Get-together	5

- Indirectly: The company gives out both current and past information about the company, financial statements, performance reports, as well as other reports submitted to SET on the company's website [www.bangchak.co.th](http://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.

Investors and related parties can make queries or ask for the company's information at Investor Relations Section, tel. 0-2335-4580, 83, 0-2140-8952, at the website: [www.bangchak.co.th](http://www.bangchak.co.th), or e-mail address: [ir@bangchak.co.th](mailto:ir@bangchak.co.th)

Furthermore, the company distributes information about public relations, business updates, business progress, and ongoing projects, as well as answering questions and allowing ready access for the media and the public, through e-mails, press releases, photo captions, press conferences, as well as Opportunity Day. Activities in 2014 can be summarized as follows:



Activity	Number (times)
Press Conference / other ceremonies involving the media	18
SMS news alert	43
Press Release	29
Photo Caption	65



## 10. Social Responsibility

Founded in 1984, Bangchak Petroleum Public Company Limited has adopted its businesses with values and cultures coherently with national energy security and the contribution for better living of the Thai society. From day one, our corporate vision, culture, and missions have been fully aligned with the principle of **Sustainable Business Development in Harmony with the Environment and Society**. This principle demands clear alignment and strong adherence between business activities and the environment and society, as well as the adoption of the Sufficiency Economy philosophy, corporate governance principles, and principles of social responsibility. These principles have been integrated and applied to drive Bangchak toward sustainable growth under the corporate vision of “**creating an energy business that is environmentally friendly for sustainable development**”, or “**Greenenergy Excellence**”.

With its 30-year anniversary observed in 2014, Bangchak’s business growth has expanded from fossil fuel into various alternative/renewable energy sources to meet demand of stakeholders and correspond to the national and global changes on society and the environment. As a good corporate citizen, Bangchak is fully committed to growing invariably to its original work philosophy in creating value for society and the environment with both CSR in-process and CSR after-process activities, designed and executed at all levels from local communities, communities surrounding the refinery, to the nation. All work activities promote stability and strengthen preventive capability toward better, sustainable economy, society, environment, and energy security for Thais. These missions are adhered to by executives and all employees of all units under the employee culture of “**To be virtuous, knowledgeable, and contributive to society**”.

According to the Company culture and vision, the Company has instituted risk management practices to diversify income to businesses with more stable income in tandem with environmental stewardship achieved through being a **Low-Carbon Company**, extending to a **Green Society** with a **Green Process** in all refining stages since 2013. It sells **Green Products** (meaning alternative-energy forms sold through all service stations), practices **Green Management** and **Green Procurement** meaning implanting low energy usage in employees’ habits and consuming of green products in **Green Office & Green Building**, while growing green society to incorporate affiliates, business partners, and stakeholders. In addition, Bangchak has introduced sustainable management



as its key component, ranging from its strategic planning, where social and environmental KPIs are made operating goals on top of business ones (financial, customer, process, and people). These are then deployed into action for business lines, division, executives and employee as follows:

**1. *Grow the business and increase new business***

The company has defined business growth goals to grow sustainable value for its business by restructuring its EBITDA from refining business, which is highly volatile by nature of the refining business—whether world market prices or refining margins that are subject to global and regional economic conditions—which could in turn result in the company’s performance being also volatile. The company has increases its EBITDA in renewable energy business to 50% in 2020, including solar-energy power generation, biodiesel production, ethanol production from energy crops- which is a secure income business and has low risks from external factor.

**2. *Low Carbon Company***

Recognizing that its oil refining business belongs to the energy-consuming industry, Bangchak strives to become a Low-Carbon Company by emitting minimal net volumes of carbon dioxide to minimize environmental impacts arising from its business. Investment is made to produce and sell clean fuels with less environmental impacts than other fuels. Bangchak was in fact the first company to produce and sell gasohol and biodiesel. The company added energy stability in production processes by purchasing power and steam from a cogeneration power plant fueled by natural gas, a green form of energy. Bangchak is also studying diesel production from algae and renewable energy from household waste. It also plans to continually upgrade the refinery’s energy efficiency.

**3. *Socially and Environmentally Friendly Business Models (In-process)***

The company is determined to do business in such a way that not only can it sustain continuous growth, but also simultaneously generate positive impacts on society and the environment. Such a model that the Company has been operating successfully is the cooperation model of petrol stations operated by agricultural cooperatives. Also, Bangchak buys agricultural products of communities for use as its sales promotional giveaways to grow



these products' markets, while giving these products access to consumers. Bangchak joined the Ministry of Agriculture and Cooperatives, Ministry of Energy, and Bank for Agriculture and Agricultural Cooperatives in developing a new business of turning deserted orange plantations into an oil palm plantation to generate income for Rangsit farmers in line with the public sector's alternative/renewable energy promotion plan. An indirect benefit is that Rangsit areas can absorb water further to counteract land subsidence and floods that may ruin Bangkok Metropolis.

#### **4. *Open, Transparent and Verifiable***

The Company adheres to an open, transparent and verifiable policy in its operations. Operational data are transparently disclosed under good corporate governance and The Stock Exchange of Thailand rules. Applying proactive environmental management, it discloses online data on quality of air and effluents around the refinery by posting electronic sign board at the entrance to the refinery and surrounding communities.

### **Safety, Security, Occupational Health, Environment, and Energy Management (SHEE)**

Safety is vital to the organization and stakeholders. All executives and all employees are directly responsible for safety, security, occupational health, environment and energy under the “**SHEE are everyone's responsibility**” theme. They are held responsible for all stakeholder groups, themselves, peers, communities, and society. The company therefore has a standard safety management system, ranging from policy-making, compliance to specific standards, such as American Petroleum Institute: API, National Electric Code: NEC, International Electro-technical Commission, American Society Mechanical Engineering: ASME, American Society for Testing and Material: ASTM, etc. Also, it has standard for development of employees' competence in work performance, assessment, and reviewing by senior executives for support of necessary resources and continuous improvement. (PDCA).

1. Define, review, and keep updated the SHEE Policy toward excellence.
2. Put in place a management structure to consistently ensure systematic, participative processes by all employees.
3. Establish a safety culture.
4. Promote SHEE awareness and “work safely” behavior. Some SHEE Awareness activities such as





- **“Moment of CARE”** is designed to nurture all employees and contractors with SHEE awareness and safe work practices. Executives and employees are given opportunities to write notes with care and support contents to all peers and contractors.
  - Distribution of **portable safety manuals** to employees and contractors.
  - **SHEE talk:** A SHEE talk is compulsory before all meetings, designed to promote communication on safety, occupational health, environment, and energy among management and employees.
  - **SHEE Channel:** SHEE Channel is a set of activities designed to support communication among employees via corporate communication channels, including company broadcast, internal electronic mails, LCD screens and posters located at various places in each building under subjects of BB-SHEE and We Care-We Share.
5. Develop workers’ capability, knowledge, and competence.
  6. To efficiently conduct SHEE management, Bangchak commits itself to the accreditation of international management standards, including ISO-14001 for environmental management, OHSAS/TIS 18001 for safety and occupational health, ISO 17025 for quality laboratory, ISO 27001 for IT system security, ISO 22301 for business continuity management, ISO 50001 for energy management, and ISPS Code for sea port safety and security management.
  7. Enhance plant reliability.
  8. Upgrade the process safety management (PSM) system.

Under proactive management for health and occupational health, Bangchak initiated a risk assessment program on occupational health. Work space redesign was executed to limit unsafe possibility from the source. The work environment including chemicals, light, noise, and heat, is regularly monitored to define preventive and mitigation measures, as well as improving workplace safety. These initiatives include:

1. Conducted health risk assessment.
2. Deployed proactive occupational health processes, including;
  - Employee health checkups before, during, and after employment.
  - Annual employee health checkups on a standard program and specific programs for those working under specific occupational health risks prescribed by Bangchak’s occupational health doctors and medic personnel. These occupational health specialists regularly identify special health checkups for certain personnel, follow up, and analyze the health status of these people, both at



- home and at work; and prescribe medication if unusual medical results are found.
- International-standard procedures and monitoring programs for certain personnel with occupational health risk exposure, and grouping of these personnel by risk level of low, medium, and high.
  - Development of occupational health programs for contractors, including proper preparation of work space, personnel protective equipment, and knowledge-sharing during the refinery's planned maintenance shutdowns.
3. Promoted communication with employees on health and occupational health
  4. Improved physical work space for workers, including adjustment of work space for safety and increasing light intensity in working areas.
  5. Improved work space exposed to a chemical environment, including regular measurement of Volatile Organic Compounds (VOCs) and conversion of production units into additional closed systems, including closed system for waste water treatment pond.
  6. Improved Hearing Conservation Program such as using auditory conservation measures in the workplace, including measurement of noise levels and mapping of noise contours for noise reduction and prevention. Erected a sound wall; notified areas with loud noise for workers to be well prepared and act accordingly; provided special health checkups on hearing ability and hearing disorders for individuals; and equipped high-risked personnel with hearing measuring devices, and so on.
  7. Improved ergonomics in work space, including installation of ergonomic chairs in control rooms for workers required to sit for long hours.

### ***Employee care***

Regarding employees as a vital component of business success that enhances corporate virtue as well as value and drives corporate sustainability, Bangchak continuously looks after and develops employees' capability, including their compensation, which is derived from benchmarking outcomes within the petroleum industry (upstream, midstream, to downstream) and peer industries, and Bangchak's own welfare, which is far superior to legal requirements. This year, to put these systems on a par with international standards, Bangchak enrolled in the "Best Employer" project, which seeks to find outstanding employers in Thailand to exemplify successful businesses due to outstanding employee administration. The project is operated by the Sasin Graduate Institute of



Business Administration of Chulalongkorn University and the Aon Hewitt (Thailand) Co., Ltd., a renowned international consultant on personnel administration. Conducting a survey every two years, the project was designed to heighten employee engagement, leadership efficiency, reputation of employers, and an internal culture that drives an efficient organization. To this end, workforce analysis and planning are first prepared for the analysis and planning of manpower needs for each period. Then, an adequate number of employees should be in place for corporate expansion. The planning also prescribes how this manpower will be acquired from outside and inside the company. Development of existing personnel's capability to the desired qualifications, as specified by plans, is illustrated below:

## 1. Building High Performance Culture

1.1 Defining competencies for each position to develop professionalism fitting each duty and position through properly prepared training processes

1.2 Career Path and Learning Development Program defines career-path criteria for all employees, grouping them into management and specialist such as Senior Petroleum Refining Executive etc. All employees have opportunities to progress in the lines and professions of their choice.

## 2. Building Effective Leadership & Leadership Pipeline

2.1 In preparing key corporate successors, one extracts the ability or caliber of all executives to achieve corporate success:

2.1.1 For 2014, leadership DNA was assessed for Bangchak executives under the following process:

- Assessment made through the Assessment Center on the "5 Gives" leadership characteristics (leadership branding).
- 90-Degree Assessment (Self & Boss) on the "5 Gives" leadership characteristics (leadership branding).
- ADEPT personality questionnaire, a psychological test relying on the analysis of thinking, basic individual habits, and personalities.

2.1.2 For 2014-2015, succession planning covers department Vice President up to Senior Executive Vice Presidents.

2.1.3 For 2015, development of successors will be planned for these positions through various development processes with a focus on development on the job and coaching rather than formal training.

2.2 Young Talent Management: Besides grooming executives, Bangchak runs this program for high flyers, who are apt to be



chosen for capacity-building for other tasks or businesses for the company.

2.3 Employee Engagement is another yardstick for Best Employer, surveyed every year for future improvement and development

Bangchak has prepared a roadmap for becoming the Best Employer by 2019. To this end, it had set a Best Employee score this year at more than 60% as the corporate KPI on the Balanced Scorecard on Learning and Growth. This goal has been exceeded, with 66% achieved.

## **Social and environmental responsibility activities**

### ***Environmental***

Bangchak's core business being in oil refining, the monitoring of VOCs (Volatile Organic Compounds) in parallel with good turnaround maintenance is critical. This year, the company closely controlled VOCs emissions through the following processes:

- Establishment of a VOC inventory (VOC emission records) by experts and development of plans to control and reduce VOC emissions.
- Treatment by cleaning and segregating oil emulsion from the wastewater treatment system to reduce the agglomeration of oil residues under a closed system by rooftop installation. The VOCs emission reduction outcomes were quite efficient, corresponding positively to VOC emission measurement in the wastewater treatment work area compared with previous years.
- Daily measurement of the fugitive VOCs with a portable measuring device under the US EPA standard.

The flare is a vital part for petroleum and petrochemical plants because it is a safety instrument which ensures that the flare gas and liquids are released and eliminated from production processes through complete combustion for the benefit of plant safety and minimized impacts on the environment and communities. Although during normal periods, no gas is flared due to standardized design and communities' appreciation of the flare's function, Bangchak maintains more projects and measures to mitigate the impacts of flaring by avoiding gas flaring by increasing production control reliability and improving flare performance through the following actions:

- Installed equipment to restore the gas from RSU (Reformate Splitter Unit) and from the hydrocracking unit (4C-105: Product



- Fractionators) that constantly enters the flare for reuse in the process gas system, which is expected to become functional by June 2015
- Managed the project to modify the flare into a ground flare stack.
  - Developed the communication protocol with communities and their participation through the likes of annual major turnaround planning and informing the communities at least a month ahead of time, and scheduling officers or Bangchak employees to call on communities around the refinery to reach an understanding about the annual major maintenance turnaround or other shutdowns.

Bangchak's measures concern continual water consumption reduction and water reuse (in offices and processes). This year Bangchak exercised its measures to curb water consumption. It used a micro-filtration system in parallel with the reverse-osmosis system, used quality condensate water in place of water for boilers at Plant 2 and the Power Plant, used stripped water from the sour-water stripping unit and the stripping steam instead of piped water, and treated slightly contaminated condensate water for reuse in the boiler feedwater system. Bangchak consumed 2,388,903 cubic meters of piped water from the Metropolitan Waterworks Authority, or 2.19 cubic meters per barrel equivalent of produced oil.

Air emission considers to be top priority for Bangchak throughout its first three decades of operations. Its corporate culture demands business to develop in parallel with the environment and society since 1984. Bangchak's ultimate goal is not merely to fully comply with all rules and regulations, but also to cause no impact on society. Numerous investment programs have been installed to consistently reduce air emissions, including the reduction of all pollutants at sources to ensure the use of clean fuels in production processes.

An international, experienced third party has been employed to conduct independent measurement of the air quality emitted from distillation towers at every six-month period or sooner. The measurement follows the U.S. EPA (United States Environmental Protection Agency) standard including NO<sub>x</sub>, SO<sub>2</sub>, H<sub>2</sub>S, and TSP (total suspended particulates) measurement as part of Bangchak's environmental monitoring program. Emissions from all refining units are combined as a mass flow rate or the total air emissions, with the exception of the H<sub>2</sub>S, which is emitted only from the SRU (Sulfur Recovery Unit) tower.



## ***Social***

In its participation in community and social development close to the refinery, the company encouraged employees' activity participation with neighboring communities (CSR in-process) to forge trust and friendship, while being helpful to them under a safe feeling. As the urban society gets increasingly diverse, marked by booming condominium growth, the company's plans and objectives for each target group fall into three phases: establishing relations, joint thinking and action, and joint development and drive for self-reliance. Various projects primarily take into account relationship and a response to lifestyles of target groups. This year, Bangchak initiated a community panel seminar to highlight community opinions and follow up with quality activities in line with public problems, notably education and youth development—these communities' primary interest. As for CSR after-process, convinced that "sustained happiness comes from sharing", Bangchak seeks to ensure that the Thai society exists happily. With that in mind, the company proceeded with a project to educate stakeholders on social and environmental responsibility to grow its partner network for a green society, including business partners, service stations, and the public. Continuing its emergency plan training, the company also provided chemical knowledge to surrounding communities, schools, and condominiums. It improved the format of emergency communication from the refinery to communities for greater clarity and practicality for each community's living conditions. With clarity and commitment to its social and environmental responsibility, Bangchak has become stronger in concept and practice to lead and drive partners/stakeholders toward a green society, in the process developing the caliber of Bangchak's business partners' business responsibility to the environment and participation in social development.

### ***New community and social projects***

On reaching its 30<sup>th</sup> anniversary, the heart of Bangchak's stewardship of communities and society at large is not just its best efforts of environmental and social responsibility where business growth is concerned, but the company's ambitions are also to ensure that the Thai society can continue, as can Bangchak's dedication of willpower as a corporate citizen to bring social benefits under the belief that "sustained happiness comes from sharing". The ultimate aim is for Thais to be aware of our co-existence in this land in a sufficient way.



Sharing	Rekindling awareness of sharing	Sharing innovation
<ul style="list-style-type: none"> <li>Bangchak's 30-year Journey: Baht 30-Million Contribution to Thai Red Cross Society. Donation of cash &amp; blood donation buses/vans &amp; medical apparatus for the Bhumisiri Mangalanuson Building, Chulalongkorn Hospital.</li> <li>The Bangchak Service Station Green Partnership Project expands the concept of social &amp; environmental responsibility to the network of service station operators in their stewardship of consumers, the environment, communities &amp; society, and employees.</li> </ul>	<ul style="list-style-type: none"> <li>"Sharing" ad film: Life story of Mr. Jon Jandai, the founder of the Pun Pun Center for Self Reliance, a seed saving center and sustainable living and learning center for self-reliance &amp; seeds. A firm believer that genuine local seeds are the foundation of self-reliance &amp; sustained happiness, he collects and shares them with those around him so that happiness may take root in the Thai society.</li> <li>Produced &amp; publicized the "Phaen Din Nee Mee Phaw" melody, with lyrics composed by Mr. Nitiphong Hornak and sung by Mr. Asani Chotikul. The hope is to rekindle Thais' awareness of a traditional caring Thai society.</li> </ul>	<ul style="list-style-type: none"> <li>Invented new sales promotional giveaways: roast rice tea and roast rice green tea, designed to ease the hardship of rice farmers amid the rice-pledging crisis. Tea growers in Chiang Rai province, devastated by an earthquake, conceived these products, adopted by Bangchak.</li> </ul>

Economic	Social	Environmental
<ul style="list-style-type: none"> <li>Expanded the network of community service stations from 617 to 626</li> <li>Promoted the use of community products as Bangchak's sales promotional giveaways, like the organic brown rice (known as Mee Dee Sarm Tor), a product of the Rai</li> </ul>	<p>Education: The Thailand Go Green 2014 Contest Project under the "Eat Smart, Live Smart, Use Renewable/ Alternative Energy Smart: Thailand Go Green" theme for students nationwide to jointly conduct the project and live environmentally friendly lives.</p>	<p>Purchase of used vegetable cooking oil to make biodiesel to reduce crude imports while easing environmental impacts of dumping the used oil into public water sources. This year, there were 108 tons bought, used for biodiesel production more than 92,000 liters and 72 tons of</p>



<p>Choen Tawan community enterprise group. The location is supervised by revered monk Waw Wachiramethi. Over Baht 16 million has returned to the community.</p>		<p>greenhouse gas emission averted.</p>
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***New projects to address the needs of nearby communities and society***

In CSR-in process social and community development, Bangchak’s clear goal is to convey friendship, usefulness, and a feeling of safety to communities through its Environmental and Community Relations Division. Bangchak being located amid urban citizens, diversity marks communities around the refinery, leading to different plans and targets for individual groups. In any case, two-way communication is the predominant means of communication, complemented by opinion surveys of these matters, which gauge their ideas and expectations of Bangchak. This leads to an extension of community relations activities that rely on participation in new projects to improve current operation and overcome social problems, particularly education and youth development.

Education	Relation	Environment
<ul style="list-style-type: none"> <li>Ran a project on simple reading and writing literacy to ease child illiteracy (reading &amp; writing) in communities &amp; schools. This national problem is found even in Bangkok schools today.</li> <li>Youth development under the Gen-D Project: Invigorating youths, adjusting attitude, and resolving risk behavior of students of three schools around the refinery.</li> </ul>	<p>Staged a mobile seminar with the community panel to forge relations and share communities’ views and needs. The seminar provided opportunities for clarification of Bangchak’s stance, policies, and responsibility to the organization.</p>	<p>Ran a 3-year project promoting biodiversity: “Fireflies, a Path to Conservation”, along with community leaders of six subdistricts around area of Amphoe Phra Pradaeng, Samut Prakan province. The project’s deliverable is a rehabilitation plan and conservation of green areas in Kung Bang Kachao (Bangkok’s urban lung) for greater fertility, indicated by the firefly population. The monitored project will run from 2014 to 2016.</p>





**Ongoing projects for nearby communities and society**

Aspect	Refinery communities	
	Expectation	Continuing project
Education	Youths learn and develop appropriately with their age groups, with their awareness cultivated to become smart and conscientious.	<ul style="list-style-type: none"> <li>• My School (Bangchak Employees volunteer to teach kids in surrounding area), Year 12th</li> <li>• Open up the World of Knowledge with Bangchak, year 11th</li> <li>• Project Citizen, Year 5th</li> <li>• Bangchak Youth Scholarship Project, Year 10th</li> <li>• Bangchak GIFTED, Year 4th</li> <li>• Teacher Upgrading, Year 5th</li> <li>• Waen Kaeo project, Year 4th</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• Confidence in refinery's safety</li> <li>• Safety immunity for handling emergencies or catastrophes</li> </ul>	<ul style="list-style-type: none"> <li>• Trained schools / communities / nearby condominiums on emergency drills and firefighting</li> <li>• Donated firefighting apparatus</li> </ul>
Sports	<ul style="list-style-type: none"> <li>• Strong and healthy youths who stay away from drugs</li> <li>• Ability to generate income and good educational opportunities through sports</li> </ul>	<ul style="list-style-type: none"> <li>• Bangchak Youth Futsal Tournament, Year 11th</li> <li>• Bangchak Youth Football Club, Year 8th</li> </ul>
Quality of life	Promotion of quality of life	<ul style="list-style-type: none"> <li>• One Family, Year 21st</li> <li>• Healthy Community Project</li> </ul>
Environment	Awareness of environmental woes and cost-effective application of resources	<ul style="list-style-type: none"> <li>• Thot Pha Pa, Raksa Ton Nam by employees and participating schools around the refinery and those in Chaiyaphum, Year 10th</li> <li>• Mobile Communities, Sapling Planting, Phu Long Reforestation Year 5th, by Bangchak's neighbors from One Family group</li> <li>• Public (Health) Park in the compound of the housing area of the Secretariat Department, Office of the Permanent Secretary of Defense, in Bangchak</li> <li>• A project to buy used vegetable cooking oil from communities around the refinery, Year 3rd</li> </ul>
Relations and cultural preservation	Promotion of cordial relations between refinery and its neighbors	<ul style="list-style-type: none"> <li>• Mobile Communities, Year 5th</li> <li>• Filling up with Knowledge with Bangchak Refinery Year 9th</li> <li>• Khrop Khrua Bai Mai Bulletin, Year 10th and Rop Rua Bangchak Newsletter Year 9th</li> <li>• Sanook kids, Waan pid term, Year 5th</li> <li>• National Children's Day Year 30<sup>th</sup></li> </ul>



Economic	Generation of income and opportunities for community residents to leverage their competencies and to benefit themselves and their families	<ul style="list-style-type: none"><li>• Food stalls run by community residents catered to thousands of contractor employees during the Refinery major maintenance turnaround period, with some Baht 1.86 million generated for the communities.</li><li>• Use of communities' cooking and sweets</li><li>• Hiring of locals with adequate competencies</li><li>• Community occupational promotion and development project Year 2nd</li></ul>
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Regarding vendors and suppliers as critical players in the company's success, Bangchak puts in place a policy supporting procurement of domestic goods and services, promotion of green merchandise, and development of their sustainability together with Bangchak's. Therefore, Bangchak has since 2008 established E-procurement to ensure procurement processes marked by clarity, transparency, ethics, with equitably detailed procurement for the sake of fair competition, contractor management filled with respect for human rights and conformance to labor laws. Bangchak reviews merchandise qualifications to fit tasks and users' safety in addition to minimal environmental impacts before price setting so as to focus on merchandise with the right qualifications for given tasks.

This year, Bangchak has taken the following actions on its purchasing and hiring system, while modifying business processes to cater to vendors' and suppliers' desires as follows:

- Migrated to the SAP SRM system in September for transparent and accountable procurement
- Increased capacity for contractors and suppliers through training and seminars on **Anti-Corruption** to stress procurement ethics and transparency and invite business partners to participate and accept the company's invitation to join CAC membership, on **Environmental aspect** together with the procurement of green goods and services to make them aware of green products and services, and on **Labour Law aspect** which the contractors and suppliers would comply with the law.
- Encouraged corporate procurement of green products and services, beginning with office supplies and increasing in number.
- Drove business partners' efforts for green industry certification, so as to jointly and proactively develop the industrial sector in a



- concrete way with a goal to continually develop all business partners into green companies.
- Managed relationship with contractors, vendors and suppliers, and business partners every year by listening and acknowledging their views and continually apply them to the improvement of business.
  - Communicated relevant news and information to business partners by business processes and E-mail, including the policy of rejection of gifts in all circumstances.

For additional information, please log on to Bangchak's Sustainability Report at [www.bangchak.co.th](http://www.bangchak.co.th).



## **11. Internal Control and Risk Management**

### **Internal Control**

Below is a summary of opinions of the Board of Directors (“Board”) of Bangchak Petroleum Plc on the adequacy and suitability of the company’s internal control system.

#### **1. Control environment**

The company’s organizational environment and structure favor implementation of the internal control system. Its business goal is deliberated by the Board in a clear and measurable way for use as concrete guidelines for employees. The company updated working policies, employee manual, working process, organizational structure and working groups so these would help management work efficiently. In addition, the management 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 CG Day 2014 under the “Bangchak’s 30-year Journey, Building on Virtue toward Sustainability” topic, with employee shows to narrate the company’s background over the past 30 years and commit the company to furthering good deeds toward sustainability.

Moreover, the company made it a policy to refrain from accepting gifts in a bid to elevate CG and set a high standard for fair business engagement with all related parties. It also staged a business partner seminar 2014, educating them and promoting their conformance to joining CAC (Thailand’s Private Sector Collective Action Coalition against Corruption).

The company also puts in place whistle-blowing and complaint-filing measures for wrongdoing under laws, code of practice or behavior implying corrupt actions or malfeasance by its members and stakeholders, as well as for inaccurate financial reports or defective internal control system so that stakeholders may provide oversight.



## **2. Risk assessment**

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 (like the second biodiesel plant project, the solar power plant project, the joint-venture project in ethanol companies and the alternative energy projects, etc.) 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.

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.

## **3. Control 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. 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. There is 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, the company added knowledge under the Lean Process and Kaizen concepts to promote work efficiency and lower losses. To prevent siphoning of interests, watertight measures are in place in case the company engages in transactions with the major shareholder, directors, and so on. Transaction approval is mandatory without involvement by parties with vested interests. Furthermore, data for such transactions must be disclosed under the regulations of SEC, as must data about related parties or entities under applicable accounting standards.

In addition, the business processes and corporate governance policy of Bangchak Biofuels Co., Ltd., Bangchak Solar Energy Co., Ltd., and Bangchak Green Net Co., Ltd. (the Company's subsidiaries) were reviewed.

#### **4. Information and communication**

Bangchak has developed information and data systems that are both ready for use and secure under its policy on information technology (IT) security and standard on the use of information systems and networks. This year, the company also won additional certification of its ISO 27001 standard for IT security for the digital control system (DCS). In addition, Bangchak has modernized its IT system for international acceptance by updating the SAP accounting system into SAP Enterprise Resource Planning (ERP) SAP ECC 6.0 to enable it to exploit various company data (both analytical and operational) more efficiently.

#### **5. 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**

To ensure that Bangchak conducted comprehensive risk management with maximum efficiency and effectiveness, Enterprise-wide Risk Management Committee (ERMC) monitored, observed, made recommendations on, and reviewed the risk management outcomes that



affected company performances. On the whole, ERM C successfully executed its work plans and endorsed the approaches and policy of risk management through the development of a corporate risk management manual for executives and employees to use as a guide. In addition, ERM C promoted affiliates' adoption of enterprise-wide risk management to ensure efficient business execution and goal achievement. A performance summary appears below.

- 1. Reviewed and provided recommendations for investment in emerging businesses:** The committee supervised, reviewed, and provided recommendations on risk management for all investment projects in new businesses before tabling them to the Board for approval. It is to ensure that such businesses command suitable risk management practices and stand a good chance of goal achievement.
- 2. Steered strategic risk management:** ERM C steered strategic risk management under evolving circumstances affecting long-term corporate goals by setting primary risk KPIs for tracking changes and formulating strategic plans.
- 3. Advocated Business Continuity Management (BCM):** The committee monitored and established BCM by regularly preparing the company's strategies, personnel, and resources. As a result, this year, Bangchak achieved certification of ISO 22301-2012 (business continuity management) for its head office, Bangchak Refinery, Bangchak Oil Distribution Center, Central Region Business Office, and Bang Pa-in Oil Distribution Center, as assessed by MASCI (Management System Certification Institute (Thailand)). This certification promotes stakeholders' confidence that the company can continue its business uninterrupted during crisis.

In summary, ERM C values risk management and BCM for Bangchak to manage its businesses under a risk management system characterized by effectiveness, adequacy, and suitability for business goal achievement.

### **Head of Internal Control Office**

At the Audit Committee's meeting No. 6/2005 on July 11, 2005, the meeting selected Mr. Pichit Wongrujiravanich as the head of Internal Control Office, citing some 22 years of internal audit experience with S.G.V.-Na Thalung Co., Ltd., and Yontrakit Group Co., Ltd. The committee considered him suitable and adequate for the position.



The approval, appointment, removal, or transfer of Bangchak's head of Internal Control Office must secure endorsement of the Audit Committee. Below are the qualifications of the head of Internal Control.

Mr. Pichit Wongrujiravanich

Senior Vice President, Internal Control Office

- Age 54
- 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)
- Experience
  - 2011-present : Senior Vice President, Internal Control Office
  - 2005 : Vice President, Internal Control Office
  - 1992 : Assistant to Executive Director, Yontrakit Group





## 12. Connected Transactions

### 1.1 Connected transactions between shareholders

For the years ended 31 December 2013 and 2014, connected transactions with the shareholders were as follows:

Company	Relationship	Connected transaction	2013 Baht (million)	2014 Baht (million)
PTT Plc	Major shareholder	• Value of sale of refined products to PTT	17,584.34	14,094.53
		• Other revenues	134.33	129.14
		• Trade debtors as of the end of the period	1,595.40	614.25
		• Value of purchase of refined products from PTT	123,813.37	107,138.83
		• Trade creditors as of the end of the period	9,770.27	4,258.79
		• Creditor to others	763.59	830.29
		• Finance lease liabilities	1,084.58	1,004.33
		• Service fee for the use of PTT's Si Racha Terminal	294.34	305.76
		• Expenses on natural gas, steam and electricity	3,097.76	2,981.60
		• Interest expenses	62.72	58.38
		• Other expenses	4.68	1.84
		• Advance payments for utilities	403.19	415.68

### 1.2 Connected transactions with subsidiaries, jointly-controlled businesses, associated companies and related companies during 2013 and 2014 consisted of the following:

1.2.1 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	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u>				
Bangchak Green Net Co., Ltd.	29,171.63	31,560.10	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Biofuel Co., Ltd.	65.25	5.52	- BCP holds 70% shares	- BCP delegates its representatives as directors
<u>Associated companies</u>				
Ubon Bio	-	14.62	- BCP holds 21.28%	- BCP delegates its



Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
Ethanol Co., Ltd. Ubon Agricultural Energy Co., Ltd.	1.25	7.08	shares - Ubon Bio-Ethanol Co., Ltd. (associated company) holds 100% shares	representatives as directors - BCP delegates its representative as director
<u>Other related businesses</u> PTT International Trading Co., Ltd. Thai Oil Plc	108.86 493.48	1,522.99 1,656.86	- PTT Plc holds shares in this company - PTT Plc holds shares in this company	- -
IRPC Plc	965.30	1,500.87	- PTT Plc holds shares in this company	-
Star Petroleum Refining Co., Ltd	227.08	181.42	- PTT Plc holds shares in this company	-

1.2.2 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.

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u> Bangchak Green Net Co., Ltd.	1.66	1.16	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Biofuel Co., Ltd.	2,982.26	3,925.01	- BCP holds 70% shares	- BCP delegates its representatives as directors
<u>Associated companies</u> Ubon Bio Ethanol Co., Ltd.	707.22	1,326.32	- BCP holds 21.28% shares	- BCP delegates its representatives as directors
<u>Other related businesses</u> IRPC Plc	1,846.02	6,210.01	- PTT Plc holds shares in this company	-



Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
PTT International Trading Co., Ltd.	-	2,453.65	- PTT Plc holds shares in this company	-
PTT Global Chemical Plc	1,379.42	4,000.26	- PTT Plc holds shares in this company	-
Thai Oil Plc	7,290.66	8,913.73	- PTT Plc holds shares in this company	-
Thai Lube Base Plc	867.87	349.40	- Connected through PTT Plc	-
IRPC Oil Co., Ltd.	12.52	33.79	- Connected through PTT Plc	-
Fuel Pipeline Transportation Co., Ltd.	216.01	335.78	- BCP holds 4.95% shares	- BCP delegates its representative as director
Star Petroleum Refining Co., Ltd	-	5.13	- PTT Plc holds shares in this company	-

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

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u> Bangchak Green Net Co., Ltd.	42.63	6.80	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Biofuel Co., Ltd.	28.78	214.06	- BCP holds 70% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy Co., Ltd.	12.77	1,029.80	- BCP holds 100% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Prachinburi) Co., Ltd.	0.57	74.43	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Chaiyaphum1) Co., Ltd.	0.57	41.55	- BCP holds 49% shares	- BCP delegates its representatives as directors



Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
Bangchak Solar Energy (Buriram) Co., Ltd.	0.57	45.27	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Buriram 1) Co., Ltd.	0.57	41.34	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Nakhonratchasima) Co., Ltd.	0.57	41.40	- BCP holds 49% shares	- BCP delegates its representatives as directors
<u>Associated companies</u> Ubon Bio Ethanol Co., Ltd.	0.93	0.02	- BCP holds 21.28% shares	- BCP delegates its representatives as directors
<u>Other related businesses</u> PTTEP Siam Co., Ltd.	0.09	0.09	- Connected through PTT Plc	-
Fuel Pipeline Transportation Co., Ltd.	5.26	5.68	- BCP holds 4.95% shares	- BCP delegates its representative as director
PTT Global Chemical Plc	22.50	-	- PTT Plc holds shares in this company	
Thai Oil Plc	29.28	-	- PTT Plc holds shares in this company	

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

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u> Bangchak Green Net Co., Ltd.	0.60	0.47	- BCP holds 49% shares	- BCP delegates its representatives as directors



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

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u>				
Bangchak Green Net Co., Ltd.	12.96	16.10	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy Co., Ltd.	4.37	5.22	- BCP holds 100% shares	- BCP delegates its representatives as directors
<u>Other related businesses</u>				
Thai Oil Plc	0.05	0.05	- PTT Plc holds shares in this company	-
NPC Safety and Environmental Services Co., Ltd.	1.80	3.12	- Connected through PTT Plc	-
Energy Complex Co., Ltd.	22.57	19.68	- PTT Plc holds shares in this company	-
PTT ICT Solutions Co., Ltd.	17.05	17.28	- PTT Plc holds shares in this company	-
IRPC Oil Co., Ltd.	-	0.03	- Connected through PTT Plc	-
PTT Energy Solutions Co., Ltd.	1.64	6.48	- PTT Plc holds shares in this company	-
PTT Tank Terminal Co., Ltd.	-	0.20	- PTT Plc holds shares in this company	-
PTT Exploration and Production Plc	0.01	0.01	- PTT Plc holds shares in this company	-



THE BANGCHAK PETROLEUM PUBLIC COMPANY LIMITED

1.2.6 Debtors, advance payments and short-term loans to related businesses

1.2.6.1 Trade debtors

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u>				
Bangchak Green Net Co., Ltd.	1,044.93	942.94	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Biofuel Co., Ltd.	7.63	1.06	- BCP holds 70% shares	- BCP delegates its representatives as directors
<u>Associated companies</u>				
Ubon Bio Ethanol Co., Ltd.	0.82	1.85	- Ubon Bio-Ethanol Co., Ltd. holds 21.28% shares	- BCP delegates its representatives as directors
Ubon Agricultural Energy Co., Ltd.	0.08	4.87	- Ubon Bio-Ethanol Co., Ltd. (associated company) holds 100% shares	- BCP delegates its representative as director
<u>Other related businesses</u>				
Fuel Pipeline Transportation Co., Ltd.	0.33	0.33	- BCP holds 4.95% shares	- BCP delegates its representative as director
IRPC Plc	53.54	57.59	- PTT Plc holds shares in this company	-
PTT Global Chemical Plc	8.73	-	- PTT Plc holds shares in this company	

1.2.7 Debtors and loans to related businesses

1.2.7.1 Loans

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Other related businesses</u>				
Fuel Pipeline Transportation Co., Ltd.	29.82	26.41	- BCP holds 4.95% shares	- BCP delegates its representative as director



1.2.7.2 Other debtors

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u>				
Bangchak Biofuel Co., Ltd.	-	70.00	- BCP holds 70% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy Co., Ltd.	0.59	0.43	- BCP holds 100% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Prachinburi) Co., Ltd.	0.20	0.22	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Chaiyaphum1) Co., Ltd.	0.20	0.16	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Buriram) Co., Ltd.	0.20	0.16	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Buriram 1) Co., Ltd.	0.20	0.16	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy (Nakhonratchasima) Co., Ltd.	0.20	0.16	- BCP holds 49% shares	- BCP delegates its representatives as directors
BCP Energy International Pte. Ltd.	-	57.68	- BCP holds 100% shares	- BCP delegates its representatives as directors

1.2.8 Creditors of related businesses

1.2.8.1 Trader creditors

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u>				
Bangchak Green Net Co., Ltd.	3.91	2.17	- BCP holds 49% shares	- BCP delegates its representatives as directors
Bangchak Biofuel Co., Ltd.	228.76	301.80	- BCP holds 70% shares	- BCP delegates its representatives as directors
Bangchak Solar Energy Co., Ltd.	0.45	0.48	- BCP holds 100% shares	- BCP delegates its representatives as directors



Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Associated companies</u> Ubon Bio Ethanol Co., Ltd.	-	151.63	Ubon Bio-Ethanol Co., Ltd. holds 21.28% shares	- BCP delegates its representatives as directors
<u>Other related businesses</u> Thai Oil Plc	310.34	165.52	- PTT Plc holds shares in this company	-
Thai Lube Base Plc	60.14	2.73	- Connected through PTT Plc	-
IRPC Plc	130.82	168.76	- PTT Plc holds shares in this company	-
PTT Global Chemical Plc	57.77	-	- PTT Plc holds shares in this company	-
IRPC Oil Co., Ltd.	-	6.47	- Connected through PTT Plc	-

## 1.2.8.2 Other creditors

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Other related businesses</u> Fuel Pipeline Transportation Co., Ltd.	21.44	34.34	- BCP holds 4.95% shares	- BCP delegates its representative as director
Energy Complex Co., Ltd.	0.12	0.19	- PTT Plc holds shares in this company	-

**1.3 Other non- current assets. These items are the Company's guarantee payment for office use under lease contracts for office and related services.**

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Other related businesses</u> Energy Complex Co., Ltd.	4.75	4.76	- PTT Plc holds shares in this company	-





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

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2014	
			Shareholding	Management
<u>Subsidiaries</u> Bangchak Green Net Co., Ltd.	28.56	29.02	- BCP holds 49% shares	- BCP delegates its representatives as directors

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

Related company	2013 Baht (million)	2014 Baht (million)	Relationship for the year ended 31 December 2013	
			Shareholding	Management
<u>Other related businesses</u> Fuel Pipeline Transportation Co., Ltd.	4.40	3.92	- BCP holds 4.95% shares	- BCP delegates its representative as director

**1. Connected transactions with PTT Plc**

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.

The company entered into an agreement with PTT PCL on the operation, production, and maintenance of a public utility unit that generates electricity and steam. Calling for



monthly fee payment, the agreement covered 16 months, ending in August 2014, with an administration fee as agreed and other conditions in line with regular businesses.

**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.**

A subsidiary company, Bangchak Solar Energy Co., Ltd., operated a 38 MW PPA power plant to produce electricity from solar cell (Sunny Bangchak) phase 1, at Amphoe Bang Pa-in, Ayutthaya. These connected transactions followed normal business practices, relied on market prices and followed details stated in the operation contracts.

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

A subsidiary company of Bangchak Solar Energy Co., Ltd., 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 Bangchak Solar Energy Co., Ltd., 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 Bangchak Solar Energy Co., Ltd., 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 Bangchak Solar Energy Co., Ltd., 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 Bangchak Solar Energy Co., Ltd., 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 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.



- 12. 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.
- 13. 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.
- 14. Connected transactions with Thai Oil Plc**  
Transactions with this company, a connected company as a result of PTT's shareholding in both, followed normal business practices and market prices
- 15. Connected transactions with Thai Lube Base Plc**  
Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.
- 16. Connected transactions with PTT Global Chemical Plc**  
(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 PTT's shareholding in both, followed normal business practices and market prices.
- 17. Connected transactions with IRPC Plc**  
Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.
- 18. Connected transactions with NPC Safety and Environmental Services Co., Ltd.**  
Service fees with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.
- 19. Connected transactions with PTT International Trading Co., Ltd.**  
Transactions with this company, a connected company as a result of PTT's shareholding in both, followed normal business practices and market prices
- 20. Connected transactions with PTT ICT Solutions Co., Ltd.**  
Payment for the rights to use Microsoft software from this company, a connected company as a result of PTT's shareholding in both, followed normal business practices and market prices.
- 21. Connected transactions with PTTEP Siam Co., Ltd.**  
Other services fees with this company, a connected company as a result of PTT's shareholding in both, followed normal business practices and market prices.
- 22. Connected transactions with Energy Complex Co., Ltd.**  
The deposit payments, office rents and office service fees with this company, a connected company as a result of PTT's shareholding in both, followed normal business practices and market prices.
- 23. Connected transactions with IRPC Oil Co., Ltd.**  
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 Star Petroleum Refining Co., Ltd.**  
Transactions with this company, a connected company as a result of PTT's shareholding in both, followed normal business practices and market prices.
- 25. Connected transactions with PTT Energy Solutions Co., Ltd.**  
Other services fees 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 Tank Terminal Co., Ltd.**  
Transactions with this company, a connected company as a result of shared relationship through PTT, followed normal business practices and market prices.
- 27. Connected transactions with PTT Exploration and Production Plc**  
Other services fees with this company, a connected company as a result of PTT's shareholding in both, 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.

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.



### 13. Essential financial information

#### Financial Statements

##### (1) Report of Certified Public Accountant

Financial Statement	Auditor	Company
2014	Mr. Vairoj Jindamaneepitak Certified Public Accountants, Registration Number 3565	KPMG Phoomchai Audit Co., Ltd. (KPMG)
2013	Mr. Vairoj Jindamaneepitak Certified Public Accountants, Registration Number 3565	
2012	Mr. Winid Silamongkol Certified Public Accountants, Number 3378	

KPMG have audited the accompanying 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 of December 31<sup>st</sup>, 2014, the consolidated and separate statements of income, 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.

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

The Auditor’s responsibility is to express an opinion on these consolidated and separate financial statements based on the Auditor’s audit with unconditional opinion according to the report on February 19<sup>th</sup>, 2015. The Auditor conducted an audit in accordance with Thai Standards on Auditing. Those standards require that the Auditor complies with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated and separate financial statements are free from material misstatement.



The Audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The selected procedures depend on the Auditor's judgment, including risk assessment of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the Auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. An audit also includes evaluating accounting policies whether they are appropriate, and accounting estimation made by management whether they are reasonable, as well as evaluating the overall presentation of the financial statements.

The Auditor believes that the audit evidence that obtained is sufficient and appropriate to provide a basis for an audit opinion.

In the Auditor's opinion, the consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as of December 31<sup>st</sup>, 2014 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.



(2) Consolidated financial statements as of December 31<sup>st</sup>, 2014

Statement of financial position

(Unit: Baht Million)

	2014		2013		2012	
	Amount (Baht)	%	Amount (Baht)	%	Amount (Baht)	%
<b>Current assets</b>						
Cash and cash equivalents	7,954	10.3	6,527	8.9	8,006	11.3
Current investments	623	0.8	731	1.0	13	0.0
Trade accounts receivable	5,835	7.6	8,660	11.8	7,737	10.9
Other receivables	1,260	1.6	694	0.9	1,158	1.6
Inventories	14,059	18.3	17,092	23.2	19,175	27.1
Oil fuel fund subsidies receivable	1,215	1.6	1,664	2.3	822	1.2
Other current assets	1,350	1.8	1,199	1.6	196	0.3
<b>Total current assets</b>	<b>32,294</b>	<b>42.0</b>	<b>36,568</b>	<b>49.7</b>	<b>37,107</b>	<b>52.4</b>
<b>Non-current assets</b>						
Investments in associate	762	1.0	757	1.0	723	1.0
Other long-term investments	323	0.4	264	0.4	295	0.4
Investment properties	459	0.6	459	0.6	459	0.6
Property, plant and equipment	38,136	49.5	32,917	44.8	29,919	42.2
Leasehold rights	1,396	1.8	1,172	1.6	1,049	1.5
Intangible assets	1,629	2.1	220	0.3	147	0.2
Investment in stations	-	-	-	-	175	0.2
Deferred tax assets	658	0.9	338	0.5	187	0.3
Other non-current assets	1,307	1.7	842	1.1	793	1.1
<b>Total non-current assets</b>	<b>44,671</b>	<b>58.0</b>	<b>36,969</b>	<b>50.3</b>	<b>33,746</b>	<b>47.6</b>
<b>Total assets</b>	<b>76,966</b>	<b>100.0</b>	<b>73,537</b>	<b>100.0</b>	<b>70,853</b>	<b>100.0</b>
<b>Liabilities and equity</b>						
<b>Current liabilities</b>						
Trade accounts payable	5,774	7.5	11,534	15.7	13,700	19.3
Other payables	2,359	3.1	2,362	3.2	2,790	3.9
Current portion of long-term loans						0.0
from financial institutions	1,312	1.7	1,043	1.4	1,010	1.4
Excise tax and oil fuel fund payable	933	1.2	460	0.6	597	0.8
Income tax payable	4	0.0	361	0.5	533	0.8
Current portion of finance lease liabilities	85	0.1	80	0.1	-	-
Other current liabilities	842	1.1	635	0.9	597	0.8
<b>Total current liabilities</b>	<b>11,309</b>	<b>14.7</b>	<b>16,475</b>	<b>22.4</b>	<b>19,228</b>	<b>27.1</b>
<b>Non-current liabilities</b>						
Long-term loans from financial institutions	15,901	20.7	16,791	22.8	15,018	21.2
Debentures	12,985	16.9	2,996	4.1	2,995	4.2
Finance lease liabilities	919	1.2	1,004	1.4	-	-
Deferred tax liabilities	150	0.2	-	0.0	-	0.0
Liabilities on long-term lease	27	0.0	106	0.1	193	0.3
Employee benefit obligations	1,189	1.5	1,102	1.5	994	1.4
Provision for the decommissioning cost	443	0.6	-	-	-	0.0
Other non-current liabilities	76	0.1	88	0.1	103	0.1
<b>Total non-current liabilities</b>	<b>31,690</b>	<b>41.2</b>	<b>22,088</b>	<b>30.0</b>	<b>19,303</b>	<b>27.2</b>
<b>Total liabilities</b>	<b>43,000</b>	<b>55.9</b>	<b>38,563</b>	<b>52.4</b>	<b>38,530</b>	<b>54.4</b>
<b>Equity</b>						
Share capital						
Issued and paid-up share capital	1,377	1.8	1,377	1.9	1,377	1.9
Capital surplus on registered and paid-up share reduction	11,366	14.8	11,366	15.5	11,366	16.0
Retained earnings	20,836	27.1	21,981	29.9	19,400	27.4
Other component of equity	(272)	(0.4)	-	-	-	-
Non-controlling interests	660	0.9	250	0.3	180	0.3
<b>Total equity</b>	<b>33,966</b>	<b>44.1</b>	<b>34,974</b>	<b>47.6</b>	<b>32,323</b>	<b>45.6</b>
<b>Total liabilities and equity</b>	<b>76,966</b>	<b>100.0</b>	<b>73,537</b>	<b>100.0</b>	<b>70,853</b>	<b>100.0</b>



## Statement of income

(Unit: Baht Million)

Statement of income	2014		2013		2012	
	Amount	%	Amount	%	Amount	%
Revenue from sale of goods and rendering of services	183,016	100.0	186,490	100.0	165,246	100.0
Cost of sale of goods and rendering of services	(178,453)	(97.5)	(177,387)	(95.1)	(158,083)	(95.7)
<b>Gross Profit</b>	<b>4,563</b>	<b>2.5</b>	<b>9,103</b>	<b>4.9</b>	<b>7,163</b>	<b>4.3</b>
Investment income	167	0.1	90	0.0	90	0.1
Other income	1,030	0.6	1,816	1.0	571	0.3
Selling expenses	(2,817)	(1.5)	(3,040)	(1.6)	(2,697)	(1.6)
Administrative expenses	(1,663)	(0.9)	(1,250)	(0.7)	(1,403)	(0.8)
Gain from crude and product oil price hedging contract	499	0.3	804	0.4	869	0.5
Gain (loss) from foreign currencies forward contract	84	0.0	(923)	(0.5)	746	0.5
Gain on foreign exchange	674	0.4	132	0.1	346	0.2
Net reversal of allowance for loss from impairment of assets	(821)	-0.4	24	0.0	295	0.2
Share of profit (loss) of associate	5	0.0	34	0.0	(23)	0.0
<b>Profit before finance costs and income tax expense</b>	<b>1,720</b>	<b>0.9</b>	<b>6,789</b>	<b>3.6</b>	<b>5,957</b>	<b>3.6</b>
Finance costs	(1,427)	(0.8)	(1,127)	(0.6)	(940)	(0.6)
<b>Profit before income tax expense</b>	<b>294</b>	<b>0.2</b>	<b>5,662</b>	<b>3.0</b>	<b>5,017</b>	<b>3.0</b>
Income tax (expense) credit	463	0.3	(932)	(0.5)	(715)	(0.4)
<b>Profit for the year</b>	<b>756</b>	<b>0.4</b>	<b>4,730</b>	<b>2.5</b>	<b>4,303</b>	<b>2.6</b>
<b>Profit attribute to:</b>						
Owners of the Company	712	0.4	4,652	2.5	4,273	2.6
Non-controlling interests	45	0.0	78	0.0	30	0.0
<b>Profit for the year</b>	<b>756</b>	<b>0.4</b>	<b>4,730</b>	<b>2.5</b>	<b>4,303</b>	<b>2.6</b>
<b>Earning per share</b>						
Basic earnings per share (Baht)	0.52		3.38		3.10	





## Statement of cash flows

(Unit: Baht Million)

	2014	2013	2012
Cash flows from operating activities			
Profit for the year	756	4,730	4,303
Adjustments for			
Depreciation	3,101	2,666	2,287
Amortization	193	164	165
Reversal of allowance for bad and doubtful debts expense	(4.44)	(32.63)	0.47
Unrealised (gain) loss on foreign exchange	(269)	362	45
Allowance for loss on decline in value of inventories	999	-	-
(Reversal of) allowance for loss from impairment of assets	821	(24)	(295)
(Gain) loss on disposal of property, plant and equipment	(7)	6	59
Investment Income	(167)	(90)	(90)
Provision for employee benefit	118	138	166
Deferred revenue	(1)	(1)	(1)
Provision for customer loyalty programmes	24	24	
Share of profit of associate, net of income tax expense	(5)	(34)	23
Finance costs	1,427	1,127	940
Income tax expense (credit)	(463)	932	715
	<b>6,523</b>	<b>9,967</b>	<b>8,318</b>
Changes in operating assets and liabilities			
Trade accounts receivable	3,057	(883)	335
Other receivables	(429)	533	(798)
Inventories	2,114	2,080	(2,518)
Other current assets	741	(1,845)	1,163
Other non-current assets	(57)	5	(197)
Trade accounts payable	(5,863)	(2,222)	4,949
Other payables	141	(551)	1,170
Other current liabilities	837	(193)	(319)
Employee benefit obligations	(33)	(29)	(13)
Other non-current liabilities	(207)	(153)	13
Cash generated from operating activities	6,823	6,708	12,104
Income tax paid	(755)	(1,257)	(470)
Net cash from operating activities	<b>6,068</b>	<b>5,451</b>	<b>11,633</b>
Cash flows from investing activities			
Interest received	166	85	85
(Increase) decrease in current investments	109	(718)	-
Increase in long-term investments	(58)	-	(3)
Net cash outflow from issue of subsidiary's share capital	-	-	-
Net cash outflow on acquisition of subsidiary	(2,480)	-	-
Purchase of property, plant and equipment	(7,350)	(4,570)	(5,126)
Sale of property, plant and equipment	12	24	29
Increase in leasehold right	(344)	(218)	(205)
Purchase of intangible assets	(99)	(110)	(64)
Net cash used in investing activities	<b>(10,042)</b>	<b>(5,507)</b>	<b>(5,285)</b>
Cash flows from financing activities			
Interest paid	(1,439)	(1,099)	(946)
Decrease in short-term loans from financial institutions	-	-	(2,000)
Proceeds from long - term loans	-	8,185	38
Repayment of long - term loans	(1,254)	(6,434)	(591)
Proceeds from issuance of debentures	9,987	-	2,995
Dividend paid	(1,946)	(2,074)	(1,859)
Net cash from (used in) financing activities	<b>5,348</b>	<b>(1,422)</b>	<b>(2,364)</b>
Net increase (decrease) in cash and cash equivalents	<b>1,374</b>	<b>(1,478)</b>	<b>3,985</b>
Cash and cash equivalents as of 1 January	<b>6,527</b>	<b>8,006</b>	<b>4,021</b>
Effect of exchange rate changes on balances held in foreign currencies	53	-	-
Cash and cash equivalents as of 31 December	<b>7,954</b>	<b>6,527</b>	<b>8,006</b>



### (3) Financial Ratios

#### Management Discussion and Analysis on Financial Ratios of 2014 and 2013 <sup>1/</sup>

<b>Statement of income / Return Ratios</b>		<b>2014</b>	<b>2013</b>	<b>2012</b>
Revenue from sale of goods and rendering of services	Million Baht	183,016	186,490	165,246
Net profit	Million Baht	756	4,730	4,303
Net earnings per share <sup>1/</sup>	Baht/share	0.52	3.38	3.10
Net profit / sales and service revenue	%	0.41	2.54	2.60
Rate of return on shareholders' equity	%	2.09	13.92	13.81
Rate of return on assets <sup>2/</sup>	%	2.29	9.33	8.99
<b>Statement of financial position / Financial Ratios</b>		<b>2014</b>	<b>2013</b>	<b>2012</b>
Total assets	Million Baht	76,966	73,537	70,853
Total liabilities	Million Baht	43,000	38,563	38,530
Shareholders' equity	Million Baht	33,966	34,974	32,323
Current Ratio	times	2.86	2.22	1.93
DSCR (Principle Interest) <sup>3/</sup>	times	1.93	4.59	5.07
Debt with interest payable to equity	times	0.92	0.63	0.59
Book value per share <sup>4/</sup>	Baht/share	24.19	25.22	23.34

Note: The Company and its subsidiaries' operating results in 2013 were restated according to the new and revised TFRS that are effective from Januar 1<sup>st</sup>, 2014.

<sup>1/</sup> Only profit (loss) attributable to owners of the company

<sup>2/</sup> We have changed the calculation in ROA from Net profit (loss) for the owners of the company to EBITDA

<sup>3/</sup> We have changed our numerator for DSCR from "Adjusted EBITDA" to be "EBITDA", and DSCR in 2013 was excluded prepayment loan of Baht 5,500 million

<sup>4/</sup> Only the equity of the owners of the company

#### Financial Ratios Calculation

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
DSCR	=	EBITDA (Yearly) / (Paid for long-term debt + Financial cost)
Interest Bearing Debt to Equity (times)	=	(Current portion of short-term and long-term loans from financial institutions + Debentures) / Total equity attributable to



## **14. Management Discussion and Analysis**

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

In 2014, Net profit was decreased by Baht 3,940 million when compared to FY2013 as a result of slowdown in both Thailand and world economic situation, especially the instability of crude price which continued to decline in the second half of the year. The crude price decline was major factor which affected the company performance.

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

- **Refinery business** had an average crude run of 86.48 thousand barrel per day as there was an Annual Turnaround Maintenance and a replacement of the Main Column (100 KBD) totaling 46 days and a temporary shutdown of Hydrogen Plant (there was an irregularities in equipment operation, therefore, the unit was temporary seized operation for inspection and reparation) in 3Q/2014. Market GRM was 6.96 \$/BBL and gain from crude and product oil price hedging contract (GRM hedging) of 0.48 \$/bbl. Since average Dubai crude price dropped heavily during 3Q/2014 and 4Q/2014, as an evident of an average Dubai Price in FY2014 of 96.66\$/BBL compared to 105.45\$/BBL in FY2013, it resulted in an inventory loss of Baht 5,454 Million. In addition, Refinery business had recognized an insurance compensation for the replacement of the Main Column of Crude Distillation Unit Number 3 of Baht 764 million.
- **Marketing business** had a total sales volume of 5,006 million litre which was relatively to that of last year by which the Industrial market sales volume decreased 4% YoY from the lower average crude run of the refinery while retail market sales volume increased 3% YoY. As the Company continuously focused on selling through service stations, it led to an achievement of being the 2nd rank with market share at 15.1% (FY2013 was in the 3rd rank: 14.8%). The company also stimulated through sales campaign to boost Gasohol products sales volume especially Gasohol E20 and E85 which yield high marketing margin when compared to other gasohol products together with a refurbishment of service stations to attract more customers. In FY2014, total marketing margin was 0.71 baht per litre, an increase of 37% YoY which increased in both retail and industrial market.
- **Solar Power business** recorded a higher revenue from the fully commercial operation of Solar Power Plant phase 3 (PPA of 48 MW). As a whole, the total revenue was recorded at Baht 2,692 million and electricity sales were 232 million kilowatt per hour.



- **Biodiesel Business** had an average production rate of 361 thousand litre per day, a revenue of Baht 5,316 million, an increase of 21%. The B100 Sales volume was increased 8% from the higher demand of biodiesel from the government's policy which increasing the portion of B100 mixing with diesel from 5% to 7% (effective since January FY2014). Also, average B100 selling price was higher when compared to last year.
- **For Exploration and Production business**, the company recognized a result of Nido Petroleum Limited (NIDO) which became a subsidiary of the BCP Group since September 19<sup>th</sup>, 2014, and the company held 81.41% of common shares. For FY2014, NIDO (from September 20, 2014 to December 31, 2014) recorded a revenue of Baht 325 million, an EBITDA of Baht -58 million (included the cost of legal fees, and other professional and consulting fees of Baht 59 million). In addition, the instability of crude price which continued to decline in the second half of the year affected a recorded of impairment in Consolidated Financial Statement of Baht 818 million.

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

Unit: Million Baht

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

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

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

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

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

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

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



**Total Sales Volume in each market category of the Company**

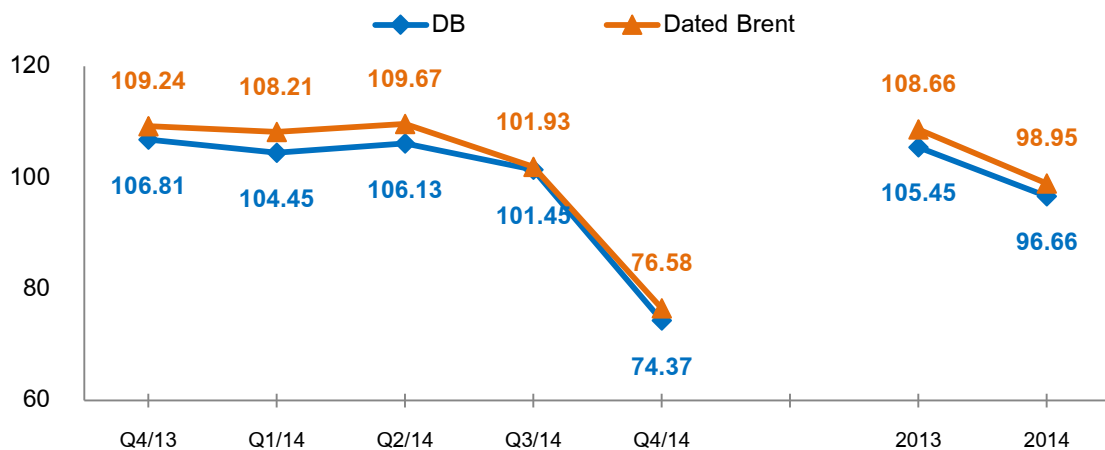
Unit: Million Litre

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

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

**Summary of the Company and its subsidiaries' performance by Business unit**  
**Refinery and Marketing Business Performance**

**Crude Oil Price Situation**



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



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

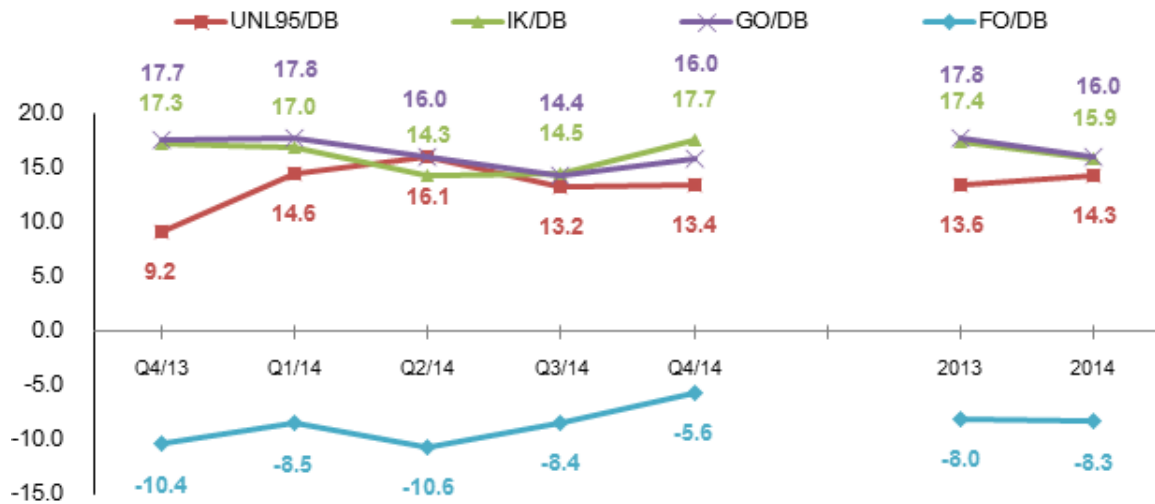
In Q4/2014, the average of Dubai crude oil price was 74.37\$/BBL, dropped by 27.08\$/BBL from Q3/2014. The crude oil price in Q4/2014 had been pressured by many factors. Firstly, the US Federal Reserve (Fed) decided to end its quantitative easing program (QE) which became effective on November 1<sup>st</sup>, 2014, due to the US economic recovery and the improvement outlook for the labour market. The result was that US dollar has been continuously strengthened and reached its highest level in the past 8 years in December. Secondly, as inflation rate in the Euro Area declined to -0.20% in December 2014 from 0.3% in November, the European Central Bank (ECB) is expected to launch a new stimulus program to support the economy. Moreover, the International Monetary Fund (IMF) forecasted global economy to grow at 3.3% in 2014 and 3.8% in 2015, compared to 3.4% in 2014 and 4% in 2015 in its previous estimation. The IMF is concerned by low potential growth in Japan, China, Brazil and Eurozone. Thirdly, China's GDP in Q3/2014 grew 7.3% YoY, compared to 7.5% YoY in Q2/2014, according to data from National Bureau of Statistics of China (NBS). China economy grew at its slowest rate in the past five and a half year, due to the contraction in real estate sector, lower oil demands and the slowdown in manufacturing sector. The International Energy Agency (IEA) cut its 2014 forecast for global oil demand to grow 670,000 barrels per day, from 900,000 barrels a day in its September estimation. Moreover, the IEA had also forecasted non-OPEC oil supply to grow at 1.9 million barrels a day, mainly from U.S. shale oil growth. As an evidence, US output gained 9.14 million-barrel per day, the highest level since January 1983. Another factor pressuring the supply side was the decision of the OPEC in its meeting in Vienna on November 27<sup>th</sup>, 2014, not to reduce its output from 30 million barrels per day, aiming to maintain its market share. State oil firm in Saudi Aramco, Iraq and Kuwait had cut their official selling prices (OSPs) for its Arab Light crude to Asian and US customers. Oil exports from southern Iraq had been continuously increased. Furthermore, the OPEC has cut its next year's average oil demand forecast to be 28.9 million barrels a day, projecting a larger global supply surplus in 2015.

However, crude oil prices had some supporting factors. Firstly, The US GDP had increased 5% in Q3/2014, while US unemployment rate had slowed down to 5.9%, its 6-year-low. Moreover, the overall index on consumer sentiment came to 93.6 in December, its best showing since January 2007. These could be implied to good signs of the US economy. Secondly, another support to oil prices is the negotiations over Iran's nuclear program on November 24<sup>th</sup>, 2014, which has not reached its agreement. However, the easing on Iran sanction has been extended until the end of June 2015.



Meanwhile, Iraq still has a sanction limiting its crude exports. Lastly, the uncertainty on Libya unrest is another supporting factor to crude prices.

### Crack Spreads Analysis



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

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

In Q4/2014, UNL95/DB was increased by 0.19\$/bbl from Q3/2014. The spread had been driven by the western demand due to many US refineries maintenance. Consequently, the US imported more gasoline from Latin



America, Mediterranean and Asia in the early of the quarter. Moreover, Indonesia had increased their gasoline imports to 11.5 million barrels in October from 10 million barrels in September, due to their refineries maintenance production capacity of 588,000 barrels per day during that period. On the supply side, the gasoline supply had been tighter as a result of an emergency shutdown of the Residue Fluid Catalytic Cracking (RFCC) at Formosa refinery in Taiwan, with production capacity of 84,000 barrels per day. The cause was a technical problem, led to an estimation of 17-21 days shutdown in early December. As a result, Taiwan's 3 gasoline cargos had to postpone their delivery dates. However, the gasoline spread had been pressured in the second half of quarter due to the overall demands in the region staying low throughout winter. Moreover, the Indonesian demand had slowed down as domestic refineries running back from maintenance. In addition, as Indonesian government had lowered its subsidies in gasoline and diesel prices, and it affected retail price increased more than 30%, which it was expected to pressure Indonesian oil demands. Finally, increasing supplies from South Korea, Japan and Taiwan were also a factor pressuring the crack spread.

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

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

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

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





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

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

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

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

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



### 1) Refinery Business

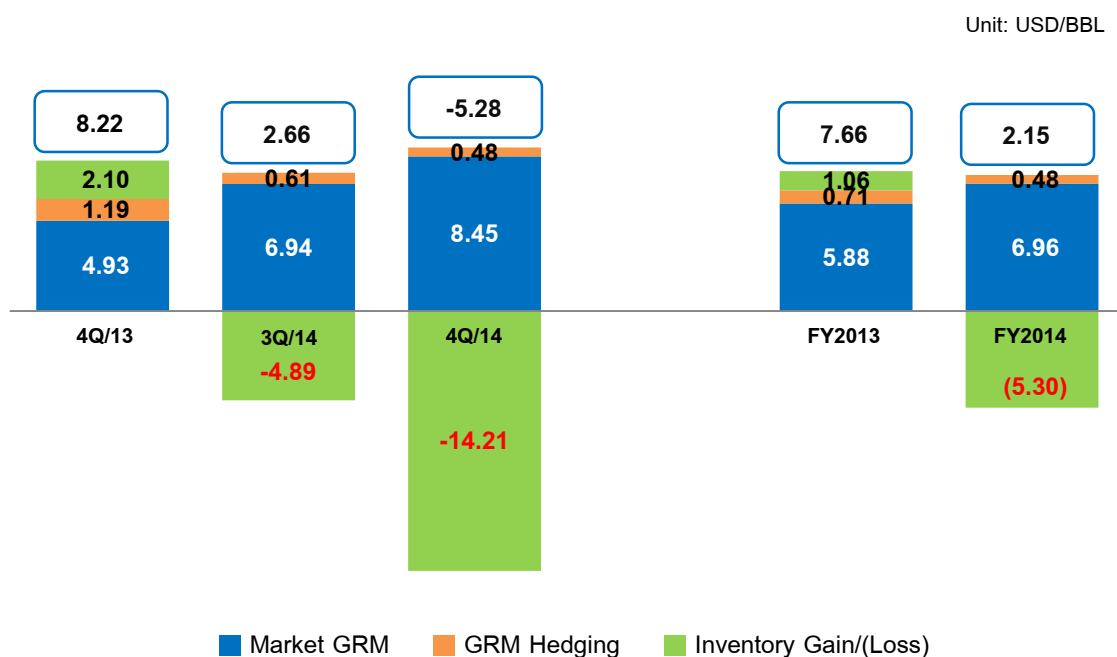
The table of Refinery business performance

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

Unit: Million Baht

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

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





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

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

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

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

Market GRM was Baht 2,617 million (+31% QoQ) in 3Q/2014. An increase in the Market GRM was from the seasonal factor which the heating oil demand increased during winter and a travelling demand of long holidays. In addition, there was a significant drop of Dubai crude price in the quarter from the oversupply issue after the OPEC decided not to cut its production to maintain their market share. As a result, all product crack spreads were widening especially, Gas Oil/Dubai crack spread (GO/DB) and Jet Fuel/Dubai crack spread (IK/DB) which increased by a higher demand from



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

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

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

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

### Sales volume in each market category of Marketing Business

Unit: Million Litre

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



### Sales volume in each product category of Marketing Business

Unit: Million Litre

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

### The table below shows details of Marketing Margin

Unit: Baht per Litre

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

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

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

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



volume had increased 84% YoY, as a result of its attractive retail price when compared to other gasohol products and higher Gasohol E85 compatible car in the market.

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

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

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

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



## Renewable Business Performance

### 3) Solar Power Business

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

In FY2014, Solar Power Business recorded total revenue of Baht 2,692 Million, an increase of Baht 1,230 Million (+84% YoY). In April 2014, Solar Power Plant Phase 3 (PPA of 48 MW) had commercialized its operation which contributed to the totaling production capacity of the company to 118 MW PPA. Total Electricity Sales was recorded at 231.53 million kWh, an increase of 104.69 million kWh (+83% YoY). Solar Power Plant Phase 1 (PPA of 38 MW) recorded an increase in electricity sales of 2.78 million kWh (+4% YoY) from a higher solar irradiation hours. Solar Power Plant Phase 2 (PPA of 32 MW) recorded an increase in electricity sales of 19.57 million kWh (+33% YoY) as it was fully operated for the whole year and from a higher solar irradiation hours. As a result, an EBITDA was recorded at Baht 2,572 Million (+85% YoY)

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

### 4) Biofuel Business

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



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

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

In FY2014, Biodiesel business recorded a revenue of Baht 5,316 Million (+21 YoY) due to a growing biodiesel demand from the government's policy of increasing the portion of B100 mixing with diesel from 5% in to 7% (effective since January 2014). The total B100 sales volume was 179 Million litre (+8% YoY), and average daily production rate was 361 thousand litre per day (+5% YoY). B100 price during FY2014 increased as B100 demand increase which caused crude palm oil price to increase. Moreover, the drought within the year affected the crude palm oil supply which pushed the B100 price to be higher (according to Department of Energy Business, the B100 reference price was 32.41 Baht per litre in FY2014, compared to 28.95 Baht per litre in FY2013).

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

When compared Q4/2014 to Q3/2014, Biodiesel business recorded an increase in revenue of Baht 292 Million (+23 QoQ) from an increase in B100 sales volume of 6 Million litre (+12 QoQ). There was a slight increase in an average daily production rate. The higher B100 sales volume was from a higher BCP's diesel sales as BCP was the major buyer of the business and the average B100 selling price increased 6.8% QoQ from crude palm cyclical factor (as production in the fourth quarter yielded the lowest for the year, hence higher price during such quarter).

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





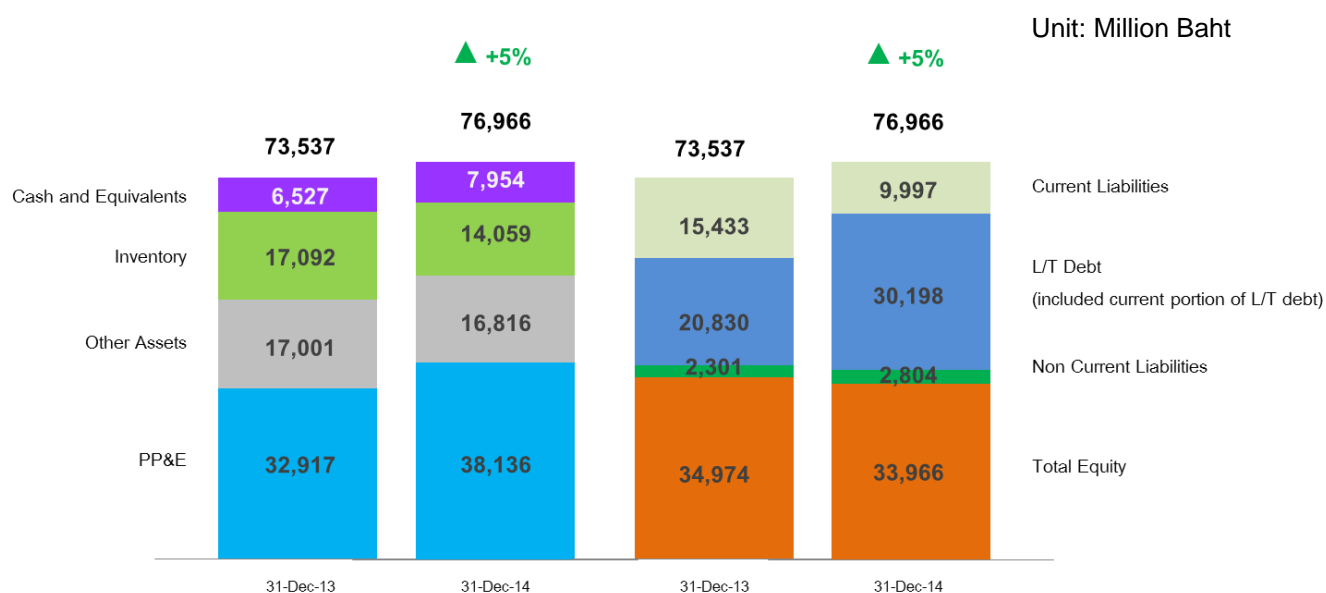
Million. Therefore, Biodiesel business recorded an EBITDA of Baht 89 Million (+40% QoQ)

### 5) Exploration and Production Business

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

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

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



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



## **Assets**

As of December 31<sup>st</sup>, 2014, total assets of the company and its subsidiaries were Baht 76,966 million, an increase of Baht 3,428 million when compared to the end of 2013. The changes in assets were mainly from:

- Cash and cash equivalents was increased by 1,427 million (Details are stated under Analysis of the Cash Flow Statement)
- Current Investment was decreased by Baht 109 million from a decrease in short-term deposit to financial institutions of Baht 95 million for a long-term repayment of Bangchak Solar Energy Limited.
- Trade Accounts Receivable – was decreased by Baht 2,825 million from lower sales value in FY2014, compared to FY2013 due to the oil price reduction, while total sales volume increased, and partly are from a decrease in exports in FY2014 which was lower than FY2013.
- Other Accounts Receivable was increased by 565 million from the insurance compensation receivable of Baht 243 million, prepaid expenses for Biodiesel plant phase 2 of Baht 100 million and NIDO's other receivables of Baht 140 million.
- Inventory was decreased by Baht 3,034 million due to a decrease in oil price while inventory were increasing from 4.35 million barrels in December 31<sup>st</sup>, 2013 to 4.98 million barrels in this year. In addition, there was a Lower of Cost of Market (LCM) of Baht 992 million.
- Oil fuel fund subsidies receivable was decreased by Baht 449 million. The company received cash from oil fuel fund, mainly from LPG, Gasohol E85, Gasohol E20 and high-speed Diesel products.
- Investments in subsidiaries was increased by Baht 5,026 million from an investment in Bangchak Solar Energy which the Company held 100% of total share of Baht 1,462 million, an investment in subsidiaries which the Company held 49% of total share of Baht 1,513 million which were Bangchak Solar Energy (Prachinburi) Company Limited, Bangchak Solar Energy (Chaiyaphum1) Company Limited, Bangchak Solar Energy (Buriram) Company Limited, Bangchak Solar Energy (Buriram1) Company Limited, and Bangchak Solar Energy (Nakornratchasima) Company Limited and investment in NIDO of 81.41%.
- Property, plant and equipment was increased by Baht 5,219 million, from an investment of Solar Power Plant of Baht 3,695 million, refinery machinery and equipment of Baht 2,670 million, and other of Baht 588 million.

## **Liabilities**

As of December 31<sup>st</sup>, 2014, total liabilities of the company and its subsidiaries was Baht 43,000 million, an increase of Baht 4,437 million compared to end of 2013. The change in liabilities was mainly from:

- Trade Accounts Payable was decreased by Baht 5,760 million, mainly from a decrease in Trade Accounts Payable between related parties of Baht 5,567 million which was from Trade Accounts Payable between the Company and PTT Plc of Baht 5,511 million as in December 31<sup>st</sup>, 2013, in which the due date was on a public holiday but such amount had been paid in January 2014. In addition, value of oil products in December 2014 was lower than December 2013.



- Long-term loans from financial institutions and Debenture (including current portion of long-term loans) was increased by 9,368 million from a Debenture Issuance of Baht 9,987 million (Net from Debenture Issuance expenses of Baht 13 million) and repayment of Long-term loans portion of Baht 1,254 million. There was an increase in USD loans of Baht 33 million due to an adjustment impact in foreign exchange rate and loan amortization of Baht 14 million.

### Equities

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

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

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

Details of cash received and used are as follows:

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

Note: 1/ The company and its subsidiaries' operating results in 2013 were restated according to the new and revised TFRS that are effective for annual periods beginning on January 1<sup>st</sup>, 2014.



Cash received and used details are as follows:

- 1) The company and its subsidiaries had net cash received from operating activities of Baht 6,068 million, mainly from
  - Net cash received from operating activities of Baht 6,523 million which was from Net Profit of Baht 756 million added back Non-Cash Expenses of Baht 4,803 million, Finance Costs and Income Tax of Baht 964 million.
  - Cash used in the operating assets of Baht 5,425 million, mainly from an decrease in Inventory of Baht 2,144 million, a decrease in Trade Account Receivable of Baht 3,056 million, other Receivable of Baht 429 million and an increase in Other Assets of Baht 684 million.
  - Cash used in operating liabilities of Baht 5,125 million, mainly from a decrease in Trade Accounts Payable of Baht 5,863 million, an increase in Other Payables of Baht 140 million and an increase in Other liabilities of Baht 598 million.
  - Income Tax Paid of Baht 755 million.
- 2) Net Cash used in investing activities of Baht 10,042 million, mainly from
  - Investment in property, plant and equipment of Baht 7,337 million which were from an investment in Solar Power Plant of Baht 3,695 million, refinery machinery and equipment of Baht 2,670 million and other of Baht 972 million.
  - Current investment of Baht 109 million.
  - Share payment of Baht 58 million in Fuel Pipeline Transportation Co., Ltd.
  - Net cash outflow on acquisition of subsidiary of Baht 2,479 million.
  - Interest received of Baht 166 million.
  - Leasehold right of Baht 344 million.
  - Purchase of intangible assets of Baht 99 million.
- 3) Net cash received from financing activities of Baht 5,348 million, mainly from
  - Debenture Issuance of Baht 9,987 million.
  - Repayment of long-term loans of Baht 1,254 million.
  - Dividend Payment of Baht 1,946 million which was a Dividend Payment of the Company of Baht 1,859 million and payment of Non-control Interest of Baht 87 million.
  - Financial costs of Baht 1,439 million.

**Financial Ratios (Consolidated)**

	Q4/2013	Q3/2014	Q4/2014	FY2013	FY2014
<b>Profitability Ratios (%)</b>					
EBITDA Margin	3.83%	3.05%	-2.74%	5.07%	2.82%
Profit Margin	1.50%	0.87%	-5.48%	2.54%	0.41%
Return on Equity (ROE) <sup>1/</sup>	13.92%	11.12%	2.09%		
Return on Assets (ROA)	9.33%	7.45%	2.29%		
	31-Dec-13	30-Sep-14	31-Dec-14		
<b>Liquidity Ratios (times)</b>					
Current Ratio	2.22	2.48	2.86		
Quick Ratio	1.18	1.25	1.61		
<b>Financial Policy Ratios (times)</b>					
DSCR <sup>2/</sup>	4.59	3.55	1.93		
Interest bearing debt to Equity	0.63	0.85	0.92		
Net Interest bearing debt to Equity	0.42	0.64	0.67		

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

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

**Financial Ratios Calculation**

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



## Note:

## 1/ Average Total Equity attributable to owners of the Company

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

## 2/ Average Total Assets

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

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

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

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

**Environment Management Accounting (EMA)**

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

Unit: Million Baht

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



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

### Changes in accounting policies

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

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

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

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

#### Statement of Financial Position

Unit: Million Baht

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


**Statement of income for the year ended December 31<sup>st</sup>, 2014**

Unit: Million Baht

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





### **Certification of information and data accuracy**

Having carefully verified the information and data shown in this annual information display form, Bangchak certifies that they are completely accurate, factual, and not misleading or lacking in essential detail. In addition:

1. The financial statements and data summarized in the annual information display form show essentially accurate information and data about its financial standing, performance, and cash flow of Bangchak and its subsidiaries.
2. It has put in place a good information and data disclosure system to ensure that it discloses essential details about itself and its subsidiaries completely and accurately, while ensuring due compliance.
3. It has put in place a good internal control system and ensured due compliance with such system. Bangchak has provided internal control system assessment details as of December 31<sup>st</sup>, 2014, to the external auditor and the Audit Committee, including defects and key changes in the internal control system together with wrongdoing potentially affecting the preparation of the financial reports for itself and its subsidiaries.

As evidence that all documents are identical to those certified by Bangchak, the company has assigned Miss Nintira Abhisinha to put her initials on every page of the documents. Therefore, if her initials are missing on any given page, Bangchak will disown such data.

<u>Name</u>	<u>Position</u>	<u>Signature</u>
1. Mr. Pichai Chunhavajira	Chairman	_____
2. Mr. Chaiwat Kovavisarach	President	_____

<u>Authorized person</u>	<u>Position</u>	<u>Signature</u>
Miss Nintira Abhisinha	Vice President	_____
Corporate Planning and Strategy		



## **Attachment 1 Profiles of directors, executives, controllers, and Company Secretary**

### **Board of Directors**

#### **Mr. Pichai Chunhavajira**

Chairman and Director with Authorized Signature (Started on April 24, 2012)

- Age 65
- Education / Training
  - B.A. (Accounting), Thammasat University
  - M.B.A. (Business Administration), Indiana University of Pennsylvania, USA
  - Honorary Ph.D. (Accounting), Thammasat University
  - Honorary Ph.D. (Financial Management), Mahasarakham 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
 

<ul style="list-style-type: none"> <li>- 2001-2013</li> <li>- 2010-2012</li> <li>- 2008-2012</li> <li>- 2009 - 2011</li> <li>- 2005 - 2011</li> <li>- 2000 - 2011</li> <li>- 1998 - 2011</li> <li>- 2008 –2009</li> <li>- 2007 –2009</li> <li>- 2005 –2009</li> <li>- 1999 – 2007</li> <li>- 2000 - 2009</li> <li>- 1996 –2009</li> <li>- 2003 – 2008</li> <li>- 2001 –2007</li> </ul>	<ul style="list-style-type: none"> <li>: Director, PTT Exploration and Production Public Company Limited</li> <li>: Chairman, Thaipol Public Company Limited</li> <li>: Chairman, Thaipol Ethanol Company Limited</li> <li>: Director, PTT Public Company Limited</li> <li>: Director, IRPC Public Company Limited</li> <li>: Director, Thai Airway International Public Company Limited</li> <li>: Director, Thaipol Power Company Limited</li> <li>: Director, The Bangchak Petroleum Public Company Limited</li> <li>: Chief Financial Officer, PTT Public Company Limited</li> <li>: Director, PTT Aromatics and Refining Public Company Limited</li> <li>: Director, PTT Chemical Public Company Limited</li> <li>: Director, The Aromatics (Thailand) Public Company Limited</li> <li>: Chairman, Thai Petroleum Pipeline Company Limited</li> <li>: Director, Dhipaya Insurance Public Company Limited</li> <li>: Director and Audit Committee member, Siam Commercial Bank Public Company Limited</li> <li>: Senior Executive Vice President, Finance and Accounting, PTT Public Company Limited</li> </ul>
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- Other directorship positions / other positions at present
  - Subsidiaries/Related Company
    - None -
  - Other listed companies
    - None -
  - Non-listed companies
    - o Member of Board, Bank of Thailand
    - o Consultant, Ubon Bio Ethanol Co.,Ltd.
    - o Chairman of Thammasat Association Under The Royal Patronage of His Majesty The King
    - o Member of the University Council ,Assumption University
    - o Members of the University Council, Thammasat University
    - o President Committee of Investment , Social Security Office
    - o President, Thailand Boxing Association
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **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 70
- 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)
- Experience
  - 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)
  - 2003 : Vice President, The Royal Institute
  - 1998 – 2000 : Judge, Constitutional Court
  - 1996 – June 2007 : Director, Vajiravudh College
  - 1981 : Fellow of the Academy of Moral and Political Sciences, The Royal Institute
- Other directorship positions / other positions at present
  - Subsidiaries/Related Company
    - None -
  - Other listed companies
    - None -
  - Non-listed companies
    - o Chairman, Institute of Public Policy Studies
    - o Member, The National Reform Council
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **Asst.Prof.Dr. Anusorn Tamajai**

Independent Director (Started on April 25, 2002)

Chairman of Audit Committee

- Age 48
- Education / Training
  - Ph.D.Econ. (International economics, finance and development), Fordham University New York, USA
  - M.B.A., Southeastern University
  - M.Econ, Fordham University New York, USA
  - B.A. (Political Science) (Honours), Chulalongkorn University
  - State-enterprise Leadership Development for Senior Managers (Class 2) King Prajadhipok's Institute
  - Director Certification Program (DCP28/2003), Thai Institute of Directors (IOD)
  - Director Accreditation Program (DAP19/2004), Thai Institute of Directors (IOD)
  - Strategy and Policy Development (SPD2004), Thai Institute of Directors (IOD)
  - Audit Committee Program (ACP11/2006), Thai Institute of Directors (IOD)
  - Role of the Chairman Program (RCP19/2008), Thai Institute of Directors (IOD)
  - Role of the Compensation Committee (RCC3/2008), Thai Institute of Directors (IOD)
  - Financial Statement for Directors (FSD6/2008), Thai Institute of Directors (IOD)
  - Monitoring the System of Internal Control and Risk Management (MIR7/2009), Thai Institute of Directors (IOD)
  - Monitoring the Quality of Financial Reporting (MFR8/2009), Thai Institute of Directors (IOD)
  - Successful Formulation and Execution of Strategy (SFE2/2008), Thai Institute of Directors (IOD)
  - How New Foreign Bribery Laws Affect Companies in Thailand, Thai Institute of Directors (IOD)
  - Anti-Corruption for Executive Program (ACEP5/2013), Thai Institute of Directors (IOD)
  - Advanced Audit Committee Program (AACP16/2014), Thai Institute of Directors (IOD)
- Experience
  - 2008 – 2011 : Director and Chairman of Audit Committee, MCOT Public Company Limited
  - 2008 – 2011 : Executive Director, The Telecommunications Universal Service Obligation (USO)
  - 2008 – 2010 : Director and Chairman of Risk Management Committee, Bank for Agriculture and Agricultural Cooperatives
  - 2005 – 2007 : Director, Center for the Promotion of National Strength on Moral Ethics And Values, Moral Center, Office of the Prime Minister
  - 2005 – 2006 : Managing Director, BT Asset Management Company Limited
  - 2002 – 2006 : Director, Family Know How Company Limited (a subsidiary of Stock Exchange of Thailand)
  - 2002 – 2006 : Director and Chairman of Internal Audit Committee, Thailand Post Company Limited
  - 2002 – 2005 : Senior Director, Research and Fund Management Office, Bankthai Public Company Limited
  - 2000 : Vice President, Corporate Regulatory, Research and Public Affairs, Citibank
- Other directorship positions / other positions at present
  - Subsidiaries/Related Company
    - None -
  - Other listed companies
    - o Director, Cho Thavee Dollasien Public Company Limited
  - Non-listed companies
    - o Member of Board, Bank of Thailand
    - o Director, Free Media for Revolution Company Limited
    - o Vice President of Research and Academic Service and Dean of Faculty of Economics, Rangsit University
    - o Director, Pridi Banomyong Institute



- o Qualified Director, Policy and Public Debt Management Committee, Public Debt Management Office, Ministry of Finance
- o Member, Sub-committee on Performance Evaluation of State-Owned Enterprises, Ministry of Finance
- o Qualified Director and director, Office of Academics (Economics) National Research of Thailand
- o Director, office of the Start Up Fund, Office of the Higher Education Commission, Ministry of Education
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **Mr. Surin Chiravisit**

Independent Director and Director with Authorized Signature (Started on April 8, 2010)

- Age 67
- 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)
- Experience
  - 2006–retirement : Secretary General, Social Security Office
  - 2005 : Deputy Permanent Secretary, Ministry of Labor, Office of the Permanent Secretary for Ministry of Labor
  - 2004 : Director General, Department of Labor Protection and Welfare
  - 2000 : Director General, Department of Skill Development
  - 1997 : Inspectors, The Ministry of Labour
  - 1995 : Deputy Director-General, Department of Employment
  - 1993 : Assistant Under-Secretaries, Ministry of Labour and Social Welfare
- Other directorship positions / other positions at present
  - Subsidiaries/Related Company
    - None -
  - Other listed companies
    - o Senior Consultant, Amata Corporation Public Company Limited
  - Non-listed companies
    - o Consultant, National Broadcasting and Telecommunication Commission
    - o Director and Vice President, Bangkok Suvanabhumi University Council
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



**Board of Directors**

**Mr. Suthep Wongvorazathe**

Independent Director and Director with Authorized Signature (Started on October 30, 2012)

- Age 66
- 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
  - 2010 – 2011 : Chairman of the Executive Board, Export-Import Bank of Thailand
  - 2009 – 2011 : Director, Board of Investment of Thailand
  - 2008 – 2010 : Advisor, Committee on National Debt Solution
  - 2007 – 2010 : Chairman and Chief Executive Officer, Pacific Assets Public Company Limited
  - 2001 – 2007 : Vice Chairman, The International Engineering Public Company Limited
- Other directorship positions / other positions at present
  - Subsidiaries/Related Company
    - None -
  - Other listed companies
    - o Chairman, Khonburi Sugar Public Company Limited
    - o Chairman of Audit Committee, Chumporn Palm Oil Industry Public Company Limited
    - o Chairman, Seamico Securities Public Limited Company
  - Non-listed companies
    - o Director, Asia Kangnam Company Limited
    - o Chairman of management committee, KT ZMICO Securities company Limited
    - o Director, The Mall Group Company Limited
    - o Director, New Corp Company Limited
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **Mrs. Arunporn Limskul**

Independent Director (Started on April 10, 2013)

- Age 47
- Education / Training
  - Master of Business Administration, Asian Institute of Technology
  - Bachelor of Science (Materials Science), Chulalongkorn University
  - Director Certification Program (DCP161/2012), Thai Institute of Directors (IOD)
  - Strategic Customer Management, Hong Kong
  - Customer Experience Management, London
  - Customer Relationship Management in Mobile Industry, London
  - Customer Relation in Mobile Industry, Spain
- Experience
  - 2011-2014 : Director, Chairman of the Corporate Governance and Social Responsibility Committee, and Executive Director, Krungthai Bank Public Company Limited
  - : Qualified Director, Office of Small and Medium Enterprises Promotion
  - 2012-Jan 2015 : Director, Executive Committee "New SME Fund" /Government
  - 2010-2011 : Executive Vice Presidents, Head of the CRM & Electronic Channel Division, Siam Commercial Bank Plc
  - 2000-2010 : Assistant Vice President, Customer Relationship Management, Advanced Info Service Plc Other directorship positions
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company
    - None -
  - Other listed companies
    - o Director, Krungthai Card Plc
  - Non-listed companies
    - o Director, School of Management, Asian Institute of Technology (AIT)
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None





## **Board of Directors**

### **Pol.Lt.Gen. Chaiwat Chotima**

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

- Age 62
- 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)
- Experience
  - 2011 : Commissioner , Narcotics Suppression Bureau
  - 2010 : Inspector-General (Inspection Division 8)
  - 2007 : Deputy inspector-general
  - 2002 : Deputy Commissioner, Central Investigation Bureau
  - 2001 : Commander, Narcotics Suppression Bureau
- Others
  - Former President, Association of the Ship for Southeast Asian Youth of Thailand
  - Former Secretariat, Association of the Ship for Southeast Asian Youth of Thailand
  - Former vice-president, Ice Skate Association of Thailand
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company  
- None -
  - Other listed companies  
- None -
  - Non-listed companies
    - o Vice President, Thailand Boxing Association
    - o President, Youth Development Center
    - o Advisor, Narcotics Suppression Bureau
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None





## **Board of Directors**

### **Mr. Krairit Nilkuha**

Director and Director with Authorized Signature (Started on February 19, 2010)

Chairman of the Enterprise-wide Risk Management Committee

- Age 63
- Education / Training
  - M.Sc. in Petroleum Engineering, New Mexico Institute of Mining and Technology, USA
  - B-B.Sc. in Mechanics Engineering, Kasetsart University
  - Diploma, the National Defense Course, Class 48 (2005), National Defence College
  - Audit Committee Continuing and Development Program (ACP24/2008), Thai Institute of Directors
  - Senior Executive Program, Batch#8, Capital Market Academy
- Experience
  - 2010 – 2013 : Director, PTT Public Company Limited
  - 2009 – 2012 : Director General Department of Alternative Energy Development and Efficiency
  - 2008 – 2009 : Deputy Permanent Secretary, Ministry of Energy
  - 2005 – 2008 : Director – General, Department of Mineral Fuels
  - 2005 – 2007 : Director, PTT Exploration and Production Public Company Limited
  - 2003 – 2005 : Deputy Director – General, Department of Mineral Fuels
  - 1998 - 2005 : Sub-Committee of the Petroleum Committee
  - 1998 - 2005 : Secretary of the Petroleum Committee
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company
    - None -
  - Other listed companies
    - o Director, Kaset Thai International Sugar Corporation Public Company Limited
  - Non-listed companies
    - o Chairman, Technical Petroleum Training Institute Foundation
    - o Director, PEA Encom International Co., Ltd.
    - o Director, Solar Power (Loei2) Co., Ltd.
    - o Director, Solar Power (Surin1) Co., Ltd.
    - o Director, Solar Power (Surin2) Co., Ltd.
    - o Director, Solar Power (Khon Kaen10) Co., Ltd.
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **Mr. Prasong Poontaneat**

Director (Started on April 24, 2012)

- Age 55
- 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
  - 2014-Present : Director General, Revenue Department
  - 2011-2014 : Director General, State Enterprise Policy Office
  - 2010-2011 : Director General, Thailand Customs Department
  - 2009-2010 : Inspector General, Ministry of Finance
  - 2008-2009 : Deputy Director General, Revenue Department
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company
    - None -
  - Other listed companies
    - o Chairman, Airports of Thailand PLC
  - Non-listed companies
    - o Director General, Revenue Department
    - o Commission Member, Securities and Exchange Commission, Thailand
    - o Member of Sub-committee on social issues of The office of National Anti-Corruption Commission
    - o Member of University council, Mahasarakham University
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **Mr. Sarakorn Kulatham**

Director and Director with Authorized Signature (Started on April 8, 2010)

- Age 60
- Education / Training
  - M.S. (Civil Engineering), University of Missouri, USA
  - B.Sc. (Sanitation), Chulalongkorn University
  - Finance for Non Finance Executive (2007)
  - PTT Group EVP Leadership Development Program Class 1 (2008)
  - IMD – BPSE (2009)
- Experience
  - 2014-Present : Senior Executive Vice President, Petrochemical and Refining Unit, PTT Plc.
  - 2010- 2014 : Senior Executive Vice President, International Trading Unit, PTT Plc.
  - 2010 - 2010 : Executive Vice President, International Trading Unit, PTT Plc.
  - 2009 - 2010 : Executive Vice President, PTT Plc. (working at Alliance Refining Co., Ltd.)
  - 2007 - 2009 : Executive Vice President, PTT Plc. (working at Alliance Refining Co., Ltd.)
  - 2004 - 2007 : Vice President, PTT Plc. (working at Alliance Refining Co., Ltd.)
  - 2001 - 2004 : Vice President, Petroleum Products and LPG Trading Department, PTT Plc.
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company
    - None -
  - Other listed companies
    - o Senior Executive Vice President, Petrochemical and Refining Unit, PTT Plc.
  - Non-listed companies
    - o Director, PTT International Trading Pte.Ltd.
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **Mr. Chaiwat Kovavisarach**

Director and Director with Authorized Signature (Started on October 30, 2012 and served as the President since January 1, 2015)

Chairman of the Executive Committee

- Age 48
- Education / Training
  - M.Eng., Asian Institute of Technology (AIT)
  - M.B.A., Thammasat University
  - 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)
- Experience
  - 2007 - 2014 : Advisor, Avantgarde Capital Company Limited
  - 2002 - 2006 : Managing Director, TURNAROUND Company Limited
  - 1996 - 2002 : Director, SG Crosby (Thailand)/SG Securities (Singapore) PTE.LTD.
  - 2000 - 2001 : Director, Investment Banking Club, Association of Thai Securities Companies
  - 1993 - 1996 : Investment Banker, Asset Plus Company Limited
  - 1987 - 1993 : Project and subsequently production Engineer, The Siam Cement Public Company Limited
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company
    - o Director, Nido Petroleum Ltd.
  - Other listed companies
    - None -
  - Non-listed companies
    - o Director, Asia Insurance Company Limited
    - o Investment committee, Government Pension Fund
    - o Director, Suan Kulab Witthayalai Alumnus Association Under the Royal Patronage of H.M.the King
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **Mr. Vikrom Koopirochana**

Director and Director with Authorized Signature (Started on April 10, 2013)  
Chairman of the Corporate Governance Committee

- Age 68
- Education / Training
  - Ph.D., History of International Relations, Michigan State University, USA
  - M.A., History, Michigan State University, USA
  - B.A. (History), Chulalongkorn University
  - Honorary Doctorate Degree in Humanities from Schiller International University, London
  - Director Accreditation Program (DAP 63/2007), Thai Institute of Directors (IOD)
  - Certificate, High-Level Management Program, Capital Market Academy (CMA 14/2012)
  - Anti-Corruption for Executive Program (ACEP7/2013), Thai Institute of Directors (IOD)
  - Successful Formulation and Execution of Strategy (SFE22/2014) , Thai Institute of Directors (IOD)
- Experience
  - 2007 - 2009 : Chairman, Dragon One PLC
  - 2007 - 2008 : Director, Thai Airways International PLC
  - 2003 - 2006 : Ambassador of Thailand to the United Kingdom of Great Britain and Northern Ireland, and Ambassador of Thailand to Republic of Ireland
  - 2005 : Director, Thai Airways International PLC
  - 2002 : Ambassador of Thailand to Rome, Italy
  - 2000 - 2001 : Deputy Permanent Secretary, Ministry of Foreign Affairs
  - 1997 - 1999 : Ambassador of Thailand to Wellington, New Zealand
  - 1996 : Ambassador of Thailand to Kuala Lumpur, Malaysia
  - 1991 - 1995 : Ambassador of Thailand to Singapore
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company
    - None -
  - Other listed companies
    - o Chairman of Audit Committee, Oishi Group PLC
    - o Chairman, Country Group Development PLC
    - o Independent Director, Member of the Audit Committee and Member of Nomination & Remuneration Committee, MFC Asset Management Plc.
  - Non-listed companies
    - o Commissioner and audit committee, Securities and Exchange Commission
    - o Chairman, Sports and Recreation Management Co., Ltd.
    - o Honorary Advisor, British Chamber of Commerce Thailand (BCCT)
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Board of Directors**

### **Mr. Wirat Unarumit**

Director and Director with Authorized Signature (Started on October 27, 2014)

- Age 52
- Education / Training
  - Master of Business Administration, with emphasis in Financial Management, Pennsylvania State University, USA
  - Bachelor of Science in Electrical Engineering, Chulalongkorn University
  - Member, Beta Gamma Sigma (US National Scholastic Honour Society in Business)
  - Advanced Management Programme, INSEAD Business School, Fontainebleau, France
  - Advanced Management Program 184, Harvard Business School, USA
  - CMA, Class 4, Capital Market Academy
  - Senior Executives on Justice Administration, Class 16, Judicial Training Institute, National Justice Academy
  - Advanced Security Management Program (ASMP), Class 2, The National Defence College Association of Thailand (NDCAT)
  - Director Certification Program (DCP8/2001), Institute of Directors (IOD)
  - Audit Committee Program (ACP38/2012), Institute of Directors (IOD)
  - Executive Development Program, Class 1, Thai Listed Companies Association (TLCA)
  - Diploma, National Defence College, The Joint State - Private Sector, Class 26
- Experience
  - 2014 - present : Chief Financial Officer, PTT Public Company Limited
  - 2011 - 2014 : Executive Vice President – Corporate Finance, PTT Public Company Limited
  - 2011 - 2011 : Senior Executive Vice President – Corporate Accounting and Finance, IRPC Company Limited
  - 2005 - 2011 : Deputy Managing Director – Finance, Thai Oil Public Company Limited
  - 2003 - 2005 : Head of Global Clients & Country Executive, ABN AMRO Bank N.V., Bangkok Branch
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company  
- None -
  - Other listed companies
    - o Chief Financial Officer, PTT Public Company Limited
  - Non-listed companies
    - o Director, Star Petroleum Refining Public Company Limited
    - o Director, PTT International Trading Pte.Ltd.
    - o Director, Thailand Management Association (TMA)
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None





## **Board of Directors**

### **Mr. Vichien Usanachote**

President and Director with Authorized Signature (From January 1, 2013 to December 31, 2014)

- Age 59
- Education / Training
  - Master of Engineering, Ohio State University, USA
  - BS (Engineering), Chulalongkorn University
  - Advanced Diploma in Public Law and Management # 7, King Prajadhipok's Institute
  - Diploma, Senior Executive Program (SEP-23), Sasin Graduate Institute of Business Administration of Chulalongkorn University
  - Advanced Senior Executive Program, (ASEP 5 – Sasin-Kellogg, School of Management of Northwestern University, USA) Sasin Graduate Institute of Business Administration of Chulalongkorn University
  - Diploma, Advanced Security Management Program (ASMP 2), The National Defence College Association of Thailand
  - Certificate, Program for Senior Executives Class 17 (CMA 17), Capital Market Academy, Stock Exchange of Thailand
  - Certificate, Power of the Kingdom (Bhumipalung Phandin 3), Chulalongkorn University Executive Program
  - Director Certification Program (DCP73/2006), Thai Institute of Directors (IOD)
  - Finance for Non-Finance Director (FND28/2006), Thai Institute of Directors (IOD)
- Experience
  - 2013 – 2014 : President
  - 2005 : Senior Executive Vice President, Refinery Business
  - 2003 : Senior Consultant, Acting Senior Executive Vice President
  - 2002 : Senior Executive Vice President, Planning and Logistics
  - 2001 : Senior Consultant
  - 2000 : Senior Executive Vice President, Marketing Business
  - 1993 : Senior Executive Vice President, Refinery Business
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company
    - o Chairman, Bangchak Biofuel Company Limited
    - o Director, Nido Petroleum Limited
  - Other listed companies
    - None -
  - Non-listed companies
    - o Chairman, Ubon Bio Ethanol Company Limited
    - o Chairman of Activities Committee, Environmental Engineering Association of Thailand
    - o Member, Thai Listed Companies Association
- Shareholding in the company: 77 shares or 0.0000055% directly held (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Executives**

### **Mr. Vichien Usanachote**

President and Director with Authorized Signature (From January 1, 2013 to December 31, 2014)

- Age 59
- Education / Training
  - Master of Engineering, Ohio State University, USA
  - BS (Engineering), Chulalongkorn University
  - Advanced Diploma in Public Law and Management # 7, King Prajadhipok's Institute
  - Diploma, Senior Executive Program (SEP-23), Sasin Graduate Institute of Business Administration of Chulalongkorn University
  - Advanced Senior Executive Program, (ASEP 5 – Sasin-Kellogg, School of Management of Northwestern University, USA) Sasin Graduate Institute of Business Administration of Chulalongkorn University
  - Diploma, Advanced Security Management Program (ASMP 2), The National Defence College Association of Thailand
  - Certificate, Program for Senior Executives Class 17 (CMA 17), Capital Market Academy, Stock Exchange of Thailand
  - Certificate, Power of the Kingdom (Bhumipalung Phandin 3), Chulalongkorn University Executive Program
  - Director Certification Program (DCP73/2006), Thai Institute of Directors (IOD)
  - Finance for Non-Finance Director (FND28/2006), Thai Institute of Directors (IOD)
- Experience
  - 2013 – 2014 : President
  - 2005 : Senior Executive Vice President, Refinery Business
  - 2003 : Senior Consultant, Acting Senior Executive Vice President
  - 2002 : Senior Executive Vice President, Planning and Logistics
  - 2001 : Senior Consultant
  - 2000 : Senior Executive Vice President, Marketing Business
  - 1993 : Senior Executive Vice President, Refinery Business
- Other directorship positions / other positions at present
  - Parent company/Subsidiary company/Same-level subsidiary company
    - o Chairman, Bangchak Biofuel Company Limited
    - o Director, Nido Petroleum Limited
  - Other listed companies
    - None -
  - Non-listed companies
    - o Chairman, Ubon Bio Ethanol Company Limited
    - o Chairman of Activities Committee, Environmental Engineering Association of Thailand
    - o Member, Thai Listed Companies Association
- Shareholding in the company: 77 shares or 0.0000055% directly held (as of December 31<sup>st</sup>, 2014)
- Family relationship among executives: None



## **Executives**

### **Mr. Wattana Opanon-amata**

First Senior Executive Vice President, Refinery Business

- Age 58
- 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
- Experience
  - 2013 – present : First Senior Executive Vice President, Refinery Business
  - 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
- Other directorship positions / Other positions at present
  - Other listed companies
    - None –
  - Non-listed companies
    - o Director, Government Savings Bank
    - o Vice Chairman of Chemical Engineering Committee for 2014-2016, The Engineering Institute of Thailand under H.M. the King's Patronage
    - o Committee member, Thailand Business Council for Sustainable Development
    - o Member of Green Labeling Project Management Committee, Thailand Environment Institute (TEI)
    - o Member of Certified GHG Emission Reductions for Building Committee, Thailand Environment Institute (TEI)
    - o Chairman of CSR Club, Thai Listed Companies Association, The Stock Exchange of Thailand



- Member of Board of Trustee, ASEAN CSR Network
  - Advisor of Corporate Social Responsibility Institute (CSRI), The Stock Exchange of Thailand
  - Specialized Committee Member on Analysis of Master of Engineering Program in, King Mongkut's Institute of Technology Ladkrabang, 2011
  - Member of the Application of Sufficiency Economy Movement in private sector sub-committee, Research and Development Institute of Sufficiency Economy Philosophy Foundation
  - 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 the Committee for the Follow-up and Expansion the Reduction of Unequal Distribution of Revenue, The Thai Chamber of Commerce
  - 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
- Shareholding in the company: 3,146 shares or 0.000228 % directly held (as of December 31<sup>st</sup>, 2014)



## **Executives**

### **Mr. Yodphot Wongrukmit**

Senior Executive Vice President, Corporate Administration and Information Technology

- Age 55
- Education / Training
  - MBA, MTSU, USA
  - BA (Economics) (2<sup>nd</sup> 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
  - 2013-present : 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
  - 1994 : Manager, North and Central Districts
- Other directorship positions / Other positions at present
  - Other listed companies
    - None –
  - Non-listed companies
    - o Director, Bangchak Green Net Company Limited
    - o Director, Provincial Electricity Authority
- Shareholding in the company: 44,096 shares or 0.003203% (as of December 31<sup>st</sup>, 2014)



## **Executives**

### **Mr. Bundit Sapianchai**

Senior Executive Vice President, Renewable Energy Business

- Age 50
- Education / Training
  - 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)
  - Management in Globalizing Era (Ex-PSM 5), Fiscal Policy Research Institute
  - Advanced Diploma, Public Administration and Public Law (Class of 10<sup>th</sup>), King Prajadhipok's Institute
  - Diploma, The joint State-Private Sector Course, National Defence College (Class of 25<sup>th</sup>)
- Experience
  - The Bangchak Petroleum Public Company Limited
    - 2013 – present : Senior Executive Vice President, Renewable Energy Business
    - 2012 –2013 : Senior Executive Vice President, Business Development and Strategy
    - 1998 –2012 : Executive Vice President, Corporate Business Development
  - Others
    - 2004 – 2008 : Executive Vice President, Finance and Strategy, NFC Fertilizer Public Company Limited
    - 1997 – 2004 : Business Director, Air Liquid (Thailand) Company Limited
    - 1994 – 1997 : Marketing Director, PTT Petrochemical Company Limited
    - 1988 – 1994 : Commercial Manager, National Petrochemical Public Company Limited
- Other directorship positions / Other positions at present
  - Other listed companies
    - None –
  - 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
    - Chairman, Ubon Agricultural Energy Company Limited
    - Chairman, Ubon Bio Gas Company Limited
    - Chairman, NP Bio Energy Company Limited
    - Director, Bangchak Biofuel Company Limited
    - Director, Ubon Bio Ethanol Company Limited
- Shareholding in the company: 31,895 shares or 0.002316 % directly held (as of December 31<sup>st</sup>, 2014)



## **Executives**

### **Mr. Surachai Kositsareewong**

Senior Executive Vice President, Accounting and Finance

- Age 52
- 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)
  - 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
- Experience
  - The Bangchak Petroleum Public Company Limited
    - 2013-Present : Senior Executive Vice President, Accounting and Finance
    - 2012 : Acting Senior Executive Vice President, Accounting and Finance
    - 2009 : Executive Vice President, Accounting and Finance
  - Others
    - Jan - Nov 2012 : Director, MCOT Public Company Limited
    - 2007- 2009 : Vice President (Administration) and Chief Finance Officer, Dhanarak Asset Development Company Limited
    - 2005 – 2007 : 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
    - o Director, Bangchak Biofuel Company Limited
    - o Director, Bangchak Green Net Company Limited
    - o Director, Bangchak Solar Energy Company Limited
    - o Director, BCP Energy International Pte. Ltd.
    - o Commissioner of the Arbitration Committee
    - o Commissioner, The Electronic Transactions Commission
- Shareholding in the company: None (both directly and indirectly held) (as of December 31<sup>st</sup>, 2014)



## **Executives**

### **Mr. Pongchai Chaichirawiwat**

Senior Executive Vice President, Marketing Business

- Age 54
- Education / Training
  - MBA, Thammasat University
  - Master's degree in engineering, Asian Institute of Technology (AIT), Thailand
  - Bachelor's degree in engineering, Chulalongkorn University
  - 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
  - 2014-present : 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
  - 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
    - o Director, Bangchak Green Net Company Limited
- Shareholding in the company: 44,332 shares or 0.003220% directly held (as of December 31<sup>st</sup>, 2014)





## **Executives**

### **Mr. Somchai Tejavanija**

Senior Executive Vice President, Corporate Strategy and Business Development

- Age 52
- 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
- Experience
  - 2014-present : 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 : Senior Vice President-Marketing Business Strategy 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
    - o Director, Bangchak Solar Energy Company Limited
    - o Director, ASEAN Potash Mining Public Company Limited
    - o Director, BCP Energy International Pte. Ltd.
- Shareholding in the company: 28,522 shares or 0.002071% directly held (as of December 31<sup>st</sup>, 2014)



## **Executives**

### **Mr. Kiatchai Maitriwong**

Acting Senior Petroleum Refining Executive, Refinery Business

- Age 55
- 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
- Experience
  - The Bangchak Petroleum Public Company Limited
    - 2014- present : 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
    - o Director, Bangchak Solar Energy Company Limited
- Shareholding in the company: 10,011 shares or 0.000727% (as of September 9<sup>th</sup>, 2014)



## **Executives**

### **Mr. Chalermchai Udomranu**

Executive Vice President, Refinery Business

- Age 53
- 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
- Experience
  - 2012-present : Executive Vice President, Refinery Business
  - 2011 : Senior Vice President, Refinery Operation, Refinery Business
  - 2009 : Vice President, Refinery Operation, Refinery Business
  - 2005 : Vice President, Refinery Project
  - 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
    - None –
- Shareholding in the company: 6,865 shares or 0.000499% (as of September 9<sup>th</sup>,2014)



## **Executives**

### **Mr. Phichet Emwattana**

Executive Vice President, Marketing Business

- Age 49
- 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
  - 2014 – present : Executive Vice President, Marketing Business
  - 2012 : Senior Vice President, Planning and Logistics, Refinery Business
  - 2009 : Vice President, Planning and Logistics, Refinery Business
  - 2008 : Acting Senior Vice President, Planning and Logistics
  - 2007 : Vice President, Corporate Business Development Office
  - 2006 : Senior Manager, Strategy and Risk Management Office
  - 2004 : Senior Manager, Oil Supply and Wholesale Operations
  - 2000 : Manager, Oil Supply and Wholesale Operations
- Other directorship positions / Other positions at present
  - Other listed companies
    - None –
  - Non-listed companies
    - Member of Executive Committee, Ubon Bio Ethanol Company Limited
    - Director, Fuel Pipeline Transportation Limited
- Shareholding in the company: 4,080 shares or 0.000296% (as of September 9<sup>th</sup>, 2014)



## **Executives**

### **Dr. Kitti Nivatvongs**

Senior Vice President, Refinery Technique, Refinery Business

- Age 60
- Education / Training
  - Ph.D. (Engineering), Northwestern University
  - MS (Engineering), Mississippi State University
  - BS (Engineering), Chulalongkorn University
- Experience
  - 2013 – 2014 : Senior Vice President, Refinery Efficiency Enhancement
  - 2011 : Senior Vice President, Refinery Technique, Refinery Business
  - 2009 : Vice President, Refinery Engineering, Refinery Business
  - 2005 : Vice President, Technique, Refinery Business
  - 2000 : Senior Manager (Engineering)
  - 1999 : Manager, Technique and Environment
- Other directorship positions / Other positions at present
  - Other listed companies
    - None –
  - Non-listed companies
    - None –
- Shareholding in the company: 36,213 shares or 0.002630% (as of September 9<sup>th</sup>, 2014)



## **Executives**

### **Mr. Pichit Wongrujiravanich**

Senior Vice President, Internal Control Office

- Age 54
- 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)
- Experience
  - 2011-2014 : 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: 15,771 shares or 0.001145% (as of September 9<sup>th</sup>, 2014)



## **Executives**

### **Mr. Dhanajit Makarananda**

Senior Vice President, Associated Company Business, Renewable Energy Business

- Age 55
- 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
- Experience
  - 2014 : Senior Vice President, Associated Company Business, Renewable Energy Business, appointed to Bangchak Biofuel Co., Ltd.
  - 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
  - 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
    - Managing Director, Bangchak Biofuel Co., Ltd.
- Shareholding in the company: None (as of September 9<sup>th</sup>, 2014)



## **Executives**

### **Mr. Chokchai Atsawarangsalit**

Senior Vice President, Exploration and Production, Corporate Strategy and Business Development

- Age 47
- Education / Training
  - MBA, Kasetsart University
  - BS (Engineering), Chulalongkorn University
  - Director Certification Program (DCP), 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
  - 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
  - 2007 : 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 Solar Energy (Prachinburi) Company Limited
    - Director, Bangchak Solar Energy (Chaiyaphum1) Company Limited
    - Director, Bangchak Solar Energy (Nakhonrachasima) Company Limited
    - Director, Bangchak Solar Energy (Buriram) Company Limited
    - Director, Bangchak Solar Energy (Buriram1) Company Limited
- Shareholding in the company: 300 shares or 0.000022% (as of September 9<sup>th</sup>, 2014)





## **Executives**

### **Ms. Revadee Pornpatkul**

Vice President, Associated Company Business, appointed to Bangchak Solar Energy Company Limited

- Age 54
- Education / Training
  - MBA, Thammasat University
  - BA (Accounting), Ramkhamhaeng University
  - BA (Law), Sukhothai Thammathirat University
  - BS (Science), Chulalongkorn University
- Experience
  - The Bangchak Petroleum Public Company Limited
    - 2013 – present : Vice President, Associated Company Business, appointed to Bangchak Solar Energy Company Limited
    - 2007 : Vice President, Accounting and Taxation, Accounting and Finance
    - 2004 : Senior Manager, Accounting, and Acting Vice President, Accounting and Tax
    - 2002 : Manager, Accounting
    - 2000 : Manager, Revenue Accounting
  - Other directorship positions / Other positions at present
    - Other listed companies
      - None –
    - Non-listed companies
      - Managing Director, Bangchak Solar Energy Co., Ltd.
      - Managing Director, Bangchak Solar Energy (Prachinburi) Co., Ltd.
      - Managing Director, Bangchak Solar Energy (Chaiyaphum1) Co., Ltd.
      - Managing Director, Bangchak Solar Energy (Buriram) Co., Ltd.
      - Managing Director, Bangchak Solar Energy (Buriram 1) Co., Ltd.
      - Managing Director, Bangchak Solar Energy (Nakhonratchasima) Co., Ltd.
- Shareholding in the company: 26,967 shares or 0.001958% (as of September 9<sup>th</sup>, 2014)



## **Executives**

### **Ms. Naree Jiamwattanasuk**

Vice President, Associated Company Business, appointed to Bangchak Green Net Company Limited

- Age 58
- Education / Training
  - MBA, Thammasat University
  - B.Eng. (Mechanical Engineering), Chulalongkorn University
- Experience
  - The Bangchak Petroleum Public Company Limited
    - 2013–present : Vice President, Associated Company Business, appointed to Bangchak Green Net Company Limited
    - 2012-2013 : Vice President, Associated Company Business, appointed to Bangchak Solar Energy Company Limited
    - 2001-2011 : Senior Manager, appointed to Bangchak Green net Company Limited
    - 2000-2001 : Manager, System Section
    - 1997-1999 : Manager, Account system
  - Other directorship positions / Other positions at present
    - Other listed companies
      - None –
    - Non-listed companies
      - Managing Director, Bangchak Green Net Company Limited
- Shareholding in the company: None (as of September 9<sup>th</sup>, 2014)



**Company Secretary**

Ms. Pakawadee Junrayapes

Vice President, The Secretary to The Board of the Directors Office And Company Secretary, Corporate Administration and Information Technology

- Age 53
- 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), Ministry of Finance
  - Company Secretary Program (CSP), Thai Institute of Directors (IOD)
  - Director Certification Program (DCP), Thai Institute of Directors (IOD)
  - Successful Formulation and Execution of Strategy (SFE), Thai Institute of Directors (IOD)
- Experience
  - The Bangchak Petroleum Public Company Limited-
  - 2011-present : 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



## Attachment 2 Profiles of subsidiaries' directors

Executives who served directors in the Subsidiaries

Subsidiary	Directors	Bangchak Green Net Co., Ltd.
Mr. Yodphot	Wongrukmit	/
Mr. Surachai	Kositsareewong	/
Mr. Pongchai	Chaichirawiwat	/
Ms. Naree	Jiamwattanasuk	//

### Note

X = Chairman    / = Director    // = Managing Director

“Subsidiary” means a significant affiliate of Bangchak with more than 10% of the consolidated revenue under Bangchak’s latest statements of comprehensive income.



### Attachment 3 Report of the Audit Committee

#### Report of the Audit Committee

To the Shareholders

The Audit Committee (AC) consists of qualified members with expert, independence and experience, chaired by Mr. Anusorn Tamajai and consisting of Mr. Suthep Wongvorazathe and Mrs. Arunporn Limskul as members.

In 2014 the committee held 12 meetings, six of which with senior management. When meeting with senior management, executives with vested interests stayed away from the meetings. The following captures the meeting attendances.

Name	Attendance / Total
Mr. Anusorn Tamajai	12 / 12
Mr. Suthep Wongvorazathe	12 / 12
Mrs. Arunporn Limskul	12 / 12

The committee also held a 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 was to ensure that such connected transactions were conducted in the normal course of business without transferring benefits, in the best interests of the Company and in compliance with the regulations of the Stock Exchange of Thailand (SET). Also, the committee met with the Company's legal team to keep updated on significant court cases in which the Company was being sued with potentially significant impacts on its business.
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

- Confirmed the independence of the performance of the external auditor
- Recognized the need for improved business efficiency while minimizing oil losses in its processes.

This year the Audit Committee endorsed the hiring of a consultant to audit the SAP ECC6: Revenue Business Cycle system and staged training on such audit. The committee also supported the joint operation audit of Ubon Bio Ethanol Co., Ltd., with Thai Oil PCL's Internal Systems Audit and requested the management's update on crucial projects, including the application of BOI tax privileges under the environmental impact mitigation measures and Gasohol Club system modification.

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 2014 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 a joint meeting was held between the Enterprisewide Risk Management Committee (ERMC) and the Audit Committee to consult each other on the risk management process for the operation of the oil tank farm under Thai Public Port Co., Ltd., oil price risk management, prevention of unplanned shutdowns, and strategic risk management of the company's emerging businesses for greater efficiency and effectiveness.
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 2014 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) *Anusorn Tamajai*  
(Mr. Anusorn Tamajai)  
Chairman, Audit Committee  
January 10, 2014



## **Attachment 4 Head of Internal Control Office**

Mr. Pichit Wongrujiravanich  
Senior Vice President, Internal Control Office

- Age 54
- 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)
- Experience
  - 2011-present : Senior Vice President, Internal Control Office
  - 2005 : Vice President, Internal Control Office
  - 1992 : Assistant to Executive Director, Yontrakit Group