



bangchak

GREENOVATE
To REGENERATE

สมดุลธรรมชาติ สรรค์พลังไม่สิ้นสุด

Annual Registration Statement / Annual Report 2023

(Form 56-1 One Report)

Bangchak Corporation Public Company Limited

GREENOVATE *to* REGENERATE

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In case this Annual Registration Statement / Annual Report (Form 56-1 One Report) references information disclosed on the Company's website, the disclosed information shall be deemed to be part of Form 56-1 One Report. The Board of Directors certifies the correctness and completeness of disclosed information and annual information disclosure in Form 56-1 One Report.

Message from the Chairperson of the Board of Directors



Amid economic growth in a country facing challenges from weak foreign demand and domestic recovery, in 2023, Bangchak Group has stepped into the forefront of the leading energy business that is globally recognized, proudly marking a historical milestone with its success in expanding the business to enhance energy security, access to energy, and environmental sustainability. This represents an enhancement of the capability and potential to create long-term value for the business.

In 2023, Bangchak Group made advances through its strategy to strengthen the business by acquiring common shares of Bangchak Sriracha Public Company Limited (formerly Esso (Thailand) Public Company Limited), with an investment value of approximately 26 billion baht. This acquisition provided the Group with strategic energy assets, including an oil refinery, oil terminal network, and service stations nationwide, valued at 55.5 billion baht. The transaction was completed on August 31, 2023, and a tender offer was extended for the remaining shares. Currently, the Group holds 76.34% of all issued and outstanding common shares.

The growth and expansion of the business in 2023 are also reflected in the record-high revenue from sales and services, amounting to 385.85 billion baht, an increase of 18% from 2022. The EBITDA reached a total of 41.68 billion baht, and the net profit attributable to the parent company was 13.23 billion baht, marking a 5% increase from 2022 and reaching the highest level since the Company's inception. This equates to earnings per share of 9.27 baht. Every business group experienced significant development and success as follows:

The Refinery and Oil Trading Business Group, which began as the smallest refinery in the country, has achieved a leading nameplate production capacity of 294,000 barrels per day. In 2023, the average crude run increased to 155,000 barrels per day following the combined operations with Bangchak Sriracha Refinery. Both Bangchak Phra Khanong and Bangchak Sriracha refineries plan to continue operating at full capacity.

The Company's businesses comprehensively encompass the entire value chain, spanning from crude oil procurement to fuel transportation management via trucks, ships, pipelines, and logistics. The Company has also executed a construction contract for a Sustainable Aviation Fuel (SAF) production unit. Moreover, the Bangchak Phra Khanong Refinery is the only refinery in the world to have received the Global Performance Excellence Award (GPEA) for international quality management. Additionally, a platform has been created to manage the efficiency and maximize the benefits of two refineries by establishing the Refinery Optimization & Synergy Enterprise Company Limited (ROSE) in partnership with Bangchak Sriracha Public Company Limited (BSRC), which has become a subsidiary of Bangchak Group. The Group has smoothly managed operations

during the transition of shareholder structure changes and transformations in every dimension, resulting in strong operational performance and the ability to enhance the operational potential of the refinery business to accommodate the future production capacity increase of the Bangchak Sriracha Refinery.

The Marketing Business Group has a network of 2,219 service stations nationwide at the end of 2023. This extensive network has significantly enhanced consumers' accessibility to Bangchak fuels, resulting in total sales across all channels reaching a new record volume of 6,490 million liters – a growth of 9%. Service stations have transformed by changing the logo with the “New Leaf” symbol and changing the “Esso” logo to “Bangchak,” along with delivering products and experiences through the concept of “Your Greenovative Destination for Intergeneration.” Meanwhile, the Non-Oil Business continues to expand, with more than 1,000 Inthanin coffee shops and over 265 electric vehicle charging stations to meet the needs of all users.

The Clean Power Business Group, represented by BCPG Public Company Limited, has expanded its investment in four natural gas power plant projects in the United States, solar power plants in the country, and the oil terminal business and oil jetty in Phetchaburi province.

The Bio-Based Products Business Group, represented by BBGI Public Company Limited, has transitioned from the biofuel business to the high-value bioproducts industry by establishing BBGI Fermbox Bio Co., Ltd. in partnership with Fermbox Bio Company Limited. This venture aims to provide services in the development and production of bioproducts using advanced biotechnology.

The Upstream Business, also known as the Natural Resources Business and New Business Group, saw OKEA ASA make significant investments in the Statfjord petroleum field (28%) in the Norwegian Sea, with the transfer of rights completed at the end of 2023. This resulted in OKEA ASA having a net petroleum production equivalent to 24,590 barrels of oil per day, an increase of more than 46.9%. In 2023, OKEA ASA played a significant role in driving the EBITDA of Bangchak Group, contributing up to 47.2% or approximately 19.67 billion baht. This contribution served to reinforce energy security during the transition towards clean energy.

Furthermore, the Company initiated new business venture initiatives by launching the country's inaugural Liquefied Natural Gas (LNG) service station to promote the use of clean

energy in the transport sector, the business of providing a platform service for swapping batteries for Winnonie electric motorcycles, to become as a leader in providing Battery as a Service (BaaS) for electric motorcycles. The network of battery-swapping stations has expanded to cover 120 locations. Additionally, Winnonie Co., Ltd., a subsidiary of Bangchak Group, has established the Smart EV Bike Co., Ltd. in partnership with the BTS Group Holdings Public Company Limited to operate a business of leasing electric motorcycles for professional riders in areas near BTS Skytrain stations.

On this path of growth, Bangchak Group was still able to maintain a strong financial position and financial discipline. Following the transaction of Bangchak Sriracha Public Company Limited, TRIS Rating Co., Ltd. has maintained the corporate credit rating of the company at an “A” level, reflecting a positive outlook on the strength of the financial position, as well as confidence in the business status among investors who have fully subscribed to Bangchak's digital debentures worth 3 billion baht.

Bangchak Group places paramount importance on sustainable growth by maintaining a balanced approach in its business operations, demonstrating responsibility towards the environment and society, and consistently adhering to good corporate governance. In 2023, we were recognized for our excellence in sustainability, ranking in the top 2 in the world for sustainability within the Oil & Gas Refinery and Marketing industry group by the S&P Global Corporate Sustainability Assessment. Concurrently, the Group continues to advance our operations according to plans aimed at transitioning to a Low-Carbon society, with the goal of achieving Net Zero Greenhouse Gas Emissions by 2050.

I extend my heartfelt gratitude to our shareholders, business alliances, trading partners, relevant government agencies, society, and communities for their trust and continuous support of Bangchak Group's operations. As we stride forward to our 40th year in 2024, we stand prepared to propel our business with the vision of “Crafting a Sustainable World with Evolving Greenovation.” Our commitment is to accelerate Bangchak Group's sustainable growth, delivering benefits to our stakeholders and positioning ourselves to become a steadfast organization that thrives beyond 100 years, serving as a cornerstone of the energy sector for our country.



(Mr. Pichai Chunhavajira)

Chairperson of the Board of Directors

Board of Directors



1

Mr. Pichai Chuhavajira
 Chairperson of the Board and Director with Authorized Signature

2

Mr. Surin Chiravisit
 Vice Chairperson, Independent Director and Director with Authorized Signature

3

Mr. Prasong Poontaneat
 Vice Chairperson, Independent Director and Chairperson of the Enterprise-wide Risk Management Committee

8

Maj. Gen. Yuttasak Raksereepitak
 Independent Director

9

Mr. Achporn Charuchinda
 Independent Director and Director with Authorized Signature

10

Mr. Chaovalit Ekabut
 Independent Director

4

Dr. Poramete Vimolsiri
 Independent Director and Chairperson of the Audit Committee

5

Mrs. Prisana Praharnkhasuk
 Independent Director and Chairperson of the Nomination and Remuneration Committee

6

Mr. Narin Kalayanamit
 Independent Director and Chairperson of the Sustainability and Corporate Governance Committee

11

Mrs. Vilai Chattanrassamee
 Independent Director and Director with Authorized Signature

12

Mr. Phairoj Chotikasatien
 Director

13

Mr. Chanvit Nakburee
 Director and Director with Authorized Signature

7

Pol. Lt. Gen. Samran Nualma
 Independent Director

14

Mrs. Woranuch Phu-im
 Director and Director with Authorized Signature

15

Mr. Chaiwat Kovavisarach
 Group Chief Executive Officer and President, Executive Director, Director with Authorized Signature

The Executives



1

Mr. Chaiwat Kovavisarach
 Group Chief Executive Officer
 and President

2

Mr. Somchai Tejavanija
 Chief Marketing Officer,
 Marketing Business Group

3

Mr. Pativat Tivasasit
 Chief Operation Officer,
 Refinery and Oil Trading
 Business Group

7

Mr. Bundit Hansapaiboon
 Senior Executive Vice President,
 appointed to Bangchak Sriracha
 Public Company Limited

8

Mr. Thamarat Paryoonsuk
 Senior Executive Vice President,
 Refinery and Oil Trading
 Business Group

9

Mrs. Ratrimani Pasiphol
 Chief Transformation & Synergy
 Realization Officer

4

Ms. Phatpuree Chinkulkitnivat
 Chief Financial Officer and
 Senior Executive Vice President,
 Accounting and Finance

5

Mr. Chokchai Atsawarangsalit
 Senior Executive Vice President,
 Corporate Management and
 Organization Development

6

Mr. Kittiphong Limsuwannarot
 Senior Executive Vice President,
 appointed to BBGI Public
 Company Limited

10

Mr. Seri Anupantanan
 Senior Executive Vice President,
 Marketing Business Group

11

Mr. Phuwadon Suntornwipart
 Senior Advisor

12

Ms. Gloyta Nathalang
 Acting Senior Executive Vice
 President, Sustainability
 Management and Corporate
 Communications
 (Effective on January 1, 2024)

13

Mrs. Narupan Suthamkasem
 Acting Senior Executive Vice President, Corporate
 Sustainability Development and Strategic Synergy,
 Bangchak Group (Effective on January 1, 2024)

At a Glance



Total nameplate capacity of

294

KBD

(2 Refineries)



Deliver products and services across the network of

2,219

service stations

(including additional network service stations acquired through Bangchak Sriracha Plc.)



Refinery and Oil Trading Business



Bangchak Phra Khanong Refinery

Average Crude Run at **120.1** KBD



Bangchak Sriracha Refinery

Average Crude Run at **101.9** KBD



Clean Power Business



Operating Capacity

1,249.9 MW

Developing Capacity

775.3 MW



Marketing Business



Bangchak service stations

1,389 stations

Additional **830** service stations operated by Bangchak Sriracha Plc.



Inthanin coffee shops

1,020 shops



Bio-Based Business



Biodiesel Capacity

1,000,000 liters per day



Ethanol Capacity

800,000 liters per day



Natural Resource Business

Average Production Rate

24,590 barrels of oil equivalent per day

crude oil



67%

gas



25%

natural gas liquids



8%

Financial Highlights

Consolidated Financial Statements	2023	2022	2021
Statement of Income (Million Baht)			
Sales and service revenue	385,853	328,017	199,417
Gross profit (loss)	33,738	46,269	23,673
EBITDA ^{1/}	41,680	44,724	25,818
Gain (loss) from derivative	2,287	(5,136)	(1,274)
Gain (loss) from foreign exchange	401	1	251
Net profit ^{2/}	13,233	12,575	7,624
Statement of Financial Position (Million Baht)			
Total assets	340,429	242,344	201,785
Total liabilities	240,397	158,966	132,226
Shareholders' equity	100,032	83,378	69,559
Share capital			
- Registered share capital	1,377	1,377	1,377
- Issued & fully paid-up share capital	1,377	1,377	1,377
Financial Ratios (%)			
EBITDA / sales and service revenue	11.13	14.33	12.95
Net profit / sales and service revenue	3.18	4.85	4.94
Rate of return on assets	8.80	14.40	9.51
Debt to Equity ratio : D/E	2.40	1.91	1.90
Net IBD to Equity	0.91	0.41	0.69
Operating Outcomes (Baht per share)			
Net earnings per share ^{2/}	9.27	8.89	5.25
Book value per share ^{3/}	45.28	38.86	32.06

Remarks: ^{1/} EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization, gain/loss on foreign exchange, loss from impairment of assets

^{2/} Net profit (loss) of the owners of the parent

^{3/} Only the equity of the Company



Part 1

Business Operations and Performance

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1. Bangchak Group Structure and Operation

1.1 Policy and Business Overview

1.1.1 Vision, Mission, Objectives, Goals

Vision



Crafting a Sustainable World
with Evolving Greenovation

Mission

We commit to accelerate sustainable energy transition, while balancing energy security.
We are energizing lives through Greenovative solution and promoting ESG for all.

Core Values



Business Culture

Sustainable Innovative Business Development in Harmony with the Environment and Society

Employee Culture

To be virtuous, knowledgeable, and contributive to others

Objectives and Goals

Bangchak Corporation Plc. is committed to being a Thai energy company that conducts business in parallel with stewardship of the environment and society while striving for the right balance between value and virtue together with quality of life improvement for Thai society.

Valuing sustainable corporate growth, Bangchak strives to internationalize its management excellence while applying the Sufficiency Economy to business management for adequate profits, nurturing growth and sustainability by promoting and developing innovation and technology with due regard for conscientious consumption of natural resources. Bangchak pursues a leading Asian Greenovation Group vision as well as business, social, and environmental goals.



1. Business Goals

In 2023, Bangchak Group moved forward with its strategy to strengthen its business by purchasing common shares of Bangchak Sriracha Public Company Limited (formerly Esso (Thailand) Public Company Limited), registered name change on November 15, 2023 with an investment value of approximately 26,000 million baht and received an important strategic energy asset, namely an oil refinery. Oil terminals and service station network. This is considered an important change for Refinery, Trading Business and Marketing Business group, with the following important points:

1.1 Refinery and Oil Trading Business Group

Bangchak has robustly increased its capability to the forefront of the multinational energy business through synergy and platform for growth development for sustainability, accessibility, and energy security ready for the drive towards the Low Carbon society. At present, the Company has two world-class complex refineries, increasing its nameplate capacity from 120,000 to 294,000 barrels per day. The platform for growth is as follows:

Bangchak Phra Khanong Refinery is a Complex refinery and constantly maintains a capacity of 120,000 barrels per day. It constantly increases its competitiveness, the values of its products, improves its efficiency, effectiveness, and decreases energy consumption as well as reducing GHG emission during production to achieve constant optimum benefit. Such efforts and business process redesign under the Focus Analysis Success Transform+ (FAST+) Project, have led to the Global Performance Excellence Award 2023 – World Class. Bangchak was the only refinery to receive this award, and is a model organizations for excellence in quality management according to international standards achieved through the development and organization management in all dimensions to increase its competitive edge at the global level. In 2024, Bangchak strives to increase the capacity of high-value specialty products, namely the unconverted oil



**Two world-class refineries
with a combined nameplate
capacity of 294,000
barrels per day**

(UO) from the hydrocracking unit, up to 92 million liters per month. Unconverted Oil is regarded as the feedstock for the lube base oil and paraffin wax production. The refinery plans to extend the turnaround maintenance cycles from three years to four years, starting in 2024.

Bangchak Sriracha Refinery, operated by the Bangchak Sriracha Public Company Limited (BSRC), is a world-class complex refinery with effective cost management, reducing production costs through appropriate value-added products to suit market demands. Bangchak Sriracha Refinery has upgraded its production of gasoline, thus complementing Bangchak's marketing demands that could not be fulfilled by Bangchak Phra Khanong Refinery alone. Furthermore, the Bangchak Sriracha Refinery has plans to maximize synergy benefits with the Oil Trading Business Group by focusing on optimization in various aspects. Bangchak Sriracha Refinery aims to boost its crude oil refining from an average of 118,300 barrels per day in 2023 to 155,000 barrels per day in 2024, amounting to the highest refining rate since its inception while maintaining its excellence in environmental and safety records.

The Refinery and Oil Trading Business Group conducts business operations spanning the entire Value Chain through the following companies:

The BCP Trading Pte. Ltd. (BCPT), established in Singapore, has become a leader in the trading of crude oil, finished products, and sustainable biofuels. BCPT conducts oil trading through the System Barrels for both Bangchak Phra Khanong and Bangchak Sriracha refineries and focuses on the expansion of the Out-Out trading of crude oil with its partners apart from procuring crude oil directly from the producers while penetrating the market of specialty product distributors.

The Bangkok Fuel Pipeline and Logistics Company Limited (BFPL) is the leader in effective transportation and fuel distribution network, and manages domestic and international fuel transportation through pipelines, trucks, and vessels for Bangchak Phra Khanong and Bangchak Sriracha refineries. It also extends the network of tank farms across the country via pipeline fuel transportation business that reduces fuel transportation cost, loss during shipment, and carbon dioxide emission from trucks.

BSGF Co., Ltd., a joint venture with BBGI Plc. and Thanachok Oil Light Co., Ltd., strives to be the leader in sustainable alternative energy. In 2023, BSGF entered into a construction contract for a Sustainable Aviation Fuel (SAF) production unit in Bangchak Phra Khanong Refinery. The new unit has a production capacity of one million liters of SAF per day.

Furthermore, the Company has established the Refinery Optimization and Synergy Enterprise Co., Ltd. (ROSE), with the Company holding a 50% share in ROSE while the remaining 50% shares are held by Bangchak Sriracha Public Company Limited. ROSE provides planning and management services to Bangchak Phra Khanong Refinery and Bangchak Sriracha Refinery to achieve the most efficient operation, minimize costs and maximize economic feasibility and transparency to all stakeholders. ROSE also provides services such as supply and planning, logistics planning, price risk management, sales management, and other activities related to the oil trading business.

1.2 Marketing Business Group

Bangchak pushes sales through various channels accumulating a market share across all channels from January to December 2023 of more than 28% (all products included). Such market share includes product delivery and customer service at more than 2,219 service stations across the country, including network service stations from the acquisition of Bangchak Sriracha Public Company Limited (source : Department of Energy Business and Bangchak Sriracha Public Company Limited). The Company will complete the change of acquired service stations, logo to "Bangchak" by the end of 2024. Marketing Business continues to focus on product and service development and improvement based primarily on customer demand and continually strives to grow sustainably in tandem with



society and the environment. At present, the Company is the leader in the distribution of all types of Euro 5 products according to government policy. Other efforts include the development of environmentally friendly high-quality fuel and FURiO lubricant products. The Company has set the target of becoming the leader in diesel product distribution through customer base expansion as well as increasing sales in premium products, mainly Hi-Premium Diesel S B7 and Hi-Premium Gasohol 97 through its service stations. At the same time, service quality is to be upgraded to create optimum customer satisfaction. Such effort is well rewarded with significantly higher satisfaction marks in 2023. Other endeavor includes customer relation management and service development through digitalization to deliver good experience for the customer under the Your Greenovative Destination concept along with the image enhancement of unique design service stations. Non-oil partners are actively increased to blend with the Thai people's new lifestyle that calls for participation in sustainable environmental preservation. In 2024, the Company has a goal of expanding 40 additional service stations as well as developing the Inthanin coffee shop business. The goal is to expand branches from 1,020 branches in 2023, adding another 150 branches in 2024.

1.3 Clean Power Business Group

The Company's goal is to become the leader in the clean power business in the Asia-Pacific region and expand businesses worldwide to foster steady growth by leveraging the Company's strategy as follows.

- Focusing on major business growth through power generation from clean energy, namely solar energy power plants, power generation from roof-top solar panels projects, wind energy power plants, hydropower plants, power line construction projects, and natural gas power plants.
- Embarking on businesses to increase revenue through power storage systems from batteries and throughout the entire business value chain, and supporting both two and three-wheeled electric vehicles. Moreover, it is developing the smart energy business through innovation and technology to promote energy management.
- Increasing the opportunity to invest in new businesses with other fundamental infrastructure projects relating to energy in accordance with the Company's business operation and investment whilst continuing to support future business.

At the end of 2023, BCPG, a Bangchak subsidiary, commanded 1,249.9 MW in commercial operation with plans to further develop power plants to produce another 775.3 MW through long-term power-purchase contracts such as a solar farm project in the Republic of China (Taiwan) where BCPG holds such contract at constant tariffs with the Taiwan Power Company, a state enterprise controlling power generation and distribution. To this end, BCPG has sold its entire investment portfolio in Japan to the European Fund following the strategic plan. The entire investment in Japan consisted of nine solar farms, generating 117 MW, amounting to 42,970 million yen or 10,377 million baht (at the exchange rate of 24.15 baht per 100 yen), comprising 6,935 million baht of share values and 3,442 million baht in net project loans. The agreement was signed with the Obton Group, a major renewable power plant company from Europe, on December 1, 2023.



**At the end of 2023,
BCPG commanded
1,249.9 MW
in commercial operation.**

1.4 Bio-Based Products Business Group

Bangchak has expanded and increased the production of ethanol, its bio-based fuel business, as well as continually improving bio-diesel and ethanol production efficiency. The Company began production of 80 tons per day of pure glycerin and pharmaceutical-grade hand sanitizer alcohol, to uplift the product value of BBGI Public Company Limited (BBGI), a major operator and distributor of biofuels in Thailand, by focusing on the development of High-Value Bio-Based products, through investments in the Manus Bio Inc. and the BIOM Co., Ltd., to continue creating research value in response to the high-value biological products supply chain and sales of nutritional supplements under the brand of B Nature Plus. In addition, it has jointly invested in establishing the BBGI Fermbox Bio Company Limited to carry out the construction of the first commercial-scale biotechnology factory (CDMO) in Thailand and Southeast Asia.

1.5 Natural Resources Business

To develop petroleum exploration and production business and new businesses, we engaged in the following:

- The petroleum exploration and production business, the Company aims to expand investments to increase production capacity in potential petroleum sources in the future. OKEA ASA holds rights to crude oil and natural gas sources and exploration rights in several prospective areas in Norway. In November 2022, the investment between Wintershall Dea Norge AS and OKEA ASA was created and in March 2023 has signed a Contract to purchase The Statfjord petroleum field (28%) and completed the acquisition of 28% working interest on 29 December 2023, OKEA ASA committed to seeking opportunities for business growth and continuous mergers and acquisitions (M&A) expansion.
- For new businesses, BCP Innovation Pte. Ltd. (BCPI) aims to conduct business operations and invest in businesses related to lithium mining and various startup ventures. Currently, BCPI has the right to purchase lithium under the Lithium Purchase Agreement with Lithium Americas Corp. for up to 6,000 tons per year from the Cauchari-Olaroz project. BCPI has also invested in several other startup projects.

1.6 Bangchak Initiative and Innovation Center

Bangchak strives to increase its competitive edge and organization management, aiming to become an employer of choice with human resources excellence, encouraging employee engagement in the development of innovation in the work process, new products, or business models in tune with the corporate vision. Organizational change is managed through the Transformation Program in accordance with the core values of “i am bcp” and through the creation of organizational sustainability along the line of the S&P Global Corporate Sustainability Assessment (S&P Global CSA), covering economic, environmental, and social aspects under the corporate governance principles to ensure investors that the Company is capable of generating good sustainable returns. The Ecosystem and Incubation Division, under Bangchak Initiative and Innovation Center (BiiC) has launched the project “Wrong DI (Wrong-Deliver-Innovation): wrong or right, we don’t mind as long as you dare to submit your innovation.” The project encouraged employees to share their ideas regarding innovation through an online platform, resulting in more than 250 submissions. Workshops were held as knowledge enhancement in transforming ideas

into innovative businesses and solutions to develop more effective working processes within the Company whilst promoting business incubation to elevate the potential of a commercial application. Moreover, new business is being expanded sustainably by seeking investments in startups and research and development activities with external agencies through BiiC. One such startup is Winnonie, an internal startup in Bangchak Group that has applied Greenovative Energy to improve the quality of life of public motorcycle riders. Investments in innovative startups to enhance preparedness and explore opportunities for diversification or extension of extension of existing businesses.

1.7 Transparency and Accountability

Bangchak upholds transparent conduct in business operations. This includes disclosing business operation information transparently in accordance with corporate governance principles and relevant regulations.

2. Environmental and Social Goals

2.1 Bangchak Group aims to elevate efforts to reduce greenhouse gas emissions to mitigate the impacts of climate change. The Company targets Carbon Neutrality by 2030 and Net Zero GHG Emissions by 2050.

The Company has developed operational guidelines to align with its goals by establishing a working group consisting of representatives from each business unit. This group aims to understand and define suitable operational strategies that can effectively meet the targets for emissions reduction. This includes enhancing energy and resource efficiency, developing reforestation projects, and increasing investment consideration in green innovation businesses, among others.

2.2 Business Development in Harmony with the Environment and Society

Bangchak focuses on maintaining a balance in its operations founded on the foundation of maintaining a balance between “value” and “Virtue”, addressing the Energy Trilemma in the drive towards a low-carbon society with the goal of achieving Net Zero GHG Emissions by 2050. Furthermore, it emphasizes maintaining a balance as an organization rich in ethics, and responsibility for the environment, society, and corporate governance (ESG). This translates into the BCP316NET plan, aiming for Carbon Neutrality by 2030 and Net Zero GHG Emissions by 2050. Participation in caring for society and the environment is carried out through projects

and/or activities that respond to plan; C: Conserving Nature and Society and NET: Net Zero Ecosystem to showcase the responsibility of conveying benefits to various stakeholder groups, ensuring coverage and sustainability.

Bangchak has undertaken a feasibility and risks study in the development of natural sources to absorb and store carbon dioxide, both in land and sea biomes (C: Conserving Nature and Society), to offset 10% of its GHG emissions target. The Company has collaborated with various partners and has learned from the practice together with studying offset guidelines and other rules and regulations concerning certification of carbon credit domestically and internationally in order to expand the existing Green and Blue Carbon projects. It was found that the process involving project development and carbon credit practice is complex despite being tied to the societal-community development participation amongst various stakeholder groups, the risk remains. Consequently, the Company mitigated the risk in the C: Conserving Nature and Society plan, leading to development projects in the agricultural sector to increase the possibility of responding to organization targets from four to five models, namely land forestation, community forest conservation, mangrove forestation and conservation, the study of seagrass sources, and the development of carbon credit from perennial crops in agricultural cooperatives. These models expand collaboration whilst seeking opportunities to mutually develop carbon credit project that are appropriate in terms of investment and benefits for both the environment and society and mitigate risk, jointly with our partners.

Furthermore, the Company, aware of the preparations to steer Thai society towards Carbon Neutrality by 2050 and Net Zero GHG Emissions by 2065, created an ecosystem, to achieve these targets through various businesses to prepare together with its partners, the internal and external stakeholders to be aware knowledgeable, understand the climate crisis and national greenhouse gas management, through NET: Net Zero Ecosystem, which are novel concepts for Thai society, including individual, community, SME, and organization level.

In 2023, the Company communicated and created a collective experience in various channels throughout the business value chain via the Carbon Markets Club's activities. At the end of 2023, there were 772 members (165 organizations and 607 individuals). Other activities include the development of the Cooperative Network to Combat Global Warming by installing solar panels for cooperatives that use electricity during the day, organizing the 13th Greenovative Forum on Regenerative Fuels: Sustainable Mobility, and carbon-neutral offset for partnering individuals and events. Emphasis is also given to the creation of direct customer experience from using the Company's quality and low-carbon Greenovative products and services such as offering Thai Rice NAMA as part of the promotional campaign, development of electric motorcycle rental business, and aiming to be the leader in Battery as a Service (BaaS) platform. At the end of 2023, this platform, has 1,050 leasers, and has cumulatively reduced more than 40 million baht per year in occupational expenses whilst reducing cumulative GHG emission by 2,000 tCO₂e. Another business is the production of Sustainable Aviation Fuel (SAF) from used cooking oil business. The Company also collaborate with other partners to continuously encourage Thai people in the Waste Reduction at the Source campaign at selected Bangchak service stations in Bangkok with drop-off locations for "orphan" wastes to reduce waste that ends up in landfills. As much as 160 tons of "orphan waste" were collected this year, as well as 800 kilograms of used UHT cartons for drinks in the Green Shelter Project for Friends in Need (of 'Pa') Volunteer Foundation that have reduced more than 3.4 tCO₂e of GHG Emissions - these are but a few examples.



More than **160** tons of "Orphan Waste" and **800** kilograms of UHT cartons for Green Shelter collected, reducing greenhouse gas emissions by **3.4** tCO₂e



Electric motorcycle rental service platform with an automated battery swapping network business, cumulatively reduced greenhouse gas emissions by **2,000** tCO₂e

1.1.2 Business Strategies

To achieve its short-term and long-term goals, Bangchak relies on the following 4S Strategy.



Security (S1): Create energy security by focusing on the source of energy.

These are the core businesses of the company that provide energy security for the country by implementing a joint business strategy among the Refinery and Oil Trading Business Group, Marketing Business Group, Clean Power Business Group, Natural Resources Business Group, as well as the Bio-Based Products Business Group to sufficiently supply, produce, and distribute oil and biofuel to meet the needs of both industries and the public. This aligns with the overall energy demand trend, and although electric vehicle usage is expected to increase in the future, these businesses remain essential for the country's energy needs and continue to grow steadily. In September 2023, The Company acquired rights over the Bangchak Sriracha Refinery, operated by the Bangchak Sriracha Plc. (BSRC), a modern complex refinery with nameplate capacity of 174,000 barrels per day. The Company has two refineries with a combined nameplate capacity of 294,000 barrels per day, enhancing energy security according to strategy.

Synergy (S2): Create collaboration to transform and create products and services covering all business groups.

The focus is on conducting businesses that align with the expertise of Bangchak Group and in line with the core business unit (S1), such as oil transportation and logistics, public utilities and energy infrastructure, food and beverage, and mining, to increase revenue and create shared value for the portfolio. In 2022, the Company established the Bangkok Fuel Pipeline and Logistics Co., Ltd. (BFPL), with plans to expand the business to accommodate a comprehensive fuel transport system. In 2023, the Company acquired shares in Bangchak Sriracha Public Company Limited (BSRC), which is an important step in upgrading the capabilities and potential of business operations. and established Refinery Optimization and Synergy Enterprise Company Limited (ROSE) representing a giant leap in elevating its capability as well as being a strong leader in the multinational energy business through synergy and the development of the Platform for Growth. Such endeavor is for sustainability, accessibility, and security in energy that is ready to drive towards a low carbon society.

Sustainability (S3): Develop and extend core businesses to achieve growth and sustainability.

To develop related business that support or expand Core Business growth and sustainability to accommodate future technology and changes, and challenges posed by global climate change, The Company has accelerated its investment growth in clean and green businesses that aim for net zero and/or carbon neutrality. Examples include investment and development of the lithium battery business in preparation for EVs and development of high-value bio-based specialties with investment in Manus Bio Inc., a reputed global company with leading bio-innovative technology on advanced bio-fermentation. BiiC is a dedicated institute under Bangchak in charge of promoting innovations for the environment and society through investment in startups and partnering with external R&D organizations to relentlessly advance Bangchak's green businesses and development of bio-based specialties for domestic and international markets. The Company established the BSGF Co., Ltd., a joint venture

between BBGI Plc. and the Thanachok Oil Light Co., Ltd., to engage in the procurement of raw materials, the production and distribution of Sustainable Aviation Fuel (SAF) derived from used cooking oil.

In 2023, Bangchak, through BCPG Plc., expanded investment into four natural gas power plant (CCGT) projects in the United States of America, with 857 MW already in operation, consisting of the 341 MW Carroll County Energy project (CCE), the 90 MW South Field Energy project (SFE), the 212 MW Liberty project, and the 214 MW Patriot project for the sustainable growth of clean power business.

Scalability (S4): Build flexibility and focus on seeking opportunities and driving new business in the future (New S-curves) to support long-term growth.

To sustain long-term growth, Bangchak focuses on reforming its revenue stream that leverages new S-curve businesses that produce extensive benefits for the Corporation. At the same time, Bangchak is poised to deal with technological transformation, emerging risks, and market volatility.



The 4 GREEN (4G) strategy are as follows.



1. Green Business

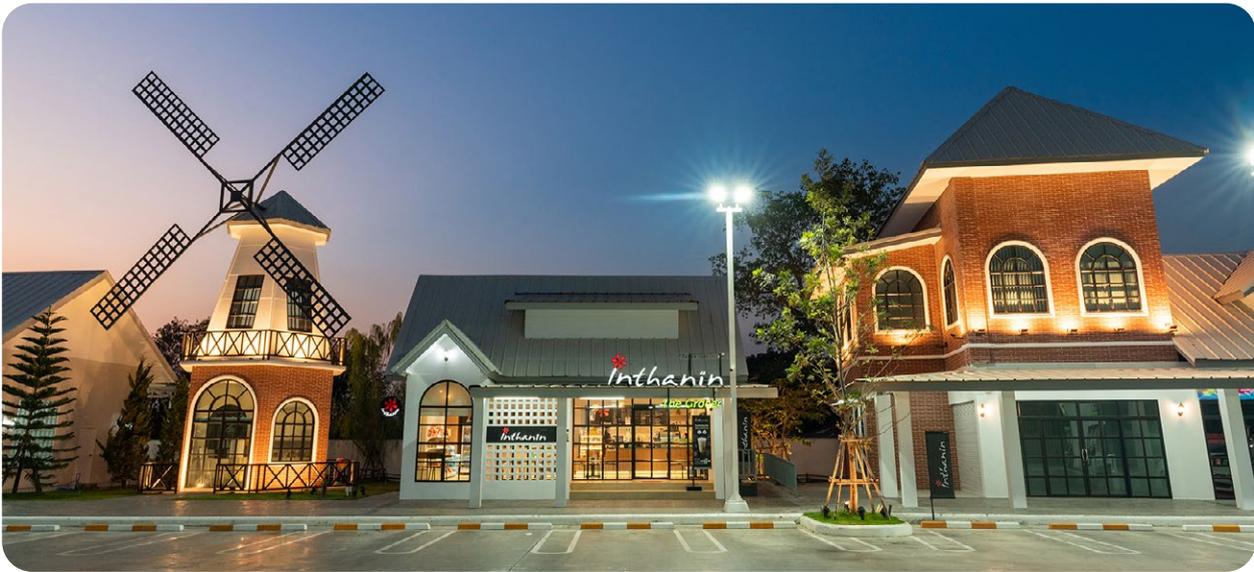
Bangchak focuses on investment in businesses that foster sustainable values. Besides growing revenue from new undertakings, this strategy represents green initiatives applied to businesses, including high-value bio-based products derived from agricultural produce via biotechnological innovation extended from biofuel production and sales. The Company also values green power businesses and energy management, among others, involving BiiC, which incubates startups to further Bangchak’s businesses in the future.

2. Green Production

Bangchak focuses on environmentally friendly and safe operations with optimal efficiency in utilization of water and energy resources. To achieve these goals, Bangchak has adopted the operating systems certified by ISO 14001, ISO 50001, and Green Industry (Green Network) Level 5 of the Ministry of Industry standards in addition to Eco Factory from the Federation of Thai Industries, the occupational health and safety standard of ISO 45001, and advanced operating systems under Process Safety Management (PSM).

3. Your Greenovative Destination

Bangchak strives to be a creative and sustainable destination of all age groups, focusing on leadership in developing greenovation through varied goods and services and non-oil businesses at “Bangchak” service stations, which serve as a destination that fulfills customers’ needs while



pursuing sustainable business development. To this end, we leverage our core competencies by 1) fulfilling customers' and stakeholders' needs and expectations; 2) procuring, developing, and creating innovations in oil and non-oil products as well as services to enable us to promptly respond to changes; and 3) operating businesses in conjunction with exercising sustainable stewardship of the environment and society. Our key strategies are as follows:

- Greenovative Products:** Bangchak strives for leadership in offering premium fuels in response to customers' demands and benefiting the environment through meeting the Euro 5 standard which at present is present is Bangchak Hi Premium 97, gasoline with an octane rating of 97, the highest in the market (E20 S EVO Gasohol, Hi-Premium Diesel S).
- Network Management:** We strive to grow and develop service station formats to meet customers' needs with a focus on areas of booming fuel demand and establish lucrative returns for partners' investment through innovative service stations, surroundings, non-oil businesses, and unique design service stations to meet the various requirements of consumers. Our six designs are called Modern, Innovation, Eastern, Western, Fantasy, and Thai-inspired. We also advocate standard improvement and service station image both station structure and services to be ready for competition. In short, catering to customers' needs and expectations is another key goal of the Marketing Business Group.
- Non-Oil Offerings:** A new business model has been developed through collaborations with leading Michelin-accredited restaurants to open their branches

in Bangchak service stations such as Jae Dang Sam Yan Somtum, Khua Kling Pak Sod, Nai Uan Yentafo, Pad Thai Fai Talu. These restaurant branches have fulfilled the experience for our service station customers whilst creating increased revenues for the entrepreneur. Furthermore, the non-oil business has continually expanded in Bangchak service stations to offer added convenience for the customers. The coffee shop business under the "Inthanin" brand name and DAKASI Pearl Milk Tea are such examples of which Bangchak Retail has secured the rights to expand and manage at Bangchak service stations across the country as well as for business partners that cater to several convenience store chains such as Tops Daily, Family Mart, Mini Big C, and Lawson, to name a few. Bangchak also comprehensively manages the space within service stations by providing car care services under brand names such as FURiO Care, Green Wash, TYREPLUS, Wizard, and Autoclik. Joint expansion of branches with our partners include B-Quick and various lifestyle services ranging from laundry shops to courier services and vending machines.

- Digital Experience:** We apply technology to service and create new experiences for customers while relentlessly developing systems for convenience. We also connect to ecosystems in line with the requirements of today's lifestyles. Cases in point are the application of digital payment and accruing loyalty points at the stations, all Inthanin branches, and convenience stores at the stations. To this end, customers simply scan QR Codes to pay through all bank applications, thus minimizing physical cash contact and maintaining distance between

customers and service providers, in turn boosting service station patrons' confidence. The improved digital card system allows customers to accrue points simply by giving their phone numbers at service stations, Inthanin, and business outlets affiliated with Bangchak and then redeem such points through the Bangchak application without having to use cards. Finally, Bangchak grows its customer base and gives members more choices through collaborations with partners, including transferring Bangchak points to AIS points, using Bangchak Paypoint to convert points into money at Thung Ngoen shops, transferring Bangchak points to MAAI points, and converting points into mutual fund payment.

- **Green Sustainability:** In fostering steady business growth along with society and the environment, Bangchak constantly drives projects supporting social development participation in conjunction with customers and stakeholders through a variety of projects. This includes a refueling project where agricultural produce or farmers' and SME entrepreneurs' innovative goods, or both, are given to refueling motorists; and the project whereby organic vegetables are grown on service station premises and handed out to employees to lower their food bills as well as being given to station patrons. A byproduct created from this effort is the know-how in growing garden vegetables, which is shared with communities and schools around our service stations. Additionally, there is the Fry to Fly Project that offers to buy used cooking oil at selected Bangchak service stations to be converted into sustainable aviation fuel (SAF) that can reduce up to 80% of carbon dioxide emissions Compared to conventional aviation fuel.

4. Green Society

Bangchak strives to maintain the balance in business based on the concept of Greenovate to Regenerate. This is **based on maintaining a balance between "value" and "virtue"** to address the Energy Trilemma in the drive towards a low-carbon society with the goal of achieving NetZero GHG Emissions by 2050, as well as maintaining a balance as an organization rich in ethics, responsibility for the environment and society, and corporate governance (ESG). This has been translated into the BCP316NET plan. The C: Conserving Nature and Society Plan focuses on the conservation of nature together with caring for society. On the other hand, the NET: Net Zero Ecosystem Plan promotes the net zero ecosystem in Thailand.

The C: Conserving Nature and Society Plans aims to achieve the organization's 10 percent GHG emission and to seek collaboration with our partners to develop the carbon credit from the forest and agricultural activities. The plan aims to mitigate the risks of the project as well as sharing the benefits from the project to cover the environment and stakeholders in society by developing Green and Blue Carbon ecosystems and the agricultural sector. The models comprise of land forestation, community forest conservation, mangrove forestation and conservation, sea grass source study, and carbon credit from the perennial crop development project.

The NET: Net Zero Ecosystem Plan aims to promote the Net Zero Ecosystem in Thailand, covering the preparation for Thailand's Carbon Neutrality by 2050 and Net Zero Emissions by 2065. Both targets are still new to Thai society; hence, the Company's drive, with its partners, is in readying all the stakeholders both inside and outside the organization so that they will be knowledgeable, understanding, and have the relevant experience. Such efforts enhance the awareness of Thailand's GHG management at all levels, from personal to community, SMEs, business organizations, and the public at large through the Carbon Markets Club, activities, and various projects such as Waste Reduction at the Source with Bangchak, Cooperative Network to Combat Global Warming, Thai Rice NAMA, Ruk Pun Suk Junior Program, and to create direct experience for the consumer from using Bangchak's products and services as well. These include the Winnonie project as well as the Fry to Fly Project that collects used cooking oil to be converted into sustainable aviation fuel (SAF).

At the community level, Bangchak has been successful in maintaining the trust of its surrounding communities to reflect its amiability, usefulness, as well as trust in safety matters through activities that combine relations with quality of life in eight aspects. In 2023, the community engagement score for the Bangchak Refinery was as high as 89%. Furthermore, guidelines for operation have been expanded to determine the care process for the Bangchak Refinery's neighboring communities to reflect the prototype of a safe and high-quality service station as well as the environmental model with social benefits.

1.1.3 Transitions and Development Milestones in 2023

January

- The Company entered into a Share Purchase Agreement with ExxonMobil Asia Holding Pte. Ltd. to purchase shares in Bangchak Sriracha Plc. or (“BSRC”) (formerly Esso (Thailand) Public Company Limited), registering a name change. on November 15, 2023), amounting to 2,283,750,000 shares, representing 65.99% of the total issued shares.



February

- BCPG completed investment in two natural gas power plant project in the United States, Carroll Country Energy LLC and South Field Energy, representing installed capacity of 151 MW, proportionate to shareholding interests.



March

- The Company notified the Stock Exchange of Thailand about financial cooperation within Bangchak Group. Bangchak Treasury Center Co.,Ltd. (BCTC) was established to manage short-term liquidity within the group of companies, in the form of Intercompany Loan in baht or other currencies as agreed.



- The Company notified the Stock Exchange of Thailand about the subsidiary’s investment. OKEA ASA has signed a contract to purchase the Statfjord petroleum field in the Norwegian Sea (28%).

April

- On April 11, 2023, the Company’s 2023 Annual General Meeting of Shareholders resolved to approve the following:
 - Dividend Payment for the second half of 2022 at the rate of 1.00 baht per share. When combined with the interim dividends for the first half of 2022 at the rate of 1.25 baht per share, the annual dividend payout was 2.25 bath per share. The payment was paid on April 24, 2023.
 - Approved the direct acquisition of 2,283,750,000 ordinary shares in BSRC (equivalent to approximately 65.99% of the total issued shares of BSRC as of September 30, 2022) from ExxonMobil Asia Holdings Pte. Ltd. and the tender offer for all remaining no more than 1,177,108,000 ordinary shares in BSRC (equivalent to approximately 34.01 percent of the total issued shares as of 30 September 2022) after the completion of the Shares Acquisition Transaction to acquire the remaining BSRC shares at the same price as the purchase price of BSRC shares from ExxonMobil Asia Holdings Pte.
 - The limit for debenture issuance and offer of up to 80,000 million baht or equivalent currencies at a given period for five years (2023-2027).

May

- A BCPG's subsidiary has made an additional investment in the Monsoon project, a wind power plant with a capacity of 600 megawatts in the Lao People's Democratic Republic.
- BCPG has successfully acquired all of the shares of Asia Link Terminal Co.,Ltd. to invest in the oil business and port, which is an energy-related infrastructure project. and entered into a contract to appoint Bangkok Fuel Pipeline Transportation and Logistics Co.,Ltd. as the Asset and Tank & Terminal Management Contract, in Phetchaburi Province.

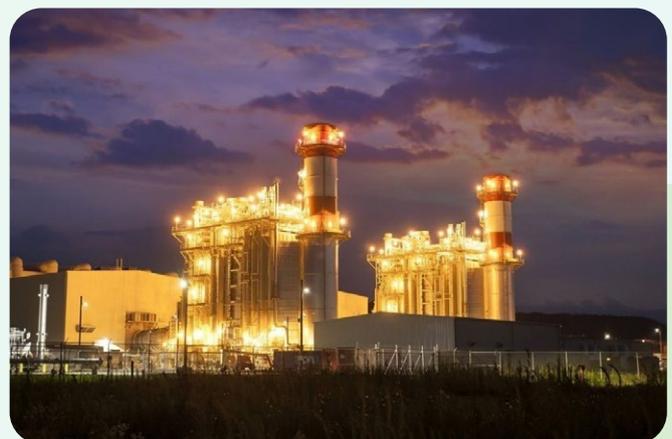


June

- The hydropower plant projects. Nam San 3A and Nam San 3B in the Lao People's Democratic Republic, invested through BCPG's subsidiaries, began selling electricity to the Socialist Republic of Vietnam.

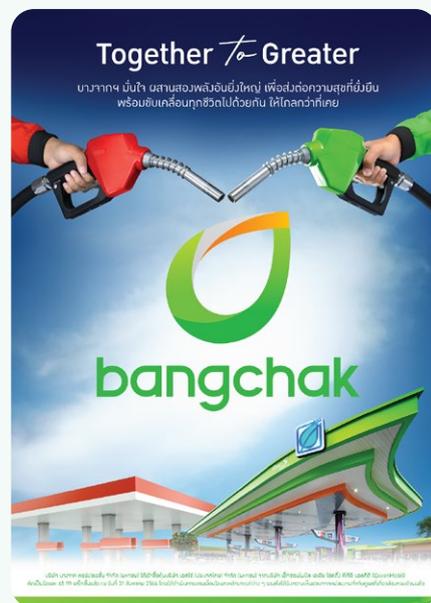
July

- BCPG fulfills the terms and conditions under the Purchase and Sale Agreement, and transfer 25% stake in total shares in Hamilton Holding II LLC. Hamilton Holding II LLC holds 100% of shares in two natural gas power plant projects in the United States (Liberty and Patriot), resulted in installed capacity of 426 megawatts in proportion to the shareholding.



August

- The Company announced interim dividend payment for the operating results for the first six months of 2023 to shareholders, at 0.50 baht per share, equivalent to approximately 689 million baht, and the dividend was paid to shareholders on September 19, 2023.
- On August 31, 2023, the Company paid for 2,283,750,000 shares of BSRC, or 65.99% of the total issued and sold common shares, to ExxonMobil Asia Holding Pte. Ltd., for a total of 22,605,926,000 baht, or approximately 9.8986 baht per share, which makes BSRC a subsidiary of the Company.



- BCPG has satisfied the terms of its additional share purchase agreement for the Carroll County Energy LLC natural gas power plant project.

September

- The Company has maintained its corporate and debt rating at “A” and a “stable” rating outlook from TRIS Ratings after successfully acquiring BSRC shares from ExxonMobil Asia Holdings Pte. Ltd. totaling 65.99% of total issued shares.
- On September 11, 2023, Bangchak Treasury Center Co.,Ltd. (“BCTC”), a subsidiary of the Company received a license to operate as a treasury center from the Ministry of Finance. (via the Bank of Thailand) and has been approved as an international business center by the Revenue Department and has begun providing financial management services to affiliated companies.



October

- The Company notified the Stock Exchange of Thailand about the establishment of a new subsidiary named Refinery Optimization and Synergy Enterprise Co.,Ltd. (ROSE) with a registered capital of 1 million baht, with the Company and BSRC each holding shares in the same proportion at 50% of the total shares. The objective is to provide planning, including management services to the refinery business of the Company and BSRC to achieve the most efficient operation, minimize costs, and maximize economic value, with fairness and transparency to all stakeholders.
- The Company issued and offered the “Bangchak Digital Debenture” on the Paotang Application. The debenture is specific-name bearer, unsubordinated, unsecured, and has a debenture holders’ representative, worth three billion bath, with a three year term and fixed annual interest rate of 3.45%.
- BBGI board meeting resolved to establish BBGI Fermbox Bio Co.,Ltd., a joint venture between BBGI and Fermbox Bio Co.,Ltd., to operate a business providing development and production services for biological products or CDMO with advanced biotechnology, Precision Fermentation, with an initial registered capital of four million baht, with BBGI holding not less than 75% of shares.

rose

- BTSG Co.,Ltd. (a joint venture between the Company and Thai Special Gas Company Limited) opened the first Liquefied Natural Gas (LNG) service station in Thailand at Bangchak Service Station, Map Lang Branch. Sriracha District, Chonburi Province.
- On October 16, 2023, the Company completed the tender offer for the securities of BSRC, with 358,407,198 shares offered to sell, representing 10.36% of all issued and paid-up shares. After completion of the Tender Offer, the Company holds 2,642,157,198 shares, equivalent to 76.34% of all issued and paid-up shares.



November

- The Extraordinary General Meeting of Shareholders No. 1/2023 of BSRC resolved to approve the change of the company name, including the stock symbol to “BSRC”, The name change was registered on November 15, 2023.



- BCPG announces investment in four solar power plant projects in Thailand. With a total installed capacity of 12.95 megawatts.

- Winnonie Co., Ltd. (which is a direct subsidiary of the Company, with the Company holding 55.49% of total shares) entered into a joint investment agreement with BTS Group Holdings Plc. in Smart EV Bike Co., Ltd. With a share of shareholding of 33.3% of total shares in Smart EV Bike to operate the hire purchase of EV-bikes for the registered motorbike taxi drivers near BTS Sky Train Stations. To engage in hire purchase business electric motorcycles for motorcycle taxi drivers in the vicinity of BTS Skytrain stations.



December

- The Company notified the Stock Exchange of Thailand about the Company’s investment. to acquire additional shares in Thanachok Vegetable (2012) Co.,Ltd. Following the transaction, Thanachok Vegetable (2012) Co.,Ltd. had a registered capital of 60 million baht, with the Company holding a 45% stake.



- BCPG board meeting resolved to approve the divestment of all investments in Japan, totaling nine projects.
- OKEA ASA completed the transaction in relation to the acquisition of 28% working interest in Statfjord, as entered into the sales contract Agreement in March 2023.



Every national, regional, and global award and ranking that Bangchak has received

reflects its achievements and earned trust, reinforcing our commitment to further development and improvement.



1.1.4 Awards of 2023

Global Awards

Global Performance Excellence Award (GPEA) 2023 – World Class

Thailand's first organization from the industrial sector (the Refinery and Oil Trading Business Group) to receive the prestigious Global Performance Excellence Award – World Class, the highest-level award since its inception in 2000.

From Asia Pacific Quality Organization (APQO)



Global Sustainability Ranking

Top 2 Rank in global sustainability rankings for the Oil & Gas Refinery and Marketing Industry.

From S&P Global Corporate Sustainability Assessment (S&P Global CSA), the assessor of the Dow Jones Sustainability Indices (DJSI).

Environmental, Social, and Governance Rating from MSCI

MSCI
ESG RATINGS



CCC B BB BBB A AA AAA

The only Thai company to receive an “AA” MSCI ESG Rating, the highest in the Oil & Gas Refining, Marketing, Transportation & Storage group for the 5th consecutive year. From MSCI ESG Research, an expert and credible organization in the field of ESG at the international level.



Global MIKE Awards

1 of 23 world's leading knowledge management and innovation enterprises acknowledged for its cultivating and converting its enterprise knowledge in strategy deployment to develop products, services, and solutions, cultivating organizational innovation culture.

From The Institute for Knowledge and Innovation Southeast Asia (IKI-SEA) and Hong Kong Polytechnic University.

Regional Awards



Asia's Best CEO (Investor Relations) (8th Year)

The award was presented to Chaiwat Kovavisarach, Group Chief Executive Officer and President, Bangchak Corporation Plc. (8th Year).

Asia's Best CFO (Investor Relations) (5th Year)

The award was presented to Phatpuree Chinkulkitnivat, Chief Financial Officer and Senior Executive Vice President, Accounting and Finance, Bangchak Corporation Plc.

Asia's Best CSR (3rd Year)

Best Environmental Responsibility (7th Year)

Best Investor Relations Company (9th Year)

For listed companies with outstanding investor relations activities.

Best Investor Relations Professional

From Corporate Governance Asia

HR Asia Best Companies to Work for in Asia 2023 (2nd Year)

For the three dimensions of human resources management,

- 1) Diversity
- 2) Equity
- 3) Inclusion

HR Asia The Most Caring Company Award 2023

For Bangchak's "100X Happiness" employee well-being and care approach prioritizes employee inclusion, fosters a corporate culture, and offers a comprehensive range of programs to address all dimensions of employee well-being.

From HR Asia



Asia Responsible Enterprise Awards (AREA) 2023 for Social Empowerment

Presented to Bai Mai Pun Suk Foundation by Bangchak Corporation Plc. for promoting education and environmental development by imparting knowledge and benefiting more than 17,000 school administrators, teachers, and students in 55 provinces across the country over 6 years of operations.

From Enterprise Asia

National Awards

Her Royal Highness Princess Maha Chakri Sirindhorn's Trophy for Corporate Improvement Excellence at the Thailand Corporate Excellence Awards 2023



Distinguished Awards

- Sustainable Development Excellence
- Innovation Excellence
- Product/Service Excellence

From Thailand Management Association (TMA) and Sasin School of Management, Chulalongkorn University

Thailand Quality Award (TQA)

TQA 2022 (presented in 2023) for the Refinery and Oil Trading Business Group, Bangchak Corporation Plc. is the only organization to receive the coveted award recognizing world-class management excellence.

Thailand Quality Class (TQC)

TQC 2022 (presented in 2023) for the Marketing Business Group, its second consecutive win, with improved performance in several aspects (products and services, customer service, workforce, and finance and marketing).

From the National Quality Award Office, Thailand Productivity Institute (FTPI), and The Ministry of Industry



Awards at the People Management Award 2022



In recognition of executives (CEO) with managerial vision, effective people management policy, and strategy, able to motivate and drive employees to achieve the organization's targets.

Best Practice

1. The Best of CEO People Leader
2. The Best Employee Relation and Engagement

Advanced and Consolation

3. The Best Reward and Recognition
4. The Best Learning and Development

From People Management Association of Thailand (PMAT)

SET Awards 2023



The awards reflected Bangchak’s commitment to prioritizing sustainable business practices in line with ESG principles, considering the interests of all stakeholders, and ensuring business growth alongside social and environmental stewardship. Furthermore, they engage in investor relations activities, garnering outstanding acceptance and trust from investors and stakeholders.

Highest Recognition in two categories,

Sustainability Excellence - Best Sustainability Award

- Sustainability Awards of Honor, the highest recognition in the Sustainability Excellence category (4th Year)
- Best Sustainability Awards (7th Year)

Business Excellence - Best Investor Relations Award

- Best Investor Relations Awards in the Business Excellence category as a listed company with a market capitalization exceeding 30,000 million baht but not exceeding 100,000 million baht.

From the Stock Exchange of Thailand and Money and Banking Magazine

Product of the Year Award 2023

Bangchak Hi Premium 97 (Automotive-Energy and Oil Product Category) was named the “Product of the Year” by Business+ Magazine in collaboration with the College of Management Mahidol University, which researched consumers to select the best products and services according to consumer feedback. Bangchak Hi Premium 97 is a high-quality premium gasohol that provides engine care and restores engine performance.



Top 50 Companies in Thailand Voted by the New Generation 2023

Ranking 12th among the Top 50 Companies voted by the new generation (6th Year) regarding employment experience and the ability to attract, persuade, and engage with the target group.

From WorkVenture Technologies Company Limited



Outstanding Role Model Organization Human Rights Awards 2023 (Excellent Level - The Highest Level).

Large-scale business organization category for its outstanding commitment to conducting business following the principles of good corporate governance, dedicated to managing human rights and ensuring the equitable treatment for all stakeholders.

From the Rights and Liberties Protection Department



Superbrands from Superbrands Thailand

Bangchak Superbrands Thailand 2023 (6th Year) and Inthanin Superbrands Thailand 2023 (3rd Year), from their commitment to developing and elevating their products and services to deliver customer expectations, receiving votes from a sample of consumers across the country, more than 15,000 people, including the opinions of marketers, publicist, and representatives of Superbrands independent judges based on three categories: Brand Quality, Brand Personality, and Brand Affinity.



National Innovation Awards



The Merit Prize for Innovation Organization Excellence for Large Private Sector Organization 2023, from utilizing knowledge management, technology, and creativity to generate value and sustainable growth for the organization. This recognition is integrated at the strategic, process, and structural levels under the framework of the Innovation Organization Model (IOM).

From the National Innovation Agency (Public Organization)



Thailand HR Innovation Award (Silver Award)

For the “BCP Digital Driven for 100X Citizen Developer” project, a Digital Skills development campaign to mold personnel into Citizen Developers or to enrich Non-IT Background personnel with the knowledge and skills to develop Low Code Platform Applications such as PowerApps, Power BI, and RPA, able to generate innovation that improves work processes.

From the Thailand Productivity Institute (FTPI), the Graduate School of Human Resource Development: National Institute of Development Administration (NIDA), and the Personnel Management Association of Thailand (PMAT)

Sustainability Disclosure Award (4th Year)

For its outstanding sustainability disclosure practices according to international standards. These practices are characterized by transparency and encompass economic, social, environmental, and governance aspects.

From Thaipat Institute



Honorary Pin and Certificate during the 8th TICA Connect



In recognition of being a model of Public Private Partnership for People (PPPP) for sustainable development through the “From Thap Sadet Coffee to Inthanin Coffee” project. The project has played a pivotal role in fostering collaboration between the public and private sectors, positively impacting communities, and creating sustainable development on a broader scale.

From the Thailand International Cooperation Agency (TICA), Ministry of Foreign Affairs.

Mahidol Science Environment & Sustainability Award 2023

Carbon Markets Club for its leadership role in communicating accurate and precise scientific knowledge in disseminating knowledge and understanding of global warming, carbon offsetting, and promoting carbon credit trading, serving as a model and inspiration for society.

From the Faculty of Science, Mahidol University



“Outstanding” Climate Action Leading Organization (CALO)

It was one of 16 companies recognized as a Climate Action Leading Organization (CALO).

From the Thailand Carbon Neutral Network (TCNN)



Thailand Energy Awards 2023

Excellence in Creative Energy Award (General Group) for the integrated approach of the “Reduction of Light Naphtha 2 Reactor Power by Integrating Conditions and Equipment with Advanced Technology” project which effectively and continuously enhanced fuel efficiency and conservation.

From the Ministry of Energy

EIA Monitoring Awards 2023

In recognizing business operations conducted following sound environmental standards and demonstrating social and environmental responsibility in the Oil Refining Industry category.

From the Office of Natural Resources and Environmental Policy and Planning under the Ministry of Natural Resources and Environment



Carbon Footprint of Product Certificates for 5 Products



These products include: 1. Fuel Oil, 2. Liquefied Petroleum Gas (LPG), 3. High Speed Diesel, 4. Gasoline Based, and 5. Illuminating or Industrial Kerosene (IK) have lower carbon dioxide emissions than the Thai national average, as assessed by the Open Government Data of Thailand, and lower emissions than the average of domestic and international refinery benchmarks.

From Thailand Greenhouse Gas Management Organization (Public Organization)

ESG Assessment Rating (National Highest)



A SET ESG Rating of “AAA” (total score 90-100) in the Resources Group, the highest in Thailand, and included in the Thailand Sustainability Investment (THSI) Index (9th Year).

From the Stock Exchange of Thailand

AGM Organizing Quality Assessment

AGM Checklist - AGM Organizing Quality Assessment, receiving the highest perfect score of 100 points (5 Medals) from the Thai Investors Association (TIA). Bangchak was one of 60 listed companies to attain a 5-star and 5-medal rating from 800 listed companies in the Stock Exchange of Thailand.

Corporate Governance Report (CGR) Rating



5-Star Excellent Rating Corporate Governance Report (CGR).
From the Thai Institute of Directors (IOD)

Individual Awards

1 of 84 Honorary “The Creators” Award



The award was presented to Pichai Chunhavajira, Chairperson of the Board, Bangchak Corporation Plc., as one of 84 honored Thammasat Business School alumni who are creators who bring change, inspire others, and play a creative and contributing role in society.

From Thammasat Business School and Thammasat University Commerce and Accountancy Alumni

Bangkok Post CEO of the Year 2023 in Greenovation Leadership

The award was presented to Chaiwat Kovavisarach, Group Chief Executive Officer and President, Bangchak Corporation Plc., as the leader who has earned Bangchak Group acclaim for its leadership in energy transition and greenovation.

From Bangkok Post



Outstanding Chulalongkorn University Science Alumnus 2023

The award was presented to Chaiwat Kovavisarach, Group Chief Executive Officer and President, Bangchak Corporation Plc., as an outstanding alumnus who consistently contributes to society and the nation.

From the Science Alumni Association and the Faculty of Science Chulalongkorn University

1.1.5 Fund Spending Objectives

Spending from the sale offer of debt instrument in 2019 (BCP19PA)

Spending	Approx. amount spent (million baht)	Approx. spending period	Details / update of spending / reasons and measures for not spending under the objectives
1. Redemption of the matured debenture	3,000	By August 2020	To repay Bangchak Plc's bonds No. 1/2018, tranche 1, due for maturity in 2020 (BCP208A), with 2.13% interest rate, due for maturity on August 10, 2020
2. Loan repayment	400	By 2020	To repay loans to other financial institutions that have no relationship with the bond issuers as financial advisers or bond distribution managers, in the best interests of the bond issuers
3. Working capital in businesses and for business investment	2,600 - 6,600	By 2020	Spent as working capital as envisaged

Spending from the sale offer of debt instrument in 2020 (BCP225A, BCP275A, BCP305A)

Spending	Approx. amount spent (million baht)	Approx. spending period	Details / update of spending / reasons and measures for not spending under the objectives
Investment, general working capital and/or loan repayment	8,000	By May 8, 2021	<ul style="list-style-type: none"> - To repay Bangchak Plc's bonds No. 1/2014, tranche 3, due for maturity in 2021 (BCP214A), with 4.81% interest rate, due for maturity on April 11, 2021, for a ceiling of 2.5 billion baht - Spent as working capital

Spending from the sale offer of debt instrument in 2021 (BCP23NA, BCP26NA, BCP29NA, BCP31NA)

Spending	Approx. amount spent (million baht)	Approx. spending period	Details / update of spending / reasons and measures for not spending under the objectives
Redemption of the matured debentures	4,000	By May 2022	<ul style="list-style-type: none"> - To repay Bangchak Plc's bonds No.1/2012, tranche 2 (BCP224A), due for maturity in 2022, with 5.35% interest rate and due for maturity on April 30, 2022, for a total value of 1 billion baht - To repay Bangchak Plc's bonds No.1/2020, tranche 1 (BCP225A), due for maturity in 2022, with 2.6% interest rate and due for maturity on May 8, 2022, for a total value of 3 billion baht
Working capital	3,000	By 2022	Spent as working capital as envisaged

Spending from the sale offer of debt instrument in 2022 (BCP258B, BCP278A, BCP328A, BCP260A)

Spending	Approx. amount spent (million baht)	Approx. spending period	Details / update of spending / reasons and measures for not spending under the objectives
Working capital	13,000	By 2022	Spent as working capital as envisaged

Spending from the sale offer of debt instrument in 2023 (BCP26NB)

Spending	Approx. amount spent (million baht)	Approx. spending period	Details / update of spending / reasons and measures for not spending under the objectives
Redemption of the matured debenture and Working capital	3,000	By 2023	<ul style="list-style-type: none"> - To repay Bangchak Plc's bonds No.1/2021, tranche 1 (BCP23NA), due for maturity in 2023, with 1.45% interest rate and due for maturity on November 5, 2023, for a total value of 2 billion baht - Spent as working capital

Note: that the terms of reference for the enforced rights and laws are to be enforced and interpreted by Thai law.

1.2 Business Operations

Bangchak Corporation Public Company Limited is a Thai energy company that operates in tandem with socio-environmental responsibility. Its core business is petroleum refining to produce high-standard products from domestic and international sources. In 2023, our combined nameplate capacity was 294,000 barrels per day, consisting of 120,000 barrels per day nameplate capacity from Bangchak Phra Khanong Refinery and 174,000 barrels per day of nameplate capacity from Bangchak Sriracha Refinery, from which products are distributed through a network of 2,219 service stations (1,389 service stations operated by Bangchak and an additional network of 830 service stations acquired through BSRC.) The Company expanded its business into the oil trading business, clean power business, bio-based products business, natural resources business. The ultimate goal of the Company is to create energy security for the country, and expand investments into new businesses to create continuity and sustainability for the business.



Refinery and Oil Trading Business Group



Marketing Business Group



Clean Power Business Group



Bio-Based Products Business Group



Natural Resource and New Business Group





Refinery and Oil Trading Business Group

The Company acquired shares of Bangchak Sriracha Public Company Limited (formerly ESSO (Thailand) Public Company Limited) marking a significant step in energy security for Thailand. The Refinery and Trading Oil Business Group operates the entire supply chain with two world-class refineries namely Bangchak Phra Khanong Refinery and Bangchak Sriracha Refinery (operated by Bangchak Sriracha Public Company Limited or BSRC), with a combined nameplate capacity of 294,000 barrels per day.

Bangchak Phra Khanong Refinery is a modern complex refinery with nameplate capacity of 120,000 barrels per day. It yields premium products in the gasoline and diesel groups, and has been upgraded to meet the EURO 5 standard in accordance with governmental policies. The refinery also produces value-added products such as White Spirit 3040 (solvent), Unconverted Oil (UO, a precursor of lube base oil), and liquified petroleum gas (paint conductors in spray paint). Bangchak was the first in Asia to produce Gasohol E20 S EVO and also capable of producing Hi Premium Diesel

S and developing Hi Premium 97 and Gasohol 95, all of which meet the environmentally friendly EURO 5 standard with sulfur content at less than 10 PPM, 5 times lower than that of EURO 4.

Bangchak Phra Khanong Refinery strives for world class management excellence, with continuous improvements being made to optimize production efficiency. This is part of a Business process redesign under the Focus Analysis Success Transform+ (FAST+) initiative, with the goal of maximizing production potential. Management steps taken include:

- Uplifting business potential and expanding business opportunities while reducing costs and expenses in various areas ranging from crude procurement, production processes, oil storage tanks, oil intake/offtake pipelines, and oil tankers, to ensure refining efficiency. The average production rate in 2023 was 120,100 barrels per day.
- Planning of crude procurement and order placement to obtain appropriate GRM using Roll Month derivatives to lower crude procurement costs, resulting in the year's average GRM of USD 9.50 per barrel.



The Company investd in the Construction of SAF production unit, with a production capacity of 1,000,000 liters per day



The Company currently holds a 76.34% stake in Bangchak Sriracha Public Company Limited (BSRC) which operates Bangchak Sriracha Refinery, a modern complex refinery with a nameplate capacity of 174,000 barrels. It produces premium high value products in the gasoline and diesel groups. New equipment had been installed and connected to improve oil quality to meet the EURO 5 standard in accordance with governmental policies. The refinery also produces value-added products, specifically solvents and asphalt. Moreover, it increases production capacity complimenting demand from the Marketing Business, especially for gasoline, which Bangchak Phra Khanong Refinery is currently to adequately supply.

To achieve excellence in management for an entire supply chain that comprises two world-class refineries, the Company established Refinery Optimization and Synergy Enterprise Company Limited (ROSE) to provide planning and operational services to Bangchak Phra Khanong Refinery and Bangchak Sriracha Refinery in order to achieve maximum production efficiency, cost reduction, and highest economic value, and actualize transparency for all stakeholders, and also cover procurement, production, transportation planning, price risk management, sales management, and other aspects of work related to oil trading. Bangchak and BRSC each has a 50% stake in this company.

The Company continuously develops its international oil trading business through BCP Trading Pte. Ltd. (BCPT) which conducts System Barrels oil trading for Bangchak Phra Khanong Refinery and Bangchak Sriracha Refinery. Additionally, they also expanded crude oil sourcing and enhanced logistics efficiency (sourcing and management of oil tankers), with an emphasis on an Out-Out trading expansion (procuring and trading oil with companies other than Bangchak) and direct procurement from crude oil producers as well as market penetration into retailers of specialized products. New trading partners include new countries such as Libya, Oman, Nigeria, etc., now covering more than 24 countries and 100 contractual partners worldwide. The Company is on track to become an accredited ISCC (International Sustainability and Carbon Certification) sustainable supplier, and is seeking out new revenue opportunities in the biofuels market.

The Company enhanced its logistics management excellence through Bangkok Fuel Pipeline and Logistics Company Limited (BFPL), which manages fuel transportation for the Bangchak Phra Khanong Refinery and Bangchak Sriracha Refinery via pipeline, land, and sea transportation with maximum efficiency and competitive costs, while also expanding oil depots nationwide through the pipeline fuel transportation business that provide a cost-effective means of transporting oil, reduces loss and lower carbon dioxide emissions.

In addition, the Company has plans to produce new, low-carbon products, namely Sustainable Aviation Fuel (SAF). To that end, Bangchak has established the BSGF Co., Ltd., - a joint venture between Bangchak, BBGI Plc., and Thanachok Oil Light Co., Ltd., - to lead the sustainable alternative energy that produces SAF from used cooking oil based on the BCG Economy (Bio-Circular-Green Economy) model. With social and environmental development in mind, BSGF formulated the “Fry to Fly” initiative, a campaign to prevent problems from improper disposal of used cooking oils and to reuse for maximum benefit. The Company invested in the construction of a SAF production unit within Bangchak Phra Khanong Refinery, with a production capacity of 1,000,000 liters per day, and is expected to commence production in Q1 of 2025.



Marketing Business Group

The Company acquired shares of Bangchak Sriracha Public Company Limited, a significant step in bolstering national energy security and enhancing energy accessibility for customers and consumers. At the end of 2023, the Company had a network of 2,219 service stations, consisting of 1,389 stations operated by Bangchak and an additional network of 830 stations.

The company aims to complete the logo change to the “New Leaf” logo and change the “ESSO” logo of acquired stations to “Bangchak” by the end of 2024. Additionally, the Company also sold products to customers in the industrial, transportation, aviation, maritime transportation, construction, and agriculture sectors. The newly opened stations in 2023 are large service stations with unique, modern designs and accommodate non-oil businesses and other services. Designated stations had undergone the “Unique Design Service Station” makeover, resulting in aesthetically pleasing and unique looks that impress upon customers, turning them into “must-visit” destinations. In 2023, the total number of Unique Design Service Stations was 87. Bangchak Service stations focus on the sales of high-performance and environment-friendly renewable fuels in both gasoline and diesel groups. The latter group comprises Hi Diesel S, Hi Premium Diesel S B7, Hi Diesel S B7, and Hi Diesel S B20 which are high-performance diesel fuels with added combustion improvements that enhance engine power and reduce pollutants to help preserve the environment. Additionally, the Hi Premium Diesel S B7 was developed with the environment in mind and contains low levels of sulfur, meeting the Euro 5 standard that is ideal for new European car models. The company also developed





its gasohol to be compatible with the GDI (gasoline direct injection) and PFI (port fuel injection) engines under the name “Bangchak S EVO FAMILY”. The Bangchak Hi Premium 97 gasohol has an especially high octane of 97, the highest among E10 gasohols in Thailand, and is the only premium gasohol to obtain the Euro 5 international standard. It’s ideal for owners of premium cars who prefer higher octanes and for owners of standard cars looking for a boost in performance and engine longevity. Furthermore, the Company’s service stations are already providing added convenience to engage customers by offering non-oil businesses and other services such as convenience stores, coffee shops, restaurants, car maintenance and oil change centers, as well as car washes.

In 2023, the Company is striding ahead with the Non-Oil business model by inviting leading chains such as Gateaux House, Horkiao, and Zhen Hao Chi, etc., to open their restaurants in the stations along with Michelin Star restaurants like Khua Kling Pak Sod, Jaedang Samyan, Pad Thai Fai Ta Lu, Naiuan Yentafo, and Fried Banana Rama 5, etc., to enrich service station customer experience and generate additional revenue for the businesses and partners. EV chargers have been installed in Bangchak service stations on major highways to support the growing use of electric vehicles (EV), totaling 265 charging outlets and 890 connectors (as of 31 December 2023). Bangchak’s service stations boast the highest number of quick EV chargers (DC) across all regions of Thailand—a travel companion for EV users along every major route.

The “Inthanin” coffee shop business, operated by Bangchak Retail Co., Ltd. (BCR), a Bangchak subsidiary, which operates the 1,020 branches (as of 31 December 2023) located in

Bangchak service stations as well as in other locations such as shopping malls, office buildings, government offices, hospitals, leading educational institutions, and city electric train stations.



Develop EV chargers in Bangchak service stations to accommodate increasing EV adoption.

Total 265 charging outlets 890 connectors

Furthermore, Bangchak service stations had also expanded the Non-Oil businesses for customer convenience, obtaining the rights to operate and expand chains such as DAKASI bubble tea in stations across the country, with 31 branches (as of 31 December 2023). Other business allies have opened their outlets at Bangchak station, including 15 Tops Daily, 15 Family Mart, 134 Mini Big C, and 2 Lawson branches (as of 31 December 2023). To further enhance service integration, Bangchak continues to expand its car care business under the brands FURiO Care, Green Wash, TYREPLUS, Wizard, and Autoclik, and established new branches with partners such as B-Quik and other lifestyle businesses such as laundry services, shipment couriers, and vending machines.

Bangchak community service stations, which have been operating since 1990 under the “Oil for Rice” initiative, have continuously grown and collaborated with community organizations for the 33rd year. The Company’s policy is to develop community service stations toward sustainability by upgrading their standards and services to the required level in order to serve as a mechanism to sustainably drive the community’s economy. In 2023, support for



**Inthanin being a leader
in utilizing 100%
biodegradable PLA
(polylactic acid) packaging
that help to reduce plastic
waste.**

community stations was carried out through the COOP Bonding project. The project supports the improvement of stations, the increase in product variety, and the push for higher sales volumes to benefit high-potential cooperatives in accordance with its vision to develop into a participative and sustainable business.

With sustainable business in mind, the company adopts the 4R process: Renew, Recycle, Reuse, and Reduce. Some applications of this process include the installation of solar roof top panels for power generation, the installation of EV chargers, the utilization of energy efficient resources and resources from the production process to build service station, and the expansion of green spaces at the service stations. Inthanin Coffee operates under the concept of “Inthanin Nature Cup”. Not only is the coffee meticulously harvested and brewed from 100% select Arabica beans, but its consumption is also done responsibly by Inthanin being a leader in utilizing 100% biodegradable PLA (polylactic acid) packaging that help to reduce plastic waste.

In addition to fuel products, the company also gives importance to the production and distribution of lubricants and special products such as gear oil, brake fluid, grease and others under the brand “BCP Lubricants” as well as premium grade lubricants under the brand “FURiO” that has features to help save fuel. Helps protect the engine in all operating conditions. Prevents wear and tear which includes sales to the domestic market through the Bangchak service station network, car service centers, stores, industrial factories, the OEM (Original Equipment Manufacturer) market, and exports to foreign markets. The sales of aviation fuels see growth through continuous collaboration with partners in the aviation industry and help to meet rising demands created by the recovering tourism industry.

Moreover, the Marketing Business Group continues to emphasize continuous growth alongside social and environmental responsibilities through various social programs. The Term Nam Mun Pun Nam Jai program buys agricultural/innovative products from farmers and SMEs and gives them away to refueling customers. The Growing Vegetables at the Service Station program hands out vegetables grown on the stations’ premises to employees as a form of food aid, which often extend to customers as well. The program also includes sharing vegetable-growing knowledge with the community and schools around the stations. The Fry to Fly initiative buys used cooking oils at designated service stations, and utilizes them for the production of sustainable aviation fuels (SAF).





Clean Power Business Group

The Company currently invests in power generation from clean energy sources through BCPG Public Company Limited (a subsidiary of Bangchak), established to produce and distribute electricity generated from renewable energy and other types of clean energy both in and outside of Thailand. By the end of 2023, BCPG has a total installed capacity of 2,025.2 megawatts. The types of energy used can be categorized by country as follows:



Solar farms in Thailand,
operating commercially
at **176.8** MW

Solar power plant

- Solar farms in Thailand, operating commercially at 176.8 MW (operating solar rooftops included).
- Divestment of solar farms portfolio in Japan, which are commercially operational at 79.7 MW (proportionate to shareholding interests). The projects consist of S1 (Nakatsugawa) at 0.7 MW, S11 (Takamori) at 1.0 MW, S19 (Nojiri) at 0.9 MW, Tarumizu at 8.1 MW, Gotemba at 4.0 MW, Komagane at 25 MW, Yabuki at 20 MW, and Chiba 1 at 20 MW. The transaction is expected to be completed in Q1/2024.
- Acquisition of solar farm projects in Thailand in the first quarter of 2024, which have a total installed capacity of 12.95 MW, consisting of four projects: BS Solar at 5 MW, Wichianburi at 1.75 MW, Kathun at 1.2 MW, and Krasaesin at 5 MW. The PPA duration is 25 years, and FiT of 4.12 baht per unit.

Wind power plant

- A wind power plant project in Thailand located in Nakhon Si Thammarat Province, commercially operational at 9.0 MW.
- A wind power plant project in the Philippines, commercially operational at 14.4 MW.

Hydro power plant

- A hydro power project in Laos, commercially operational at 114 MW, consisting of the Nam San 3A (69 MW) and Nam San 3B (45 MW) projects. The PPA duration is 25 years.



Four combined-cycle gas turbine (CCGT) projects in the United States, with a total installed capacity 857 MW

Natural gas power plant

- Four combined-cycle gas turbine (CCGT) projects in the United States, with a total installed capacity 857 MW (proportionate to shareholding interests) include Carroll County Energy (CCE) at 341 MW, South Field Energy (SFE) at 90 MW, Hamilton Liberty at 212 MW, and Hamilton Patriot at 214 MW.

Other basic infrastructure projects

- Power transmission line project in PDR Laos, for the sales of electricity from Laos to Vietnam, at 220 kV
- Oil terminal and seaport business in Phetchaburi, Thailand, consisting of 20 oil storage tanks, five oil pipelines, onshore fuel distribution ports, and seaport.

Projects currently under development include:

- Thailand rooftop solar power generation project, at 1.1 MW
- Japan solar power generation project, Chiba 2, at 10.0 MW
- Taiwan solar power generation project at 469.0 MW, consisting of Yunlin at 215 MW, Chiayi at 8 MW, Tainan at 160 MW, and Khaohsiung at 86 MW

- Philippines wind power generation project, 5.3 MW production capacity
- PDR Laos wind power generation project, 289.5 MW production capacity, expected COD in 2025
- Invest in the oil terminal business. Oil transportation terminal in Phetchaburi Province

BCPG has signed an MOU regarding the joint product development, marketing, and investment in convertible debentures of VRB Energy Inc., to collaborate in battery development for 2-wheeled and 3-wheeled electric vehicles, residential-use batteries, commercial and industrial batteries, and the opportunity to build battery plants to produce module-level, pack, and cell-level batteries in partnership with Xiamen Ampace Technology Limited (Ampace) to meet demands in Thailand and Southeast Asia. BCPG also signed an MOU with BCP Innovation Pte. Ltd. (BCPI) to procure and sell lithium, signed a Distributorship Agreement with SVolt Energy Technology (Thailand) Co., Ltd. (SVolt Thailand), for the distribution of batteries for residential use and commercial and industrial use, and signed a research partnership with Energy Research and Development Institute – Nakornping, Chiang Mai University and the Provincial Electricity Authority (PEA) to research on a Vanadium Redox Flow Alternative Energy Storage System, to enhance the power grid stability in Amphoe Na Haeo, Loei province.





Bio-Based Products Business Group

The Company operates bio-based products business such as ethanol business and biodiesel business, operated by BBGI Public Company Limited (BBGI), with awareness of the importance of alternative energy. The goal is to reduce the trade deficit from fuel imports. It is beneficial to the energy security of the country. To support farmers, protect the environment, and support the mixing of ethanol and biodiesel with gasoline and diesel, the company promotes and supports the production of Gasohol 91, Gasohol 95, Gasohol E20, Gasohol E85 and Hi Diesel.

BBGI Public Company Limited (BBGI) is a major producer and seller of biofuels in Thailand. Subsidiaries and associate companies of BBGI together account for a production capacity of 1,800,000 liters per day, of which 800,000 liters is ethanol and 1,000,000 liters is biodiesel. In 2020, the Company expanded its investment into bio-based products by acquiring additional shares in Manus Bio Inc. and jointly investing in the establishment of WIN Ingredients Co., Ltd., to operate a bio-based products business. In addition, the Company established BSGF Company Limited (BSGF), a joint venture with BBGI and Thanachok Oil Light Co.,

Ltd., to operate sourcing raw materials and producing and distributing sustainable aviation fuel (SAF) from using used cooking oil. Its production capacity is 1,000,000 liters per day. The expected commercial operation date is Q1, 2025.

In October 2023, BBGI and Fermbox Bio signed a joint venture contract to construct a Contract Development Manufacturing Organization (CDMO) plant. The first phase involves the production of enzymes, with a planned expansion to the most advanced synthetic biology (Synbio) products, resulting in a planned total fermentation capacity of 1,000,000 liters. The entire process, from upstream to downstream, will utilize advanced process equipment. BBGI will lend its operational experience to oversee the execution of this large-scale project, while Fermbox Bio brings to the table its expertise in synthetic biology and production process and will also bring products ready for commercialization to be produced in this joint venture plant. BBGI Fermbox Bio Co., Ltd., a joint venture between BBGI and Fermbox Bio, began the construction of Thailand and Southeast Asia's first commercial CDMO plant. During the initial phase, it will produce about 200,000 liters of enzymes, and will expand other Synbio products utilizing Precision Fermentation.



Natural Resource and New Business Group

Petroleum exploration and production business BCPR Pte.Ltd was established in Singapore. It has invested in OKEA ASA. It produces crude oil and natural gas fields Draugen, Gjoa, Ivar Aasen, Yme, Brage and Nova and holds rights or is in the process of developing crude oil and natural gas fields in several concession blocks in Norway. In addition, OKEA ASA as the operator for the Draugen and Brage fields. OKEA ASA is continuously focusing on finding opportunities for growth through M&A.

At the end of 2023, OKEA ASA has a production capacity equivalent to 24,590 barrels of crude oil per day, with a ratio of crude oil, gas, and natural gas liquids (NGL) of 67%, 25%, and 8%, respectively. The seven fields of crude oil and



OKEA ASA has a production capacity equivalent to 24,590 barrels of crude oil per day, with a ratio of crude oil, gas, and natural gas liquids (NGL) of 67%, 25%, and 8%, respectively.

natural gas, with OKEA ASA as the operator or co-investor, are as follows:

- The Draugen field, located in the southern part of the Norwegian Sea, started production in 1993. Since 2018, OKEA ASA took over as operator and improved Draugen's operational efficiency and enhanced its reserve potential and production stability. At the end of 2022, the Draugen field had a net production capacity equivalent to 6,487 barrels of oil per day. By October, 2023, the company was able to develop the Hasselmus project. With a net production capacity equivalent to 4,400 barrels per day, it serves as a supply point for Draugen. This project was 3 months ahead of the original production commencement date set for Q4 of 2023, and to date, there have been no impairments in operations.
- The Gjoa field began production in 2010 and is operated by Neptune Energy Norge AS. By the end of 2023, the Gjoa field had a net oil equivalent capacity of 5,812 barrels per day in December.
- The Ivar Aasen field began production in 2016, which is operated by Aker BP ASA. By the end of 2023, the Ivar Aasen field had net production capacity of 3,009 barrels of oil equivalent per day in December.

- The Yme field began production in 1996 and is operated by Neptune Energy Norge AS. By the end of 2023, the Yme field had net production capacity of 2,809 barrels of oil equivalent per day in December.
- The Brage field is located in the northern part of the Norwegian sea. Production began in 1993, and in 2022 OKEA ASA acquired the right to operate. By the end of 2023, the Brage field had a net production capacity equivalent to crude oil. 4,856 barrels per day in December
- The Nova field will begin production in 2022, which is operated by Wintershall Dea. By the end of 2023, the Nova field had net production capacity of 1,612 barrels per day of oil equivalent in December.
- The Statfjord field enters as the latest field on December 29, 2023. At the end of the year, it had a capacity of 11,000-12,000 barrel of crude oil equivalent per day, which will increase OKEA's production capacity of crude oil equivalent to 35,000-40,000 barrels per day in 2024.

Crude oil and natural gas projects under development:

- The Mistral, Arkenstone, and Aurora projects, are all in the survey and evaluation phase. If found to have sufficient potential, OKEA ASA will start investing by the end of 2024, and production is expected to commence between 2026-2027.

OKEA ASA continues its operation based on the vision of being a leading mid-to-late-life operator with a focus on low-risk project investments, implementing effective cost control and capital management policies to maintain financial liquidity and deliver consistent returns to shareholders.

Natural Resource Business established BCP Innovation Pte. Ltd. in Singapore, to operate and invest in businesses related to lithium ore. and innovation-related businesses abroad. Currently, BCPI has the right to purchase lithium according to the Lithium Purchase Agreement with Lithium Americas Corp., up to 6,000 tons per year, from the Cauchari-Olaroz project. and has invested in many other startup projects.

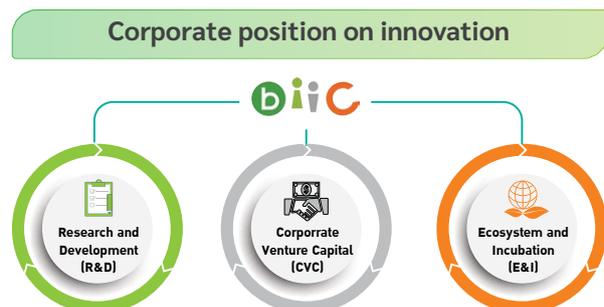
Established BTSG Company Limited (BTSG), a joint venture between Bangchak (51% stake) and Thai Special Gas Company Limited (TSG) (49% stake) to develop business and provide gas-related services. Liquid Natural Gas (LNG) with the goal of expanding the number of LNG service stations to major cities in all four regions of Thailand and collaborating with groups of transport sector operators to open service stations together. To facilitate and distribute services to cover Push the use of clean fuels to be concrete. Respond to the demand for LNG in the transportation sector that will increase in the future.

BTSG Company Limited opens the first Liquefied Natural Gas (LNG) service station in Thailand. At Map lang District Chonburi Province in 2023.

Innovation Management

Recognizing the significance of creating new innovations that will not only generate revenue and enhance the Company's competitive ability but will also have positive impacts on stakeholders, society, and the environment. These impacts include providing new opportunities and skills, improving the quality of life in terms of health and living conditions of people, as well as reducing the use of natural resources and pollution from business operations.

The Company established Bangchak Initiative and Innovation Center (BiIC) in order to foster a green ecosystem, drive the green and bio-based energy, and enhance domestic and international business expansions through research and development, corporate venture capital, and developing business ecosystem and incubations, all in accordance with the BCP316NET plan to make Bangchak Group Carbon Neutral by 2030 and achieve Net Zero GHG Carbon Emissions by 2050.



The company's resolute focus on innovation management had earned it the Southeast Asia MIKE Award 2022 (The Most Innovative Knowledge Enterprise) at the Gold Level. This was a result of the Company's continuous effort to build a knowledge-based organization and promote innovation, provide customer-focused services, and recognize the importance of human resources and technology in all aspects, using the following eight sustainability criteria:

1. Supporting employee learning and knowledge building, leading to innovation.
2. Leadership, vision, and strategy.
3. Meeting expectations, needs, and experiences of customers and stakeholders.
4. Facilitating collaboration and networking, internally and externally.
5. Imbuing corporate culture.
6. Investment in and delivery of products, services, and solutions based on organizational knowledge.
7. Promoting utilization of knowledge-based procedures and organizational knowledge creation systems.
8. Utilizing virtual and creative spaces to add value for stakeholders.

Notable Achievements

1. Research and Development: R&D

Production of astaxanthin in a pilot plant for processing into high-value products, as well as the development, production process improvement, and efficacy and toxicology testing of astaxanthin, in partnership with the Faculty of Pharmaceutical Sciences, Chulalongkorn University. Astaxanthin is found to improve eyesight and skin without exposing the liver and kidneys to toxins or causing irritation to the skin. New products were developed and produced to test the market such as nutritional supplements and cosmetics. Further studies were conducted to enhance astaxanthin nano molecules to improve product effectiveness. Feasibility studies on commercial expansion were also conducted with partners.

Company Expenditures for Innovation and Technology R&D

Year	Operation details	Amount (Baht)
2018	Production of astaxanthin from algae and selection of algae strains for treating wastewater from bioethanol plants.	5,400,000
2019	Production of astaxanthin from algae, production of bioplastics, production of bio-based oil, wastewater treatment	9,200,000
2020	- Establishment of a microalgae nursery/laboratory, and construction of an astaxanthin pilot plant	10,000,000
	- Production of prototype bioplastics, plant-based protein substitutes, and treatment of wastewater from service stations	5,450,000
2020	- Construction and operation of a prototype astaxanthin plant and product efficacy testing	7,400,000
	- Production of prototype bioplastic products and plant-based protein substitutes	2,650,000
2022	Improvement of the effectiveness of the algae nursery and astaxanthin production process as well as the efficacy testing process, new product development, and preliminary market tests.	5,800,000
2023	New products, preliminary market tests, and commercial production expansion feasibility study.	1,900,000

Note: - In 2019, received tax benefits from NSTDA of 2.8 million baht and received research funding from the National Research Council of Thailand of 2.3 million baht.
- In 2020, received tax benefits from NSTDA approximately 1 million baht.

2. Corporate Venture Capital (CVC) business

CVC adjusted the scope of investment in accordance with the Bangchak group's goal of carbon neutrality by 2030 and net zero GHG emission by 2050, and to glean knowledge on new technologies for adopting and building of the green business as the New S-curve in the Bangchak Group. Emphasis will be on two areas: energy and climate technology, and bio-based technology and wellness.

CVC investing directly into startups, which garnered more than 58% of the investment budget either as initial or follow-on investments. CVC is planning and conducting feasibility studies to utilize technologies from startups they have invested in for business development within the group, as well as jointly develop those technologies with the startups. Examples include battery standard development with Winnonie, a startup specializing in green energy electric motorcycles that aim to enrich the lives of public motorcycle riders.

3. Ecosystem and Incubation (E&I)

Ecosystem and Incubation (E&I), under the Bangchak Initiative and Innovation Center (BiiC) has launched the "Wrong-DI-Wrong-Deliver- Innovation initiative", with the slogan "Wrong or right, we don't mind as long as you dare to submit your innovation" as a tool for spurring the creation of an ecosystem of innovation that promotes knowledge sharing among employees within the company and the group. By encouraging employees to share ideas on innovation through an online platform, the initiative saw more than 250 submissions. Knowledge-sharing workshops

were held to elevate ideas into innovation businesses, build solutions to improve internal process effectiveness, and support business incubation to maximize potential and subsequent commercialization. The following highlights some of the outcomes of the initiative:

- The coin-operated smart gas station project (Krating) was launched in 2021. It introduced innovations in financial and lifestyle services such as wallet top-ups to communities located far from service stations. The project received business incubation that later resulted in commercial viability. Today, there are 110 "Krating" smart coin-operated gas stations in operation.
- An Algae nursery project for high-value extracts production. With the collaboration of an R&D team, the project raised funds to increase production capacity for the domestic market, with a goal of becoming the center of Algae nursery for high-value extracts in Southeast Asia. At present, nutritional supplements and cosmetics under the brand Asta.A are made from an important extract of the red algae (astaxanthin), an antioxidant that is 500 times more effective than vitamin C. Plans are under way to expand the product into foods and animal feeds.

The company welcomes comments and opinions on innovation from stakeholders through channels such as the stakeholder engagement survey, and will use the findings to develop and improve the business and the incubation of other innovations.



1.2.1 Revenue Structure

Operated by	% shareholding	2023		2022		2021	
		Revenue (million baht)	%	Revenue (million baht)	%	Revenue (million baht)	%
Refinery and Oil Trading Business Group ^{1/}							
Bangchak Corporation Plc.	-	129,530	32.5	151,191	47.8	136,786	67.5
BCP Trading Pte. Ltd.	100.00	129,628	32.5	107,500	34.0	24,998	12.3
Bangkok Fuel Pipeline and Logistics Co., Ltd.	100.00	150	-	184	-	-	-
Total		259,308	65.0	258,875	81.8	161,784	79.8
Marketing Business Group							
Bangchak Corporation Plc.	-	8,864	2.2	9,293	2.9	7,295	3.6
Bangchak Green Net Co., Ltd.	49.00	769	0.2	795	0.3	811	0.4
Bangchak Retail Co., Ltd.	100.00	949	0.3	907	0.3	678	0.3
Total		10,582	2.7	10,995	3.5	8,784	4.3
Clean Power Business Group							
BCPG (Group)	57.81	4,779	1.2	5,405	1.7	4,668	2.3
Total		4,779	1.2	5,405	1.7	4,668	2.3
Bio-Based Products Business Group							
BBGI (Group)	45.00	13,184	3.3	13,325	4.2	14,085	7.0
Total		13,184	3.3	13,325	4.2	14,085	7.0
Natural Resources Business Group							
OKEA ASA	45.44	28,847	7.2	23,349	7.4	10,068	5.0
BTSG Co., Ltd.	51.00	-	-	234	0.1	24	0.0
Total		28,847	7.2	23,583	7.5	10,093	5.0
Bangchak Sriracha							
BSRC (Group) ^{2/}	76.34	68,820	17.2	-	-	-	-
Total		68,820	17.2	-	-	-	-
Other		333	0.1	19	0.0	3	0.0
Total revenue from sales and services		385,853	96.7	312,202	98.7	199,417	99.1
Other ^{3/} Bangchak and subsidiaries		13,246	3.3	4,084	1.3	3,306	1.6
Total		399,099	100.0	316,286	100.0	202,723	100.0

Remark: Revenues of Bangchak and its subsidiaries are net values derived from external parties.

^{1/} Revenue from domestic fuel sales in 2023, 2022, and 2021 accounted for 70.9%, 66.2% and 68.5% respectively.

^{2/} Revenue recognition from September 1, 2023

^{3/} Other revenues include dividend and other revenues, profit from derivatives, foreign exchange profit, gain on bargain purchase, impairment gain and reversal of impairment loss (impairment loss) in accordance with TFRS 9, the share of profit from investments in associates and joint ventures using the equity method.

1.2.2 Product Data

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 an optional fuel for modified gasoline-engine vehicles.

1.2 Gasoline

Gasoline is classified by the octane number indicating anti-knock properties. Gasoline has the MTBE (methyl tertiary butyl ether) additive that raises the octane number, whereas gasohol employs ethanol for the same purpose. Gasohol consumption benefits the public in various ways, including air pollution reduction, foreign exchange saving from importing MTBE, cushioning of impacts of high oil prices, improvement of agricultural produce prices, which implies investment decentralization and rural employment. Today Bangchak has developed gasohol formulas that fit GDIs (Gasoline Direct Injection Engine) and PFIs (Port Fuel Injection), known as “Bangchak S EVO Family”. In addition, the Company has developed the latest premium gasohol, Bangchak Hi Premium 97, which is an extra high octane fuel equally 97 and meets Euro 5 standards. The Company is ready to improve the

quality of all oil products sold through Bangchak service stations to meet EURO 5 standards in early 2024.

1.3 Jet fuels

Catering to jet plans, Bangchak’s product is known as Jet A-1, suiting passenger plans or commercial plans in general. Bangchak’s crude oil and distillation process yields low-sulfur jet fuels for lower air pollution and environmental care.

1.4 High-speed diesel

This fuel suits high-speed diesel engines of the EURO 4 standard of the Department of Energy Business for automobiles, trucks, fishing vessels, passenger boats, and tractors, among others. Bangchak has improve diesel formulas known as “Hi Diesel S”, “Hi Premium Diesel S B7”, “Hi Diesel S B7” as premium-grade diesel with special additives to better clean the engine, add engine power, lower combustion pollution, and preserve the environment. Besides, Hi Premium Diesel S B7 contains low sulfur meeting the EURO 5 standard, so it suits new European car models. The Company is ready to improve the quality of all oil products sold through Bangchak service stations to meet EURO 5 standards in early 2024.



www.bangchaklubricants.com/en/



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 sells "BCP Lubricants", which include the GE SERIES for gasoline engines, D3 SERIES for diesel engines, lubes for motorcycles, transmission fluids, and brake fluids.

It also sells premium lubricants of the "FURiO" brand with Respoplex Technology, which contributes to molecules that coat engine parts, marked by power, anti-wear properties for heavy-duty engines, thus protecting engines under all conditions.

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 grease for food industry.

Bangchak lubricants meet American Petroleum Institute (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. In 2016, Bangchak successfully achieved ISO 9001:2015, and in 2017, its product was met new standard IATF16949:2016 International Automotive Task Force (IATF) with additional regard for stakeholders, including suppliers, communities, and consumers, with impacts on its processes for standard quality.

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 Unconverted Oil means heavy oil whose molecules are not cracked at HCU, thus high-quality fuel oil with low sulfur and nitrogen contents. UO is a raw material for basic lube oil production.

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

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

4. By-product

4.1 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 sulfuric acid, car tires, pesticides, bleaching, sugar, and shampoo, and for production of Sulphur compounds.

4.2 Solvents are hydrocarbon compounds derived from Bangchak's processes through a variety of processes as needed by the market. Bangchak began solvent production by the BCP White Spirit 3040 market name, with applications as a blending agent in oil-based paints and other paints, lacquer, and varnish, in cleaning greasy patches, in cleaning machinery and metallic parts, and in lowering asphalt viscosity.

4.3 Asphalt, which is a by-product of companies in the Bangchak group It is a product obtained from Bangchak Sriracha Refinery. Asphalt is used for paving major roads and expressways, as well as bridges and airports.

1.2.3 Marketing and Competition

World Economic Situation in 2023

The global economy in 2023 began to recover from the COVID-19 pandemic, while economic slowdown signals became even more widespread. Ongoing tensions between Russia and Ukraine continued, and October saw the emergence of tensions between Israel and Palestine (Hamas). This triggered a fluctuation in energy and consumer goods prices throughout the year. Inflation rates in many countries remained high, especially in major economies, but there were signs of decline towards the end of the year. Uncertainties in geopolitical relations and other political factors, along with clearer signals of impending economic downturn, continued to affect the overall economic outlook.

In 2023, the International Monetary Fund (IMF) predicted that the average economic growth would be at 3.1 percent, down from 3.5 percent in 2022. The United States Federal Reserve (FED) increased its policy interest rate from 0.25 percent to 5.25 percent, maintaining the latest interest rate at 5.25 - 5.50 percent, the highest level in 22 years. This decision marks the second interest rate hike of the year, following four hikes since January 2023. Similarly, the European Central Bank (ECB) has been continuously pushing up interest rates throughout the year, with the latest decision in October to maintain the interest rate at 4.00 percent, marking the first time such a decision is made.

In 2024, amid high global geopolitical uncertainty, the inflation rate is showing a delayed upward trend and remains stable, especially in major economies. The International Monetary Fund (IMF) predicts the slowdown of global economic growth to 3.1 percent, supported by the recovery trend in government spending, tourism, and new investments by the private sector, including the gradual recovery of the Chinese economy. However, negative factors from the ongoing conflict between Russia and Ukraine, the Israel-Palestine war (Hamas), and persisting general geopolitical tensions worldwide, continue to keep energy prices high and volatile. Furthermore, the issue of rising global public debt has led to economic downturns in the Eurozone and the United States, due to tight monetary policies.

In 2023, the Asia-Pacific region economy is projected to grow by 4.2 percent, down from the previous year's growth of 5.5 percent due to uncertainties in the global economy and persistently high inflation. Regardless, the growth of

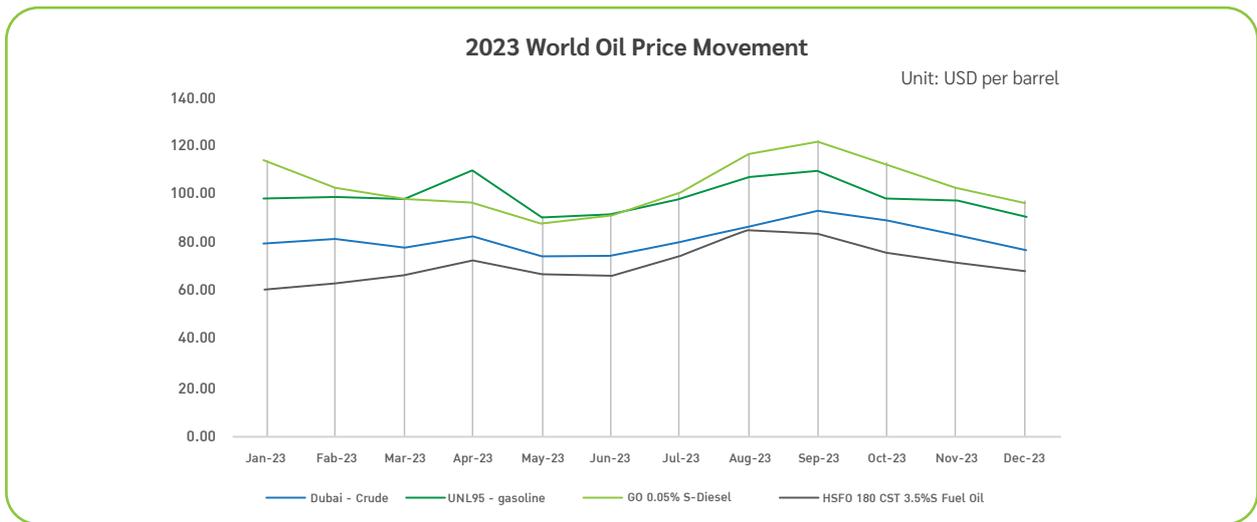
the region's economy reflects signs of recovery after several countries, except for China, had reduced COVID-19 to an endemic. In 2024, the International Monetary Fund (IMF) predicts that the economy of the Asia-Pacific region will continue to expand at a rate of 4.5 percent.

Crude Oil Market in 2023

The average Dubai crude oil price in 2023 was USD 82.10 per barrel, a decrease of USD 14.33 per barrel compared to the average price at USD 96.32 per barrel in 2022. Crude oil prices fluctuated throughout the year as the market began to ease concerns regarding supply shortages and uncertainties brought about by tensions between Russia and Ukraine. Meanwhile, OPEC Plus was ready to adjust their oil production policies to help stabilize the oil market. In the first half of 2023, crude oil prices received a boost from positive expectations of demand recovery in China due to the relaxation of COVID-19 control measures and the reopening of the country at the beginning of January. At the same time, crude oil prices continued to face downward pressures from economic concerns that the United States would enter a recession. The high inflation rates in the country support the forecast that the Federal Reserve Bank (FED) will keep interest rates high, impacting economic growth and oil demand. Additionally, concerns about the liquidity of several banks in both the United States and Europe, as well as concerns about the U.S. government's debt ceiling problem, could lead to the U.S. government defaulting on its debt for the first time in history. Furthermore, the Chinese economy's recovery was slower than expected, causing concerns about the global trend in oil demand. China remains the most important hope for boosting global oil demand this year.

Subsequently, in the latter half of 2023, crude oil prices rallied from concerns that global crude supply might tighten. This came after Saudi Arabia voluntarily implemented production cuts of 1 million barrels per day from July to December 2023 to maintain balance in the global oil market. Crude oil prices also rallied from the speculation that the Federal Reserve Bank (FED) might be nearing the end of its interest rate hikes, as inflation in the United States continued to slow. However, crude oil prices declined again in the fourth quarter after tensions in the global crude supply began to ease, driven by increased production from non-OPEC producers, particularly major producers like the

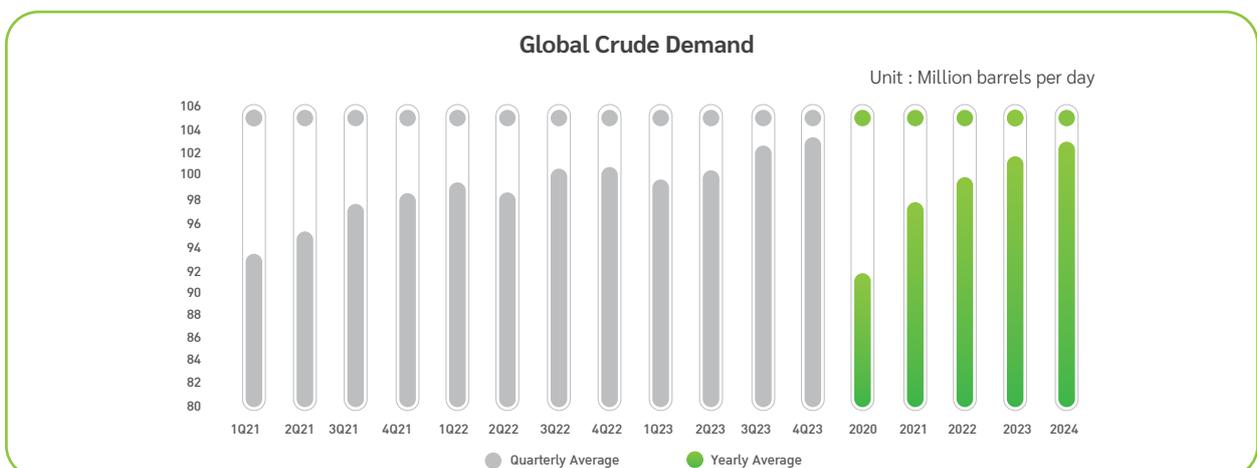
United States, which showed continuous upward trends. Additionally, crude prices were also squeezed by the slowdown in global oil demand, especially in China, where the domestic economy and consumption remained weak, and real estate sector issues continued to be unresolved. This went on even though the Chinese government attempted to intervene to revive the economy. Furthermore, crude oil prices were also affected by geopolitical conflicts in the Middle East between Israel and Hamas, which erupted in early October, raising concerns that the war would escalate and spread, impacting crude oil supply in the region. However, the market eased concerns after the conflict continued without expanding into a regional war nor did it affect the crude oil supply.



Unit: US Dollars per barrel

Product	2022		2023		YoY
	Avg	High	Low	Avg	%
Dubai Crude	96.32	93.31	74.93	82.10	-14.07%
UNL 95 Gasoline	115.12	110.28	90.17	98.77	-14.20%
Diesel GO	130.87	122.63	88.47	104.04	-20.50%
HSFO Fuel Oil	82.15	85.13	61.32	71.77	-12.64%

Crude Oil Market Trend in 2023

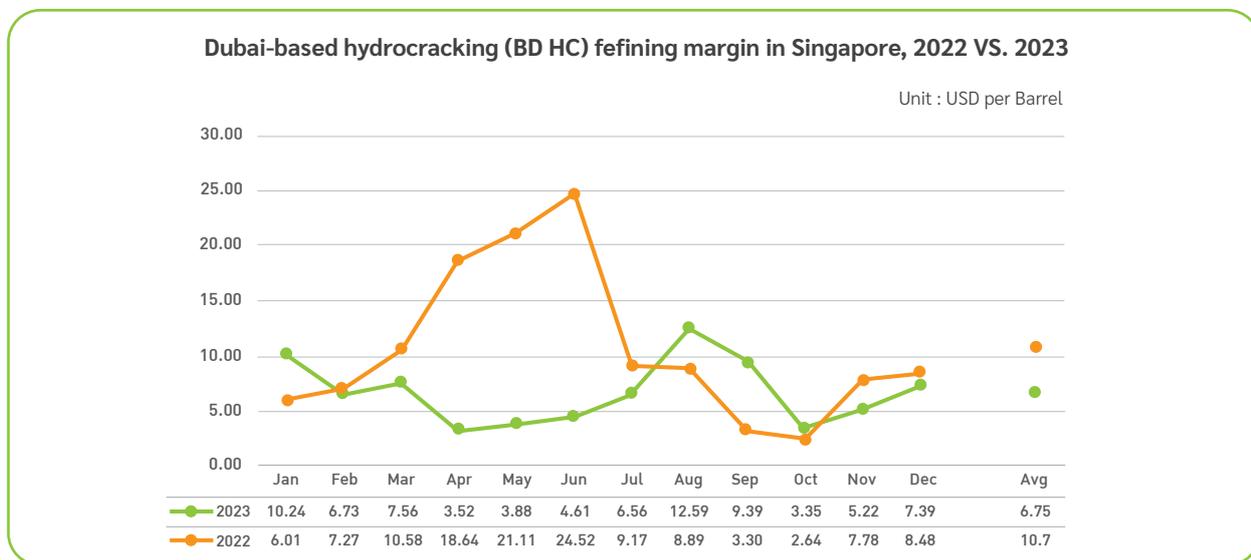


Source: IEA: International Energy Agency

The International Energy Agency (IEA) forecasted that growth of the global oil demand will increase by 0.93 million barrels per day in 2024, down from the previous year’s growth of 2.40 million barrels per day, to 102.93 million barrels per day. The growth of oil demand resulted from the sluggish global economy following the containment of COVID-19. Meanwhile, non-OPEC producers such as the United States, Brazil, and Guyana are expected to be the main drivers of global oil supply growth by a total of 1.6 million barrels per day in 2024. The IEA further predicts that the additional supply will help alleviate the tight supply conditions resulting from production cuts by the OPEC Plus group, potentially leading the market back into oversupply in the first quarter of 2024.

It is estimated that the average Dubai crude oil price in 2024 will fluctuate in the range of USD 70-80 per barrel as global oil demand faces pressure from the weak global economy. Meanwhile, global crude oil supply from non-OPEC Plus producers is expected to increase.

Refining Margin 2023



Source: Reuters

The cost of crude oil refining at the cracking refinery in Singapore averaged USD 6.75 per barrel in 2023, down from USD 10.70 per barrel in 2022. This decrease was due to pressure on the growth of refined petroleum products from the global economic slowdown, particularly in the United States and Europe, and also recovery of demand from China was lower than expected following the relaxation of lockdown measures. Additionally, market concerns about supply tightness due to tensions between Russia and Ukraine were relieved. Meanwhile, the Dubai gasoline price differential decreased due to lower regional demand amidst increased regional supply resulting from refined oil product exports from China, which received additional export quotas. Similarly, the Dubai diesel price differential decreased due to increased regional supply from China’s refined oil product exports. Domestic economic activities and demand for refined petroleum products remained weak, while the market eased concerns about supply tightness in Europe due to measures restricting Russian oil product imports, with Europe resorting to imports from other regions. Diesel demand as a substitute for natural gas decreased amidst high natural gas reserves and warmer-than-usual weather, leading to decreased demand for heating oil. Industrial demand remained sluggish due to the economic downturn. Furthermore, overall aviation fuel demand recovered slower than expected despite many countries reopening domestic and international air routes. However, the Dubai high-sulfur fuel oil price differential was boosted by concerns about tight supply, as high-sulfur fuel oil production was reduced voluntarily to 1 million barrels per day by Saudi Arabia from July to December 2023, while China increased its imports of fuel oil for use as raw material for private refineries.

Unit: USD per barrel

Price Spread	2022		2023		YoY
	Avg	High	Low	Avg	%
UNL95 - DB	18.74	21.20	9.17	16.67	-11.05%
GO - DB	34.39	33.57	13.54	21.94	-36.37%
HSFO - DB	-14.23	-1.34	-19.06	-10.33	+27.43%

Refining Margin Outlook 2024

It is expected that in 2024, the refining margins of cracking refineries in Singapore is likely to decrease from 2023. This projection is based on the anticipated pressure on refining costs from the uncertainty of refined petroleum product demand due to concerns about the global economic slowdown as a result of high interest rates. This will further pressure economic and industrial activities amid the slowing recovery from the COVID-19 pandemic. Additionally, there is pressure from the increased supply of refined petroleum products due to the commissioning of planned new refineries in Asia and the Middle East, with existing refineries operating at high levels. However, the decrease in refining margin is constrained by the uncertainty of demand recovery from China, which is much hoped for stimuli for oil demand and affecting the level of refined petroleum product exports to the market. This uncertainty is also impacted by the conflict in the Middle East, with concerns looming over supply disruptions and price volatility.

Thai Economic Overview 2023

The Thai economy in 2023 showed a trend of expansion similar to the previous year, driven by the recovery of the tourism sector, which performed better than the previous year. Towards the end of the year, free visa measures continuously boosted tourism from foreign countries. Private sector consumption continued to expand steadily in response to increasing demand. Private sector investment rebounded, and the labor market adjusted continuously, showing improvement. The Bank of Thailand forecasts economic expansion at 2.4 percent, a decrease from the 2.6 percent in 2022. Thailand's inflation rate in 2023 decreased to a low of 1.3 percent. The Bank of Thailand predicts that the general inflation rate in 2024 will remain stable at a low level, close to 1.0 percent, before gradually increasing in the following year. The Bank of Thailand indicates that the economic recovery shows promising signs due to domestic demand. During the 1/2024 Monetary Policy Committee (MPC) meeting, the committee resolved to maintain the interest rate at 2.5 percent, aligning with the recent decision of the Federal Reserve Bank (FED) to keep its interest rate at 5.25 - 5.50 percent.

In 2024, the Thai economy showed a slower expansion trend in exports and production, due to global demand and the slow recovery of the Chinese economy. However, domestic demand continued to expand consistently and remained a significant driver of the economy. With inflation rates at low levels, this affected the country's GDP.

Thailand's Economic Projection			
Thailand's Economics Projection	2022	2023*	2024
Economics growth	2.6	2.4	2.5 - 3.0*
General Inflation	6.1	1.3	1.0

Source: The Bank of Thailand (November 29, 2023)

(*News announced by the Bank of Thailand, February 7, 2024)

Domestic Oil Industry Competition

The country's demand for fuel in 2023 (January-December) decreased slightly from the previous year, from 140.334 million liters per day to 140.207 million liters per day, or a decrease of 0.1 percent. The products that decreased the most were kerosene, fuel oil, and diesel, at 21.4 percent, 15.8 percent, and 5.7 percent, respectively. In the diesel group, it decreased to 4.139 million liters per day due to reduced diesel oil consumption for electricity production in 2023. However, it can be seen that the demand for aviation fuel expanded by 50 percent, largely due to tourism industry growth from increased number of flights. Gasoline also grew by 3.4 percent, resulting from the expansion of the gasohol group, due to the gasoline price adjustment policy to help alleviate the people's cost of living, reduced excise taxes, and using funds from the oil fund.

Domestic Demand for Refined Products

Product	Demand (Million Liters/day)		
	Jan – Dec 2022	Jan – Dec 2023	Growth
Gasoline Group	30.629	31.668	3.4%
<i>Regular Gasoline</i>	0.998	0.773	-22.5%
<i>Gasohol</i>	29.631	30.895	4.3%
Diesel Group	73.050	68.911	-5.7%
Jet Fuel	9.143	13.715	50.0%
Fuel Oil	6.400	5.391	-15.8%
Kerosene	0.014	0.011	-21.4%
Liquefied Petroleum Gas*	21.097	20.511	-2.8%
Total	140.334	140.207	-0.1%

Source: Department of Energy Business

Remark: * Excluding qualities used by refineries as feedstock in their own petrochemical plants

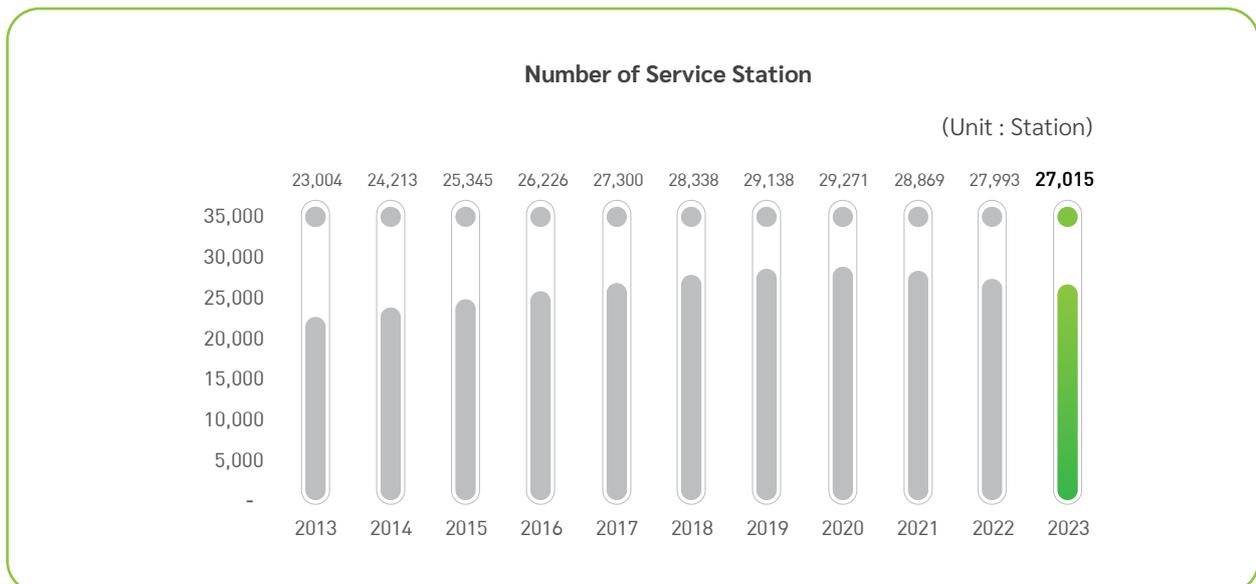
In terms of domestic oil supply, from the refining capacity of six domestic refineries namely, Thai Oil, IRPC, PTT Global Chemical, Bangchak Sriracha, Star Petroleum, and Bangchak Phra Khanong refineries, in 2023, the average refining volume was at 1,055 thousand barrels per day, an increase by 3.4 percent from 2022.

Average Refinery Throughput

Refinery	Throughput (KBD)		
	2022	2023	Growth
Thai Oil	287.425	301.394	4.9%
IRPC	175.304	192.866	10.0%
Bangchak Sriracha	132.777	118.200	-11.0%
Star Petroleum	152.377	145.835	-4.3%
PTT Global Chemical	152.729	181.922	19.1%
Bangchak	120.362	115.275	-4.2%
Total	1,020.975	1,055.492	3.4%

Source: Department of Energy Business

Despite the fact that people’s lifestyle is increasingly returning to normal, the economic situation in the country remains uncertain, mainly due to the low growth trend of the global economy. This has resulted in the decreasing number of gas stations by minor traders. The number of service stations of traders under Article 7 nationwide (as of the fourth quarter of 2023 compared to the fourth quarter of 2022) totaled 27,015, decreasing by 978 stations, or 3.5 percent, from the previous year. Although the major traders under Article 7 have expanded their service stations by 443 (as of December 31, 2023), with a total of 5,787 stations selling E20 and 778 stations selling E85 gasohol, respectively.



Source: Department of Energy Business

The competitive landscape of the oil industry in Thailand in 2023 is expected to remain intense, continuing the trend from the previous year. This is due to the economic recovery and the return to normalcy in tourism, which have led to major traders continuously expanding their service stations. Additionally, there has been a modernization of the service station image along with the development of new service formats to meet users' needs. This includes integrating non-oil businesses to enhance competitiveness and continuously generate returns from investments.

Comparison of service stations of various brands at the end of December 2022 and 2023

	Number of Service Stations			Proportion (%)		
	2022	2023	△	2022	2023	△
PTTOR	2,234	2,323	4.0%	8.0%	8.6%	0.6%
PTTRM	153	159	3.9%	0.5%	0.6%	0.0%
PTT	4	202	4,950.0%	0.0%	0.7%	0.7%
PTG	2,229	2,282	2.4%	8.0%	8.4%	0.5%
Bangchak*	1,343	1,389	3.4%	4.8%	5.1%	0.3%
Bangchak Sriracha**	802	830	3.5%	2.9%	3.1%	0.2%
Shell	697	726	4.2%	2.5%	2.7%	0.2%
Caltex	443	454	2.5%	1.6%	1.7%	0.1%
Susco	169	139	-17.8%	0.6%	0.5%	-0.1%
Sinopec Susco***	12	25	108.3%	0.0%	0.1%	0.0%
Others M.7	57	53	-7.0%	0.2%	0.2%	0.0%
Unbranded	19,850	18,433	-7.1%	70.9%	68.2%	-2.7%
Total****	27,993	27,015	-3.5%			

Source: Department of Energy Business and the Company

Remarks: * The Company's service station network

** Bangchak Sriracha Public Company Limited's service station network (formerly Esso (Thailand) Public Company Limited registering to change its name on November 15, 2023)

*** Susco Dealer changed to Sinopec Susco in 2023

**** 313 NGV service stations and 1,611 LPG service station

As for the lubricant market through traders under Article 7 (data from the Department of Energy Business as of December 31, 2023), the Company was able to push domestic sales of finished lubricants to 4.19 million liters per month, expanding by 6.0 percent per day from the previous year, in contrast to the shrinking domestic finished lubricant market by 1.3 percent.

Product distribution and distribution channels

Bangchak products are distributed through:

- 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 tanker trucks.

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

Station Format	Number	Share (%)
1. Company Own Company Operate (COCO): Bangchak is the investor and operates the service 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 the Company's direct supervision, serve as prototype stations.	220	16%
2. Company Own Dealer Operate (CODO): The Company is the investor and land owner, while the station management is carried out by experienced operators, who rent the stations.	57	4%
3. Joint Venture (JV): This is a joint investment between the Company and operators interested in running the service station business.	60	4%
4. Dealer Own Dealer Operate (DODO): The operator is the service station owner, land owner, and sole investor, as well as a distribution agent.	436	32%
5. Co-Operative (CO-OP): These service stations are invested by the community. In most cases, the community is the land owner and investor.	616	44%
Total	1,389	100%

Remarks: Bangchak Corporation Plc., as of December 31, 2023

- 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 directly with the Company, and deliveries are arranged by tanker trucks, except for some factories with their own piers.
- 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 tanker truck.
- 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.
- 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.
- 6) Export sale** - Deliveries are normally carried out by marine vessel to overseas oil traders. In some case, traders in neighboring countries directly handle truck transport from Bangchak's depots in Thailand to their facilities.

Types of customers - the Company'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 service stations operated by the Company, dealers, cooperatives 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 oil traders, who order finished products from Bangchak for further distribution. Deliveries are made direct to customers' sites or outlets in their networks.
- 3) Export Customers** - These customers are overseas oil traders who buy Bangchak oil to feed their production process or distribute internationally, 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.

The Company's sales volume, categorized by type of customer

Unit: thousand barrels/day

Type	2023		2022		2021	
	Volume	%	Volume	%	Volume	%
1. Outlet & End-User Customer	110.16	73.5	101.34	71.0	82.34	65.2
2. Supply Sales Customers	18.12	12.1	11.41	8.0	16.92	13.4
3. Export Customer	21.54	14.4	30.08	21.1	27.05	21.4
Total	149.82	100.0	142.83	100.0	126.3	100.0

Source: Bangchak Corporation Plc.





Sales value of Bangchak's products and services

Products	2023		2022		2021	
	million baht	%	million baht	%	million baht	%
Domestic Sale						
1. High-speed diesel	120,980	49.6	124,494	48.5	84,434	51.8
2. Fuel oil	2,343	1.0	2,748	1.1	1,968	1.2
3. Gasoline	68,983	28.3	66,685	25.9	43,564	26.7
4. Other products and services	24,688	10.1	15,987	6.2	7,935	4.9
Total domestic sale	216,994	89.0	209,914	81.7	137,901	84.7
Export Sale						
1. High-speed diesel	1,422	0.6	7,052	2.7	5,127	3.1
2. Fuel oil	23,876	9.8	37,670	14.7	18,550	11.4
3. Gasoline	803	0.3	787	0.3	353	0.2
4. Other products and services	708	0.3	1,441	0.6	928	0.6
Total export sale	26,809	11.0	46,950	18.3	24,958	15.3
Combined sales value						
1. High-speed diesel	122,402	50.2	131,546	51.2	89,561	54.97
2. Fuel oil	26,219	10.8	40,418	15.7	20,518	12.63
3. Gasoline	69,786	28.6	67,472	26.3	43,917	26.96
4. Other products and services	25,396	10.4	17,428	6.8	8,863	5.44
Total sales value	243,803	100.0	256,864	100.0	162,859	100.0
% increase/decrease	(5.08)		57.72		35.45	

Source: Bangchak Corporation Plc.

1.2.4 Supplies of Products and Services

1) Production capacity and production volume

Bangchak Phra Khanong Refinery is a complex refinery, located at 210 Sukhumvit 64, Phra Khanong, Bangkok, boasts a refining capacity of 120,000 barrels per day and conducts 24-hour operations.

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 30 - 36 months, Bangchak temporarily shuts down the system for turnaround maintenance, which lasts about 25 - 30 days, to maintain production efficiency at the same level or continue to improve efficiency even further. Selecting the date and time to stop the said machines will be done according to the situation and economic returns. Also, there are plans to implement various efficiency improvement projects during the 2024 turnaround maintenance to extend the shutdown period to 36 - 48 months for the next turnaround maintenance.

Bangchak has, over time, upgraded and expanded its refining units. Today’s operation is considered efficient with high safety standards and environmental management, which exceed standards.

Bangchak Phra Khanong refining capacity and refining volume

Unit: thousand barrels per day

	2023	2022	2021
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	61.79	64.39	51.99
2. UO	10.27	13.33	8.87
3. Fuel oil	9.43	11.59	11.58
4. Gasoline	22.86	23.92	19.78
5. Solvent	0.07	0.27	0.31
6. Aviation fuel, kerosene	13.17	6.03	4.03
7. LPG	2.46	2.45	2.06
8. Products for internal use and product loss during operation	0.07	0.59	0.03
Total output volume (B)	120.12	122.57	99.04
% increase of output volume	-2.0	23.8	1.9
% of capacity utilization (B/A)	100.1	108.9	87.33

Source: Bangchak Corporation Public Company Limited

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 gasoline output excludes the amount of ethanol in the production of Gasohol.

^{3/} Started to produce solvent in 2020.

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 Naphtha.
3. The third layer is Kerosene, jet fuel.
4. The fourth layer is diesel.
5. 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.

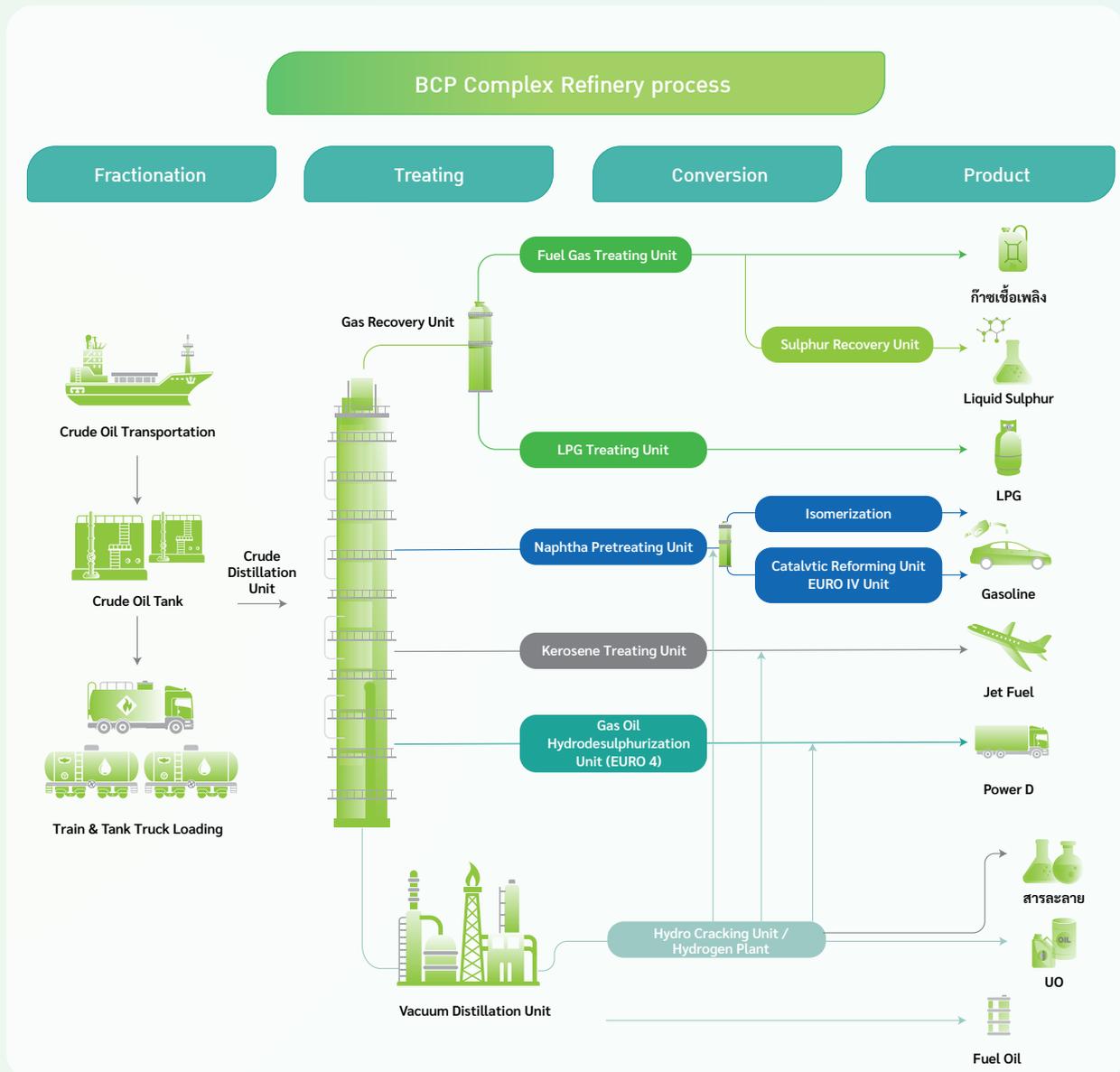
Products derived from molecule fractioning, comprising fuel gas, cooking gas (LPG), light naphtha, heavy naphtha, aviation fuel, and diesel, will be sent to the product separation unit.

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 Production Unit 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 six 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 Oman, UAE, Qatar, Saudi Arabia, 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 30 days in running its refinery.

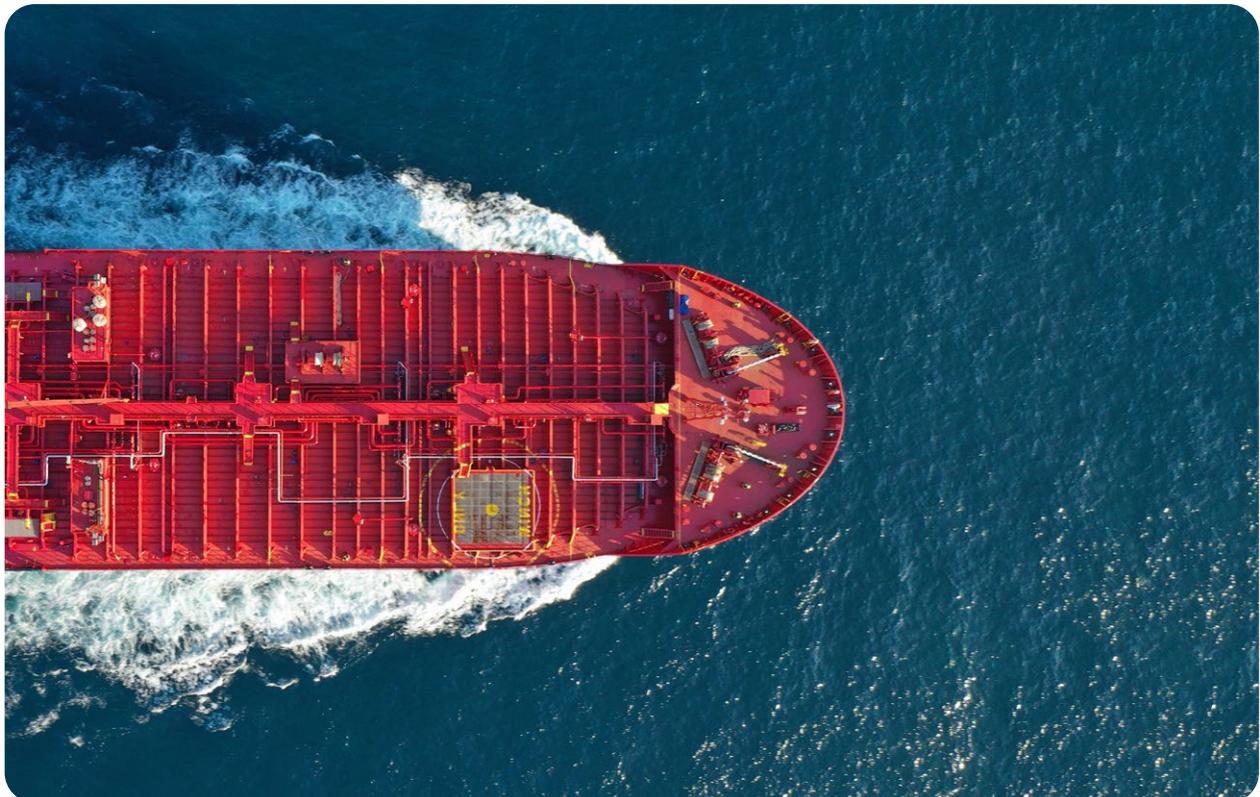
Indigenous sources of crude oil

unit: barrels per day

Crude Field	2023		2022		2021	
	Volume	%	Volume	%	Volume	%
1. Sirikit	24,959	36	25,854	33	26,477	27.1
2. Tantawan	6,077	9	12,518	16	14,804	15.2
3. Erawan	6,674	10	6,149	8	15,931	16.3
4. Nasanun/Nasanun East	429	1	463	1	385	0.4
5. Jasmine	9,191	13	10,046	13	9,987	10.2
6. Manora	4,822	7	4,622	6	6,738	6.9
7. Others	17,461	25	19,286	24	23,298	23.9
Total	69,612	100	78,938	100	97,620	100

Source: Energy Policy and Planning Office, Ministry of Energy

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.



Bangchak's Cost of Feedstock

Crude Type	2023		2022		2021	
	Million Baht	%	Million Baht	%	Million Baht	%
Cost of indigenous feedstock						
1. Crude and semi-finished products	32,608	18.07	44,140	20.41	28,526	25.22
2. Finished products	18,793	10.42	16,290	7.53	12,129	10.72
Total	51,401	28.49	60,429	27.94	40,656	35.94
Cost of imported feedstock						
1. Crude and semi-finished products	117,283	65.00	143,580	66.39	67,474	59.65
2. Finished products	11,740	6.51	12,268	5.67	4,987	4.41
Total	129,023	71.51	155,848	72.06	72,462	64.06
Combined costs of indigenous and imported feedstock						
1. Crude and semi-finished products	149,891	83.08	187,720	86.80	96,001	84.87
2. Finished products	30,533	16.92	28,558	13.20	17,116	15.13
Total feedstock cost	180,424	100.00	216,278	100.00	113,117	100.00

Source: Bangchak Corporation Public Company Limited

1.2.5 Review of Business Assets

Encumbrances on the property of the issuing company only in the case of unsecured securities. As of December 31, 2023, the Company has the following assets used in business operations:

Asset	Book value Baht million ¹	Ownership	Obligation
Lands	3,138	Company owned	None
	2,232	Subsidiary, BCPG Plc., owned	111
	18,216	Subsidiary, Bangchak Sriracha Plc., owned	None
	46	Indirect Subsidiary, BBGI Bio Diesel Co., Ltd, owned	46
	142	Indirect Subsidiary, BBGI Bioethanol (Chachoengsao) Co., Ltd, owned	142
	250	Indirect Subsidiary, BBGI Bioethanol Plc., owned	None
Buildings	158	Company owned	None
	2,950	Subsidiary, BCPG Plc., owned	1,551
	4,021	Subsidiary, Bangchak Sriracha Plc., owned	None
	145	Subsidiary, Bangchak Retail Co., Ltd, owned	None
	422	Indirect Subsidiary, BBGI Bio Diesel Co., Ltd, owned	422
	278	Indirect Subsidiary, BBGI Bioethanol (Chachoengsao) Co., Ltd, owned	278
	937	Indirect Subsidiary, BBGI Bioethanol Plc., owned	None
	3	Indirect Subsidiary, BBGI Utility and Power Co., Ltd, owned	None
Machinery, equipment refinery plants	21,086	Company owned	None
	4,628	Subsidiary, BCPG Plc., owned	None
	4,389	Subsidiary, Bangchak Sriracha Plc., owned	None
	1,245	Indirect Subsidiary, BBGI Bio Diesel Co., Ltd, owned	1,245
	375	Indirect Subsidiary, BBGI Bioethanol (Chachoengsao) Co., Ltd, owned	None
	1,830	Indirect Subsidiary, BBGI Bioethanol Plc., owned	None
	76	Subsidiary, BTSG Co., Ltd, owned	None
	1	Subsidiary, Bangkok Fuel Pipeline and Logistics Co., Ltd, owned	None

Asset	Book value Baht million ¹	Ownership	Obligation
Equipment solar plants	40	Company owned	None
	11,662	Subsidiary, BCPG Plc., owned	5,423
	9,173	Subsidiary, Bangchak Sriracha Plc., owned	None
	158	Indirect Subsidiary, BBGI Utility and Power Co., Ltd, owned	None
Oil exploration and production assets	19,221	Indirect Subsidiary, OKEA ASA owned	19,221
Work in progress	2,378	Company owned	None
	1,468	Subsidiary, BCPG Plc., owned	24
	1,493	Subsidiary, BSGF Co., Ltd, owned	None
	1,590	Subsidiary, Bangchak Sriracha Plc., owned	None
	6	Indirect Subsidiary, BBGI Bio Diesel Co., Ltd, owned	None
	5	Indirect Subsidiary, BBGI Bioethanol (Chachoengsao) Co., Ltd, owned	None
	3	Indirect Subsidiary, BBGI Bioethanol Plc., owned	None
	96	Indirect Subsidiary, BBGI Utility and Power Co., Ltd, owned	None
	14	Subsidiary, BTSG Co., Ltd, owned	None
	5	Indirect Subsidiary, Winnonie Co., Ltd, owned	None
	Marketing and office equipment	2,857	Company owned
3		Subsidiary, Bangchak Green Net Co., Ltd, owned	None
49		Subsidiary, BCPG Plc., owned	None
1,705		Subsidiary, Bangchak Sriracha Plc., owned	None
123		Subsidiary, Bangchak Retail Co., Ltd, owned	None
15		Subsidiary, BBGI Plc., owned	None
3		Indirect Subsidiary, BBGI Bio Diesel Co., Ltd, owned	None
1		Subsidiary, BCP Trading Pte. Ltd, owned	None
1		Indirect Subsidiary, BBGI Bioethanol (Chachoengsao) Co., Ltd, owned	None
5		Indirect Subsidiary, BBGI Bioethanol Plc., owned	None
192		Indirect Subsidiary, OKEA ASA, owned	192
29		Indirect Subsidiary, Winnonie Co., Ltd, owned	None
1		Bangkok Fuel Pipeline and Logistics Co., Ltd, owned	None

Asset	Book value Baht million ¹	Ownership	Obligation
Platinum catalysts ^{2/}	239	Company owned	None
	55	Subsidiary, Bangchak Sriracha Plc., owned	None
Vehicles and Other assets	1,690	Company owned	None
	17	Subsidiary, BCPG Plc., owned	None
	3	Subsidiary, Bangchak Sriracha Plc., owned	None
	14	Subsidiary, Bangchak Retail Co., Ltd, owned	None
	2,383	Subsidiary, Bangkok Fuel Pipeline and Logistics Co., Ltd, owned	None
	7	Indirect Subsidiary, BBGI Bio Diesel Co., Ltd, owned	None
	2	Indirect Subsidiary, BBGI Bioethanol (Chachoengsao) Co.,Ltd, owned	None
	12	Indirect Subsidiary, BBGI Bioethanol Plc., owned	None
	19	Subsidiary, BTSG Co., Ltd, owned	None
	82	Indirect Subsidiary, Winnonie Co., Ltd, owned	None
Property, Plant and Equipment	9,318	Company owned	None
	870	Subsidiary, BCPG Plc., owned	None
	3,424	Subsidiary, Bangchak Sriracha Plc., owned	None
	10	Subsidiary, BBGI Plc., owned	None
	7	Subsidiary, BCP Trading Co., Ltd, owned	None
	48	Subsidiary, Bangchak Retail Co., Ltd, owned	None
Rental space	5	Company owned	None
	5	Subsidiary, Bangchak Sriracha Plc., owned	None
	675	Indirect Subsidiary, OKEA ASA, owned	None
Oil Terminal	297	Company owned	None
Power purchase agreement	841	Subsidiary, BCPG Plc., owned	None
Exploration and evaluation expenditure	711	Indirect Subsidiary, OKEA ASA, owned	None

Asset	Book value Baht million ¹	Ownership	Obligation
Right to use and cost of development of computer software	390	Company owned	None
	20	Subsidiary, BCPG Plc., owned	None
	285	Subsidiary, Bangchak Sriracha Plc., owned	None
	6	Subsidiary, Bangchak Retail Co., Ltd, owned	None
	5	Indirect Subsidiary, BBGI Bio Diesel Co., Ltd, owned	None
	1	Indirect Subsidiary, BBGI Bioethanol (Chachoengsao) Co., Ltd, owned	None
	19	Indirect Subsidiary, BBGI Bioethanol Plc., owned	None
Right to connect electrical transmission line	1,282	Subsidiary, BCPG Plc., owned	None
Power purchase agreement and assets under concession agreement	7,864	Subsidiary, BCPG Plc., owned	None
Intangible assets under development	195	Subsidiary, BCPG Plc., owned	None
	3	Indirect Subsidiary, Winnonie Co., Ltd, owned	None
Customer Contracts	588	Subsidiary, BCPG Plc., owned	None
	850	Subsidiary, Bangchak Sriracha Plc., owned	None
Right to invest in project under concession agreement	308	Subsidiary, BCPG Plc., owned	None
Total	151,414		28,655

Note:

^{1/} During 2023, the impairment loss comprises oil exploration and production assets, machinery, equipment refinery plants, equipment solar plant and intangible under development in the amount of Baht 4,767 million.

^{2/} Platinum catalysts: platinum-based catalysts (found in the octane enhancement unit's reactor), the contents of which are set by their producers.

1. Right-of-use

The Company has a land lease agreement with the Treasury Department. It is a the ratchaphatsadu land lease agreement where Bangchak Refinery Prakanong is located. The Company has renewed the lease for the second time with a renewal fee of 551.63 million baht and annual rental payment. The right to use has the remaining book value of 345 million baht. The term of the lease starts from April 1, 2015, and expires on March 31, 2033. The remaining contract is 10 years.

2. Intangible assets

Intangible assets of the Company consist of Right to use and cost of development of computer software, Right to connect electrical transmission line, Power purchase agreement, Power purchase agreement and assets under concession agreement and Exploration and evaluation expenditure.

Trademarks

Trademark	Number of registered trademarks	Goods/services under trademark	Expiry ¹
Copyrights			
1. Bangchak leaf	11	All fuels, cold tissue paper, pure drinking water, plastic polymers, pens, pencils, notebooks, folders, asphalt, activated carbon	Aug. 30, 2029 Oct. 15, 2029 Aug. 20, 2026
2. GRENA ZENITH SJ	1	Lubricant	Nov. 5, 2026
3. ISO GREEN	1	Gasoline	Jun. 30, 2024
4. GE GOLD	7	Synthetic gasoline-engine lubricant Semi-synthetic gasoline-engine lubricant	Jan. 15, 2027 Nov. 19, 2031 Dec. 24, 2031 Feb. 12, 2032 Jan. 13, 2033
5. GE PLUS	4	Gasoline-engine lubricant	Jan. 15, 2027 Nov. 19, 2031 Dec. 24, 2031 Jan. 13, 2033
6. GE SILVER	3	Semi-synthetic gasoline-engine lubricant	Nov. 4, 2024 Jan. 15, 2027 Dec. 24, 2031
7. Green Plus	1	Gasoline	Sep. 14, 2024
8. Green Plus 91	1	Gasoline	Sep. 14, 2024
9. Green Plus 95	1	Gasoline	Sep. 14, 2024
10. LOWCOST	1	All fuels	Jun. 23, 2025
11. D3 GOLD	2	Synthetic diesel-engine lubricant	Oct. 9, 2033 Jan. 15, 2027
12. D3 COMMONRAIL	1	Diesel-engine lubricant	Oct. 30, 2028
13. D3 TURBO PLUS COMMONRAIL	1	Semi-synthetic diesel-engine lubricant	Oct. 30, 2028
14. D3 Max	1	Diesel-engine lubricant	May 14, 2027
15. D3 EXTRA PLUS	1	Diesel-engine lubricant	Jan. 15, 2027
16. D3 PICK UP PLUS	1	Diesel-engine lubricant	Jan. 15, 2027
17. D3 TURBO PLUS	1	Semi-synthetic diesel-engine lubricant	Jan. 15, 2027

Trademark	Number of registered trademarks	Goods/services under trademark	Expiry ¹
18. BANGCHAK POWER D	1	High-speed diesel	Jul. 10, 2028
19. SUPER POWER D B5 (EURO 4)	1	High-speed diesel	May 2, 2032
20. SUPER POWER D (EURO 4)	1	High-speed diesel	May 2, 2032
21. GE NGV	1	Semi-synthetic gasoline-engine lubricant	Dec. 25, 2031
22. GE PLATINUM	1	Synthetic gasoline-engine lubricant	Dec. 25, 2031
23. Bangchak Max Drive	1	Gasoline Fuel Conditioner	Dec. 25, 2026
24. Super HDX	1	Diesel Fuel Conditioner	Jan. 15, 2027
25. FURIO	1	Lubricant	Mar. 2, 2027
26. FURIO F2	1	Lubricant	Feb. 11, 2028
27. FURIO F2 DIESEL	1	Lubricant	Feb. 11, 2028
28. BCP LUBRICANTS	1	Lubricant	May 2, 2029
29. Krathing	1	Automatic fuel vending machine and coin-operated type	Nov. 25, 2031
30. Bangchak New leaf	1	Fuel products Goods sales management Service stations	Nov. 6, 2032
31. BANGCHAK characters, and Bangchak New leaf	2	Fuel products Goods sales management Service stations	Nov. 6, 2032

Service Marks

Service logo	Number of registered logos	Goods/service under logo	Expiry ¹
Copyrights			
1. Bangchak leaf	3	Goods sales management	Dec. 20, 2028
2. Bangchak colored strips, Bangchak characters, and Bangchak leaf	1	Vehicle service station	Aug. 6, 2033
3. Colored strips and Bangchak leaf	1	Vehicle service station	Aug. 6, 2033
4. Colored strips	1	Vehicle service station	Nov. 3, 2033
5. Bangchak character and colored strips	1	Vehicle service station	Aug. 6, 2033
6. Hornbill photo	2	Goods sales management	Oct. 10, 2026

Service logo	Number of registered logos	Goods/service under logo	Expiry ¹
7. Gold food plate (black & white)	1	Sale of goods, foods, and drinks	Sep. 4, 2033
8. Gold food plate (colored)	1	Sale of goods, foods, and drinks	Sep. 4, 2033
9. GREEN AUTO SERVICE	1	Automotive maintenance & repair	Jul. 24, 2025
10. GREEN SERVE	1	Automotive maintenance & repair	Sep. 1, 2025
11. Green Wash	1	Automotive maintenance & Vehicle cleaning	Sep. 1, 2025
12. GREEN WASH AUTOCARE	2	Automotive maintenance & Vehicle cleaning	Jul. 25, 2026
13. GREEN WASH EXPRESS	1	Automotive maintenance & Vehicle cleaning	Jul. 25, 2026
14. GREEN BIKE EXPRESS	1	Automotive maintenance & Motorbike maintenance	Jul. 25, 2026
15. GREEN TYRE EXPRESS	2	Tyre sale & mending	Aug. 15, 2026
16. Baichak	1	Food & drink sale	Mar. 15, 2031
17. Baichak Mart	2	Food & fresh coffee business management, Miscellaneous goods for consumers' convenience	Apr. 1, 2033 Jan. 18, 2032
18. Bangchak colored strips, three colors leaf	1	ehicle service station	Sep. 24, 2033
19. BUBBLY TEA	1	Food & drink sale	Jun. 4, 2024
20. HURRICANE ICE	1	Food & drink sale	Jun. 4, 2024
21. MILK AND BREAD	1	Food & drink sale	Jun. 4, 2024
22. LOWCOST	1	Vehicle service station	Apr. 28, 2025
23. RESPOPLEX	1	Technology	Aug. 28, 2027
24. FURIO MOTO EXPRESS	1	Vehicle service station / Vehicle maintenance/ oil changes	Jun. 27, 2032
25. FURIO CARE	1	Vehicle service station / Vehicle maintenance/ oil changes	Jun. 27, 2032

Trademarks and Service Marks advertised abroad

Trademark	Number of registered trademarks	Goods/services under trademark	Expiry ¹
1. Bangchak leaf and Chinese characters (registered in PRC (China))	1	Gasoline, diesel, and lubricants	Dec. 27, 2030
2. Bangchak leaf and BANGCHAK LUBRICANTS (Registered in Myanmar) ²	1	Fuel products	-
3. Bangchak leaf and BCP LUBRICANTS (Registered in LPDR (Laos)) ²	1	Fuel products	Mar. 20, 2033
4. Bangchak leaf and BCP LUBRICANTS (Registered in Myanmar) ²	1	Fuel products, service stations	-
5. Bangchak leaf and characters (Registered in Myanmar) ²	2	Fuel products, service stations	-
6. Bangchak leaf and BCP LUBRICANTS (Registered in LPDR (Laos)) (Registered in Vietnam)	2	Fuel products	Mar. 20, 2033
7. Bangchak leaf and BCP LUBRICANTS (Registered in Vietnam)	1	Fuel products	Jul. 13, 2032
8. Bangchak leaf and BCP LUBRICANTS (Registered in Cambodia)	1	Fuel products	Jul. 5, 2032
9. Bangchak leaf and BCP LUBRICANTS (Registered in Lebanon)	1	Fuel products	Feb. 26, 2029
10. Bangchak leaf and BCP (Registered in Myanmar) ²	2	Fuel products & Vehicle service station	-
11. Bangchak leaf and BANGCHAK (Registered in Cambodia)	2	Fuel products & Vehicle service station	Nov. 20, 2033
12. Bangchak leaf (Registered in PRC (China))	1	Fuel products	Jan. 6, 2031
13. Bangchak leaf and BCP LUBRICANTS (Registered in Philippines) ³	1	Fuel products	Sep. 10, 2025
14. Bangchak leaf and BCP LUBRICANTS (Registered in Malaysia)	1	Fuel products	Jun. 10, 2025
15. BAICHAK MART (Registered in PRC (China))	1	Miscellaneous goods for consumers' convenience	Jan. 27, 2025
16. BAICHAK MART (Registered in LPDR (Laos))	1	Miscellaneous goods for consumers' convenience	Dec. 5, 2024
17. GREEN SERVE (Registered in LPDR (Laos))	1	Vehicle maintenance	Dec. 5, 2024
18. Bangchak leaf and BANGCHAK (Registered in PRC (China))	1	Service stations	Jan. 27, 2025

Trademark	Number of registered trademarks	Goods/services under trademark	Expiry ¹
19. Bangchak leaf and BANGCHAK (Registered in LPDR (Laos))	2	Fuel products, service stations	Dec. 5, 2024
20. Bangchak leaf and BANGCHAK (Registered in Vietnam)	2	Fuel products, service stations	Sep.30, 2033 Nov. 19, 2033
21. Bangchak leaf and BCP (Registered in PRC (China))	2	Fuel products, service stations	Jan. 13, 2025 Oct. 20, 2025
22. Bangchak leaf and BCP (Registered in LPDR (Laos))	2	Fuel products, service stations	Dec. 5, 2024
23. Bangchak leaf and BCP (Registered in Vietnam)	1	Fuel products, service stations	Sep.30, 2033
24. Bangchak leaf and Bangchak (Registered in Cambodia)	2	Fuel products, service stations	Oct. 1, 2033
25. Bangchak leaf and BCP (Registered in Cambodia)	2	Fuel products, service stations	Oct. 1, 2033
26. Bangchak leaf and BCP LUBRICANTS (Registered in LPDR (Laos))	1	Fuel Products	Jan. 17, 2024
27. Bangchak leaf and BANGCHAK (Registered in PRC (China))	1	Fuel Products	Jan. 27, 2025
28. Bangchak leaf and BCP LUBRICANTS (Registered in PRC (China))	1	Fuel Products	Aug. 13, 2025
29. Bangchak leaf and BCP LUBRICANTS (Registered in Turkmenistan)	1	Fuel Products	Jun. 23, 2025
30. FURIO (Registered in Myanmar) ²	1	Fuel products	-
31. FURIO (Registered in LPDR (Laos)) ³	1	Fuel products	Aug. 16, 2028
32. FURIO (Registered in LPDR (Laos))	1	Fuel products	Apr. 2, 2029
33. FURIO (Registered in PRC (China))	1	Fuel products	Feb. 6, 2029
34. FURIO (Registered in Cambodia)	1	Fuel products	Apr. 4, 2028
35. FURIO (Registered in Vietnam)	1	Fuel products	Apr. 2, 2028
36. New Bangchak leaf and BANGCHAK character (Registered in LPDR (Laos))	1	Fuel products, service stations	Nov. 23, 2032
37. New Bangchak leaf and BANGCHAK character (Registered in Myanmar) ²	1	Fuel products, service stations	-
38. New Bangchak leaf (Registered in PRC (China))	1	Fuel products, service stations	Jun. 13, 2033
39. New Bangchak leaf and BANGCHAK character (Registered in PRC (China))	1	Fuel products, service stations	Jun. 13, 2033

Trademarks and Service Marks under deliberation in Thailand

Trademark	Number of registered trademarks	Goods/services under trademark	Remarks
1. MIDORI	1	Sanitizer & supplements	Filed Oct. 22, 2020
2. Color bar and Bangchak leaf	3	Vehicle service station	Filed Aug. 9, 2022
3. New Bangchak leaf	1	Fuel products Merchandising Management Service station	Filed Nov. 7, 2022
4. New Bangchak leaf and BANGCHAK character	2	Fuel products Merchandising Management Service station	Filed Nov. 7, 2022
5. New Bangchak leaf and BCP LUBRICANTS character	1	Lubricant	Filed Jun. 21, 2023

Trademarks and Service Marks under deliberation abroad

Trademark	Number of registered trademarks	Goods/services under trademark	Remarks
1. Bangchak leaf and BCP LUBRICANTS (Registered in Iraq)	1	Fuel products	Filed on Aug. 3, 2015
2. Bangchak leaf and BCP LUBRICANTS (Registered in Bangladesh)	1	Fuel products	Filed on Nov. 18, 2019
3. New Bangchak leaf (Registered in Cambodia)	1	Fuel products Service station	Filed on Nov. 21, 2022
4. New Bangchak leaf and BANGCHAK character (Registered in Cambodia)	1	Fuel products Service station	Filed on Nov. 21, 2022
5. New Bangchak leaf and BANGCHAK character (Registered in Vietnam)	1	Fuel products Service station	Filed on Nov. 22, 2022
6. New Bangchak leaf and BCP LUBRICANTS character (Registered in Cambodia)	1	Fuel products	Filed on Jul. 10, 2023
7. New Bangchak leaf and BCP LUBRICANTS character (Registered in LPDR (Laos))	1	Fuel products Service station	Filed on Jul. 6, 2023
8. New Bangchak leaf and BCP LUBRICANTS character (Registered in PRC (China))	1	Fuel products Service station	Filed on Jul. 6, 2023
9. New Bangchak leaf and BCP LUBRICANTS character (Registered in Vietnam)	1	Fuel products	Filed on Jul. 4, 2023

Trademark	Number of registered trademarks	Goods/services under trademark	Remarks
10. New Bangchak leaf and BCP LUBRICANTS character (Registered in Philippines)	1	Fuel products	Filed on Jul. 4, 2023
11. New Bangchak leaf and BCP LUBRICANTS character (Registered in Malaysia)	1	Fuel products	Filed on Jul. 4, 2023
12. New Bangchak leaf and BCP LUBRICANTS character (Registered in Myanmar)	1	Fuel products	Filed on Jul. 11, 2023
13. New Bangchak leaf and BCP LUBRICANTS character (Registered in Jordan)	1	Fuel products	Filed on Nov. 23, 2023
14. New Bangchak leaf and BCP LUBRICANTS character (Registered in Kenya)	1	Fuel products	Filed on Nov. 8, 2023
15. New Bangchak leaf and BCP LUBRICANTS character (Registered in OAPI) ⁴	1	Fuel products	Filed on Nov. 16, 2023

Remarks: ¹ Registered trademarks and service logos are in effect 10 years from registration dates and extendable every 10 years.

² 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.

³ In registering trademarks in Philippines, one must submit Declaration of Actual Use within 3 years from filing.

⁴ OAPI countries: Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Comoros, Congo, Equatorial Guinea, Gabon, Guinea, Guinea Bissau, Ivory Coast, Mali, Mauritania, Niger, Senegal, and Togo.

Patent and Petty Patent

Patent / Petty Patent	Assignee	Expiry date ¹
1. Gallon design patent	Bangchak	Feb. 19, 2028
2. Gallon design patent	Bangchak	Feb. 19, 2028
3. Lid design patent	Bangchak	Feb. 19, 2028
4. Oil cone design patent	Bangchak	Feb. 19, 2028

Remark: ¹ Product design patents are valid for 10 years from the date of application

Policy of investment in subsidiaries and associates

Bangchak's investment policy for businesses is based on a combination of factors to support and promote its own businesses, including business growth trends, investment that adds value and is economically sound, and contribution to Bangchak's competitiveness. Investment is made through itself, subsidiaries, associates, or other companies, with the main consideration on suitability and potential of the company in question.

Bangchak has defined its affiliate governance guidelines for operations of a uniform standard and alignment with Bangchak's policy, underlined by corporate governance.

Credit Policy

Bangchak and subsidiaries have established guidelines for trade credit and formulate a credit policy and credit management to be a guideline for reviewing, monitoring and supervising those involved to take appropriate action against the Group's risks. Continual review of the trade credit policy to comply with economic conditions and market competition or when there are significant changes in related policies. To set the credit limit and the terms of payment must be consistent with the quantity and value of the products that will be purchased from the Group, debt servicing ability and consider each customer's risks through approval by the Company's authorized person.



1.3 Shareholding Structure

Vayupak Fund 1
19.84%

Thai NVDR
14.94%

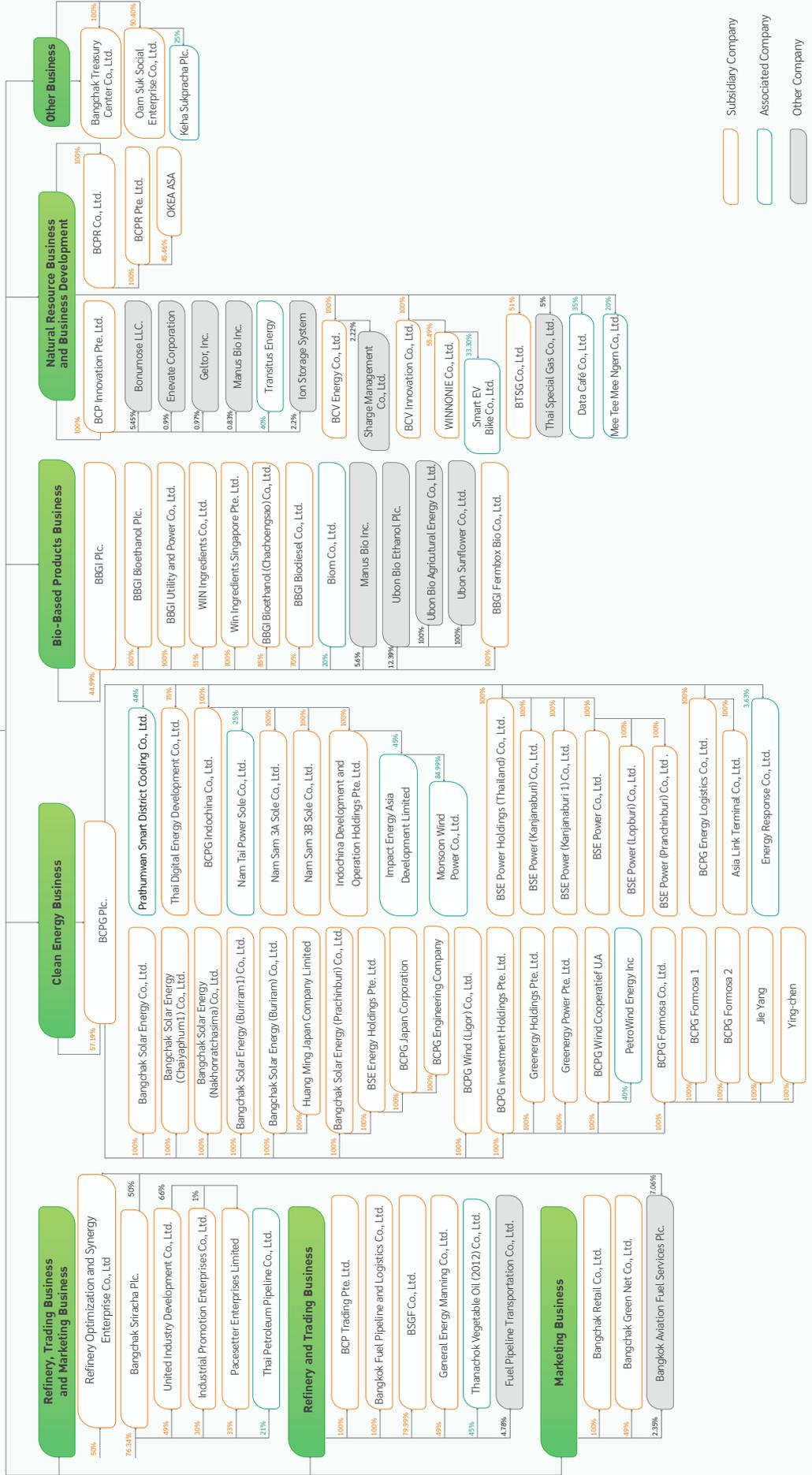
Social Security Office
14.27%

Ministry of Finance
4.76%

Public
46.19%

The date to list shareholders is September 7, 2023

Bangchak Corporation Plc.
Registered Capital and Paid-up Capital Baht 1,376,923,157



Refinery and Oil Trading and Marketing Business Group

Bangchak Sriracha Public Company Limited

Bangchak Sriracha Public Company Limited, formerly Esso (Thailand) Public Company Limited, operates a modern complex refinery with a crude oil refining capacity of 174,000 barrels per day. It contains an aromatics plant with a capacity of 500,000 tons per year of paraxylene and produces value-added products such as solvents and asphalt. The plant yields mostly premium products in the gasoline and diesel groups. New equipment had been installed and connected to improve oil quality and meet the EURO 5 standard in accordance with governmental policies. The Company currently holds a 76.34% stake in the company.

Refinery Optimization and Synergy Enterprise Company Limited

Refinery Optimization and Synergy Enterprise Company Limited (ROSE) is jointly established by Bangchak and Bangchak Sriracha Public Company Limited with the registered capital of one million baht to provide planning and operational services to Bangchak Phra Khanong Refinery and Bangchak Sriracha Refinery to achieve maximum production efficiency, cost reduction, and economic cost benefits, as well as to create transparency for all stakeholders. Each Bangchak and BRSC hold 50% shares in ROSE.

Refinery and Oil Trading Business Group

Bangchak Phra Khanong Refinery is a modern complex refinery with a daily installed capacity of 120,000 barrels. It won the Global Performance Excellence Award 2023 in the World Class category. Continuous improvements are being made at the plant to maximize production efficiency as part of a business process redesign under the Focus Analysis Success Transform+ (FAST+) initiative. As a result, the refinery can develop high-value specialty products while emitting lower carbon dioxide than national standard levels, lower than the benchmark for domestic and international refineries. It is a leader in low-carbon, environmentally-friendly energy and products.

BCP Trading Pte. Ltd.

BCP Trading Pte. Ltd. (BCPT) was incorporated in Singapore in the trading of crude oil, petroleum products, petrochemicals, other chemicals, as well as various specialty components, including bio fuels and related businesses. The registered capital of BCPT is USD 30 million.

Bangkok Fuel Pipeline and Logistics Co., Ltd. (BFPL)

BFPL engages in the business of fuel transportation and logistics. 100% of all issued shares are held by the Company. BFPL currently operates underground multi product petroleum pipeline to transport products starting from the pumping station in Bangchak Phra Khanong Refinery through Chong Nonsi oil terminal to Don Mueang terminal to the Company's terminal oil in Bang Pa-in district. The pipeline is connected from Makkasan area to Suvarnabhumi Airport to transport jet fuel.

BSGF Co., Ltd. (BSGF)

BSGF Co., Ltd., was jointly established among the Company, BBGI Plc., and Thanachok Oil Light Co., Ltd., to produce sustainable aviation fuel (SAF) from used cooking oils. The registered capital of BSGF is 2,201 million baht and 79.99% of all issued shares are held by the Company.

General Energy Manning Co., Ltd. (GEM)

GEM engages in the business of recruitment and human resource management. The registered capital is 1 million baht and 49% of all issued shares are held by the Company.

Thanachok Vegetable Oil (2012) Co., Ltd.

The Company holds 45% as part of the strategy to manage Used Cooking Oil (UCO), raw materials for the production of Sustainable Aviation Fuel, or SAF) of BSGF Co., Ltd.

Fuel Pipeline Transportation Ltd. (FPT)

4.78% of all issued shares are held by the Company. FPT currently operates underground multi product petroleum pipeline to transport products starting from the pumping station in the Company's oil terminal in Bang Pa-in district to the north at Phichit Oil terminal and Lampang Oil terminal.

Marketing Business Group

The marketing business group aims to deliver Greenovative Experience through 2,219 service stations (1,389 service stations operated by the Company and 830 service stations acquired through BSRC), supplemented with non-oil businesses such as Inthanin coffee, lubricants, FURiO, EV Charger, etc., as well as cooperation with various food partners, and use the digital system to deliver a modern, convenient, and safe experience to customers.

Bangchak Retail Co., Ltd. (BCR)

Its registered capital is 1,500 million baht and 100% of its issued shares are held by the Company. BCR engages in the food and drinks business to accommodate continuous growth in the retail business. BCR now has 1,020 Inthanin coffee shops (as of December 31, 2023).

Bangchak Green Net Co., Ltd. (BGN)

Its registered capital is 1 million baht and 49% of all issued shares are held by the Company. BGN engages in service station administration and sales management of consumer products at Baichak shops.

Bangkok Aviation Fuel Services Public Company Limited (BAFS)

The paid up capital of Bangkok Aviation Fuel Services Public Company Limited is 637,496,657 baht and 2.35% of issued and paid up shares are held by the Company. It provides aircraft fuel services at Suvarnabhumi Airport, Donmuang Airport and three provincial airports (Samui, Sukhothai and Trad).

The Clean Power Business Group

The Company invests in electricity generation from clean energy business by holding 57.42% in BCPG Public Company Limited or BCPG. BCPG issued ordinary shares for the first public offering on the Stock Exchange of Thailand (SET) on September 28, 2016. BCPG operates and invests in electricity generation from various clean energy domestically and internationally, such as in solar power and wind power electricity production.

BCPG Public Company Limited

BCPG Public Company Limited (BCPG) has a registered capital of 16,508.5 million baht. It operates and invests in various types of clean energy power generation domestically and internationally. As of the end of 2023, the total production capacity was 2,025.2 MW. (Last year, BCPG installed electrical lines and commenced commercial production of a hydroelectric plant in Laos-Vietnam).

Bio-based Products Business Group

Recognizing the significance of renewable energy in reducing trade deficits from imported fuels, enhancing national energy security, supporting farmers and conserving the environment, the Company advocates the blending of ethanol with gasoline, and biodiesel with diesel to form assorted graded of gasohol and biodiesel. The Company invests in bio-based products through shareholding in BBGI Public Company Limited (BBGI).

BBGI Public Company Limited (BBGI)

BBGI was incorporated through a merger between BBP Holdings Co., Ltd. (BBH), a subsidiary of the Company, and KSL GI Co., Ltd. (KSLGI), a subsidiary of Khon Kaen Sugar Industry Plc. with a registered capital of 2,532 million baht. In April 2018, it registered conversion into BBGI Public Company Limited and increased its registered capital to 3,615 million baht by issuing 433.20 million ordinary shares with a par value of 2.50 baht per share and offering for sale to the existing shareholders of BCP, KSL, those who are entitled to share allocation and offering shares to the public. Its shares was traded on the SET since March 17, 2022. Currently, the Company holds 45% of BBGI's shares. BBGI engages in business manufactures and distributes ethanol, biodiesel, and by-products. BBGI's subsidiaries and associates have a total capacity of 1,800,000 liters per day (800,000 liters per day of ethanol and 1,000,000 liters per day of biodiesel).

Natural Resources Business Group

This business group, one of the Company's five core businesses, is in charge of the development of upstream petroleum businesses and battery energy storage systems, namely the petroleum exploration and production (E&P) business and the lithium mining business. The Company founded BCPR Co., Ltd., in Thailand, and BCPR Pte. Ltd. in Singapore, to engage in the petroleum E&P business. BTSG Co., Ltd., was established in Thailand, to engage in liquefied natural gas business and BCP Innovation Pte. Ltd., was established in Singapore, to engage in the lithium mining business and start-up.

BCP Innovation Pte. Ltd.

BCP Innovation Pte. Ltd. (BCPI), wholly owned by the Company, was incorporated in Singapore with a registered capital of USD 53.3 million to engage in the lithium mining business and other startup businesses. Currently, BCPI has the right to purchase lithium under the Lithium Purchase Agreement with Lithium Americas Corp. of up to 6,000 tons per year from the Cauchari-Olaroz project and has invested in many startup businesses such as Bonumose LLC., Enevate Corporation, Geltor, Inc., Manus Bio Inc., Ion Storage System.

BCPR Co., Ltd. (BCPR)

On July 12, 2018, the Company established a wholly owned BCPR Co., Ltd., in Thailand, which today has 661 million baht in registered capital (6.61 million shares at 100 baht per share). The objective is to engage in business operations by investing in natural resource businesses. BCPR has now invested in BCPR Pte. Ltd., in Singapore to invest jointly in OKEA ASA, which engages in petroleum development and production in Norway.

BCPR Pte. Ltd.

BCPR Pte. Ltd., was incorporated in Singapore on July 12, 2018, with a registered capital of USD 18.2 million and is wholly owned by BCPR Co., Ltd. It engages in foreign energy, petrochemical, and natural resources businesses and currently invests in OKEA ASA, which engages in local petroleum exploration, development and production in Norway.

OKEA ASA

OKEA ASA, a listed company in the Norwegian Stock Exchange, engages in Norway's petroleum exploration, development and production. BCPR Pte. Ltd., the Company's subsidiary, holds 45.44% shares in OKEA ASA. OKEA ASA operates the Draugen, Gjoa, Ivar Aasen and Yme oil and gas fields (production commenced in Q4 2021) and holds or is developing the Grevling, Aurora, Falk oil and gas fields and several other fields in Norway, i.e., Hasselmus, Hamlet, Aurora. In addition, OKEA ASA is the operator of many fields.

BTSG Co., Ltd. (BTSG)

BTSG has 200 million baht in registered capital, in which the Company holds 51%, to engage in the supply and distribution of liquefied natural gas and related businesses.

Thai Special Gas Co., Ltd. (TSG)

TSG has the registered capital of 50,000,000 baht and 5% of total issued shares are held by the Company. TSG operates the business of supplying, bottling, and selling industrial gases. This also includes design, equipment, and system installation, selling of tools and equipment, and testing services of equipment such as industrial gas tanks.

Bangchak Initiative and Innovation Center (BiIC)

To pursue the position of the leading Asian Greenovative group, the Company expands its investment in emerging energy innovation such as lithium, used in the manufacturing of batteries for electrical vehicles (EVs) and extending bio-based products to add value to its current biofuel products. The Company set up venture-capital companies to engage or jointly invest in 10 domestic startup businesses, promoted by the government.

BCV Energy Co., Ltd. (BCVE)

BCVE, wholly owned by the Company, was incorporated with a registered capital of 1,020 million baht to engage in the venture capital business for funding domestic startups relating to energy innovation.

BCV Innovation Co., Ltd. (BCVI)

BCVI, wholly owned by the Company, was incorporated with a registered capital of 165.1 million baht to engage in the venture capital business for funding domestic startups relating to innovation.

Winnonie Co., Ltd. (Winnonie)

Winnonie has the registered capital of 90.1 million baht and 55.49% of its total issued shares are held by BCVI. It engages in electric motorcycles and battery replacement services, including related businesses that align with the Company's goal, leadership in green energy innovator. In November 2023, Smart EV Bike Co., Ltd. was established and 33.3% of total issued shares are held by Winnonie. It runs an electric motorcycle leasing business to cater to motorcycle taxis operating near BTS sky train stations, and other related businesses.

Transitus Energy Ltd.

The Company holds 40% of shares in hydrogen energy business in Europe.

Data Cafe Co., Ltd.

It has registered capital of 12.3 million baht and 35% of issued shares are held by the Company, It engages in business of providing services for personnel in information technology to various business organizations such as telecommunication financial institution and energy business.

Mee Tee Mee Ngern Co., Ltd.

It has a registered capital of 1,000 million baht and 20% of issued shares are held by the Company. It operates a land loan and consignment business.

Other Company

Bangchak Treasury Center Co., Ltd. (BCTC)

Bangchak Treasury Center Company Limited was established to support the expansion of the Company's business by helping to increase efficiency in liquidity management, foreign currency management of companies in Bangchak Group, receiving additional tax benefits, reducing cost and increasing in foreign exchange management flexibility. As a result, it increases competitiveness of companies in Bangchak Group consistent with policies, strategies and business development to increase business value and create continuous growth of the company.

Oam Suk Social Enterprise Co., Ltd.

It has the registered capital of 126 million baht and 50.4% of all issued shares are held by the Company. It engages in the purchase of agricultural produce and organic crops for processing, marketing, distribution, and R&D.

1.4 Registered Capital and Paid-up Capital

The Company's registered capital and paid up capital is 1,376,923,157 baht. An equal number of common shares were issued at a par value of one baht each.

Shareholders

Top 10 Major Shareholders (as of September 7, 2023)	Number of Shares	Shareholding (%)
1. Thai NVDR Company Limited	205,663,638	14.94
2. Social Security Office	196,497,697	14.27
3. Vayupak Fund 1, managed by Krung Thai Asset Management PLC	136,586,300	9.92
4. Vayupak Fund 1, managed by MFC Asset Management PLC	136,586,300	9.92
5. Ministry of Finance	65,543,767	4.76
6. SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	44,373,198	3.22
7. Bangkok Life Assurance PLC	24,154,700	1.75
8. Mrs. Somsong Lapananrat	18,723,700	1.36
9. THE BANK OF NEW YORK MELLON	18,631,105	1.35
10. STATE STREET EUROPE LIMITED	16,318,915	1.19
Top 10 Total	863,079,320	62.68
Grand Total	1,376,923,157	100.00

Shareholders through Thai NVDR Company Limited

holding shares at least 0.5 percent of the paid up capital of the company

Top 10 Major Shareholders (as of September 7, 2023)	Number of Shares	Shareholding (%)
1. STATE STREET BANK AND TRUST COMPANY	38,999,600	2.83
2. STATE STREET EUROPE LIMITED	36,004,369	2.61
3. SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	22,176,217	1.61
4. J.P. MORGAN SECURITIES PLC	17,132,180	1.24
5. BNY MELLON NOMINEES LIMITED	11,525,219	0.84
6. UBS AG LONDON BRANCH	11,326,220	0.82
7. MORGAN STANLEY & CO. INTERNATIONAL PLC	7,581,800	0.55
Total	144,745,605	10.50

Source: <https://www.set.or.th/en/market/product/stock/quote/BCP/major-shareholders>

Remark(s): - Investors can examine updated shareholders' information at Bangchak's website before the AGM

1.5 Issuance of Other Securities

Debentures

On September 28, 2023, Bangchak earned “A” credit rating for the organization and unsubordinated and unsecured debentures and subordinated bond at BBB+ Level, Stable Outlook by TRIS Rating Co., Ltd.

As of December 31, 2023, Bangchak has total outstanding debentures of 50,100 million baht as detailed below

Debenture	Value (million baht)	Interest rate (%/year)	Maturity (years)	Redemption Date
BCP244A	3,500	5.18	10	April 11, 2024
BCP258A	600	3.42	7	August 10, 2025
BCP258B	4,500	2.84	3	August 25, 2025
BCP260A	3,000	3.60	4	October 21, 2026
BCP26NB	3,000	3.45	3	November 2, 2026
BCP26NA	1,000	2.29	5	November 5, 2026
BCP273A	2,000	4.72	12	March 3, 2027
BCP275A	500	3.00	7	May 8, 2027
BCP278A	2,000	3.26	5	August 25, 2027
BCP28DA	7,000	4.04	10	December 20, 2028
BCP29NA	1,400	3.11	8	November 5, 2029
BCP303A	1,000	5.05	15	March 3, 2030
BCP305A	4,500	3.40	10	May 8, 2030
BCP31NA	2,600	3.43	10	November 5, 2031
BCP328A	3,500	4.00	10	August 25, 2032
BCP19PA	10,000	5.00	100	March 3, 2119

Bill of Exchange

As of December 31, 2023, the Company has 1 outstanding bill of exchange worth 2,000 million baht, which is due for redemption on January 9, 2024.

1.6 Dividend Policy

- Bangchak Corporation Public Company Limited**

The Company has the policy of paying out dividend to the shareholders at the rate of not less than 30 percent of net profit after deduction of allocation of all reserve as required by law and the Articles of Association. However, this is subject to the economic situation, the Company's cash flow and the Company's and its subsidiaries' investment plans according to the necessity, appropriateness and other consideration as the Board of Directors deems appropriate.

Dividend Payment History

years	Earnings per share (baht/share)	Annual dividend (baht/share)	Dividend payout ratio (%)
2017	4.07	2.15	53
2018	1.79	1.35	75
2019	1.18	0.80	68
2020	(5.50)	0.40	-
2021	5.25	2.00	38
2022	8.89	2.25	25
2023 (First Half)	2.16	0.50	23

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

BCPG Public Company Limited

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

BBGI Public Company Limited

This company has the policy to pay out dividends to the shareholders at the rate of not less than 40 percent of net profit after deduction of allocation of reserve as required by laws and its Articles of Association. Note that its Board may decide to set different dividend payment periods and rates from this or not pay dividend at all, depending on its performance, financial positions, cash flows, working capital, liabilities, terms and restrictions stipulated in loan agreements, terms governing the company's rights and responsibility as the bond issuer, its company Group's investment plans and business growth, as well as the state of the economy and the market, other needs, factors, and related considerations as the Board deems appropriate.

Once this company's Board has endorsed an annual dividend payment, it must seek the shareholders' approval at the AGM, except for interim dividend, which falls under the Board's authority. The Board is required, however, to report to the shareholders at their next meeting.

Bangchak Sriracha Public Company Limited

The dividend policy previously adopted by this company's Board of Directors is to recommend to shareholders a dividend of not less than 40% of net profits after deduction of all specified reserves, subject to this company's investment plans, applicable laws, contingencies and other relevant considerations. The actual dividend payout ratio may vary above or below the level indicated in the dividend policy and is subject to other risk factors.

Bangchak Green Net Company Limited

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 declared and shall be paid on the date specified in the resolution of the annual general meeting of shareholders (AGM). For a given year, if the company's profit is insufficient to fully pay a dividend to all holders of preferred shares, all dividends shall be paid from such profit to holders of preferred shares only, and none shall 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 on a case by case basis.

2. Risk Management

2.1 Risk Management Policy and Plans

For the past nineteen years, the Company has applied risk management frameworks within the organization. This includes adopting international standards such as COSO, ERM and ISO 31000 to guide management practices aimed at preventing and mitigating various risks that may hinder the organization from achieving its objectives and to instill confidence in stakeholders that the Company can operate within the continuously volatile environment of today. Accordingly, executives and employees at all levels within the organization, including associated companies, enforce operations in accordance with the standardized risk management system in conjunction with strategic organizational planning processes that align with the policy of developing businesses sustainably in tandem with environmental, social, and governance (ESG) priorities. The Company continually monitors risks on a quarterly basis, with a board-appointed Enterprise-wide Risk Management Committee overseeing the achievement of the collective business objectives according to the organizational risk management structure depicted in the following diagram.



The Enterprise-wide Risk Management Committee (ERMC) is responsible for setting strategic risk management policies, developing risk management systems, fostering collaboration in risk management at all levels of the organization, and ensuring that the company effectively manages risks. Additionally, there is an organization-wide Risk Management Subcommittee (RMC), which is responsible for developing risk management systems, setting policies and objectives for risk management, generating, reviewing, and implementing risk management plans, monitoring the progress of operations according to the risk management plans, and reviewing internal and external change factors in the business environment. Furthermore, the Organization's Strategy and Risk Management Division and the Strategy and Organization Planning Division, which report directly to the Executive Vice President of the Bangchak Group's Sustainable Strategy and Risk Management, are responsible for implementing the organization's risk management system and monitoring and driving organizational-level risk management in operations. In regard to risks at the business group and/or department level, managers are appointed to oversee risk management and report to Senior Executive Vice President of the respective business group and/or department. Risk Coordinators are also appointed to enforce operations in risk management activities within each department, including organizational-level risks originating from those business groups and/or departments.

In monitoring and reviewing the results of risk management operations, the Internal Audit Department is responsible for regularly auditing risk management activities according to approved cycles and reporting to the Audit Committee (AC) to ensure that internal audits are adequate and effective in managing and controlling risks independently. Recent risk management audits were conducted in 2021 in collaboration with the Audit Committee and the Enterprise-wide Risk Management Committee and through meetings for mutual understanding regarding risk issues and appropriate internal audit procedures.

Risk Management Results

In 2023, the global economy began to recover from the COVID-19 pandemic. Simultaneously, the Russia-Ukraine conflict continues to persist, intensifying global geopolitics and affecting the overall economic landscape. The global economy recovered slowly amid high inflation rates, rising interest rates, climate change issues, safety, impacts on the environment as well as society and community, legal compliance, anti-corruption efforts, cybersecurity threat monitoring, and changes in government policies. The Company has conducted risk monitoring and assessment, overall impact tracking, and developed risk management plans, involving joint ventures, to ensure risk mitigation and manage potential impacts to business operations to be at an acceptable level. In preparation for the rapidly changing and volatile business landscape in the future, the Company has developed risk management plans and operational strategies, as well as a Scenario Planning that initiated two scenarios; to accommodate expected situations and define trigger points for the adjustment of operational plans to manage changes in the aforementioned situations.

Additionally, to ensure continuity and sustainability in operations, trends and environmental factors in business that are anticipated to change and impact business operations, including Mega Trends and Global Risks, are integrated into the Company's medium and long term risk management. This includes business and industrial competition, economic conditions, consumer behavior, environmental and climate changes due to global warming, energy transition, energy security, and growths in technology and innovations such as renewable energy technology and energy storage, advancements in electric vehicle development, biological technology, and various government policies. It also includes garnering the needs and expectations of stakeholders to analyze the impacts and trends in long term risk management direction together with the formulation of the organization's strategic plan to achieve common sustainability.

2.2 Risks to Bangchak's Operations

Bangchak has grouped its risk management framework into 1) corporate risk management, 2) investment project risk management, and 3) business continuity management, to enable appropriate risk assessment and planning. Progress in these operations is as follows.

2.2.1 Corporate Risk Management

This involves assessing the organization's primary risks, both internal and external factors, including future trends that may impact the short, medium, and long term organization goals, covering risks related to strategy, operations, finance, reputation, and credibility. Severity and likelihood of occurrence are evaluated, and risks are prioritized using a Risk Matrix. Risk levels are divided into four categories: very high, high, moderate, and low. These risks are monitored and observed for potential occurrences through Key Risk Indicators, which include establishing risk appetite and risk tolerance levels and developing additional risk management plans to reduce the impact on operational goals. An example of monitoring of financial risks is a scenario where there is a risk of inventory loss due to fluctuating oil prices, which impacts the Company's earnings before interest, taxes, depreciation, and amortization (EBITDA) which makes this scenario a very high risk category. Thus, to ensure monitoring and mitigation of the impact of this objective, the Company monitors the Dubai Crude Oil price risk index and sets an acceptable risk level at 80 USD per barrel and a tolerance level at 70 USD per barrel, to be used in planning an effective raw material and inventory management. As another example, the reliability risk monitoring through the risk indicators of incident statistics that affect the Company's reliability and cause wide-ranging complaints about the Company falls under the category of a very high-risk level. In this case, the acceptable deviation level is set at no more than one incident. In this aspect, the Company has taken preventive and mitigative measures to reduce risks by implementing the Process Safety Management (PSM) systems in the production process.

The Company has conducted a Sensitivity Analysis which is a part of the financial risk management process. An example of a Sensitivity Analysis: for every 0.1 USD per barrel change in the gross refining margin (GRM), there would be an impact

on the core profit after tax (Core PAT) of approximately 45 million baht. This includes risks from non-financial changes that might affect the operations of the oil refining process and cause service interruptions at gas stations, such as flooding with water levels exceeding 1.7 meters.

In 2023, the Company had seven risk issues at the organizational level that needed monitoring, categorized as follows: fluctuations in crude oil prices, refining costs, the risk of being unable to adjust retail fuel prices at gas stations, the risk of serious accidents, and the risk of complaints from communities or stakeholders to the Company and its subsidiaries. The details are as follows.

Strategies

Economic Uncertainties and Fluctuating Prices of Energy

The supply bottleneck and the Russia-Ukraine war catapulted the prices of energy and consumer goods, while inflation stayed higher than target scopes in several countries, the central banks of many countries resorted to strict monetary policies, and the government tried to maintain the stability of domestic retail fuel prices. To manage these risks, Bangchak commands the following mitigation plan.

- The Refinery and Oil Trading Business Group closely monitored the fluctuating oil prices and implemented measures to mitigate some of the oil price risks including sufficient allocation of funds to support oil procurement for the oil trading business by BCP Trading Pte. Ltd. (BCPT).
- To cope with uncertainty, the Refinery and Oil Trading Business Group aims to develop niche refinery products by producing Unconverted Oil (UO) from the hydrocracking unit for use as feedstock in the production of lube base oils, and paraffin wax for candles, paper coatings, and adhesive industries. There are improvement plans to increase the production capacity of Unconverted Oil (UO) from the hydrocracking unit up to 92 million liters per month. Additionally, there are plans to extend the scheduled Turnaround Maintenance Cycle from every three years to every four years.
- The Marketing Business Group was able to maintain its market share in the number 2 position (according to data from the Department of Energy Business) achieving targets that create unique designs for each station, in combination with the Bangchak brand identity.

Currently, there are 2,219 service stations (1,389 service stations and 830 network service stations acquired through BSRC). The Company has elevated service standards to optimize customer satisfaction through customer empathy, managing customer relations, and service improvement. In addition, it has implemented digitalization to provide better experiences to service customers under the concept of “Your Greenovative Destination.” Furthermore, the Company continues to focus on expanding its non-oil business with its partners. Inthanin coffee shop has a total of 1,020 branches by the end of 2023.

- With the Greenovative Product concept, Bangchak has developed and boosted sales of high-quality products such as Bangchak HI Premium 97, a gasoline with the highest octane rating of 97 available in the market, Bangchak HI Premium Diesel S with the highest Cetane rating in the diesel group, and Bangchak E20 S EVO, a high-quality E20 fuel. Additionally, all three products meet the EURO 5 standards.
- BBGI Plc. has adjusted its ethanol production capacity to meet market demand and changing raw material prices according to its sales management plan in order to mitigate the impact of continuously high raw material prices throughout the year.

Operations

Risks from Changes in Digital Technology and Cybersecurity Threats

The changes in digital technology and cyber threats are external factors that have evolved and become increasingly complex and continue to change rapidly. This is largely due to intense competition and the necessity for businesses to rely more on cutting-edge technology and the interconnectedness of devices and departments through the Internet to enhance business efficiency and create better customer experiences. However, it’s imperative to prioritize the security of the organization’s information technology systems. Therefore, the company has been preparing to take on the development and changes in the aforementioned technology, as well as considering the technology-related risks that could significantly disrupt the current business operations. This is done through the following actions.

- Establishing a Digital Technology Center tasked with planning, monitoring, and sourcing digital technologies to prepare for rapid technological changes, aligning with evolving consumer behaviors. Upgrading processes to

enhance competitiveness and service efficiency, utilizing digital technologies further, such as:

- Digital Payment Project: Implementing digital payment methods via mobile electronic data capture (EDC) to avoid physical contact at service stations. Customers can simply scan QR codes to make payments through mobile banking applications, PromptPay, or tap-to-pay with contactless credit cards through wireless card readers. This allows for the seamless accumulation of Bangchak membership points simultaneously.
- Developing Personalized Marketing by utilizing analytics technology to analyze the behavior of each individual consumer, in order to tailor services that meet their needs and enhance satisfaction in service usage.
- Promoting the transformation of work processes to digitalization to increase efficiency and reduce work time, by selecting various digital tools for work development including robotic process automation (RPA), Power BI, or Power App.
- Establishing a cybersecurity department responsible for planning, tracking, monitoring, testing, and acquiring tools to protect against cyber threats, which are becoming increasingly complex and multiplying every year. ERM emphasizes the importance of monitoring and ensuring risk management readiness in case the business process support systems experience disruptions due to cyber-attacks. This is achieved by procuring additional security tools for the Computer Center, assessing and safeguarding system vulnerabilities, and monitoring risk indicators. Additionally, intelligence on threats is continuously provided to the Monitoring Center through Security System Alert updates. An Incident Response Plan has been developed to prepare against cyber threats, along with regular drills conducted at least once a year to enhance readiness. Additionally, emphasis has been increasingly placed on preventing identity breaches through Multi-Factors Authentication and securing access to critical systems using the Zero Trust principle involving continuous identity verification. Moreover, a data backup system capable of preventing data loss and protecting against data breaches, including ransomware attacks is also in place. There is a backup center in place to support the Company in the event of a serious incident, ensuring uninterrupted business operations and use of information systems. There is also the continuous effort to raise awareness

and provide cybersecurity knowledge to employees, along with regular testing. Additionally, measures are taken to ensure that the systems are secure, leading to certification by the latest ISO 27001 (2022) international standard. Furthermore, there have been enhancements to the data security management system according to ISO 27032 for cybersecurity and ISO 27018 for personal data security management.

- Furthermore, since 2020, the Company has continuously been managing the Refinery Cyber Security System to prevent risks from cyber-attacks or any disruptions that may occur, especially to the oil refining process. The Company has also maintained certification according to the latest ISO/IEC 27001 (2022) standard in Information Security Management, covering the centralized Distributed Control System of the oil refinery. The Company is, therefore, confident that its oil refining process can operate continuously without disruption from cyber-attacks.
- The Company also regularly monitors news and provides knowledge to employees to raise awareness about the importance of information technology security within the organization. Additionally, a regular employee awareness assessment is conducted every quarter.

Risk to Reputation from Social Media

Currently, online communication channels have become the choice for consumers to communicate and exchange opinions about products and services. This allows for a much faster responsiveness to consumer needs. Conversely, in cases where negative or distortive news occurs, it can lead to rapid and widespread dissemination of content, potentially impacting the credibility of the Company. Therefore, a specialized unit has been established to continuously monitor and manage the dynamics of online communication channels to ensure efficiency in communication systems both in normal settings and in crisis situations, reducing the likelihood and impact of potential issues. Additionally, there are plans in place to respond promptly to any crises that may arise.

Finance

Risk of Oil and Feedstock Price Volatility

This impacts the revenue uncertainty in the petroleum business and other business segments of the organization. Therefore, the Company has risk management plans in place to accommodate the fluctuations in oil and raw material prices in both the short and long term, as follows.

- Implementing a monitoring system for oil price movements, price differentials between crude oil and refined oil, and constantly developing price risk management tools in a new format. This involves subcommittees and committees responsible for risk management in pricing and finance, who evaluate and make decisions on options to prevent risks, providing detailed reports to the Company's Board of Directors closely.
- Spreading the risk from the volatility of agricultural raw material prices through investments in the bioproduct business of BBGI Plc., enhancing competitiveness in the production and distribution of biofuel products such as biodiesel and ethanol, and aiming to expand the high value bioproduct business in the future to create added value for the Company.

Social and/or Environmental Risk

Risk of Impacts on Society and Community

With a commitment to conducting business sustainably with communities, society, and the environment, and in recognition of the importance of risk management to reduce impacts on both safety and the environment, the Company has continuously improved and developed its production processes. This is to ensure safety in operations without adverse effects on communities and society. Additional risk management measures include:

- Continuously develop occupational health and safety systems complying with international standards to enhance health and safety in the workplace, and develop systematic operational processes whilst considering risks, opportunities, and legal requirements. The Company has been certified in ISO 45001, ISO 14001, and ISO 50001 standards.
- Manage work-related risks through continuous implementation of Safety Integrity Level, Reliability-Centered Maintenance, and Risk-Based Inspection Systems, covering both equipment and processes, to accurately plan maintenance of various equipment in advance.
- Conduct Hazard and Operability studies (HAZOP) and establish a Process Safety Management system at every stage related to the refining process to ensure compliance with international standards.
- Install online Air Quality Monitoring devices that automatically display the results on screens around the refinery and nearby areas to provide the local community with air quality information, fostering confidence within the society at large.

- Organize activities to provide knowledge and understanding and instill safety awareness within the community surrounding the refinery, especially schools and condominiums, through training on evacuation, firefighting, and basic first aid. Additionally, comprehensive communication and warning systems have been installed throughout the community.

Moreover, in overseeing businesses operated by joint venture companies, the Company also tracks and monitors potential risks that may arise and impact communities in each area to prevent those communities or society from experiencing distress or consequences from production processes or operations. For instance, risks related to wastewater management have been monitored and CSR activities have been constantly conducted with surrounding communities. The organization’s Risk Management Subcommittee is responsible for monitoring operational outcomes throughout the year.

Other Risks

Risks from Climate Change, the Environmental Change Leading to GHG Reduction Measures

The Company has managed the business operations that may impact climate change by focusing on reducing energy consumption, reducing the causes and emissions of carbon dioxide and greenhouse gases, as follows.

- Exhibiting a commitment to low-carbon business operations, being a leader in energy transition, continuously increasing the proportion of green businesses to reduce carbon emissions. The Company has communicated and fostered collaborative experiences through various channels throughout the value chain to optimize business value. The Company also established Carbon Markets Club with an aim to help drive the low carbon society. As of end 2023, there are 165 organizational and 607 individual members.
- Setting the goal of achieving carbon neutrality by 2030 and achieving zero greenhouse gas emissions by 2050 under the BCP316NET plan, spanning four approaches: B = Breakthrough Performance: focus on high efficiency production processes, improving and enhancing operational efficiency, reducing carbon emissions, and being environmentally friendly. C = Conserving Nature and Society: support the creation of environmental balance through natural carbon sequestration. P = Proactive Business Growth and Transition: transitioning

businesses to clean energy through sustainable technology for sustainable growth.



- Utilizing natural gas to generate electricity and steam in co-generation power plants, using it as the main fuel in the oil refining process to replace fuel oil, increasing the energy efficiency of the refinery, and reducing carbon dioxide emissions.
- The Company plays a part in alleviating the issue of pollution from fumes and PM2.5 by distributing low-dust oil through the production of diesel oil with reduced sulfur content by up to five times, with sulfur content below 10 PPM. The reduction in sulfur content can mitigate particulate matter emissions from combustion and reduce sulfur dioxide emissions. These products are distributed in the Bangkok Metropolitan Area during the haze crisis.
- Adjusting resource utilization in business operations through the 3Rs strategy: reduce, reuse, and recycle, emphasizing the importance of conducting environmentally sustainable business practices such as collecting plastic bottles at service stations to produce products for society. Initiatives include recycling used engine oil containers to obtain plastic pellets for manufacturing new containers, preserving resource value, reducing waste generation, and promoting renewable resources for optimum environmental, social, and community sustainability benefits.
- Reducing plastic usage in non-oil business activities by minimizing plastic packaging through the use of chug lids to reduce drinking straw consumption as well as continuously adopting biodegradable plastic packaging (bio-cup). Furthermore, customers are encouraged to collect used cups for discounts from which over three million biodegradable cups have been delivered to the Royal Forest Department through the “Cups for Saplings” Project.

- The “Fry to Fly” Project by the BSGF Co., Ltd., encourages people to refrain from polluting the environment through improper disposal of used cooked oil, and to “not reuse” such oil, which adversely affects health due to oil degradation and transformation into harmful substances to humans. The used cooking oil is then sold to designated service stations or buy-back points by the Company, to be processed to produce sustainable aviation fuel (SAF) that aligns with the BCG economic model (Bio-Circular-Green Economy), thus, completing the circular economy cycle in a holistic manner.
- The “Mobile Orphan Waste” Project led by the Company takes proactive steps in environmental and social sustainability. It supports waste management in line with the Circular Economy concept, aiming to reduce waste at the source to mitigate the societal impact of improperly disposed waste in landfills. The project advocates proper waste management practices and reduces air pollution caused by landfilling. It collaborates with environmental care partners by providing space at gas station facilities designated as orphan waste collection points.
- Goals are set and monitored for water usage and circulation within the refinery through the Safety, Health, Environment, and Employee Management Committee (SHEEM) and the Safety, Health, Environment, and Energy Promotion Committee (SHEEP). Activities are organized to provide knowledge on reducing water usage both within the production process and office operations.
- In 2023, water consumption was reduced through various methods: “Reduce” by employing micro-filtration and reverse osmosis systems to improve the quality of tap water, “Reuse” by recycling condensate water and stripped water for production processes, effectively saving 90,000 cubic meters of water, and “Recycle” by treating wastewater with reverse osmosis system, generating an additional 180,000 cubic meters of water for reuse. These measures, under the 3Rs initiative, are equivalent to the water usage of 3,865 households.
- Additionally, in 2023, the Company conducted a water stress assessment through the AQUEDUCT Program and found that some of its Bangchak Phra Khanong refinery areas were categorized as medium to high risk areas (20-40%) that, by definition, is not considered to be in an area of significant water stress.
- The operation of the cooling tower units resumed after the upgrade of two units to enhance operational efficiency and reduce water loss from the cooling system, resulting in a decrease in potable water usage by five cubic meters per hour (5%).
- Subsidiaries in the Bangchak Group have been encouraged to reduce water usage in their production processes, starting from the Bio-Product Business Group that utilizes recycled water. In addition, a raw water well project has been initiated as an additional reservoir within the manufacturing compound.

Risks from Flooding and Water Shortage

The water crisis is a future global risk. Global warming has led to the uncertainty of water resources, increasing population has resulted in a growing demand for water resources for consumption. The Company is well aware of the significance of managing production processes to reduce water usage, as follows.

- Monitoring risks that may arise from climate change, such as drought situations, and tracking data and monitoring water conditions from the Metropolitan Waterworks Authority on a daily basis, to assess the risks of water scarcity that may impact production processes. Other efforts include securing emergency water reserves for the production processes in case of water scarcity risks and setting up monitoring measures and managing risks from decreasing water levels in the Chao Phraya River, which could impact activities like shipping. Precautions have also been taken for all stakeholders that might be impacted by the drought. Monitoring of floods is undertaken through the monitoring of water levels in all major rivers during the rainy season and checking the readiness of flood mitigation equipment in flood risk-prone areas. The risk management plan is drawn up to accommodate potential occurrence and severity levels to ensure business continuity.

Risks from Business Operation Without Regard to Social Development

Social development is an integral part of Bangchak’s business management. It is defined in the organizational culture and employee culture. To participate in sustainable social development.

- The Company has prioritized environmental and social care as part of its organizational culture. This includes establishing policies on business responsibility toward respecting human rights and serving as guidelines for the company’s Board of Directors, executives, and employees of the Bangchak Group. The Company is

committed to adhering to global agreements such as the UN Global Compact, international guidelines on social responsibility (ISO 26000), the Universal Declaration of Human Rights (UDHR), the United Nations Guiding Principles on Business and Human Rights (UNGPs), and the Women's Empowerment Principles (WEPs). These serve as models for continuous organizational growth and fostering inclusive participation for equality and universality.

- The Company has continuously organized the "Read and Write with Ease" Project. This initiative stemmed from the recognition by Bangchak of the significant issue of youth illiteracy and dysgraphia, which remains a crucial problem of the country and requires ongoing solutions. The project operates under the auspices of the Bai Mai Pun Suk Foundation, with Teacher Koi - Naiduangta Patummasoot from the Tung Sakasome Learning Center serving as the trainer for school teachers at the elementary education level one from thirty-eight schools nationwide. The aim is to enhance teachers' knowledge and understanding of teaching processes, classroom organization, basic assessment of Thai language skills among students, and overall pedagogical management to achieve successful teaching outcomes. This effort is seen as addressing the country's literacy and dysgraphia challenges and aligns with the United Nations Sustainable Development Goals, particularly Goal 4 on ensuring quality education for all.
- "The Cups for Saplings" is another activity where the Company collects Inthanin's recyclable cups from employees and customers of the Bangchak Group and nationwide Inthanin customers. These cups are then handed over to the Royal Forest Department to be used for seedling cultivation, replacing the use of black plastic bags to reduce waste and promote green spaces.

2.2.2 Project Investment Risks

In addition to considering the alignment of organizational strategies and business returns, project investment risk management is crucial and essential for business operations. Analysis of the risks that may occur during each phase of project implementation is conducted as follows.

- Development Phase Risk
- Construction Phase Risk

- Operation Phase Risk includes risks in operation, finance and taxation in compliance with investment country's tax policy, business, and reputation.
- Natural Disaster Risk

In this regard, investment projects that are significant to the Company's operations must receive approval for the risk management plan from the Company's ERM to ensure that the business appropriately manages risks without adverse effects on the community and the environment and fulfills the objectives as stipulated by the Company. In 2023, the Committee provided recommendations and observations regarding risk management plan development issues in projects such as investments in BSGF Co., Ltd., project to sustainable aviation fuel's feedstocks procurement and natural resources business investments, as well as investments in Bangchak Sriracha Public Company Limited among others.

2.2.3 Business Continuity Management (BCM)

To ensure confidence that the Company can continually operate its businesses even during crises, the Company has applied a Business Continuity Management System. The Company focuses on readiness in terms of strategy, processes, and resources, certified with the ISO 22301 Business Continuity Management standard. This covers the headquarters, Bangchak oil refinery and Bangchak Oil Distribution Center, the Central Region Oil Distribution Center, and the Bang Pa-in Oil Distribution Center since 2013. This certification confirms that the company has systems in place to prepare for crises, efficiently manages business continuity according to international standards, and instills confidence in stakeholders that the company can sustain its operations, cope with crises, and consistently deliver products.

In 2023, there were still numerous global challenges regarding cybersecurity threats, prompting the Company to continuously upgrade its cybersecurity measures, including preparing crisis management plans for information systems to accommodate such scenarios. Moreover, the Company has also prepared emergency contingency plans to address frequent earthquakes that have occurred in the past year.

3. Driving Business Towards Sustainability

3.1 Sustainability Management Policies And Goals

Sustainability Policy

Bangchak Corporation Public Company Limited has a “Sustainable business development in harmony with the environment and society (Sustainability Policy)” policy that integrates practices, criteria, and international sustainability and social responsibility standards.

This includes the Sufficiency Economy Philosophy, the concept of Creating Shared Value (CSV), the United Nations Sustainable Development Goals (UNSDGs), the United Nations Guiding Principles on Business and Human Rights (UNGP), assessments of organizational sustainability, the Thailand Quality Award criteria, the Women’s Empowerment Principles (WEPs), and various ISO standards such as ISO 14001: Environmental Management, ISO 45001: Occupational Health and Safety, ISO 50001: Energy Management, and Process Safety Management (PSM).

It also aligns stakeholder expectations with the organization’s vision, direction, and business strategies as a framework for sustainable operation at the organizational level, demonstrating a commitment to sustainable business development throughout the value chain by covering the following eight sustainability aspects:

1. Corporate governance
2. Fair business operating practices
3. Responsible production and services together with the promotion of a sustainable society
4. Comprehensive assessments of sustainability for new business
5. New business investments in sustainable innovation
6. Efficient resource and environmental management
7. Human rights promotion for the development of a sustainable economy
8. Promotion of a sustainable society

Download the Policy at
www.bangchak.co.th/storage/document/sustainability/2023/sustainability-policy-en.pdf



Governance And Disclosure Structure

Bangchak Corporation Plc. established a framework for the governance and management of sustainable operations that encompasses all levels, from the Board of Directors and executives to employees, ensuring that all related activities are integrated and effective towards achieving the goals. The company has designated the Sustainability and Corporate Governance Committee (SCGC) to propose sustainable development practices to the Board of Directors, oversee the Board’s and management’s adherence to sustainable development guidelines, review sustainable development practices, and suggest improvements to the Board for improvement and modernization in line with international standards. Additionally, the SCGC is responsible for providing the Sustainability Policy Committee (SPC) with policies on sustainable development.

The SPC is responsible for setting and reviewing policies, operational guidelines, and sustainable development goals. Operating guidelines are considered according to the company’s strategic sustainability framework, risks and opportunities for sustainable business development, and support the Sustainability Management Committee (SMC) operations.

SMC is responsible for implementing sustainability policies and strategies, assessing sustainability risks and opportunities, and sustainability operations guidelines.

The Company prepares an integrated sustainability report to be published annually to report on sustainability performance and ensure that the information reported is complete and accurate. The Company arranges for verification to certify the report and essential performance indicators according to GRI standards by an external agency (Third party) with expertise in auditing and providing independent assurance of performance related to oil and energy businesses.



Download the integrated Sustainability Report at <https://www.bangchak.co.th>

Organizational Sustainability Management Goals

In 2023, the Company set sustainability goals aligned with The United Nations Sustainable Development Goals (UNSDGs), encompassing eight categories across environmental, social, governance and economic dimensions. The Sustainability and Corporate Governance Committee approved these goals as follows.



Environmental dimension, corresponding to:



SDG 13

Take urgent action to combat climate change and its impacts.



SDG 6

Ensure availability and sustainable management of water and sanitation for all.



SDG 12

Ensure sustainable consumption and production patterns.



SDG 15

Protect, restore, and promote sustainable use of ecosystems.

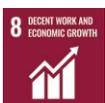


Social dimension, corresponding to:



SDG 11

Make cities and human settlements inclusive, safe, resilient, and sustainable.



SDG 8

Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.



SDG 16

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.



Governance and economic dimensions, corresponding to:



SDG 9

Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.



SDG 16

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.

Measuring The Results of Sustainable Business Operations

In terms of measuring sustainable business operations, the Company has participated in the sustainability assessment in 3 dimensions: operating responsibly towards the environment (Environmental) and society (Social), along with management with principles of corporate governance (Governance) and creating good results in the economy. This will lead to the important goal of sustainable development according to the principles of the Stock Exchange of Thailand and the S&P Global Corporate Sustainability Assessment (S&P Global CSA). It has also been assessed for sustainability by Morgan Stanley Capital International (MSCI) ESG Ratings by MSCI ESG Research, an agency with expertise and reliability in international ESG indices. This is a process for evaluating listed companies' ability to manage environmental, social, and corporate governance risks (ESG risks) that they face. The results of the company's sustainability management assessment are as follows:

ESG assessment by the Stock Exchange of Thailand:

- The Company was included in the Thailand Sustainability Investment (THSI) group of the Stock Exchange of Thailand for the ninth consecutive year (from 2015 - 2023). The Company was rated with the SET ESG Rating of "AAA" (total score 90-100), the highest level in Thailand within the Resources Industry sector, as announced in the SET ESG Ratings 2023 for sustainable stocks.
- The Company received the Sustainability Awards of Honor, the highest honor in the Sustainability Excellence category for the fourth consecutive year in a row (the award is presented to winners of at least three consecutive Best Sustainability Awards). This is the Company's seventh consecutive year in receiving the Best Sustainability Awards.

International ESG Assessment Performance:

- The company was rated at the "AA" level by the MSCI ESG Rating, which placed it in the ESG Leader group for the fifth consecutive year. The "AA" level is the highest for Thai organizations in the Oil & Gas Refining, Marketing, Transportation & Storage business sector.
- The Company was assessed by S&P Global Corporate Sustainability Assessment (S&P Global CSA) - the assessor of the Dow Jones Sustainability Indices (DJSI), and received an assessment score among the "Top 5% S&P Global Sustainability Assessment Score 2023," which is the global Top 2 in the Oil & Gas Refinery and Marketing industry group.



3.2 Managing Impacts on Stakeholders in the Business Value Chain

3.2.1 Business Value Chain

Operating alongside stakeholders is a matter of great importance that has been a consistent part of the Company’s operations, aligned with the vision of “Crafting a Sustainable World with Evolving Greenovation.” The Company considers its stakeholders and manages sustainability management across the entire business value chain, from upstream businesses, including the procurement of crude oil and raw materials, transportation of crude oil and raw materials in the production process, to downstream business activities such as oil refining, product development, procurement, product transportation, and distribution of products and services to respond to the needs and expectations of all stakeholder groups and create a balance between the “value” and “virtue” of business operations for all stakeholders. It also fosters good relationships and confidence in operations between the Company and its stakeholders.

stakeholder sustainability on the Company, and the impact of the Company’s operations on stakeholders. These groups include employees, suppliers, customers, business partners and service station operators, competitors, creditors, investors, local communities, media, and government agencies.

In 2023, the Company engaged stakeholders by surveying their needs and expectations regarding the Company’s operations using various methods and intervals appropriate to each stakeholder group to analyze and respond to the survey results on their needs and expectations. The results were considered with global sustainability trends, the United Nations Sustainable Development Goals (UNSDG), the country’s context, perspectives from similar industries, and internal organizational factors such as goals, corporate direction, and business risks. The findings were then reviewed and further developed into key sustainability issues (Materiality topics) annually, following international standards of the sustainability reporting framework (GRI Standards 2021) for the company’s key sustainability issues conducted in 2023.

3.2.2 Business Value Chain Stakeholders Analysis

The Company categorizes stakeholders into ten groups by relevance to the Company’s operations, the impact of



E
Environment

Environmental

1. Climate change and greenhouse gas emissions
2. Air quality management
3. Leak and spill management
4. Water and wastewater management
5. Waste management
6. Biodiversity management



S
Social

Social

1. Occupational health and safety
2. Energy accessibility
3. Community development and employment
4. Human resources management
5. Human rights, rights, and practices towards labor
6. Land ownership and rights



G
Governance

Governance

1. Innovation and sustainable investment
2. Service and product quality
3. Corporate governance/ethics
4. Supply chain sustainability
5. Digitization and cybersecurity
6. Customer relations
7. Anti-competition behavior

3.3 Environmental Sustainability Management

3.3.1 Environmental Policies and Practices

The Company operates under a policy of Sustainable Business Development in Harmony with the Environment and Society and the Safety, Security, Occupational Health, Environment, and Energy Policy for sustainable environmental management. This encompasses air, water, and energy conditions to mitigate the impacts of the company’s operations and a commitment to address potential environmental impacts. It follows the ISO 14001:2015 standard for Environmental Management Systems, emphasizing proactive environmental management to prevent and reduce toxic emissions and maximize resource efficiency. It adheres to the principles of the Circular Economy to minimize both direct and indirect environmental impacts.

(Download the Safety, Security, Occupational Health, Environment, and Energy Policy at www.bangchak.co.th/storage/document/sustainability/2023/shee-en.pdf)



The Company reports its environmental performance through a Sustainability Report. The data and reporting adhere to the GRI Sustainability Reporting Standards (GRI Standards) and the Oil & Gas Sector Supplement (OGSS). Additionally, there is verification from a third-party auditor to ensure compliance with standards. In 2023, Lloyd’s Register International (Thailand) Limited was the external auditor.

For further details on environmental sustainability management, please refer to the Sustainability Report 2023 at www.bangchak.co.th/en/document/sustainability-report

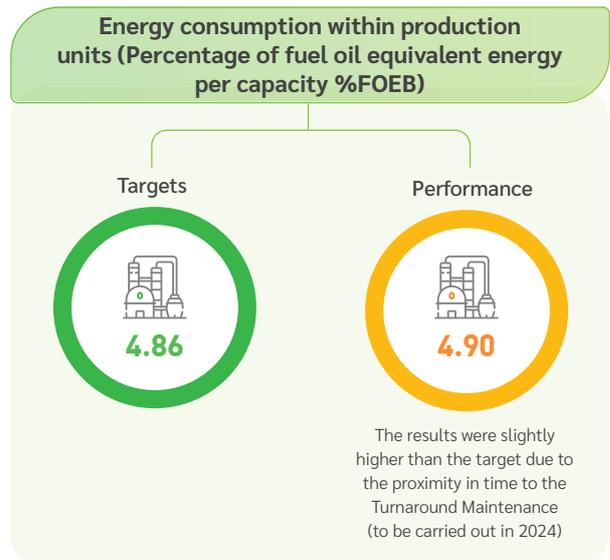


3.3.2 Environmental Performance Results

Energy Management

Following the impact of climate change, the Company has become increasingly aware of the need to use energy more efficiently, particularly in its refinery operations where energy consumption rates are high. This supports policies aimed at reducing greenhouse gas emissions from energy production processes, including heat, electricity, and steam, all of which are managed per ISO 50001 standards. The Company has also set energy consumption targets for its refineries based on energy usage per unit of energy-equivalent oil processed.

Targets and Performance for 2023

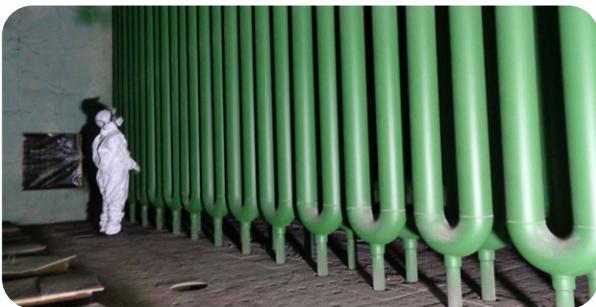


Key Activities

The Company has started operating the Continuous Catalytic Regeneration Unit (CCRU), which is more energy-efficient than the previous unit, resulting in improved energy efficiency. Additionally, the company has recognized technological advancements, leading to the adoption of artificial intelligence (AI) systems coupled with workforce development to enhance operational efficiency and develop Bangchak Phra Khanong Refinery into a leading refinery.

The Company has carried out development projects for Bangchak Phra Khanong Refinery and continually monitors ongoing projects, which began in 2019 and are aimed at enhancing energy efficiency. Examples of projects implemented include:

- Application of heat-loss prevention surface coating materials on furnace walls to reduce energy consumption in Steam Boiler 1.
- Application of heat-loss prevention surface coating materials on furnace walls to reduce energy consumption in Steam Boiler 2.
- Reduction of high-pressure steam utilization in the Continuous Catalytic Regeneration Unit (CCRU).
- Reduction of high-pressure steam utilization in the air compressor unit for the light naphtha quality improvement Process Unit 2.
- Reduction of high-pressure steam utilization in the stripper unit for the Production Process 4.
- Improvement of heat exchangers to utilize waste heat in the second crude oil distillation unit.
- Reduction of inlet temperature from the furnace burner in the Continuous Catalytic Regeneration Unit (CCRU).



Energy Management Awards

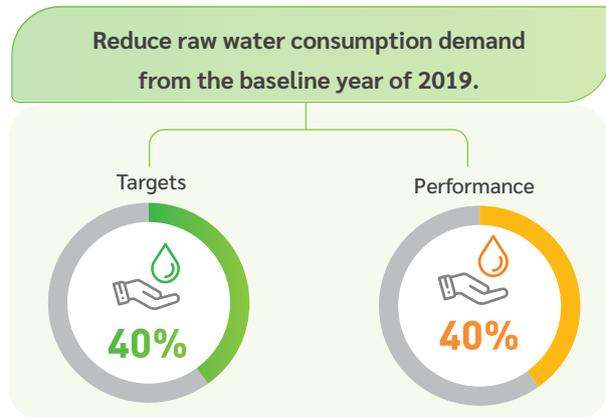
The Thailand Energy Awards 2023 Excellence in Creative Energy (General Group) from the “Reduction of Light Naphtha 2 Reactor Power by Integrating Conditions and Equipment with Advanced Technology” project.

Water Management

Water resources are another important issue that the company prioritizes alongside its commitment to achieving Sustainable Development Goal 6 (SDG 6) on water management and sanitation. This commitment includes adopting the principles of the 3Rs (Reduce, Reuse, & Recycle) to prevent complications from potential droughts. Water resources are crucial in the production processes of Bangchak Phra Khanong Refinery, and measures are implemented to avoid water wastage and ensure responsible

discharge into rivers, minimizing environmental impact and benefiting surrounding communities.

Targets and Performance for 2023



Key Activities

The Company manages water resources in line with the policy to reduce potable water usage within refinery operations, following the principles of 3Rs (Reduce, Reuse & Recycle). This includes monitoring for droughts, floods, and changes in the water level of the Chao Phraya River. Additionally, the Company reviews water risk analysis and Water Stress. Furthermore, projects aimed at improving water utilization efficiency were carried out in 2023, including installing a new Cooling Tower for Plant No. 2 and reducing steam stripping at the distillation unit.

Waste and Surplus Materials Management

The company places utmost importance on maximizing the utilization of resources by adhering to the principles of the 3Rs (Reduce, Reuse & Recycle) for optimization of waste utilization. This is continuously implemented both in office spaces and within Bangchak Phra Khanong Refinery, with ongoing efforts to enhance it further. Moreover, there’s a development towards advancing the concept of the 3Rs to include the 5Rs and 7Rs, such as Reject: refusing to use materials or chemicals harmful to the environment, Recovery: utilizing valuable resources from waste materials for further use. Rethink: reconsidering approaches to utilize resources before disposal or elimination and Repurpose: converting used materials to regain value through alternative usage methods.

Targets and Performance for 2023



Key Activities

The Company adheres to the 7Rs principles (Reject, Reduce, Reuse, Recycle, Recovery, Rethink, and Repurpose) to help minimize the environmental impact of waste disposal and maximize the efficiency of material usage from inception to end use that includes implementing procurement processes to select qualified waste management contractors and disposal methods, in the shift to Circular Economy. Under the policy of achieving Zero Waste to Landfill, the Bangchak Phra Khanong Refinery has been certified with the Standard for Zero Waste to Landfill by the Department of Industrial Works since 2021. In 2023, the Company managed waste according to the 3Rs principles, recycling approximately 100 percent of the total waste. Moreover, waste management practices have been expanded to office areas by fostering employee engagement in various initiatives such as waste separation, converting food scraps into compost, and recycling paper waste. Collaborating with partners through the Thailand Responsible Business Network (TRBN), projects like the “1 Lunchbox Reduce 5 Baht” initiative to encourage employees to bring reusable food containers instead of plastic ones, the “Green Shelter” for the Friends in Need (of “Pa”) Volunteers Foundation initiative to recycle UHT drink cartons into roof sheets, and “Orphan Waste” initiative converts unrecyclable waste into electricity-generating fuel instead of landfilling.



Air Pollution Management

The company has implemented air pollution control measures from the oil refining process within the refinery premises and in the surrounding community areas in compliance with regulatory standards. Additionally, controls are in place for volatile organic compound (VOC) emissions from the oil depot and production processes within the refinery premises. Furthermore, the refinery has a clean fuel usage policy to reduce air pollution emissions from production processes.

Targets and Performance for 2023



Key Activities

In adherence to the company’s clean fuel policy that aligns with the proactive environmental management policy aimed at reducing pollution at the source, several significant measures have been implemented. Control of emissions begins at the source in accordance with the guidelines of the ISO 14001:2015 international standard, which is a fundamental standard of Bangchak Phra Khanong Refinery operations. Bangchak fully operates Enclosed Ground Flares, enhancing the combustion gases sent to the flare and reducing air pollution, noise, and light pollution. Additionally, air quality is continuously monitored using online air quality monitoring equipment installed at emission points, work areas, and the surrounding environment of Bangchak Phra Khanong Refinery. Moreover, regular checks for organic volatile compound leakage from machinery are conducted daily. External third-party agencies also conduct air quality monitoring to ensure compliance. As a result, indoor and outdoor air quality around the Bangchak Phra Khanong Refinery met 100% of the standard, and there have been no complaints regarding air pollution.

Environmental Management Awards

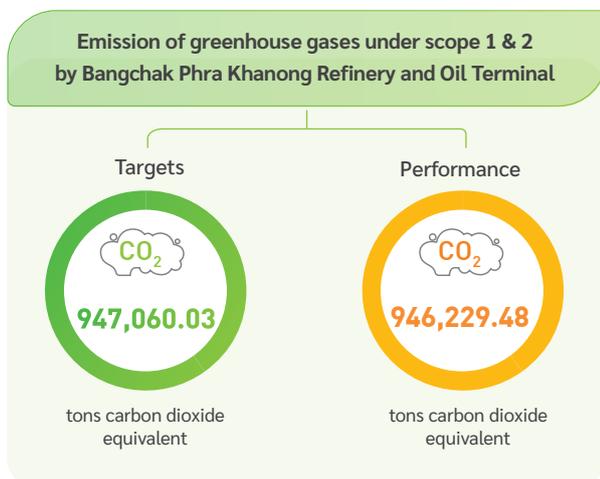
The award for businesses that comply with the measures in the Environmental Impact Assessment (EIA) report for the year 2023 or EIA Monitoring Awards 2023 was achieved by the oil refinery project that manages and maintains the environment in accordance with EIA measures by the Ministry of Natural Resources and Environment.

Greenhouse Gases Management

The transformation of climate conditions due to greenhouse gas emissions is a critical issue for the sustainability of all industries, especially for oil refineries, which are high-energy and high-fuel-consuming industries. The Company is aware of the risks and impacts, both physical and regulatory changes related to climate change, affecting both the company and stakeholders. Therefore, mitigating and reducing greenhouse gas emissions is an environmental priority for the company. The Company sets Net CO2 equivalent Emission as a Corporate Key Performance Indicator (Corporate KPI) to measure organizational performance and as a performance indicator for assessing the performance of the Group Chief Executive Officer and President to demonstrate the Company’s commitment to responding to climate change and SDG 13 goals. Additionally, the Company has set long-term targets to become a Carbon Neutral Company by 2030 through GHG Emissions Reduction projects and carbon offset activities.



Targets and Performance for 2023



Key Activities

To reach the goal of Carbon Neutrality by 2030 and Net Zero GHG Emissions by 2050, the company has created the strategic framework BCP316NET. It covers four approaches, emphasizing tangible processes that can yield long-term results.

In 2023, the Company implemented energy management and efficiency enhancement projects to reduce greenhouse gas emissions. These initiatives included installing heat-loss prevention surface coating materials on furnace walls, upgrading heat exchangers, and reducing the use of steam.

The Company has studied and assessed carbon dioxide (CO₂) emissions through the Life Cycle Assessment (LCA) of its products and has been certified with a Carbon Label for its products by the Thailand Greenhouse Gas Management Organization (Public Organization) for the scope of the refinery.

Greenhouse Gas Reduction Management Awards

- Climate Action Leading Organization (CALO) Outstanding Award - Gold Level, receiving at least two Gold level assessments from the three criteria, namely Measurement, Reduction, and Contribution, as assessed by the Thailand Carbon Neutral Network (TCNN), a network of the Thailand Greenhouse Gas Management Organization (Public Organization).
- Mahidol Science Environment & Sustainability Award 2023 (Organization) for Carbon Markets Club, which the Company initiated with other founding members to disseminate knowledge and understanding about global warming, carbon offsetting, and to promote carbon credit trading. Carbon Markets Club is a role model and inspiration to society as a leader in environmental communication, providing accurate and precise information based on scientific principles.

3.4 Social Sustainability Management

3.4.1 Social Policies and Practices

The Company established policies for holistic social management in terms of reducing impacts and providing care for the environment and society simultaneously. This includes policies on corporate governance, human rights, safety, security, occupational health, environment, and energy. Moreover, the Company has policies on anti-corruption, and the care of employees, customers, partners, and contractors. It also involves conducting surveys on the opinions and expectations of stakeholders to develop work and activities that meet their expectations. The Company's key practices will be continuously improved according to the sustainability assessment guidelines of the Securities and Exchange Commission of Thailand, the Stock Exchange of Thailand, S&P Global CSA, and MSCI.

to international organizations in human rights such as the UN Global Compact, international guidelines on social responsibility (ISO 26000), the Universal Declaration of Human Rights (UDHR), United Nations Guiding Principles on Business and Human Rights (UNGPs), and Women's Empowerment Principles (WEPs). These frameworks for action are implemented and adhered to by the Company's Board of Directors, executives, and employees at all levels.



(The Business Responsibilities on Human Rights Policy can be downloaded from www.bangchak.co.th/storage/document/sustainability/2020/human-rights-cpk-en.pdf)



For further details on social sustainability management, please refer to the Sustainability Report 2023, available at www.bangchak.co.th/en/document/sustainability-report

3.4.2 Social Sustainability Management

Human Rights Management

The Company recognizes the importance of managing human rights and environmental issues systematically in business operations that are based on respect for the rights of stakeholders, including people with gender diversity and embracing the diversity of thought and societal equality concerning religion, skin color, ethnicity, including vulnerable groups of society such as women, children, indigenous people, ethnic groups, employees, migrant workers, contractors, partners, customers, local communities, and also the respect for the environment. This approach has been integrated into business operations. This demonstrates the commitment to preventing risks and potential impacts arising from human rights and environmental violations of stakeholders. To assure confidence in conducting business operations that respect human rights, the Company has a corporate responsibility policy towards respecting human rights, adhering strictly

Targets and Performance for 2023

No significant complaints regarding labor and human rights

Targets



No complaints

Performance



No complaints

No significant complaints regarding violations and significant discriminatory practices

Targets



No complaints

Performance



No complaints

Key Activities

- Human rights and environmental risk assessments are conducted annually. The Company performs comprehensive reviews of human rights issues in accordance with the guidelines of the Human Rights Committee, covering eight dimensions of risk. These

include risks related to the construction and expansion of facilities, employees, contractors, communities, and societies, as well as environmental risks within operational areas, customers and consumers, other business-related organizations, cross-border labor utilization, and hiring practices for diverse gender individuals and temporary employees. This encompasses vulnerable groups such as children, women, indigenous peoples, and persons with disabilities within the organization. It also covers the Refinery and Oil Trading Business Group, Marketing Business, and partners throughout the supply chain. Information on human rights activities is disseminated through the Sustainability Report.

- Supplier assessments are conducted in accordance with the Supplier Code of Conduct framework, which covers business ethics, labor practices and human rights, safety, health, environment, and contributions to community development. The Supplier Code of Conduct was developed to ensure adherence to ethical standards and support employees in addressing issues arising from human rights violations by the partner organization.



The Supplier Code of Conduct can be downloaded at www.bangchak.co.th/storage/document/sustainability/2023/bcp-supplier-code-conduct-en.pdf.

- The Company fosters responsibility and understanding of human rights by organizing training sessions within the organization and sending employees to external training programs, including:
 - o Communicate the organization's human rights policy to all security personnel (100% coverage).
 - o Disseminate knowledge on harassment, intimidation, and sexual misconduct to employees across affiliated companies at all levels through the Intranet and BCP-KMS system and to the general audience through Bangchak's website.
 - o Participate in human rights training organized by the Stock Exchange of Thailand (SET), the United Nations Global Compact (UNGC), and UN Women.
- Participate in providing views and driving organizational equity at the International Women's Day event #EmbraceEquity organized by the Citi Thailand Women's Network (Citibank).
- The Company prepared a comprehensive human rights due diligence manual (HRDD) to set guidelines for

operations, prevention, and mitigation of impacts to avoid violating human rights, including the environment and the community, caused by the company's activities and supply chain through guidelines with responsible agencies. Establish a mechanism for redress according to the Company's policy to allocate appropriate budgets and measures to compensate when human rights violations occur.

- Carry out the guidelines according to the National Action Plan on Business and Human Rights (NAP Implementation), such as
 - o Improving the quality of life of people with disabilities, creating job security, and reducing social inequality, ready to support the underprivileged in society to show their potential and abilities in their duties effectively. By providing work opportunities for people with disabilities to become full-time employees.
 - o Creating a labor project under the name "Breastfeeding Promotion Project" by providing a separate breast pump room to continuously offer quality places and facilities for employees to pump breast milk.
 - o Review processes and measures to mitigate impacts and ensure complaints and whistleblowing.

Human Rights Awards

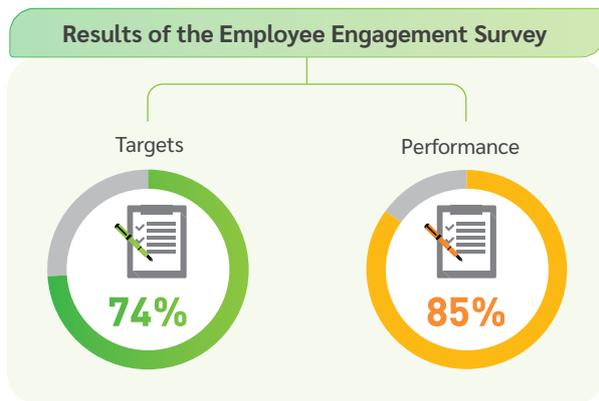
Outstanding Role Model Organization Human Rights Awards 2023 (Excellent Level - Highest Level), presented by the Rights and Liberties Protection Department.

Human Resources Management

The Company conducts an Employee Engagement Survey annually to gauge the commitment level and assess employees' satisfaction with the organization. The results are compared periodically to obtain consistent and actionable data for analysis. These insights are then used to formulate strategies, review guidelines, and implement measures to enhance employee care, elevate engagement, and foster employee participation. This is aligned with the 100X Happiness strategy, which continuously drives the organization towards success and sustainability as part of Bangchak's 100-year Journey Bangchak 100X. Additionally, it complements the core values of "i am bcp" in collaboration with Business Units/Business Groups.



Targets and Outcomes for 2023



Key Activities

The Company continuously drives the plan according to the employee engagement strategy as follows:

Happiness Aspect 1: Happy Stay

- Project to create a Sports Complex on an area of over 30 rais, featuring sports grounds that meet international standards, accommodating up to 12 types of sports, along with a fitness room, showers, athlete accommodations, and meeting rooms, to facilitate employees.
- Project to improve surroundings and workplace areas, such as upgrading meeting rooms, medical rooms, dining areas, and restroom facilities within the refinery area, enhancing technology with Smart Connect in meeting rooms, adding a sports zone, and creating the i am bcp Space - a multipurpose space at Bangchak Head Office.
- Developing employee experiences aligned with the Core values, i am bcp, such as co-developing employee ID cards to accommodate BTS card for commuting, shopping, and points accumulation, as well as developing vending machines for withdrawing office supplies, employee uniforms in the refinery, and food, snack, and beverage machines.

Happiness Aspect 2: Happy DNA - Developing Happiness under i am bcp

- Fostering ownership and understanding of i am bcp under the Core Values Journey Check-up plan by studying its meaning and supporting behaviors.
- Communicating and creating tools to support the demonstration of the Core Value i am bcp behaviors, such as i am bcp song, to foster understanding and encourage expression.
- Understanding the core values of i am bcp through activities like i am bcp: Boots up 101, Do & Don't, BU & BG, Newcomer Program, and reinforcing behavior with the Wrong DI Innovation project.

Happiness Aspect 3: Happy Me - Caring with Joy

The Company has developed welfare programs and provides the following benefits to employees:

1. Medical expenses for employees and their families (inpatient and outpatient).
2. Medical expenses for parents (inpatient and outpatient).
3. Dental expenses for employees and their families.
4. Life and accident insurance.
5. Social security.
6. Annual health check-up.
7. On-site medical clinic.
8. Provident fund/pension.
9. Children's education assistance.
10. Child support assistance.
11. Housing loan benefits.
12. Funeral assistance.
13. Disability income replacement not relating to work.
14. Long service award policy.
15. Annual, personal, sick, and birthday leave.
16. Maternity and paternity leave for female and male employees.

Female employees are eligible for 98 days of leave for prenatal care, childbirth, and childcare with pay, and male employees are eligible for one day of leave for childbirth and 15 days for childcare.

In addition, the Company has started to implement a Flexible Benefits system for outpatient medical expenses, allowing them to be claimed for expenses such as eyeglasses or fitness club memberships. In 2023, the company introduced the option to adjust the medical expense claims for family members, making the birthday month leave more flexible. It also developed systems to increase convenience in utilizing various benefits, such as a system for the drawdown of employee uniforms and managing stock, a system for applying for housing loans, a system for special loans, and a medical clinic system to further employee convenience.

- Health & Well-Being program for employees, supporting health activities continuously for over five years. In 2023, the health application was enhanced through the Mission realization of health stations, an online psychiatrist consultation platform to help employees discuss issues with psychiatrists and psychologists via video call privately and securely, anytime, anywhere. It also includes care for the Office Syndrome symptoms through relaxation massages for the neck and shoulders, and acupuncture by Chinese medicine practitioners, various exercise classes like yoga and Body combat, the Dr. Talk program providing health education to employees every quarter, extending the availability of on-site doctors, and organizing specialty clinics for employee consultations every month.

- Ongoing COVID-19 prevention care, such as booster vaccines for employees and their families, ATK vending machines, a system for recording ATK test results, delivering initial care medication to employees at home, and providing influenza vaccines to employees for additional health protection.

Happiness Aspect 4: Happy Heart - Share and Care

- 3 BCP Town Hall events were organized to communicate directly with employees about the direction, business performance, and various news from the Group Chief Executive Officer and President, and Senior Executive Vice Presidents of Bangchak Corporation and its subsidiaries. Additionally, within each department and business group, Town Hall meetings were organized for all lines of business, promoting the i am bcp values.



- Established a channel for employee feedback through the CEO Box, where every employee can anonymously express their opinions or suggestions to the CEO. The CEO personally responds and communicates with employees, such as the CEO meeting with the MKBG sales team, initiated from a suggestion through the CEO Box, allowing employees and CEO to have informal discussions, exchange viewpoints, understand the business direction, inspire employees, and foster relationships between management and employees.
- Fostered relationships between senior management and employees through club activities and various events, such as sending birthday cards to employees and organizing Recognition Congratulations Day to celebrate employee promotions.
- The 12 Months 12 Activities initiative aims to increase employee participation and build relationships within the organization, promoting corporate values and encouraging employee involvement in designing activities.

Awards Related to Human Resource Management

Award for the Best Company to Work for in Asia (HR Asia Best Companies to Work for in Asia 2023) for the second consecutive year, and the HR Asia The Most Caring Company 2023 award from HR Asia, which is a leading human resources magazine in Asia.



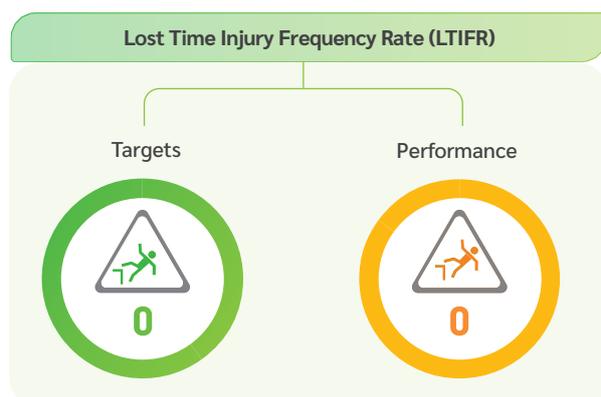
Safety and Occupational Health Management

The Company established policies on safety, security, and occupational health, requiring employees and contractors to have duties and responsibilities for safety towards themselves and their colleagues in accordance with local laws and international standards such as ISO 45001. Operations are aligned with the Process Safety Management (PSM) system under the Safety, Health, Environment, and Energy (SHEE) management structure, with a dedicated team that is responsible for setting SHEE policies, reviewing, recommending, providing supporting resources, and appointing teams to promote SHEE operations to develop an efficient and effective SHEE management system continuously and sustainably.

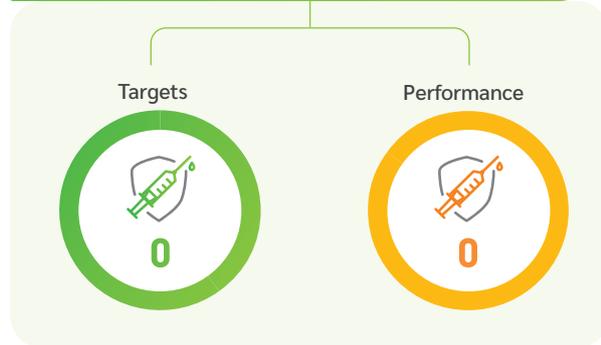


Safety, Security, Occupational Health, Environment, and Energy Policy
www.bangchak.co.th/storage/document/sustainability/2023/shee-en.pdf

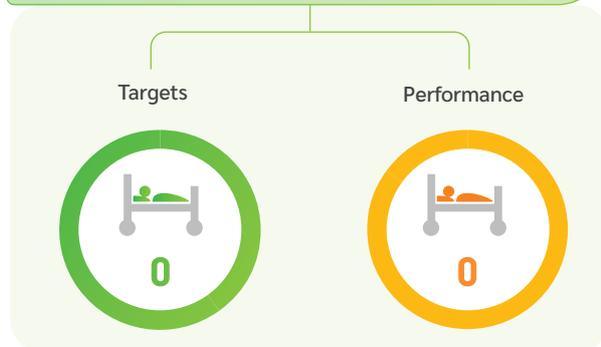
Targets and Outcomes for 2023



Overall Illness Frequency Rate from Occupational diseases (OIFR)



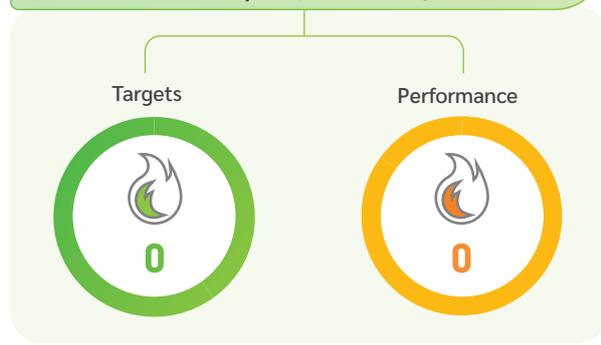
Fatality Rate from Occupational Injuries



No significant oil spills into the environment



Tier 1 incidents of flammable or chemical substance leaks from primary containment or production processes that have severe impacts, as defined by API 754.



Key Activities

The Company is committed to continuously improving and developing the Safety, Health, Environment, and Energy (SHEE) management system in accordance with the ISO 45001 safety management, management standards, and the Process Safety Management (PSM) system. This ensures that safety performance meets its objectives and organizes activities to promote safety during and outside work hours (24-hour Safety) for employees at all levels and contractors, fostering a safety consciousness, knowledge, understanding, and safe working practices every day.

- Activities to promote safety at work include:
 - o Promoting developing a safety culture (Safety Culture Transformation), such as executive Line Walks in operational areas.
 - o Monthly meetings with the safety officers of contractor companies and weekly inspections of work areas with contractors.
 - o Awarding the Contractor Safety Management Recognition award to contractors who adhere to procedures and set a good example for their colleagues.
 - o Setting safety targets and plans jointly between the company and contractor companies through Contractor Safety Management Workshops.
 - o Celebrating safety milestones without lost-time accidents for employees and contractors.
 - o Safety promotion activities from the Safety Committee through meetings and exchanges of ideas between management and employees.
- Activities to promote safety outside of work hours include:
 - o Campaigning for employees to practice safe driving, always wear helmets when riding motorcycles, and fasten seat belts before departure.
 - o Through continuous safety operations and activities, the company has achieved 8,000,000 safe working hours for employees without any lost-time accidents or medical treatment accidents, and the company reached its initial safety goal of 750,000 hours without lost-time accidents among contractors.
- Identifying work-related hazards, risk assessment, and investigating high-risk incidents according to procedures that identify dangerous points, risks, and improvements using methods like What If and HAZOP.

- Investigating risk incidents related to work, reporting, and investigating risk incidents and accidents are central to the safety management system to find the root causes and establish control measures to prevent recurrence, mandating accident or abnormal event reports to be systematically recorded, covering incidents in the production process and near-miss events.
- Work-related health services through proactive occupational hygiene processes, workers Health Risk Assessment, covering all refinery areas to establish risk control measures, with regular monitoring and measurement of work environment conditions such as light, sound, heat, and chemicals in the workplace to ensure worker health safety. In office areas, indoor air quality is monitored according to the Singapore Standard 554: 2016, measuring parameters such as temperature, relative humidity, wind speed, carbon dioxide, carbon monoxide, particulate matter smaller than ten microns, PM2.5, total VOCs, formaldehyde, total bacteria count (airborne), and total fungi count (airborne) in all areas.
- Participating, consulting, and communicating with workers on occupational health and safety issues by establishing a Safety, Occupational Health, and Working Environment Committee according to the law to ensure compliance with safety, occupational health, and working environment principles, with continuous improvement. The Committee, comprising at least 50% of worker representatives elected by departments, meets at least once a month to share news, track progress and work plans, and review safety performance by senior management.
- Training employees and contractors in occupational health and safety before starting work and providing contractors with electronic Express Safety Passes.
- Promoting worker's health in relation to their duties, with nurses and doctors available every working day in the Company's medical room for initial medical treatment and emergencies.

Awards Related to Safety and Occupational Health Operations

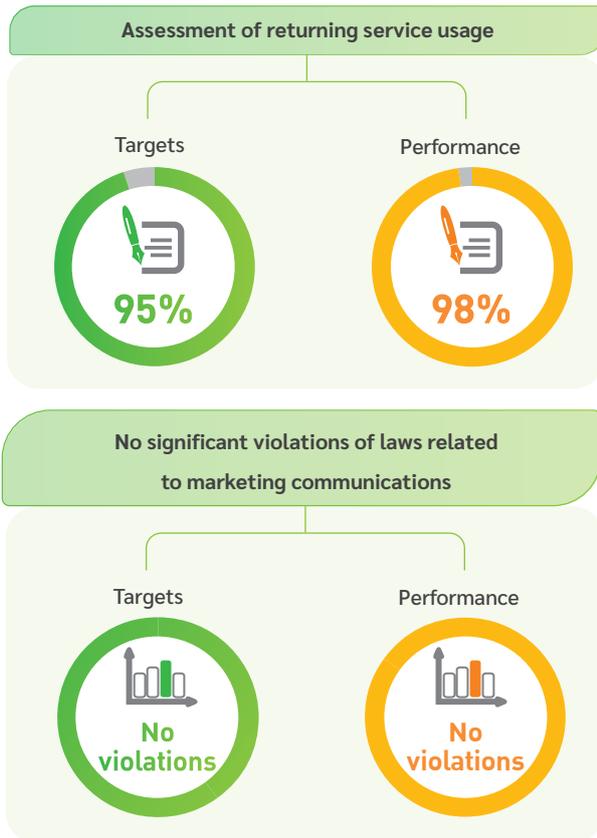
The prestigious Award for Outstanding Model Establishment in Safety, Occupational Health, and Working Environment at the national level for the seventh consecutive year from the Ministry of Labor.

Responsible Production and Service Management Towards Customers

The company focuses on developing products, services, and experiences under the concept of "Your Greenovative Destination" to lead in green innovation through various products and services, as well as non-oil businesses at "Bangchak" service stations, aiming to be the destination that fulfills customers' needs and moves towards sustainable business development. This is achieved by using core competencies: 1) Meeting the needs and expectations of customers and stakeholders, 2) Procuring, developing, and innovating new products, non-oil items, and services to quickly respond to changes, and 3) Conducting business in conjunction with caring for the environment and society sustainably.

Targets and Outcomes for 2023





Card customer network, to increase sales through service stations. This included the adoption of Digital Payment systems for transactions, along with accumulating member points at oil service stations, all Inthanin branches, and convenience stores within the service stations by scanning a QR Code for payment through any bank's application. This helped reduce cash handling and maintain distance between customers and service staff, enhancing confidence in using the service stations. Moreover, the Bangchak card member system has been further developed from the "BCP Same Price" benefit and initiatives to support environmental care from members, such as "Your Tree" and "Merit Basket - Donate Points to Public Benefit Organization" where members can donate points to various charitable organizations at any time. Additionally, various projects have been developed to expand the customer base, such as transferring Bangchak points to AIS points, redeeming for discounts with 'Bangchak PointPay' usable at Thung Ngern shops, converting Bangchak points to MAAI points, and turning points into funds.

Key Activities

- Greenovative Products:** a leader in offering premium oil products that meet customer needs and are environmentally friendly in three main types: EURO 5 standard oils including Gasohol E20 S EVO and Hi-Premium Diesel S with lower sulfur content than EURO 4 standard and designed for new EURO 5 standard engines, and the latest product is Hi Premium 97, which spotlights the highest octane 97 for the gasohol (E10) group in Thailand. It is the only one in the premium gasohol group that meets the international EURO 5 standard and lubricant oil products.
- Network Management:** expanded service stations and improved service station features to meet customer needs, focusing on areas with increasing demand for oil and generating valuable business returns for partners. Applied technology and innovations to develop service stations, the station environment, and non-oil businesses.
- Non-Oil Offerings:** addressed current and future customer needs through Non-Oil stores in collaboration with various leading brand partners as well as technology for the future (EV Charger).
- Digital Experience:** created affinity with customers through digital experiences, making them familiar and understood like close friends. Expanded the customer base of Greenmiles members, the Fleet Card and Pre-Paid
- Green Sustainability:** aimed to continuously grow the business together with society and the environment, driving projects that support participation in social development together with customers and stakeholders, such as the "Term Nam Mun Pun Nam Jai" project by purchasing agricultural products and/or innovative goods from farmers and SME entrepreneurs to give to customers who refuel. The "Growing Vegetables at the Service Station" project utilizes unused spaces behind service stations to grow vegetables, reducing food expenses for service staff. The "Lost and Found at Bangchak Stations" project, the "Emergency Roadside Assistance" program, and the "Donate Points to Public Benefit Organization" project encourage Bangchak members to support the



community. Customers can donate points accumulated from refueling and purchasing Bangchak products to be converted into monetary donations together with additional contributions from the Company to charitable organizations such as the Princess Mother’s Medical Volunteer Foundation, Ramathibodi Foundation, and the Thai Red Cross Society.



The Company has various channels for customer communication, including Call Center 1651, Facebook, Email, Website, Line Official, Line@, Live Chat, and the Bangchak Mobile Application. It utilizes a data storage and processing system for all contact channels, enabling the ability to call customers back where lines are busy or contact by customers outside business hours through a callback system. It also monitors customer feedback through other online media, such as the Pantip website and Bangchak’s Facebook page, to gather information for improving services.

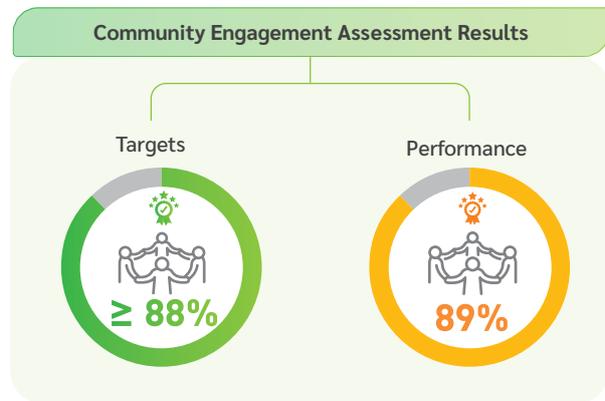
Awards Related to Responsible Management in Production and Services Towards Customers

- Distinguished Awards for Product/Service Excellence at the Thailand Corporate Excellence Awards 2023, organized by the Thailand Management Association (TMA) in collaboration with the Sasin Graduate Institute of Business Administration of Chulalongkorn University.
- Product and Service Excellence Award of the Year by Business+ Magazine in partnership with Mahidol University College of Management, where Bangchak’s Hi Premium 97 gasohol was awarded.
- Superbrands Thailand 2023 for the “Bangchak” and “Inthanin Coffee” brands, with Bangchak brand winning the Superbrands Thailand award for the sixth consecutive year.

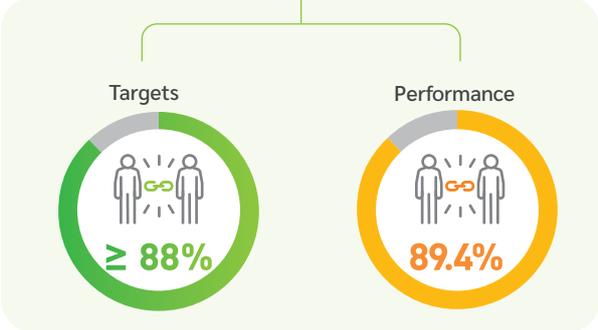
Community and Social Development Engagement Management

The Company has continuously operated under its mission since its inception to contribute to the betterment of Thai society in line with the Green Society strategy and the specific community relations strategy: SUCCESS (Sustainability, Sufficiency, Economic Growth Promotion, Community Engagement, Circular Economy-Low Carbon, Usefulness & Participation, Safety), in a manner which supports, protects, solves problems, and meets the expectations of the community/society, with awareness of the potential impacts on the community and society. This includes safety aspects such as process safety and the company’s operations’ impact on the surrounding communities and society, environmental aspects such as environmental management and pollution, and social aspects such as the health and well-being of the surrounding communities and society, resulting from the company’s core operations (oil refineries and service stations). Currently, the company also emphasizes and is conscientious of human rights.

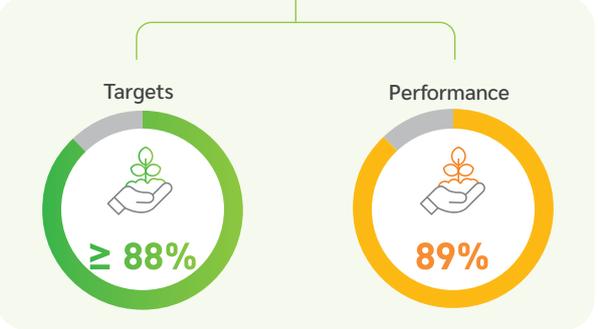
Targets and Outcomes for 2023



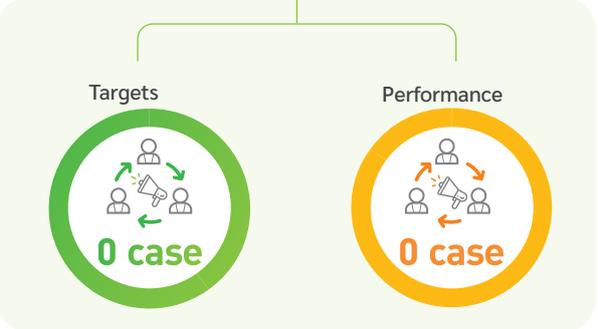
Amiability Assessment Results



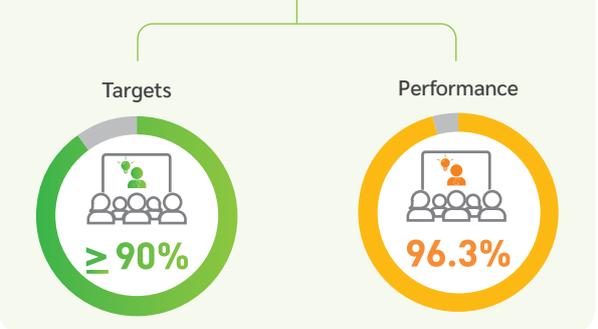
Usefulness Assessment Results



Community-wide Complaints



Satisfaction from Participation in Community Relations Activities



Key Activities

The company has provided appropriate communication channels for different groups living near the Bangchak refinery area through various means, achieving communication 354 times to a target group of 43,662 people across ten communities, 5,098 households, 19 schools, and 29 condominiums. The communication channels utilized include:

- Community relations staff conducting on-site discussions and direct phone calls.
- Organizing community relations activities that continuously meet the needs of and reach the target groups.
- Line groups for community committees, condominium residents, management teams, and teachers/school staff around the refinery.
- Public address systems within the community (controlled and directly connected from the Bangchak Phra Khanong Refinery’s Control Room).
- Community and condominium notice boards.
- “Krob Krua Bai Mai” newsletter and the Bangchak “Krob Krua Bai Mai” Facebook page for family groups.



The company has implemented various significant projects/activities as follows:

Aspect	Expectations	Ongoing Projects
Safety 	<ul style="list-style-type: none"> Confidence in Bangchak Phra Khanong Refinery's safety Understanding of the Refinery's basic safety processes Having basic knowledge and with safety equipment capable of handling emergencies or various disasters 	<ul style="list-style-type: none"> "Bangchak Cares" project ensures safety in communities/schools/condos through emergency response and fire-fighting training, including basic first aid and CPR/AED, in its 19th year. The safety patrol initiative is in its fifth year. Provision of equipment and fire extinguishers in its 19th year.
Economic 	<ul style="list-style-type: none"> Creating/develop vocational skills, jobs, and income, and providing provide opportunities for community members to learn, develop, and apply their knowledge and skills in creating useful valuable careers for themselves and their families. Supporting community products and services to generate income to support for daily life and family. Promoting knowledge of financial management and investment. Encouraging and supporting the formation of groups for economic development, community enterprises, and community enterprises and aiming towards the development of social enterprises. 	<ul style="list-style-type: none"> Community enterprises generating additional income and increasing business potential support the formation of groups to establish additional vocational groups (Community Enterprise Project, eighth year.) Bangchak generates income for the community (supports products and services from entrepreneurs within the community for use in company activities to distribute income to the community) (Year 19). Bangchak creates jobs and careers and supports knowledge creation, job creation, career establishment, and income generation for community members interested in building/increasing income to cope with economic conditions and to support daily life and family. Provides opportunities for community restaurants to sell food in the headquarters' cafeteria without charging fees to generate income for the community.
Environment 	<ul style="list-style-type: none"> Being aware of environmental issues and using resources efficiently. Integrating environmental learning into the education/teaching system. Cultivating awareness and positive behaviors towards the environment. Creating learning and instilling waste management, Circular Economy, and BCG Economy concepts. 	<ul style="list-style-type: none"> The Firefly Path project is a conservation initiative, Year 10. The Our Khung BangKachao project, Year 6. The Bang Nam Pheung Honeybee Farm project, Year 5. The Environmental School for Sustainable Development (Eco-School) project, Year 4. The Green Shelter for Friends in Need (of "Pa") Volunteer Foundation. The "Bangchak Cares for the Community" project, aimed at alleviating the dust particulate matter, continuously supports the prevention and mitigation of PM2.5 issues by donating 20,000 N95 masks to residents around the refinery in the Phra Khanong-Bang Na area and Bang Nam Pheung sub-district, including condo residents, school personnel/students, and government agencies around the refinery.

Aspect	Expectations	Ongoing Projects
<p>Quality of Life</p> 	<ul style="list-style-type: none"> Enhancing the quality of life, physical health, and mental health. Supporting and promoting preventive healthcare. 	<ul style="list-style-type: none"> The “One Family” project, Year 31. The “Good Youth of Bangchak” project, Year 8. The “Bangchak Cares: Fighting COVID-19” project, Year 4. The “Healthy Community” project provides annual health check-ups for the public and neighbors around Bangchak Phra Khanong Refinery. The “Elderly Online Heart” project/activity.
<p>Education</p> 	<ul style="list-style-type: none"> Youth learning and development according to their age group, imbuing a consciousness to become good and competent individuals. Supporting the development of teachers, students, administrators, and schools in various aspects. 	<ul style="list-style-type: none"> Bangchak Youth Scholarship Program, Year 19. The Teacher and School Capability Development Project, Year 19. The Rak Pun Suk Junior Project, Year 2.
<p>Sports/Music</p> 	<ul style="list-style-type: none"> Healthy and strong youth, far from drugs, can generate income, build a career, and have good educational opportunities through sports/music activities. 	<ul style="list-style-type: none"> Bangchak Youth Football Club, Year 16. The “Dek Show Ded Festival @ Phrakhanong, Bangna” project/activity.
<p>Relationship and conservation of customs and culture</p> 	<ul style="list-style-type: none"> Building bonds and fostering good relations between the refinery and the nearby residential community. 	<ul style="list-style-type: none"> “Leaf Family” Newsletter, Year 17 The “Condo Neighbors” Project, Year 11 Community Home Visits, Year 19 Supported the construction of a shelter with a steel structure for composting machines. Supported security checkpoints during festivals. Improved community multipurpose rooms Supported dredging canals/improving the landscape of central areas for water market activities. Improved public restrooms in communities/temples. Important day activities (New Year’s Day, Children’s Day) within schools



4. Management Discussion and Analysis: MD&A

Executive Summary

Key Financial Data

Key Financial Data

Refinery Business Group	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Average Crude Run (KBD)	120.8	116.4	4%	122.6	-2%	120.1	122.6	-2%
Utilization Rate (%)	101%	97%		102%		100%	102%	
GRM (US\$/BBL)								
- Operating GRM	7.27	14.67	(7.40)	14.68	(7.41)	9.50	14.33	(4.83)
- Total GRM	7.38	17.27	(9.89)	6.64	0.74	9.81	11.87	(2.06)
Marketing Business Group								
Marketing Margin (Baht/Liter)	0.97	0.84	15%	0.81	20%	0.92	0.93	-1%
Sales Volume (Million Liters)	1,727	1,571	10%	1,713	1%	6,490	5,977	9%
Bangchak Sriracha Business Group ^{1/}								
Average Crude Run (KBD)	119.3	48.2				101.9		
Utilization Rate (%)	69%	28%				59%		
GRM (US\$/BBL)								
- Operating GRM	1.96	5.31				2.14		
- Total GRM	0.59	37.43				4.38		
Total Sales Volume (Million Liters)	2,145	441				2,586		
Clean Power Business Group								
Electricity Sales Volume (GWh)	1,700.2	1,419.0	20%	233.8	>100%	3,744.8	980.2	28%
Bio-Based Product Business Group								
Sales Volume (Million Liters)								
- Ethanol	50.1	40.6	23%	37.6	33%	144.6	141.2	2%
- Biodiesel	77.8	66.9	16%	63.9	22%	277.3	208.5	33%
Natural Resources Business Group								
Production Volume-Net to OKEA (kboepd)	25.64	26.69	-4%	16.32	57%	28.22	16.25	74%
Realized Liquids Price (US\$/BBL)	83.4	89.0	-6%	95.2	-12%	80.1	98.4	-19%
Realized Gas Price (US\$/BBL)	74.6	61.9	21%	112.6	-34%	82.2	138.5	-41%

Note: 1/ Business of Bangchak Sriracha Plc. (formerly Esso Thailand Plc.), consolidated since 1 September 2023

Unit: THB Million	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Total Revenue	142,922	94,528	51%	85,900	66%	385,853	328,017	18%
Refinery and Trading Business ^{1/}	95,907	69,274	38%	75,981	26%	289,484	286,083	1%
Marketing Business ^{2/}	49,353	46,718	6%	53,892	-8%	190,725	184,938	3%
Bangchak Sriracha Business ^{3/}	59,458	16,781	>100%	-	N/A	76,239	-	N/A
Clean Power Business ^{4/}	1,318	1,603	-18%	1,266	4%	5,031	5,405	-7%
Bio-Based Products Business ^{5/}	4,240	3,526	20%	3,269	30%	13,757	13,373	3%
Natural Resources Business ^{6/}	6,711	7,146	-6%	5,486	22%	28,848	23,583	22%
Eliminations and others	(74,065)	(50,521)	47%	(53,994)	37%	(218,231)	(185,365)	18%
Accounting EBITDA	10,247	13,813	-26%	6,951	47%	41,680	44,724	-7%
Refinery and Trading Business	3,086	6,306	-51%	2,206	40%	14,794	17,864	-17%
Marketing Business	556	1,312	-58%	120	>100%	3,157	2,909	9%
Bangchak Sriracha Business	(284)	1,281	<-100%	-	N/A	997	-	N/A
Clean Power Business	1,048	1,330	-21%	1,004	4%	4,219	6,400	-34%
Bio-Based Products Business	253	169	50%	146	73%	667	617	8%
Natural Resources Business	5,684	4,873	17%	3,769	51%	19,671	17,625	12%
Eliminations and others	(96)	(1,457)	-94%	(294)	-68%	(1,825)	(691)	164%
Profit attributable to owners of the parent	(977)	11,011	<-100%	473	<-100%	13,233	12,575	5%
Earnings (Loss) per share (Baht)	(0.82)	7.91		0.25		9.27	8.89	

Note: 1/ EBITDA from Refinery and Trading Business of the company (BCP), BCP Trading Pte. Ltd. (BCPT), Bangchak Fuel Pipeline and Logistic Co., Ltd. (BFPL), BSGF Co., Ltd (BSGF) and others

2/ EBITDA from Marketing Business of the company (BCP), Bangchak Green Net Co., Ltd. (BGN), Bangchak Retail Co., Ltd., (BCR) and others

3/ EBITDA from Business of Bangchak Sriracha Plc. (formerly Esso Thailand Plc.), consolidated since 1 September 2023

4/ EBITDA from Clean Power Business of BCPG Plc. (BCPG Group)

5/ EBITDA from Bio-Based Products Business of BBGI Plc. (BBGI Group)

6/ EBITDA from Natural Resources Business of OKEA ASA (OKEA), BTSG Co., Ltd. (BTSG), and others

Accounting EBITDA breakdown by business unit



For the year 2023, another year of success in the operation of Bangchak's businesses, after the Closing of the Historic Deal in respect of the acquisition of shares in Bangchak Sriracha Public Company Limited or BSRC (formerly Esso (Thailand) Public Company Limited) from ExxonMobil Asia Holding Pte. Ltd, the company holds total

of 76.34% shares in BSRC, resulted in BSRC becoming a subsidiary of the company. The operating results of BSRC began to be incorporated into Bangchak's consolidated financial statements from September 1, 2023, onwards. **The gain on bargain purchase resulting from the fair value assessment of assets (PPA) of BSRC amounting to THB 7,389 million was recorded.** Apart from that, all business groups grew and improved substantially which resulted in Bangchak Group earning a **sales and services revenue of THB 385,853 million (+18% YoY)** and **net profit attributable to owners of the parent was THB 13,233 million (+5% YoY), achieving the record high performance since its establishment,** representing the **earnings per share of THB 9.27.** The company recorded an **EBITDA of THB 41,680 million (-7% YoY).** The **Refinery and Oil Trading Business Group** was able to maintain its high production. Despite a partial maintenance shutdown for the implementation of the Euro 5 project, the average production rate for the Bangchak 'Phra Khanong' refinery in 2023 was 120.1 kbd, with a capacity rate of 100%. From September 1, 2023, to December 31, 2023 (4 months after the BSRC acquisition), the average production capacity of Bangchak 'Sriracha' refinery was 101.9 KBD even though the refinery underwent a 40-day temporary production halt for maintenance in September - October 2023. The refinery was able to systematically increase its average production capacity and reached its highest rate for the year 2023 of 143.8 KBD in December. The Bangchak Group has a total nameplate capacity of 294 KBD, adding capacity from BSRC helping the company to meet the market demand that cannot be entirely fulfilled by Phra Khanong refinery alone. However, Bangchak Group recorded an inventory loss of THB 346 million (including reversal of loss on NRV) owing to the weakened global oil demand influenced by an economic slowdown and the plummeted oil prices. Operating GRM of Phra Khanong refinery decreased to US\$9.50/BBL in 2023, still higher than the Singapore GRM of US\$6.84/BBL. **Marketing Business Group** recorded new high sales volume of 6,490 million liters, grew by 9% YoY as the company strived to deliver products and services to customers across the network of 2,219 service stations nationwide (including Bangchak stations and service station networks acquired through BSRC). **Bio-Based Business Group** saw an improved sales volume of biodiesel and ethanol, benefiting from increasing demand from BSRC since Q4/2023. Moreover, the **Natural Resource Business Group** continuously expanded its investment. Performance recognition from the new petroleum field acquired from Wintershall Dea contributed to a full performance recognition in 2023, together with OKEA's capability to improve the asset resulting in organic growth. In 2023, OKEA ASA (OKEA) successfully developed and delivered Hasselmus project ahead of schedule. The Hasselmus project is a subsea tie-back to the Draugen platform where OKEA being an operator. The commencing production from Hasselmus adding to Draugen resulted in an increase in production by 46.9% YoY to 24.59 kboepd. Also, Brage's production capacity increased to almost double its previous rate. Furthermore, the investment in Statfjord's petroleum field which completed on December 29, 2023, led to a notable increase in OKEA's production capacity to reach 35-40 kboepd in 2024. However, the company recorded a special entry due to lower-than-anticipated petroleum reserves in the Statfjord field, resulted in NOK 619 million (or equivalent to THB 2,040 million) of losses from impairment of assets. **Clean Power Business Group** also expanded its investment into 4 natural gas power plants in the U.S. (Carroll County, South Field, Hamilton Liberty & Patriot) with a total installed capacity of 857 MW. As well as the investment in oil terminals, seaport, and pipeline in Phetchaburi Province to generate recurring income aiming to reduce the volatility of performance contribution from the renewable energy business and to mitigate the impact of the expiration of adder of the solar power plants in Thailand.

In Q4/2023, Bangchak Group earned a sales and services revenue of THB 142,922 million (+51% QoQ, +69% YoY) and EBITDA of THB 10,247 million (-26% QoQ, +47% YoY). The Refinery and Oil Trading Business Group increased its production capacity by 4% QoQ to 120.8 KBD and recorded gains from derivatives totaling THB 1,266 million which full offset the impact from an inventory loss of THB 993 million (including reversal of loss on NRV), resulting from a decrease in oil prices QoQ. The Operating GRM also dropped QoQ in Q4/2023 owing to narrowing crack spreads of major products. For the Marketing Business Group, despite the impact from an Inventory Loss, the sales volume surged to its record high in this quarter. Also, for the Bio-Based Business Group, sales volume of biodiesel and ethanol reached its all-time high thanks to demand from BSRC. The Natural Resource Business Group experienced the record high production of 30.08 kboepd, primarily driven by the assets where OKEA has operatorship, specifically Draugen and Brage. The selling price of natural gas (Gas Price) rose by 21% QoQ, higher than the price of natural gas in the UK which increased by 18% QoQ. However, Q4/2023 recorded losses from impairment of assets, after tax and based on the shareholding portion, totaling THB 169 million for Yme field and THB 2,040 million for Statfjord field. The Clean Power Business experienced lower performance owing to seasonal factors and a lower share of profit from natural gas power plant projects in the U.S., resulting from the planned shutdown in the quarter and the lower margin spread in PJM market. As a result, in Q4/2023, the net loss attributable to owners of the parent was THB 977 million (<-100% YoY), representing the loss per share of THB 0.82. Nonetheless, excluding the extra items, the company recorded net profit of THB 1,347 million.

Financial Position as of 31 December 2023, Bangchak Group had cash and cash equivalents of THB 36,754 million and total assets of THB 340,429 million, an increase of THB 98,084 million compared to 31 December 2022, Bangchak Group with total liabilities of THB 240,397 million which increased by THB 81,431 million and total equity of THB 100,032, an increase of THB 16,654 million. Total equity attributable to owners of the parent was THB 72,112 million. Net Interest-Bearing Debt to Equity was 0.91 times, reflecting the strength of Bangchak's financial position. On 31 August 2023, TRIS rating affirmed the company rating on Bangchak Corporation Public Company at "A" reflecting positive view on its strong financial position after the successful acquisition of BSRC.

In 2024, Bangchak is primed for strategic growth and advancement, following the substantial investments in 2023 that propelled Bangchak to increase its assets by THB 98,084 million, reaching THB 340,429 million, marking a remarkable 40% growth and a significant leap forward for the Bangchak Group. In 2024, Bangchak is poised to recognize the full-year return on investment from the substantial projects undertaken in 2023, including the acquisition of BSRC shares and the investment in a combined cycle gas turbine power plant in the U.S. Beyond the acknowledgment of returns from these investments, Bangchak is strategically focused on creating and expanding synergies derived from the investments made in the previous year. Emerging from its origins as the smallest refinery in the country, Bangchak's refinery and oil trading business group has undergone significant evolution, presently asserting a preeminent position with a country-leading installed capacity of 294 KBD. Both the Phra Khanong and

Sriracha refineries are strategically aligned to operate at their full capacity, with the Sriracha refinery poised for a noteworthy escalation in its production rate, rising from 118 KBD in 2023 to 155 KBD in 2024—surpassing its historical operational capacities. Furthermore, the company has refined its management strategy to utilize technology and various assets within the group, aiming to maximize benefits through the creation of **Platforms for Growth**. This involves designing optimal product yield ratios for the Bangchak Group, emphasizing the attainment of the highest refining margin, commonly referred to as Optimized Gross Refinery Margin (Optimized GRM). Additionally, the company has implemented joint procurement strategies for crude oil, further enhancing operational efficiency and cost-effectiveness across the organization, encompassing key areas in the central region to the northern region (spanning from Bangkok to Lampang province), and the eastern region to the northeastern region (from Chonburi Province to Saraburi Province). This comprehensive approach includes the integration of both pipeline and sea transport methods, ensuring an efficient and integrated logistical framework. As a leading player with a nationwide network of service stations, a strategic opportunity unfolds for the expansion of Inthanin coffee shops (plan to increase the number of Inthanin coffee shop branches by 150 in 2024). This expansion not only serves as an additional distribution channel for Furio motor oil products but also facilitates increased sales of premium products, including Hi-Premium Diesel S B7 and Hi-Premium Gasohol 97. In 2024, Bangchak has prioritized the transition of service station logos to the **"New Leaf"**, ensuring a seamless integration of service stations operated by BSRC into the unified Bangchak brand. In the last four months of 2023, the company has successfully implemented the rebranding at 268 stations. Furthermore, the company is committed to the implementation of Shared Services in the Back Office system, encompassing Accounting, IT, and Human Resource systems, aiming to reduce costs and achieve overall economies of scale. Considering these strategic initiatives, the company **anticipates generating an EBITDA Synergy of not less than THB 3,000 million per year**. In addition to forthcoming synergies, Phra Khanong Refinery has outlined plans for continuous development, including augmenting the proportion of High-Valued Products such as Unconverted Oil (UO) from 75 to 92 million liters per month. Notably, the refinery **aims to become the first and only facility in Thailand to produce Sustainable Aviation Fuel (SAF)** by Q1/2025, with a production capacity of 1,000,000 liters per day. Additionally, the Bio-Based Products Business Group is poised to establish the first commercial CDMO biotechnology plant in Thailand and Southeast Asia, aligning with the target to increase sales volume and synchronizing with the expansion of Bangchak's service station network. **The clean energy business group** continues to flourish, with the anticipation of realizing full-year profits in 2024 from power plant projects in the U.S., complemented by the completion of investment projects in oil terminals, seaport, and oil transportation pipelines. In 2023, we also mark the development of projects in the pipeline, scheduled for commercial production (COD) as planned, including the solar power plant project in Taiwan. Additionally, 2024 is poised to witness recorded profits from the sale of investments in solar power plant projects in Japan in Q1/2024, with the strategic intention of reinvesting these proceeds into additional potential projects, demonstrating a commitment to Capital Recycling. In consideration of Energy Security, the company remains steadfast in prioritizing the growth of **the Natural Resource Business Group**, aiming for a targeted increase in petroleum production volume to reach levels ranging between 35-40 thousand barrels of oil equivalent per day (KBOEPD) in 2024.

Collaboratively, OKEA and the Company will explore and evaluate additional growth opportunities stemming from potential petroleum fields in the future.

Bangchak towards its 40th year of operation, the company remains dedicated to maintaining balance through the concept of “**Greenovate to Regenerate**” and anchored in the foundational practice on preserving a balance between profits and value. This approach extends to adeptly maintaining equilibrium amid the multifaceted challenges posed by the Energy Trilemma, facilitated through the implementation of the BCP 316 NET plan. This comprehensive strategy involves enhancing efficiency improvement and refining production procedures to reduce carbon emissions, thereby propelling our businesses towards achieving Carbon Neutrality by 2030 and ultimately attaining Net Zero by 2050. Moreover, Bangchak received the “Thailand Quality Award (TQA)” and Bangchak Phra Khanong refinery also won the “Global Performance Excellence Award (GPEA)” achieving the eminent World Class level, the first Thai organization from the industrial sector and the world’s first and only refinery to receive this world class level quality award. Furthermore, the company has secured the prestigious **Top 2 position in global sustainability rankings for the Oil & Gas Refinery and Marketing Industry through the S&P Global Corporate Sustainability Assessment (S&P Global CSA)**. This accomplishment reinforces Bangchak’s standing as an international sustainable organization, further underscoring the company’s commitment to advancing its business objectives while prioritizing both business growth and environmental preservation. This success aligns with Bangchak’s dedication to promoting and supporting a high quality of life for society, all while operating under the tenets of good corporate governance, which serves as the DNA of Bangchak Group’s business operations over the past 40 years. Our unwavering commitment has enabled us to realize our vision of becoming an organization with sustainable growth for 100 years, encapsulated in our ambitious aspiration known as “**Bangchak100X**”.

Other Important Events in 2023 until Present

January 2023

- BCP: On January 11, 2023, the company entered into a Share Purchase Agreement with ExxonMobil Asia Holdings Ptd. Ltd. to directly acquire a total of 2,283,750,000 ordinary shares of Esso (Thailand) Public Company Limited (“ESSO”), whose name was changed to Bangchak Sriracha Public Company Limited (“BSRC”) on November 15, 2023, approximately 65.99 percent of the total issued shares.
- OKEA: On January 31, 2023, the board of directors approved a cash dividend of NOK 1.00 per share, approximately NOK 104 million. The dividend was paid on March 15, 2023.

February 2023

- BCPG: On February 15, 2023, established a new subsidiary, BCPG USA Inc., in the U.S. to invest in the power generation business. Subsequently, BCPG USA Inc. entered into a Share Purchase and Sale Agreement with 49% of the membership interests in AP-BCPG CCE Partners LLC (“AP-BCPG CCE”) from AP Carroll County Holdings LLC (“APCCH”) and 49 % of the membership interests in AP-BCPG SFE Partners LLC (“AP-BCPG SFE”) from AP South Field Holdings LLC (“APSFH”) with an aggregated investment value of approximately USD 115.00 million to acquire a generation capacity of 150.98 MW, proportionate to the membership’s interest.

March 2023

- BCPG: On March 31, 2023, BCPG USA Inc., entered into the Purchase and Sale Agreement to purchase 25% of all shares in Hamilton Holdings II LLC (“Hamilton”), from Franklin Power Holdings LLC, with an amount not exceeding USD 260 million (or equivalent to THB 8,919 million). This investment will result in BCPG acquiring an installed capacity of totaling 426 MW from 2 combined cycle gas turbine projects in the U.S. (Liberty and Patriot).

April 2023

- BBGI: On April 5, 2023, the 2023 Annual General Meeting of Shareholders of BBGI resolved to approve dividend payment for the second-half-year operations of 2022 at THB 0.05 per share (paid on May 3, 2023) equivalent to approximately THB 72.3 million. The total dividend payment for the year 2022 is THB 0.25 per share.
- BCPG: On April 10, 2023, the 2023 Annual General Meeting of Shareholders of BCPG resolved to approve dividend payment for the second-half-year operations of 2022 at THB 0.16 per share (paid on April 21, 2023) equivalent to approximately THB 465.24 million. The total dividend payment for the year 2022 is THB 0.36 per share.
- BCP: On April 11, 2023, the 2023 Annual General Meeting of Shareholders resolved to approve as follows.
 - Dividend payment for the second-half-year operations of 2022 at the rate of THB 1.00 per share (paid on April 24, 2023). The total dividend payment for the year 2022 is THB 2.25 per share.

- The direct acquisition of 2,283,750,000 ordinary shares of BSRC (equivalent to approximately 65.99% of the total issued shares of ESSO as of September 30, 2022) from ExxonMobil Asia Holdings Pte. Ltd. and the tender offer for all remaining no more than 1,177,108,000 ordinary shares in ESSO (equivalent to approximately 34.01% of the total issued shares in BSRC as of September 30, 2022) after the completion of the Shares Acquisition Transaction to acquire the remaining BSRC shares at the same price as the purchase price of BSRC shares from ExxonMobil Asia Holdings Pte.
- The limit for debenture issuance and offer of up to THB 80,000 million or equivalent currencies at a given period for five years (2023-2027)

May 2023

- OKEA: On May 12, 2023, OKEA announced the dividend payment for Q1/2023 at the rate of NOK 1.00 per share or approximately NOK 104 million. The dividend was paid on June 15, 2023.
- BBGI: On May 12, 2023, BBGI increased its stake in BBGI Bioethanol (Chachoengsao) Company Limited (“BBGI-PS”) by purchasing from Sima Inter Product Company Limited, causing its stake to increase from 85% to 100%. Currently, BBGI-PS operates in the business of production and distribution of ethanol with a factory located in Chachoengsao Province and a capacity of 150,000 liters/day.
- BCPG: On May 17, 2023, Indochina Development and Operation Holding Pte. Ltd. (“IDO”), BBGI’s indirect subsidiary, acquired 100% share of SMP. AS Pte. Ltd. (“SMP AS”). SMP AS holds 10% of Monsoon Wind Power Company Limited (“MWP”). Therefore, BCPG becomes a net indirect shareholder in MWP with the total proportion of 48.25%, increasing from 38.25%, for an additional investment of 600-MW Wind Farm in Lao People’s Democratic Republic.
- BCPG: On May 23, 2023, BCPG established a new subsidiary, BCPG Energy Logistics Company Limited, with an initial registered capital of THB 1 million. BCPG holds 100% of issued shares.
- BCPG: On May 31, 2023, BCPG completed the acquisition of all shares of Asia Link Terminal Company Limited (“ALT”) and intended for ALT to enter the appointment of Bangkok Fuel Pipeline and Logistics Company Limited (“BFPL”) as the Asset and Tank & Terminal Management Contract including operating the seaport and pipeline of ALT in Phetchaburi Province. The transaction size is THB 410 million with no more than 6 years in total of the contract life (starting 1 June 2023 to 31 May 2029).
- BCP: On May 31, 2023, the Company announced the end of the Resale of Share Repurchase Project for Financial Management Purpose. Starting from December 23, 2022, the Company resold shares of 19,238,000 shares (of which 16,221,300 shares were sold to directors and employees of the Company and 3,016,700 shares were sold via the trading system of the Stock Exchange of Thailand), equivalent to 1.40% of the total shares sold. The total amount received was THB 551,213,532.

June 2023

- BCPG: The hydropower plant projects Nam San 3A and Nam San 3B in Lao PDR with total capacity of 114 MW, which BCPG invested through its subsidiary, BCPG Indochina Company Limited (“BIC”), started

to commence commercial operation and distributed electricity to the Socialist Republic of Vietnam according to the Power Purchase Agreement with Electricity of Vietnam (“EVN”) on June 15, 2023. The revenue recognition has started since mid-June 2023.

July 2023

- BCPG: On July 12, 2023, BCPG fulfilled the terms and conditions under the Purchase and Sale Agreement and the transfer of the 25 % stake in total shares in Hamilton was successfully completed. This investment resulted in BCPG’s total installed capacity in the two projects of natural gas power plants (Liberty and Patriot) of 426 MW.
- OKEA: On July 13, 2023, OKEA announced the dividend payment for Q2/2023 at the rate of NOK 1.00 per share or approximately NOK 104 million. Dividend was paid on September 15, 2023.

August 2023

- BCPG: On August 7, 2023, BCPG entered into the Purchase and Sale Agreement to acquire additional 40% of total shares in Carroll County Energy Holdings LLC (“CCE”), which operates Combined Cycle Power Generation Plant Project, with an amount not exceeding USD 145 million or equivalent to THB 5,031 million. Consequently, BCPG's ownership stake increased from the initial 8.7% to a post-transaction ownership of 48.7% with the increased total installed capacity from 280 MW to 341 MW.
- BCPG: On August 22, 2023, BCPG announced its interim dividend payment for 1H/2023 at THB 0.10 per share, totaling THB 300 million. The dividend has been paid to the shareholders on September 15, 2023.
- BCP: On August 24, 2023, the company announced its interim dividend payment for 1H/2023 to the company’s shareholders at THB 0.50 per share, totaling THB 689 million. The dividend has been paid to the shareholders on September 19, 2023.
- BCP: On August 31, 2023, the company completed the transfer and acquisition of ordinary shares in BSRC from ExxonMobil Asia Holding Pte. Ltd., amounting to 2,283,750,000 ordinary shares representing 65.99% of the total issued and paid-up ordinary shares of BSRC, at the total amount of THB 22,605,926,000, or approximately THB 9.8986 per share. This results in BSRC becoming a subsidiary of the company.

September 2023

- BCP: On September 11, 2023, the Ministry of Finance (through the Bank of Thailand) granted the Treasury Center License to Bangchak Treasury Center Company Limited (“BCTC”), BCP’s subsidiary company, and the Revenue Department permitted BCTC to be an International Business Center. BCTC, with the registered capital of THB 10 million, now provides financial management services to its network companies. The objective of BCTC is to manage short-term liquidity with subsidiaries under the Bangchak Group in the form of intercompany loan in either Baht or other currencies as agreed.

October 2023

- BCP: On October 3, 2023, BCP incorporated new subsidiary company, Refinery Optimization and Synergy Enterprise Company Limited (“ROSE”) with a registered capital of THB 1 million. BCP holds 50% of the

issued share while BSRC holds another 50%. The objective of ROSE is to provide planning, including management services to the refinery business of BCP and BSRC to achieve the most efficient operation, minimize cost, and maximize profit with fairness and transparency to all stakeholders.

- BCP: On October 4, 2023, the company opened the first-ever Liquefied Natural Gas (LNG) refueling station in Thailand, located in Bangchak Map lang service station, Sriracha, Chonburi Province. The station is operated by BTSG Company Limited (“BTSG”), a joint venture between BCP and Thai Special Gas Company Limited.
- BCPG: On October 12, 2023, BCPG USA Inc, the wholly owned subsidiary of BCPG, established a subsidiary BCPG Holdings LLC (“BCHL”) with an initial registered capital of USD 141.9 million engaging in investment business. On October 31, 2023, BCPG fulfilled conditions under the Share Purchase and Sale Agreement to acquire an additional 40% of total shares in CCE, BCHL therefore transferred the purchase price in exchange for the ownership in CCE. Subsequently, BCPG has the post-transaction ownership of 48.7% and total installed proportion capacity of 341 MW.
- BCP: On October 16, 2023, BCP officially completed the Tender Offer for the securities of BSRC. Shareholders tendered 358,407,198 shares, equivalent to 10.36% of all issued and paid-up ordinary shares. After the completion of the Tender Offer, BCP holds 2,642,157,198 shares or equivalent to 76.34% of all issued and paid-up ordinary shares.
- BBGI: On October 18, 2023, the Board of Director’s Meeting passed the resolution to approve the establishment of BBGI Fermbox Bio Company Limited, a joint venture company with FermBox Bio Private Limited to establish the contract development and manufacturing organization (CDMO) platform for synthetic biology products with Precision Fermentation technology, with an Initial registered capital of THB 4 million.
- OKEA: On October 26, 2023, OKEA announced the dividend payment for Q3/2023 at the rate of NOK 1.00 per share or approximately NOK 104 million. The dividend was paid on December 15, 2023.
- BCP: On October 30, 2023, BCP offered the “Bangchak Digital Debenture” through the “Paotang” application. Bangchak digital debenture is a specific-name bearer, unsubordinated, unsecured debenture which has a debenture holders’ representative, worth THB 3,000 million with 3-year investment period provided with a fixed annual interest rate of 3.45%.

November 2023

- BCP: On November 3, 2023, Winnonie Company Limited (a direct subsidiary of BCP as BCP holds 55.49% of total shares) entered into a joint investment agreement with BTS Group Holding Company Limited, in Smart EV Bike Company Limited (“Smart EV Bike”), with a stake of shareholding of 33.3% of the total shares. Smart EV Bike has a registered capital of THB 20 million with objectives to operate the hire purchase business of EV-bikes for the registered motorbike taxi drivers near BTS SkyTrain Stations, and other businesses related to the EV-bikes hire purchase.

- BSRC: On November 15, 2023, the resolutions of the Extraordinary General Meeting of Shareholders No. 1/2023 resolved to approve the amendment to the company's name to Bangchak Sriracha Public Company Limited ("BSRC"). Also, the abbreviation of the company's securities will change from ESSO to BSRC. The change shall take effect in accordance with the rules of the Stock Exchange of Thailand from November 20, 2023.
- BCPG: On September 15, 2023, entered into Share Sale and Purchase Agreement with Green Tech Venture Public Company Limited ("GTV") in accordance with the investment in solar power project with total installed capacity of 12.95 MW, total value of THB 477.07 million by purchasing 100% of shares in BS Solar Energy Company Limited, Parabolic Solar Power Company Limited and a newly setup subsidiary, which is set to acquire relevant assets of GTV's solar power plant.

December 2023

- BCPG: Board of Directors' Meeting No. 10/2023 held on October 17, 2023, passed a resolution to approve the divestment of all investments in 9 solar power plant projects in Japan with a total installed capacity of 116.96 MW through the consummation of the following transactions: (1) Sales of common shares in BCPG Japan Corporation K.K. ("BCPGJ"), BCPG's subsidiary offering operation and maintenance service to the solar power plants in Japan and owner of TK investment in 1 solar power plant (2) Sale of TK investment in 7 solar power plant projects ("TK Interests") and (3) Sale of common shares in Huang Ming Japan K.K. ("HMJ"), BCPG's subsidiary and owner of TK investment in 1 solar power plant. On December 1, 2023, BCPG entered into Purchase and Sales Agreements with Obton A/S group of companies for a total purchase consideration of JPY 28,712 million or THB 6,935 million equivalent. The transaction is expected to be completed in Q1/2024.
- BCP: On December 26, 2023, the company entered into a joint investment agreement with Thanachok Vegetable Oil (2012) Company Limited ("TVO"), by subscription of newly issued ordinary shares. TVO is a supplier of Used Cooking Oil, which will be used as raw material for the BCP's Sustainable Aviation Fuel production. After the capital increase, TVO will have a registered capital of THB 60 million, and BCP will hold 45% of the shares. Thus, TVO becomes an associate company of BCP.
- OKEA: On December 29, 2023, the transaction in relation to the acquisition of 28% working interest in Statfjord area was completed. This transaction has boosted OKEA's production from 20-25 to nearly 35-40 kboepd in 2024.

January 2024

- BCP: On January 12, 2024, Winnonie launched "Pinto" EV bikes by Smart EV Bike Company Limited, a joint venture between Winnonie and BTS Group. This was a significant milestone in the business development of EV bikes hire-purchase services for motorcycle taxi drivers along BTS stations, coupled with Winnonie's automated battery swapping network spanning the Bangkok Metropolitan Region.

February 2024

- BCP: At the Board of Directors' meeting, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2023 dividend payment at the rate of THB 2.00 per share of which THB 0.50 per share was paid as an interim dividend. Thus, the remaining dividend will be at the rate of THB 1.50 per share payable to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on April 11, 2024.
- BSRC: At the Board of Directors' meeting, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2023 dividend payment at the rate of THB 0.25 per share. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on April 10, 2024.
- BCPG: At the Board of Directors' meeting, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2023 dividend payment at the rate of THB 0.25 per share of which THB 0.10 per share was paid as an interim dividend. Thus, the remaining dividend will be at the rate of THB 0.15 per share payable to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on April 9, 2024.
- BBGI: At the Board of Directors' meeting, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2023 dividend payment at the rate of THB 0.05 per share. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on April 5, 2024.

Statement of Income

Statement of Income

Unit: THB Million	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Revenue from sale and services	142,922	94,528	51%	85,900	66%	385,853	328,017	18%
Gain (loss) from derivatives	1,266	(415)	>100%	1,146	10%	2,287	(5,136)	>100%
Accounting EBITDA	10,247	13,813	-26%	6,951	47%	41,680	44,724	-7%
Gain (loss) on foreign exchange	(22)	(107)	79%	242	<-100%	401	1	>100%
Gain from sale of investment	-	-	N/A	-	N/A	-	2,031	N/A
Reversal of (loss) from impairment of assets*	(6,190)	(1,928)	<-100%	(786)	<-100%	(9,497)	(2,433)	<-100%
Finance costs	(1,634)	(1,315)	24%	(1,005)	63%	(4,980)	(3,977)	25%
Tax expense	(1,193)	(2,478)	-52%	(1,410)	-15%	(8,766)	(12,852)	-32%
Profit (loss) for the period	(3,365)	11,195	<-100%	1,252	<-100%	11,908	15,152	-21%
Owners of the parent	(977)	11,011	<-100%	472	<-100%	13,233	12,575	5%
Non-controlling interests	(2,388)	184	<-100%	780	<-100%	(1,325)	2,577	<-100%
Basic earnings per share (Baht)	(0.82)	7.91		0.25		9.27	8.89	
Core Profit (excluding extraordinary items)	1,347	3,504	-62%	2,281	-41%	8,856	11,547	-23%

Extraordinary items (before tax)	(6,414)	6,480	<-100%	(2,779)	<-100%	(2,127)	43	<-100%
<i>Main item as follows:</i>								
Inventory Gain (loss) (including reversal of / loss on NRV)	(993)	3,598	<-100%	(4,003)	75%	(346)	1,708	<-100%
Gain (loss) from unrealized of derivatives	719	(559)	>100%	1,775	-59%	1,597	(992)	>100%
Gain (loss) on foreign exchange	(22)	(107)	79%	242	<-100%	401	1	>100%
Gain from sale of investment	-	-	N/A	-	N/A	-	2,031	-100%
Gain on bargain purchase	-	7,389	-100%	-	N/A	7,389	-	N/A
Expenses related to the acquisition of BSRC	-	(453)	100%	-	N/A	(453)	-	N/A
Reversal of (loss) from impairment of assets*	(6,190)	(1,928)	<-100%	(786)	<-100%	(9,497)	(2,433)	<-100%
- based on the shareholding ratio (after tax)*	(2,185)	(428)	<-100%	(1)	<-100%	(2,907)	(738)	<-100%

Performance in 2023 compared to 2022

Total revenue from sales and services was THB 385,853 million, increased by 18% YoY, mainly driven by an improved revenue from petroleum-related businesses, together with the 4-month revenue recognition from Bangchak Sriracha Business in 2023, starting from September 1, 2023, and full-year performance recognition from OKEA's new petroleum field acquired from Wintershall Dea.

Accounting EBITDA of THB 41,680 million, declined by 7% YoY, due mainly to the lower contributions from the Refinery and Oil Trading Business Group as Operating GRM plummeted YoY driven by lower crack spreads across all product. The decline was further exacerbated by weakened global oil demand, partially offset by a decrease in crude premium. In addition, for the Natural Resources Business, the average selling price of oil (Liquid Price) plummeted YoY as the global economy has yet to regain full momentum, whereas the oil supply became less constrained than

in 2022 when the Russian-Ukraine war broke out. However, the company recorded a gain from derivatives of THB 2,287 million from the forward contracts of crude oil and oil products (including fair value measurement per the accounting standards), owing to the lower crack spread of the products. Selling and administrative expenses increased by 21% YoY, mainly from employee related expenses, marketing, and the acquisition of BSRC.

Extraordinary items

- **Inventory Loss (including reversal of /loss on NRV)** of THB 346 million for the Bangchak Group, as the global crude oil prices dropped YoY.
- **Gain from unrealized derivatives** surged to THB 1,597 million, as crack spread tends to decline YoY.
- **Gain on foreign exchange** rose to THB 401 million, thanks to the strengthen Thai Baht in 2023. The gain on foreign exchange was mainly from assets denominated in US dollars held by the Refinery and Oil Trading Business Group and Clean Power Business Group. The increase was partly offset a loss on foreign exchange from the Natural Resources Business Group due to the depreciation of Norwegian Krone.
- **No gain from sale of investment** in 2023. While the company recorded the disposal of whole investment in Star Energy Group Holdings Pte. Ltd. (“SEGHPL”) in 2022 resulting in THB 2,031 million of gain from sale of investment.
- **Gain on bargain purchase** resulted from the fair value assessment of assets (PPA) of BSRC, amounting to THB 7,389 million.
- **Expenses related to the acquisition of BSRC** of THB 453 million, mostly consultant fees.
- **Loss on impairment of assets** totaling THB 9,497 million was mainly from the impairment of OKEA’s assets. The company recorded losses from impairment of assets, after tax and based on the shareholding ratio, totaling THB 456 million for Yme field and THB 2,040 million for Statfjord field in 2023.

Tax expense of THB 8,766 million, declined by 32% YoY. The decrease was attributed to the lower operating profits contributions from petroleum-related businesses and Natural Resources Business. The effective tax rate was 42.4%.

Net profit attributable to the owners of the parent was THB 13,233 million, an increase of 5% YoY, representing the earnings per share of THB 9.27.

Net profit from normal operations (excluding extraordinary items) was THB 8,856 million, a drop of 24% YoY.

Performance of Q4/2023 compared to Q4/2022

Total revenue from sales and services was THB 142,922 million, surged by 51% QoQ, mainly driven by an improved sales volume of oil products, together with the full quarter revenue recognition from BSRC.

Accounting EBITDA of THB 10,247 million, dipped by 6% QoQ. This decline was primarily attributed to the reduction in Operating GRM, influenced by lower crack spreads observed across all products, with a notable impact on diesel, which experienced a significant decline in crack spread. Furthermore, an Inventory Loss of THB 993 million (including reversal of loss on NRV), was recorded in Q4/2023 resulting from a decrease in oil prices in the late 2023, in contrast to US\$3.29/BBL of Inventory Gain in Q3/2023. Nonetheless, the company recorded gain from derivatives of THB 1,266

million from the forward contracts of crude oil and oil products in accordance with accounting standards, owing to the lower crack spread, which totally offset the impact of Inventory Loss. Selling and administrative expenses usually increase in the fourth quarter of the year, rose by 48% QoQ, attributed to expenses associated with marketing activities aligned with the concurrent growth in revenue.

Extraordinary items

- **Inventory Loss (including reversal of /loss on NRV)** of THB 993 million, as the global crude oil prices decreased.
- **Gain from unrealized derivatives** of THB 719 million, as crack spread tends to drop from the previous quarter. While, there was gain on fair value from the forward contracts of foreign exchange from the Strengthening of Thai Baht.
- **Absence of gains on bargain purchase** in Q4/2023, whereas in Q3/2023, there was a gain resulting from the fair value assessment of assets (PPA) of BSRC, amounting to THB 7,389 million.
- **No Expenses related to the acquisition of BSRC** in Q4/2023 while there were expenses recognition in Q3/2023 amounting to THB 453 million.
- **Loss on impairment of assets** totaling THB 6,190 million was mainly from the impairment of OKEA's assets. The company recorded after-tax losses from impairment of assets, based on the shareholding portion, totaling THB 2,209 million in Q4/2023 (THB 169 million for Yme field and THB 2,040 million for Statfjord field). Whereas in Q3/2023 recorded THB 159 million of loss on impairment.

Tax expense of THB 1,193 million, declined by 52% QoQ. The decrease was attributed to the lower operating profits contributions from petroleum-related businesses and Natural Resources Business. The effective tax rate was 54.9% in Q4/2023.

Net loss attributable to the owners of the parent dropped <100% QoQ to THB 977 million, representing the loss per share of THB 0.82.

Net profit from normal operations (excluding extraordinary items) decreased by 62% QoQ to THB 1,347 million.

Performance by Business Group



1) Refinery and Oil Trading Business Group

Crude Oil and Crack Spread Situation

Crude Oil Price (US\$/BBL)	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Dubai (DB)	83.55	86.74	(3.19)	84.82	(1.27)	82.10	96.32	(14.22)
Dated Brent (DTD)	84.05	86.76	(2.71)	88.71	(4.66)	82.62	101.19	(18.57)
DTD-DB	0.50	0.02	0.48	3.88	(3.39)	0.52	4.86	(4.34)
Crack Spread (US\$/BBL)	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
UNL95-DB	12.55	18.91	(6.36)	9.40	3.15	16.67	18.85	(2.18)
IK-DB	23.64	26.05	(2.41)	33.47	(9.83)	22.53	30.31	(7.78)
GO-DB	21.13	26.90	(5.77)	39.33	(18.20)	21.94	34.30	(12.35)
LSFO-DB	8.01	3.02	4.99	8.28	(0.27)	5.72	15.08	(9.36)

The average Dubai crude oil price in Q4/2023 plummeted by \$3.19/BBL compared to Q3/2023. The decline was attributed to downward pressures from a slowdown in global oil demand, whereas the global crude oil supply became less tightened thanks to increasing oil outputs from non-OPEC+ refiners—particularly major producers like the US. Meanwhile, the market remained skeptical whether the OPEC+ members could effectively reduce oil outputs to support global oil prices as intended, thus resulting in uncertainties over the global oil supply. Nonetheless, crude oil prices faced upward pressure from the Israel-Hamas conflict, which broke out in early October 2023 over the Gaza Strip and rapidly expanded to the Red Sea—one of the world's major maritime trade routes. This heightened concerns that the intense war might escalate and severely disrupt the crude oil supply in the Middle East. On a yearly basis, the average Dubai crude oil price in 2023 plummeted by \$14.23/BBL compared to 2022. The decline was attributed to weak global oil demand, particularly from the US and China, and the Federal Reserve (Fed) rate hikes to tame inflation—all of which adversely affected the economy and oil demand. Meanwhile, China's economy has suffered a slower-than-expected growth owing to fragile domestic consumption and the real estate crisis, despite the government's multiple efforts to revive the industry.

The average Dated Brent-Dubai spread (DTD-DB) in Q4/2023 rose by \$0.48/BBL compared to Q3/2023. The Dated Brent saw an uptick from uncertain crude oil supply, triggered by the conflicts in the Middle East and the Red Sea. Nonetheless, the Dubai crude oil price still faced upward pressures from market concerns over tighter supply of heavy crude oil, with Saudi Arabia extending its voluntary crude oil production cuts of 1 million barrels per day until the end of 2023. On a yearly basis, the average Dated Brent-Dubai spread (DTD-DB) in 2023 ebbed by \$4.34/BBL compared to 2022. The Dated Brent was pressured by a fragile European economy and a surplus of crude oil supply in Europe, driven by continuous US exports in 2023. Meanwhile, the Dubai crude oil price gained momentum due to supply constraints of heavy crude oil.

The spread between finished products and Dubai Price

- **Gasoline and Dubai crack spread (UNL95-DB)** in Q4/2023, on average, dipped from Q3/2023 owing to higher US gasoline inventory levels after peak driving seasons ended. Meanwhile, Asian oil demand remained stable and pressured by high retail prices. On a yearly basis, the average Gasoline and Dubai crack spread (UNL95-DB) narrowed in 2023 compared to 2022, attributed to rising gasoline exports from China and elevated retail prices that hampered the US gasoline demand during driving seasons.

- **Jet (Kerosene) and Dubai crack spread (IK-DB)** in Q4/2023, on average, plummeted from Q3/2023. The narrowed crack spread was attributed to higher jet fuel exports from China and higher jet (Kerosene) outputs among Asian refineries—driven by refining margins. On a yearly basis, the average Jet (Kerosene) and Dubai crack spread (IK-DB) ebbed in 2023 compared to 2022, owing to a subdued and slow-than-expected recovery in air travel demand, particularly in China, which faced an economic deceleration.

- **Diesel and Dubai crack spread (GO-DB)** in Q4/2023, on average, receded from Q3/2023 primarily due to a widening arbitrage that accelerated the rise in diesel exports from Asia to Europe—where a warmer winter held back demand for heating fuels. On a yearly basis, the average Diesel and Dubai crack spread (GO-DB) in 2023 declined from 2022. The decline was driven by downward pressure on demand as a result of stagnant economic conditions, particularly exacerbated by rampant inflation in Europe and subdued rebound in China.

- **Low-sulfur fuel oil and Dubai crack spread (LSFO-DB)** in Q4/2023, on average, widened from Q3/2023 as concerns over regional oversupply subsided after the Kuwait refinery ‘Al Zour’ halted Low-sulfur fuel oil exports in Q4/2023. On a yearly basis, the average Low-sulfur fuel oil and Dubai crack spread (LSFO-DB) narrowed in 2023 compared to 2022 since overall supply remained high thanks to exports from the Kuwait refinery during 9M/2023.

Refinery and Oil Trading Business Group Performance

Refinery and Oil Trading Business Group Performance	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Revenue (THB Million)	95,907	69,274	38%	75,981	26%	289,484	286,083	1%
EBITDA (THB Million)	3,086	6,306	-51%	2,206	40%	14,794	17,864	-17%
Average Crude Run (KBD)	120.8	116.4	4%	122.6	-1%	120.1	122.6	-2%
Utilization Rate (%)	101%	97%		102%		100%	102%	
Average FX (THB/USD)	35.82	35.32		36.54		34.97	35.24	
(Unit: US\$/BBL)								
Operating GRM	7.27	14.67	(7.40)	14.68	(7.41)	9.50	14.33	(4.83)
Oil Hedging	0.83	(0.69)	1.52	1.22	(0.39)	1.28	(3.49)	4.77
Inventory Gain/ (Loss) ^{1/}	(0.71)	3.29	(4.00)	(9.26)	8.55	(0.97)	1.03	(1.99)
Total GRM	7.38	17.27	(9.89)	6.64	0.74	9.81	11.87	(2.05)

Product Yield (%)	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
LPG	2%	2%	-0.2%	2%	0.0%	2%	2%	0.1%
Gasoline	19%	19%	-0.4%	19%	-0.8%	19%	20%	-0.6%
Jet (Kerosene)	11%	12%	-1.0%	7%	6.5%	11%	5%	6.1%
Diesel	52%	52%	0.9%	52%	0.8%	52%	53%	-0.7%
Non-Transportation fuels	0.0%	0.1%	-0.1%	0.2%	-0.2%	0.1%	0.2%	-0.1%
Unconverted Oil (UO)	8%	8%	-0.3%	10%	-2.5%	9%	11%	-2.3%
Fuel Oil	8%	7%	1.6%	10%	-2.7%	8%	9%	-1.7%
Total Sales Volume by Market ^{2/} (Million Liters)								
Marketing Business	1,727	1,571	10%	1,713	1%	6,490	5,977	9%
Petroleum traders in accordance with section 7	275	172	60%	170	62%	756	662	14%
Export	295	265	11%	362	-19%	1,152	1,650	-30%
Total Sales Volume	2,297	2,008	14%	1,903	21%	8,397	8,288	1%

Note: 1/ Inventory gain/(loss) in the table included (reversal of) losses on inventories devaluation (NRV)

2/ Sales volume excluded oil swaps between petroleum traders in accordance with section 7 and sales of crude oil

For the year 2023, the Refinery and Oil Trading Business Group recorded a total revenue of THB 289,484 million, an increase of 1% YoY. The EBITDA of THB 14,794 million, a decrease of 17% YoY, as a result of the following factors.

EBITDA -17% YoY

(-) Operating GRM was at US\$9.50/BBL, dropped by US\$4.83/BBL. The decline primarily stemmed from lower crack spreads observed across all product categories as global oil demand weakened in line with an economic slowdown and persistently high inflation. Notably, the crack spreads of diesel products significantly widened in 2022, owing to the tight oil supply triggered by the Russia-Ukraine war and the gas-to-oil fuel switch in the energy sector.

(-) Recognized an inventory loss of US\$0.97/BBL (or equivalent to THB 1,480 million), attributed to diminishing crude oil prices as global crude oil supply became less tightened. In contrast, the year 2022 recorded an inventory gain of US\$1.03/BBL (or equivalent to THB 1,620 million) due to escalating oil price volatility as the Russia-Ukraine war tightened the global oil supply.

(+) Recognition of gains from the forward contracts of crude oil and oil products (including fair value measurement per the accounting standards) totaling US\$1.28/BBL (or equivalent to THB 1,956 million). This stood in contrast to the US\$3.49/BBL loss incurred in 2022.

In addition, BCPT's total trade of crude oil and refined oil products increased by 16.2 million barrels (+49% YoY) to 49.4 million barrels. The growth was mainly driven by crude procurement for Bangchak Phra Khanong Refinery and Bangchak Sriracha Refinery, alongside the expansion of overseas trading business (Out-Out), which exhibited robust growth at 59% YoY. Furthermore, BCPT has consistently broadened the Out-Out trading network for crude oil and crude products to facilitate business expansion and diversification through an array of diverse sales channels.

In Q4/2023, the Refinery and Oil Trading Business Group recorded a total revenue of THB 95,907 million, an increase of 38% QoQ and 26% YoY. The EBITDA of THB 3,086 million, a decrease of 51% QoQ but an increase of 40% YoY, as a result of the following factors:

EBITDA -51% QoQ	EBITDA +40% YoY
<p>(-) Operating GRM plunged to US\$7.27/BBL, owing to narrowing crack spreads of major products in line with the global market conditions. The operating GRM was also pressured by higher crude cost as the Red Sea conflict has heightened freight rates around the world.</p> <p>(-) Recognized an inventory loss of US\$0.71/BBL or equivalent to THB 282 million (including NRV). This was attributed to lower global crude oil prices as market concerns over the Israel-Hamas war subsided, while the slowdown in global oil demand continued to hamper oil prices.</p> <p>(-) Recorded higher selling and administrative expenses, a typical occurrence in the 4th quarter, due to increasing expenses related to employees.</p> <p>(+) Recognized a gain from the forward contracts of crude oil and oil products (including fair value measurement per the accounting standards) totaling US\$0.83/BBL as crack spreads of contracted products trended downward.</p> <p>(+) In Q4/2023, Phra Khanong Refinery was back on stream after some production units underwent maintenance in the previous quarter for equipment installation and integration to improve oil quality in accordance with the Euro 5 standards. Hence, the QoQ average crude run rose to 120.8 KBD.</p>	<p>(+) Recorded a lower Inventory Loss compared to Q4/2022, attributed to a slower decline in oil prices. Q4/2022 recognized an Inventory Loss of US\$9.26/BBL (equivalent to THB 3,818 million) as global oil prices saw a sharp drop due to a resurgence of the COVID-19 pandemic as indicated by rising cases in China.</p> <p>(-) Operating GRM receded by US\$7.41/BBL as crack spreads of middle distillate products narrowed compared to Q4/2022.</p> <p>(-) Recognized a lower gain from the forward contracts of crude oil and oil products (including fair value measurement per the accounting standards) as crack spreads shrank.</p> <p>(-) Average crude run tumbled by 2% YoY as some production units went offline in July 2023.</p>



2) Marketing Business Group

Marketing Business Group Performance

Unit: Sites	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Service Stations	1,389	1,370	19	1,343	46	1,389	1,343	46
EV Chargers	265	223	42	179	86	265	179	86
Inthanin Coffee Shop	1,020	1,026	-6	1,002	18	1,020	1,002	18
Marketing Business Performance								
Revenue (THB Million)	49,353	46,718	6%	53,892	-8%	190,725	184,938	3%
EBITDA (THB Million)	556	1,312	-58%	120	>100%	3,157	2,909	9%
Marketing Margin (Baht / liter)	0.97	0.84	15%	0.81	20%	0.92	0.93	-1%
Net Marketing Margin (Baht / liter) ^{1/}	0.93	1.29	-28%	0.68	37%	0.94	0.94	0%
Sales Volume (Million Liters)								
Retail (via Service Stations)	1,244	1,161	7%	1,248	0%	4,773	4,636	3%
Industrial	483	410	18%	464	4%	1,717	1,340	28%
Total	1,727	1,571	10%	1,713	1%	6,490	5,977	9%
Sales Volume by Product (Million liters)								
LPG	27	29	-7%	34	-21%	120	116	3%
Gasoline	12	5	>100%	11	9%	37	29	28%
Gasohol	466	441	6%	453	3%	1,764	1,690	4%
Jet Fuel	206	204	1%	146	41%	779	403	93%
Diesel	974	846	15%	1,025	-5%	3,598	3,546	1%
Fuel Oil and Others	43	46	-7%	43	0%	192	194	-1%
Total	1,727	1,571	10%	1,713	1%	6,490	5,977	9%

Note: 1/ Net Marketing Margin (including Inventory gain/(loss) and NRV)

For the year 2023, the Marketing Business Group recorded a total revenue of THB 190,725 million, an increase of 3% YoY and EBITDA of THB 3,157 million, an increase of 9% YoY, as a result of the following factors:

EBITDA +9% YoY

(+) Total sales volume rose to the record high of 6,490 million liter (+9% YoY), mainly driven by a rebound in the aviation fuel market as global tourism started to gain traction. Another impetus came from a rising oil demand backed by the resumption of domestic economic activities. Furthermore, the company has continued to broaden our sales channels with new trade partners and launched marketing campaigns to bolster sales volume at service stations.

(+) Besides oil products, we strive to develop our lubricant products whose sales volume increased to 75 million liter (3% YoY) in 2023 with 10.9% local market share (10.1% in 2022). We also emphasized enriching retail experiences, which resulted in increased sales of Inthanin coffee shop by 4% YoY.

(+) Recognized a higher inventory gain, backed by a significantly higher oil price in Q3/2023, whereas the oil price trended downward in 2H/2022.

(0) Marketing margin was mostly unchanged from 2022.

In Q4/2023, the Marketing Business Group recorded a total revenue of THB 49,353 million (increased by 6% QoQ but declined by 8% YoY) and EBITDA of THB 556 million (decreased by 58% QoQ but increased by >100% YoY), as a result of the following factors:

EBITDA -58% QoQ	EBITDA >100% YoY
<p>(-) Recognized an inventory loss due to lower oil prices in Q4/2023, in contrast to an Inventory Gain in Q3/2023.</p> <p>(-) Recorded higher selling and administrative expenses, a typical occurrence in the 4th quarter, due to increasing expenses related to employees and marketing promotion corresponding to higher sales volume.</p> <p>(+) Total sales volume rose to 1,727 million liter (+10% QoQ), buoyed by expanding retail sales at service stations and sales volume in the industrial segment. Thanks to a resumption of domestic economic activities and tourism, total sales volume surged to a record high in Q4/2023.</p> <p>(+) Marketing margin improved by 15% QoQ to 0.97 THB/liter as lower refined product prices prompted the company to properly adjust retail prices to reflect actual costs.</p>	<p>(+) Marketing margin expanded by 20% YoY as the refined product prices trended downward, as explained above. In Q4/2022, the refined product prices ebbed in line with the subdued global market conditions.</p> <p>(+) Sales volume rose slightly by 1% YoY, mainly attributed to higher sales in the industrial segment. In particular, Thailand’s aviation sector showed signs of a steady rebound, leading to a 41% upsurge in jet fuel sales volume.</p> <p>(+) Recognized an inventory loss as oil prices plummeted at a slower rate compared to Q4/2022.</p>

The company strives to deliver the finest quality of oil products and elevate the retail experience through an in-depth understanding of our customers, steered by the concept of ‘Your Greenovative Destination.’ Bangchak strongly emphasizes offering diverse products at service stations and serving as the destination that caters to the needs of every customer segment with premium services. This quarter, we launched 19 new stations, making a total of 1,389 service stations as of Q4/2023—87 of which are ‘Bangchak Unique Design’ stations, and over 265 are fully equipped with electric vehicle (EV) chargers. With service stations operated under Bangchak Sriracha Public Company Limited included, Bangchak Group now oversees a total of 2,219 service stations under its wing. Apart from that, Bangchak stations also aim to enrich retail experiences by broadening services offered at shops, restaurants, coffee shops, and car maintenance services. In 2023, Bangchak received the prestigious ‘Superbrands Thailand’ for the sixth consecutive year, while BCR’s Inthanin Coffee brand was honored with the ‘Superbrands Thailand’ for 3 years in a row. These recognitions underscore Bangchak’s steadfast commitment to enhancing our products and services to deliver distinctive experiences to every customer, with an ultimate goal to become the “Greenovative Destination for Intergeneration.”



3) Bangchak Sriracha Business Group

Bangchak Sriracha Business Group Performance

Bangchak Sriracha Business Group Performance	Q4/2023	Q3/2023 ^{1/}	4M/2023
Revenue (THB Million)	59,458	16,781	76,239
EBITDA (THB Million)	(284)	1,281	997
Average Crude Run (KBD)	119.3	48.2	101.9
Utilization Rate (%)	69%	28%	59%
(Unit: US\$/BBL)			
Operating GRM	1.96	5.31	2.14
Inventory gain/ (Loss)	(1.37)	32.12	2.24
Total GRM	0.59	37.43	4.38
Product Yield (%)			
LPG	6%	7%	7%
Gasoline	33%	37%	37%
Jet Fuel	6%	9%	9%
Diesel	43%	44%	44%
Fuel Oil	9%	3%	9%
Asphalt	3%	0.1%	3%
Total Sales Volume (Million Liters)			
Marketing Business	839	265	1,104
Commercial Business	844	176	1,020
Petroleum traders in accordance with section 7	354	-	354
Export	108	-	108
Total Sales Volume	2,145	441	2,586
Sales Volume by Product (Million Liters)			
LPG	115	22	137
Gasoline	686	124	810
Naphtha	5	-	5
Jet Fuel / Kerosene	111	13	124
Diesel	1,051	257	1,308
Fuel Oil	128	15	143
Asphalt	34	6	40
Other	15	4	19
Total	2,145	441	2,586
Unit: Sites			
Service Stations	830	833	830

Note: 1/ Business of Bangchak Sriracha Plc. (formerly Esso Thailand Plc.), consolidated since 1 September 2023

For the year 2023, the company successfully acquired 76.34% stakes in Bangchak Sriracha Public Company Limited (BSRC), establishing BSRC as a subsidiary and the consolidation of BSRC starting from September 1, 2023 (4-month performance recognition in 2023) has strengthened the Bangchak Group. The company recognized an inventory gain of THB 999 million (including NRV) in 2023, despite the slowdown in global oil demand pressured by economic slowdown and elevated inflation which resulted in a declined Operating GRM in the late 2023. The company strives to enhance its businesses by building synergy within the group and developing Platforms for Growth to ensure sustainable growth.

In Q4/2023, the company recorded a full-quarter contribution of BSRC. Although the Sriracha Refinery went shut down for maintenance in September – October 2023 for 40 days and recommenced operations in mid-October 2023, the refinery was able to systematically increase its production capacity and reached 143.8 KBD in December 2023. The average production rate for the Sriracha Refinery in Q4/2023 was 119.3 KBD. However, due to the slowdown in global oil demand as mentioned earlier, Bangchak Sriracha Business recognized an inventory loss of THB 637 million (including NRV), calculated using weighted average inventory method, in combination with the higher expenses, resulted in a lower performance in Q4/2023. Nonetheless, the elevation in the total sales volume of oil products to 2,145 million liters was due to the recognition of the operating results for the entire quarter.



4) Clean Power Business Group

Clean Power Business	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Performance (THB Million)								
Revenue from sales and rendering of services	1,318	1,603	-18%	1,266	4%	5,031	5,405	-7%
EBITDA	1,048	1,330	-21%	1,004	4%	4,219	6,400	-34%
Share of profit (loss) from associated companies ^{1/}	60	172	-65%	14	>100%	252	130	94%
BCPG Group's Contracted Capacity (Equity MW)								
Solar Power Plant - Thailand	175.9	175.8	0%	173.7	1%	175.9	173.7	1%
Wind Power Plant - Thailand	9.0	9.0	0%	9.0	0%	9.0	9.0	0%
Solar Power Plant - Japan	79.7	79.7	0%	79.7	0%	79.7	79.7	0%
Hydropower Plant - Lao PDR	114.0	114.0	0%	114.0	0%	114.0	114.0	0%
Wind Power Plant – Philippines	14.4	14.4	0%	14.4	0%	14.4	14.4	0%
Natural Gas Power Plants - USA	857.0	577.0	49%	-	N/A	857.0	-	N/A
Total	1,249.9	969.9	29%	390.8	>100%	1,249.9	390.7	>100%
Electricity Sales (GWh)								
Solar Power Plant - Thailand	82.2	76.7	7%	81.6	1%	327.5	327.4	0%
Wind Power Plant - Thailand	2.7	4.0	-33%	2.2	23%	12.0	10.7	12%
Solar Power Plant - Japan	23.3	36.9	-37%	21.5	8%	120.4	105.1	15%
Hydropower Plant - Lao PDR	142.7	182.9	-22%	118.4	21%	350.1	504.7	-31%
Wind Power Plant – Philippines	8.4	9.1	-8%	9.4	-11%	35.4	32.3	10%
Natural Gas Power Plants - USA	1,441.0	1,109.5	30%	-	N/A	2,899.4	-	N/A
Total	1,700.2	1,419.0	20%	233.2	>100%	3,744.8	980.2	>100%

Clean Power Business	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Terminal and Pipeline throughput Capacity (Million Liters)								
Volume Through Oil Tank Terminal	707.2	693.0	2%	-	N/A	701.6	-	N/A
Volume Through Pipeline	318.9	232.9	37%	-	N/A	242.9	-	N/A

Note: 1/ In March 2022, BCPG disposed the whole investment in SEGHP, which invests in geothermal projects in Indonesia.

For the year 2023, the Clean Power Business Group's revenue was THB 5,031 million, a decrease of 7% YoY. The EBITDA was at THB 4,219 million, a decrease of 34% YoY, with factors affecting operations as follows:

EBITDA -34% YoY

(-) The electricity sales volume of hydropower plants in Lao PDR dropped 31% YoY due to the temporary halt to facilitate the preparation and transmission to Vietnam Electricity (EVN) since December 2022. However, the projects commenced commercial operation and distributed electricity to the Socialist Republic of Vietnam according to the Power Purchase Agreement with EVN on June 15, 2023.

(-) The electricity sales volume of solar power plants in Thailand was mostly unchanged from the previous year, yet total revenue declined due to the impact of the expiration of the adder scheme of 72 MW solar power plants since July and October 2022, and March and April 2023. However, the impact was mitigated by the increase in the Ft rate.

(+) Share of profit from investments in the associated company of THB 252 million, an increase from THB 130 million in 2022. This was mainly from recognition of profit sharing from the natural gas power plants in the U.S. with total installed capacity of 857 MW at the end of 2023 (151 MW from Carrol County & South Field in March 2023, 426 MW from Hamilton Liberty and Patriot in July 2023, and additional 280 MW from Carrol County project acquired in October 2023).

(+) The electricity sales volume of solar power plants in Japan increased 15% YoY driven by the full year revenue recognition of Komagane project (COD on 29 March 2022) and Yabuki project (COD on 15 April 2022).

(+) The electricity sales volume of wind power plants in Thailand increased 12% YoY due to higher wind speeds at the project.

(+) Recognition of operating revenue from oil terminal and seaport project in Thailand which started realizing the contribution in June 2023.

In Q4/2023, the Clean Power Business Group's revenue was THB 1,318 million, a decrease of 18% QoQ but an increase of 4% YoY. The EBITDA was THB 1,048 million, a decrease of 21% QoQ but an increase of 4% YoY, with factors affecting operations as follows:

EBITDA -21% QoQ	EBITDA +4% YoY
<p>(-) The hydropower plants in Lao PDR experienced a decline in electricity sales volume by 22% QoQ from the seasonal factor—low season in Q4.</p> <p>(-) The electricity sales volume of solar power plants in Japan decreased by 37% QoQ due to lower irradiation in winter season.</p> <p>(-) The electricity sales volume of wind power plants in Thailand dropped 33% QoQ driven by lower wind speeds as the monsoon season has ended.</p> <p>(-) The share of profit from investments in the associated company of THB 60 million, declined QoQ. These were mainly driven by the lower contributions from natural gas power plants in the U.S., resulting from the planned shutdown in the quarter and the lower margin spread in the PJM market, together with the lower share of profit from wind power business in the Philippines influenced by seasonal factor (low season).</p> <p>(+) The electricity sales volume of solar power plants in Thailand increased due to higher irradiation and the commencement of solar panel improvement started in November 2023.</p> <p>(+) Increasing revenue from oil terminal and seaport project in Thailand, driven by increased demand for oil transportation services from customers.</p>	<p>(+) The share of profit from investments in the associated company of THB 60 million mainly from 4 natural gas power plants in the U.S. as stated earlier,</p> <p>(+) The electricity sales volume of hydropower plants in Lao PDR surged by 21% YoY from the full-quarter revenue recognition compared to Q4/2022 as there was an operational shutdown in December 2022.</p> <p>(+) Recognition of revenue from oil terminal and seaport project in Thailand started from June 2023.</p> <p>(+) The electricity sales volume of solar power plants in Japan increased 8% YoY due to higher irradiation.</p> <p>(+) The electricity sales volume of wind power plants in Thailand increased 23% YoY due to higher wind speed.</p> <p>(-) Total revenue of solar power plants in Thailand experienced a decline resulting from the gradual expiration of the adder scheme.</p>



5) Bio-Based Product Business Group

Bio-Based Products Business	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Performance (THB Million)								
Sales Revenue	4,240	3,526	20%	3,269	30%	13,757	13,373	3%
EBITDA	253	169	50%	146	73%	667	617	8%
BBGI Performance								
Gross Profit/(loss)	193	116	66%	112	72%	441	464	-5%
Selling and Administrative expenses	(73)	(72)	1%	(85)	-15%	(349)	(310)	13%

Bio-Based Products Business	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Sales Volume (Million Liters)								
Ethanol	50.1	40.6	23%	37.6	33%	144.6	141.2	2%
Biodiesel	77.8	66.9	16%	63.9	22%	277.3	208.5	33%

For the year 2023, the Bio-Based Product Business Group recorded revenue of THB 13,757 million, an increase of 3% YoY. EBITDA was recorded at THB 667 million, an increase of 8% YoY. These were resulted from the following factors:

EBITDA +8% YoY

(+) Biodiesel business (B100) witnessed an increase in gross profit due to rising biodiesel sales volume following the announcement of increasing the biodiesel blending in high-speed diesel from B5 to B7 since October 10, 2022., together with an increased demand from BSRC.

(-) Ethanol business reported lower gross profit attributed to the decreased sales volume at the beginning of the year due to the initiative to promote gasohol E20 as primary gasoline by reducing the subsidy of gasohol E85 through the Oil Fuel Fund starting from Q4/2022, which resulted in a decrease in demand for ethanol. As well as the rising costs of raw materials, such as cassava and molasses, as well as low sugarcane production in the country, impacted by the effects of El Niño.

In Q4/2023, the Bio-Based Product Business Group recorded revenue of THB 4,240 million, an increase of 20% QoQ and 30% YoY. EBITDA was recorded at THB 253 million, an increase of 50% QoQ and 73% YoY. These were resulted from the following factors:

EBITDA +50% QoQ

(+) Biodiesel business (B100) witnessed an increase in gross profit owing to an increase in sales volume. The uplift in sales performance was mainly from ramped up volume sold to BSRC, together with increasing demand during the traveling season and harvest season.

(+) Ethanol business reported higher gross profit attributed to an increase in sales volume, in alignment with the company's strategic sales management plan to maximize benefits, paralleled by an increase in product selling prices.

EBITDA +73% YoY

(+) For biodiesel business (B100), experienced an increase in gross profit due to the rise in biodiesel sales volume as mentioned earlier.

(+) Lower selling and administrative expenses were recorded in this quarter thanks to an effective cost control.

(-) Ethanol business recorded saw an increase in sales volume by 33% YoY. Yet, the rising cost of raw materials resulted in lower gross profit.



6) Natural Resources Business Group

Natural Resources Business (THB Million)	Q4/2023	Q3/2023	QoQ	Q4/2022	YoY	2023	2022	YoY
Revenue	6,711	7,146	-6%	5,486	22%	28,848	23,583	22%
EBITDA	5,684	4,873	17%	3,769	51%	19,671	17,625	12%
OKEA Performance								
Revenue from crude oil and gas sales	6,710	7,146	-6%	5,408	24%	28,847	23,349	24%
EBITDA	5,761	4,892	18%	4,044	42%	19,778	17,951	10%
Production volume – Net to OKEA (kboepd)	30.08	23.71	27%	19.89	51%	24.59	16.74	47%
Sales volume – Net to OKEA (kboepd)	25.64	26.69	-4%	16.32	57%	28.22	16.25	74%
Realized liquids price (US\$/BBL)	83.4	89.0	-6%	95.2	-12%	80.1	98.4	-19%
Realized gas price (US\$/BBL)	74.6	61.9	21%	112.6	-34%	82.2	138.5	-41%

For the year 2023, Natural Resources Business Group's revenue was THB 28,848 million, increased by 22% YoY. The EBITDA was THB 19,671 million, an increase of 12% YoY. The factors impacting the performance are as follows.

EBITDA +12% YoY

(+) Sales volume of OKEA saw a remarkable 74% YoY increase, mainly driven by higher sales volume of oil and natural gas liquids, as the total sales volume in Q1/2023 surpassed the contracted production capacity. Furthermore, performance recognition from the new petroleum field acquired from Wintershall Dea in Q4/2022 significantly contributed to a full performance recognition in 2023.

(-) Average selling price of oil (Liquid Price) plummeted by 19% YoY, while the selling price of natural gas (Gas Price) declined by 41% YoY. The global economy has yet to regain full momentum, whereas the oil supply became less constrained than in 2022 when the Russian-Ukraine war broke out. Moreover, gas inventories across Europe and the UK remained high due to lower demand from warmer weather conditions compared to the previous year.

In Q4/2023, Natural Resources Business Group's revenue was THB 6,711 million, a decline of 6% QoQ but an increase of 22% YoY. The EBITDA was THB 5,684 million, an increase of 17% QoQ and 51% YoY. The factors impacting the performance are as follows:

EBITDA +17% QoQ

(+) Selling price of natural gas (Gas Price) rose by 21% QoQ, buoyed by heightened demand for natural gas during the winter season.

EBITDA +51% YoY

(+) Sales volume of OKEA increased by 57% YoY, mainly driven by higher sales volume of oil thanks to a performance recognition of the new petroleum field acquired from Wintershall Dea in Q4/2022, as well as continuously increased production capacity at Yme field.

EBITDA +17% QoQ	EBITDA +51% YoY
<p>(+) OKEA's production capacity surged to its record high of 30.08 kboepd. The increase was driven by OKEA's operated assets, Draugen and Brage. A successful development of Hasselmus at Draugen field, whose production increased by 47% to 24.59 kboepd, was a key achievement in this quarter.</p> <p>(-) Sales volume of OKEA ebbed by 4% QoQ, due mainly to lower sales volume than contracted production capacity (Underlift) in the Brage and Ivar Arsen fields in Q4/2023.</p> <p>(-) Average selling price of oil (Liquid Price) plummeted by 6% QoQ as crude oil prices trended downward in line with global market prices. Global oil demand has been stagnant, pressured by economic slowdown and elevated inflation.</p>	<p>(-) Liquid price shrank by 12% YoY, and the Gas price weakened by 34% YoY, owing to market concerns over the global economic deceleration and warm weather. In contrast, Q4/2022 witnessed a tight supply fueled by the Russia-Ukraine war.</p>

Furthermore, OKEA continued to expand its investment in the Statfjord's petroleum field in the Norwegian Continental Shelf. OKEA currently holds a 28% working interest, as announced in March 2023, and the transaction was recently completed on 29 December 2023. This led to a notable increase in OKEA's production capacity, expected to reach 40 kboepd in 2024. Nonetheless, Q4/2023 recorded a special entry due to lower-than-anticipated petroleum reserves in the Statfjord field. This resulted in NOK 619 million (or equivalent to THB 2,040 million) of losses from impairment of assets, after tax and based on the shareholding ratio. As well as NOK 138 million (or equivalent to THB 455 million) of loss from impairment of Yme field, which were recognized in the financial statement for Q4/2023.

Statement of Financial Position, Statement of Cash Flows, and Financial Ratios

As of December 31, 2023, Bangchak Group recorded total assets in the amount of THB 340,429 million, an increase of THB 98,084 million compared to the end of 2022, primarily from the increase in PPE and Investment in subsidiaries and associates in relation to the acquisition of share in Bangchak Sriracha Public Company Limited. Meanwhile, total liabilities increased by THB 81,431 million to THB 240,397 million due to the increase in long-term loans and debentures, as well as decommissioning, account payable and other current account payable, and corporate income tax payable. Bangchak Group's total equity amounted to THB 100,032 million, an increase of THB 16,654 million compared to the end of 2022, representing the book value per share of THB 45.28.

Bangchak Groups had cash and cash equivalents in the amount of THB 36,754 million, reflecting a decline primarily attributable to the investment in Bangchak Sriracha Public Company Limited. Net Interest-bearing Debt to Equity was at 0.91 times. On August 31, 2023, TRIS Rating affirmed the company rating on Bangchak Corporation Public Company Limited and the ratings on its outstanding senior unsecured debentures at "A" with "stable" rating outlook.

Statement of Financial Positions

(Unit : THB Million)	2023	% to total assets	2022	% to total assets	% change
Cash and cash equivalents	36,754	11%	45,932	19%	-20%
Inventories	47,840	14%	29,533	12%	62%
Other current assets	37,287	11%	35,885	15%	4%
PPE	119,374	35%	73,018	30%	63%
Investments in associates and joint ventures	28,349	8%	1,852	1%	>100%
Other non-current assets	70,825	21%	56,124	23%	26%
Total assets	340,429		242,344		40%
AP and Other AP	41,287	12%	28,948	12%	43%
Decommissioning	31,905	9%	20,901	9%	53%
L/T loans and debentures (included current portion of L/T loans and debentures)	128,268	38%	81,239	34%	58%
Other liabilities	38,937	11%	27,878	12%	40%
Equity	100,032	29%	83,378	34%	20%
Total liabilities and equity	340,429		242,344		40%

Statement of Cash Flows

(Unit : THB Million)	2023	2022	change
Profit for the period	11,908	15,152	(3,244)
Adjustment for depreciation and amortization expenses	14,370	10,004	4,366
Other adjustments	8,317	9,456	(1,139)
Changes in operating assets and liabilities	10,909	(15,169)	26,078
Net cash receipts (payments) from operating activities	45,504	19,443	26,061
Net cash receipts (payments) in investing activities	(72,900)	(962)	(71,938)
Net cash receipts (payments) for financing activities	18,755	(5,146)	23,900
Net increase (decrease) in cash and cash equivalent	(8,641)	13,335	(21,976)
Cash and cash equivalents – opening balance (1 January 2023)	45,932	32,022	13,910
Exchange gain (loss) on cash and cash equivalents	(537)	575	(1,112)
Cash and cash equivalents (net bank overdraft) – closing balance	36,754	45,932	(9,178)

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	Q4/2023	Q3/2023	Q4/2022	2023	2022
Profitability Ratios (%)					
Gross Profit Margin	5.61%	13.84%	7.71%	9.01%	14.82%
EBITDA Margin	7.44%	15.48%	8.22%	11.13%	14.33%
Net Profit Margin	-2.46%	12.55%	1.48%	3.18%	4.85%
Return of Equity (ROE)	19.63%	21.28%	21.65%	19.63%	21.65%
Efficiency Ratio (%)					
Return on Assets (ROA)	8.80%	10.73%	14.40%	8.80%	14.40%

	31 Dec 23	30 Sep 23	31 Dec 22
Liquidity Ratios (Times)			
Current Ratio	1.39	1.53	2.33
Quick Ratio	0.79	0.74	1.45
AR Turnover	20.10	23.08	27.42
Collection Period (days)	18	16	13
AP Turnover	17.02	13.79	19.21
Payment Period (days)	21	26	19
Leverage Ratios (Times)			
Net Interest-bearing Debt to Equity	0.91	0.79	0.41

Financial Ratios Calculation

Profitability Ratios

- Gross Profit Margin (%) = $\frac{\text{Gross Profit}}{\text{Revenue from sale of goods and rendering of services}}$
- EBITDA Margin (%) = $\frac{\text{EBITDA}}{\text{Revenue from sale of goods and rendering of services}}$
- Net Profit Margin (%) = $\frac{\text{Profit attributable to owners of the parent}}{\text{Revenue from sale of goods and rendering of services}}$
- Return on Equity (%) = $\frac{\text{Profit attributable to owners of the parent}}{\text{Total Equity attributable to owners of the parent (Average)}}$

Efficiency Ratio

- Return on Assets (%) = $\frac{\text{EBIT}}{\text{Total asset (Average)}}$

Liquidity Ratios

- Current Ratio (Times) = $\frac{\text{Current asset}}{\text{Current liabilities}}$
- Quick Ratio (Times) = $\frac{\text{Cash \& Equivalents} + \text{Short-term investments} + \text{Trade and other account receivable}}{\text{Current liabilities}}$
- Accounts Receivable Turnover (Times) = $\frac{\text{Revenue from sale of goods and rendering of services}}{\text{Accounts receivable before doubtful debt (Average)}}$
- Collection Period (Days) = $\frac{365}{\text{Account receivable turnover}}$
- Accounts Payable Turnover (Times) = $\frac{\text{Cost of sale of goods and rendering of services}}{\text{Accounts payable (Average)}}$

- Payment Period (Days) = 365 / Accounts Payable Turnover

Leverage Ratios

- Net Interest-Bearing Debt to Equity (Times) = $(\text{Interest bearing debt} - \text{Cash and cash equivalents} - \text{Short-term investments}) / \text{Total equity}$

Note:

1/ Average total equity attributable to owners of the parent

- Yearly = $(\text{Total equity attributable to owners of the parent of the year before} + \text{Total Equity attributable to owners of the Company of this year}) / 2$
- Quarterly = $(\text{Total equity attributable to owners of the parent of the quarter of the year before} + \text{Total equity attributable to owners of the parent of the quarter this year}) / 2$

2/ Average total assets

- Yearly = $(\text{Total assets of the year before} + \text{Total assets of the Company of this year}) / 2$
- Quarterly = $(\text{Total assets of the quarter of the year before} + \text{Total assets of the quarter this year}) / 2$

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

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

5/ Average accounts receivable before doubtful debt

- Yearly = $(\text{Accounts receivable before doubtful debt of the year before} + \text{Accounts receivable before doubtful debt of the Company of this year}) / 2$
- Quarterly = $(\text{Accounts receivable before doubtful debt of the quarter of the year before} + \text{Accounts Receivable before doubtful debt of the quarter this year}) / 2$

6/ Average accounts payable

- Yearly = $(\text{Accounts payable of the year before} + \text{Accounts payable of the Company of this year}) / 2$
- Quarterly = $(\text{Accounts payable of the quarter of the year before} + \text{Accounts payable of the quarter this year}) / 2$

7/ Interest bearing debt defined as Short-term loans + Long-term loans (including current portion of long-term loans) + Debentures (including current portion of long-term debentures)

Sustainability Performance in 2023

The company has undertaken a comprehensive sustainability assessment across 3 critical dimensions—Environmental, Social, and Governance—alongside prioritizing robust economic performance. In doing so, we aim to achieve corporate sustainability in alignment with the criteria of the Stock Exchange of Thailand and the S&P Global Corporate Sustainability Assessment (S&P Global CSA). Apart from that, Bangchak Group has undergone the Morgan Stanley Capital International (MSCI) ESG Ratings, administered by MSCI ESG Research, an international organization with expertise and credibility in ESG indices. This assessment evaluates the company's resilience to environmental, social, and governance risks (ESG Risks) pertinent to its respective business operations. Results from ESG assessments are explained below:

- **Stock Exchange of Thailand's Assessment**

- The company has been selected as a member of Thailand Sustainability Investment (THSI) by the Stock Exchange of Thailand for the ninth consecutive year (2015-2023). In the SET ESG Ratings 2023 announcement, Bangchak Group received a SET ESG Rating of "AAA" (total score 90-100), the highest rating in Thailand for the Resources Group.
- The company was awarded the Sustainability Awards of Honor, the highest recognition in the Sustainability Excellence category, for 4 years in a row (the award is reserved for organizations receiving the Best Sustainability Awards for at least three consecutive years). In 2023, Bangchak was granted the Best Sustainability Awards for the seventh consecutive year.
- The company received the Best Investor Relations Award for a listed company with a market capitalization ranging between 30,001 million to 100,000 million THB for outstanding performance in organizing various investor relations activities. These include domestic and international roadshows and conferences, accurate and transparent disclosure of information, timely responses to market developments, and effective communication channels.

- **International ESG Assessments**

- The company received the MSCI ESG Rating of "AA," placing it as the ESG Leader for the fifth consecutive year. The AA rating is the highest level attained by Thai corporates in the Oil & Gas Refining, Marketing, Transportation & Storage industries.
- The company underwent the evaluation from S&P Global Corporate Sustainability Assessment (S&P Global CSA), the evaluator of Dow Jones Sustainability Indices (DJSI). In the latest assessment announced in the S&P Global Sustainability Yearbook 2024, Bangchak Group achieved the "Top 5% S&P Global Sustainability Assessment Score 2023," ranking 2nd globally in the Oil & Gas Refinery and Marketing industry.

The company places great emphasis on overseeing ESG risks within its business operations as follows:

Risks from economic uncertainties and volatile energy prices

The escalating geopolitical tensions between Russia and Ukraine have exacerbated the supply chain disruption. Meanwhile, rising energy and commodity prices kept inflation persistently high in many countries, particularly major economies. Government efforts to maintain domestic retail fuel prices could trigger a fluctuation in refining margins and stock balances (gain/loss), thus preventing the company from adjusting retail prices at service stations. To address these complexities, Bangchak Group has put in place the following risk management strategies:

- Closely monitor the oil price volatility, employ partial oil price hedging, and ensure ample funding for oil procurement.
- Develop niche refinery products by producing unconverted oil (UO) from the hydrocracking unit and extend the turnaround maintenance cycle from every 3 years to every 4 years.
- Enhance service quality and secure the second-largest market share (Source: Department of Energy Business) by introducing unique design and Bangchak's brand identity at each service station; emphasize upgrading service standards to maximize customer satisfaction through initiatives centered on customer empathy, relationship management, and service improvement; and leverage digitization to deliver the best customer experiences.
- Develop high-quality oil products, including Bangchak HI Premium 97 (the highest-octane gasoline available in the Thai market), Bangchak HI Premium Diesel S (featuring the highest cetane rating among diesel products), and Bangchak E20 S EVO (a premium-grade E20 fuel)—all of which are certified by the Euro 5 standards, ensuring environmentally friendly qualities and lower pollutant level.

Risks from changes in digital technology and cyber threats

The dynamic landscape of digital technology and cyber threats presents complex and rapidly evolving challenges. The company has implemented strategic preparations to anticipate potential developments and adapt to changes. Furthermore, we consistently evaluate technology risks that may disrupt current business operations through a series of proactive measures:

- Establish the Digital Technology Center tasked with planning, monitoring, and providing digital technologies to prepare for rapid technological transformation.
- Establish the Cybersecurity Department to proactively plan, monitor, assess, and provide tools against escalating cyber threats. Bangchak's Risk Management Committee prioritizes vigilant risk monitoring and management to ensure readiness in the event of disruptions caused by cyber-attacks. This is achieved through the acquisition of tools, comprehensive system vulnerability assessment, and consistent risk monitoring.
- Continue the Refinery Cyber Security System project. The company is certified by ISO/IEC 27001 (Information Security Management) for the distributed control system of the refinery.

- Consistently monitor market developments and share information with employees to raise awareness regarding the importance of IT security. Bangchak mandates quarterly cyber threat awareness tests for all employees to reinforce their knowledge and preparedness.

Risks from climate change, environmental degradation, and greenhouse gas mitigation measures

Recognizing the potential adverse impacts of our business activities on climate change, Bangchak Group has implemented strategies aimed at mitigating energy consumption and greenhouse gas emissions, as follows:

- Demonstrate a commitment to operating a low-carbon business and pioneering the energy transition by increasing the proportion of green businesses to tackle carbon emissions. The company also established the Carbon Markets Club with an aim to create a low-carbon society, which currently boasts a membership of 165 organizations and 607 individuals as of December 31, 2023.

- Target achieving Carbon Neutrality by 2030 and Zero GHG Emission by 2050, steered by the BCP 316 NET concept comprising 4 pillars, namely: B = Breakthrough Performance by emphasizing efficiency and process improvement, low carbon emissions, and environmentally friendly values; C = Conserving Nature and Society by supporting ecological balance through natural carbon sequestration; P = Proactive Business Growth and Transition by harnessing green technology and embracing the clean energy transition in pursuit of sustainable growth; and NET = building an inclusive ecosystem to achieve the Net Zero goal.

- Utilize natural gas for electricity and steam production through a cogeneration power plant. Replace fuel oil with natural gas as the primary fuel in the refining process in order to increase the refinery's energy efficiency and minimize carbon emissions.

- Optimize resource utilization through the 3R strategy—Reduce, Reuse, and Recycle. The strategy emphasizes implementing environmentally sustainable business practices, such as setting up plastic bottle collection points at service stations, recycling engine oil containers to manufacture new ones, and promoting a circular economy to maximize environmental, social, and community benefits.

- Minimize plastic usage in non-oil businesses by replacing straws with sip-through lids, switching to bio-degradable cups (Bio-Cup), encouraging customers to collect their used plastic cups in exchange for discounts, and donating over 3 million bio-cups to the Royal Forest Department as part of the “Kaew Por Klar” initiative.

- BSGF's “Fry to Fly” (Tod Mai Ting) campaign, advocating for “proper disposal” of used cooking oil to mitigate environmental pollution and “no reusing” cooking oil to avoid health hazards. The campaign encourages people to sell their used cooking oil at designated Bangchak service stations or collection points, where the collected oil will then be recycled into Sustainable Aviation Fuel (SAF)—all aligning with the Bio-Circular-Green (BCG) Economy Model.

- “Orphan Waste” campaign to promote waste management based upon the circular economy concept. The campaign encourages a reduction of waste at its origin and proper waste management practices to alleviate adverse impacts on society from extensive waste accumulation in open dumps and air pollution from landfills. The company also set up orphan waste pick-up points at designated service stations to facilitate proper disposal efforts.

Risks from flooding and water scarcity

The company acknowledges the importance of managing the production process to minimize water consumption and implements the following measures to address the issues:

- Monitor climate change risks. During drought seasons, the company closely monitored water situation updates from the Metropolitan Waterworks Authority on a daily basis in order to examine risks of water scarcity, which could disrupt production. The company sought emergency water reserves to ensure uninterrupted production in the event of water shortages, while implementing measures to address risks associated with low water levels in the Chao Phraya River, which may affect marine transportation.

- The Safety, Health, Environment, and Energy Management (SHEEM) Committee and the Safety, Health, Environment, and Energy Promotion (SHEEP) Committee are tasked with setting targets and overseeing water usage and circulation within the refinery. Both committees also organize educational activities on reducing water consumption in production processes and office facilities.

- 3R strategy: This includes Reducing water consumption through micro-filtration system and reverse osmosis system to improve the quality of tap water, Reusing condensate water and stripped water in the production process—resulting in the reuse of approximately 90,000 cubic meters of water, and Recycling an additional 180,000 cubic meters of water by the reverse osmosis system. The combined water savings achieved through the 3R strategy equated to the water consumption of 3,865 households.

- Start the newly upgraded 2 cooling units at the refinery to improve efficiency and reduce water loss from the cooling system, resulting in a reduction of tap water usage by 5 cubic meters per hour (equivalent to 5% of total tap water use)

- Encourage affiliated companies to integrate the 3R strategy into their production processes. Aside from that, the company has initiated a project to drill raw water wells to secure additional water reserves for the factory areas.

Economy and Crude Oil Price Outlook

Economic Outlook

The global economy in 2024 is on track to recover from the COVID-19 pandemic and the energy crisis triggered by the Russia-Ukraine war. The International Monetary Fund (IMF) has upgraded its economic growth forecast from 2.9% in October 2023 to 3.1%, citing robust growth in the US and advanced economies that outperformed previous estimations. Apart from that, fiscal stimulus in China to bolster domestic demand and lower energy and commodity prices are factors contributing to an improved economic outlook. Meanwhile, inflation has subsided thanks to the contractionary monetary policy. Still, the escalating geopolitical tensions and Red Sea disruption are the short-term headwinds.

In 2024, Thailand's economic growth will likely lose pace, dragged by a downturn in exports and the manufacturing sector, as weakened global demand and uncertainties over China's sluggish rebound continue to hamper Thai exports. In contrast, private consumption and the tourism sector have stayed upbeat and will likely serve as key economic drivers in the short term. Inflation also remained low. However, the impact of the ongoing conflicts in the Middle East on energy prices, the impact of climate change on agricultural commodity prices, and cost-of-living support package announced by the government are important factors that need to be closely monitored.

Summary of Thai Economic Projections			
(Unit: %)	2022	2023*	2024
Economic growth rate	2.6	2.4	2.5-3.0*
Inflation rate	6.1	1.3	1.0

Source: Bank of Thailand (*News Announcement on February 7, 2024)

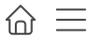
Oil Price Outlook

The International Energy Agency (IEA) anticipates a slowdown in global oil demand from 2.3 million barrels per day in 2023 to 1.1 million barrels per day in 2024, owing to the fragile global economy. Non-OPEC+ producers—including the US, Canada, and Brazil—will likely become significant drivers of global crude oil supply this year. Hence, the IEA expects the global crude oil supply in 2024 to expand to 1.2 million barrels per day. However, the ongoing oil output cuts by the OPEC+ to support oil prices remain a critical factor that warrants closed monitoring.

Based on our assessment, the average Dubai crude oil price in 2024 will likely move between US\$75-85/BBL, reflecting a waning momentum in global crude oil demand from 2023. In contrast, global oil supply witnessed a steady increase driven by outputs from non-OPEC+ refiners. Nonetheless, global crude oil prices continue to face upward pressures from geopolitical conflicts in many regions, which has threatened the global crude oil supply.

The Dated Brent-Dubai (DTD-DB) spread in 2024 will likely settle between US\$0.5-1.5/BBL. The Dated Brent remains pressured by weak European crude oil demand due to sluggish economic conditions. In contrast, the regional supply in Europe is expected to remain robust, buoyed by crude oil exports from the US.

In 2024, we expect the refining margin of cracking refineries in Singapore to decline from 2023, given downward pressures from a slowdown in demand amidst subdued economic conditions and elevated inflation worldwide. In particular, a rebound in oil demand from China is likely to be lower than anticipated due to the ongoing real estate crisis. Nevertheless, the refining margin will gain impetus from market concerns as the Middle East conflict might constrain the global oil supply.



Research & Development and Innovation

In the past year, the R&D team from the Bangchak Initiative and Innovation Center (BiIC) has produced astaxanthin from a pilot plant to be processed into high-value products and has developed new products such as nutritional supplements, lipstick, hair serum, and sunscreen lotion. In collaboration with Naive Innova Co., Ltd., the Center studied astaxanthin molecules at the nano level to find ways to improve water solubility and allow its application in a wider range of supplements and cosmetics. The Center also worked jointly with the Center of Excellence for Marine Biotechnology at the Faculty of Science, Chulalongkorn University and the Faculty of Marine Technology, Burapha University (Chanthaburi Campus) to study the effects of high-value algae extracts on the growth and disease resistance of whiteleg shrimps by using algae residue containing protein and astaxanthin to make shrimp feed. In 2023, the company spent 1.9 million baht on R&D for technology and innovation development.

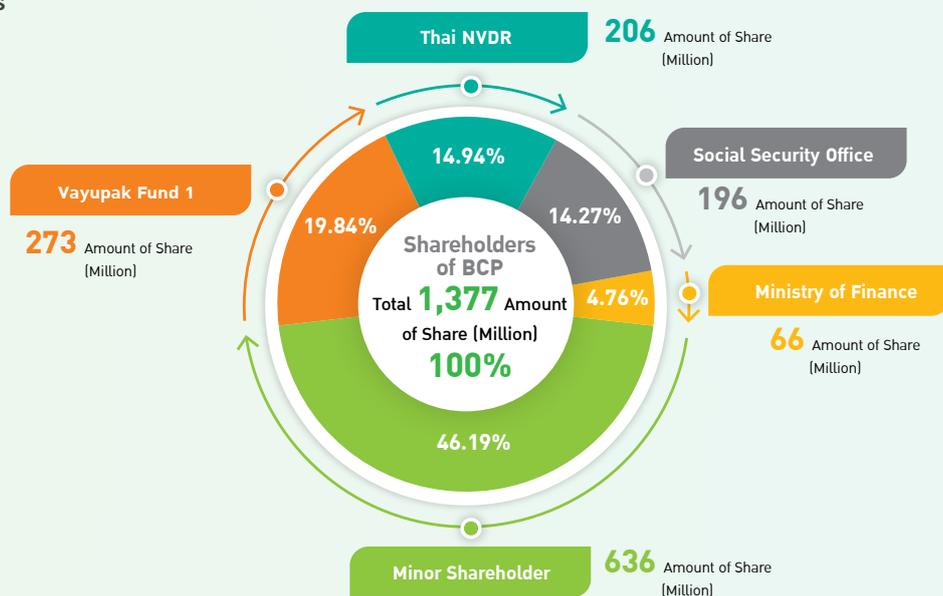
5. General Information and Other Key Information

5.1 General Information

Bangchak Corporation Public Company Limited

Registration No.	0107536000269	Registered capital (as of December 31, 2023)	1,376,923,157 baht, of which 1,376,923,157 baht was paid up, dividing into 1,376,923,157 shares, at 1 baht per share.
Company establishment	November 8, 1984		
Commercial operation	April 1, 1985		

Shareholders



as of September 7, 2023

Nature of business

Oil Refinery and Trading Business, Marketing Business, Clean Power Business, Bio-based Products Business, Natural Resources Business



Contact

- Internal Audit Department
Tel. 0 2335 4569
Fax. 0 2335 8000
Email: ico@bangchak.co.th
- Investor Relations Division
Tel. 0 2335 8663
Fax. 0 2335 8000
Email: ir@bangchak.co.th
- The Secretary to the Board of Directors Division
Tel. 0 2335 4445 Fax. 0 2016 3982
Email: bcpssecretary@bangchak.co.th
- Call Center
Tel. 1651
Fax. 0 2335 8000
- Company Website



www.bangchak.co.th

Office and Terminals

Northern Region Business Office

681/11 Moo 2, Tambon Chang Phuek,
Amphoe Muang Chiang Mai,
Chiang Mai 50300
Tel. 053 300 484
Fax. 053 300 485

Central Region Business Office and Bang Pa-In Terminal

99 Moo 9, Tambon Bang Krasan,
Amphoe Bang Pa-in, Ayutthaya 13160
Tel. 035 350 289, 035 350 292
Fax. (Central Region Business Office) 035 350 290
Tel. (Bang Pa-In Terminal) 035 276 999

Northeastern Region Business Office

499 Moo 12, Mitrphab Road,
Tambon Muang Kao,
Amphoe Muang, Khon Kaen 40000
Tel. 043 261 751-2
Fax. 043 261 790

Phichit Oil Terminal

99/8 Moo 9, Tambon Banna,
Amphoe Wachirabarami,
Phichit 66140
Tel. 0 2335 8728

Samut Sakhon Oil Distribution Center

100/149 Moo 1, Thon Buri-Pak Tho Road,
Tambon Tha Chin, Amphoe Muang,
Samut Sakhon 74000
Tel. 034 820 519-20

Sri Racha Oil Distribution Center

115/14 Moo 10, Tambon Thung Sukhla,
Amphoe Sri Racha, Chonburi 20230
Tel. 038 493 179
Fax. 038 493 129

Rayong

Oil Distribution Center

1, 3B Road, Tambon Map Ta Phut,
Amphoe Muang, Rayong 21150
Tel. 038 609 389
Fax. 038 609 413

Surat Thani

Oil Distribution Center

104/1 Moo 2, Surat-Pak Nam Road,
Tambon Bang Kung, Amphoe Muang,
Surat Thani 84000
Tel. 077 275 056-8

Southern Region Business Office

126/70, Moo 6, Bypass Road,
Tambon Makhm Tia, Amphoe Muang,
Surat Thani 84000
Tel. 077 224 792
Fax. 077 224 793

Song Kla

Oil Distribution Center

3/26 Moo 6, Tambon Sa Ting Mor,
Amphoe Singha Nakorn,
Song Kla 90280
Tel. 074 332 782
Fax. 074 332 783

Suksawat Lubricant Oil Distribution Center

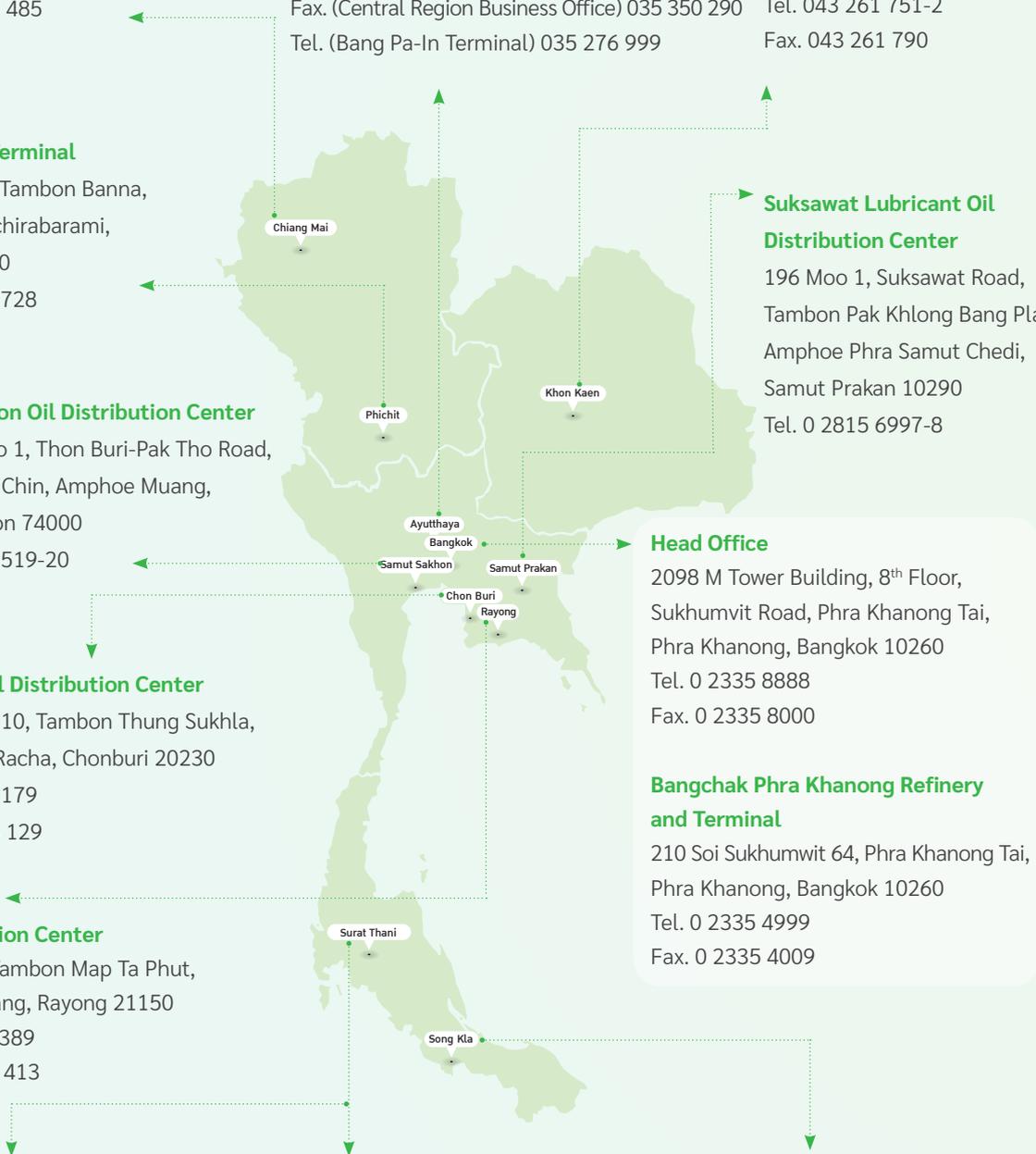
196 Moo 1, Suksawat Road,
Tambon Pak Khlong Bang Pla Kot,
Amphoe Phra Samut Chedi,
Samut Prakan 10290
Tel. 0 2815 6997-8

Head Office

2098 M Tower Building, 8th Floor,
Sukhumvit Road, Phra Khanong Tai,
Phra Khanong, Bangkok 10260
Tel. 0 2335 8888
Fax. 0 2335 8000

Bangchak Phra Khanong Refinery and Terminal

210 Soi Sukhumvit 64, Phra Khanong Tai,
Phra Khanong, Bangkok 10260
Tel. 0 2335 4999
Fax. 0 2335 4009



Subsidiaries

BCPG Public Company Limited (BCPG)

2098 M Tower Building, 12th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel.0 2335 8999
Fax. 0 2335 8900
Email: info@bcpggroup.com
Website: www.bcpggroup.com

BBGI Public Company Limited (BBGI)

2098 M Tower Building, 5th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel.0 2335 8899
Fax. 0 2335 8800
Email: info@bbgigroup.com
Website: www.bbgigroup.com

Bangchak Sriracha Public Company Limited (BSRC)

3195/21-29 Rama IV Road, Klong Ton,
Klong Toey, Bangkok 10110
Tel. 0 2124 7999
Website: www.bsrc.co.th

Bangchak Retail Company Limited (BCR)

2098 M Tower Building, 17th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 8400
Fax. 0 2016 3963

Bangchak Green Net Company Limited (BGN)

2098 M Tower Building, 17th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 2699
Fax. 0 2745 7945

Refinery Optimization and Synergy Enterprise Company Limited (ROSE)

1056 Sukhumvit 66/1, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 4999

BCPR Company Limited

2098 M Tower Building, 8th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 8654

BCV Innovation Company Limited

BCV Energy Company Limited

BTSG Company Limited

2098 M Tower Building, 20th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 4999
Fax. 0 2335 4572

Winnonie Company Limited

884 Moo 5, Tambon Samrong Nuea,
Amphoe Muang Samut Prakan, Samut Prakan 10270
Tel. 0 2365 6700

General Energy Manning Company Limited

2098 M Tower Building, 18th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 8888

Bangkok Fuel Pipeline and Logistics Company Limited

99 Moo 9, Tambon Bang Krasan, Amphoe Bang Pa-in,
Phra Nakhon Si Ayutthaya 13160
Tel. 0 2335 4038

BSGF Company Limited

1056 Sukhumvit 66/1, Sukhumvit Road, Phra Khanong Tai,
Phra Khanong, Bangkok 10260
Tel. 0 2335 4066

BCP Innovation Pte. Ltd. (BCPI)

BCPR Pte. Ltd.

8 Marina Boulevard # 05-02, Marina Bay Financial Centre,
Singapore 018981



BCP Trading Pte. Ltd. (BCPT)

160 Robinson Road #25-03, Spore Business Federation
CTR, Singapore 068914

OKEA ASA

Oslo, Tordenskioldsgate 8-10, 0160 Oslo, Norway

Bangchak Treasury Center Company Limited (BCTC)

2098 M Tower Building, 19th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 8009
E-mail: bctc@bangchak.co.th

Others

Bangchak Initiative Innovation Center (BiIC)

2098 M Tower Building, 5th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Email: biic@bangchak.co.th

Happiness Sharing Foundation

2098 M Tower Building, 18th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 4608
Fax. 0 2016 3969

Oam Suk Social Enterprise Company Limited

2098 M Tower Building, 18th Floor, Sukhumvit Road,
Phra Khanong Tai, Phra Khanong, Bangkok 10260
Tel. 0 2335 4600
Fax. 0 2016 3969

5.2 Other Key Information

Reference Persons

Securities Registrar

Thailand Securities Depository Company Limited

93 Ratchadaphisek Road, Dindaeng, Dindaeng, Bangkok 10400
Tel. 0 2009 9000
Fax. 0 2009 9991

Auditor

KPMG Phoomchai Audit Limited

1 Empire Tower, 50th Floor,
South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Tel. 0 2677 2000
Fax. 0 2677 2222

Legal Counsel

Baker & McKenzie Ltd.

990 Abdulrahim Place, 25th Floor,
Rama IV Road, Silom, Bangrak, Bangkok 10500
Tel. 0 2636 2000
Fax. 0 2636 2111

Thakoon Chantarangsi Law Office Company Limited

133/415 Pruksa Ville Village 33, Moo 3,
Tambon Plai Bang, Amphoe Bang Kruai, Nonthaburi 11130

LS Horizon Limited

93/1 GPF Witthayu Tower A, 14th Floor,
Wireless Road, Lumpini, Phatumwan,
Bangkok 10330
Tel. 0 2627 3443
Fax. 0 2627 3250

Prowess Law Limited

1 Empire Tower, 27th Floor, Unit 27070
South Sathorn Road, Yannawa, Sathorn,
Bangkok 10120
Tel: 0 2098 6229

Chandler MHM Limited

98 Sathorn Square Office Tower, 36th Floor,
North Sathorn Road, Silom, Bangrak,
Bangkok 10500
Tel. 0 2009 5000
Fax. 0 2009 5080

Law Alliance Limited

1168/22 Lumpini Tower, 14th Floor,
Rama IV Road, Thung Maha Mek, Sathorn,
Bangkok 10120
Tel: 0 2651 5490

DLA Piper (Thailand) Limited

1 Empire Tower, 47th Floor, Unit 4707,
South Sathorn Road, Yannawa, Sathorn,
Bangkok 10120
Tel: 0 2686 8500

Others

- Investor support service
- Reporting share certificates losses
- Change of investor's information

Contact

Issuer Support Unit

Thailand Securities Depository Company Limited

93 Ratchadaphisek Road, Dindaeng, Dindaeng, Bangkok 10400
Tel. 0 2009 9000
Fax. 0 2009 9991

5.3 Legal Disputes

Legal disputes to which the Company or its subsidiaries is a party involve an ongoing legal dispute that may significantly affect the company's business operations and have arisen outside the ordinary course of business. Details of the case as of December 31, 2023, were as follows:

1. One company ("debtor company") incurred an outstanding aviation fuel payment to the Company and later filed a petition for business reorganization, approved by the Central Bankruptcy Court on September 14, 2020, directing it to reorganize its business and appoint a planner. On October 8, 2020, the Company filed an application for the receipt of payment to the official receiver of USD 31,707,494.94. Later, the receivership officer ordered that the Company receive USD 29,710,516.39, along with an interest payment of 7.5 percent per year on the USD 29,086,460.59 principal from the date the court issued business rehabilitation to the end of payment. The planner submitted such a plan to the receivership officer and held a creditors' meeting, which endorsed the plan on May 19, 2021. Under the plan, the Company belonged to the creditor group entitled to the principal repayment without interest for eight consecutive payments (the debtor makes two repayments per year). The first of such payments would begin in the second half of 2024. Then, on June 15, 2021, the Central Bankruptcy Court endorsed the debtor company's business rehabilitation plan.
2. On July 30, 2021, a subsidiary of the Company was a party to a dispute with a claimant company ("Claimant"), which filed the dispute to the Thai Arbitration Institute, Arbitrator Bureau, Office of the Judiciary, accusing the subsidiary of breaching a glycerin refinery construction contract and demanding compensation worth 121,183,444.65 baht. The subsidiary, in return, filed an objection and petitioned for compensation worth 232,147,449.35 baht from the Claimant. The Arbitral Tribunal issued an award on June 27, 2023, that the Claimant is entitled to receive money from the company's subsidiary, totaling 118,803,902.52 baht, and the company's subsidiary has the right to receive money from the Claimant, totaling 61,378,517.17 baht. The remaining amount that must be paid by the company's subsidiary to the Claimant, totaling 57,425,403.35 baht, has been paid to the Claimant.
3. The Company became a defendant in a dispute where the property was claimed under the land title deed No. 2465 in Tambon Bang Chak, Amphoe Phra Khanong, Bangkok. The Company was demanded to remove buildings and return such land, for which the claimant sought compensation of 5 billion baht if such action was not taken. In 1995, the Ministry of Finance, Treasury Department, and Bangchak faced litigation under the same land title deed, which was dismissed by the Supreme Court in 2016, considering all the land under the title deed had already been eroded by the Chao Phraya River and had become the public domain of the state. This exercise represented resurrected litigation, for which the company contested. On December 28, 2022, the plaintiff filed an appeal with the Court of Appeal, to which the Company submitted the response to the plaintiff as appeal. The case is currently under consideration by the Court of Appeal.
4. The Company and its subsidiary received the notice of arbitration from the counterparty claiming that the company and its subsidiary have breached the investment agreement; in turn, the company and its subsidiary have to deliver a payment of a sum of approximately USD 23 million, including interest of such sum and other related costs and damages. The Company and its subsidiary insisted that they had performed and complied with the terms and conditions of the disputed agreement and paid the sum due and payable by them according to such agreement. In this regard, the Company and its subsidiary have filed a defense denying the excess and unfair claims against it and proceeded to appoint an arbitrator to settle such dispute in accordance with the relevant procedure. It is currently in the arbitration process. The Company and its subsidiary have submitted the objection to the Arbitral Tribunal.

5.4 Contact Financial Institution

**Debenture Registrar and Payment Agent
(for BCP273A and BCP303A)**

Bangkok Bank Public Company Limited
333 Silom Road, Silom, Bangrak, Bangkok 10500
Tel. 0 2230 1478
Fax. 0 2626 4545-6
Website: www.bangkokbank.com

**Debenture Registrar, Payment Agent, and
Debenture Holders' Representative
(for BCP19PA)**

Krung Thai Bank Public Company Limited
Capital Market Services Department
977/2 SM Tower, 3rd Floor, Phahonyothin Road, Samsen Nai,
Phaya Thai, Bangkok 10400
Tel. 0 2298 0835
Website: www.krungthai.com

**Debenture Registrar and Payment Agent
(for BCP260A and BCP26NB)**

Krung Thai Bank Public Company Limited
Capital Market Services Department
977/2 SM Tower, 3rd Floor, Phahonyothin Road, Samsen Nai,
Phaya Thai, Bangkok 10400
Tel. 0 2298 0835
Website: www.krungthai.com

**Debenture Holder' Representative
(for BCP260A and BCP26NB)**

Bank of Ayudhya Public Company Limited
1222 Rama III Road, Bang Phongphang, Yan Nawa,
Bangkok 10120
Tel. 0 2296 5715
Fax. 0 2683 1298
Website: www.krungsri.com

**Debenture Registrar and Payment Agent
(for BCP244A)**

Bank of Ayudhya Public Company Limited
1222 Rama III Road, Bang Phongphang, Yan Nawa,
Bangkok 10120
Tel. 0 2296 5715
Fax. 0 2683 1298
Website: www.krungsri.com

**Debenture Registrar, Payment Agent, and
Debenture Holders' Representative
(for BCP258A BCP275A BCP28DA BCP305A
BCP26NA BCP29NA BCP31NA BCP258B
BCP278A and BCP328A)**

Bank of Ayudhya Public Company Limited
1222 Rama III Road, Bang Phongphang, Yan Nawa,
Bangkok 10120
Tel. 0 2296 5715
Fax. 0 2683 1298
Website: www.krungsri.com

Part 2

Corporate Governance

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Bangchak Group is committed to Corporate Governance and conducts its business with fairness, transparency, and auditability strictly in compliance with relevant laws and regulations. All business units of the Company and companies in Bangchak Group observe all policies and practices stipulated by the Board of Directors to build confidence among shareholders and all stakeholders with the commitment to be a global model organization for corporate governance.

6. Corporate Governance Policy

6.1 Overview of Corporate Governance Policy and Practices

The Board of Directors intends to promote corporate governance in its business operations for the best interest of shareholders and all stakeholders with integrity, fairness, and auditability. Bangchak Corporation Public Company Limited has instituted its corporate governance policy in writing since 2003 as a result of a workshop engaging all employees where everyone played a part in contributing ideas for the Company's practical guidelines. Previously, the Company has focused on cultivating an understanding of corporate governance and awareness of applying such principles in daily life, which has since been ingrained into a corporate culture. The Company has constantly evolved its corporate governance practices by studying domestic and international governing guidelines for such practices. The Board saw fit to revise the policy annually to provide the Board of Directors, executives, and employees with practical guidelines.

SIX Key Principles of Corporate Governance

A

Accountability

Action or decision-making undertaken with care and prudence supported by bona fide rationale as adequate, marked by responsibility for its consequences.

R

Responsibility

Total commitment and dedication to one's responsibility in Bangchak's best interests. This responsibility includes recognizing one's duty always to learn and enhance one's competency.

T

Transparency

Commitment to business conduct with integrity, auditability, and transparency, with valid references.

E

Equitable Treatment

Treatment of others fairly and righteously, without discrimination.

V

Vision to Create Long-term Value

Business execution to enable Bangchak to supplement value to stakeholders and lead it toward inclusive and sustainable growth, including avoidance of any action undermining such value.

E

Ethics

Moral behavior is founded on conscience and propriety and is meant to create virtue and ultimately form Bangchak's employee culture of "To be virtuous, knowledgeable, and contributive to society."

6.1.1 Policies and Guidelines on the Board of Directors

As corporate leaders and ultimately responsible parties, the Board of Directors plays a key role in ensuring sound long-term business performance and credibility among shareholders and stakeholders in Bangchak's best interests and forging sustainable business values. Working independently of the management, the Board of Directors is to perform its duties with responsibility, care, and integrity while complying with the law, Company objectives and regulations, its article of association, and those of the shareholders' meetings. Bangchak has set policies and guidelines for the Board of Directors as follows:

• Composition and Appointment

- The Board of Directors consists of at least five directors, and not less than half must reside in Thailand. Each director must be qualified, without any discrimination, by the law and Company regulations.
- The Board must be composed of a minimum of one-third Independent Directors.
- The Board consists of directors who are knowledgeable, skillful, and experienced in the oil business, retail sales business, energy business, other related businesses (like petroleum exploration and production, power generation, and alternative energy), international business, accounting and finance, internal control, law, organizational development and innovation in information and digital technology, social / environmental / safety matters, and risk and crisis management. At least one member must be knowledgeable or experienced in accounting and finance. At least one non-executive director must possess experience in the core business or industry operated by Bangchak.
- The Chairman of the Board should be an Independent Director and must not be the same person as the President and Chief Executive Officer. Additionally, the Chairman must not hold any position in the appointed Sub-committee (sometimes called Committee) as a segregation duty. If the Chairman is not an Independent Director, the number of Independent Directors must exceed half of the Board; alternatively, an Independent Director must be appointed to decide the Board agenda jointly.

- Each newly elected Director must attend an orientation course to ensure appreciation of objectives, primary goals, vision, missions, corporate values, business characteristics and approach, applicable regulations, corporate governance policy, and other essential information for efficient performance.
- Attend at least one training course organized by the Thai Institute of Directors Association (IOD), such as the Director Accreditation Program (DAP) or Director Certification Program (DCP) or equivalent, to increase expertise at work.

• Independent Directors

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

• Director Nomination

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

- **Board Diversity**

The nomination of directors considers diversity in several aspects, including educational background, career experience, skills, and expertise, without regard for gender, age, nationality, origin, religious belief, or other differences.

- **Board Meetings**

- The Board schedules meetings at least once a month (every third Thursday) and as necessary. The meeting schedule and agendas are agreed in advance for the year. The invitation letters and relevant accompanying documents are sent to the directors at least seven days before each meeting.
- Meetings among non-management and independent directors occur at least twice a year, as necessary, before board meetings. The intention is to freely discuss general issues on management or corporate governance, with subsequent notification to the President and Chief Executive Officer so that the management may take action on such matters.
- At least three-quarters of all directors must attend board meetings. Additionally, at least three-fourths of all board members must vote on an issue.
- Each year, directors should attend no less than 75% of all Board meetings. (Directors should attend meetings at least 9 of 12 times a year)

- **Terms of Directorship**

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 directors who have completed their terms may be re-appointed. 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 more extended period. The Board will consider the independence and effectiveness of the director under consideration and defend their decision to the shareholders. Independent directors do not hold their positions for more than three consecutive terms from the date of the first appointment of their independent directorship. The Board will consider their reappointment based on reason and necessity and will consider them non-independent directors.

- **Board Assessments**

The Board of Directors sets an evaluation form for the Board's performance at least once a year. The Board evaluates three forms, namely self-evaluation, cross-evaluation, and group evaluation, for the Board's review of performance outcomes and problems for performance development.

- **Board Remuneration**

Decision on Directors' compensation (monthly and meeting fees and bonuses) aligns with Bangchak's long-term strategies and goals. Such compensation is comparable to industry practices, experience, accountability and responsibility, and expected benefits from each Director who has assumed additional duties and responsibilities. The remuneration is enough to attract qualified directors who can complete their duties to achieve a desirable goal and direction for the Company. The remuneration process is transparent and creates shareholders' confidence.

- **Succession Planning and Development of Executives**

Ensuring a succession plan for the positions of the President and Chief Executive Officer and senior management, the Board requires annual reporting on compliance with this plan as a minimum. On the recruitment policy for the President and Chief Executive Officer, qualified outsiders, senior executive vice presidents, or above, may enter the selection process for optimal purposes. The Board also assigned the Nomination and Remuneration Committee to review the criteria and procedure for recruitment, development, and assessment of the President and Chief Executive Officer, including the requirements and compensation structure for the position.

- **Oversight of Subsidiaries and Associated Companies**

Bangchak runs its businesses through subsidiaries, affiliated companies, and other companies, as detailed under "Shareholding Structure." The Board commands a mechanism for supervising the management and the responsibility of subsidiaries, associated companies, and other companies to safeguard the interests of Bangchak's investment.

- **The Sub-Committees**

The Board appoints four committees to consider significant matters: the Audit Committee, Nominating and Remuneration Committee, Enterprise-wide Risk Management Committee, and Sustainability and Corporate Governance Committee.

6.1.2 Policies and Practices Related to Shareholders and Stakeholders

- **Rights and Equitability of Shareholders**

1. **Rights of Shareholders**

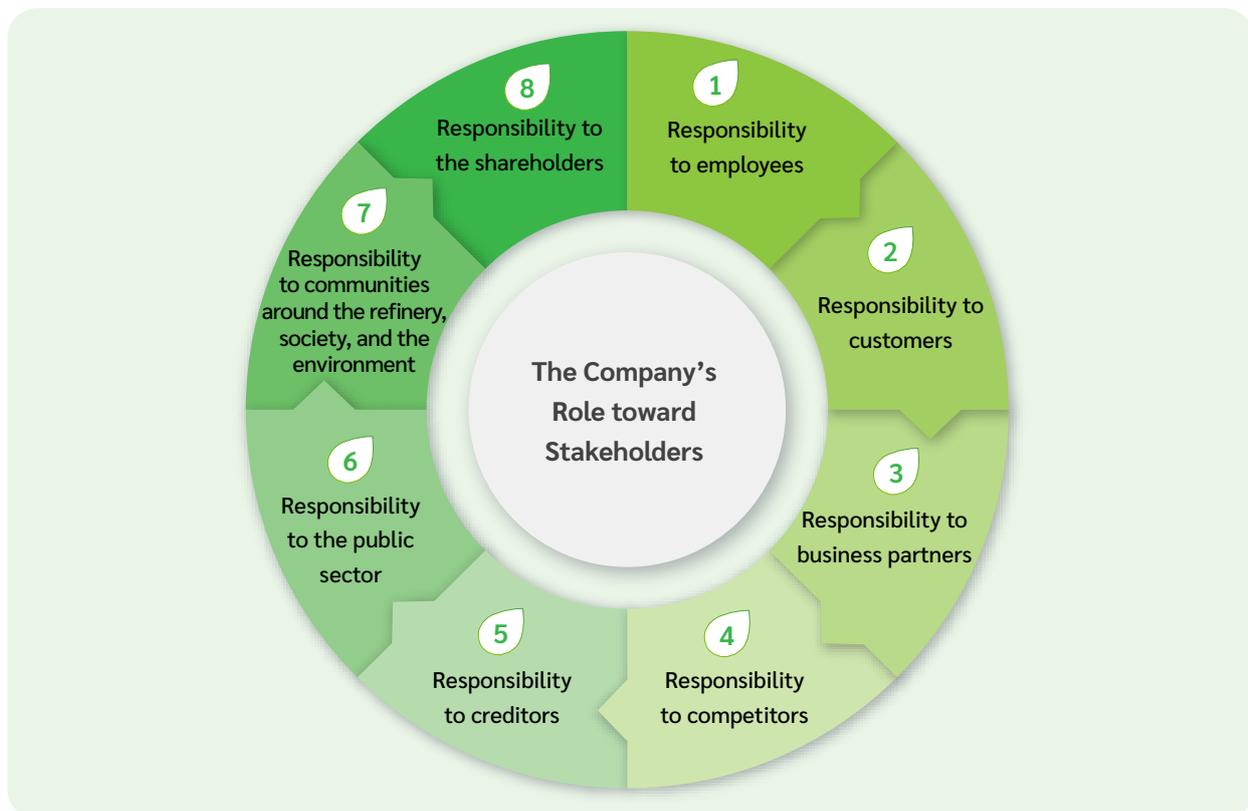
The shareholders are entitled to Bangchak's ownership by exercising their rights to appoint directors to perform on their behalf and the right to make decisions on key changes. The Board recognizes and values such rights by promoting such exercise and refraining from violating or depriving their rights.

2. **Equitable Treatment of Shareholder**

All shareholders are entitled to receive fair treatment. The Board is to ensure such fair treatment and safeguard their fundamental rights.

- **The Company's Role toward Stakeholders**

Bangchak is committed to looking after stakeholders, whose rights are provided by applicable laws. The Board of Directors establishes a process promoting cooperation between Bangchak and stakeholders in creating wealth, financial security, and business sustainability. The Board of Directors recognizes and values the rights of stakeholders as defined by laws, human rights and fair labor treatment to ensure that the stakeholders' rights are protected and well-treated. It also establishes suitable communication channels for all stakeholders and whistleblowing channels for employees and other stakeholders so that stakeholders may more efficiently participate in maintaining Bangchak's interests as follows:



- **Disclosure of Information and Transparency**

The Company discloses key information, whether financial or non-financial, accurate 4 through readily accessible channels that are equitable and credible. This policy on disclosure of information forms part of the Company's good corporate governance policy. The Company is committed to the fair disclosure of information to the shareholders, financial institutions, securities companies, investors, those needing financial information, and the public. It highly values communication practices that are open, complete, accurate, timely, and regular for past information and future value addition without bias against positive or negative information. The Company recognizes the need to maintain sensitive information for critical business information and operating strategies. This policy aligns with the SET and SEC criteria and terms for information disclosure.

- **Safety, Health, Environment, and Energy**

Bangchak values the stewardship of safety, occupational health, the environment, and energy to ensure that all activities fall under an international-standard management system that does not harm the environment, society, and communities. The Company is committed to raising its management excellence through approach of the Thailand Quality Awards, which values social responsibility; protection of health, safety, and the environment; and business conduct and employees. In addition, the Company values resource conservation, which encompasses all activities, products, and services all with key business roles; loss prevention; and compliance with the law and public regulations. Viewing these regulations as opportunities for improvement over and beyond what needs to be complied with, the Company devises the SHEE policy, and all executives and rank-and-file employees including all contractors working on behalf of the Company are held directly responsible for SHEE policy.

- **Risk Management, Internal Control, and Internal Audit**

The Company has established risk management and internal control systems to enable the business to achieve its objectives, while complying with related

laws and regulations and lowering corruption-related risks. An internal audit system is in place to ensure the achievement of Bangchak's goals.

- **Anti-Corruption**

Bangchak has defined business ethics against corruption in every form and integrated ethics into the corporate governance policy. Also, it has waged a campaign to stress anti-corruption within the Company. At the same time, Bangchak has integrated the anti-corruption policy into its corporate governance policy to reiterate its intention to operate business by abiding by the law and regulations relevant to corporate governance, refusing all forms of fraud and covering all businesses in all applicable countries and agencies. It has defined anti-corruption measures to implement the policy, regularly reviews the policy to comply with changes in laws and business circumstances, and upholds Bangchak's reputation by ensuring that directors, executives, and employees implement them. The relevant implementation measures apply to all subsidiaries, associated companies, and other companies that the Company controls, as well as its business agents. Bangchak became one of the first 22 companies to gain membership certification for CAC (Thai Private Sector Collective Action Coalition against Corruption).

6.2 Code of Conducts

The Company commands written code of conduct as part of the Corporate Governance Policy, regarded as its definition of business standard and personnel behavior, together with the governance of its key corporate culture. The code of conduct states guidelines for good practices reflecting awareness of responsibility and work ethics, which are linked to and support The Company vision, objectives, goals, and strategies. As role models and CG leaders, the Board ensures that management commands tools for establishing and driving a corporate culture firmly underlined by ethics and a code of conduct in all work processes. The Company Codes of Conduct consists of:

1. Code of Conduct for Business

- **Respect for the law and human rights principles.**
In all its operations worldwide, Bangchak values and is committed to compliance with the law. Employees

strictly honor each locality's laws, customs, traditions, and culture. In addition, they honor human rights principles under international regulations and standards.

- **Anti-corruption of all forms.**

Conduct business with a commitment to opposing corruption of all forms. Institute a risk management process and scrutiny to prevent and suppress corruption and malfeasance. Support the establishment of a company culture where people are firmly committed to integrity and ethics.

- **Moral and ethical behavior at every organizational level.**

Morality and ethics are important elements of good corporate governance principles. It is the work ethics at every level of the organization.

- **Responsibility to society and stakeholders.**

In conducting its business, Bangchak shows due regard for duties and responsibility in line with society, the environment, and the good of all. It is committed to treating all stakeholders shareholders, employees, customers, business partners, competitors, the public sector, and neighbors around the refinery in line with their respective needs.

- **Strive for excellence**

Bangchak is committed to upgrading its standards for management excellence under the Thailand Quality Award criteria by promoting, for optimal outcomes, its business and employees' best performance with propriety and transparency. Also, it constantly drives curiosity and innovation.

- **Transparency and disclosure of information.**

Management, financial records, and financial reports are properly handled to comply with laws and regulations and meet international standards. Accurate, clear, and timely information is disclosed to ensure the confidence of investors, shareholders, and related lenders.

2. Employee Code of Conduct

- **Employees behavior**

To carry out all duties with integrity, due care, and good faith to protect the interest of the Company; Strictly comply with relevant laws, rules, regulations, goals, and plans and to refrain from engaging in any business or investment which has the exact nature and in competition with the business of the Company.

- **Treatment of colleagues**

To respect others' rights and refrain from slandering others; to create and maintain unity among the workforce.

- **Executives' duties**

Executives serving as directors of other companies or any other position in a business organization be subject to approval; executives wishing to engage in the trading of Company securities be required to notify the Secretary to the Board of Directors Division at least one day in advance and to refrain from securities trading during the one month before the announcement of the Company's financial statements and until expiry of one full day from the date of such announcement.

- **Acceptance or giving of gifts**

To refrain from requesting, accepting or agreeing to accept, undue extra benefits or improper payment with customers, business partners, contractors, agents, and sellers of products and services to the Company, or from any parties engaging in businesses with it.

- **Entertainment, gifts, and other expenses**

To refrain from acceptance or offer any entertainment and other expenses beyond necessary extents, or those unsuitable for public officials or those engaging in business with Bangchak. Employees must never accept gifts or other tokens of any value.

- **Preparation of financial reports and financial statements**

To accurately record and prepare all accounting entries, financial reports, and financial statements reflecting actual transactions under generally accepted accounting principles and auditability.

- **Maintaining the Company's reputation**

To refrain from any act that could potentially harm the Company's reputation or pose problems for it and uphold their own dignity in society.

- **Stewardship of properties**

To make the best use of Company assets, refrain from using Company's assets for any purposes other than the Company's businesses, and to respect the assets of others.

- **Respect for intellectual properties**

To protect Bangchak's intellectual property rights, while respecting and not violating others' intellectual property rights.

- **Use of information technology (IT)**
To strictly comply with applicable laws governing and guidelines for Bangchak’s IT applications and include IT in the strategies and operations.
- **Use of inside information**
To maintain the confidentiality of and to procure that the recipient of information keeps the confidentiality of confidential information and any Market Sensitive Information; not to use inside information, Company’s, or Bangchak Group Companies’ confidential information for own or other’s benefit.
- **Conflicts of interest**
To refrain from any act posing conflicts of interest with the Company, that is, any act potentially depriving the Company of its fair interests, or from sharing benefits with the Company.

3. Procurement Code of Conduct

- **Acceptance of gifts, tokens, entertainment, and preferential treatment**

Not to accept gifts or other tokens of any value; to avoid any unnecessary offered entertainment and to refrain from getting excessively friendly with one particular supplier or vendor that others could mistake for bias and therefore avoid bidding against those preferred.

- **Injustice arising from procurement and hiring processes**

Procurement is based on the specifications of any particular product or deliberately biased toward such products unless adequately justified and necessary.

- **Conduct toward suppliers or vendors**

The relationship between buyers and sellers is only to build confidence between two parties in a good faith and fair basis with continuous treatment toward each other.

- **Purchasing priority**

Locally available products are the first priority to support domestic industries and reduce costs. Unless necessary, to purchase products manufactured by the Company and its affiliates available in the market, except where required.

6.3 Milestones of Policy, Guidelines, and Corporate Governance of this Past Year

6.3.1 Milestones of Policy, Guideline, or Corporate Governance System

The Board recognizes the importance of upgraded corporate governance (CG) practices to become comparable with leading domestic and international companies, which would benefit its pursuit of sustainable growth. It, therefore, annually reviews the suitability and adequacy of the policy and guidelines for its CG and code of conduct to align with its business model and prevailing circumstances, which include laws, rules, guidelines, and stakeholders’ views.

In 2023, the Board of Directors reviewed and considered the Company’s policies, guidelines, and good corporate governance systems and resolved that the good corporate governance policy of the Company is still appropriate and in line with the requirements of the Corporate Governance Report (CGR) of listed companies, the Thai Private Sector Collective Action against Corruption (CAC), the S&P Global

Corporate Sustainability Assessment (S&P Global CSA), and leading companies operating standards on corporate governance, while suiting the current business model. Therefore, there is no amendment to the good corporate governance policy of the Company. In 2023, the Company revised its good corporate governance policy regarding the Preservation of Inside Information. The Blackout Period Application has been developed. Should there be an event involving inside information impacting the price of securities, the Company shall identify the list of person who possesses or accesses the Inside Information (“Insider List”) and the period when persons listed in the Insider List are prohibited from trading of securities (Blackout Period) of the Company and /or subsidiaries in the Bangchak group of companies which are listed companies in the stock exchanges of Thailand and abroad and/or Target Company (Target Company) listed in stock exchanges of Thailand and abroad. Insiders are prohibited from trading such securities until an expiry of at least one day after such information is disclosed to the public.

6.3.2 Compliance with CG Code

The Board reviewed the SEC-developed CG Code of 2017 and recognized its role as corporate leaders in the application of CG to create sustainable business value. It assessed compliance with each item of the code of Bangchak’s policies, CG practices, and business context, concluding that its overall policies, measures, and business processes aligned with CG Code guidelines and proved appropriate for its business growth directions, except the following matters which are the aspects not yet applied, which will in time be adapted as seen fit.

CG Code Guideline	Bangchak’s Justification or Alternative Measure
The appropriate number of directors is between 5 and 12 (Guideline 3.1.2)	Bangchak’s articles of association requires 5-15 directors. Since 2014, 15 directors have been appointed consistent with the articles of association and business model. As Bangchak has continued its investment in new businesses, it required diversity in directors’ backgrounds, meaning qualifications and competencies fitting business expansion.

6.3.3 Other Practices under CG Code

Thanks to its firm commitment and intention to operate with CG, Bangchak continually ranked high among companies, with CG accolades including.

- An “Excellent” or 5-star rating in the Corporate Governance Report (CGR) 2023 surveyed by the Thai Institute of Directors and the Stock Exchange of Thailand (SET).
- The 13th consecutive year to achieve the 100 Score of the 2023 Annual General Meeting assessment performed by the Thai Investors Association.
- A sustainable stock rating of “AAA”, the highest in Thailand for the resources industry, according to the SET ESG Ratings of 2023, reflecting excellent corporate governance with consideration to shareholders and stakeholders and a commitment to sustainability across business, society, and the environment.
- The Global Performance Excellence Award (GPEA) 2023 at the World Class level from the Asia Pacific Quality Organization, Inc. (APQO), marking the first and only refinery worldwide to achieve this highest honor, reflecting a global standard and being a model recognized for the management of all aspects of operations.
- The Human Rights Awards 2023 for Outstanding Large Business Organization from the Ministry of Justice, highlighting exceptional human rights and equality practices towards all stakeholders.



Corporate Governance Policy Full Version

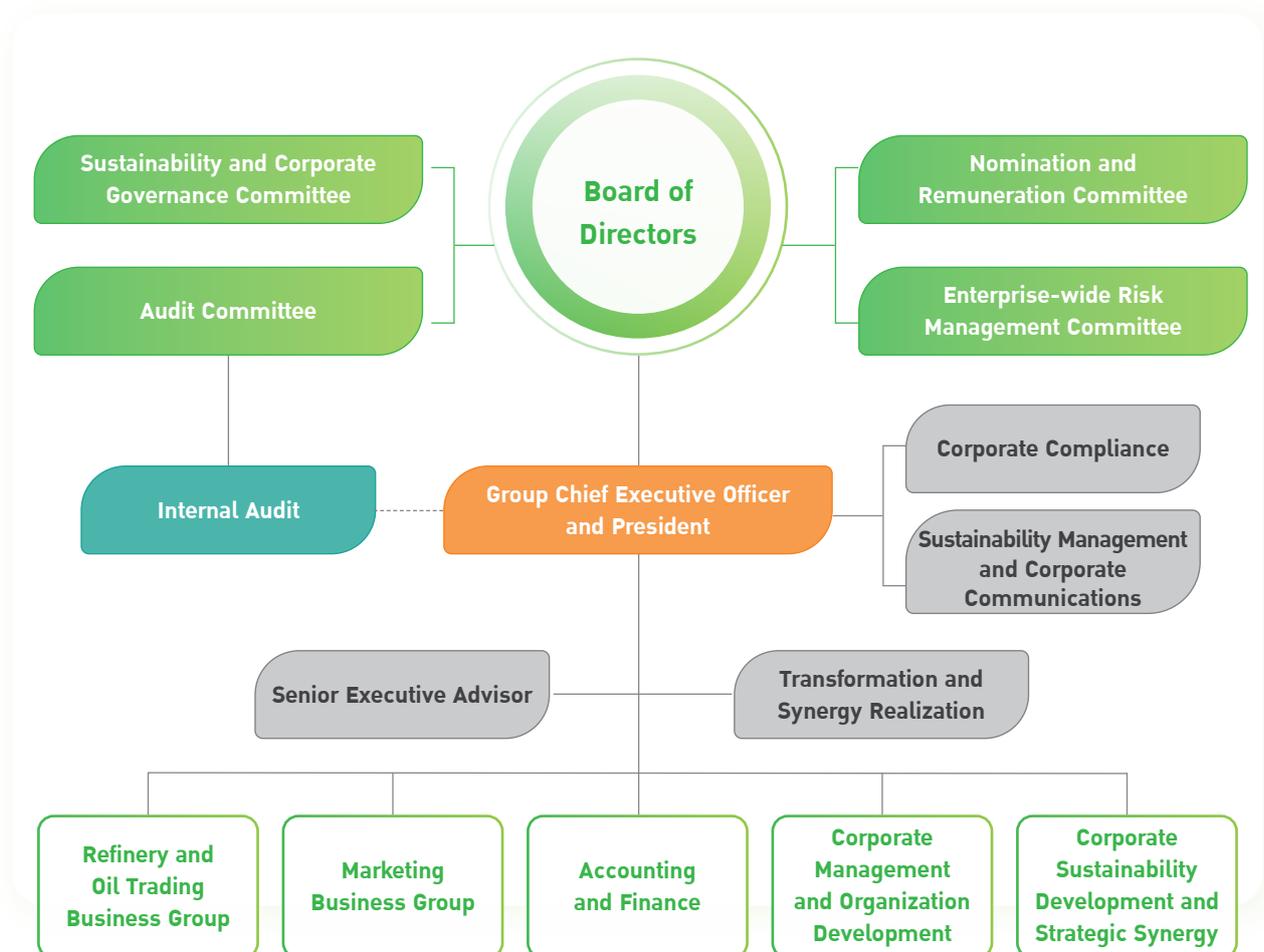


www.bangchak.co.th/en/cg/corporate-governance

7. Corporate Governance Structure and Key Information about the Board, Sub-Committees, Management, Employees, and Others

7.1 Corporate Governance Structure

The Board of Directors and the management perform their duties in the best interests of the Company and its shareholders under a clear, balanced, and accountable management structure. The Board monitors and ensures that the management implements its policies, plans and strategies, and that there is clear distinction of roles and responsibilities between the Board and the management. The Board appoints sub-committees to consider significant matters, consist of the Audit Committee, Sustainability and Corporate Governance Committee, Nomination and Remuneration Committee and Enterprise-wide Risk Management Committee. The CEO & President is the top executive.



Remark: - The Audit Committee considers, appoints, transfers, dismisses, and undertakes annual evaluation of Head of Internal Audit and review the independence of Internal Audit.

7.2 The Board of Directors

7.2.1 The Board Composition (as of December 31, 2023)

- The Board consists of 5-15 directors, for whom Bangchak's Board Diversity governs. Such diversity includes educational background, professional experience, skills, and knowledge, without restrictions for gender, age, nationality, origin, religious belief, or other differences.

The Board consists of knowledgeable, skilled, and experienced individuals in the oil, retail, energy, international, or other applicable businesses, including petroleum exploration and production, power plant, renewable energy, accounting and finance, management, law, organizational development and innovation, IT and digital, socio-environmental and safety, and risk and crisis management businesses. At least one director must be well-versed in accounting and finance; at least another non-executive director must command experience in the Company's core business or industry.

- The Company had 15 directors, three of whom were females. One director served as an executive director. Directors' skills matched the Company's business strategies, as seen in the Board Skills Matrix. They are diverse in educational background, experience, and skills required by the matrix. (Board details appear in Attachment 1.)
- More than one-third of the Board are independent directors. As of December 31, 2023, there are 11 independent directors representing 73.33% of total number of directors surpassing half of the Board, thus conforming to good governance.
- The Chairperson is not the same person as the President and Chief Executive Officer and does not belong to any Sub-Committee given clear-cut responsibilities and duties.

Board Skills Matrix

Name/ Specific Expertise	Knowledge about Company Business	International Business	Accounting and Finance	Management	Law	Organizational Development and Innovation	Information and Digital Technology	Social, Environment and safety	Risk and Crisis Management	Directors type		
										Executive Director	Independent Director	Non Executive Director
1 Mr. Pichai Chunhavajira	x	x	x	x		x		x	x		x	x
2 Mr. Surin Chiravisit	x			x	x	x		x	x		x	x
3 Mr. Prasong Poontaneat	x	x	x	x	x	x			x		x	x
3 Dr. Porameteer Vimolsiri	x	x	x	x		x		x	x		x	x
5 Mrs. Prisana Praharnkhasuk	x	x	x	x		x	x		x		x	x
6 Mr. Narin Kalayanamit	x	x	x	x		x			x		x	x
7 Pol.Lt.Gen. Samran Nualma	x			x	x			x	x		x	x
8 Maj. Gen. Yuttasak Raksereepitak	x			x		x	x	x	x		x	x
9 Mr. Achporn Charuchinda	x	x		x	x	x			x		x	x
10 Mr. Chaovalit Ekabut	x	x	x	x	x	x			x		x	x
11 Mrs. Vilai Chattanrassamee	x		x	x		x			x		x	x
12 Mr. Phairoj Chotikasatien	x			x	x	x		x	x			x
13 Mr. Chanvit Nakburee	x		x	x		x			x			x
14 Mrs. Woranuch Phu-im	x		x	x	x	x			x			x
15 Mr. Chaiwat Kovavisarach	x	x	x	x		x	x	x	x	x		
Total	15	8	10	15	7	14	3	7	15	1	11	14

Note: Knowledge about the Company's business, such as oil business, retail business, energy business, petroleum exploration and production, power plants, renewable energy, etc.

(* as of 31 December, 2023)

7.2.2 The Board Information and the Authorized Director

Board of Directors There were 15 directors (As of December 31, 2023) as follows:

Name		Position	Appointment date
1. Mr. Pichai	Chunhavajira	- Chairperson (Independent Director)	April 24, 2012 (Independent director since June 1, 2017)
2. Mr. Surin	Chiravisit	- Independent Director - Vice Chairperson - Member of the Audit Committee - Member of the Nomination and Remuneration Committee	April 11, 2023
3. Mr. Prasong	Poontaneat	- Independent Director - Vice Chairperson - Chairperson of the Enterprise-wide Risk Management Committee	November 1, 2021
4. Dr. Porametee	Vimolsiri	- Independent Director - Chairperson of the Audit Committee	June 7, 2018
5. Mrs. Prisana	Praharnkhasuk	- Independent Director - Chairperson of the Nomination and Remuneration Committee - Member of the Audit Committee	April 5, 2016
6. Mr. Narin	Kalayanamit	- Independent Director - Chairperson of Sustainability and Corporate Governance Committee - Member of The Enterprise-wide Risk Management Committee	April 8, 2022
7. Pol. Lt. Gen. Samran	Nualma	- Independent Director - Member of the Sustainability and Corporate Governance Committee	April 8, 2022
8. Maj. Gen. Yuttasak	Raksereepitak ^{1/}	- Independent Director - Member and Secretary of the Nomination and Remuneration Committee - Member of the Enterprise-wide Risk Management Committee	July 20, 2023
9. Mr. Achporn	Charuchinda	- Independent Director - Member of the Audit Committee - Member of the Enterprise-wide Risk Management Committee	January 4, 2022
10. Mr. Chaovalit	Ekabut	- Independent Director - Member of the Sustainability and Corporate Governance Committee - Member of the Enterprise-wide Risk Management Committee	January 27, 2022

Name		Position	Appointment date
11. Mrs. Vilai	Chattanrassamee	- Independent Director - Member of the Audit Committee	April 11, 2023
12. Mr. Phairoj	Chotikasatien ^{2/}	- Director (Representative of Social Security Office) - Member of the Sustainability and Corporate Governance Committee	October 31, 2023
13. Mr. Chanvit	Nakburee ^{3/}	- Director (Representative of Ministry of Finance) - Member of the Enterprise-wide Risk Management Committee	January 27, 2023
14. Mrs. Woranuch	Phu-im	- Director (Representative of Ministry of Finance) - Member of Sustainability and Corporate Governance Committee	April 11, 2023
15. Mr. Chaiwat	Kovavisarach	- Group Chief Executive Officer and President - Member and Secretary of Sustainability and Corporate Governance Committee - Member and Secretary of Enterprise-wide Risk Management Committee - Secretary of the Board of directors	October 30, 2012

Name		Position	Appointment date
Directors whose terms were expired or resigned directors in 2023			
1. Mr. Suthep	Wongvorazathe	- Vice Chairperson - Member of the Sustainability and Corporate Governance Committee	October 30, 2012 (Term expired on April 11, 2023)
2. Pol. Lt. Gen. Chaiwat	Chotima	- Independent Director - Member and Secretary of the Nomination and Remuneration Committee	April 9, 2014 (Term expired on April 11, 2023)
3. Mr. Chamroen	Phothiyod	- Director (Representative of Ministry of Finance) - Member of the Enterprise-wide Risk Management Committee	October 1, 2021 (Term expired on April 11, 2023)
4. Gen. Songwit	Noonpackdee	- Independent Director - Member of the Enterprise-wide Risk Management Committee - Member of the Nomination and Remuneration Committee	October 1, 2021 (Resigned on June 23, 2023)
5. Mr. Boonchob	Suthamanuswong	- Director (Representative of Social Security Office) - Member of the Sustainability and Corporate Governance Committee	October 28, 2021 (Resigned on October 24, 2023)

Note: ^{1/} To replace Gen. Songwit Noonpackdee on 27 July 2023

^{2/} To replace Mr. Boonchob Suthamanuswong on 31 October 2023

^{3/} To replace Dr. Kulaya Tantitemit on 27 January 2023

The names and number of the authorized directors who have authority to sign on behalf of the Company are: Mr. Pichai Chunhavajira jointly with Mr. Chaiwat Kovavisarach with the Company's seal affixed or any one of these two directors signs jointly with Mr. Achporn Charuchinda or Mr. Chanvit Nakburee or Mrs. Woranuch Phu-im or Mr. Surin Chiravisit or Mrs. Vilai Chattanrassamee being two persons, with the Company's seal affixed.

7.2.3 Roles, Duties, and Responsibilities of the Board of Directors

1. Carry out duties under laws, objectives, and regulations of the Company as well as resolutions of shareholders' meetings with honesty, protect the Company's benefit, and have accountability to the shareholders.
2. Establish Clear Leadership Role and Responsibilities of the Board
 - 2.1 The Board should demonstrate a thorough understanding of its leadership role, assume its responsibilities in overseeing the Company, and strengthen good governance, including:
 - (1) defining objectives;
 - (2) determining means to attain the objectives; and
 - (3) monitoring, evaluating, and reporting on performance.
 - 2.2 To achieve sustainable value creation, the Board should exercise its leadership role and pursue the following governance outcomes:
 - (1) competitiveness and performance with a long-term perspective;
 - (2) ethical and responsible business;
 - (3) good corporate citizenship; and
 - (4) corporate resilience.
 - 2.3 The Board should ensure that all directors and executives perform their responsibilities in compliance with their fiduciary duties, and that the company operates in accordance with applicable laws and standards.
 - 2.4 The Board should demonstrate a thorough understanding of the division of board and management responsibilities. The Board should clearly define the roles and responsibilities of management and monitor management's proper performance of its duties.
3. Define Objectives that Promote Sustainable Value Creation
 - 3.1 The Board should define objectives that promote sustainable value creation and governance outcomes as a framework for the operation of the Company.
 - 3.2 The Board should ensure that the Company's annual and medium-term objectives, goals, strategies, and plans are consistent with the long-term objectives, while utilizing innovation and technology effectively.
4. Strengthen Board Effectiveness
 - 4.1 The Board should be responsible for determining and reviewing the Board structure, in terms of size, composition, and the proportion of independent directors so as to ensure its leadership role in achieving the company's objectives.
 - 4.2 The Board should select an appropriate person as the chairperson and ensure that the board composition serves the best interest of the Company, enabling the Board to make its decisions as a result of exercising independent judgement on corporate affairs.
 - 4.3 The Board should ensure that the policy and procedures for the selection and nomination of directors are clear and transparent resulting in the desired composition of the board.
 - 4.4 When proposing director remuneration to the shareholders' meeting for approval, the Board should consider whether the remuneration structure is appropriate for the directors' respective roles and responsibilities, linked to their individual and company performance, and provide incentives for the Board to lead the company in meeting its objectives, both in the short and long term.
 - 4.5 The Board should ensure that all directors are properly accountable for their duties, responsibilities, and allocate sufficient time to discharge their duties and responsibilities effectively.
 - 4.6 The Board should ensure that the governance framework and policies extend to and are accepted by subsidiaries and other businesses in which it has a significant investment as appropriate.
 - 4.7 The Board should conduct a formal annual performance evaluation of the board, its committees, and each individual director. The evaluation results should be used to strengthen the effectiveness of the board.
 - 4.8 The Board and each individual director should ensure that they understand their roles and responsibilities, the nature of the business, the company's operations, relevant laws and standards, and other applicable obligations. The Board should support all directors in updating and refreshing

their skills and knowledge necessary to carry out their roles on the board and board committees.

- 4.9 The Board should ensure that it can perform its duties effectively and have access to accurate, relevant and timely information. The Board should appoint a company secretary with the necessary qualifications, knowledge, skills, and experience to support the Board in performing its duties.

5. Ensure Effective CEO and People Management

- 5.1 The Board should ensure that a proper mechanism is in place for the nomination and development of the chief executive officer and key executives to ensure they possess the knowledge, skills, experience, and characteristics necessary for the company to achieve its objectives.
- 5.2 The Board should ensure that an appropriate compensation structure and performance evaluation are in place.
- 5.3 The Board should consider its responsibilities in the context of the company's shareholder structure and relationships, which may impact the management and operation of the company.
- 5.4 The Board should ensure the company has effective human resources management and development programs to ensure that the company has adequate staffing and appropriately knowledgeable, skilled, and experienced employees and staff.

6. Nurture Innovation and Responsible Business

- 6.1 The Board should prioritize and promote innovation that creates value for the company and its shareholders together with benefits for its customers, other stakeholders, society, and the environment, in support of sustainable growth of the company.
- 6.2 The Board should encourage management to adopt responsible operations, and incorporate them into the company's operations plan. This ensure that every department and function in the Company adopts the company's objectives, goals, and strategies, applies high ethical, environmental, and social standards, and contributes to the Company's sustainable growth.
- 6.3 The Board should ensure that management allocates and manages resources efficiently and effectively throughout all aspects of the value chain to enable the company to meet its objectives.

- 6.4 The Board should establish a framework for the governance of enterprise IT that is aligned with the company's business needs and priorities, stimulates business opportunities and performance, strengthens risk management, and supports the company's objectives.

7. Strengthen Effective Risk Management and Internal Control

- 7.1 The Board should ensure that the company has effective and appropriate risk management and internal control systems that are aligned with the company's objectives, goals and strategies, and comply with applicable laws and standards.
- 7.2 The Board shall establish an audit committee that can act effectively and independently.
- 7.3 The Board should manage and monitor conflicts of interest between the company, management, directors, and shareholders. The board should also prevent the inappropriate use of corporate assets, information, and opportunities, including preventing inappropriate transactions with related parties.
- 7.4 The Board should establish a clear anti-corruption policy and practices (including communication and staff training), and strive to extend its anti-corruption efforts to stakeholders.
- 7.5 The Board should establish a mechanism for handling complaints and whistleblowing.

8. Ensure Disclosure and Financial Integrity)

- 8.1 The Board must ensure the integrity of the company's financial reporting system and that timely and accurate disclosure of all material information regarding the company is made consistent with applicable requirements.
- 8.2 The Board should monitor the company's financial liquidity and solvency.
- 8.3 The Board should ensure that risks to the financial position of the company or financial difficulties are promptly identified, managed, and mitigated, and that the company's governance framework provides for the consideration of stakeholder rights.
- 8.4 The Board should ensure sustainability reporting, as appropriate.
- 8.5 The Board should ensure the establishment of a dedicated Investor Relations function responsible

for regular, effective and fair communication with shareholders and other stakeholders (such as analysts and potential investors).

- 8.6 The Board should ensure the Company's effective use information technology in disseminating information.
9. Ensure Engagement and Communication with Shareholders
- 9.1 The Board should ensure that shareholders have the opportunity to participate effectively in decision-making involving significant corporate matters.
- 9.2 The Board should ensure that the shareholders' meetings are held as scheduled, and conducted properly, with transparency and efficiency, and ensure inclusive and equitable treatment of all shareholders and their ability to exercise their rights.
- 9.3 The Board should ensure accurate, timely and complete disclosure of shareholder resolutions and preparation of the minutes of the shareholders' meetings.
10. Maintain the confidentiality of the Company's inside information obtained from serving as director and not use the Company's inside information for their own or others' benefit in trading securities of the Company and/or subsidiaries in Bangchak Group listed on the Stock Exchange of Thailand and abroad. Directors, by themselves or any assigned person, are prohibited from engaging in any activities for their own or other's benefit or any illicit benefit. Directors are prohibited from trading of the securities of the Company and/or subsidiaries of Bangchak Group listed on the Stock Exchange of Thailand and abroad for at least one month before the announcement of financial statements until the expiry of at least one day after such announcement.

Should there be an event involving inside information impacting the price of securities ("Inside Information"), the Company shall identify the list of person who possesses or accesses the Inside Information ("Insider List") and the period when persons listed in Insider List are prohibiting from trading of securities (Blackout Period) of the Company and/or subsidiaries in Bangchak group which are listed companies in the Stock Exchanges of Thailand and abroad and/or Target Company listed in

the Stock Exchange of Thailand and abroad. Insiders are prohibited from trading such securities until an expiry of at least one day after such information is disclosed to the public.

11. Directors wishing to trade of Company securities must notify the Secretary to the Board of Directors Division at least one day before the quarterly report to the Audit Committee meeting.
12. Report on one's own portfolio of securities, as well as those of their spouses, cohabitation partners, and minor children under legal age, including legal entities where they have more than 30% shareholding of all voting rights to the monthly Board meeting and must report to the Company without delay in the following cases:
- Directors or related person with vested interests in the Company's or its subsidiaries' management.
 - Hold shares or debentures in the Company or subsidiary companies.
13. Each Director cannot hold the position of Director in more than two other listed companies in the Stock Exchange of Thailand (SET), excluding the Directors' current positions (as of August 19, 2016, the policy-amending date). This excludes the executive director or CEO in the capacity of Board director for companies in Bangchak group.

Roles and Responsibilities of the Chairman, leader of the Board

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

The Board is authorized to approve various matters, including:

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

Matters involving shared responsibility of the board and management:

- Formulating and reviewing policies and strategies, plans and targets.
- Ensuring robust system for risk management and internal control.
- Clearly defining management's responsibilities.
- Overseeing appropriate policies and plans for resource allocation, including HR, IT, and budgeting.
- Monitoring and evaluating financial and non-financial corporate performance.
- Ensuring integrity of financial and non-financial information disclosures.

Matters that the Board should delegate or not get involved with:

- Engaging in activities that under normal circumstances are not expected roles of the Board, including day-to-day management and decisions (such as procurement and staffing), ongoing monitoring that conduct, and operations company with the company's policies, strategies, plans, and applicable law and standards.
- Not getting involved in or influencing matters in which a director may have vested interests.

The President & CEO is authorized to execute core duty of running the Company day-to-day business as assigned by the Board. To this end, he must strictly follow the Board-approved policies, plans, and budgets with integrity and care in the best interests of the Company and its shareholders.

7.3 Sub-Committees

7.3.1 Sub-Committees

The Board of Directors elected Sub-committees (or Committees) to facilitate the Company's business, undertaking with four sub-committees. The Committees can serve for three years in each term. Details of sub-committee charters are as follows:

1. Audit Committee (AC)

The Audit Committee must be made up of independent directors. At least three independent directors form the Audit Committee, and at least one number must be adequately knowledgeable or experienced in accounting, finance, or audit to review the credibility of financial statements.

Roles and Responsibilities

- 1) To ensure accuracy and adequacy of the Company's financial reporting according to Accounting Principles governed by laws.
- 2) To ensure that the Company has a suitable and efficient internal control system and internal audit and to ensure the efficiency and adequacy of the risk management system.
- 3) To review the performance of the Company to ensure compliance with the securities and exchange law, regulations of the Stock Exchange of Thailand, or laws relating to business of the Company.
- 4) To review a connected transaction or transaction that may lead to conflict of interest or acquisition and disposition of assets transaction to ensure compliance with the laws and regulations of the Stock Exchange of Thailand (SET) and that it is reasonable and brings the highest benefit to the Company.
- 5) To inspect and consider the management on the defects that have been found and the responses from the management.

- 6) To empower the auditing and investigating of all related parties under the authorization of the Audit Committee and also to authorize hiring an expert to audit and investigate in compliance with the Company's regulations.
- 7) To prepare a report of the Audit Committee and disclose it in the annual report of the Company, and have such report signed by Chairperson of the Audit Committee.
- 8) To consider, select, nominate the person who is independent to be the Company's auditor, recommend remuneration of the Company's auditor, recommend the removal of the Company's auditor, and at least once a year, attend the private meeting with an auditor without management.
- 9) To consider auditing scopes and plans of the external auditor and the Internal Audit so that they are contribute to each other and to reduce double operations concerning financial auditing.
- 10) To approve the Charter, audit work plans, budget, training plans and manpower of the Internal Audit.
- 11) To appoint, transfer, dismiss, and undertake annual evaluation of the Chief Audit Executive and review the independence of Internal Audit.
- 12) To review the efficiency and effectiveness of internal control and risk management focusing on the issue of information technology.
- 13) In performing the duty of the Audit Committee, if there is transaction or act which could materially affect the Company's financial status and the Company's performance, namely
 - Transaction which leads to conflict of interest
 - Dishonest, unusual or remiss internal control system
 - Violating the securities and exchange law, regulations of the exchange or laws relating to business of the Company

The Audit Committee shall report it to the Board of Directors so as to rectify within prescribed time. If the Board of Directors or executives fail to rectify within the prescribed time, any member of Audit Committee is able to report this transaction or act to the Securities and Exchange Commission or the Stock Exchange of Thailand.

- 14) To review and consider the Self-Evaluation Tool for Countering Bribery of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC).
- 15) To perform any other act assigned by the Board of Directors with approval of the Audit Committee.

The Audit Committee is entitled to terminate the contract entered by and between the Company and auditor(s) if auditor(s) fail(s) to, refrain(s) from, or wrongfully perform their duties.

2. Nomination and Remuneration Committee (NRC)

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

Roles and Responsibilities

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

3. Enterprise-wide Risk Management Committee (ERMC)

The ERMC comprises at least three members, at least one of whom must be knowledgeable in risk management. Qualified external parties can serve as members.

Roles and Responsibilities

- 1) Set policy, strategies and objectives of the enterprise-wide risk management.
- 2) Develop an enterprise-wide risk management system to ensure 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 Chairperson of the Enterprise-wide Risk Management Committee reports the findings to the Board of Directors' next meeting.
- 6) Perform other tasks as assigned by the Board of Directors

4. Sustainability and Corporate Governance Committee (SCGC)

The Sustainability and Corporate Governance Committee comprises at least three directors, and at least one of whom must be knowledgeable in sustainability and corporate governance practices by international standards. An independent director must serve as Chairperson of this committee.

Roles and Responsibilities

Corporate Governance

- 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 other tasks as assigned by the Board of Directors.

Sustainability

- 1) Recommend the implementation of sustainability to the Board of Directors.
- 2) Monitor Committee and management's work to ensure compliance with the principles of sustainable development principles.
- 3) Review the implementation of sustainability by comparing it with international standards and recommend it to the Board of Directors for continual follow-ups and respond to the needs of stakeholders.
- 4) Give the policy of sustainability to the Company's sustainability committee.
- 5) Perform other tasks as assigned by the Board of Directors.

7.3.2 List of Sub-Committee

1. Audit Committee (AC)

Name		Position
1. Dr. Porameteer	Vimolsiri	Chairperson and Independent Director with expertise in accounting and finance
2. Mrs. Prisana	Praharnkhasuk	Member and Independent Director with expertise in accounting and finance
3. Mr. Surin	Chiravisit	Member and Independent Director
4. Mr. Achporn	Charuchinda	Member and Independent Director
5. Mrs. Vilai	Chattanrassamee	Member and Independent Director
6. Vice President, Internal Audit Department	Secretary	

2. Nomination and Remuneration Committee (NRC)

Name		Position
1. Mrs. Prisana	Praharnkhasuk	Chairperson and Independent Director
2. Mr. Surin	Chiravisit	Member and Independent Director
3. Maj. Gen. Yuttasak	Raksereepitak	Member and Secretary, Independent Director

3. Enterprise-wide Risk Management Committee (ERMC)

Name		Position
1. Mr. Prasong	Poontaneat	Chairperson and Independent Director
2. Mr. Narin	Kalayanamit	Member and Independent Director
3. Mr. Chaovalit	Ekabut	Member and Independent Director
4. Mr. Achporn	Charuchinda	Member and Independent Director
5. Mr. Chanvit	Nakburee	Member and Non-executive Director
6. Mr. Chaiwat	Kovavisarach	Member and Secretary, Executive Director

4. Sustainability and Corporate Governance Committee (SCGC)

Name		Position
1. Mr. Narin	Kalayanamit	Chairperson and Independent Director
2. Pol. Lt. Gen. Samran	Nualma	Member and Independent Director
3. Maj. Gen. Yuttasak	Raksereepitak	Member and Independent Director
4. Mr. Chaovalit	Ekabut	Member and Independent Director
5. Mr. Phairoj	Chotikasatien	Member and Non-executive Director
6. Mrs. Woranuch	Phu-im	Member and Non-executive Director
7. Mr. Chaiwat	Kovavisarach	Member and Secretary, Executive Director

7.4 Executive Management

7.4.1 Names and Positions of Executives

The Board has set the roles and duties of the management in the Company's day-to-day business management in line with the Company's policies, plans, goals, regulations, and rules, as well as Board resolutions, within the approved budget. To this end, they are to conform strictly with integrity and care to maintain the Company's and its shareholders' interests to the best of their ability under corporate principles. They are to report updates on conformance to such resolutions and key performance outcomes to the Board at least monthly. Today the management consists of ten persons, whom are regarded as executives under SEC's definition (As of December 31, 2023):

	Name	Position
1.	Mr. Chaiwat Kovavisarach	Group Chief Executive Officer and President
2.	Mr. Somchai Tejavanija*	Chief Marketing Officer of Marketing Business Group
3.	Mr. Pativat Tivasasit*	Chief Operation Officer of Refinery Business Group
4.	Ms. Phatpuree Chinkulkitnivat	Chief Financial Officer and Senior Executive Vice President of Accounting and Finance
5.	Mr. Chokchai Atsawarangsalit	Senior Executive Vice President of Corporate Management and Organization Development
6.	Mr. Kittiphong Limsuwannarot	Senior Executive Vice President appointed to BBGI Public Company Limited
7.	Mr. Bundit Hansapaiboon	Senior Executive Vice President, appointed to Bangchak Sriracha Public Company Limited
8.	Mr. Thamarat Paryoonsuk	Senior Executive Vice President of Refinery Business Group
9.	Mrs. Ratrimani Pasiphol	Chief Transformation & Synergy Realization Officer
10.	Mr. Seri Anupantanan	Senior Executive Vice President of Marketing Business Group

Remark(s): *ceased to be executive due to retirement effective January 1, 2024

Directors and executives assigned to other companies

The Board appoints representative directors of subsidiaries, associated companies and other companies pursuant to the guidelines for the appointment of representative directors in associated companies. To this end, the President and Chief Executive Officer selects fully qualified persons under such guidelines and propose to the Board for the appointment. Each subsequent change is to be reported by the President and Chief Executive Officer for the Board's acknowledgment. Today, the following directors and executives are assigned as directors of subsidiaries and associated companies:

Subsidiary Companies

1. Bangchak Sriracha Public Company Limited (BSRC)
2. BCPG Public Company Limited (BCPG)
3. BBGI Public Company Limited (BBGI)
4. Refinery Optimization and Synergy Enterprise Co., Ltd. (ROSE)
5. Bangchak Retail Co., Ltd. (BCR)
6. Bangchak Green Net Co., Ltd. (BGN)
7. Bangchak Solar Energy Co., Ltd. (BSE)
8. Bangchak Solar Energy (Prachinburi) Co., Ltd. (BSE-PRI)
9. Bangchak Solar Energy (Chaiyaphum 1) Co., Ltd. (BSE-CPM1)
10. Bangchak Solar Energy (Buriram) Co., Ltd. (BSE-BRM)
11. Bangchak Solar Energy (Buriram 1) Co., Ltd. (BSE-BRM1)
12. Bangchak Solar Energy (Nakhon Ratchasima) Co., Ltd. (BSE-NMA)
13. Thai Digital Energy Development Co., Ltd. (TDED)
14. BCPG Indochina Co., Ltd. (BIC)
15. BSE Power Holdings (Thailand) Company Limited (BSPH)
16. BSE Power (Kanjanaburi) Company Limited (KAN)
17. BSE Power (Kanjanaburi 1) Company Limited (KAN1)
18. BSE Power (Lopburi) Company Limited (LOP)
19. BSE Power (Prachinburi) Company Limited (CPRS)
20. BSE Power Company Limited (BSP)
21. Asia Link Terminal Co., Ltd.
22. BCPG Energy Logistics Co., Ltd.
23. Huang Ming Japan Company Limited (Huang Ming)
24. BSE Energy Holdings Pte. Ltd. (BCPGH)
25. BCPG Japan Corporation (BCPG Japan)
26. BCPG Engineering Company (BCPG Engineering)
27. BCPG Investment Holdings Pte. Ltd. (BCPGI)
28. BCPG Wind (Ligor) Co., Ltd. (LLG)
29. Greenergy Holdings Pte. Ltd. (Greenergy Holdings)
30. Greenergy Power Pte. Ltd. (Greenergy Power)
31. BCPG Wind Cooperatief U.A. (BCPG Wind)
32. BCPG Formosa Co., Ltd. (BCPGF)
33. BCPG Formosa 1 Co., Ltd.
34. BCPG Formosa 2 Co., Ltd.
35. Jieyang Energy Co., Ltd.
36. Ying-Chen Co., Ltd.
37. NamSan 3A Sole Power Co., Ltd. (NS3A)
38. NamSan 3B Sole Power Co., Ltd. (NS3B)
39. Indochina Development Operation and Holdings Pte. Ltd. (IDO)
40. BBGI Bio Diesel Co., Ltd. (BBGI-BI)
41. BBGI Bioethanol (Chachoengsao) Co., Ltd. (BBGI-PS)
42. BBGI Bioethanol Plc. (BBGI-NP, BBGI-BP)
43. BBGI Utility and Power Co., Ltd. (BUP)

44. WIN Ingredients Co., Ltd. (WIN Ing.)
45. WIN Ingredients Singapore Pte. Ltd. (WIN Ing. SG)
46. BCPR Co., Ltd. (BCPR)
47. BCPR Pte. Ltd. (BCPR SG)
48. BCP Trading Pte. Ltd. (BCPT)
49. BCP Innovation Pte. Ltd. (BCPI)
50. BCV Energy Co., Ltd. (BCVE)
51. BCV Innovation Co., Ltd. (BCVI)
52. BTSG Co., Ltd. (BTSG)
53. WINNONIE Co., Ltd. (Winnonie)
54. General Energy Manning Co., Ltd. (GEM)
55. Bangkok Fuel Pipeline and Logistics Co., Ltd. (BFPL)
56. BSGF Co., Ltd. (BSGF)
57. OKEA ASA (OKEA)
58. Bangchak Treasury Center Co., Ltd. (BCTC)
59. United Industry Development Co., Ltd.
60. Pacesetter Enterprises Co., Ltd.
61. Industry Promotion Enterprises Limited
62. Mobil Enterprises (Thailand) Limited (Currently under the liquidation process)

Associated Companies

1. Oam Suk Social Enterprise Co., Ltd. (OamSuk)
2. Prathumwan Smart District Cooling Co., Ltd. (PSDC)
3. Mee Tee Mee Ngern Co., Ltd.
4. Data Café Co., Ltd.
5. Biom Co., Ltd.
6. Thanachok Vegetable Oil (2012) Co., Ltd.
7. Smart EV Bike Co., Ltd.
8. Thai Petroleum Pipeline Co., Ltd.
9. Keha Sukpracha Plc.
10. Petro Wind Energy Inc. (PWEI)
11. Impact Energy Asia Development Limited (IEAD)
12. Monsoon Wind Company Limited (MWP)
13. Nam Tai Power Sole Co., Ltd.
14. Energy Response Co., Ltd.
15. Transitus Energy Ltd.

Other Companies

1. Fuel Pipeline Transportation Co., Ltd. (FPT)
2. Bangkok Aviation Fuel Services Plc. (BAFS)
3. Thai Special Gas Co., Ltd. (TSG)
4. Sharge Management Co., Ltd.

5. Ubon Bio Ethanol Plc. (UBE)
6. Ubon Bio Agricultural Energy Co., Ltd.
7. Ubon Sunflower Co., Ltd.
8. Bonumose LLC.
9. Enevate Corporation
10. Geltor, Inc.
11. Manus Bio Inc.
12. Ion Storage System

Others

1. Happiness Sharing Foundation (Foundation)

7.4.2 Remuneration of Executives

- 1) Executives shall receive short-term remuneration, i.e. salary and bonus, and long-term remuneration, including the Employee Stock Ownership Program and the Employee Joint Investment Program, which the Board will consider on a case-by-case basis. These payments motivate executives, are on a par with industry practice, correlate to the Balanced Scorecard principles and to each person's key performance indices (KPIs), and connect compensation with performance.
- 2) Executives who serve as directors in a joint venture will be compensated according to the Company's regulations on the appointment of directors of joint ventures. As for the President and chief executive officer who is tasked with additional roles and responsibilities, as a subcommittee member for instance, will be paid according to the Board's decision based on merit of that task or responsibility.
- 3) The Board has ordered a report on the remuneration of executives including the disclosure of payments made to executives who are appointed a role in a subsidiary to be included in the Company's annual report in compliance with the Corporate Governance Policy.

7.4.3 Total Executives' Remuneration

Remuneration for Executives as defined by the SEC (President & Chief Executive Officer and Senior Executive Vice Presidents)

Remuneration	2022		2023	
	Persons	Baht	Persons	Baht
Salary	10	78,543,293.00	10	86,638,163.00
Bonus & Retirement pay	10	75,469,580.26	10	117,577,112.42
Provident fund and Social Security	10	6,401,445.00	10	6,417,495.00
Total	10	160,414,318.26	10	210,632,770.42

7.5 Personnel

On December 31, 2023, the Company had a total headcount of 1,184:

Employee	Persons
Corporate Management and Organization Development	132
Accounting and Finance	98
Corporate Strategy and Business Development	99
Marketing Business Group	255
Refinery & Oil Trading Business Group	508
The President and Chief Executive Officer	73
BCPG Plc.	8
BBGI Plc.	4
Bangchak Sriracha Public Company Limited (formerly Esso (Thailand) Public Company Limited)	7
Total	1,184

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

The number of employees in 2023 has increased by approximately 3.5% compared to the average number of employees over the past 3 years (1,098 in year 2022, 1,103 in year 2021 and 1,230 persons in year 2020), partly due to support the provision of services to employees of Bangchak Sriracha Public Company Limited.

Remuneration of employee

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

Employee receive remuneration in the form of salary; shift, night shift, overtime, and upcountry pay; operation at the refinery; discipline remuneration; special bonus and other welfare. Employees have the right to apply for membership of “Bangchak Corporation Public Company Limited Provident Fund” by choosing the accumulation at a rate of five percent or ten percent or fifteen percent of the salary and the Company will pay the same rate but not over ten percent to the Fund. In 2022 the Company paid remuneration as follows.

Remuneration	Baht
Salary	1,172,454,900.41
Overtime	65,585,942.00
Bonus	813,557,833.00
Provident Fund	102,404,524.00
Social Security	10,159,234.00
Total	2,164,162,433.41

The remuneration for President & CEO and Senior Executive Vice Presidents is **9.73%** of total remuneration of employee.

As of December 31, 2023, 1,136 employees participated in the provident fund, representing 95.9% of the total employees.

Personnel Development

The Company focuses on continuing personnel development for greater operating capability matching corporate goals, policies, and directions. To this end, it appointed a “Personnel Development and Administration Panel” to endorse personnel development, define guidelines for personnel administration, define an approach for corporate culture development, and forge a sound employee attitude so that the efficiency of Bangchak’s corporate administration may be on a par with business peers and in keeping with its business status and goals.

In 2023 the number of training hours in various courses averaged 35.75 hours/person/year (detailed under 3. Driving a Sustainable Business), and “Bangchak Learning Academy” was established to develop the curriculum and build employees’ potential to training and seminars for Bangchak Group. The courses are divided into 4 groups: 1. Bangchak Mandatory Courses 2. Growth Business Capabilities 3. Language & Digital Literacy 4. Collaboration & Employee Experience. In addition, we also have courses to enhance knowledge of safety and the environment. These included training on safety, health, and work environment for workers in general and newly hired workers; safety officers (executives and supervisors); Confined Space Safety Refresh training, Air Pollutions System Operator; Industrial Waste Management Operator, beginners’ firefighting; organizational carbon footprint assessment; and GHG Reduction & Calculating Your Carbon Footprint (greenhouse gas reduction project management) consistent with Sustainable Development of the organization in the future.

7.6 Other Key Information

7.6.1 Responsible Assigned Persons

Company Secretary

Under the Securities and Exchange law (Articles 89/15 and 89/16), Board Meeting No. 1/2022 appointed Ms. Wannasiri Trongtrakulwong, Executive Vice President, Corporate Compliance, as the Company Secretary, effective from February 1, 2022. Details of the Company Secretary profile are set out in Attachment 1.

Roles and Responsibilities

- Schedule Board meetings and shareholders' meetings under the law and company regulations. Coordinate conformance to the resolutions of Board and shareholders' meetings
- Prepare and maintain key documents, including the Board roster, meeting notices, minutes of Board meetings and shareholders' meetings, annual reports, and reports of vested interests
- Advise and support the performance of directors and the management under the law and relevant regulations
- Coordinate between the chairman and the President and Chief Executive Officer together with the management team, which includes coordination between Bangchak and its shareholders
- Encourage the directors, management, and employees to conform to corporate governance
- Perform other duties as required by laws or assigned by the Board of Directors

Accounting Supervisor

The Company assigned Ms. Chantip Wongchieowittaya Vice President, Financial Accounting to be directly responsible for the supervision of accounting, effective June 10, 2019 Her profile is set out in Attachment 1.

Head of Internal Audit

At the Audit Committee's Meeting No. 6/2020 of June 18, 2020, Ms. Pornjit Sojisunsanee was appointed as Vice President, Internal Audit Department, citing her solid knowledge and understanding of the Company businesses, complemented by her internal audit expertise, skills, and experience, and those in corporate governance, risk assessment, and internal control at the business and overall levels. As a result, the committee regarded her as suitable and sufficient for such duties.

The appointment, removal, and transfer of the head of Internal Audit is requires the approval of the Audit Committee. Qualification of the Head of Internal Audit is set out in Attachment 3.

Head of the Compliance

At its meeting No. 6/2009 held on June 26, 2009, the Board of Directors appointed Ms. Wannasiri Trongtrakulwong as Executive Vice President, Corporate Compliance Department effective December 1, 2023. The qualification of the Head of Compliance is set out in Attachment 3.

7.6.2 Head of Investor Relations

Ms. Tipwadee Sudwayha is assigned as the Investor Relations Manager. Investors and related parties can make queries or ask for the Company's information at Tel. 0 2335 8663 or e-mail address: ir@bangchak.co.th

7.6.3 Audit Fee

The Company and its subsidiaries paid audit fees amounting to 12.87 million baht to KPMG in Thailand and KPMG member firms overseas, which the auditors worked for, and to persons or businesses related to the auditors and audit firm. This audit fee amount excluded the remuneration paid by associates. In this regard, KPMG in Thailand, and KPMG member firms overseas and its auditors do not have any relationships or interests involving the Company, management, or major shareholders, including their related persons.

Audit fees for the year 2023

1. Fees for annual audit and quarterly review of the Company and consolidated financial statements amounted to 2.04 million baht to KPMG.

Audit fees of the Company	
1. Annual audit fee for the Company's financial statement	0.39 million baht
2. Fees for annual audit and quarterly review of the Company and consolidated financial statements	1.65 million baht
Total audit fees of the Company	2.04 million baht

2. Fees for the annual audit of subsidiaries and quarterly review of listed subsidiaries performed by KPMG Thailand and KPMG overseas that the Subsidiaries absorbed were as follows.

Audit fees of subsidiaries	
1. Fees for annual audit of the subsidiaries' financial statements and quarterly review of listed subsidiaries	
- Number of subsidiaries	27 Companies
- Amount	6.59 million baht
2. Fees for annual audit of the overseas subsidiaries' financial statements	
- Number of subsidiaries	5 Companies
- Amount (equivalent)	4.24 million baht
Total audit fees of subsidiaries	10.83 million baht

Audit-related Fee (assurance and related services)

The Company and subsidiaries paid for other audit-related fee (assurance and related services) amounting to 4.27 million baht (paid by the Company amounting to 3.30 million baht and its subsidiaries amounting to 0.97 million baht)

Non-audit Fee

The Company paid for other fees amounting to 0.77 million baht, and the subsidiaries paid for auditing compliance with the conditions of the BOI Promotion Certificate amounting to 0.60 million baht to the audit firm and persons or businesses related to the auditors and the audit firm.

8. Highlights of Corporate Governance

8.1 Performance of the Board of Directors

8.1.1 Recruitment, Development, and Performance Assessment of the Board of Directors

(1) Independent Directors

At least one-third of the Board must be independent directors, each of whom must comply with the following:

- (1) An Independent Director must hold no more than 0.5% of all the voting shares of Bangchak and its parent company, subsidiaries, affiliates, major shareholders or Corporate Governance Policy, Bangchak Corporation Public Company Limited controlling persons. An Independent Director's shares must include those held by related person to that Independent Director.
- (2) An Independent Director must not be nor ever have been a director who is involved with management, an employee, a salaried adviser, or a controlling individual of Bangchak, its parent company or any of its subsidiaries, affiliates, peer companies under the same parent company, major Shareholders or controlling individuals/entities unless the foregoing status has ended for at least two years prior to the date of appointment. An individual who was a civil servant of or an adviser to a government agency that was a Bangchak major shareholder or controlling entity is not forbidden from being a Bangchak Independent Director.
- (3) Independent Directors must not be related by blood or legal registration as a parent, spouse, sibling, child, spouse of the child of another Director, an Executive, a major Shareholder, a controlling individual or an individual who is about to be nominated as a Director, an Executive or a controlling individual of Bangchak or any of its subsidiaries.
- (4) Independent Directors must not have nor ever had a business relationship with Bangchak its parent company or any of its subsidiaries, affiliates, major Shareholders or controlling individuals/entities in a manner that might obstruct their independent use of discretion. In addition, they must not be nor have ever been a major Shareholder or a controlling individual of an entity having a business relationship

with Bangchak, its parent company or any of its subsidiaries, affiliates, major Shareholders or Bangchak controlling individuals/entities. An exception is made in the case of a candidate who used to have such a relationship or hold one of the positions mentioned above but ended it or left it at least two years prior to the date of appointment.

- (5) An Independent Director must not be nor ever have been an auditor of Bangchak, its parent company or any of its subsidiaries, affiliates, major Shareholders or controlling individuals/entities. In addition, he/she must not be a significant Shareholder, a controlling individual or a partner of the audit firm where the auditors of Bangchak, its parent company, or any of its subsidiaries, affiliates, major Shareholders or controlling individuals/entities work. An exception is made in the case of a candidate who used to hold any of the positions mentioned above but left it at least two years prior to the date of appointment.
- (6) An Independent Director must not be nor ever have been a provider of any professional service (including services as a legal or financial adviser) who receives compensation to the amount of over two million baht per year from Bangchak or any of its subsidiaries, affiliates, major Shareholders or controlling individuals/entities. In addition, he/she must not be a significant Shareholder, a controlling individual, or a partner of a provider of such professional services. An exception is made in the case of a candidate who used to hold any of the positions mentioned above but left it at least two years prior to the date of appointment.
- (7) An Independent Director must not be appointed as an agent of another Bangchak Director, a major Bangchak Shareholder or a Bangchak Shareholder connected with a major Bangchak Shareholder.

- (8) Independent Directors must not own businesses that are in the same industry and significant competition to the business of Bangchak or any of its subsidiaries. They must not be significant partners in a limited partnership or directors who are involved in management, employees, and salaried advisers or own more than one percent of all voting shares of another firm that runs a business that is in the same industry as and is in significant competition with the business of Bangchak or any of its subsidiaries.

- (9) An Independent Director must not have any other characteristics that might hinder the free expression of their opinions about Bangchak operations.

After being appointed an Independent Director who meets the nine criteria stated above, might be tasked by the Board of Directors with making decisions in regard to the operations of the Company, its parent company or any of its subsidiaries, affiliates, peer companies under the same parent company, major Shareholders or controlling individuals/entities. They must be able to make collective decisions. The definitions in regard to Independent Directors are in line with the regulations of definitions in the notification of the Capital Market Supervisory Board on the issuance and offering of securities.

(2) Nomination and Appointment of Directors and the President & CEO

As of December 31, 2023, Bangchak has fifteen directors, eleven of whom are independent directors. Ten other executives hold their positions as defined by the SEC, with the Bangchak Group CEO & President, Bangchak Corporation Plc., serving as the top executive. The appointment of directors and the Group CEO & President must be reviewed by the Nomination and Remuneration Committee. Directors and shareholders are allowed to participate in the nomination of qualified individuals in addition to scrutiny of the Director Pool of the IOD.

Directors' Nomination

1. Bangchak allows minor shareholders to nominate directors by submitting their names to it.
2. The Nomination and Remuneration Committee (NRC) reviews Board structure for suitability and Bangchak's strategic needs.
3. The NRC defines the competency and experience for directors to be nominated by using Director Qualifications

and Skill Matrix so that they may match Bangchak's goals and strategies.

4. NRC proceeds with nomination and tables qualified persons for directors in place of those whose terms expire or for additional directors, using IOD's Director Pool as part of the nomination process. NRC is also to nominate directors to its secretary.
5. The NRC selects those qualified to be directors and tables their names for the Board's endorsement.
6. The Board endorses the list of directors for subsequent approval by the AGM.

Appointment and Dismissal of Directors

1. Shareholder meetings elect Directors through majority voting, with one shareholder holding one vote per share and can elect Directors individually. The candidates with the most votes will 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 most extended terms must retire. The retired Directors can be re-elected.
3. Other than the completion of the term, a director may retire for the following reasons:
 - Death
 - Resignation
 - Lack of qualifications according to the Public Limited Companies Act and the Securities and Exchange Act
 - Decision of the shareholders' meeting to resign according to the Public Limited Companies Act
 - Court order
4. In case a director's position is vacant due to reasons other than the completion of the 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-quarters vote of the Directors present at the meeting is required. The elected Director holds the position until the completion of the term of the Director they have replaced.

New Directors' Orientation

The Company organized an orientation for its new directors, including company visits and lectures to inform them of the nature and business approach of the Company, covering organizational structure, business strategy, and policy, performances, relevant rules and regulations, corporate governance policy, director's role and responsibility, and other pertinent information crucial to their efficient performance. The director's manual is also prepared and includes relevant rules and regulations. The Company Secretary is the coordinator for the orientation.

In 2023, six new directors have been appointed, namely Maj. Gen. Yuttasak Raksereepitak, Mr. Surin Chiravisit, Mrs. Vilai Chattanrassamee, Mr. Phairoj Chotikasatien, Mrs. Woranuch Phu-im, and Mr. Chanvit Nakburee. As part of their orientation, information regarding the Company's overview and business approaches, their legal roles and responsibilities, relevant rules and regulations, corporate governance policy, and other information essential for their efficient performance were prepared.

Directors' Development

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

Business overview briefings about the Company's business have been organized for the 15 directors in the Annual Strategy Forum consisting of the following five topics:

- 1) Energy Security along Energy Transition by McKinsey
- 2) BBGI & SynBio by Mr. Kittiphong Limsuwanarot, CEO & President of BBGI
- 3) Exploration and Production (E&P) by Mr. Ravee Boonsinsukh, Executive Vice President, New Business Model and Innovation Group
- 4) Amidst the Geo-Political Conflicts by Associate Professor Dr. Piti Srisangnam
- 5) Fiduciary Duties and the Director's Roles and Responsibility in Major Business Issues by the Thai Institute of Directors (IOD)

Furthermore, Mrs. Prisana Praharnkhasuk, Independent Director and Chairman of the Remuneration and Compensation Committee, attended the IOD Board Nomination & Compensation Program (BNCP16/2023) organized by the IOD.

As of December 31, 2023, two directors have attended IOD's Director Accreditation Program (DAP), and eleven directors have attended its Director Certification Program (DCP). Training details appear under Attachment 1.

Assessment of Directors' Performances

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

The assessment is summarized below:

1) Individual directors

- **Self-assessment** relies on three topics, namely, responsibility for their roles, training and self-development, and conformance to the corporate governance policy. The overall summary of assessment findings showed an average score of 97.50 %, rated as excellent.
- **Cross-assessment** by group (3-4 unnamed directors assessing another one director) relies on two topics, namely responsibility for their roles and directors' independence. The overall summary of assessment findings showed an average of 97.1%, rated as excellent.

2) The Entire Board relies on topics, namely Structure and Skills, Strategic Direction and Planning, Policy, Monitoring and Supervision, Accountability, CEO and Succession, Leadership and Teamwork, and Agendas, Papers, Meetings, and Minutes. The overall summary of assessment findings showed an average score of 97.90 %, rated as excellent.

3) Sub-committees rely on responsibilities and meetings; the evaluations of all Committees were as follows:

- The Audit Committee, the group evaluation had an average score of 98.60%, rated excellent.
- The Nomination and Remuneration Committee, the group evaluation had an average score of 98.89%, rated excellent.
- The Sustainability and Corporate Governance Committee, the group evaluation had an average score of 97.33%, rated excellent.
- The Enterprise-wide Risk Management Committee, the group evaluation had an average score of 98.06%, rated excellent.

The Company analyzed the topics of assessment and assessment outcomes and reviewed performances, problems, and obstacles over the past year to improve the performance efficiency and effectiveness of the Board and its committees.

Succession Planning and Management Development

Under the Board's policy on the President and Chief Executive Officer's nomination, if he or she is suitable, an external or internal person may enter the selection process under Bangchak's given circumstances. The NRC selected Suitable persons according to the nomination criteria and method it had defined.

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

Procedure

1. Define management positions requiring succession planning (President and chief executive officer and all senior executive vice presidents).

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

Nomination and Appointment of the President and Chief Executive Officer

NRC nominates and reviews the qualifications of senior executives and others under NRC-set guidelines for the Board to appoint as President & CEO. These include the legally required director qualifications and those required by Bangchak's regulations, together with essential skills and experience in Bangchak's best interests and alignment with Bangchak's business directions. The Board appointed Mr. Chaiwat Kovavisarach, Group Chief Executive Officer and President, effective from January 1, 2015, on account of his knowledge of investment in new businesses abroad and his sound financial knowledge, both of which align with Bangchak's business directions, with four-year term from 1 January 2023 to 31 December 2027.

Performance Appraisals of the President and Chief Executive Officer, and Senior Executives

Bangchak measures performance outcomes as KPIs (key performance indexes), including its own performance, common practices of peer listed companies of comparable sizes, roles and responsibilities, executive development,

and overall economic circumstances. The President & CEO must annually present his performance in various aspects, including the management of the refinery and marketing business units, business development, and organizational development, while discussing current management outcomes covering successes and obstacles, including the ability to expand business opportunities and competition, social and environmental policies, together with responses

to public policies. The performance of the year 2023 was better than the organization's target. The NRC and the board will approve the performance indicators and organizational goals of the President & CEO annually. **The NRC is to decide on the President & CEO's compensation, which is then forwarded to the Board for approval.** The President & CEO earns benefits as the top management executive in addition to the compensation as a director.

8.1.2 Meeting Attendance and Remuneration of Individual Directors

In 2023, the Board held fifteen meetings at Company's Head Office with exclusive meetings of the independent directors in March and August and meetings of the non-executive directors in April and November, and twice annual seminar on corporate strategies with the management to review and revise the corporate vision on annual basis under Bangchak's vision, mission, and values, together with an assessment of business circumstances. The Board of Directors reviewed and resolved that the Company's Vision, mission, and core value shall remain unchanged.

	Names	Meeting attendance / total (times)							Note	
		Board of Directors			Sub-Committees					
		Meeting	Seminar	Total	AC	NRC	ERMC	SCGC		
1.	Mr. Pichai	Chunhavajira ^{1/}	15/15	2/2	17/17	-	-	-	-	
2.	Mr. Surin	Chiravisit ^{2/}	10/10	2/2	12/12	9/9	4/4	-	-	Appointed on April 11, 2023
3.	Mr. Prasong	Poontaneat	15/15	2/2	17/17	-	-	8/8	-	
4.	Pol. Lt. Gen. Samran	Nualma	14/15	2/2	16/17	-	-	-	3/3	
5.	Maj. Gen. Yuttasak	Raksereepitak ^{3/}	6/6	1/1	7/7	-	3/3	-	1/1	Appointed on July 20, 2023
6.	Mrs. Prisana	Praharnkhasuk	15/15	2/2	17/17	13/13	7/7	-	-	
7.	Dr. Porameteer	Vimolsiri	15/15	2/2	17/17	13/13	-	-	-	
8.	Mr. Achporn	Charuchinda ^{4/}	15/15	2/2	17/17	13/13	-	6/6	-	
9.	Mr. Chaovalit	Ekabut ^{5/}	15/15	2/2	17/17	-	-	7/8	2/2	
10.	Mr. Narin	Kalayanamit ^{6/}	15/15	2/2	17/17	4/4	-	6/6	3/3	
11.	Mrs. Vilai	Chattanrassamee ^{7/}	10/10	2/2	12/12	9/9	-	-	-	Appointed on April 11, 2023
12.	Mrs. Woranuch	Phu-im ^{5/}	10/10	2/2	12/12	-	-	-	2/2	Appointed on April 11, 2023
13.	Mr. Chanvit	Nakburee ^{4/}	13/13	2/2	15/15	-	-	6/6	-	Appointed on Jan 27, 2023
14.	Mr. Phairoj	Chotikasatien ^{8/}	1/2	1/1	2/3	-	-	-	1/1	Appointed on Oct 31, 2023
15.	Mr. Chaiwat	Kovavisarach	15/15	2/2	17/17	-	-	8/8	3/3	

Note: ^{1/} Chairperson is not a member of the subcommittee.

^{2/} Appointed to AC and NRC committee member on 27 April 2023.

^{3/} Appointed to NRC on 20 July 2023

^{4/} Appointed to ERMC on 27 April 2023

^{5/} Appointed to SCGC on 27 April 2023

^{6/} Completed term from AC and appointed to ERMC on 27 April 2023

^{7/} Appointed to AC on 27 April 2023.

^{8/} Appointed to SCGC on 31 October 2023.

Names		Meeting attendance / total (times)							Note
		Board of Directors			Sub-Committees				
		Meeting	Seminar	Total	AC	NRC	ERMC	SCGC	
Directors whose terms were expired or resigned directors in 2023									
1.	Mr. Suthep Wongvorazathe	5/5	0/0	5/5	-	-	-	1/1	Term expired on April 11, 2023
2.	Pol. Lt. Gen. Chaiwat Chotima	5/5	0/0	5/5	-	3/3	-	-	Term expired on April 11, 2023
3.	Mr. Chamroen Phothiyod	5/5	0/0	5/5	-	-	2/2	-	Term expired on April 11, 2023
4.	Gen. Songwit Noonpackdee	8/8	0/1	8/9	-	2/3	2/2	-	Resigned on June 23, 2023
5.	Mr. Boonchob Suthamanuswong	12/12	1/1	13/13	-	-	-	2/2	Resigned on October 24, 2023

Board Remuneration

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

Policy on Director Remuneration

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

Director Remuneration approved by 2023 AGM of April 11, 2023, are as follows:

1) Monthly remuneration and meeting allowance

The Board of Directors	Monthly Remuneration (Baht/person)	Meeting Allowance (Baht/person/time) (Only for attending directors)
The Board of Directors	45,000	45,000
The Sub-Committees		
1. The Audit Committee	20,000	25,000
2. The Nomination and Remuneration Committee	-	25,000
3. Enterprise-wide Risk Management Committee	-	25,000
4. Sustainability and Corporate Governance Committee	-	25,000
5. Other committees that may be appointed in the future by the Board as seen fit and necessary	-	25,000

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

2) Bonuses for Directors

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

3) Other Remuneration

Group health insurance

IPD+OPD treatment with annual health insurance not exceeding 50,000 Baht (excluding VAT) per one director

Directors' Other Expenses

1) Other Essential Business Expenses

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

2) Others

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

In 2023, the individual remuneration of Directors was as follows:

Name	BOARD	AC	NRC	Remuneration in Baht				Total
				ERMC	SCGC	Bonus	Total	
1. Mr. Pichai Chunhavajira	1,481,250.00	-	-	-	-	3,750,000.00	5,231,250.00	
2. Mr. Surin Chiravisit ^{1/}	1,093,687.50	362,666.67	100,000.00	-	-	2,432,876.71	3,989,230.88	
3. Mr. Prasong Poontaneat	1,350,187.50	-	-	225,000.00	-	3,263,013.70	4,838,201.20	
4. Pol. Lt. Gen. Samran Nualma	1,140,000.00	-	-	-	65,000.00	3,000,000.00	4,205,000.00	
5. Maj. Gen. Yuttasak Rakseerepitak ^{2/}	602,419.35	-	75,000.00	-	25,000.00	1,356,164.38	2,058,583.73	
6. Mrs. Prisana Praharnkhasuk	1,185,000.00	480,000.00	181,250.00	-	-	3,000,000.00	4,846,250.00	
7. Dr. Porameteer Vimolsiri	1,230,000.00	600,000.00	-	-	-	3,000,000.00	4,830,000.00	
8. Mr. Achporn Charuchinda	1,185,000.00	480,000.00	-	150,000.00	-	3,000,000.00	4,815,000.00	
9. Mr. Chaovalit Ekabut	1,230,000.00	-	-	155,000.00	50,000.00	3,000,000.00	4,435,000.00	
10. Mr. Narin Kalayanamit	1,230,000.00	117,333.33	-	150,000.00	81,250.00	3,000,000.00	4,578,583.33	
11. Mrs. Vilai Chattanrassamee ^{1/}	973,500.00	362,666.67	-	-	-	2,169,863.01	3,506,029.68	
12. Mrs. Woranuch Phu-im ^{1/}	973,500.00	-	-	-	50,000.00	2,169,863.01	3,193,363.01	
13. Mr. Chanvit Nakkuree ^{3/}	1,144,838.71	-	-	150,000.00	-	2,786,301.37	4,081,140.08	
14. Mr. Phairoj Chotikasatien ^{4/}	181,451.61	-	-	-	25,000.00	509,589.04	716,040.65	
15. Mr. Chaiwat Kovavisarach	1,185,000.00	-	-	180,000.00	65,000.00	3,000,000.00	4,430,000.00	
Total	16,185,834.67	2,402,666.67	356,250.00	1,010,000.00	361,250.00	39,437,671.22	59,753,672.56	
Directors whose terms were expired or resigned directors in 2023								
1. Mr. Suthep Wongvorazathe ^{5/}	288,562.50	-	-	-	15,000.00	933,904.12	1,237,466.62	
2. Pol. Lt. Gen. Chaiwat Chotima ^{5/}	256,500.00	-	45,000.00	-	-	830,136.99	1,131,636.99	
3. Mr. Chamroen Phothiyod ^{5/}	256,500.00	-	-	30,000.00	-	830,136.99	1,116,636.99	
4. Gen. Songwit Noonpackdee ^{6/}	498,000.00	-	30,000.00	30,000.00	-	1,421,917.81	1,979,917.81	
5. Mr. Boonchob Suthamanuswong ^{7/}	903,387.10	-	-	-	40,000.00	2,432,876.71	3,376,263.81	
Total	2,202,949.60	60,000.00	75,000.00	60,000.00	55,000.00	6,448,972.62	8,841,922.22	

Note: ^{1/} Appointed as Director and on 11 April 2023^{2/} Appointed as Director on 20 July 2023^{3/} Appointed as Director on 27 January 2023^{4/} Appointed as Director on 31 October 2023^{5/} Term expired on 11 April 2023^{6/} Resigned on 23 June 2023^{7/} Resigned on 24 October 2023 and returned the bonus compensation to the social security fund which is in accordance with the criteria of the Social Security Office.

Comparison of Remuneration of Directors in 2022 and 2023

Remuneration	2022		2023	
	Directors	Baht	Directors	Baht
Monthly remuneration and meeting allowance	15	14,451,926.55	15	22,708,950.94
Bonus	15	45,533,219.18	15	45,886,643.84
Total		59,985,145.73		68,595,594.78

Note: Bonus for 2023 performance under the resolution of the 2023 AGM, held on April 11, 2023 (0.75 percent of the net profit, but not over 3,000,000 Baht/year per director. The calculated amounts are to reflect individual periods of service. Moreover, the Chairman and Vice Chairman shall receive the bonus higher than those of members by 25 percent and 12.5 percent respectively.)

Directors' Remuneration due to Directorship of subsidiaries, associates, and joint ventures in 2023

Companies	Name	Total remuneration (Baht)				
		Monthly remuneration	Meeting allowance	Bonus	Sub-Committee remuneration	Net Total
BCPG	Mr. Pichai Chunhavajira	450,000.00	487,500.00	2,020,710.00	-	2,958,210.00
BBGI	Mr. Pichai Chunhavajira	270,000.00	180,000.00	17,949.53	62,500.00	530,449.53
OKEA	Mr. Chaiwat Kovavisarach	-	489,004.00 NOK	252,001.00 NOK		741,005.00 NOK

Note: - BCPG: BCPG Public Company Limited
 - BBGI: BBGI Public Company Limited
 - OKEA: OKEA ASA
 - Exchange rate NOK 1 equivalent to approximately Baht 3.54

8.1.3 Oversight of Subsidiaries, Associates, and Joint-venture Companies

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

1) Supervised by the Board

- Define directions and policies
- Review critical matters, including strategies, business plans, and items required by SEC
- Monitor performance outcomes through Board meetings
- Delegate Board-appointed individuals to represent Bangchak as directors and executives under its equity ratios

2) Supervised by management

- Map out plans and implement policies
- Monitor and ensure plan and policy implementation
- Report performance outcomes via quarterly meetings of the Management Committee
- Set planning guidance and promote collaborative processes through quarterly meetings of the Subsidiary Synergy Strategy Committee (SSS Committee) to drive work under Bangchak Group’s direction and strategies

- Set affiliate governance guidance for representative directors so that subsidiaries, associates, and joint ventures may operate in a uniform direction. Voting or actions on critical matters need approval from the Group President & CEO, the Board, or shareholders (as applicable)
- Prepare a Bangchak Group Way of Conduct and require subsidiaries to develop corporate governance policies and internal-control systems that are comprehensive, suitable, and adequate
- Oversee disclosure of financial standing and performance outcomes as well as key transactions to ensure their propriety in line with Bangchak's criteria

3) Monitoring and audit process

- External auditor
- Internal auditor

8.1.4 Monitoring Compliance of Corporate Governance Policy and Guidelines

1) Policy

Bangchak has instituted its corporate governance policy in writing since 2003 as a result of a workshop engaging all employees where everyone played a part in contributing ideas for the Company's practical guidelines. This year the Board has reviewed and considered the Company's policies, practices and good corporate governance systems and recommended that the Company draw up an Insider List and specify the Blackout Period of the Company and/or its subsidiaries that have been registered in the SEC in Thailand and abroad, and/or target companies registered in the SEC in Thailand and abroad such that the insider must wait for at least one day after public disclosure before the said asset can be traded. In addition, the essence of the Corporate Governance Policy remains appropriate and consistent with the Corporate Governance Report (CGR) of listed companies, the Thai Private Sector Collective Action against Corruption (CAC), The S&P Global Corporate Sustainability Assessment: S&P Global (CSA) performance standards for good corporate governance of leading companies. and suitable for the current business model Therefore, there is no amendment or improvement to the Company's good corporate governance policy, and leading companies' operating standards on corporate governance, while suiting the current business model.

2) Communication

The Sustainability and Corporate Governance Committee has agreed upon the annual corporate governance plan. It has specified that the Company consistently inform its employees and stakeholders of the major principle of corporate governance through various channels to enhance their awareness and relay the Company's intention and standard in conducting the business. Examples include the followings:

- Disseminating of good, ethical, moral, and anti-corruption deeds together with policy guidelines concerning corporate governance will be handled through the Tone from the Top by executives to employees at every level in section meetings and trading partner forums.
- The Company continuously supports our trading partners to become members of the Collective Action against Corruption (CAC) and informs them to join the CAC's quarterly training. As a result of the continued support of our trading partners from 2013 to the present, the number of trading partners who have made the pledge stands at 136 partners. This year, ten trading partners have been certified, of which eight are trading partners and two are subsidiaries. As a result of the Company's plan to support and advise subsidiaries to achieve the CAC Certification, BCPG Plc. has achieved the second extension of the CAC Certification whilst BBGI Plc. has achieved its first certification.
- To communicate corporate governance, doing good deeds, ethical actions, anti-corruption, internal auditing, and human rights and working as well as policy guidelines for various corporate governance, a 2D animation video clip has been created and publicized through the Company's BCP KMS for self-study by the employees before taking the annual self-test.
- We have communicated with all employees to have them acknowledge and adhere to the CG policy as well as to submit the annual Conflict of Interest Report via the online HR Services or make changes to the information should it be required. This has been 100% completed.
- The Company prioritizes and emphasizes the No-Gift policy in every festivity and occasion to elevate our CG to be the standard in business performance. Such effort is equally disseminated to our trading partners and all involved parties.

3) Measures and Guidelines

- The company conducts the annual personal information and potential conflict of interest disclosure (Conflict of Interest Report System) by directors, executives, and employees, through the HR-Services online personnel management channel. Additionally, to prevent conflicts of interest - in the cases of new employees or relevant changes occurring - employees can report changes into this system, for which 100 percent of all changes were covered.
- The company has developed a BCP Blackout Period Application, a management system with a list of persons with access to and control of various internal information (Insider List) for management of unauthorized inside information leakage and sets a blackout period during which trading of securities is prohibited until one day after such information is fully disclosed to the public. This is in accordance with the ethics of using internal information as defined in the Corporate Governance (CG) policy of the company.
- The company has implemented CG e-Learning on good corporate governance policies to provide tangible case studies and communicate them to all employees for self-study as well as a self-test on good corporate governance policies through the BCP KMS online knowledge management system. In 2023, the company promoted additional knowledge and understanding of good governance and effective internal controls as per the COSO (The Committee of Sponsoring Organizations of the Treadway Commission) framework, and key aspects of personal data use in accordance with the Personal Data Protection Act of 2019, and saw an average employee self-test score of 97 percent.
- Through improvements and developments in the process of good corporate governance and information disclosure according to the Corporate Governance of Listed Companies Survey (CGR 2023), the company achieved an average CGR Score of 112 percent, rated as Excellent (above 80 percent).
- The company emphasizes and reiterates its No Gifts policy during festivals and other occasions to enhance good governance and establish a good business conduct baseline for all stakeholders, ensuring equality and fairness.
- CG e-Learning and policies on good corporate governance were established to provide tangible related case studies for employee self-study.
- Training seminars on “Fiduciary Duties and the Role of Directors on Current Key Business Issues” were organized to establish a strong foundation for transparent business operations, good corporate governance, and anti-corruption practices, promoting proper conduct among directors and executives.
- On October 20, 2023, the company held its annual CG Day for the 18th year, to raise awareness of the importance of abiding by good governance principles, featuring a lecture titled “Passing on the Good : The Greater Sharing, the Greater the Sustainability”. The objective is to create a good foundation for conducting business with transparency. Have good corporate governance and combating corruption There were executives and employees in the Bangchak group of companies participating in the activity by Mr. Prommes Benjarongkit, Director of Thailand’s Private Sector Collective Action Coalition Against Corruption (CAC), was the speaker. Recognizing the importance of transparently disseminating good deeds in business operations to business partners, customers, and all stakeholders. As Bangchak is a Change Agent.
- Participated in the 2023 Anti-Corruption Day organized by the Anti-Corruption Organization of Thailand to raise awareness, encourage societal recognition of corruption issues in Thailand, and support public participation in scrutinizing corruption and promoting transparency and accountability in both public and private sectors, with the company continuously showing its commitment to anti-corruption efforts every year.
- Political neutrality without rendering assistance to any political party, directly or indirectly
- Donation is strictly for charity, including sponsorship for the Company’s business, which is not to be used as excuses for corruption and requires clearly documented proofs in line with the Company’s regulations.
- No acceptance of gifts or objects of any value on all occasions. No acceptance of and no giving of entertainment and other unnecessary and inappropriate expenses to government officials or those dealing with the Company’s business. If any is received, employees must refuse and report the incident to their superiors for acknowledgment.
- Annual notification to stakeholders on Bangchak’s “No Gift” policy for the New Year and other occasions to elevate good corporate governance and set a standard for conducting business with all related parties fairly.

In 2023, Bangchak detected no material issue or shortcomings concerning offenses or violation of the company's ethics or code of conduct, and there were no actions that violated the regulations of regulatory agencies such as the SET, SEC, etc.

4) Internal Control, Risk Management, and Internal Audit

To monitor compliance to this corporate governance policy, Bangchak instituted internal control, risk management, and internal audit systems for key business functions, such as procurement and accounting. Bangchak also closely monitored the progress of risk management plan on a regular basis as detailed under 9.1 Internal Control.

5) Audit

Internal Audit formulates the annual audit plans and reports audit findings to the Audit Committee and the Board for acknowledgment as detailed under 8.2 Report of the Audit Committee).

6) Anti-Corruption

Bangchak incorporated business ethics for anti-corruption in all forms into its corporate governance policy and campaigned for ongoing anti-corruption in the organization through various channels. Bangchak has integrated the anti-corruption policy into its corporate governance policy under Section 4 to reiterate its intention to operate business by abiding by the law and regulations relevant to corporate governance, refusing all forms of fraud and covering all businesses in all applicable countries and agencies. It has defined anti-corruption measures to implement the policy and has regularly reviewed them to comply with changes in laws and business circumstances and uphold Bangchak's reputation.

- Bangchak is committed to complying in full of all applicable anti-money laundering laws. Bangchak will only get involved in legitimate business activities with funds derived from legitimate sources. Bangchak is determined to prevent the Company from falling into any cycle of money laundering and will not tolerate or support any acts of money laundering, including concealing, conversion, transfer, or the handling of illegitimate assets. Also, accurate accounts and records of all transactions, financial facts, and assets must be professionally and properly maintained as stipulated by applicable laws.
- It is forbidden to hire government employees or officers, leading to conflicts of interest. Bangchak recruits personnel that used to serve as government employees under its own criteria to prevent interpretation as a return of favor for benefits; for transparency and auditability, it also discloses such information. At present, the Company does not employ government employees or officers to do work that causes conflicts of interest.
- Bangchak has established disbursement regulations by defining financial limits, approval authorities, objectives, and recipients, all of which require clear supporting documents to prevent unlawful political help and ensure that charitable donations do not go to corrupt purposes, business support funds are not excuses for corrupt practices, and receptions, gifts, and other expenses conform to the policy. Also in place is an audit process issued by Internal Audit.
- Bangchak has regularly established processes for auditing sales and marketing, purchasing, and contract administration concerning risk to corrupt practices in conformance to disbursement regulations and purchasing regulations. To this end, Internal Audit provides its comments and explores for suitable corrective actions.
- Bangchak has put in place a personnel administration process that underscores its commitment to anti-corruption measures, ranging from selection, training, performance assessment, compensation, to promotion.
- Bangchak has established internal control for finance, accounting, data recording, and other company processes related to anti-corruption measures, together with control self-assessment for consultation about the findings of internal control.
- Bangchak has established risk management to ward off and suppress frauds and malfeasance, by analyzing business risks, defining the importance of risks and proper measures for assessed risks, and regularly tracking the progress of risk management plans.
- Bangchak has put in place internal audit to ensure that the defined internal control system and risk management can help it achieve goals, and to audit all units' work against requirements and regulations. Internal audit also helps detect weaknesses and provides advice on the development of business processes for greater efficiency and effectiveness under the approach of corporate governance.

The Anti-Corruption policy applies to all Bangchak directors, executives, and employees and its subsidiaries. The relevant implementing measures apply to all affiliates and other companies that the Company has control over, as well as its business agents. Bangchak commands a process for appropriate and fair punishment of employees who breach its anti-corruption measures. Direct and indirect violation of the policy call for disciplinary action under Bangchak's explicit procedures. This year it detected such an offense as shown in the whistleblowing report.

In addition, Bangchak values good corporate governance and anti-corruption alike. Bangchak also joined the UN Global Compact and in 2013 was one of the first 22 companies to achieve CAC (Collective Action Coalition against Corruption) membership certification. Achieving the first CAC membership in 2013 thanks to ongoing transparent business conduct, in 2022 it won the third membership recertification since its first membership recertification in 2016 and second one in 2019.

Bangchak continued to encourage its business partners to join the CAC project. The Company assisted with the public relations and invited the business partners who announced their intention with CAC Road to join CAC Road to Certify and SME Clinic seminar in the form of an online channel through the WebEx system to receive information and knowledge about the laws, case studies along with guidance on how to formulate policies and practices in the preparation of risk assessment methods as well as the process of submitting certification with CAC. As a result, this year Bangchak was among the five recipients of the CAC Change Agent awards in recognition of its transparent and corruption-free business network expansion.

7) Compliance with Corporate Governance for Listed Companies

The Stock Exchange of Thailand (SET) established "The Principles of Good Corporate Governance for Listed Companies 2012". The Securities and Exchange Commission (SEC) issued its "Corporate Governance for listed companies 2017", which contains eight major practical guidelines. This year Bangchak continued its compliance with these principles by following these five aspects:

1. Shareholders' rights

The Board of Directors has defined a policy on shareholders'

rights in Section 3.3 of the corporate governance policy, as implemented below.

- A Record Date for the AGM was set so that shareholders may have enough time to review meeting notices and various data ahead of the meeting.
- Informed the shareholders about 45 days ahead of the meeting so that they may schedule meeting attendance, which exceeds what is required by law.
- The meeting notices with information for each agenda item and the proxy form were sent to shareholders for consideration in advance.
- Allowed the shareholders to submit queries needing Bangchak's explanation on certain points of the agenda for the AGM ahead of the meeting since September 1, 2023.
- Facilitated and promoted shareholders' or their proxies' meeting and E-meeting participation. This year Bangchak held its first Hybrid meeting AGM, both physical meeting and E-meeting under the Electronics Media-based Meetings Act of 2020 and related laws as well as rules. In use was a program for the organization of shareholders' meetings to conduct shareholders' registration and vote-tallying for efficiency and transparency.
- Before the meeting, the Company Secretary clarified the method for voting and vote-tallying for each agenda item and requests shareholders' representatives to witness vote-tallying together with the inspector.
- During the meeting
 - Conducted the meeting by the agenda items sent to the shareholders without adding or switching the agenda items.
 - Allowed the shareholders equal rights for expressing views and posing questions on each agenda item and recorded key concerns and views in the minutes.
- After the meeting
 - Publicized the resolutions and vote tallies on each agenda item through SET's channels and Bangchak's website by the evening of the meeting date.
 - Publicized the minutes through SET's channels and Bangchak's website and delivered to the shareholders that expressed views at the meeting.

At the 2023 AGM, **Bangchak invited Mrs. Nisanat Pongsawasdi, an independent legal counselor, to serve as an independent inspector to validate the votes and ensure transparency and compliance with the law and**

the Company's article of association. This included examination of documents of shareholders or their proxies with the right to attend the meeting, quorum, stakeholders whose voting right was not exercised, and whether the voting process followed the Company's article of association or what was announced by the chair of the meeting, as well as collection of ballots, verification of meeting resolutions, as well as ballot casting. One representative from the shareholders joined the witnesses verifying the AGM ballot-counting.

Results of Quality Assessment for AGM: 100 points and listed as "Excellent" for the 15th consecutive year in participation of the AGM Quality Assurance evaluation. The evaluation was conducted by Thai Investors Association (TIA).

2. Equitable Treatment of Shareholders

The Board of Directors has defined a policy on equitable treatment of shareholders in the corporate governance policy, as implemented below.

- Publicized meeting documents on its website 28 days ahead of the meeting and delivered them to the shareholders 25 days ahead of the meeting.
- Allowed the shareholders to propose additional AGM agenda items and nominate directors from September 1 to December 31, 2023. Bangchak disclosed the criteria and methods at its website and informed the shareholders through SET's channels. The Board's policy is against adding agenda items without prior notice, particularly crucial items for which the shareholders need time to study before making a decision.
- Supported the shareholders' use of proxy forms to steer voting at the meeting (Form B) and nominated four independent directors as proxy alternatives at the meeting.
- Used ballots on every agenda item, particularly that dealing with directors' election where individual directors were voted on. To this end, the votes equaled the number of shares held for the election of one director.
- Required that directors with vested interests should have no votes and stay outside the meeting on such agenda item, as mentioned in the corporate governance policy.
- Defined practices for employees on the maintaining of Bangchak's confidential information and avoidance of benefit-seeking for themselves by exploiting such confidential information, as mentioned in the corporate governance policy.

3. Roles of stakeholders

In the corporate governance policy, the Board defined a policy for its roles toward the stakeholders. In the corporate governance system, several key groups of stakeholders are found, including customers, employees, business partners, shareholders, investors, creditors, and residents of neighboring areas, society, and the environment. Bangchak values the importance of the rights of all groups, which includes actions violating their rights and intellectual properties. Below are the policy and practices (detailed under 3. Driving business for sustainability).

Employees

- Places Individual Development Plans (IDPs) to raise staff knowledge and caliber.
- Performance assessment is based on the Balance Scorecard principles whereby all employees have Key Performance Indicators (KPIs) and will be compensated in accordance with their performance.
- Gives competitive and fair compensation, depending on the overall performance of the company, in the short term and the long term. In this regard, each year, the Company will conduct a survey of compensation and welfare benchmark between the petroleum industry and the related industry, including the surrounding environment to review and improve the compensation criteria. Bangchak, moreover, provided staff welfare exceeding what was required by law, which included the provident fund, medical welfare, shuttle-bus service, staff relations activities, as well as an employee club with various recreational activities.

Customers

- The Company is dedicated to creating high customer confidence and satisfaction by providing top-quality products and reliable services. Moreover, the Company is committed to enhancing the quality of products and services by adopting fair and responsible practices towards our valued customers. Our consistent commitment to serving the customers of Bangchak service stations has resulted in a significant increase in customer satisfaction from the previous year.
- The Company is also committed to consumers' safety by delivering standard-certified products and by giving accurate, adequate information about its products and services.

Policy on customers' confidentiality

Valuing the protection of personal data of all related parties, including customers, Bangchak aligns its activities with the Personal Data Protection Act 2019 and applicable laws. It rolled out the Data Protection Policy and related guidelines, which set guidance for supervising and managing personal data collected, used, or disclosed by Bangchak. These data must be duly protected and must align with legal requirements. All executives, employees, or temporary hires including third parties working on behalf of Bangchak must strictly abide by these.

Bangchak pays attention to maintaining of the confidentiality and security of personal data. It leverages suitable and adequate technical and management measures to prevent undue losses, access, modification, or disclosure of such data under Bangchak's custodianship. Bangchak also regularly reviews the adequacy and suitability of these security measures to ensure the efficiency and effectiveness of personal data security in line with legal requirements. If Bangchak hires third-party individuals or agencies to compile these data on its behalf, there must be an agreement governing such compilation to control activities and prevent such third parties from unduly collecting, using, or disclosing such data provided or transferred by Bangchak.

For all related parties, including customers, Bangchak develops and discloses a Privacy Statement to provide detailed personal data collected by Bangchak, objectives and legal bases for the compilation, storage period, third parties allowed by Bangchak to keep or disclose such data, rights of data owners, channels and procedures for exercising rights, and contact details for reaching Bangchak or personal data controller officials. These have been put on the website at:



[www.bangchak.co.th/storage/
document/cookies-policy/
privacy-statement-en.pdf](http://www.bangchak.co.th/storage/document/cookies-policy/privacy-statement-en.pdf)

Suppliers/Contractors

- The Company has a suppliers' code of conduct and a policy to select and treat Suppliers/Contractors with equality and fairness. It has produced a "Business Contact" manual and drawn up a "Dealer/Station Operator Policy" for distribution to business contacts and dealers/station operators so that they may have proper understanding and strictly comply with Bangchak's corporate governance and business ethics. Bangchak also firmly adheres to contract provisions. Whenever any condition cannot be complied with, Bangchak urgently informs Suppliers/Contractors in advance to jointly solve problems.
- The Company has defined strict criteria for Suppliers/Contractors selection to bolster fair and equal procurement procedures without violation of human rights. It invites those qualified to register with it. Qualified companies are allowed to make offers to compete with others in the same business. The procurement committee then proceeds with the selection, based on price and technical aspects.

Creditors

The Company treats its creditors fairly, responsibly, and transparently and seeks to fulfill all its contractual and financial obligations, especially guarantee conditions, capital management, and payment, collaterals, potential obligations and debts, as well as appropriate capital structure management to ensure creditors of its financial status and ability of repayment. If it cannot fulfill one or more of its obligations, it must notify creditors in advance so that a resolution can be mutually agreed.

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. In 2023, the Company has no disputes with competitors.

Shareholders

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

Communities surrounding the refinery, society, and the environment

- The Company conducts its business with adherence to environmental management standards, such as ISO 14000. The Company considers health and safety and the environment an integral part of the business, and has written guidelines on health, safety and the environment for the Directors, Executives, and employees to uphold. The Company also disseminated information for neighbors around the refinery to receive the Company's news as well as organized activities for communities and support assistance in various occasions.
- Environmental stewardship
 - Internally, the Company campaigned on reducing printing jobs or photocopying and reliance on electronic communication means instead of paper, including printing on both pages instead of one. It modified business processes to electronic, while educating employees on occupational health, safety, and energy, as well as providing knowledge and training for employees on occupational safety, health, and environment, as well as energy
 - External efforts by arranging for E-Procurement for business partners in making offers in procurement and E-Complaint for customers in filing their complaints or making recommendations, to reduce the use of paper.
- 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.

Consumption of resources

Bangchak continually raises the efficiency of resource (energy, water and chemical) consumption, suiting the size of the business and efficiently managing waste and use it to its full potential.

Sanctity of intellectual properties

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

Whistleblowing and complaint-filing channels

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

E-mails: ico@bangchak.co.th

Letters: Internal Audit Department

Bangchak Corporation Public Company
Limited

2098 M Tower Building, 8th Floor,
Sukhumvit Rd., Phra Khanong Tai,
Phra Khanong, Bangkok 10260

Tel: 0 2335 4569

Bangchak monitored complaint and whistleblowing reports through Internal Control's channel. In 2023, three cases were reported through ICO@bangchak.co.th (Internal Audit Department) about possible corrupt or unethical practices on job inspection. Bangchak's probe outcome was that such inspection had followed procedures, standards, and terms.

Contact channels

The Board of Directors

Tel: 0 2335 4555

Fax: 0 2016 3982

E-mail: bcpssecretary@bangchak.co.th

Investor Relations

Tel: 0 2335 8663

Fax: 0 2335 8000

E-mail: ir@bangchak.co.th

Call center

Hotline 1651

4. Information disclosure and transparency

The Board of Directors has defined a policy on information disclosure and transparency in the corporate governance policy, as implemented below.

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

5. Board responsibilities

In the corporate governance policy, the Board defined a policy for the roles, duties, and responsibilities of the Board. Below are Bangchak's actions taken this year:

- Revised and defined Bangchak's annual vision, missions, strategies, business plan goals, and budgets every year to maximize value to businesses and for shareholders' security. In addition, the Board endorses key strategies and policies, particularly financial KPIs (key performance indicators) and work plans. Endorsement of KPIs and metric-setting is done early in the year, with periodic tracking.

- Oversee the management's translation of strategic plans into operational plans, assess the outcomes and steer affiliates by requiring their management to report their performances and other key matters for the Board's acknowledgment every month.
- Held an annual corporate strategy seminar with the management to review the vision and set corporate goals.
- Staged a meeting of the independent directors in June and November, and a meeting of the non-management directors in April and November.
- Developed performance assessment forms for the Board: individual (self-assessment and cross-assessment), group, and committee.
- Instituted an effective internal control system, internal audit, and risk management measures together with regular tracking at Board meetings.
- Established the Legal and Compliance department to monitor all functions to ensure complete compliance, including preparation of legal assessment for Bangchak units, oversight of license renewals with an alert system for responsible superiors and subordinates, and legal education through channels like Outlook, intercom, and annual law training.

8) 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 confidential information to the public for personal or other gains, as well as policies on the buying and selling of Company shares as follows

1. Bangchak regularly provides related rules and policies on the prevention of inside-information abuse and that of conflicts of interest to all directors, executives, and employees through its various channels. All directors, executives, and employees must sign their names acknowledging these and abide by the policies. Superiors are urged, as leaders and role models, to advise their subordinates. The Board assigns the Sustainability and Corporate Governance Committee to oversee policy compliance to ensure acknowledgment of and compliance with such rules and policies.
2. Directors and executives, as well as their spouses, cohabitation partners, and minor children under legal

age, including legal entities where they have more than 30% shareholding of the number of all voting rights of the juristic person 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. The report on holding of securities shall be reported to the Board of Directors meeting on a monthly basis.

3. 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 one days after disclosure, as well as not disclosing information to others before it is made available to the public.

The Company also has penalties against employees who use the Company's inside information for personal gains, ranging from a warning to termination of employment. In 2023, there was no report of wrongdoing in the matter.

9) Conflicts of Interest

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

1. 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 their supervisors through online method.

2. Report of Directors and Management's Stake Form

The Securities and Exchange Act stipulates that directors and the management are to report to the Company his/her or connected persons' stakes connected with the business operations of the Company or its subsidiaries. The Company has therefore prepared the above-mentioned form for its directors and management to fill out and report any change to the Company. The Corporate Secretary will forward a copy of the form to the Chairman of the Audit Committee to ensure that the directors and management perform their duties with integrity. By the year 2023, it has been completed.

3. 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 of Directors Division with a copy to Internal Audit for acknowledgment.

4. Intention to trade Bangchak Corporation's securities form

To enable directors and the management to inform the Company of the intention to trade Bangchak shares through Secretary to the Board of Directors Division at least one day in advance, for reporting to the Audit Committee every quarter. Written notices can be sent through bcpsecretary@bangchak.co.th or other electronic channels, including the LINE application.

The Company also has penalties against employees who use the Company's any action which is contrary to the business interests of the Company, ranging from a warning to termination of employment. In 2023, there was no report of wrongdoing in the matter.

10) 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 Division acts as a center for giving out

important information to investors. Bangchak allowed all information to be equally publicized, whether financial reports, performance outcomes and business outlooks, data affecting Bangchak stock prices, or quality-assured data disclosed to investors and stakeholders. Directly and indirectly, Bangchak presented its performance outcomes and company information, summarized below:

- Direct: Bangchak staged meetings between its executives and shareholders, stock analysts, investors, and employees via regular activities to present performance outcomes through analyst meetings, roadshows, conference calls, participation in conferences (domestic and abroad), participation in meetings with minor investors at the “Opportunity Day” or at “SET in the City”, hosted by SET, or company visits by shareholders to enable them to appreciate company businesses

more. In addition, institutional investors (domestic and international) and stock analysts may make appointments with executives to inquire about company data through company visits. In addition, the Company has also organized an Investor Forum to announce the Company’s annual strategic plan to drive the 5 main business groups of the Bangchak Group.

- Indirect: Bangchak provided assorted data, performance outcomes, financial statements, and other information given to SET. Other data were presented through meeting documents, webcast and factsheet publish on the Company’s website www.bangchak.co.th, investor relation section. The Investor’s Relations page contains information in Thai and English which is updated frequently.

Activities	Number (times)
Roadshow and Investor Conference	22
Analyst Meeting	4
Opportunity Day (organized by the SET)	4
Company Visit Conference Call	7
Performance Update one website	4
Factsheet	4
Press Conference (Strategic Plan) to the press / analysts / fund managers	2

8.2 Report of the Audit Committee and Other Sub-Committee

Report of the Audit Committee

Dear Shareholders,

The Audit Committee of Bangchak Corporation Public Company Limited consists of qualified, independent, and experienced directors, with Dr. Porametee Vimolsiri serving as the Chairman of the Audit Committee. The Audit Committee members include Mr. Achporn Charuchinda, Mrs. Prisana Praharnkhasuk, Mr. Surin Chiravisit, and Mrs. Vilai Chattanrassamee.

In 2023, the Audit Committee held a total of 13 meetings, with 11 of those meetings held jointly with executives (in cases where the meeting was held with executives, those executives with conflicts of interest were not present in the meeting). The details of the meeting attendance are as follows:

Names of the Audit Committee		Meetings attended/Total Number of Meetings
Dr. Porametee	Vimolsiri	13/13
Mrs. Prisana	Praharnkhasuk	13/13
Mr. Achporn	Charuchinda	13/13
Mr. Surin	Chiravisit *	9/9
Mrs. Vilai	Chattanrassamee *	9/9
Mr. Narin	Kalayanamit	4/4

* Assumed Audit Committee position on 27 April 2023

In 2023, significant achievements by the Audit Committee include:

1. Review of financial statements

Reviewed quarterly and annual financial statements, along with related financial reports, in conjunction with auditors, the internal audit department, and the management. The Audit Committee inquired and provided opinions on matters affecting the financial statements, such as Cash Flow Management, Working Capital, tracking returns on investments in various projects, recording impairment losses, and managing the volume of the remaining oil, etc. This is to ensure that the preparation of financial statements is in accordance with generally accepted accounting principles and that sufficient information is disclosed.

2. Review of connected transactions

Reviewed connected transactions or transactions that may have conflicts of interest and opined that such transactions were carried out under normal commercial business conditions and were beneficial to the business operations of the company and its subsidiaries and that adequate information was disclosed.

3. Consideration of the appointment of the annual auditor

Considered, proposed for appointment, and proposed remuneration for KPMG Phoomchai Audit Ltd., to be the auditor of the Company for the year 2023. Regular meetings between the Audit Committee and the company's auditors were held every quarter to monitor the progress of the audit works to ensure it was within the scope and plans of the audit. Discussions were also held on issues arising from the audits and to find timely solutions to critical issues.

To maintain the independence of the auditor and to align with international best practices on ethical standards, in 2023, the company implemented a policy regarding the employment of non-audit services from the auditing firm or its affiliates (Non-Assurance Service Pre-Concurrence Policy). This policy will serve as a guideline before engaging the auditor or their auditing firm for non-audit services.

4. Review of the risk management process

Reviewed the adequacy of the company's risk management process and conducted audits based on identified risks. In 2023, the Audit Committee had two meetings with the Enterprise-wide Risk Management Committee to exchange opinions.

5. Review of the oversight of operations

Thoroughly reviewed the Company's compliance with all applicable accounting standards, laws, regulations of the Stock Exchange of Thailand, and other laws related to the Company's businesses, to ensure that it is in accordance with good corporate governance principles.

6. Review of the internal control system

Reviewed the results of internal controls with the internal audit department every quarter, covering operational processes, asset management, security, prevention or mitigation of errors/damages, leakage of assets or critical information, reliability of financial reports, and compliance with laws, regulations, and various rules, including the oversight of operations of subsidiaries.

In 2023, the Audit Committee inquired and emphasized issues affecting the internal control system, such as ensuring compliance with relevant laws, adhering to safety and environmental measures, securing information and information technology systems, managing revenues and costs of the company within the business group, among others.

The management subsequently took corrective actions based on the recommendations of the Audit Committee and the internal audit department to ensure alignment with a robust internal control system.

7. Oversight of internal audit works

- Reviewed the Audit Committee charter to ensure compliance with the guidelines and requirements of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand, as well as corporate governance policies, to assure shareholders, partners, customers, and other stakeholders of the company that operations are conducted in accordance with regulations and that practices adhere to ethical standards, maintaining an effective internal control system.
- Reviewed and scrutinized the policies and operational manuals of the internal audit department to ascertain that they encompass the roles, duties, and responsibilities of the Audit Committee, and to ensure alignment with the guidelines and requirements of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand, to serve as a guideline for operations.
- Supported the development of internal auditors to achieve quality in work as per international standards. In 2023, training was provided for auditors within the group on IT Audit for Non-IT Auditors.
- Encouraged the internal audit department to utilize computers for data analysis to assist in the audit process and to continuously develop audit methodologies.

The Audit Committee of the Company monitored operations in 2023 within the scope of the authority, duties, and responsibilities assigned to it. The committee opined that the Company had prepared its financial statements correctly in all material respects in accordance with generally-accepted accounting principles, disclosed sufficient information on connected transactions or transactions that could lead to conflicts of interest, had an appropriate internal control and risk management system for the business, and complied correctly with laws, regulations of the Stock Exchange, and related laws.

(Signed) Dr. Porametee Vimolsiri

(Dr. Porametee Vimolsiri)

Chairman of the Audit Committee

January 25, 2024

Report of the Nomination and Remuneration Committee

Dear Shareholders,

The Board of Directors of Bangchak Corporation Public Company Limited has appointed a Nomination and Remuneration Committee, with Mrs. Prisana Praharnkhasuk as the Chairperson, Mr. Surin Chiravisit as a member, and Maj. Gen. Yuttasak Raksereepitak as a member and secretary. The Committee is comprised entirely of independent directors to ensure truly independent performance of duties.

In 2023, the Nomination and Remuneration Committee held seven meetings, of which the major issues can be summarized as follows.

In the process of selecting company directors, the Nomination and Remuneration Committee considers candidates to replace outgoing directors and those who resign before completing their terms. Factors taken into consideration include knowledge, skills, experience, a track record of good performance, leadership qualities, broad vision, integrity, ethics, and a positive attitude toward the organization. Moreover, candidates should be able to dedicate sufficient time, which is beneficial for the company's operations. Additionally, the Committee also considers board diversity and developed a Board Skills Matrix to determine the qualifications of directors needed. This involves assessing necessary skills that are currently lacking, as well as qualifications that are suitable and aligned with the components and structure of the Company's Board of Directors. Furthermore, consideration is given to continuity and alignment with the Company's business strategies. The Director Pool database of the Thai Institute of Directors Association (IOD) will be utilized as a component in the selection of new directors. Currently, the company's Board of Directors consists of fifteen members, comprising eleven independent directors, three non-executive directors, with the Bangchak Group Chief Executive Officer and President, Bangchak Corporation, serving as an executive director. Biographical information is presented in the Section titled "Governance Structure and Key Information on the Board of Directors, Subcommittees, Executives, Employees, and Others".

The determination of remuneration for the Company's Board of Directors and Bangchak Group Chief Executive Officer and President, Bangchak Corporation, corresponds to the duties and responsibilities assigned and are linked to the company's performance and operational results, as well as being comparable to companies listed on the Stock Exchange of Thailand in similar industries and businesses of a similar size. Such remuneration is sufficient to motivate the directors and executives to manifest the quality and capability to perform their duties to achieve the goals and business directions set by the Company. Information on remuneration is disclosed in the Section titled "Highlights Corporate Governance."

In this regard, the Nominating and Remuneration Committee has performed its duties independently according to the principles of corporate governance. This is to ensure that the process of selecting individuals and setting the remuneration is transparent, thereby instilling confidence in shareholders and stakeholders alike.

(Signed) Mrs. Prisana Praharnkhasuk

(Mrs. Prisana Praharnkhasuk)

Chairperson of the Nomination and Remuneration Committee

December 15, 2023

Report of the Enterprise-wide Risk Management Committee

Dear Shareholders,

To boost confidence that the Company can operate under constantly changing conditions, the Company places significance on supervising and managing corporate risk as a tool to deal with various risk factors, both internal and external. The Enterprise-wide Risk Management Committee (the Committee) is responsible for setting policies to support and drive the management of risks and uncertainties that could impact the Company's operations that cover strategic, operational, financial, and reputational risks. The Committee has performed its duties as assigned by the Company's board according to the principles of corporate risk management.

In 2023, the Committee convened for a total of 8 meetings with the management team and held 2 joint meetings with the Audit Committee and internal auditors, of which key aspects of the works performed can be summarized as follows.”

- **Supervise and consider the Company's policies and management of prime risks**, which may arise from rapidly changing business situations due to both external and internal factors that could have both negative and positive impacts. This was achieved through the development of a risk management plan alongside the organization's strategic planning, which involves setting various anticipated scenarios (scenario planning) to adjust operations in line with actual situations, as well as defining and monitoring key risk indicators (KRIs) that could impact the organization's key performance indicators (KPIs) in a timely manner in face of rapidly changing business conditions from various factors such as increasing intensity in global geopolitics affecting the overall economic outlook, the gradual global economic recovery from high inflation, rising interest rates, issues related to global climate change, safety, environmental impacts, social and community impacts, legal compliance, anti-corruption efforts, cyber security threat monitoring, and changes in government policies. All these shall ensure sustainable business development in harmony with the environment and society under corporate governance. Consequently, the Committee promotes and emphasizes the importance of managing company group risks, including assessing risks of partners and stakeholder needs, monitoring, and tracking overall impacts to maintain risk control at an acceptable level, enabling appropriate operations across the company group.
- **Provide recommendations regarding the Company's new investments** to support future expansion into new businesses for the company group, both domestically and internationally. The Company has mandated that significant investment projects for the Company's operations must have a risk management plan in various aspects to seek approval from the Enterprise-wide Risk Management Committee before submission to the Company's board for further approval. This is to ensure that the business has appropriate risk management, does not negatively impact the community and the environment, and has the potential to achieve its set goals. In 2023, the Committee offered suggestions and observations on risk management planning for projects, such as investments in BSGF Co., Ltd., projects related to the procurement of raw materials for the production of sustainable aviation fuel, and investments in natural resource businesses.
- **Support the Business Continuity Management (BCM) system** by focusing on strategic readiness, processes, and resources, as well as propelling the preparation to handle impacts from various situations, including threats from cybersecurity. The Company has continuously updated its cybersecurity safety measures and prepared a crisis management plan for the information system to support such cases. Moreover, the Company has prepared a crisis management plan to address earthquakes, responding to the increased frequency of earthquakes in recent years.

- Furthermore, efforts have been made to enhance knowledge about the Business Continuity Management system among relevant personnel. In 2023, a BCM Internal Audit course was organized to promote awareness of responsibilities and best practices, and the review and adjustment of the continuity plans for various scenarios were conducted to ensure connectivity and effective management in all situations. As a result, in 2023, the Company consecutively received the ISO 22301 : 2019 certification for its Business Continuity Management, covering the head office, M Tower, the Bangchak Oil Refinery in Phra Khanong, and the Bangchak Oil Distribution Center, as well as the Central Region Business Office and the Bang Pa-In Oil Distribution Center. This aims to build confidence among stakeholders that the Company can continue its business operations even in the event of a crisis.

The Enterprise-wide Risk Management Committee is committed to ensuring that the Company is properly supervised and manages risks at an appropriate level. From such actions, it can be assured that the Company operates efficiently and achieves its goals across the organization.

(Signed) Mr. Prasong Poonthaneat

(Mr. Prasong Poonthaneat)

Chairman of the Enterprise-wide Risk Management Committee

December 15, 2023

Sustainability and Corporate Governance Committee Report

Dear Shareholders,

The Board of Directors of Bangchak Corporation Public Company Limited (“the Company”) has appointed the Sustainability and Corporate Governance Committee, chaired by Mr. Narin Kalayanamit, with Maj. Gen. Yuttasak Raksereepitak, Pol. Lt. Gen. Samran Nualma, Mr. Chaovalit Ekabut, Mrs. Woranuch Phu-im, and Mr. Phairoj Chotikasatien serving as members, and Mr. Chaiwat Kovavisarach serving as a member and secretary.

The Company is committed to conducting business in accordance with good corporate governance principles and ethical standards, and places high emphasis on sustainable development that encompasses environmental, social, and governance (ESG) dimensions, in line with the Company’s Vision, Mission, and Goals to drive the business towards transparency, sustainability, and a zero-tolerance policy towards corruption. This commitment includes adhering to good governance principles, developing organizational capabilities to ethical standards, and enhancing sustainable management standards for continuous efficiency improvement, thereby building confidence among all stakeholders and advancing significant policies across the Bangchak Group through group management to collaboratively develop toward sustainability throughout the value chain.

The Sustainability and Corporate Governance Committee has been assigned by the Company’s Board to refine and review policies and practices related to corporate governance and sustainable development. Additionally, the committee is tasked with developing governance processes for the optimum benefit of shareholders and stakeholders, in alignment with the principles of good corporate governance from the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET), as well as recommendations from the Corporate Governance Assessment Report and the ASEAN Corporate Governance Scorecard (ACGS). This includes adherence to the United Nations Global Compact (UNGC)’s ten principles, the United Nations Sustainable Development Goals (UNSDGs), the United Nations Guiding Principles on Business and Human Rights (UNGP), sustainability assessments by various organizations, the Thailand Quality Award criteria, the Women’s Empowerment Principles (WEPs), and various ISO standards such as ISO 14001 for environmental management, ISO 45001 for safety management, ISO 50001 for energy management, and Process Safety Management (PSM).

In 2023, the Committee convened three meetings, with full attendance from all serving members, diligently fulfilling their responsibilities as outlined in the Charter and as assigned by the Company’s Board, consistently reporting progress to keep the Board informed. This effort aims to monitor operations and assess performance according to the governance and compliance plan, compliance with laws, organizational regulations, anti-corruption efforts, sustainability management, and social, community, and environmental care (Corporate Social Responsibility: CSR). Key highlights include:

1. Shareholder Rights:

- Announced the Notice of the Annual General Meeting of Shareholders on the Company's website prior to the meeting date and dispatched the Notice to the shareholders on March 14, 2023, 28 days before the meeting.
- Announced the 2023 AGM Minutes of Meeting on the Company's website on 25 April, 2023, within 14 days of the meeting.
- The Company achieved an excellence score (100 points) in the AGM Checklist by the Thai Investors Association, marking excellence for consecutive 13th year.

Moreover, the Company provided an opportunity for shareholders to submit questions they wanted the Company to clarify in each agenda in advance before the shareholders' meeting. The Company's board is aware of and assigns importance to the rights of shareholders by promoting the use of their rights and will not take any actions that may infringe upon or diminish the rights of the shareholders.

2. Equitable Treatment of Shareholders:

All shareholders shall be treated equally and fairly, and the Company's board will ensure that shareholders receive equitable treatment and protection of their fundamental rights.

- Four independent director nominations are presented as options for shareholders to vote on at the Annual General Meeting (AGM).
- Shareholders are given the opportunity to propose agenda topics and nominate individuals for consideration as company directors for the 2024 AGM from September 1, 2023, to December 31, 2023, enabling shareholders to exercise their ownership rights through the appointment of directors to act on their behalf and make decisions on significant changes.
- The ownership of securities by directors and executives is reported in the monthly Company board meeting.

3. Stakeholder Roles:

Monitor reports of whistleblowing or complaints through internal audit channels. In 2023, there were three cases from whistleblowing / complaint reports submitted to the internal audit via ICO@bangchak.co.th related to corruption or ethical misconduct, which the Company has addressed according to the investigative and management process for such complaints.

4. Disclosure and Transparency:

- Prepared the annual disclosure form/report (Form 56-1 One Report) and disclosed the Company's performance on a quarterly basis, along with key information for shareholders, investors, and the public. The information provided is comprehensive, sufficient, reliable, timely, and continuously provided through various channels such as the Stock Exchange of Thailand's system and the Company's website.
- Announced performance results, company information, and future outlooks to analysts and investors, both domestically and internationally, on a regular quarterly basis, and disclosing information regarding the Company's performance and business trends. This was repeated 30 times (as of November 2023).

5. Board Responsibilities:

- Enhance the skills and knowledge of directors as organizational leaders to be effective, capable of achieving goals both short-term and long-term, and steering the organization towards sustainability. This is supported by encouraging the board to participate in various training programs to enhance knowledge, capabilities, and expertise in performing their duties, such as courses offered by the Thai Institute of Directors and other relevant institutions, including organizing internal lectures by inviting experts to present information related to the board's operations.
- Prepare orientation materials for six new directors: Mr. Surin Chiravisit, Mrs. Vilai Chattanrassamee, Mr. Chanvit Nakburee, Mrs. Woranuch Phu-im, Maj. Gen. Yuttasak Raksereepitak, and Mr. Phairoj Chotikasatien. This is to acquaint new directors with the overview and approach of business operations, roles and responsibilities according to the law,

related regulations, good corporate governance policies, and other necessary and useful information to effectively perform their duties.

- Communicating good corporate governance policies regularly to the Company's board, emphasizing the directors' roles and responsibilities, such as the use of internal information, reporting conflicts of interest and stakeholder involvement, and securities trading reports, and to be regularly reported in board meetings.
- Conduct annual organizational strategy seminars in collaboration with the management team to review the vision and set organizational goals twice a year (June and November).
- Held 2 meetings among independent directors per year (March and August).
- Conduct 2 meetings among non-executive directors per year (April and November).

6. Good Corporate Governance and Anti-Corruption

- For executives and employees, the Company has established a system for annual declaration of personal information and potential conflicts of interest (Conflict of Interest Report System) through the online HR services channel (HR-Services). Upon engagement, new employees shall complete these reports. Furthermore, reports of any changes in information shall also be made to prevent conflicts of interest.
- The Company has developed the BCP Blackout Period Application, a system that maintains a list of personnel holding internal information (Insider List) that will be activated should any event that relates to that information take place. Furthermore, the system will also set the duration of the prohibition for securities trading (Blackout Period) until an expiry of one day after the information has been publicly disclosed. This ensures adherence to the ethical use of internal information as outlined in the Company's good corporate governance (CG) policy.
- The Company communicates its corporate governance policy to all employees and requires them to complete a test on this policy through the online knowledge management system (BCP KMS). In 2023, the Company promoted understanding of corporate governance, effective internal control frameworks according to The Committee of Sponsoring Organizations of the Treadway Commission (COSO), important aspects of personal data protection under the Personal Data Protection Act B.E. 2562 (2019), and human rights principles.
- The Company has developed CG e-Learning on corporate governance policy to provide concrete case studies for self-study by employees.
- The Company encourages its partners to become certified members of the Collective Action Against Corruption (CAC) of the Thai private sector and to participate in CAC training sessions every quarter. Continuous support by the Company since 2013 has led to 136 partners declaring their intent and this year 10 companies including 8 partners and 2 subsidiaries, received CAC Certification. This is a result of the Company's plan to support and advise its subsidiaries to obtain CAC Certification, leading to BCPG Plc., to receive its second CAC renewal and BBGI Plc., to receive its first CAC Certification.
- Through procedural improvements and developments in corporate governance operations and disclosure of information according to the Corporate Governance Report (CGR 2023) criteria, the Company achieved an average CGR Score of 112 percent, ranking in the Excellent category (above 80 percent).
- The Company emphasizes and reinforces its No-gifts policy during festivals and any other occasions, aiming to enhance good corporate governance and establish a standard of conduct for all related parties, ensuring equality and fairness.

7. Sustainable Development

- The Company has developed its sustainability management through a dedicated sustainability and corporate standards department that proposes organizational sustainability strategies aligned with the business strategy. This includes sustainability reporting (Reporting & Publicity) in line with the GRI Universal Standards 2021 (Global Reporting Initiative), sustainability performance assessment (Benchmarking) in line with international sustainability assessment criteria that includes the S&P Global CSA, the Morgan Stanley Capital International (MSCI) index, and the Stock Exchange of Thailand's (SET) ESG index. The sustainability efforts are reported to the management and

the Company board through meetings of the Sustainability Management Committee (SMC), the Sustainability Policy Committee (SPC), and the Sustainability and Corporate Governance Committee (SCGC).

- The Company has set sustainability goals (UN SDGs Goal) for 2023 in 8 categories with 12 indicators, aligning with environmental, social, governance and economic dimensions, approved by the Sustainability and Corporate Governance Committee. These goals address various SDGs including:

Environmental dimension, responding to

- SDG 13 (Climate Action),
- SDG 6 (Clean Water and Sanitation),
- SDG 12 (Responsible Consumption and Production), and
- SDG 15 (Life on Land).

Social dimension, addressing

- SDG 11 (Sustainable Cities and Communities),
- SDG 8 (Decent Work and Economic Growth), and
- SDG 16 (Peace, Justice, and Strong Institutions).

Governance and Economy dimension, supporting

- SDG 9 (Industry, Innovation, and Infrastructure), and
- SDG 16 (Peace, Justice, and Strong Institutions).

- Bangchak Corporation Group aims for Net Zero with long-term goals towards carbon neutrality by 2030 and Net-Zero greenhouse gas emissions by 2050, employing the BCP316NET strategy, including utilizing technology and fuels to reduce carbon emissions, energy and water use reduction in refinery processes, establishing the Carbon Markets Club together with various organizations to mitigate greenhouse gas emissions through a carbon credit trading platform, launching Thailand's first electric motorcycle platform Winnonie, Thailand's first start-up to pioneer service provision with an automatic battery exchange station network, showcasing "seagrass" or "blue carbon" for marine carbon sequestration studies, and plans for producing Sustainable Aviation Fuel (SAF) from used cooking oil to promote the use of clean, sustainable fuels.

The Company's emphasis on sustainability and corporate governance has led to continuous recognition and awards in these areas, such as:

- A sustainable stock rating of "AAA", the highest in Thailand for the resources industry, according to the SET ESG Ratings of 2023, reflecting excellent corporate governance with consideration to shareholders and stakeholders, and a commitment to sustainability across business, society, and the environment.
- The Global Performance Excellence Award (GPEA) 2023 at the World Class level from the Asia Pacific Quality Organization, Inc. (APQO), marking the first and only refinery worldwide to achieve this highest honor, reflecting a global standard and in being a model recognized for the management of all aspects of operations.
- The Human Rights Awards 2023 for Outstanding Large Business Organization from the Ministry of Justice, highlighting exceptional human rights and equality practices towards all stakeholders.
- The Asia Responsible Enterprise Awards (AREA) 2023 for Social Empowerment from Enterprise Asia for youth development initiatives in education and environment by the Leaf of Happiness Foundation.
- The EIA Monitoring Awards 2023 from the Ministry of Natural Resources and Environment for adhering to environmental impact assessment measures, showcasing commitment to environmental standards and social responsibility.
- The Mahidol Science Environment Sustainability Award 2023 from Mahidol University's Faculty of Science for the Carbon Markets Club's efforts in spreading awareness of global warming and promoting carbon offset markets.

- A distinguished Climate Action Leading Organization (CALO) award for outstanding performance (Gold level) in managing greenhouse gases through Measurement, Reduction and contribution, assessed by the Thailand Carbon Neutral Network (TCNN), part of the Thailand Greenhouse Gas Management Organization (Public Organization).
- An “Excellent” or 5-star rating in the Corporate Governance Report (CGR) 2023 surveyed by the Thai Institute of Directors and the Stock Exchange of Thailand (SET).

The Sustainability and Corporate Governance Committee has conducted a review of the corporate governance practices and is of the opinion that the Sustainability and Corporate Governance Committee has performed its duties and responsibilities adequately and effectively, as stipulated in the good corporate governance policy and as assigned by the Company’s board. The success achieved demonstrates the results of the commitment to promote and oversee the operations of Bangchak in accordance with good corporate governance principles, coupled with the development of sustainable business innovations along with environmental and social considerations, which are part of Bangchak’s corporate culture. This will ensure that Bangchak grows sustainably, gains trust from stakeholders, and is globally recognized.

(Signed) Mr. Narin Kalayanamit

(Mr. Narin Kalayanamit)

Chairman of the Sustainability and Corporate Governance Committee

November 20, 2023

8.3 Changes in the Securities Portfolios of Directors and Executives

The Company has notified all Board of Directors and Executive members of the Securities and Exchange Commission (SEC) announcement, calling on them to report their portfolios, including those of their spouses, cohabitation partners, and minor children including legal entities where they have more than 30% shareholding of the number of all voting rights of the juristic person, to SEC within 30 days of their appointment to the Board and the management rank, respectively, and to do so with each change in portfolio within 3 business days.

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

Name		Shares as of Year-end 2022	Shares as of Year-end 2023	Increase (Decrease)
Board of Directors				
1.	Mr. Pichai Chunhavajira	450,000	450,000	-
2.	Mr. Surin Chiravisit ^{1/}	-	-	-
3.	Mr. Prasong Poontaneat	-	-	-
4.	Dr. Porametee Vimolsiri	150,000	150,000	-
5.	Mrs. Prisana Praharnkhasuk	300,000	200,000	(100,000)
6.	Mr. Narin Kalayanamit	300,000	-	(300,000)
7.	Pol. Lt. Gen. Samran Nualma	300,000	300,000	-
8.	Maj. Gen. Yuttasak Raksereepitak ^{2/}	-	-	-
9.	Mr. Achporn Charuchinda	-	-	-
10.	Mr. Chaovalit Ekabut	300,000	300,000	-
11.	Mrs. Vilai Chattanrassamee ^{1/}	-	50,000	-
12.	Mr. Phairoj Chotikasatien ^{3/}	-	-	-
13.	Mr. Chanvit Nakburee ^{4/}	-	-	-
14.	Mrs. Woranuch Phu-im ^{1/}	-	-	-
15.	Mr. Chaiwat Kovavisarach	1,950,000	2,500,000	550,000

Name			Shares as of Year-end 2022	Shares as of Year-end 2023	Increase (Decrease)
Executive Management					
1.	Mr. Somchai	Tejavanija	79,522	150,522	71,000
2.	Mr. Pativat	Tivasasit	51,000	102,000	51,000
	Mrs. Suvimol	Tivasasit (Spouse)	48,500	48,500	-
3.	Ms. Phatpuree	Chinkulkitnivat	133,800	267,600	133,800
4.	Mrs. Ratrimani	Pasiphol ^{5/}	-	-	-
5.	Mr. Chokchai	Atsawarangsalit	34,500	95,500	61,000
6.	Mr. Kittiphong	Limsuwannarot	73,800	135,500	61,700
7.	Mr. Phuwadon	Suntornwipart	38,400	37,400	(1,000)
8.	Mr. Bundit	Hansapaiboon	131,196	261,696	130,500
	Ms. Lalita	Ratanachai (Spouse)	21,924	33,424	11,500
9.	Mr. Thamarat	Paryoonsuk	140,400	280,800	140,400
10.	Mr. Seri	Anupantanan ^{6/}	-	216,500	-

Note: Directors and executives do not have any indirect shareholding (except the executive no.2 and no.8).

^{1/} Appointed as Director on April 11, 2023

^{2/} Appointed as Director on July 20, 2023

^{3/} Appointed as Director on October 31, 2023

^{4/} Appointed as Director on January 27, 2023

^{5/} Appointed as Executive on November 16, 2023

^{6/} Appointed as Executive on December 1, 2023

9. Internal Control and Connected Transaction

9.1 Internal Control

Internal Control

Bangchak Group values a sound internal control system under the scope of The Committee of Sponsoring Organizations of the Treadway Commission (COSO), which requires these components of internal control: control environment, risk management, control activities, information and communication, and monitoring activities.

Having reviewed the recommendations, the Board provided its views on the adequacy and suitability of the internal control system. Below is a summary of the assessment findings.

1. Control environment

Bangchak's work environment favors proceeding under the internal control system. Legal and Corporate Compliance centralizes compliance efforts for laws and regulations of agencies in a clear, measurable way to guide employees' performance. Internal Control Division promoted and steered compliance with the internal control system under COSO. This has been communicated to executives and staff to raise awareness and strengthen sound internal control.

The amendment is made to business policies, employee manuals, operating manuals, and organization and task force structure to render the management's efficiency. Finally, Bangchak relentlessly values business integrity and ethics under its corporate governance (CG) policy, sustainable business development in harmony with the environment and society, and compliance.

Bangchak takes fraud risk and conflict of interest very seriously. Employees are required to declare their conflicts of interest via the HR-Services system, which is designed to provide convenience and facilitate annual updates. Bangchak also values corporate governance, producing the CG Manual, which demands executives and employees to

comply with the CG policy. Key points in the manual have been communicated and publicized among internal and external parties. For example, the six fundamental principles of Bangchak's corporate governance, namely accountability, responsibility, transparency, equitable treatment, vision to create long-term value, and ethics, the No-Gift Policy, and the Do's & Don'ts together with short messages from executives to employees on such matters as doing good, anti-corruption, and tone at the top leadership. The company organized CG Day 2023 (18th year) in collaboration with companies within the group under the theme "Passing on the Good: The Greater the Sharing, the Greater the Sustainability" to continuously enhance understanding and instill awareness of CG policies. The annual supplier seminar 2023 (10th year) was also held to provide knowledge of the Supplier Code of Conduct to support sustainable business practices. Furthermore, the company continues inviting suppliers to be part of the "Private Sector Collective Action Against Corruption in Thailand," reaffirming the continuous commitment to combating corruption.

2. Risk assessment

Bangchak appointed an Enterprise-wide Risk Management Committee (ERMC) to steer risk management for the entire organization and continually develop an efficient enterprise risk management system in accordance with the ISO 31000 international standard, embracing strategic, operational, financial, and reputational risks. These risks include safety and occupational health risks, impacts on the environment, society, and communities, compliance, and corruption risks, among others. Risk management processes encompass all organizational levels: the corporate, business group/functional group, divisional, and work process groups. In addition, risk management procedures are in place for all investment ventures, whether domestic or international. To prioritize environmental, social, and governance (ESG)

practices, the Board emphasizes risk management by affiliates and joint ventures. This ensures their operations remain appropriate and alert, allowing them to oversee overall outcomes for manageable risk control. Overall, Bangchak Group successfully managed these risks.

Bangchak's defined policy and key risk management practices have been aligned with TQA and Dow Jones Sustainability Indices (DJSI) in parallel with a strategy formulation process in anticipation of future events, which allows the organization to adapt accordingly. Key Risk Indicators (KRI) have been adopted to monitor possible corresponding risks to accommodate further improvement and risk mitigation planning to reduce its impact to acceptable levels and ensure the achievement of organizational goals.

Moreover, the Company appointed a Business Continuity Management Taskforce to develop a system, oversee strategic preparedness, processes, and resources, and revise plans to cope with risks and crises more effectively so that Bangchak's businesses may proceed uninterrupted and mitigate repercussions. To this end, it has introduced the ISO 22301:2019 system to the corporation, embracing Head Office, Bangchak Refinery, and Bangchak Oil Distribution Center, Central Region Business Office, and Bang Pa-in Oil Distribution Center. This move certifies that Bangchak indeed commands a system to handle crises, manage business continuity on a par with international standards, and bolster confidence among stakeholders that it is capable of coping with crises, and of continuing to deliver products.

3. Control activities

The Company's control activities rely on KPIs for planning and exerting control. Duties and responsibilities are segregated for checks and balances, as are the revision and definition of authority levels and approval authority for each level for business suitability. E-signature technology has been introduced to support business agility. Checks and balances and authority inspection are the mandates of dedicated units and committees, including Internal Audit, the Investment Committee, and ERMIC.

Bangchak has adopted a system for documents and evidence of delegating responsibility should errors arise. Custody of company assets prevents losses or abuses, as does monitoring transactions with long-term corporate commitment, under which agreed terms are to be honored. Measures are in place to prevent the exploitation of opportunities or benefits for personal gain. This year, the Company reiterated procedures on corporate data management and control to employees so that all units may effectively treat company information to avoid any harm to the business.

The Company incorporated procedures to ensure compliance with laws, applicable regulations, and key operating procedures. Technology systems have been developed to promote internal control. This year, Bangchak rolled out its "Work process management policy," which seriously takes proper work practices by designated work processes. Work processes are constantly improved for effectiveness with due regard for points of control and control measures to lessen risks; these efficient processes are modern and align with Bangchak's directions and goals. The e-Work Manual system tracks the preparation and update of work manuals to be up to date while instilling knowledge about the law in various departments to ensure legal compliance.

The Company adopted stringent measures for its transactions with major shareholders and directors, among others, to avert the siphoning of benefits. For instance, such transactions must be approved by those without vested interests, and the data of such transactions must be disclosed under SEC's rules, including data on parties or related undertakings under accounting standards.

The Company established an ISMS Management Team responsible for overseeing and managing information security. The team reviews and improves policies and procedures for safeguarding information technology systems and measuring effectiveness. Advanced technology systems such as email filters, malware protection, and firewalls are implemented to monitor and prevent new and complex threats. There are regular updates to information technology

security measures, personal data protection law compliance, abnormal event monitoring, threat preparedness and protection plans, and regular cybersecurity exercises. Employees are informed of information technology security requirements and regularly educated about new risks and prevention methods. Additionally, measures are in place to raise awareness of threats that could potentially harm the business. The company has thus been certified with the ISO/IEC 27001:2022 standard for Information Security Management System (ISMS), which is the latest version and has also obtained certification for ISO/IEC 27018:2019, which relates to personal data protection on public cloud systems. Furthermore, the company has received a Letter of Compliance with the Guidelines for Cybersecurity (ISO/IEC 27032:2012), being the first to receive such certification in Thailand. This certification has been continuously maintained to date.

The Company has guidelines for supervision and a process to monitor the operations of associated companies and subsidiaries in accordance with the company's business strategies, policy framework, and guidelines. There are committees according to the risk management structure, namely the Enterprise-wide Risk Management Committee (ERMC), Audit Committee (AC), Strategic Investment Management Committee (SIMC), and Subsidiary Synergy & Strategic Alignment Steering Committee (SSS).

4. Information and communication

The Company revises its Digital Roadmap annually to agree with its strategic plans on refinery management, marketing, and critical business processes, namely finance, accounting, and personnel administration. Various digital technologies were relentlessly applied to support its performance and greater efficiency of information systems and data communication management. For instance, in refining activities, the Data Analytics system was used

to improve processing efficiency; the 5G technology was applied to safety management in the refinery's operating areas; and the GPS technology was found applicable in data management and logistics cost control. Digital Cards were employed in marketing activities to grow channels for the Bangchak Card membership base. A secure and efficient point transfer system has been established between the Company and its partners. VDO Analytics systems at service stations have been implemented to improve services. Data Analytics analyzes market data and in-depth customer behavior to formulate individualized marketing plans that meet customer needs. Bangchak card members are also surveyed for satisfaction through mobile applications for continuous service quality improvement. Furthermore, the Robotic Process Automation (RPA) processes large volumes of repetitive work. This year, advancements have been made by integrating Hyper Automation technology, a combination of RPA and OCR (Optical Character Recognition), into partner payment processes to enhance operational efficiency.

The Company has various channels and processes for communicating with employees within the organization to ensure that information reaches recipients to build knowledge and understanding on multiple issues quickly and accurately, such as Internet systems, emails, public address systems, employee computer screens, and digital bulletin boards. Additionally, communication with external stakeholders is facilitated through various communication channels, especially online channels, which are popular for quick information dissemination, including its website and Facebook. The purpose is easy to access and apply, as well as successful data search results through mobile devices to meet business demands quickly and efficiently.

Bangchak has set up complaint channels and whistleblowing systems for employees and stakeholders to accommodate phone and e-mails, duly protected, and enter the fact-finding process for eventual correction.

5. Monitoring

The Company has a system that monitors compliance with internal control. The Internal Control Division works to assess corporate compliance (CSA: Control Self-Assessment), with relevant executives evaluating the adequacy and suitability of the internal control system. Online technologies have been adopted for greater efficiency of the corporate assessment system. Online assessment technology is being used to increase the efficiency of the enterprise assessment process, including the internal control assessment at the process level by the process owner in a workshop format for critical work processes. Additionally, the internal audit division is responsible for assessing the adequacy of the internal control systems established by company management and subsidiaries. This is carried out according to the audit plan developed based on the Risk-Based Approach principles, which the audit committee approved. It provides recommendations for developing and improving internal control systems. If any deficiencies are identified, the internal audit department will take corrective actions to ensure they are addressed.

9.2 Related Parties Transactions

1. Transactions with subsidiaries, jointly-controlled businesses, associated companies and related companies during 2022 and 2023 consisted of the following:

1.1 Sale of products and services to subsidiaries, jointly-controlled businesses, associated companies and related companies

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
Bangchak Green Net Co., Ltd.	37,049.06	35,010.54	Bangchak	49.00	Bangchak delegates its representative(s) as director(s)
BBGI Bio Diesel Co., Ltd.	31.18	25.59	BBGI Plc. (Subsidiary)	70.00	Bangchak delegates its representative(s) as director(s)
BCP Trading Pte. Ltd.	22,285.81	10,058.58	Bangchak	100.00	Bangchak delegates its representative(s) as director(s)
Bangchak Retail Co., Ltd.	25.85	23.88	Bangchak	100.00	Bangchak delegates its representative(s) as director(s)
BBGI Bioethanol (Chachoengsao) Co., Ltd.	6.01	8.94	BBGI Plc. (Subsidiary)	85.00	Bangchak delegates its representative(s) as director(s)
BBGI Bioethanol Plc.	3.57	6.11	BBGI Plc. (Subsidiary)	100.00	Bangchak delegates its representative(s) as director(s)
Winnonie Co., Ltd.	-	1.39	BCV Innovation Co., Ltd.	55.49	Bangchak delegates its representative(s) as director(s)
Bangchak Sriracha Plc.	-	2,350.97	Bangchak	76.34	Bangchak delegates its representative(s) as director(s)

1.2 Purchase of products and services from subsidiaries, jointly-controlled businesses, associated companies and related companies

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
BBGI Bio Diesel Co., Ltd.	8,064.40	7,312.01	BBGI Plc. (Subsidiary)	70.00	Bangchak delegates its representatives as directors
BCP Trading Pte. Ltd.	76,579.06	87,635.87	Bangchak	100.00	Bangchak delegates its representatives as directors
BBGI Bioethanol (Chachoengsao) Co., Ltd.	1,149.65	1,420.97	BBGI Plc. (Subsidiary)	85.00	Bangchak delegates its representatives as directors
BBGI Bioethanol Plc.	2,179.00	2,426.66	BBGI Plc. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
Bangkok Fuel Pipeline and Logistics Co., Ltd.	275.68	345.10	Bangchak	100.00	Bangchak delegates its representatives as directors
General Energy Manning Co., Ltd.	20.47	29.64	Bangchak	49.00	Bangchak delegates its representatives as directors
Asia Link Terminal Co., Ltd.	-	252.44	BCPG Plc. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
Bangchak Sriracha Plc.	-	835.06	Bangchak	76.34	Bangchak delegates its representatives as directors
Joint Venture					
Bongkot Marine Services Co., Ltd.	231.97	-	Bangchak	30.00	Bangchak delegates its representatives as directors

Note: Bongkot Marine Service Co., Ltd. has registered the dissolution of the company effective on November 10, 2023.

1.3 Revenue from investment and other revenues from subsidiaries, jointly-controlled businesses, and related companies

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
Bangchak Green Net Co., Ltd.	97.07	64.32	Bangchak	49.00	Bangchak delegates its representatives as directors
Bangchak Retail Co., Ltd.	10.19	10.37	Bangchak	100.00	Bangchak delegates its representatives as directors
BCPG Plc.	662.32	513.74	Bangchak	57.81	Bangchak delegates its representatives as directors
BBGI Plc.	160.66	58.04	Bangchak	45.00	Bangchak delegates its representatives as directors
BBGI Bio Diesel Co., Ltd.	1.06	1.15	BBGI Plc. (Subsidiary)	70.00	Bangchak delegates its representatives as directors
BBGI Bio Ethanol (Chachoengsao) Co., Ltd.	0.78	0.71	BBGI Plc. (Subsidiary)	85.00	Bangchak delegates its representatives as directors
BBGI Bio Ethanol Plc.	0.58	1.39	BBGI Plc. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
BCP Trading Pte. Ltd.	6.70	2.10	Bangchak	100.00	Bangchak delegates its representatives as directors
BCPR Co., Ltd.	0.17	6.08	Bangchak	100.00	Bangchak delegates its representatives as directors
BCPR Pte. Ltd.	27.57	-	BCPR Co., Ltd. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
Mee Tee Mee Ngern Co., Ltd.	0.18	-	Bangchak	100.00	Bangchak delegates its representatives as directors
Winnonie Co., Ltd.	4.78	4.88	BCV Innovation Co., Ltd.	55.49	Bangchak delegates its representatives as directors
Bangkok Fuel Pipeline and Logistics Co., Ltd.	30.25	32.49	Bangchak	100.00	Bangchak delegates its representatives as directors
Bangchak Sriracha Plc.	-	1,016.46	Bangchak	76.34	Bangchak delegates its representatives as directors
General Energy Manning Co., Ltd.	0.07	0.07	Bangchak	49.00	Bangchak delegates its representatives as directors
OKEA ASA	-	0.92	BCPR Pte. Ltd. (Subsidiary)	45.44	Bangchak delegates its representatives as directors
BCGF Co., Ltd.	2.33	-	Bangchak	79.99	Bangchak delegates its representatives as directors
Joint Venture					
Bongkot Marine Services Co., Ltd.	145.50	-	Bangchak	30.00	Bangchak delegates its representatives as directors
Data Café Co., Ltd.	-	0.54	Bangchak	35.00	Bangchak delegates its representatives as directors

1.4 Other expenses paid to subsidiaries, jointly controlled businesses, and related companies

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
Bangchak Green Net Co., Ltd.	34.76	47.93	Bangchak	49.00	Bangchak delegates its representatives as directors
Bangchak Retail Co., Ltd.	2.24	5.14	Bangchak	100.00	Bangchak delegates its representatives as directors
BCPG Plc.	0.09	0.20	Bangchak	57.81	Bangchak delegates its representatives as directors
BBGI Plc.	0.45	0.10	Bangchak	45.00	Bangchak delegates its representatives as directors
BBGI Bio Ethanol Plc.	0.03	-	BBGI Plc. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
Winnonie Co., Ltd.	1.90	-	BCV Innovation Co., Ltd. (Subsidiary)	55.49	Bangchak delegates its representatives as directors
Bangchak Treasury Center Co., Ltd.	-	8.80	Bangchak	100.00	Bangchak delegates its representatives as directors
Oam Suk Social Enterprise Co., Ltd.	1.38	1.48	Bangchak	100.00	Bangchak delegates its representatives as directors
BSE Power (Lopburi) Co., Ltd.	-	1.50	BCPG Plc. (Subsidiary)	99.99	Bangchak delegates its representatives as directors
Joint Venture					
Data Café Co., Ltd.	-	2.40	Bangchak	35.00	Bangchak delegates its representatives as directors

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

1.5.1 Trade debtors

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
Bangchak Green Net Co., Ltd.	737.05	981.13	Bangchak	49.00	Bangchak delegates its representatives as directors
Bangchak Retail Co., Ltd.	5.79	2.51	Bangchak	100.00	Bangchak delegates its representatives as directors
BCP Trading Pte. Ltd.	652.99	-	Bangchak	100.00	Bangchak delegates its representatives as directors
BBGI Bioethanol (Chachoengsao) Co., Ltd.	0.42	1.20	BBGI Plc. (Subsidiary)	85.00	Bangchak delegates its representatives as directors
BBGI Bioethanol Plc.	-	0.43	BBGI Plc. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
Bangchak Sriracha Plc.	-	1,471.21	Bangchak	76.34	Bangchak delegates its representatives as directors

1.5.2 Debtors and loans to related businesses.

1.5.2.1 Loans, net of allowance for impairment

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
Bangkok Fuel Pipeline and Logistics Co., Ltd.	810.00	510.00	Bangchak	100.00	Bangchak delegates its representatives as directors
BCPG Plc.	-	2,500.00	Bangchak	57.81	Bangchak delegates its representatives as directors

1.5.2.2 Other debtors, net of allowance for impairment

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
Bangchak Green Net Co., Ltd.	2.17	2.08	Bangchak	49.00	Bangchak delegates its representatives as directors
Bangchak Retail Co., Ltd.	2.14	5.67	Bangchak	100.00	Bangchak delegates its representatives as directors
BCPG Plc.	10.19	81.85	Bangchak	57.18	Bangchak delegates its representatives as directors
BBGI Plc.	4.16	1.88	Bangchak	45.00	Bangchak delegates its representatives as directors
BBGI Bioethanol Plc.	0.63	0.12	BBGI Plc. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
BBGI Bio Diesel Co., Ltd.	0.26	0.06	BBGI Plc. (Subsidiary)	70.00	Bangchak delegates its representatives as directors
BBGI Bioethanol (Chachoengsao) Co., Ltd.	0.17	0.06	BBGI Plc. (Subsidiary)	85.00	Bangchak delegates its representatives as directors
BCPR Co., Ltd.	0.03	5.92	Bangchak	100.00	Bangchak delegates its representatives as directors
BCP Trading Pte. Ltd.	0.52	0.51	Bangchak	100.00	Bangchak delegates its representatives as directors
Winnonie Co., Ltd.	0.83	4.65	BCV Innovation Co., Ltd. (Subsidiary)	55.49	Bangchak delegates its representatives as directors
Bangkok Fuel Pipeline and Logistics Co., Ltd.	-	0.22	Bangchak	100.00	Bangchak delegates its representatives as directors
Bangchak Treasury Center Co., Ltd.	-	0.10	Bangchak	100.00	Bangchak delegates its representatives as directors
Bangchak Sriracha Plc.	-	317.57	Bangchak	76.34	Bangchak delegates its representatives as directors
General Energy Manning Co., Ltd.	0.07	-	Bangchak	49.00	Bangchak delegates its representatives as directors
BSGF Co., Ltd.	2.33	-	Bangchak	79.99	Bangchak delegates its representatives as directors

1.6 Creditors of related businesses

1.6.1 Trader creditors

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
BCP Trading Pte. Ltd.	8,607.95	7,197.59	Bangchak	100.00	Bangchak delegates its representatives as directors
BBGI Bio Diesel Co., Ltd.	383.09	430.07	BBGI Plc. (Subsidiary)	70.00	Bangchak delegates its representatives as directors
BBGI Bioethanol (Chachoengsao) Co., Ltd.	126.73	146.45	BBGI Plc. (Subsidiary)	85.00	Bangchak delegates its representatives as directors
BBGI Bioethanol Plc.	253.33	421.51	BBGI Plc. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
Bangchak Sriracha Plc.	-	1,784.30	Bangchak	76.34	Bangchak delegates its representatives as directors

1.6.2 Other creditors

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
Bangchak Green Net Co., Ltd.	23.99	25.68	Bangchak	49.00	Bangchak delegates its representatives as directors
Bangchak Retail Co., Ltd.	2.40	13.57	Bangchak	100.00	Bangchak delegates its representatives as directors
BCP Trading Pte, Ltd.	58.10	119.57	Bangchak	100.00	Bangchak delegates its representatives as directors
BBGI Plc.	0.01	-	Bangchak	45.00	Bangchak delegates its representatives as directors
Winnonie Co., Ltd.	0.09	-	BCV Innovation Co., Ltd. (Subsidiary)	55.49	Bangchak delegates its representatives as directors
Bangkok Fuel Pipeline and Logistics Co., Ltd.	30.11	42.81	Bangchak	100.00	Bangchak delegates its representatives as directors
General Energy Manning Co., Ltd.	2.61	3.14	Bangchak	49.00	Bangchak delegates its representatives as directors
Oam Suk Social Enterprise Co., Ltd.	1.00	-	Bangchak	100.00	Bangchak delegates its representatives as directors
BCPG Plc.	0.10	0.05	Bangchak	57.18	Bangchak delegates its representatives as directors
Asia Link Terminal Co., Ltd.	-	37.45	BCPG Plc. (Subsidiary)	100.00	Bangchak delegates its representatives as directors
Bangchak Treasury Center Co., Ltd.	-	3.00	Bangchak	100.00	Bangchak delegates its representatives as directors
Joint Venture					
Data Café Co., Ltd.	-	0.32	Bangchak	35.00	Bangchak delegates its representatives as directors

1.7 Other non-current assets, accrued interest net of allowance for impairment.

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
Bangkok Fuel Pipeline and Logistics Co., Ltd.	0.27	-	Bangchak	100.00	Bangchak delegates its representatives as directors

1.8 Other current liabilities: These items are Bangchak's revenue received in advance for land lease and service fees.

Related company	2022	2023	Relationship for the year ended 31 December 2023		
	(million baht)		Shareholding	Proportion	Management
Subsidiary					
BCPG Plc.	6.35	6.35	Bangchak	57.18	Bangchak delegates its representatives as directors

Companies	Business	Transactions
Bangchak Green Net Co., Ltd. (Subsidiary)	Manage Bangchak service stations administration	The selling price of the product is based is an arm's length basis. This transaction is an ordinary course of business with general commercial terms and conditions.
BCPG Plc. (Subsidiary)	Operates solar farms and investment in the alternative energy business	This related transaction is an ordinary course of business.
BBGI Plc. (Subsidiary)	Operates manufactures and distributing biofuel product and connected products	This related transaction is an ordinary course of business.
BBGI Bio Diesel Co., Ltd. (It is indirect subsidiary through BBGI Plc. which holds 70%)	Manufactures and distributing biodiesel and by-products	This related transaction is an ordinary course business term. The selling price of the product is based om arm's length basis with general commercial terms and conditions.
BBGI Bioethanol (Chachoengsao) Co., Ltd. (It is indirect subsidiary through BBGI Plc., which holds 85%)	Engage in cassava-based ethanol production. The ethanol was used in gasohol production.	This related transaction is an ordinary course business term. The selling price of the product is based om arm's length basis with general commercial terms and conditions.
BBGI Bioethanol Public Company Limited (It is indirect subsidiary through BBGI Plc.)	Engage in ethanol production primarily from molasses (a byproduct of the sugar process).	This related transaction is an ordinary course business term. The selling price of the product is based om arm's length basis with general commercial terms and conditions.
Bangchak Retail Co., Ltd. (Subsidiary)	Engage in franchise businesses and intellectual property acquisition	This related transaction is an ordinary course business term. The selling price of the product is based om arm's length basis with general commercial terms and conditions.
BCPR Co., Ltd. (Subsidiary)	It is holding company which invests in BCPR Pte. Ltd. a subsidiary company in Singapore.	Service fees charged between the parties is an ordinary business terms and conditions.
Bangkok Fuel Pipeline and Logistics Co., Ltd. (Subsidiary)	Engage in the business of fuel transportation and logistics.	This related transaction is an ordinary course business term. The selling price of the product is based om arm's length basis with general commercial terms and conditions.
General Energy Manning Co., Ltd. (Subsidiary)	Engages in the business of recruitment and human resource management.	This related transaction is an ordinary business terms and conditions.
Bangchak Treasury Center Co., Ltd. (Subsidiary)	Engages in the business of financial management center and international business center	This related transaction is an ordinary business terms and conditions.

Companies	Business	Transactions
Bangchak Sriracha Plc. (Subsidiary)	Operating a petroleum refinery and selling a complete range of petroleum products. In addition, the company Produces and sells aromatic products and other chemicals.	This related transaction is an ordinary business terms and conditions.
Winnonie Co., Ltd. (An indirect subsidiary through BCV Innovation Co., Ltd.)	Engage in electric motorcycles and battery replacement services, including related businesses.	This related transaction is an ordinary business terms and conditions.
BCPR Pte. Ltd. (An indirect subsidiary company in Singapore)	Invest in petroleum exploration and production businesses.	This related transaction is a normal business term pursuant to details stipulated in relevant agreement.
OKEA ASA (Indirect subsidiary in Norway)	Engage in petroleum exploration and production businesses.	This related transaction is an ordinary business terms and conditions.
BCP Trading Pte. Ltd. (Subsidiary in Singapore)	To trade commodities including crude oil, petroleum products, petrochemicals and related chemicals and to conduct other businesses that would benefit the company, including but not limited to oil hedging, chartering, storage and distribution.	This related transaction is an ordinary business terms and conditions and based on market prices pursuant to details stipulated in the relevant agreement.
BTSG Co., Ltd. (Subsidiary)	Engage in the supply and distribution of liquefied natural gas.	This related transaction is an ordinary business terms and conditions.
BSGF Co., Ltd. (Subsidiary)	Engage in the business of securing raw materials and production together with distribution of sustainable aviation fuel (SAF).	This related transaction is an ordinary business terms and conditions.
BSE Power (Lopburi) Co., Ltd. (Indirect subsidiary through BCPG Public Company Limited)	Engage in operating a solar power plant	This related transaction is an ordinary business terms and conditions.
Asia Link Terminal Co., Ltd. (Indirect subsidiary through BCPG Public Company Limited)	Engage in operates an oil storage warehouse and wharf business in Phetchaburi Province.	This related transaction is an ordinary business terms and conditions.
Data Café Co., Ltd. (Associated Company)	Engaging in the business of providing business data analysis services and providing information technology personnel to various business organizations.	This related transaction is an ordinary business terms and conditions.
Mee Tee Mee Ngern Co., Ltd. (Associated Company)	Engage in the business of land loan, consignment. (Joint investment between Bangchak Corporation Plc., Government Savings Bank and Dhipaya Group Holdings Plc.)	This related transaction is an ordinary business terms and conditions.
Bongkot Marine Services Co., Ltd. (Joint Ventures)	Provide floating storage unit services (The Company entered into contract for the use of Bongkot oil terminal service)	This related transaction is an ordinary business terms and conditions and based on market price

These transactions were undertaken in the normal course of business. None of transaction represents extraordinary transactions nor leading to benefits transfer among Bangchak, subsidiaries, related companies and shareholders. Approvals were scrutinized by the President as authorized under Bangchak's regulations.

Disclosure of related party transactions is in compliance with the rules of the Office of the Securities and Exchange Commission (SEC), Stock Exchange of Thailand and the accounting standards for the disclosure of information on related parties and businesses, as defined by the Federation of Accounting Professions.

Policy for future related party transactions

In undertaking future connected transactions, the pricing of products and services follows market practices, or the details stipulated in commercial contracts, or both. The related party transaction shall be based on a fair and arm's length basis. However, in such cooperation, Bangchak takes into consideration its best interests. In addition, for whichever transactions involving the Company's executives, they are not allowed to cast their votes in meetings. Material related party transactions must be reviewed and approved by the Board.



Part 3

Financial Statements

Declaration of the Directors' Responsibility for the Financial Statements

The Board of Directors of Bangchak Corporation Plc has prepared the Company's financial statements to show its financial status and performance for 2022 under the Public Company Limited Act of 1992, the Accounting Act of 2000, the Securities and Exchange Act of 1992, and the announcement of the Capital Market Supervisory Board concerning the criteria, conditions, and reporting method for the disclosure of information on financial status and performance of companies that issue securities.

The Board recognizes its duties and responsibility for directing a listed company, particularly the responsibility for financial statements of the Company and its subsidiaries – including financial information that appears in the Annual Registration Statement / Annual Report 2022. Such statements have been prepared under generally accepted accounting standards, which regularly complies with a suitable accounting policies and due and reasonable discretion exercised in the preparation of financial statements. Adequate significant information has been disclosed in the notes to these financial statements for transparent use by shareholders and investors at large.

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

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

It is our view that the Company's overall internal control system is satisfactory and can reasonably ensure that the financial statements of the Company and its subsidiaries for the year ended December 31, 2022, represented true and fairness, and showed essentially accurate financial positions, performance outcomes, and cash flows under financial reporting standards.



(Mr. Pichai Chunhavajira)

Chairman of the Board



(Mr. Chaiwat Kovavisarach)

Group Chief Executive Officer and President

Independent Auditor's Report

To the shareholders of Bangchak Corporation Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of Bangchak Corporation Public Company Limited and its subsidiaries (the "Group") and of Bangchak Corporation Public Company Limited (the "Company"), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2023, 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.

In my opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2023 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

Basis for Opinion

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

Key Audit Matters

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

Valuation of inventories	
Refer to Notes 3 (g) and 9 to the financial statements.	
The key audit matter	How the matter was addressed in the audit
Inventories are measured at the lower of cost and net realizable value. As a result of fluctuation in crude oil and oil products price which may cause the net realizable value to be lower than cost.	<p>My audit procedures included the following:</p> <ul style="list-style-type: none"> – Evaluated the appropriateness of inventories valuation by management. – Verified the appropriateness of the net realizable value calculation. – Checked the selling prices of finished goods with the reference market price and contract price. – Considered the adequacy of disclosures in accordance with Thai Financial Reporting Standards.

Impairment testing of exploration & production assets and goodwill	
Refer to Notes 3 (m), 13 and 16 to the financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>The Group has investment in many countries and there are risks from various external factors such as the fluctuation in economies, politics and laws. There is a risk that the operating results and the investments might be significantly less than the initial forecast and budget and might result in the assets' carrying value being higher than the recoverable amounts, which might represent losses from impairment.</p> <p>Due to the materiality of the transactions, the management's significant judgment and complexities involved in estimating a recoverable amount of exploration & production assets and goodwill from discounted cash flow method, I consider this as a key audit matter.</p>	<p>My audit procedures included the following:</p> <ul style="list-style-type: none"> – Understood the management's operation plan, process of the indicators identification and impairment testing process and tested the calculation of recoverable amount prepared by the management. – Assessed the key assumptions estimated by the management with reference to internally and externally derived sources after taking into account the historical forecasting accuracy. – Evaluated the appropriateness of valuation methodology and financial parameters applied to the discount rate. – Considered the adequacy of disclosures in accordance with Thai Financial Reporting Standards.

Acquisition of business	
Refer to Notes 3 (a) and 4 to the financial statements.	
The key audit matter	How the matter was addressed in the audit
<p>In 2023, the Group acquired a business in Thailand and working interest in oil fields in Norway. The Group recognised assets acquired and liabilities assumed from the business combination at their fair value.</p> <p>The accounting for business combinations is complex and judgmental because it requires the determination of fair value for assets acquired and liabilities assumed. Management and management's specialists have estimated the fair value of assets acquired and liabilities assumed based on assumptions which are subjective and are required judgment.</p> <p>The fair value of net assets acquired, and the allocation of the purchase price have been provisionally determined by the management of the Group and is subject to potential amendment.</p> <p>I considered this to be a key audit matter because the amounts involved are significant and subject to significant judgment.</p>	<p>My audit procedures included the following:</p> <ul style="list-style-type: none"> – Made inquiries of management to obtain an understanding of management's procedures on identification of assets acquired and liabilities assumed and on the determination of the fair value of net asset acquired. – Read the sale and purchase agreement and evaluated the appropriateness of the identification of net assets acquired at the date of acquisition. – Evaluated the independence and competency of independent appraiser. – Involved KPMG specialist to evaluate valuation methodology and financial parameters applied to the discount rate. – Evaluated significant assumptions underpinning the valuations reference to internal and external information and mathematical accuracy. – Considered the adequacy of disclosures in accordance with Thai Financial Reporting Standards.

Emphasis of Matter

I draw attention to note 4, during the year ended 31 December 2023, the Group has acquired business in Thailand and working interest in oil fields in Norway and has hired an independent appraiser to determine the fair value of the identifiable assets acquired and liabilities assumed from the business acquisitions. As at the reporting date, the reviews have not yet been completed therefore the determination of the fair value and the allocation of the purchase price was determined provisionally and is subject to potential amendment. My opinion is not modified in respect of this matter.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon.

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

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

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

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

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

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

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

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

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

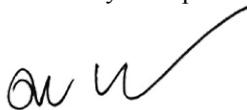
- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

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

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

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



(Sakda Kaothanthong)
Certified Public Accountant
Registration No. 4628

KPMG Phoomchai Audit Ltd.
Bangkok
22 February 2024

Statement of financial position

Bangchak Corporation Public Company Limited and its Subsidiaries

Assets	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2023	2022	2023	2022
<i>(in Baht)</i>					
Current assets					
Cash and cash equivalents	6	36,753,606,531	45,932,068,052	10,614,302,885	17,192,032,115
Short-term investments		41,815,105	1,236,750,503	25,000,000	-
Trade and other current receivables	5, 7, 8	33,273,927,246	22,199,023,573	9,406,701,133	9,096,182,516
Current tax assets		216,366,579	636,385,908	207,461,833	617,158,440
Short-term loan to related party	5	-	-	2,500,000,000	-
Short-term loans to other parties		260,175,460	90,723,021	-	-
Inventories	9	47,839,869,403	29,532,535,411	23,357,221,728	24,344,552,351
Other current financial assets		1,021,022,176	628,749,911	366,420,569	523,860,082
Oil fuel fund subsidies receivable		2,474,090,982	11,092,919,759	616,759,039	11,092,919,759
Total current assets		121,880,873,482	111,349,156,138	47,093,867,187	62,866,705,263
Non-current assets					
Other non-current financial assets	30	3,897,250,483	3,503,796,453	885,167,936	1,002,946,619
Investments in subsidiaries	10	-	-	47,491,158,910	18,572,502,152
Investments in associates and joint ventures	11	28,348,650,904	1,852,317,090	235,000,033	307,000,033
Long-term loans to related parties	5	1,033,543,660	1,653,154,062	510,000,000	810,000,000
Investment properties	12	126,965,546	126,965,546	682,953,148	682,953,148
Property, plant and equipment	13	119,373,798,489	73,018,382,320	29,444,864,099	30,880,276,933
Right-of-use assets	14	18,672,270,381	16,947,150,160	13,271,491,873	12,802,789,872
Goodwill	16	10,446,477,911	5,787,888,923	-	-
Intangible assets	17	13,368,009,798	11,738,195,947	390,271,836	241,511,584
Deferred tax assets	27	2,749,163,913	850,142,053	805,233,188	779,027,459
Indemnification assets		13,788,501,939	12,922,897,674	-	-
Other non-current assets	5	6,743,305,908	2,594,299,863	1,143,923,692	1,294,677,200
Total non-current assets		218,547,938,932	130,995,190,091	94,860,064,715	67,373,685,000
Total assets		340,428,812,414	242,344,346,229	141,953,931,902	130,240,390,263

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

Statement of financial position (Cont.)

Bangchak Corporation Public Company Limited and its Subsidiaries

Liabilities and equity	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2023	2022	2023	2022
		(in Baht)			
Current liabilities					
Short-term loans from financial institutions	18	13,293,730,155	1,101,024,382	2,000,000,000	-
Trade and other current payables	5, 19	41,287,086,053	28,947,580,032	17,083,334,389	17,262,902,355
Current portion of long-term loans	18	8,201,715,614	7,231,262,759	300,153,846	3,903,833,846
Current portion of lease liabilities		1,525,368,845	1,381,308,155	1,200,354,219	1,074,230,683
Current portion of debentures	18	6,299,043,871	2,400,000,000	3,500,000,000	2,400,000,000
Short-term loan from other parties	18	60,000,000	-	-	-
Excise tax and oil fuel fund payable		1,096,823,752	1,133,742,159	1,096,823,752	1,133,742,159
Corporate income tax payable		9,202,409,475	2,030,226,942	1,296,545,365	-
Other current financial liabilities		466,712,702	1,993,249,030	158,166,364	1,990,543,555
Other current liabilities	5	6,446,271,912	1,633,758,386	1,404,048,618	1,238,095,487
Total current liabilities		87,879,162,379	47,852,151,845	28,039,426,553	29,003,348,085
Non-current liabilities					
Long-term loans	18	41,475,814,663	16,489,176,694	11,655,806,150	3,590,854,099
Lease liabilities		10,689,706,375	10,400,531,611	8,235,457,451	7,922,269,723
Debentures	18	58,937,801,158	54,017,898,097	36,568,553,595	37,064,518,971
Deferred tax liabilities	27	3,039,253,037	6,560,738,008	-	-
Non-current provisions for employee benefits	20	5,112,028,005	2,287,442,093	2,092,002,240	2,009,606,311
Provision for the decommissioning cost		31,904,601,465	20,900,907,016	-	-
Other non-current financial liabilities		829,349,141	60,256,279	-	-
Other non-current liabilities		529,290,835	397,166,421	36,698,773	35,451,054
Total non-current liabilities		152,517,844,679	111,114,116,219	58,588,518,209	50,622,700,158
Total liabilities		240,397,007,058	158,966,268,064	86,627,944,762	79,626,048,243

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

Statement of financial position (Cont.)

Bangchak Corporation Public Company Limited and its Subsidiaries

Liabilities and equity	Note	Consolidated financial statements		Separate financial statements	
		31 December 2023	31 December 2022	31 December 2023	31 December 2022
<i>(in Baht)</i>					
Equity					
Share capital					
Authorised share capital					
(1,376,923,157 ordinary shares, <i>par value at Baht 1 per share</i>)		1,376,923,157	1,376,923,157	1,376,923,157	1,376,923,157
Issued and paid-up share capital					
(1,376,923,157 ordinary shares, <i>par value at Baht 1 per share</i>)		1,376,923,157	1,376,923,157	1,376,923,157	1,376,923,157
Share premium on ordinary shares		11,157,460,051	11,157,460,051	11,157,460,051	11,157,460,051
Other surpluses		3,890,769,189	3,823,911,945	235,425,081	207,946,763
Warrants		21,319,924	19,027,003	-	-
Expired warrants		1,836,718	1,836,718	-	-
Retained earnings					
Appropriated					
Legal reserve		153,164,346	153,164,346	153,164,346	153,164,346
Treasury shares reserve	21	-	247,740,908	-	247,740,908
Unappropriated		48,584,704,029	37,669,863,970	32,573,326,795	27,784,064,193
Treasury shares	21	-	(247,740,908)	-	(247,740,908)
Perpetual subordinated debentures		9,940,796,710	9,940,796,710	9,940,796,710	9,940,796,710
Other components of equity		(3,015,267,261)	(1,439,157,884)	(111,109,000)	(6,013,200)
Equity attributable to owners of the parent		72,111,706,863	62,703,826,016	55,325,987,140	50,614,342,020
Non-controlling interests	10	27,920,098,493	20,674,252,149	-	-
Total equity		100,031,805,356	83,378,078,165	55,325,987,140	50,614,342,020
Total liabilities and equity		340,428,812,414	242,344,346,229	141,953,931,902	130,240,390,263

(Pichai Chunhavajira)
Chairman

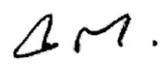
(Chaiwat Kovavisarach)
Group Chief Executive Officer and President

Statement of income

Bangchak Corporation Public Company Limited and its Subsidiaries

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2023	2022	2023	2022
		<i>(in Baht)</i>			
Revenue from sale of goods and rendering of services	5, 24	374,542,047,423	312,202,370,020	231,880,091,105	248,074,753,711
Subsidy from oil fuel fund	24	11,310,975,287	15,814,987,391	6,672,295,724	15,814,987,391
Cost of sale of goods and rendering of services	5, 25	<u>(352,114,899,628)</u>	<u>(281,748,692,278)</u>	<u>(224,923,624,135)</u>	<u>(240,104,297,307)</u>
Gross profit		33,738,123,082	46,268,665,133	13,628,762,694	23,785,443,795
Dividend income	5	22,105,800	11,643,432	514,272,565	959,633,474
Other income	5	2,757,312,373	1,842,056,728	964,079,146	509,648,963
Selling expenses	5, 25	(6,445,085,957)	(4,931,292,605)	(3,851,054,818)	(3,617,015,596)
Administrative expenses	5, 25	(4,672,312,688)	(4,272,260,992)	(2,082,254,287)	(1,884,223,833)
Exploration and evaluation expenses		(663,188,257)	(1,187,612,047)	-	-
Gain (loss) from derivatives		2,286,761,072	(5,135,982,067)	1,990,676,016	(5,523,130,144)
Gain on foreign exchange		401,271,816	993,320	861,693,882	545,196,531
Loss from fair value adjustment of contingent consideration	4	(40,022,129)	-	-	-
Gain (loss) from fair value adjustment of investment		(12,662,050)	9,845,877	(12,662,050)	10,081,250
Gain from sale of investment		-	2,031,181,733	-	-
Reversal of (loss) from impairment of assets	9, 10, 13, 16, 17	(9,496,600,973)	(2,433,187,651)	(589,506,853)	273,335,856
Gain on bargain purchase	4	7,389,423,218	-	-	-
Profit from operating activities		25,265,125,307	32,204,050,861	11,424,006,295	15,058,970,296
Finance costs	26	(4,980,449,565)	(3,976,718,318)	(2,220,120,590)	(1,726,841,121)
Impairment gain and reversal of impairment loss (impairment loss) determined in accordance with TFRS 9	30	50,090,544	(411,166,448)	10,831,631	965,813,203
Share of profit of associates and joint ventures accounted for using equity method	11	339,773,315	188,104,117	-	-
Profit before tax expense		20,674,539,601	28,004,270,212	9,214,717,336	14,297,942,378
Tax expense	27	<u>(8,766,164,582)</u>	<u>(12,851,791,240)</u>	<u>(2,117,083,703)</u>	<u>(2,371,911,925)</u>
Profit for the year		11,908,375,019	15,152,478,972	7,097,633,633	11,926,030,453
Profit (loss) attributable to:					
Owners of the parent		13,233,276,878	12,575,159,718	7,097,633,633	11,926,030,453
Non-controlling interests		<u>(1,324,901,859)</u>	<u>2,577,319,254</u>	<u>-</u>	<u>-</u>
Profit for the year		11,908,375,019	15,152,478,972	7,097,633,633	11,926,030,453
Basic earnings per share	28	9.27	8.89	4.80	8.42


(Pichai Chunhavajira)
Chairman


(Chaiwat Kovavisarach)
Group Chief Executive Officer and President

Statement of comprehensive income

Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
Note	2023	2022	2023	2022
	(in Baht)			
Profit for the year	11,908,375,019	15,152,478,972	7,097,633,633	11,926,030,453
Other comprehensive income				
<i>Items that will be reclassified subsequently to profit or loss</i>				
Exchange differences on translating financial statements	(1,176,324,551)	(126,950,333)	-	-
Gain on cash flow hedges	3,274,385	25,781,557	-	-
Gain (loss) on hedges of net investments in foreign operations	(222,400,691)	14,664,155	-	-
Share of other comprehensive income (loss) of associates and joint ventures accounted for using equity method	11 (155,958,022)	(1,668,791)	-	-
Total items that will be reclassified subsequently to profit or loss	(1,551,408,879)	(88,173,412)	-	-
<i>Items that will not be reclassified subsequently to profit or loss</i>				
Gain (loss) on investment in equity instruments designated at FVOCI	(740,969,584)	(1,041,201,564)	(105,095,800)	83,675,000
Gain (loss) on remeasurements of defined benefit plans	(10,269,505)	184,710,614	(203,717)	189,155,629
Share of other comprehensive income (loss) of associates and joint ventures accounted for using equity method	11 483,380	(27,010,505)	-	-
Total items that will not be reclassified subsequently to profit or loss	(750,755,709)	(883,501,455)	(105,299,517)	272,830,629
Other comprehensive income (loss) for the year, net of income tax	(2,302,164,588)	(971,674,867)	(105,299,517)	272,830,629
Total comprehensive income for the year	9,606,210,431	14,180,804,105	6,992,334,116	12,198,861,082
Total comprehensive income (loss) attributable to:				
Owners of the parent	11,646,897,996	12,036,495,892	6,992,334,116	12,198,861,082
Non-controlling interests	(2,040,687,565)	2,144,308,213	-	-
Total comprehensive income for the year	9,606,210,431	14,180,804,105	6,992,334,116	12,198,861,082

Statement of changes in equity

Bangchak Corporation Public Company Limited and its Subsidiaries

Note	Consolidated financial statements																			
	Retained earnings						Other components of equity													
	Issued and paid-up share capital	Share premium	Other surpluses	Warrants	Expired warrants	Legal reserve	Treasury shares reserve	Unappropriated	Treasury shares	Perpetual subordinated debentures (in Baht)	Translation reserve	Cash flow hedge reserve	Net investment hedge reserve	Fair value reserve	Share of other comprehensive income (loss) of joint ventures using equity method	Total other components of equity	Equity attributable to owners of the parent	Non-controlling interests	Total equity	
	1,376,923,157	11,157,460,051	3,323,546,340	14,972,497	-	153,164,346	505,406,210	28,204,678,139	605,406,210	9,940,296,710	(716,135,360)	(36,723,468)	(303,143,576)	224,599,213	17,966,863	(713,436,328)	53,467,104,932	16,092,173,247	69,559,222,279	
Transactions with owners, recorded directly in equity																				
Contributions by and distributions to owners of the parent																				
Share options exercised	-	-	21,376,394	-	1,836,718	-	-	-	-	-	-	-	-	-	-	-	23,213,112	85,605,819	108,818,931	
Treasury shares sold	-	-	18,339,004	-	-	-	(257,665,302)	257,665,302	257,665,302	-	-	-	-	-	-	-	275,994,306	-	275,994,306	
Share-based payment transactions	-	-	634,023	-	4,054,506	-	-	-	-	-	-	-	-	-	-	-	4,678,529	3,472,218	8,150,747	
Dividends	-	-	-	-	-	-	(3,054,696,916)	-	-	-	-	-	-	-	-	-	(3,054,696,916)	(1,203,150,400)	(4,257,847,316)	
Total	-	-	403,292,421	-	4,054,506	1,836,718	(257,665,302)	(2,797,031,614)	257,665,302	-	-	-	-	-	-	-	(2,750,810,969)	(1,117,072,265)	(3,867,883,232)	
Changes in ownership interests in subsidiaries																				
Changes in an ownership interests in subsidiary without a change in control	10	-	451,036,164	-	-	-	-	-	-	-	-	-	-	-	-	-	451,036,164	3,573,597,807	4,024,633,971	
Acquisition of non-controlling interests with a change in control	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	451,036,164	(15,798,855)	(18,298,652)	
Total	-	-	451,036,164	-	-	-	-	-	-	-	-	-	-	-	-	-	451,036,164	3,557,798,952	4,006,335,319	
Total transactions with owners, recorded directly in equity																				
Comprehensive income (loss) for the year																				
Profit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12,575,159,718	2,577,319,254	15,152,478,972	
Other comprehensive income (loss)	-	-	-	-	-	-	-	-	-	-	(48,240,952)	8,897,707	(30,665,719)	(63,250,676)	(16,461,916)	(725,721,556)	(538,663,820)	(433,011,041)	(971,674,867)	
Total comprehensive income (loss) for the year	-	-	-	-	-	-	-	-	-	-	(48,240,952)	8,897,707	(30,665,719)	(63,250,676)	(16,461,916)	(725,721,556)	12,036,495,892	2,144,308,213	14,180,804,105	
Coupon payment on perpetual subordinated debentures	23	-	-	-	-	-	-	(500,000,003)	-	-	-	-	-	-	-	-	(500,000,003)	-	(500,000,003)	
Balance at 31 December 2022	1,376,923,157	11,157,460,051	3,823,911,945	19,027,003	1,836,718	153,164,346	247,740,908	37,669,863,970	627,740,908	9,940,296,710	(764,376,312)	(27,855,761)	(333,809,295)	(414,651,463)	1,504,947	(1,439,157,884)	62,703,836,016	20,674,252,149	83,378,078,165	

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

Statement of changes in equity (Cont.)

Bangchak Corporation Public Company Limited and its Subsidiaries

Note	Consolidated financial statements																			
	Issued and paid-up share capital	Share premium	Other surpluses	Warrants	Expired warrants	Legal reserve	Treasury shares reserve	Unappropriated shares	Treasury shares	Treasury shares reserve	Perpetual subordinated debentures (in Baht)	Translation reserve	Cash flow hedge reserve	Net investments hedge reserve	Fair value reserve	Share of other comprehensive income (loss) of associates and joint ventures using equity method	Total other components of equity	Equity attributable to owners of the parent	Non-controlling interests	Total equity
	1,376,023,157	11,157,460,051	3,882,911,945	19,027,003	1,856,718	153,164,346	247,740,908	37,669,863,370	(247,740,908)	(247,740,908)	9,940,796,710	(764,376,312)	(27,825,761)	(233,809,295)	(414,651,463)	1,504,947	(14,291,157,884)	62,703,826,016	20,674,252,149	83,378,078,165
21	-	-	1,288,947	-	-	-	(247,740,908)	247,740,908	247,740,908	-	-	-	-	-	-	-	-	1,288,947	147,167,981	148,456,928
29	-	-	27,478,318	2,292,921	-	-	-	(2,055,908,219)	(247,740,908)	(247,740,908)	-	-	-	-	-	-	-	275,219,226	883,598	3,997,422
	-	-	830,903	-	-	-	-	(2,055,908,219)	-	-	-	-	-	-	-	-	-	3,113,824	(1,153,073,542)	(3,208,981,761)
	-	-	29,586,168	2,292,921	-	-	(247,740,908)	(1,898,167,311)	(247,740,908)	-	-	-	-	-	-	-	-	(1,776,386,222)	(1,005,001,963)	(2,781,388,185)
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,403,349,299	10,403,349,299
10	-	-	37,269,076	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37,269,076	(11,793,427)	(74,524,351)
	-	-	66,857,244	2,292,921	-	-	(247,740,908)	(1,898,167,311)	(247,740,908)	-	-	-	-	-	-	-	-	(1,739,017,146)	9,286,533,909	7,547,516,763
	-	-	-	-	-	-	-	13,233,276,878	-	-	-	-	-	-	-	-	-	13,233,276,878	(1,324,901,859)	11,908,375,019
	-	-	-	-	-	-	-	(10,269,505)	-	-	-	(774,385,034)	1,878,187	(237,904,300)	(476,517,975)	(89,180,255)	(1,576,109,377)	(1,586,378,882)	(715,785,706)	(2,302,164,589)
	-	-	-	-	-	-	-	13,233,007,373	-	-	-	(774,385,034)	1,878,187	(237,904,300)	(476,517,975)	(89,180,255)	(1,576,109,377)	(1,646,897,996)	(2,040,687,565)	9,606,210,431
23	-	-	-	-	-	-	-	(500,000,003)	-	-	-	-	-	-	-	-	-	(500,000,003)	-	(500,000,003)
	1,376,023,157	11,157,460,051	3,898,769,189	21,319,924	1,856,718	153,164,346	-	48,584,704,629	-	-	9,940,796,710	(1,538,761,346)	(25,947,574)	(471,713,595)	(891,109,438)	(87,675,308)	(3,015,672,261)	72,111,706,863	27,920,098,493	100,031,805,356

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

Statement of changes in equity (Cont.)

Bangchak Corporation Public Company Limited and its Subsidiaries

	Separate financial statements										
	Note	Issued and paid-up share capital				Retained earnings				Other components of equity	
		Share premium	Other Surpluses	Legal reserve	Treasury shares reserve	Unappropriated shares	Treasury shares	Treasury shares	Perpetual subordinated debentures	Fair value reserve	Total equity
Year ended 31 December 2022											
Balance at 1 January 2022		1,376,923,157	11,157,460,051	189,617,759	153,164,346	505,406,210	18,965,909,728	(505,406,210)	9,940,796,710	(89,688,200)	41,694,183,551
Transactions with owners, recorded directly in equity											
<i>Contributions by and distributions to owners of the parent</i>											
Treasury shares sold	21	-	-	18,329,004	-	(257,665,302)	257,665,302	-	-	-	275,994,306
Dividends to owners of the Company	29	-	-	-	-	-	(3,054,696,916)	-	-	-	(3,054,696,916)
Total		-	-	18,329,004	-	(257,665,302)	(2,797,031,614)	257,665,302	-	-	(2,778,702,610)
Comprehensive income for the year											
Profit		-	-	-	-	-	11,926,030,453	-	-	-	11,926,030,453
Other comprehensive income		-	-	-	-	-	189,155,629	-	-	83,675,000	272,830,629
Total comprehensive income for the year		-	-	-	-	-	12,115,186,082	-	-	83,675,000	12,198,861,082
Coupon payment on perpetual subordinated debentures	23	-	-	-	-	-	(500,000,003)	-	-	-	(500,000,003)
Balance at 31 December 2022		1,376,923,157	11,157,460,051	207,946,763	153,164,346	247,740,908	27,784,064,193	(247,740,908)	9,940,796,710	(6,013,200)	50,614,342,020

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

Statement of changes in equity (Cont.)

Bangchak Corporation Public Company Limited and its Subsidiaries

	Separate financial statements							Total equity	
	Retained earnings				Treasury shares	Perpetual subordinated debentures	Other components of equity		
	Issued and paid-up share capital	Share premium	Other Surpluses	Legal reserve					Treasury shares reserve
Year ended 31 December 2023									
Balance at 1 January 2023	1,376,923,157	11,157,460,051	207,946,763	153,164,346	247,740,908	27,784,064,193	9,940,796,710	(6,013,200)	50,614,342,020
Transactions with owners, recorded directly in equity									
<i>Contributions by and distributions to owners of the parent</i>									
Treasury shares sold	-	-	27,478,318	-	(247,740,908)	247,740,908	-	-	275,219,226
Dividends to owners of the Company	-	-	-	-	-	(2,055,908,219)	-	-	(2,055,908,219)
Total	-	-	27,478,318	-	(247,740,908)	(1,808,167,311)	-	-	(1,780,688,993)
Comprehensive income (loss) for the year									
Profit	-	-	-	-	-	7,097,633,633	-	-	7,097,633,633
Other comprehensive income (loss)	-	-	-	-	-	(203,717)	-	(105,095,800)	(105,299,517)
Total comprehensive income (loss) for the year	-	-	-	-	-	7,097,429,916	-	(105,095,800)	6,992,334,116
Coupon payment on perpetual subordinated debentures	-	-	-	-	-	(500,000,003)	-	-	(500,000,003)
Balance at 31 December 2023	1,376,923,157	11,157,460,051	235,425,081	153,164,346	-	32,573,326,795	9,940,796,710	(111,109,000)	55,325,987,140

(in Baht)

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

Statement of cash flows

Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2023	2022	2023	2022
	(in Baht)			
Cash flows from operating activities				
Profit for the year	11,908,375,019	15,152,478,972	7,097,633,633	11,926,030,453
<i>Adjustments for</i>				
Tax expense	8,766,164,582	12,851,791,240	2,117,083,703	2,371,911,925
Finance costs	4,980,449,565	3,976,718,318	2,220,120,590	1,726,841,121
Depreciation and amortisation	14,370,016,822	10,003,557,063	5,352,961,625	5,425,318,454
Unrealised (gain) loss from derivatives	(1,596,544,977)	992,015,771	(1,312,493,247)	838,439,418
Unrealised (gain) loss on foreign exchange	303,996,266	611,682,138	(172,001,113)	370,437,305
(Reversal of) losses on inventories devaluation	(265,444,957)	330,168,582	(324,815,087)	324,815,087
(Reversal of) impairment loss on assets	9,496,600,973	2,433,187,651	589,506,853	(273,335,856)
(Reversal of) impairment loss determined in accordance with TFRS 9	(50,090,544)	411,166,448	(10,831,631)	(965,813,203)
Write-off of exploration and evaluation expenses	15,570,506	516,998,411	-	-
Loss on disposal of property, plant and equipment	94,126,311	134,559,214	9,445,780	5,334,021
Loss on disposal of intangible assets	101,602	-	-	-
(Gain) loss on fair value adjustment of contingent consideration	12,662,050	(9,845,877)	12,662,050	(10,081,250)
Loss from fair value adjustment of investment	40,022,129	-	-	-
Gain on disposal of investment	-	(2,031,181,733)	-	-
Interest income and dividend income	(905,775,573)	(315,000,209)	(746,665,830)	(1,064,224,179)
Provision for employee benefits	249,099,808	191,909,570	152,142,355	144,779,585
Warrants	3,997,422	8,150,747	-	-
Provision for customer loyalty programmes	98,130,584	11,218,421	98,130,584	11,218,421
Deferred revenue	(7,135,161)	(4,161,779)	(7,135,161)	(4,161,779)
Share profit of associates and joint ventures (net of tax)	(339,773,315)	(188,104,117)	-	-
Gain on bargain purchase	(7,389,423,218)	-	-	-
	39,785,125,894	45,077,308,831	15,075,745,104	20,827,509,523
<i>Changes in operating assets and liabilities</i>				
Trade accounts receivable	(3,253,788,307)	(5,195,766,987)	(169,664,836)	(621,659,217)
Other current receivables	10,846,813,154	(12,394,226,680)	10,268,712,598	(9,946,178,277)
Inventories	3,854,587,206	(11,283,010,031)	1,082,322,238	(9,266,601,052)
Other non-current assets	1,994,051,469	336,419,434	73,677,237	(179,085,141)
Trade accounts payable	(7,774,738,747)	8,072,310,353	(1,204,529,549)	6,196,255,385
Other current payables	3,966,681,806	5,460,216,007	1,076,120,389	630,094,136
Other current liabilities	4,269,574,523	215,350,507	27,269,327	241,718,859
Provisions for employee benefits	(353,768,365)	(267,347,323)	(131,665,261)	(121,286,247)
Other non-current liabilities	(2,640,843,521)	(113,406,173)	8,382,881	(4,540,978)
Net cash generated from operations	50,693,695,112	29,907,847,938	26,106,370,128	7,756,226,991
Taxes paid	(5,189,644,504)	(10,464,957,005)	(436,996,532)	(1,558,961,185)
Net cash from operating activities	45,504,050,608	19,442,890,933	25,669,373,596	6,197,265,806

Statement of cash flows

Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2023	2022	2023	2022
	<i>(in Baht)</i>			
<i>Cash flows from investing activities</i>				
(Increase) decrease in short-term investments	1,194,935,398	(417,327,259)	(25,000,000)	-
Payment for investment in subsidiaries, associates and joint ventures, net of cash acquired	(58,345,572,768)	(988,133,617)	(28,918,656,757)	(231,000,063)
Payment for business acquisition	(4,012,559,428)	(4,306,388,289)	-	-
Payment for other investments	(24,704,280)	(34,437,463)	-	-
Payment for shares capital of subsidiaries	-	-	-	(2,046,982,429)
Cash decreased from sale of investment in subsidiaries	-	(20,038,813)	-	-
Proceeds from sale of investment in subsidiaries	-	53,262,987	-	16,000,000
Proceeds from sale of investment in associates	-	14,551,317,784	-	-
Proceeds from return on investment in associate	72,000,000	-	72,000,000	-
Proceeds from sale of other investment	137,984,000	-	-	-
Acquisition of property, plant and equipment	(11,503,482,094)	(7,526,429,200)	(2,498,039,305)	(1,227,917,650)
Proceeds from sale of property, plant and equipment	42,861,449	27,750,765	31,490,642	5,056,915
Acquisition of right-of-use assets	(793,747,990)	(997,397,739)	(781,766,319)	(992,913,980)
Acquisition of intangible assets	(710,466,295)	(1,378,792,498)	(263,734,961)	(73,639,163)
Increase in short-term loan	(166,475,369)	(95,200,094)	-	-
Long-term loans to related parties	(1,139,420,447)	(235,335,308)	(2,500,000,000)	-
Cash received from long-term loans	1,265,179,533	-	300,000,000	1,872,615,226
Interest received	846,679,356	238,776,372	205,557,131	139,079,471
Dividend received	236,412,462	166,143,432	514,272,565	968,633,474
Net cash used in investing activities	(72,900,376,473)	(962,228,940)	(33,863,877,004)	(1,571,068,199)
<i>Cash flows from financing activities</i>				
Proceeds from exercise of share options	148,456,928	111,359,279	-	-
Proceeds from issuance of subsidiaries' share capital	-	3,990,739,780	-	-
Increase (decrease) in short-term loans from financial institutions	12,218,434,175	(95,325,197)	2,000,000,000	-
Proceeds from short-term loans from other parties	60,000,000	-	-	-
Proceeds from long-term loans from financial institutions	14,721,367,714	5,143,987,931	8,500,000,000	2,500,000,000
Repayment of long-term loans from financial institutions	(8,854,521,993)	-	(3,903,833,846)	-
Repayment of long-term loans	(160,791,074)	(8,258,093,094)	-	(700,153,846)
Repayment of short-term loan from related parties	-	(17,236,960)	-	-
Payment of lease liabilities	(1,412,848,682)	(2,082,726,177)	(1,342,985,876)	(1,456,818,874)
Proceeds from issuance of debentures	15,575,546,443	13,000,000,000	3,000,000,000	13,000,000,000
Redemption of debentures	(6,760,112,306)	(9,634,112,631)	(2,400,000,000)	(4,000,000,000)
Proceeds from sale of treasury shares	275,219,226	275,994,306	275,219,226	275,994,306
Finance cost paid	(3,346,508,586)	(2,819,413,229)	(1,955,717,104)	(1,286,575,179)
Coupon payment on perpetual subordinated debentures	(500,000,003)	(500,000,003)	(500,000,003)	(500,000,003)
Dividend paid	(3,208,981,761)	(4,260,847,316)	(2,055,908,219)	(3,054,696,916)
Net cash from (used in) financing activities	18,755,260,081	(5,145,673,311)	1,616,774,178	4,777,749,488

Statement of cash flows

Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2023	2022	2023	2022
	<i>(in Baht)</i>			
Net increase (decrease) in cash and cash equivalents,				
before effect of exchange rates	(8,641,065,784)	13,334,988,682	(6,577,729,230)	9,403,947,095
Effect of exchange rate changes on cash and cash equivalents	(537,395,737)	575,306,443	-	-
Net increase (decrease) in cash and cash equivalents	(9,178,461,521)	13,910,295,125	(6,577,729,230)	9,403,947,095
Cash and cash equivalents at 1 January	45,932,068,052	32,021,772,927	17,192,032,115	7,788,085,020
Cash and cash equivalents at 31 December	36,753,606,531	45,932,068,052	10,614,302,885	17,192,032,115
<i>Non-cash transactions</i>				
Outstanding payable from purchase of property, plant and equipment	4,318,048,332	349,855,388	721,789,734	200,574,954
Acquisition of right-of-use assets	231,759,677	-	-	-
Investment in an associate by transferring trade accounts receivable	-	1,236,049,216	-	-
Investment in a subsidiary and a joint venture by conversion of				
long-term loan to and accrued interest income	546,217,174	-	-	-
Liability from investment in an associate	777,570,291	-	-	-

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

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Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements, and were approved and authorised for issue by the Board of Directors on 22 February 2024.

1 General information

Bangchak Corporation Public Company Limited, the “Company” is incorporated in Thailand and was listed on the Stock Exchange of Thailand. The Company’s registered offices are as follows:

Head office : 2098 M Tower Building, 8th Floor, Sukhumvit Road, Phra Kanong Tai, Phra Kanong, Bangkok.

Refinery plant : 210 Moo 1, Soi Sukhumvit 64, Sukhumvit Road, Phra Kanong Tai, Phra Kanong, Bangkok.

As at 31 December 2023, major shareholders of the Company were Vayupak Fund 1 and Social Security Office holding 19.84% and 14.18% of issued and paid-up capital, respectively (2022: 19.84% and 14.54%, respectively).

The principal businesses of the Group are operating an oil refinery and marketing the finished products through its service stations under its company’s brand. The Group’s oil market includes consumers in various sectors, such as transportation, aviation, shipping, construction, industrial, agriculture and sale of oil which is made through the major and the minor oil traders, production and distribution of electricity from green energy, investment in alternative energy business, oil terminal and seaport businesses, manufacturing and distributing of biofuel product and relating products and exploration and production of petroleum.

Details of the Company’s subsidiaries as of 31 December 2023 and 2022 are given in note 10.

2 Basis of preparation of the financial statements

The financial statements are prepared in accordance with Thai Financial Reporting Standards (“TFRS”), guidelines promulgated by the Federation of Accounting Professions and applicable rules and regulations of the Thai Securities and Exchange Commission. The financial statements are presented in Thai Baht, which is the Company’s functional currency.

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of the Group’s accounting policies. Actual results may differ from these estimates. Estimates and underlying assumptions that are described in each note are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

3 Significant accounting policies

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

(a) Basis of consolidation

The consolidated financial statements relate to the Company and its subsidiaries (together referred to as the “Group”) and the Group’s interests in associates and joint ventures.

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

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

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree. In addition, when there is a change in the Group's interest in a subsidiary that do not result in a loss of control, any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received from the acquisition or disposal of the non-controlling interests with no change in control are accounted for as other surpluses/deficits in shareholders' equity.

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

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

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

In all other cases, when the group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in that investee, with a resulting gain or loss being recognised in profit or loss. Any interest retained in that former investee at the date when significant influence or joint control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset.

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

Business combinations

The Group applies the acquisition method when the Group assess that the acquired set of activities and assets include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. The acquisition date is the date on which control is transferred to the Group, other than business combinations with entities under common control. Expenses in connection with a business combinations are recognised as incurred.

Goodwill is measured as of the acquisition date as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree, less net fair value of the identifiable assets acquired and liabilities assumed. Any gain on bargain purchase is recognised in profit or loss immediately.

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Consideration transferred includes the fair values of the assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, and equity interests issued by the Group. Consideration transferred also includes the fair value of any contingent consideration.

Any contingent consideration is measured at fair value at the date of acquisition and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognised in profit or loss.

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

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group estimates provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Business combination under common control are accounted for using a method similar to the pooling of interest method, by recognising assets and liabilities of the acquired businesses at their carrying amounts in the consolidated financial statements of the ultimate parent company at the transaction date. The difference between the carrying amount of the acquired net assets and the consideration transferred is recognised as surplus or deficit from business combinations under common control in shareholder's equity. The surplus or deficit will be written off upon divestment of the businesses acquired. The results from operations of the acquired businesses will be included in the consolidated financial statements of the acquirer from the beginning of the comparative period or the moment the businesses came under common control, whichever date is later, until control ceases.

(b) Investments in subsidiaries, associates, and joint ventures

Investments in subsidiaries, associates, and joint ventures in the separate financial statements of the Company are measured at cost less allowance for impairment losses. Dividend income is recognised in profit or loss on the date on which the Group's right to receive payment is established. If the Company disposes of part of its investment, the deemed cost of the part sold is determined using the weighted average method. Gains and losses on disposal of the investments are recognised in profit or loss.

(c) Foreign currencies

Transactions in foreign currencies including non-monetary assets and liabilities dominated in foreign currencies are translated to the respective functional currencies of each entity in the Group at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate at the reporting date. Non-monetary assets and liabilities measured at fair value in foreign currencies are translated at the exchange rates at the dates that fair value was determined.

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

- an investment in equity securities designated as at FVOCI
- a financial liability designated as a hedge of the net investment in a foreign operation to the extent that the hedge is effective; and
- qualifying cash flow hedges to the extent the hedge is effective.

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Foreign operations

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

Foreign exchange differences and the effective portion of any foreign currency differences arising from hedges of a net investment in a foreign operation (see note 3(d.4)) are recognised in other comprehensive income and accumulated in the translation reserve in equity until disposal of the investment, except to the extent that the translation difference is allocated to non-controlling interest.

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

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

(d) Financial instruments

(d.1) Classification and initial measurement

Debt securities that the Group issued are initially recognised when they are originated. Other financial assets and financial liabilities except trade accounts receivables (see note 3(f)) are initially recognised when the Group becomes a party to the contractual provisions of the instrument, and measured at fair value plus or minus, for an item not at fair value through profit or loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue.

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income (FVOCI); or FVTPL. Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified prospectively from the reclassification date.

On initial recognition, financial liabilities are classified as measured at amortised cost using the effective interest method or FVTPL. Interest expense, foreign exchange gains and losses and any gain or loss on derecognition are recognised in profit or loss.

Financial assets measured at amortised costs are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by expected credit losses. Interest income, foreign exchange gains and losses, expected credit loss and any gain or loss on derecognition are recognised in profit or loss.

Equity investments measured at FVOCI are subsequently measured at fair value. Dividend income is recognised as income in profit or loss on the date on which the Group's right to receive payment is established, unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and are never reclassified to profit or loss.

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(d.2) Derecognition and offset

The Group derecognises a financial asset when the contractual rights to receive the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

The difference between the carrying amount extinguished and the consideration received or paid is recognised in profit or loss.

Interest rate benchmark reform

When the basis of determining the contractual cash flows of a financial asset or financial liability measured at amortised cost changed as a result of interest rate benchmark reform (IBOR reform), the Group first updated the effective interest rate of the financial asset or financial liability to reflect the change that is required by IBOR reform. If there were any other additional changes, the Group applied the policies on accounting for modifications to those changes.

Financial assets and financial liabilities are offset, and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and the Group intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(d.3) Derivatives

Derivative are recognised at fair value and remeasured at fair value at each reporting date. The gain or loss on remeasurement to fair value is recognised immediately in profit or loss, except where the derivatives qualify for cash flow hedge accounting or hedges of net investment in a foreign operation, in which case recognition of any resultant gain or loss depends on nature of the item being hedged (see note 3 (d.4)).

(d.4) Hedging

At inception of designated hedging relationships, the Group documents the risk management objective and strategy for undertaking the hedge, the economic relationship between the hedged item and the hedging instrument, including consideration of the hedge effectiveness at the inception of the hedging relationship and throughout the remaining period to determine the existence of economic relationship between the hedged item and the hedging instrument.

Hedges directly affected by IBOR reform

When the basis for determining the contractual cash flows of the hedged item or hedging instrument changes as a result of IBOR reform and therefore there is no longer uncertainty arising about the cash flows of the hedged item or the hedging instrument, the Group amends the hedge documentation of that hedging relationship to reflect the changes required by IBOR reform. For this purpose, the hedge designation is amended once the following changes:

- designating an alternative benchmark rate as the hedged risk;

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- updating the description of the hedged item, including the description of the designated portion of the cash flows or fair value being hedged; or
- updating the description of the hedging instrument.

The Group amends the formal hedge documentation by the end of the reporting period during which a change required by IBOR reform is made to the hedged risk, hedge item or hedging instrument. These amendments in the formal hedge documentation do not constitute the discontinuation of the hedging relationship or the designation of a new hedging relationship.

If changes are made in addition to those changes required by IBOR reform, then the Group first considers whether those additional changes result in the discontinuation of the hedge accounting relationship. If the additional changes do not result in the discontinuation of the hedge accounting relationship, then the Group amends the formal hedge documentation for changes required by IBOR reform as mentioned above.

When the interest rate benchmark on which the hedged future cash flows had been based is changed as required by IBOR reform, for the purpose of determining whether the hedged future cash flows are expected to occur, the Group deems that the hedging reserve recognised in OCI for that hedging relationship is based on the alternative benchmark rate on which the hedged future cash flows will be based.

Cash flow hedges

When a derivative is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognised in OCI and accumulated in the hedging reserve. Any ineffective portion of changes in the fair value of the derivative is recognised immediately in profit or loss.

The Group designates only the change in fair value of the spot element of forward exchange contracts as the hedging instrument in cash flow hedging relationships. The change in fair value of the forward element of forward exchange contracts (forward points) is recognised in a cash flow hedging reserve within equity.

When the hedged forecast transaction subsequently results in the recognition of a non-financial item such as inventory, the amount accumulated in the cash flow hedging reserve is included directly in the initial cost of the non-financial item when it is recognised.

For all other hedged forecast transactions, the amount accumulated in the cash flow hedging reserve is reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss.

If the hedge no longer meets the criteria for hedge accounting or the hedging instrument is sold, expires, is terminated or is exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the cash flow hedging reserve remains in equity until, for a hedge of a transaction resulting in the recognition of a non-financial item, it is included in the non-financial item's cost on its initial recognition or, for other cash flow hedges, it is reclassified to profit or loss in the same period or periods as the hedged expected future cash flows affect profit or loss.

If the hedged future cash flows are no longer expected to occur, then the amounts that have been accumulated in the cash flow hedging reserve are immediately reclassified to profit or loss.

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Net investment hedges

When a derivative instrument or a non-derivative financial liability is designated as the hedging instrument, the effective portion of, for a derivative, changes in the fair value of the hedging instrument and, for a non-derivative, foreign exchange gains and losses is recognised in OCI and presented in the translation reserve within equity. Any ineffective portion is recognised immediately in profit or loss. The amount recognised in OCI is reclassified to profit or loss as a reclassification adjustment on disposal of the foreign operation.

(d.5) Impairment of financial assets other than trade accounts receivables

The Group recognises allowances for expected credit losses (ECLs) on financial assets measured at amortised cost, lease receivables, and loan commitments issued which are not measured at FVTPL.

The Group recognises ECLs equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition or credit-impaired financial assets, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

ECLs are a probability-weighted estimate of credit losses based on forward-looking and historical experience. Credit losses are measured as the present value of all cash shortfalls discounted by the effective interest rate of the financial asset.

The Group considers a financial asset to have low credit risk when its credit rating is equivalent to the globally understood definition of 'investment grade'. The Group recognises ECLs for low credit risk financial asset as 12-month ECLs.

The Group assumes that the credit risk on a financial asset has increased significantly if there are significant deterioration in credit rating, significant deterioration in the operating results of the debtor and existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

The Group considers a financial asset to be in default when the debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group takes actions such as realising security (if any is held).

(d.6) Write-off

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering. Subsequent recoveries of an asset that was previously written off, are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(d.7) Interest

Interest income and expense is recognised in profit or loss using the effective interest method. In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortised cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortised cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

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(e) Cash and cash equivalents

Cash and cash equivalents comprise cash balances, call deposits and highly liquid short-term investments which have a maturities of three months or less from the date of acquisition. Bank overdrafts that are repayable on demand are a component of financing activities for the purpose of the statement of cash flows.

(f) Trade accounts receivable

A trade receivable is recognised when the Group has an unconditional right to receive consideration. A trade receivable is measured at transaction price less allowance for expected credit loss. Bad debts are written off when incurred.

The Group estimates lifetime expected credit losses (ECLs), using a provision matrix to find the ECLs rates. This method groups the debtors based on shared credit risk characteristics and past due status, taking into account historical credit loss data, adjusted for factors that are specific to the debtors and an assessment of both current economic conditions and forward-looking general economic conditions at the reporting date.

(g) Inventories

Inventories are measured at the lower of cost and net realisable value. Cost is calculated using the weighted average cost principle. Cost includes direct costs incurred in acquiring the inventories. In the case of manufactured inventories and work-in-progress, cost includes an appropriate share of production overheads based on normal operating capacity. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

(h) Investment properties

Investment properties are measured at cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self-constructed assets includes capitalised borrowing costs.

No depreciation charged on freehold land.

(i) Property, plant and equipment

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

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes capitalised borrowing costs and the costs of dismantling and removing the items and restoring the site on which they are located including transfers from other comprehensive income of any gain or loss on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

Differences between the proceeds from disposal and the carrying amount of property, plant and equipment are recognised in profit or loss.

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Subsequent costs

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

Depreciation

Depreciation is calculated on a straight-line basis over the estimated useful lives of each component of an asset and recognised in profit or loss. No depreciation is provided on freehold land and assets under construction.

The estimated useful lives are as follows:

Buildings	10 - 50 years
Machinery, equipment refinery plants and terminal	2 - 50 years
Equipment solar plants	5 - 25 years
Marketing and office equipment	3 - 32 years
Vehicles	5 - 21 years
Other assets	21 years

Oil exploration and production assets

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

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

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

(j) Goodwill

Goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investee, the carrying amount of goodwill is included in the carrying amount of the investment.

(k) Other intangible assets

Intangible assets that have definite useful lives are measured at cost less accumulated amortisation and impairment losses. Subsequent expenditure is capitalised only when it will generate the future economic benefits. Amortisation is calculated on a straight-line basis over the estimated useful lives of intangible assets and recognised in profit or loss.

The estimated useful lives are as follows:

Right to use and cost of development of computer software	3 - 25 years
Right to connect electrical transmission line	20 - 25 years
Power purchase agreement	20 years
Power purchase agreement and assets under concession agreement	28 years
Customer contracts	1.3 - 25.3 years

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Exploration and evaluation expenditure

Exploration and evaluation expenditure is stated at cost as intangible assets and is accumulated in respect of each identifiable area of interest. These costs are capitalised until the viability of the area of interest is determined.

Accumulated costs in relation to an abandoned area are written off through profit or loss in the period in which the decision to abandon the area is made.

Once an area of interest enters the development phase, exploration and evaluation expenditures are transferred to oil and gas properties.

Service concession arrangements

The Group recognises intangible assets arising from a service concession arrangement when it has a right to charge for use of the concession infrastructure. An intangible asset received as consideration for providing construction services in a service concession arrangement is measured at fair value on initial recognition with reference to the fair value of the services provided. Subsequent to initial recognition, the intangible asset is measured at cost, which includes capitalised borrowing costs, less accumulated amortisation and accumulated impairment losses.

(l) Leases

At inception of a contract, the Group assesses that a contract is, or contains, a lease when it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

As a lessee

At commencement or on modification of a contract, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices of each component. For the leases of property, the Group has elected not to separate non-lease components and account for the lease and non-lease components wholly as a single lease component.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date, except for leases of low-value assets and short-term leases which are recognised as expenses on a straight-line basis over the respective lease terms.

Right-of-use asset is measured at cost, less any accumulated depreciation and impairment loss, and adjusted for any remeasurements of lease liability. The cost of right-of-use asset includes the initial amount of the lease liability adjusted for any prepaid lease payments made plus any initial direct costs incurred and an estimate of restoration costs, less any lease incentives received. Depreciation is charged to profit or loss on a straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment.

The lease liability is initially measured at the present value of all lease payments that shall be paid under the lease. The Group uses the Group's incremental borrowing rate to discount the lease payments to the present value. The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

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The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a lease modification, or a change in the assessment of options specified in the lease. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

As a lessor

At inception or on modification of a contract, the Group allocates the consideration in the contract to each component on the basis of their relative standalone selling prices.

At lease inception, the Group considers to classify a lease that transfers substantially all of the risks and rewards incidental to ownership of the underlying asset to lessees as a finance lease. A lease that does not meet this criteria is classified as an operating lease.

The Group recognises lease payments received under operating leases in profit or loss on a straight-line basis over the lease term as part of 'other income.' Contingent rents are recognised as rental income in the accounting period in which they are earned.

The Group estimates lifetime expected credit losses (ECLs), using a provision matrix to find ECLs rate. This method groups the lease receivables based on shared credit risk characteristics and past due status, taking into account historical credit loss data, adjusted for factors that are specific to the debtors and an assessment of both current economic conditions and forward-looking general economic conditions at the reporting date. The Group derecognises the lease receivables as disclosed in note 3(d).

(m) Impairment of non-financial assets

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised in profit or loss if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount, unless it reverses a previous revaluation credited to equity, in which case it is charged to equity.

The recoverable amount is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

An impairment loss of asset recognised in prior periods is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss in respect of goodwill is not reversed. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(n) Employee benefits

Defined contribution plans

Obligations for contributions to the Group's provident funds are expensed in profit or loss in the period as the related service is provided.

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Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in the current and prior periods. The defined benefit obligations is discounted to the present value, which performed every 3 years by a qualified actuary using the projected unit credit method.

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognised immediately in OCI. The Group determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognised in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

The Group's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. Remeasurements are recognised in profit or loss in the period in which they arise.

Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognises costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the end of the reporting period, then they are discounted.

Short-term employee benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(o) Share-based payments

The grant-date fair value of equity-settled share-based payment awards granted to employees is generally recognised as an expense, with a corresponding increase in equity, over the vesting period of the awards. The amount recognised as an expense is adjusted to reflect the number of awards for which the related service and non-market performance conditions are expected to be met, such that the amount ultimately recognised is based on the number of awards that meet the related service and non-market performance conditions at the vesting date. For share-based payment awards with non-vesting conditions, the grant-date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

(p) Provisions

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance cost.

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(q) Fair value measurement

'Fair value' is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

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

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

If an asset or a liability measured at fair value has a bid price and an ask price, then the Group measures assets and asset positions at a bid price and liabilities and liability positions at an ask price.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price – i.e. the fair value of the consideration given or received. If the Group determines that the fair value on initial recognition differs from the transaction price, the financial instrument is initially measured at fair value adjusted for the difference between the fair value on initial recognition and the transaction price and the difference is recognised in profit or loss immediately. However, for the fair value categorised as level 3, such difference is deferred and will be recognised in profit or loss on an appropriate basis over the life of the instrument or until the fair value level is transferred or the transaction is closed out.

(t) Share capital

Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares are recognised as a deduction from equity.

Treasury shares

When share capital recognised as equity is repurchased, the amount of consideration paid, including directly attributable costs, is classified as treasury shares and recognised as a deduction from equity. An equal amount is appropriated from retained earnings and taken to a reserve for treasury shares within equity. When treasury shares are sold, the amount received is recognised as an increase in equity by crediting the cost of the treasury shares sold, calculated using the weighted average method, to the treasury shares account and transferring the equivalent amount back from reserve for treasury shares to retained earnings. Surpluses on the sale of treasury shares are taken directly to a separate category within equity, ("Share premium on treasury shares"). Net deficits on sale or cancellation of treasury shares are debited to retained earnings after setting off against any remaining balance of surplus on treasury shares.

(u) Perpetual subordinated debentures

Perpetual subordinated debentures are recognised as equity when the Group has the sole right and discretion to early redeem the debentures per conditions as stipulated in the terms of the debentures and to defer interest and cumulative interest payment without time and deferral amount limitation and the coupon payments are discretionary. Accordingly, any coupon payments are accounted for as dividends and are recognised directly in equity at the time the payment obligation arises. Coupon payments are recognised in the statement of cash flows in the same way as dividends to ordinary shareholders.

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(v) *Revenue*

Revenue is recognised when a customer obtains control of the goods or services in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties, value added tax and is after deduction of any trade discounts and volume rebates.

Sale of goods and services rendered

Revenue from sales of goods is recognised on the date on which the goods are delivered to the customers. For the sales that permit the customers to return the goods, the Group estimates the returns based on the historical return data, does not recognise revenue and cost of sale for the estimated products to be returned.

For bundled packages, the Group recognises revenue from sales of products and rendering of services separately if a product or service is separately identifiable from other items and a customer can benefit from it or the multiple services are rendered in different reporting periods. The consideration received is allocated based on their relative stand-alone selling prices.

Revenue for rendering of services is recognised over time.

Income from sale of electricity

Income from the sale of electricity is recognised in profit or loss in accordance with delivery units supplied as stipulated in the contract. Income from the sale of electricity for some entities within Thailand is entitled to receive ADDER for a period of 10 years from the commencement of commercial sales. Thereafter, subsequent to this initial period income from sale of electricity is recognised at normal rates.

Income from operating rights

Income from operating right is recognised in accordance with the timing of the rights utilisation and with conditions as stipulated in the contract.

Loyalty programmes

For customer loyalty programmes that the Group offers to customers, the consideration received is allocated based on the relative stand-alone selling price of the products and the loyalty points. The amount allocated to the loyalty points is recognised as contract liabilities and revenue is recognised when loyalty points are redeemed or the likelihood of the customer redeeming the loyalty points becomes remote. The stand-alone selling prices of the points is estimated based on discount provided to customers and the likelihood that the customers will redeem the points. The estimate shall be reviewed at the end of the reporting period.

Service concession arrangements

Revenue related to construction under a service concession arrangement is recognised over time. Operation or service revenue is recognised in the period in which the services are provided by the Group. If the service concession arrangement contains more than one performance obligation, the consideration received is allocated with reference to the relative stand-alone selling prices of the services delivered.

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For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

(w) Income tax

Income tax expense for the year comprises current and deferred tax, which is recognised in profit or loss except to the extent that it relates to a business combination, or items recognised directly in equity or in other comprehensive income.

Current tax is recognised in respect of the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities, using tax rates enacted or substantively enacted at the reporting date.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(x) Earnings per share

Basic earnings per share (EPS) is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held.

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

4 Acquisition of businesses

4.1 Brage, Ivar Aasen and Nova fields

On 1 November 2022, OKEA ASA (“OKEA”), which is an indirect subsidiary of the Group, acquired a 35.20% working interest in the Brage field, a 6.46% working interest in the Ivar Aasen field and a 6.00% working interest in the Nova field from Wintershall Dea Norge AS (“Wintershall Dea”). The management estimates that if the acquisition had occurred on 1 January 2022, total revenues would have increased by Baht 5,142 million and profit before tax would have increased by Baht 2,255 million.

<i>Identifiable assets acquired and liabilities assumed</i>	Fair value 31 December 2022	Adjustment	Fair value 31 December 2023
		<i>(in million Baht)</i>	
Property, plant and equipment	6,392	-	6,392
Income tax receivable	592	55	647
Other current assets	1,575	-	1,575
Other non-current assets*	3,380	-	3,380
Right-of-use assets	62	-	62
Deferred tax liabilities	(2,260)	-	(2,260)
Provision for decommissioning cost	(6,875)	-	(6,875)
Lease liabilities	(62)	-	(62)
Total identifiable net assets	2,804	55	2,859
Goodwill	1,768	(15)	1,753
Consideration to be transferred	4,572	40	4,612

*Other non-current assets mainly consisted of indemnification assets which was expenses related to close down and removal of oil equipment of oil field, which could be collected from a seller of oil field.

The following summarises the major classes of consideration transferred, and the recognised amounts of assets acquired and liabilities assumed at the acquisition date:

Consideration to be transferred

	Recognised value <i>(in million Baht)</i>
Cash	4,198
Contingent consideration	414
Total	4,612

Contingent consideration

OKEA shall pay to Wintershall Dea an additional contingent consideration based on an Upside Sharing Arrangement subject to oil price level during the period 2022 - 2024. The provision for the contingent consideration is measured at fair value recognised in the income statement. The fair value is estimated using an Option Pricing Model.

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

Reconciliation of contingent consideration

	<i>(in million Baht)</i>
At 1 November 2022	414
Payment	(124)
Fair value adjustment	(44)
Effect of financial statements translation	(3)
At 31 December 2022	243
Payment	(74)
Fair value adjustment	40
Effect of financial statements translation	(15)
At 31 December 2023	194

4.2 Statfjord field

On 29 December 2023, OKEA ASA (“OKEA”), which is an indirect subsidiary of the Group, acquired a 28% working interest in the Statfjord field from Equinor Energy AS (“Equinor”). The management estimates that if the acquisition had occurred on 1 January 2023, total revenues would have increased by Baht 10,540 million and profit before tax would have increased by Baht 4,611 million.

The appraisal on the fair value of net assets acquired from acquisition of business has not yet been finalised, for which reason the net assets acquired are provisionally recognised at value based on management estimates. The result of the appraisal will be used to amend the accounting at fair value and to record the final determination of net assets acquired in the period that the appraisal is completed.

Identifiable assets acquired and liabilities assumed

	Fair value
	<i>(in million Baht)</i>
Property, plant and equipment	5,334
Indemnification assets	2,991
Deferred tax assets	3,825
Provision for decommissioning cost	(13,075)
Income tax payable	(394)
Other current payables	(215)
Total identifiable net liabilities	(1,534)
Provisional goodwill	7,792
Consideration to be transferred	6,258

The following summarises the major classes of consideration transferred, and the recognised amounts of assets acquired and liabilities assumed at the acquisition date:

Consideration to be transferred

	Recognised value
	<i>(in million Baht)</i>
Cash	5,687
Contingent consideration	571
Total	6,258

Contingent consideration

OKEA shall pay to Equinor an additional contingent consideration with contingent payment terms applicable for 2023 - 2025 for certain thresholds of realised oil and gas prices. The provision for the contingent consideration is measured at fair value recognised in the income statement.

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Bangchak Corporation Public Company Limited and its Subsidiaries

Reconciliation of contingent consideration

	<i>(in million Baht)</i>
At 29 December 2023	571
Effect of financial statements translation	-
At 31 December 2023	571

4.3 Asia Link Terminal Co., Ltd.

On 30 December 2022, the subsidiary entered into a share purchase agreement to acquire all shares of Asia Link Terminal Co., Ltd. (“ALT”) from Pan Asia Storage & Terminal Co., Ltd. (“Seller”) for an amount of not exceeding Baht 9,000 million. On 22 May 2023, the Board of Directors Meeting of the subsidiary approved an establishment of BCPG Energy Logistics Co., Ltd. (“BCPGEL”) incorporated in Thailand for the purpose of investing in oil terminal and seaport businesses in Phetchaburi Province. BCPGEL is wholly owned by the Company and has a registered capital amounting to Baht 1 million.

Subsequently, on 31 May 2023, all conditions under the share purchase agreement were satisfied by the Group and seller. All shares of ALT have been transferred to BCPGEL. During the period of acquisition date until 31 December 2023, the business contributed revenue of Baht 505 million and net profit of Baht 97 million to the Group’s results.

The Company’s management believes that the acquisition of this company, which operates an oil terminal and seaport business in Phetchaburi Province, is the investment in public utility infrastructure platform supporting the energy sector and other businesses in the future.

The Group has hired an independent appraiser to determine the fair value assets acquired and liabilities assumed at the acquisition date. However, the report on the review has not yet been finalised, and the fair value of net assets acquired from the acquisition of investment in subsidiary is provisionally recognised at value based on management estimates. The result of the appraisal will be subsequently used to amend the fair value of net assets acquired.

The following summaries the major classes of consideration transferred, and the recognised amounts of assets acquired and liabilities assumed at the acquisition date:

Consideration to be transferred

	Recognised value
	<i>(in million Baht)</i>
Cash	8,858
Contingent consideration	140
Total	8,998

As at 31 December 2023, the Group has paid the consideration of Baht 8,858 million.

Contingent consideration

The contingent consideration amounting to Baht 140 million will be paid when the conditions under a share purchase agreement are satisfied by the seller within 1 year from the acquisition date. The Group recognised this contingent consideration in the consolidated statement of financial position as at 31 December 2023.

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

<i>Identifiable assets acquired and liabilities assumed</i>	Book value	Adjustment <i>(in million Baht)</i>	Fair value
Property, plant and equipment	8,937	(2,450)	6,487
Intangible assets	-	651	651
Other current receivables	65	-	65
Deferred tax assets	-	490	490
Other current payables	(4)	-	(4)
Loans from seller	(4,940)	-	(4,940)
Deferred tax liabilities	-	(131)	(131)
Total identifiable net assets	4,058	(1,440)	2,618
Repayment of loans from seller under the condition of business acquisition	4,940		4,940
Net assets and liabilities acquired by the Group	8,998		7,558
Provisional goodwill			1,440
Consideration to be transferred			8,998

The fair value of oil terminal service agreements which was classified as intangible assets was determined based on income approach using Multi-period Excess Earning Method (MEEM). For the oil terminal service agreements with defined contract term and renewal, the remaining operating periods were approximately 1.3 years to 18.8 years. Other key assumptions included forecasted revenue and discount rate.

Acquisition-related costs

The Group incurred acquisition-related costs of Baht 8 million which were included in administrative expenses in the consolidated statement of income in the period which incurred.

4.4 Bangchak Sriracha Public Company Limited (formerly, ESSO (Thailand) Public Company Limited)

On 11 January 2023, the Company entered into a share purchase agreement to acquire 2,283,750,000 shares of ESSO (Thailand) Public Company Limited (“ESSO”) from ExxonMobil Asia Holding Pte. Ltd. (“ExxonMobil”) (accounting for 65.99% of the outstanding shares of ESSO as at 30 September 2022). The transaction excludes the acquisition of branded lubricants business and branded chemicals marketing business. After the purchase transaction had been completed, the Company had to make a tender offer for all the remaining of ESSO shares which no more than 1,177,108,000 shares (accounting for 34.01% of the outstanding shares of ESSO as at 30 September 2022) to acquire the shares from the tender offer at the same price as the purchase transaction. On 31 August 2023, the Company received the transfer of 2,283,750,000 shares in total amount of Baht 22,606 million or approximately Baht 9.8986 per share (accounting for 65.99% of the outstanding shares of ESSO). The management estimates that if the acquisition had occurred on 1 January 2023, total revenues would have increased by Baht 163,137 million and profit before tax would have increased by Baht 3,209 million.

The management believes that investment in ESSO strengthens the Group as a leading refinery and service station operator in Thailand.

On 5 September 2023, the Company made a tender offer to purchase the remaining securities of ESSO from its shareholders in which the offered price was Baht 9.8986 per share. The period of the tender offer had ended on 12 October 2023 and the shareholders of ESSO agreed to sell 358,407,198 shares, representing 10.36% of the total outstanding shares, amounting to Baht 3,548 million. As a result, the Company has ownership interest in ESSO at 76.34% of the shares.

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

The Company has combined the tender offer transaction of 10.36% which was the tendered and acquired share into a single transaction as the acquisition of 65.99% interest from ExxonMobil, resulted in 76.34% as interest in total as the Company must be execute a mandatory tender offer in accordance with the regulations of the Stock Exchange of Thailand and considered the tender offer period and the fixed tender offer price, which is the same as purchase price from ExxonMobil.

On 20 November 2023, ESSO (Thailand) Public Company Limited changed its registered company name to Bangchak Sriracha Public Company Limited.

The following summaries the major classes of consideration transferred, and the recognised amounts of assets acquired and liabilities assumed at the acquisition date:

Consideration to be transferred

	Recognised value <i>(in million Baht)</i>
Cash	22,606
Tender offer obligation	3,548
Total	26,154

As at 31 December 2023, the Company has paid the consideration of Baht 26,154 million.

Identifiable assets and liabilities assumed as at acquisition date (31 August 2023) are as follows.

<i>Identifiable assets acquired and liabilities assumed</i>	Book value	Adjustment <i>(in million Baht)</i>	Fair value
Cash and cash equivalents	4,237	-	4,237
Trade and other current receivables	11,192	-	11,192
Inventories	21,247	945	22,192
Other non-current financial assets	1,350	-	1,350
Investments in associate	2,149	3,559	5,708
Property, plant and equipment	22,511	16,239	38,750
Right-of-use assets	3,591	-	3,591
Intangible assets	79	878	957
Deferred tax assets	704	688	1,392
Other non-current assets	4,720	-	4,720
Short-term loan from financial institutions	(189)	-	(189)
Trade and other current payables	(15,173)	-	(15,173)
Corporate income tax payable	(755)	-	(755)
Long-term loan from financial institutions	(21,232)	-	(21,232)
Lease liabilities	(2,241)	-	(2,241)
Provisions for employee benefits	(3,503)	-	(3,503)
Deferred tax liabilities	-	(3,613)	(3,613)
Provision	-	(3,440)	(3,440)
Total identifiable net assets	28,687	15,256	43,943
<i>Less Non-controlling interests (23.66%)</i>			(10,400)
Net assets and liabilities acquired			33,543
Gain on bargain purchase			(7,389)
Consideration to be transferred			26,154

The gain on bargain purchase was recognised as a result of fair value of property, plant and equipment, especially land which the fair value was adjusted over cost as most of them were acquired since the Company incorporated, and inventory as a result of increasing in oil price.

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The fair value of the contracts made with counterparty which are classified as intangible assets was determined based on income approach using Multi-period Excess Earning Method (MEEM) and onerous contracts, which are classified as provision, was determined based on income approach using Direct Cash Flow Method (DCF). The contracts have a definite term and specified minimum quantity sales. The remaining terms of the contracts are 10.3 years and 8.3 years respectively. Other key assumptions included forecasted revenue and discount rate.

Acquisition-related costs

The Group incurred acquisition-related costs of Baht 441 million which were included in administrative expenses in the consolidated statement of income in the year which incurred.

4.5 SMP AS. Pte. Ltd.

In March 2023, Indochina Development and Operation Holdings Pte. Ltd. (“IDO”), the Group’s indirect subsidiary, entered into a share purchase agreement to acquire all shares of SMP AS. Pte. Ltd. (“SMPAS”) from SMP Consultation Sole Co., Ltd. (“Seller”) for an amount of not exceeding USD 10 million. The investment in SMPAS was defined as assets acquisition. SMPAS has the right from the Lao People’s Democratic Republic (“Lao PDR”) to invest in 10% of Monsoon Wind Power Co., Ltd. (“MWP”) which is a 600-megawatt wind power plant under concession and located in Lao PDR. Subsequently, on 17 May 2023, all conditions under the share purchase agreement were satisfied by IDO and the seller. IDO has already made the payment for and received the transfer of the shares. This acquisition resulted in an increase in the Group’s indirect ownership interest in MWP, formerly through Impact Energy Asia Development Limited, from 38.25% to 48.25%.

5 Related parties

A related party is a person or entity that has direct or indirect control or joint control, or has significant influence over the financial and managerial decision-making of the Group; a person or entity that are under common control or under the same significant influence as the Group; or the Group has direct or indirect control or joint control or has significant influence over the financial and managerial decision-making of a person or entity.

Relationships with subsidiaries, indirect subsidiaries, associates and joint ventures are disclosed in note 10 and 11.

<i>Significant transaction with related parties</i> <i>Year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Subsidiaries and indirect subsidiaries				
Sales of goods	-	-	47,486	59,401
Purchases of goods and services	-	-	100,006	88,248
Dividend income	-	-	505	814
Other income	-	-	1,150	135
Interest income	-	-	56	56
Other expenses	-	-	65	60
Associates and joint ventures				
Sales of goods	1	-	-	-
Purchases of goods and services	218	235	-	235
Dividend income	214	-	7	146
Other income	2	8	-	-
Interest income	91	23	-	-
Other expense	2	-	2	-

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Bangchak Corporation Public Company Limited and its Subsidiaries

<i>Significant transaction with related parties</i> <i>Year ended 31 December</i>	Consolidated financial statements		Separate financial statements				
	2023	2022	2023	2022			
	<i>(in million Baht)</i>						
Key management personnel							
Key management personnel compensation							
Short-term employee benefits	584	413	279	157			
Post-employment benefits and other long-term benefits	21	16	6	4			
Share-based payments	2	2	-	-			
Total key management personnel compensation	607	431	285	161			
Balance with related parties <i>At 31 December</i>	Consolidated financial statements		Separate financial statements				
	2023	2022	2023	2022			
	<i>(in million Baht)</i>						
Trade accounts receivable							
Subsidiaries and indirect subsidiaries	-	-	2,456	1,396			
Total	-	-	2,456	1,396			
Other current receivables							
Subsidiaries and indirect subsidiaries	-	-	421	24			
Associate and joint venture	1	1	-	-			
Total	1	1	421	24			
	Interest rate						
	Consolidated financial statements						
						Effect of	
	At 31	At 1			Convert	financial	At 31
Loans to	December	January	Increase	Decrease	loan to	statements	December
	(% p.a.)				Equity	translation	
					(in million Baht)		
2023							
Associate and joint venture							
Impact Energy Asia							
Development Limited	8.00	652	1,139	(1,265)	(536)	26	16
Nam Tai Hydropower Co., Ltd.	5.75	1,028	-	-	-	(10)	1,018
Total		1,680	1,139	(1,265)	(536)	16	1,034
<i>Less allowance for expected credit loss</i>		<i>(27)</i>					<i>-</i>
Net		1,653					1,034

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<i>Loans to</i>	<i>Interest rate</i>	Consolidated financial statements			
		At 31 December (% p.a.)	At 1 January	Increase (in million Baht)	Effect of financial statements translation
2022					
Associate and joint venture					
Impact Energy Asia Development Limited	4.70	411	236	5	652
Nam Tai Hydropower Co., Ltd.	5.75	-	1,083	(55)	1,028
Total		411	1,319	(50)	1,680
Less allowance for expected credit loss		(11)			(27)
Net		400			1,653

<i>Loans to</i>	<i>Interest rate</i>	Separate financial statements			
		At 31 December (% p.a.)	At 1 January	Increase (in million Baht)	Decrease
2023					
Subsidiaries					
BCPG Public Company Limited	4.45	-	2,500	-	2,500
Bangkok Fuel Pipeline and Logistics Co., Ltd.	1.75 - 4.00	810	-	(300)	510
Total		810	2,500	(300)	3,010
Less short-term loans to		-			(2,500)
Net		810			510

<i>Loans to</i>	<i>Interest rate</i>	Separate financial statements			
		At 31 December (% p.a.)	At 1 January	Decrease (in million Baht)	Effect of financial statements translation
2022					
Subsidiary					
Bangkok Fuel Pipeline and Logistics Co., Ltd.	1.75 - 4.00	922	(112)	-	810
Indirect subsidiary					
BCPR Pte. Ltd.	4.50	1,999	(1,761)	(238)	-
Total		2,921	(1,873)	(238)	810
Less short-term loan to allowance for expected credit loss		(922)			-
Net		1,036			810

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<i>Balance with related parties</i> <i>At 31 December</i>	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
<i>Other non-current assets</i>				
Subsidiary	-	-	-	102
Joint venture	83	50	-	-
Total	83	50	-	102
<i>(Reversal of) allowance for expected credit loss</i> <i>Year ended 31 December</i>				
Loans to	(28)	15	-	(985)
Total	(28)	15	-	(985)
<i>Trade accounts payable</i>				
Subsidiaries and indirect subsidiaries	-	-	9,980	9,371
Total	-	-	9,980	9,371
<i>Other current payables</i>				
Subsidiaries and indirect subsidiaries	-	-	245	118
Associates	35	-	-	-
Total	35	-	245	118
<i>Other current liabilities</i>				
Subsidiaries	-	-	6	6
Total	-	-	6	6
<i>Loans</i>	<i>Interest rate</i> At 31 December (% p.a.)	Consolidated financial statements		
2022		At 1 January	Decrease	At 31 December
Other related parties	-	17	(17)	-
Total		17	(17)	-

Significant agreements with related parties

Bio-diesel Sales and Purchase Agreement

The Company has entered into a Bio-diesel Sales and Purchase Agreement with an indirect subsidiary. Such agreement has effective since April 2018 to October 2027 and will be automatically renewed unless terminated by either party as stipulated in the agreement. The Company will purchase bio-diesel oil at yearly average volumes not less than 60% of maximum bio-diesel production capacity of indirect subsidiary at the price reference to market as stipulated in the agreement.

Denature Ethanol Sales and Purchase Agreement

The Company has entered into a Denatured Ethanol Sales and Purchase Agreement with a subsidiary. Such agreement has effective since April 2018 to October 2027 and will be automatically renewed unless terminated by either party as stipulated in the agreement. The Company will purchase denatured ethanol at yearly average volumes not less than 50% of denatured ethanol production per year of the indirect subsidiary within the same Group at the price reference to market as stipulated in the agreement.

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Fuel Product Sale and Purchase Agreement

The Company has entered into a fuel product sale and purchase agreement with a subsidiary. The Company will purchase fuel product at quantity and price in accordance with obligation under the agreement.

Service Station Operating Right Agreement

The Company has entered into Service Station Operating Right Agreement which include the right to operate related business within service station, selling and purchasing of fuel products with a subsidiary for a period of 5 years. Operating right fee and sale and purchase price are as stipulated in the agreement.

Store Operation Right Agreement

The Company has entered into Store Operation Right Agreement with a subsidiary to operate retail stores within service stations under the Company's brand for a period of 5 years. Fee is as stipulated in the agreement.

Information Technology Service Agreement

The Company has entered into information technology service agreements with subsidiaries and indirect subsidiaries. Agreements will be reviewed annually. The Company is responsible for management information system, system structure, maintenance system and advisory in accordance with subsidiaries' direction. Service fees is as stipulated in the agreement.

Management Service Agreement

The Company has entered into management service agreement with subsidiaries and indirect subsidiaries for general management service for a period of 1 to 3 years. The Company agreed to provide human resources to manage operation process in accordance with subsidiaries' direction. Service fees is as stipulated in the agreement.

Land Rental Agreement

The Company has entered into land rental agreement with BCPG Public Company Limited, which is of a subsidiary of the Group, for the purpose of 38-megawatt solar farm project at Bang Pa-In establishment and related objectives. The agreement term is for a period of 22 years effective from 1 December 2015 to 30 November 2037. The rental fee is as stipulated in the agreement.

The Company has entered into additional land rental agreement with BCPG Public Company Limited, which is a subsidiary of the Group, for the purpose of related objectives of solar farm project. The agreement term is for a period of 21 years 2 months effective from 1 October 2016 to 30 November 2037. The rental fee is as stipulated in the agreement.

Joint Development Area Agreement

The Company has entered into operating rights agreement with a subsidiary to operate a service and product distribution in service station under its subsidiary's operation for a period of not exceeding 20 years. The subsidiary agrees to pay operating right fee as stipulated in the agreement.

Personal Recruitment and Support Services Agreement

The Company has entered into personal recruitment and support service agreement with a subsidiary to provide recruitment service to the Company. The Company agrees to pay services fee as stipulated in the agreement. The agreement term is for a period of 2 years 3 months effective from 1 October 2021 to 31 December 2023.

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During December 2023, the Company has entered into personal recruitment and support service agreement with a subsidiary for providing recruitment to the Company. The agreement term is for a period of 2 years effective from 1 January 2024 to 31 December 2025.

Fuel Transportation Agreement

The Company has entered into a Fuel Transportation Agreement with a subsidiary. The subsidiary will provide transportation service of fuel products to Don-mueang and Suvarnabhumi International Airport and transportation service for petroleum products to fuel depot at Bang-pa-in. The agreement will expire in December 2041.

Lending Agreement

The Company has entered into an unsecured lending agreement with Bangkok Fuel Pipeline and Logistics Co., Ltd., which is a subsidiary of the Group, for the credit facility of Baht 810 million. The loan has a repayment schedule, bears interest and conditions as stipulated in the agreement. As at 31 December 2023, the outstanding balance of this loan is Baht 510 million (2022: Baht 810 million).

The Company has entered into unsecured short-term loan agreement with BCPG Public Company Limited, which is a subsidiary of the Group, for investing in combined cycle power generation plants in the United States of America with a repayment schedule, interest and conditions as stipulated in the agreement. As at 31 December 2023, the outstanding balance of loan is Baht 2,500 million. (2022: nil)

Guarantee Agreement

BCPG Public Company Limited (“BCPG”), which is a subsidiary of the Group, has entered into guarantee agreement with BCPG Engineering Company, an indirect subsidiary of the Group, in accordance with solar power system operation and maintenance of power system from solar energy contract which BCPG Engineering Company has with Tarumizu Solar Solutions Godo Kaisha in the event that BCPG Engineering Company causes damage to the assets within the power plant of Tarumizu Solar Solutions Godo Kaisha and is not able to compensate. The guarantee agreement is JPY 28 million per annum, with a guarantee facility totaling JPY 280 million, covering the period of operation and maintenance of power system from solar energy contract. Under the conditions within the loan agreement between Tarumizu Solar Solutions Godo Kaisha and certain financial institution in Japan, it is specified that the parent company is responsible for the guarantee of possible damage loss.

BCPG, which is a subsidiary of the Group, has entered into guarantee agreement for loans from financial institutions of a subsidiary, in the amount not exceeding USD 172 million. As at 31 December 2023, the balance of loans from financial institutions is USD 117 million (2022: USD 117 million) with a condition of installment payment of principal and interest within the year 2030.

Oil terminal service agreements

The Company has entered into a seaport and oil storage tank service agreement with an indirect subsidiary in which the subsidiary provides the services of receiving, storing and dispensing refined oil of the Company. The service agreement will expire in March 2033. The Company recorded the transaction as right-of-use assets and lease liabilities in the statement of financial position. However, the transaction was eliminated in the consolidated financial statement as disclosed in note 4.

Business support service agreements

The Company has entered into a business support service agreements with a subsidiary in which the Company shall provide consulting services in relation to business administration, operation, management, professional services, and other support services related to particular types of business and operations of the subsidiary. The agreement is effective from 31 August 2023 to 31 December 2024

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and the term is automatically extended by 1 year unless there is a mutual written letter to terminate the agreement. The service fee is as specified in the agreement.

Trademark and fuel formula licensing agreement

The Company has entered into an agreement which allows a subsidiary to use trademark and fuel formula to produce and sell fuel and/or providing services in Thailand. The agreement is effective from 31 August 2023 without a definite expiration date. Conditions and charges are as specified in the agreement.

6 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Cash on hand	143	118	-	-
Cash at banks - current accounts	11,869	7,393	222	256
Cash at banks - savings accounts	23,548	28,821	10,392	15,436
Highly liquid short-term investments	1,194	9,600	-	1,500
Total	36,754	45,932	10,614	17,192

As at 31 December 2023, certain subsidiaries and indirect subsidiaries has a restricted deposits at financial institution totaling Baht 1,122 million (2022: Baht 1,182 million) under the long-term loan agreement with several financial institutions which required such indirect subsidiaries to obtain a permission on withdrawal of restricted deposits with the financial institution.

7 Trade accounts receivables

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
<i>At 31 December</i>	<i>(in million Baht)</i>			
Within credit terms	21,378	11,648	6,630	6,549
Overdue:				
Less than 3 months	673	717	260	175
3 - 6 months	66	354	5	6
6 - 12 months	191	434	2	2
Over 12 months	1,523	289	18	25
Total	23,831	13,442	6,915	6,757
Less allowance for expected credit loss	(539)	(463)	(8)	(22)
Net	23,292	12,979	6,907	6,735

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
<i>Allowance for expected credit loss</i>	<i>(in million Baht)</i>			
At 1 January	463	76	22	3
Addition	78	372	8	19
Reversal	(23)	(3)	(22)	-
Acquired in business combination (Note 4)	25	-	-	-
Effect of financial statements translation	(4)	18	-	-
At 31 December	539	463	8	22

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

8 Other current receivables

	Note	Consolidated financial statements		Separate financial statements	
		2023	2022	2023	2022
		<i>(in million Baht)</i>			
Related parties	5	1	1	421	24
Other parties					
Receivable from excise department		2,325	-	-	-
Receivable from revenue department		1,326	1,295	705	609
Accrued income		1,191	1,518	-	-
Working capital and overcall, joint operation/licenses		1,037	1,364	-	-
Prepaid expenses		923	524	293	34
Underlift of petroleum products		478	2,078	-	-
Service station funding		329	-	-	-
Indemnification assets		281	-	-	-
Advance payment for goods		222	366	107	1
Receivable from oil hedging settlement		-	884	-	884
Others		1,869	1,190	974	809
Total		9,982	9,220	2,500	2,361

9 Inventories

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Crude oil and other raw materials	25,353	16,177	13,654	13,192
Finished oil products	19,187	11,527	9,131	10,562
Materials and supplies	3,657	2,264	1,087	1,201
Consumer products	125	102	-	-
Semi - finished products	100	81	-	-
	48,422	30,151	23,872	24,955
Less: allowance for obsolete and slow moving	(515)	(286)	(515)	(286)
allowance for decline in value	(67)	(332)	-	(324)
Net	47,840	29,533	23,357	24,345
Inventories recognised in cost of sale <i>(Note 25)</i>				
- Cost of sale	239,296	192,143	148,883	180,781
- (Reversal of) write-down to net realisable value	(265)	330	(324)	324
Total	239,031	192,473	148,559	181,105

As at 31 December 2023, the Group and the Company's inventories included petroleum legal reserve of 738 million liters with approximated value of 15,601 Baht million and 374 million liters with approximated value of Baht 7,972 million, respectively (2022: the Group and the Company 329 million liters with approximated value of 7,480 Baht million).

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Bangchak Corporation Public Company Limited and its Subsidiaries

10 Investments in subsidiaries

<i>Year ended 31 December</i>	Separate financial statements	
	2023	2022
	<i>(in million Baht)</i>	
At 1 January	18,573	16,492
Addition	28,918	1,945
Sale of investment	-	(16)
Reclassification	-	(3)
Reversal of loss from impairment	-	155
At 31 December	47,491	18,573

Change in investment in subsidiaries

BCPG Public Company Limited

During the year 2023, BCPG Public Company Limited (“BCPG”) issued the registered share capital for an exercise of warrant of BCPG No.1 (BCPG-W2) for 51,781 shares, issued the registered share capital for an exercise of warrant of BCPG No.2 (BCPG-W2) for 430,710 shares, issued the registered share capital for an exercise of warrant of BCPG No.3 (BCPG-W2) for 752,656 shares. On 16 October 2023, the Company exercised warrant of BCPG No. 2 (BCPG-W2) for 69,152,246 shares at exercise price of Baht 8 each, amounting to Baht 553 million. The Company’s ownership interest in BCPG has changed from 57.19% to 57.81% without change in control over BCPG.

Bangchak Treasury Center Company Limited

On 20 February 2023, at the Board of Directors’ meeting of the Company, the Board approved the establishment of Bangchak Treasury Center Company Limited (“BCTC”) for operating the business in the area of Treasury Center and International Business Center which is 100% owned by the Company. On 1 March 2023, BCTC registered the initial authorised share capital of Baht 10 million with Ministry of Commerce and the paid-up capital was fully received in March 2023.

BSGF Company Limited

On 20 July 2023, at the Board of Directors’ meeting of the Company, the Board approved the restructuring and the Company’s ownership interest in BSGF to increase from 51% to 79.9971%. On 4 September 2023, the Company paid the increased shareholding amounting to Baht 58 million.

Subsequently on 29 August 2023, the extraordinary general meeting of BSGF passed a resolution to increase share capital No.1 of the year 2023 amounting to Baht 1,201 million by issuing of 94.88 million ordinary shares and 25.22 million preferred shares with par value Baht 10 per share. The Company already paid for an increase in share capital amounting to Baht 800 million in September 2023. BSGF registered this increase in share capital in October 2023.

On 6 September 2023, BSGF registered the increase in share capital which the Company paid in 2022 amounting to Baht 102 million and the payment for increase in share capital made during the period to register for the increase in share capital.

In addition, on 10 October 2023, the extraordinary general meeting of BSGF passed a resolution to increase share capital No.2 of the year 2023 amounting to Baht 2,201 million by issuing of 173.88 million ordinary shares and 46.22 million preferred shares with par value Baht 10 per share. The Company paid for an increase in share capital Baht 800 million in October 2023 and BSGF has registered for this increase in share capital in the same month.

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Bangchak Corporation Public Company Limited and its Subsidiaries

Refinery Optimization and Synergy Enterprise Company Limited

On 21 September 2023, at the Board of Directors' meeting of the Company, the Board approved the establishment of Refinery Optimization and Synergy Enterprise Company Limited ("ROSE") for providing planning and management services to the refinery business of the Company and Bangchak Sriracha Public Company Limited (formerly, ESSO (Thailand) Public Company Limited) which is 50% owned by the Company. On 3 October 2023, ROSE registered the initial authorised share capital of Baht 1 million with the Ministry of Commerce and the paid-up capital was fully received in November 2023.

Share purchase agreements during the year which are in the progress of completing of conditions in the share purchase agreements

On 28 September 2023, BCPG Public Company Limited ("BCPG")'s Board of Director, approved an investment in solar power plant project with the total installed capacity of 13 megawatts for an amount of not exceeding Baht 477 million by purchasing 100% ownership interests in BS Solar Energy Company Limited, Parabolic Solar Power Company Limited and a newly setup subsidiary, which is set to acquire relevant assets of the solar power plant of Green Tech Venture Public Company Limited ("Seller"). Subsequently, on 15 November 2023, BSE Power Holding (Thailand) Co., Ltd. ("BSPH"), the Group's indirect subsidiary, entered into the share purchase agreement with the seller. As at 31 December 2023, BSPH and the seller are in the progress of completing conditions stipulated in the share purchase agreement.

On 28 September 2023, BCPG's Board of Directors approved a divestment of 9 solar power plant projects in Japan with the total installed capacity of 117 megawatts to Obton A/S group ("Buyer") with a total purchase consideration of JPY 28,712 million (approximately Baht 6,935 million) through the consummation of the following transactions:

1. Sale of common shares in BCPG Japan Corporation ("BCPGJ"), which is an indirect subsidiary of the Group offering operation and maintenance service to the solar power plants in Japan and owner of TK investment in 1 solar power plant consisted of BCPG Japan Corporation, BCPG Engineering Company, Tarumizu Solar Solutions Godo Kaisha, Godo Kaisha Phoenix, Komagane Land Lease Godo Kaisha, Nagi Land Lease Godo Kaisha, Godo Kaisha Inti, J2 Investor Godo Kaisha, Gotenba 1 PV Godo Kaisha and Gotenba 2 PV Godo Kaisha.
2. Sale of TK investments in 7 solar power plant projects ("TK Interests") consisted of Nakatsugawa PV Godo Kaisha, Takamori PV Godo Kaisha, Nojiri PV Godo Kaisha, Kichisawa PV Godo Kaisha, Yabuki PV Godo Kaisha, Komagane PV Godo Kaisha and Godo Kaisha Tarumizu Takatoge.
3. Sale of common shares in Huang Ming Japan Company Limited ("HMJ"), which is an indirect subsidiary of the Group and owner of TK investment in 1 solar power plant.

Subsequently, on 1 December 2023, the Group entered into the share purchase agreement with the buyer and received an advance payment from the divestment for an amount of JPY 250 million (approximately Baht 61 million). As at 31 December 2023, the Group and the buyer are in progress of completing conditions as stipulated in the share purchase agreement.

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

Investments in subsidiaries as at 31 December 2023 and 2022 and dividend income from the investment for each year were as follows:

	Note	Nature of business	Ownership interest (%)		Paid-up capital		Cost		Impairment		At cost - net		Dividend income for the year	
			2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Subsidiaries														
Bangchak Green Net Co., Ltd.		Manage service station administration	49.00	49.00	1	1	-	-	-	-	-	-	41	69
BCPG Public Company Limited		Operates solar farms and investment in alternative energy business	57.81	57.19	14,979	14,538	10,333	9,780	-	-	10,333	9,780	432	615
Bangchak Sriracha Public Company Limited (Formerly, ESSO Limited)	4	Operates oil refinery and manage service station administration	76.34	-	17,075	-	26,595	-	-	-	26,595	-	-	-
Bangchak Retail Co., Ltd.		Operates food business and drink business under brand Inthanin	100.00	100.00	1,500	1,500	1,500	1,500	-	-	1,500	1,500	-	-
BCP Innovation Pte. Ltd.		Operates in the lithium mining business and other startup businesses	100.00	100.00	1,790	1,790	1,790	1,790	-	-	1,790	1,790	-	-
BCP Trading Pte. Ltd.		Operates in commodity trading including crude oil, petroleum products, petrochemicals and other chemical products	100.00	100.00	991	991	707	707	-	-	707	707	-	-
BBGI Public Company Limited		Operates manufactures and distributing biofuel product and high-tech health care and promotion products	45.00	45.00	3,615	3,615	2,145	2,145	-	-	2,145	2,145	32	130
BCPR Co., Ltd.		Investment in natural resource businesses	100.00	100.00	661	661	661	661	(162)	(162)	499	499	-	-
BCV Energy Co., Ltd.		Investment in domestic startups relating to energy innovation	100.00	100.00	1,020	1,020	1,020	1,020	-	-	1,020	1,020	-	-
BCV Innovation Co., Ltd.		Investment in domestic startups relating to innovation	100.00	100.00	165	165	165	165	-	-	165	165	-	-

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Bangchak Corporation Public Company Limited and its Subsidiaries

	Nature of business	Ownership interest (%)		Paid-up capital		Cost		Impairment		At cost - net		Dividend income for the year	
		2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Subsidiaries													
BTSG Co., Ltd.	Operates in supply and distribution of liquefied natural gas	51.00	51.00	200	200	102	102	-	-	102	102	-	-
General Energy Manning Co., Ltd.	Operates business of recruitment and human resource management	49.00	49.00	1	1	-	-	-	-	-	-	-	-
Bangkok Fuel Pipeline and Logistics Co., Ltd.	Operates a fuel delivery service through an underground fuel pipeline system	100.00	100.00	800	800	800	800	-	-	800	800	-	-
BSGF Co., Ltd.	Procurement of raw materials, production and distribution of Sustainable Aviation Fuel	80.00	51.00	2,201	1	1,760	1	-	-	1,760	1	-	-
Oam Suk Social Enterprise Co., Ltd.	Operates in purchase of agricultural produce and organic crops for processing, marketing, distribution, and R&D	50.40	50.40	126	126	64	64	-	-	64	64	-	-
Bangchak Treasury Center Company Limited	Operates treasury center for group company	100.00	-	10	-	10	-	-	-	10	-	-	-
Refinery Optimization and Synergy Enterprise Company Limited*	Operates in planning and refinery management service	50.00	-	1	-	1	-	-	-	1	-	-	-
Total				47,653	18,735	(162)	47,491	18,573	505	814			

* Refinery Optimization and Synergy Enterprise Company Limited was 50 percent held by the Company and 50 percent held by Bangchak Siriracha Public Company Limited (76.34% Subsidiary).

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Bangchak Corporation Public Company Limited and its Subsidiaries

Companies under the Company's subsidiaries included in the preparation of the consolidated financial statements are:

Company's name	Nature of business	Country of incorporation	Ownership interest	
			2023	2022
<u>Held by subsidiaries</u>				
Winnonie Company Limited	Operates in electric motorcycles and battery replacement services	Thailand	55.49	55.49
Bangchak Solar Energy Co., Ltd.	Solar power plant	Thailand	100	100
Bangchak Solar Energy (Prachinburi) Co., Ltd.	Solar power plant	Thailand	100	100
Bangchak Solar Energy (Chaiyaphum1) Co., Ltd.	Solar power plant	Thailand	100	100
Bangchak Solar Energy (Buriram) Co., Ltd.	Solar power plant	Thailand	100	100
Bangchak Solar Energy (Buriram1) Co., Ltd.	Solar power plant	Thailand	100	100
Bangchak Solar Energy (Nakhon Ratchasima) Co., Ltd.	Solar power plant	Thailand	100	100
Thai Digital Energy Development Company Limited	Solar rooftop	Thailand	75	75
BCPG Indochina Company Limited	Holding company	Thailand	100	100
BCPG Wind (Ligor) Co., Ltd.	Wind power plant	Thailand	100	100
BSE Power Holding (Thailand) Co., Ltd.	Holding company	Thailand	100	100
BCPG Energy Logistics Co., Ltd.	Holding company	Thailand	100	-
BSE Power (Kanchanaburi) Co., Ltd. Group	Solar power plant	Thailand	99.99	99.99
Asia Link Terminal Co., Ltd.	Oil terminal and seaport	Thailand	100	-
BBGI Bioethanol Public Company Limited	Manufactures and distributing ethanol	Thailand	100	100
BBGI Bio Diesel Co., Ltd.	Manufactures and distributing biodiesel and by-products	Thailand	70	70
BBGI Bioethanol (Chachoengsao) Co., Ltd.	Manufactures and distributing ethanol	Thailand	100	85
BBGI Utility and Power Co., Ltd.	Operates a business providing public utilities and energy services	Thailand	100	100
BBGI Fermbox Bio Company Limited	Operates contract development and manufacturing organization (CDMO) platform for synthetic biology products with precision fermentation technology	Thailand	100	-
Mobil Enterprises (Thailand) Limited*	Distributing and transport petroleum products	Thailand	99.99	-
Industry Promotion Enterprises Limited	Operates in real estate for lease	Thailand	100	-
United Industry Development Company Limited and its subsidiaries	Operates in real estate for lease	Thailand	100	-
Pacesetter Enterprises Limited	Operates in real estate for lease	Thailand	100	-
Nam San 3A Power Sole Co., Ltd.	Hydropower plant	Laos	100	100
Nam San 3B Power Sole Co., Ltd.	Hydropower plant	Laos	100	100
BCPR Pte. Ltd.	Investment in foreign energy, petrochemical and natural resource businesses	Singapore	100	100
BCPG Investment Holdings Pte. Ltd.	Holding company	Singapore	100	100
BSE Energy Holdings Pte. Ltd.	Holding company	Singapore	100	100
Indochina Development and Operation Holdings Pte. Ltd.	Holding company	Singapore	100	100
Greenery Holdings Pte. Ltd.	Investment in Japan's solar project as TK investor	Singapore	100	100

*The dissolution registered and in the process of liquidation.

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Company's name	Nature of business	Country of incorporation	Ownership interest	
			2023	2022
(%)				
<u>Held by subsidiaries (continued)</u>				
Greenergy Power Pte. Ltd.	Investment in Japan's solar project as TK investor	Singapore	100	100
SMP AS. Pte. Ltd.	Holding company	Singapore	100	100
BCPG Formosa Co., Ltd. Group	Solar power plant	Taiwan	100	100
BCPG Japan Corporation Group	Project development, construction and operation management and manage investments in power plant project in Japan	Japan	100	100
BCPG Wind Cooperatief U.A.	Holding company	Netherland	100	100
OKEA ASA	Operates in Norway's oil and gas exploration, development and production	Norway	45.44	45.46
BCPG USA Inc.	Holding company	United States	100	-
BCPG Hamilton US Acquisition Co. LLC	Holding company	United States	100	-
BCPG CCE Holding LLC	Holding company	United States	100	-

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Bangchak Corporation Public Company Limited and its Subsidiaries

Non-controlling interests

The following table summarises the information relating to each of the Group's subsidiaries and indirect subsidiaries that have a material non-controlling interest, before any intra-group eliminations:

	BCPG Public Company Limited		BBGI Public Company Limited		Bangchak Sriracha Public Company Limited	OKEA ASA	
	For the year ended 31 December		For the year ended 31 December		For the period from 31 August to 31 December	For the year ended 31 December	
	2023	2022	2023	2022	2023	2023	2022
	<i>(in million Baht)</i>						
Non-controlling interest percentage	42%	43%	55%	55%	24%	55%	55%
Current assets	12,335	22,928	4,940	5,138	36,408	15,073	12,874
Non-current assets	61,905	33,282	8,695	8,968	34,744	47,457	42,250
Current liabilities	(11,812)	(3,462)	(2,866)	(1,467)	(22,618)	(18,388)	(10,083)
Non-current liabilities	(32,816)	(23,472)	(832)	(2,358)	(20,040)	(41,689)	(37,708)
Net assets	29,612	29,276	9,937	10,281	28,494	2,453	7,333
Carrying amount of non-controlling interest	12,470	12,563	5,278	6,083	10,504	(692)	3,999
Revenue	5,031	5,405	13,757	13,374	71,600	28,847	23,349
Profit (loss) attribute to the Company	1,104	2,630	10	20	(31)	(3,080)	2,435
Other comprehensive income (loss)	(721)	389	(256)	(895)	(220)	(431)	(452)
Total comprehensive income (loss)	383	3,019	(246)	(875)	(251)	(3,511)	1,983
Profit allocated to non-controlling interest	471	1,120	5	11	(7)	(1,680)	1,399
Dividends to non-controlling interest	324	456	40	159	-	370	591
Cash flows from operating activities	3,230	2,981	816	500	(9,196)	16,754	11,738
Cash flows from investing activities	(29,294)	12,344	649	(1,652)	(616)	(10,263)	(8,530)
Cash flows from financing activities	15,451	(6,223)	(619)	2,183	6,551	(2,138)	(7,191)

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Bangchak Corporation Public Company Limited and its Subsidiaries

11 Investments in associates and joint ventures

<i>Year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Associates				
At 1 January	557	13,486	235	-
Acquired in business combination (Note 4)	5,708	-	-	-
Dividend income	(181)	-	-	-
Share of net profit of associates	275	112	-	-
Share of other comprehensive income (loss) of associates	(441)	-	-	-
Effect of financial statements translation	(166)	(282)	-	-
Addition	10,039	563	-	231
Disposal	-	(12,148)	-	-
Reclassification	-	(1,174)	-	4
At 31 December	15,791	557	235	235
Joint ventures				
At 1 January	1,295	184	72	73
Dividend income	(33)	(146)	-	-
Share of net profit of joint ventures	65	76	-	-
Share of other comprehensive income of joint ventures	223	-	-	-
Effect of financial statements translation	(374)	(54)	-	-
Addition	11,454	37	-	-
Return of investment from business dissolution	(72)	-	(72)	-
Reclassification	-	1,198	-	(1)
At 31 December	12,558	1,295	-	72
Total				
At 1 January	1,852	13,670	307	73
Acquired in business combination (Note 4)	5,708	-	-	-
Dividend income	(214)	(146)	-	-
Share of net profit of associates and joint ventures	340	188	-	-
Share of other comprehensive income (loss) of associates and joint ventures	(218)	-	-	-
Effect of financial statements translation	(540)	(336)	-	-
Addition	21,493	600	-	231
Disposal	-	(12,148)	-	-
Return of investment from business dissolution	(72)	-	(72)	-
Reclassification	-	24	-	3
At 31 December	28,349	1,852	235	307

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Bangchak Corporation Public Company Limited and its Subsidiaries

Changes in investments in associates and joint ventures

PetroWind Energy Inc.

On 20 December 2022, the Board of Directors' meeting of PetroWind Energy Inc. ("PWEI"), a joint venture of BCPG Wind Cooperatief U.A. ("BCPGW"), which is an indirect subsidiary of the Group, has approved a capital increase of Philippine Peso 156 million from the original registered capital of Philippine Peso 1,900 million to Philippine Peso 2,056 million. During the year 2023, PWEI called for payment of the new shares issued amounting to Philippine Peso 521 million and BCPGW paid 40% share of such amount total amount according to its percentage of ownership interest, amounting to Philippine Peso 208 million (approximately Baht 135 million).

Bongkot Marine Services Company Limited

On 9 November 2023, the Extraordinary General Meeting of Bongkot Marine Services Company Limited ("BMS"), a joint venture of the Group, in which the Group directly holds 30% of total issued and paid-up shares of BMS, has approved the dissolution and liquidation of BMS and already registered its dissolution with the Department of Business Development, Ministry of Commerce on 10 November 2023 and the process of its respective liquidation shall proceed in due course. During the year 2023, BMS returned the investment to the Company amounting to Baht 72 million. The above-mentioned dissolution of BMS will not have any impact on the Group's operating results.

Pathumwan Smart District Cooling Co., Ltd.

On 3 January 2023, the Extraordinary General Meeting of Pathumwan Smart District Cooling Co., Ltd. ("PSDC"), which is the Group's indirect associate, approved an increase in the registered capital by Baht 340 million, from Baht 50 million to Baht 390 million, by issuing additional 3.4 million shares at a par value of Baht 100 each. In January 2023, PSDC called up the share capital amounting to Baht 85 million and the Group made the payment of 44% ownership amounting to Baht 37 million.

Investment in combined cycle power generation plants

On 24 January 2023, the Board of Directors' Meeting of a subsidiary approved an investment in combined cycle power generation plants in the United States of America. On 15 February 2023, the subsidiary established an indirect subsidiary, BCPG USA Inc. ("BUSA") with USD 65 million share capital in the United States for the purpose of investing in power plants which is 100% owned.

On 17 February 2023, BUSA, which is the Group's indirect subsidiary, entered into a share purchase agreement with AP Carroll County Holdings LLC ("APCCH") and AP South Field Holdings LLC ("APSFH"). Subsequently, on 27 February 2023, USA received the transfers of and made the payment for 49% membership interest of AP-BCPG CCE Partners LLC from APCCH and 49% membership interest of AP-BCPG SFE Partners LLC from APSFH with total amount of USD 115 million (approximately Baht 4,000 million). This transaction has transaction costs relating to this investment amounting to USD 2 million (approximately Baht 85 million). This acquisition contributes a combined cycle power generation capacity of 151 megawatts to the Group.

On 31 March 2023, BUSA has entered into a share purchase agreement with Franklin Power Holdings LLC ("Seller") for an acquisition of 25% of Hamilton Holdings II LLC ("HHII") for the purpose of investing in combined cycle power generation plants in the United States of America. Subsequently, on 12 July 2023, BCPG Hamilton US Acquisition Co. LLC ("BHUA"), BUSA's subsidiary, received transfers of shares and made the payment amounting to USD 260 million (approximately Baht 9,054 million). This transaction has transaction costs relating to the investment amounting to USD 5 million (approximately Baht 170 million) and liability from adjusting investment amount in accordance with net working capital and liabilities of HHII on the completion date amounting to USD 22 million

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Bangchak Corporation Public Company Limited and its Subsidiaries

(approximately Baht 778 million) which presented as other non-current financial liabilities in the statement of financial position. This liability is subjected to the same interest rate as HHII's average borrowing interest rate with a repayment condition by deducting 20% of dividends from HHII until the principal liability and interest are repaid in full. This investment contributes the installed capacity of totaling 426 megawatts to the Group, proportionated to the percentage of shareholding. Hamilton Holdings II LLC holds 100% shares in Hamilton Liberty LLC and Hamilton Patriot LLC that has an installed capacity of 848 megawatts and 857 megawatts, respectively. As a result, the subsidiary indirectly owes a membership in such projects of 25% and 25%, respectively.

On 4 August 2023, BUSA entered into a Purchase and Sale Agreement with 730 Carroll LLC ("Seller") to acquire 40% shares of Carroll County Energy Holdings LLC ("CCEH"), with an amount not exceeding USD 145 million (approximately Baht 5,031 million). CCEH has 100% membership interest in Carroll County Energy LLC ("CCE"), which operates a 700-megawatt combined cycle power generation plant project located in Carroll County, Ohio, United States. This acquisition will result in an increase in the Group's membership interest in CCE, formerly through AP-BCPG CCE Partners LLC, from 9% to 49%. This transaction will also affect an increase in the Group's generation capacity proportionated to the membership interest from 61 megawatts to 341 megawatts. Subsequently, on 12 October 2023, the Group established BCPG CCE Holding LLC ("BCPG CCE"), incorporated in the United States of America, and wholly owned by BUSA, which is the Group's subsidiary, for the purpose of holding the investment in CCEH. On 31 October 2023, BCPG CCE received the shares transferred and has already made the payment for the membership interests with the total amount of USD 142 million (approximately Baht 5,108 million). This transaction has transaction costs relating to this investment amounting to USD 5 million (approximately Baht 183 million).

Impact Energy Asia Development Limited

During the year 2023, IEAD increased and called up the capital by USD 98 million, from HKD 200 to HKD 200 and USD 98 million. IEAD and IDO entered into the debt-to-equity conversion agreement for the payment of 45% for such amount following its ownership interest, by converting loans to IEAD amounting to USD 15 million and interest receivable amounting to USD 1 million to an investment in ordinary shares totaling USD 16 million (approximately Baht 546 million). IDO made the payment amounting to USD 28 million (approximately Baht 993 million).

Monsoon Wind Power Company Limited

During the year 2023, the Board of Directors of Monsoon Wind Power Co., Ltd. ("MWP") which operates a wind power project under development in Lao PDR with installed capacity of 600 megawatts and IEAD (the Group's indirect joint venture) and SMP AS. Pte. Ltd. ("SMPAS", the Group's indirect subsidiary) have 85% and 10% ownership interests, respectively, approved the call-up of share capital amounting to USD 113 million. IEAD and SMPAS made the payment of their percentage of ownership totaling USD 96 million and USD 11 million, respectively (approximately Baht 3,379 million and Baht 398 million, respectively).

Smart EV Bike Company Limited

On 22 June 2023, the Board of Director's Meeting of the Company approved Winnonie Company Limited ("WNN") to establish Smart EV Bike Co., Ltd. ("SEB"), an indirect joint venture of the Group for the purpose of operating in the business of hire purchase of EV bikes for motorcycle taxi drivers which is 33% owned by WNN. On 3 November 2023, SEB has a registered share capital of Baht 20 million with Ministry of Commerce and the paid-up capital was fully received in November 2023.

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Investments in associates and joint ventures as at 31 December 2023 and 2022 and dividend income for each year were as follows:

Consolidated financial statements																	
	Note	Nature of business	Ownership interest (%)		Paid-up capital		Cost		Equity		Impairment		At equity - net		Dividend income for the year		
			2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	
(in million Baht)																	
Associates																	
Keha Sukpracha Public Company Limited		Operates in rental business and sale of real estate and movable goods	25.00	25.00	500	500	125	125	52	102	-	-	52	102	-	-	
BIOM Co., Ltd.		Operates a business of research and development of bio-based products	20.00	20.00	69	69	83	83	77	81	-	-	77	81	-	-	
Data Cafe Co., Ltd.		Operates in services providing for personnel in information technology for business	35.00	35.00	12	12	35	35	42	36	-	-	42	36	1	-	
Mee Tee Mee Ngern Co., Ltd.		Operates a land loan and consignment business	20.00	20.00	1,000	1,000	200	200	206	196	-	-	206	196	-	-	
Transitus Energy Ltd.		Operates in hydrogen energy business	40.10	40.10	-	-	34	34	34	34	-	-	34	34	-	-	
Nam Tai Hydropower Co., Ltd.		Hydro power plant and transmission line system	25.00	25.00	319	319	90	90	17	87	-	-	17	87	-	-	
Prathumwan Smart District Cooling Co., Ltd.		Installing and managing District Cooling system	44.00	44.00	50	50	59	22	58	21	-	-	58	21	-	-	
Thai Petroleum Pipeline Co., Ltd.		Operates pipelines transportation of petroleum products	20.78	-	-	8,479	5,708	-	5,637	-	-	-	5,637	-	180	-	
Hamilton Holdings II LLC	4	Investing in combined cycle power generation plant	25.00	-	-	2,190	10,002	-	9,668	-	-	-	9,668	-	-	-	
							16,336	589	15,791	557			15,791	557	181		

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Bangchak Corporation Public Company Limited and its Subsidiaries

Consolidated financial statements

(in million Baht)

Nature of business	Ownership interest (%)		Paid-up capital		Cost		Equity		Impairment		At equity - net		Dividend income for the year		
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	
Joint ventures															
Bongkot Marine Services Co., Ltd.	-	30.00	-	240	-	72	-	79	-	-	-	-	79	6	146
PetroWind Energy Inc.	40.00	40.00	1,319	988	1,094	959	1,342	1,182	-	-	1,342	1,182	-	-	-
Impact Energy Asia Development Limited	45.00	45.00	3,419	-	1,539	-	1,509	-	-	-	1,509	-	-	-	-
WIN Ingredients Co., Ltd.	51.00	51.00	81	81	41	41	26	34	-	-	26	34	-	-	-
AP-BCPG CCE Partners LLC	49.00	-	1,668	-	1,669	-	1,719	-	-	-	1,719	-	-	27	-
AP-BCPG SFE Partners LLC	49.00	-	2,190	-	2,415	-	2,563	-	-	-	2,563	-	-	-	-
Monsoon Wind Power Co., Ltd.	48.25	38.25	3,976	-	312	-	387	-	-	-	387	-	-	-	-
Carroll County Energy Holdings LLC	40.00	-	9,003	-	5,291	-	5,005	-	-	-	5,005	-	-	-	-
Smart EV Bike Co., Ltd.	18.48	-	20	-	7	-	7	-	-	-	7	-	-	-	-
Total			12,368	1,072	12,558	1,295	12,558	1,295	-	-	12,558	1,295	33	146	
			28,704	1,661	28,349	1,852	28,349	1,852	-	-	28,349	1,852	214	146	

As at 31 December 2023, none of the Group's equity-accounted investee is publicly listed and consequently does not have published price quotations.

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

	Separate financial statements						Dividend income for the year					
	Ownership interest (%)		Paid-up capital		Cost		Impairment		At cost - net		for the year	
Nature of business	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Associates												
Data Cafe Company Limited	35.00	35.00	12	12	35	35	-	-	35	35	1	-
Mee Tee Mee Ngern Co., Ltd.	20.00	20.00	1,000	1,000	200	200	-	-	200	200	-	-
Total			235	235	235	235	-	-	235	235	1	-
Joint venture												
Bongkot Marine Services Co., Ltd.	-	30.00	-	240	-	72	-	-	-	72	6	146
Total			235	307	235	307	-	-	235	307	7	146

As at 31 December 2023, none of the Company's equity-accounted investee is publicly listed and consequently does not have published price quotation.

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

Material associate and joint ventures

The following table summarises the financial significant information of the material associate and joint ventures as included in their own financial statements, adjusted for fair value adjustments at acquisition and differences in accounting policies. The table also reconciles the summarised financial information to the carrying amount of the Group's interest in these companies.

For the year ended 31 December 2023

Statement of comprehensive income	Hamilton Holdings II LLC	AP-BCPG CCE Partners LLC	AP-BCPG SFE Partners LLC <i>(in million Baht)</i>	Carroll County Energy LLC	Thai Petroleum Pipeline Co., Ltd.
Revenue	27,515	-	-	5,850	3,619
Net profit	8,925	61	215	328	1,738
Other comprehensive income (loss)	(1,726)	175	162	1,936	-
Total comprehensive income (100%)	7,199	236	377	2,264	1,738
Less total comprehensive income (loss) from 1 January to the day before acquisition	(7,871)	-	-	(2,299)	251
Group's interest of total comprehensive income (loss)	(168)	116	185	(14)	110
Fair value adjustment and accounting policies difference	-	(12)	2	(11)	-
Group's share of total comprehensive income (loss)	(168)	104	187	(25)	110

At 31 December 2023

Statement of financial position

Current assets	3,606	1	-	1,889	3,794
Non-current assets	46,789	1,771	2,191	21,603	8,107
Current liabilities	(1,613)	-	-	(1,733)	(657)
Non-current liabilities	(27,095)	(1)	(3)	(12,803)	(1,238)
Net assets (100%)	21,687	1,771	2,188	8,956	10,006
Group's share of net assets	5,422	868	1,072	3,582	2,078
Fair value adjustment, difference in accounting policies, and goodwill	4,246	851	1,491	1,423	3,559
Carrying amount of investments in an associate and joint ventures	9,668	1,719	2,563	5,005	5,637

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

12 Investment properties

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Cost				
At 1 January	127	127	683	683
At 31 December	127	127	683	683
Depreciation and impairment losses				
At 1 January	-	-	-	-
At 31 December	-	-	-	-
Net book value				
At 31 December	127	127	683	683

The leases of investment properties comprise a number of commercial properties that are leased to BCPG Public Company Limited, which is a subsidiary of the Group (*see note 5*), are leased to third parties under operating leases. Each of the leases contains an initial non-cancellable period of 2 - 3 years. Subsequent renewals are negotiated with the lessee. For investment property leases, the rental income is specified the rate under the contracts which is fixed and variable based on sales, but some leases require the lessee to reimburse the insurance costs of the Group. When this is the case, the amounts of insurance costs are determined annually.

The fair value is appraised by an independent appraiser at market comparison value. As at 31 December 2023, investment properties had fair value for consolidated and separate financial statements at Baht 428 million and Baht 1,262 million, respectively (*2022: Baht 346 million and Baht 1,180 million, respectively*).

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

13 Property, plant and equipment

Cost	Consolidated financial statements (in million Baht)										
	Land	Buildings	Machinery, equipment refinery plants and terminal	Electricity producing equipment	Exploration and production of petroleum assets	Marketing and office equipment	Platinum catalyst	Vehicles	Other assets	Construction work in progress	Total
At 1 January 2022	4,128	5,035	61,662	14,130	14,118	9,327	239	417	28	6,850	115,934
Additions	9	9	260	4	4,161	142	-	107	-	3,013	7,705
Acquired in business combinations	-	-	-	-	7,013	-	-	-	-	-	7,013
Transfers	156	1,523	1,578	3,577	11	287	-	13	-	(6,794)	351
Reclassification	-	-	-	(22)	-	22	-	-	-	(30)	(30)
Disposals	-	-	(167)	(2)	-	(67)	-	(3)	-	(1)	(240)
Effect of financial statements translation	(42)	(95)	-	(438)	(1,915)	(8)	-	-	-	(270)	(2,768)
At 31 December 2022	4,251	6,472	63,333	17,249	23,388	9,703	239	534	28	2,768	127,965
Additions	137	6	12	4	5,998	134	-	70	-	6,313	12,674
Acquired in business combinations (Note 4)	19,453	4,524	9,199	8,911	5,334	1,823	55	7	-	1,265	50,571
Transfers	215	649	1,153	878	16	476	-	2	-	(3,401)	(12)
Reclassification	-	(1,139)	1,139	-	-	-	-	-	-	120	120
Disposals	-	(43)	(373)	(26)	-	(204)	-	(38)	-	(1)	(685)
Effect of financial statements translation	(25)	(132)	-	(336)	(455)	(7)	-	-	-	(5)	(960)
At 31 December 2023	24,031	10,337	74,463	26,680	34,281	11,925	294	575	28	7,059	189,673

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

During the year 2023, an impairment loss on machinery, equipment refinery plants and terminal by Baht 348 million are mainly from the impairment of inactive refinery fixed assets for a long period of time (2022: reversal of impairment losses Baht 39 million).

During the year 2023, the Group recognised reversed of impairment loss on a solar power plant project in Japan amounting to Baht 267 million since the Group can start the construction with the completion date as expected.

During the year 2023, the Group recognised impairment loss of oil exploration and production assets amounting to NOK 1,382 million (equivalent to Baht 4,560 million) to adjust the book value to be close to the recoverable amount due to reduction of reserve and forward price for oil.

As of 31 December 2023, certain subsidiaries and indirect subsidiaries have mortgaged its land, buildings and machinery as collateral with financial institutions for credit facilities totaling of Baht 28,655 million (31 December 2022: Baht 35,021 million).

As at 31 December 2023, the Group has capitalised borrowing costs relating to construction of the new factory amounted to Baht 312 million (2022: Baht 146 million), with a capitalisation rate of 1.30% - 5.61% p.a. (2022: 2.25% - 3.83% p.a.) (see note 26).

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

	Separate financial statements										Total	
	Land	Buildings	Machinery, equipment refinery plants and terminal	Electricity producing equipment	Marketing and office equipment	Platinum catalyst	Vehicles	Other assets	Construction work in progress			
Cost												
At 1 January 2022	2,375	685	56,363	72	8,643	239	298	28	1,546		70,249	
Additions	-	-	256	-	-	-	37	-	1,027		1,320	
Transfers	-	34	1,066	-	204	-	-	-	(1,335)		(31)	
Disposals	-	-	(162)	-	(46)	-	(3)	-	-		(211)	
At 31 December 2022 and 1 January 2023	2,375	719	57,523	72	8,801	239	332	28	1,238		71,327	
Additions	-	2	607	-	373	-	39	-	2,376		2,415	
Transfers	214	-	-	-	-	-	-	-	(1,235)		(39)	
Disposals	-	(5)	(327)	-	(42)	-	(33)	-	-		(407)	
At 31 December 2023	2,589	716	57,803	72	9,132	239	338	28	2,379		73,296	
Depreciation and impairment losses												
At 1 January 2022	(6)	(514)	(31,021)	(21)	(5,385)	-	(235)	(10)	-		(37,192)	
Depreciation charge for the year	-	(23)	(2,956)	(6)	(472)	-	(24)	(2)	-		(3,483)	
Reversal of (impairment losses)	-	-	39	-	(13)	-	-	-	-		26	
Disposals	-	-	154	-	45	-	3	-	-		202	
At 31 December 2022 and 1 January 2023	(6)	(537)	(33,784)	(27)	(5,825)	-	(256)	(12)	-		(40,447)	
Depreciation charge for the year	-	(22)	(2,879)	(6)	(478)	-	(25)	(1)	-		(3,411)	
Impairment losses	-	-	(348)	-	(11)	-	-	-	-		(359)	
Disposals	-	1	296	-	36	-	33	-	-		366	
At 31 December 2023	(6)	(558)	(36,715)	(33)	(6,278)	-	(248)	(13)	-		(43,851)	
Net book value												
At 31 December 2022	2,369	182	23,739	45	2,976	239	76	16	1,238		30,880	
At 31 December 2023	2,583	158	21,088	39	2,854	239	90	15	2,379		29,445	

Capitalised borrowing costs relating to construction of the new plant amounted to Baht 42 million (2022: Baht 29 million), with a capitalisation rate of 3.15% - 3.93% p.a. (2022: 3.14% - 3.93% p.a.) (see note 26).

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

14 Right-of-use assets

	Consolidated financial statements						
	Land and buildings	Rental	Tank farm	Machinery, equipment refinery plants and terminal (in million Baht)	Marketing and office equipment	Vehicle and oil tanker	Total
Cost							
At 1 January 2022	12,103	944	2,185	23	-	3,581	18,836
Acquired in business combination (Note 4)	-	62	-	-	-	-	62
Additions	3,108	43	2,458	-	4	168	5,781
Transfers	(340)	-	-	(23)	-	(2)	(365)
Disposals	(68)	(1)	(1,126)	-	-	(558)	(1,753)
Effect of financial statements translation	(55)	(80)	-	-	-	-	(135)
At 31 December 2022 and 1 January 2023	14,748	968	3,517	-	4	3,189	22,426
Acquired in business combination (Note 4)	3,569	-	-	-	22	-	3,591
Eliminations (Note 5)	-	-	(2,229)	-	-	-	(2,229)
Additions	1,322	6	-	-	-	1,199	2,527
Transfers	(1,060)	-	-	-	-	1,060	-
Disposals	(1)	-	-	-	-	(9)	(10)
Effect of financial statements translation	(19)	(53)	-	-	-	(1)	(73)
At 31 December 2023	18,559	921	1,288	-	26	5,438	26,232

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Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated financial statements							
	Land and buildings	Rental	Tank farm	Machinery, equipment refinery plants and terminal (in million Baht)	Marketing and office equipment	Vehicle and oil tanker	Total	
Depreciation and impairment losses								
At 1 January 2022	(3,027)	(54)	(1,253)	(10)	-	(867)	(5,211)	
Depreciation charge for the year	(934)	(113)	(599)	(10)	-	(455)	(2,111)	
Transfers	38	-	-	20	-	2	60	
Disposals	68	1	1,125	-	-	557	1,751	
Effect of financial statements translation	6	26	-	-	-	-	32	
At 31 December 2022 and 1 January 2023	(3,849)	(140)	(727)	-	-	(763)	(5,479)	
Depreciation charge for the year	(1,092)	(112)	(425)	-	(17)	(617)	(2,263)	
Eliminations (Note 5)	-	-	161	-	-	-	161	
Impairment losses	(1)	-	-	-	-	-	(1)	
Transfers	54	-	-	-	-	(54)	-	
Disposals	1	-	-	-	-	-	1	
Effect of financial statements translation	5	16	-	-	-	-	22	
At 31 December 2023	(4,882)	(236)	(991)	-	(17)	(1,434)	(7,560)	
Net book value								
At 31 December 2022	10,899	828	2,790	-	4	2,426	16,947	
At 31 December 2023	13,677	685	297	-	9	4,004	18,672	

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Bangchak Corporation Public Company Limited and its Subsidiaries

	Separate financial statements					Total
	Land and buildings	Rental	Tank farm (in million Baht)	Vehicle and oil tanker		
Cost						
At 1 January 2022	10,790	11	2,185	1,937	14,923	
Additions	1,571	-	2,458	152	4,181	
Disposals	(63)	(1)	(1,126)	(554)	(1,744)	
At 31 December 2022 and 1 January 2023	12,298	10	3,517	1,535	17,360	
Additions	1,042	-	-	1,176	2,218	
Disposals	(1)	-	-	-	(1)	
At 31 December 2023	13,339	10	3,517	2,711	19,577	
Depreciation and impairment losses						
At 1 January 2022	(2,422)	(3)	(1,254)	(850)	(4,529)	
Depreciation charge for the year	(808)	(1)	(599)	(364)	(1,772)	
Disposals	63	1	1,126	554	1,744	
At 31 December 2022 and 1 January 2023	(3,167)	(3)	(727)	(660)	(4,557)	
Depreciation charge for the year	(854)	(1)	(427)	(467)	(1,749)	
Impairment losses	(1)	-	-	-	(1)	
Disposals	1	-	-	-	1	
At 31 December 2023	(4,021)	(4)	(1,154)	(1,127)	(6,306)	
Net book value						
At 31 December 2022	9,131	7	2,790	875	12,803	
At 31 December 2023	9,318	6	2,363	1,584	13,271	

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

15 Leases

<i>Year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
<i>Amounts recognised in profit or loss</i>				
Interest on lease liabilities	419	428	345	302
Expenses relating to short-term leases	166	57	145	44
Expenses relating to leases of low-value assets	3	10	-	4
Variable lease payments	505	673	384	673

In 2023, total cash outflow for leases of the Group and the Company were Baht 1,413 million and Baht 1,343 million, respectively (2022: Baht 2,083 million and Baht 1,457 million, respectively).

16 Goodwill

	Consolidated financial statements
	<i>(in million Baht)</i>
<i>Cost</i>	
At 1 January 2022	4,022
Acquired in business combinations	1,888
Effect of financial statements translation	(122)
At 31 December 2022 and 1 January 2023	5,788
Acquired in business combinations (<i>Note 4</i>)	9,217
Impairment losses	(4,488)
Effect of financial statements translation	(71)
At 31 December 2023	10,446

Impairment testing for the cash generating unit containing goodwill

BCPG Public Company Limited Group

Goodwill amounted to Baht 2,039 million from business combinations of BCPG Public Company Limited Group, the Group calculated the recoverable amount by using the value in use models which was determined by discounting future cash flows. The key assumptions used in the estimation of the future cash flows were based on the concession agreements, power purchase agreements, estimated selling production unit of electricity, with reference to historical data and external source such as inflation and exchange rate.

The discount rate was weighted average after-tax cost of capital by using Capital Asset Pricing Model (CAPM). Risk free rate was derived from long-term U.S. treasury bond yield. The adjustment for market risk premium to reflect risk of equity investment and country risk premium is also taking into consideration.

The estimated recoverable amount of the CGU exceeded its carrying amount, therefore no impairment loss is recognised at 31 December 2023.

The management have also conducted sensitivity test by changing discount rate or inflation 0.5% - 0.8% and found no impairment for goodwill.

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Bangchak Corporation Public Company Limited and its Subsidiaries

BBGI Public Company Limited Group

For goodwill amounted to Baht 1,602 million from business combinations of BBGI Public Company Limited Group, the Group calculated the recoverable amount by using the value in use models which was determined by discounting future cash flows for the next 5 years. The key assumptions used in the estimation of the recoverable amount included the discount rate which was a post-tax measure based on the rate of 10-year government bonds issued by the government in the relevant market and in the same currency as the cash flows, adjusted for a risk premium to reflect both the increased risk of investing in equities generally.

The discount rates of the relevant industries in which the Company operates are ranged from 5% - 8%. The subsidiary's discount rate which applied in the calculation of recoverable amounts was fall within the industries' range.

The impairment test has been prepared by the management and no impairment charges are required for goodwill.

If the assumption used in the calculation on impairment tests for goodwill change, the selling price decrease by 1 Baht per litre or cost of raw material increase by 1 Baht per litre, there is still no impairment of goodwill.

OKEA ASA

At 31 December 2023, the Group has goodwill amounted to NOK 2,013 million (equivalent to Baht 6,805 million) which consisted of goodwill from gain of control of OKEA ASA ("OKEA") amounted to NOK 487 million (equivalent to Baht 1,645 million) and goodwill from acquisition of working interest in oil field of OKEA amounted to NOK 1,526 million (equivalent to Baht 5,160 million). During the year 2023, there was goodwill from acquisition of working interest in oil field of OKEA (*see note 4*).

For goodwill from gain of control of OKEA amounted to NOK 487 million, the Group calculated the recoverable amount by using the fair value less costs of disposal, estimated using market approach. The fair value measurement was categorised as a Level 1 fair value.

The estimated recoverable amount of the CGU in Statfjord field was lower than its carrying amount of the CGU. As the decrease in the total installed capacity, impairment loss was recognised for the year ended 31 December 2023 amounted to NOK 1,363 million (equivalent to Baht 4,488 million).

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

17 Intangible assets

	Consolidated financial statements							Total
	Right to use and cost of development software	Right to connect electric transmission line	Power purchase agreement	Exploration and evaluation expenditure	Intangible assets under development	Customer contracts	Right to invest in project under concession agreement	
Cost								
At 1 January 2022	1,216	1,356	1,421	40	210	-	-	13,468
Additions	75	9	-	1,146	147	-	-	1,377
Transfers	14	(1,101)	1,109	-	(7)	-	-	15
Disposals	-	-	-	(517)	-	-	-	(517)
Effect of financial statements translation	-	(20)	(145)	(19)	(28)	-	-	103
At 31 December 2022 and 1 January 2023	1,305	244	2,385	650	322	-	-	14,446
Acquired in business combinations (Note 4)	79	-	-	-	-	1,529	-	1,608
Additions	512	-	-	104	25	-	310	951
Transfers	16	1,133	(1,109)	-	(14)	-	-	26
Reclassification	-	(22)	-	-	(120)	-	-	(142)
Disposals	-	-	-	(16)	-	-	-	(16)
Effect of financial statements translation	-	(15)	(91)	(27)	(16)	-	(2)	(245)
At 31 December 2023	1,912	1,340	1,185	711	197	1,529	308	16,628

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated financial statements (in million Baht)								
	Right to use and cost of development of computer software	Right to connect electric transmission line	Power purchase agreement	Power purchase agreement and assets under concession agreement	Exploration and evaluation expenditure development	Intangible assets under development	Customer contracts	Right to invest in project under concession agreement	Total
Amortisation and impairment loss									
At 1 January 2022	(871)	(38)	(174)	(794)	-	-	-	-	(1,877)
Amortisation for the year	(137)	(13)	(97)	(398)	-	-	-	-	(645)
Impairment losses	-	-	-	-	(201)	-	-	-	(201)
Transfers	-	19	(16)	-	-	-	-	-	3
Effect of financial statements translation	(1)	2	15	(21)	-	17	-	-	12
At 31 December 2022 and 1 January 2023	(1,009)	(30)	(272)	(1,213)	(184)	(184)	-	-	(2,708)
Amortisation for the year	(177)	(14)	(103)	(387)	-	-	(91)	-	(772)
Reversal of impairment losses	-	-	-	-	-	201	-	-	201
Transfers	-	(19)	17	-	-	-	-	-	(2)
Reclassification	-	3	-	-	-	-	-	-	3
Effect of financial statements translation	-	3	14	18	-	(17)	-	-	18
At 31 December 2023	(1,186)	(57)	(344)	(1,582)	-	-	(91)	-	(3,260)
Net book value									
At 31 December 2022	296	214	2,113	8,327	650	138	-	-	11,738
At 31 December 2023	726	1,283	841	7,864	711	197	1,438	308	13,368

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

	Separate financial statements	
	Right to use and cost of development of computer software	
	2023	2022
	<i>(in million Baht)</i>	
Cost		
At 1 January	1,145	1,072
Additions	263	73
At 31 December	1,408	1,145
Amortisation and impairment losses		
At 1 January	(903)	(785)
Amortisation for the year	(115)	(118)
At 31 December	(1,018)	(903)
Net book value		
At 31 December	390	242

18 Loans and debentures

	Consolidated financial statements					
	2023			2022		
	Secured	Unsecured	Total	Secured	Unsecured	Total
	<i>(in million Baht)</i>					
Current						
Short-term loan from financial institutions	-	13,294	13,294	27	1,074	1,101
Short-term loan from other parties	-	60	60	-	-	-
Current portion of long-term loans from financial institutions	648	7,384	8,032	944	6,125	7,069
Current portion of other long-term loans	-	169	169	162	-	162
Current portion of debentures	-	6,299	6,299	-	2,400	2,400
Total current	648	27,206	27,854	1,133	9,599	10,732
Non-current						
Long-term loans from financial institutions	10,434	29,598	40,032	8,133	6,725	14,858
Other long-term loans	-	1,444	1,444	1,631	-	1,631
Debentures	4,211	54,727	58,938	4,159	49,859	54,018
Total non-current	14,645	85,769	100,414	13,923	56,584	70,507
Total	15,293	112,975	128,268	15,056	66,183	81,239

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

	Separate financial statements					
	2023			2022		
	Secured	Unsecured	Total	Secured	Unsecured	Total
	<i>(in million Baht)</i>					
Current						
Short-term loan from financial institutions	-	2,000	2,000	-	-	-
Current portion of long-term loans from financial institutions	-	300	300	-	3,904	3,904
Current portion of debenture	-	3,500	3,500	-	2,400	2,400
Total current	-	5,800	5,800	-	6,304	6,304
Non-current						
Long-term loans from financial institutions	-	11,656	11,656	-	3,591	3,591
Debentures	-	36,569	36,569	-	37,065	37,065
Total non-current	-	48,225	48,225	-	40,656	40,656
Total	-	54,025	54,025	-	46,960	46,960

On 24 March 2023, an indirect subsidiary of the Group in Japan has entered into a secured long-term loan agreement with a financial institution. The purpose is to refinance loan from the other companies within the Group and pay liabilities relating to a construction of solar power plant with power purchase agreement capacity of 25 megawatts and its commercial operation started in the first quarter of the year 2022. The loan facility is Yen 13,400 million with a fixed interest rate and instalment schedule within March 2041. This loan has conditions and financial ratio maintaining as stipulated in the agreement.

On 29 August 2023, the Company has entered into a loan agreement with financial institution to support the acquisition of ordinary shares in Bangchak Sriracha Public Company Limited (“BSRC”) (Formerly, ESSO (Thailand) Public Company Limited) with the facilities up to Baht 32,000 million with no collateral and reference rate (THOR) plus spread per year with maturity date 30 month from the initial utilisation date.

The loan agreements contain certain conditions regarding maintaining of particular financial ratios such as debt to equity ratio, debt service coverage ratio and current ratio, and transfer right of any agreements. The borrowings of the Company’s subsidiaries and indirect subsidiaries are secured by mortgage of the land, building, land improvement and infrastructure, machinery.

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

The movements of loans and debentures during the year were as follows:

<i>Year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
At 1 January	81,239	80,507	46,960	36,071
Acquired in business combination <i>(Note 4)</i>	21,421	-	-	-
Increase	50,823	21,045	18,600	15,500
Decrease	(24,195)	(20,803)	(11,404)	(4,700)
Transaction cost capitalised-net of amortisation	(56)	116	(131)	(2)
Effect of change in exchange rates	(328)	750	-	91
Effect of financial statements translation	(614)	(385)	-	-
Change in fair value of hedged items	(22)	9	-	-
Total	128,268	81,239	54,025	46,960
<i>Less</i> Current portion of long-term loans	(8,201)	(7,231)	(300)	(3,904)
Current portion of debentures	(6,299)	(2,400)	(3,500)	(2,400)
Short term loans	(13,354)	(1,101)	(2,000)	-
At 31 December	100,414	70,507	48,225	40,656

The Group had unutilised credit facilities as follow:

As at 31 December	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
THB	60,458 million	9,699 million	23,500 million	2,530 million
JPY	-	6,175 million	-	-
USD	860 million	-	-	-

Debentures

Detail of debentures as at 31 December 2023 and 2022 were as follows:

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Debentures	65,389	56,516	40,100	39,500
<i>Less</i> Unamortised deferred expenses on debentures	(152)	(98)	(31)	(35)
	65,237	56,418	40,069	39,465
<i>Less</i> Current portion due within one year	(6,299)	(2,400)	(3,500)	(2,400)
Total	58,938	54,018	36,569	37,065

The Company and its subsidiaries issued name-registered unsubordinated unsecured debentures which have no debenture holders' representative (except debentures no. 4 to 12 and 15 which have debenture holders' representatives) and no early redemption right and interest is on a term of the debentures. The details are as follows:

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No.	Consolidated Financial statements		Separate financial statements		Interest rate (% p.a.)	Term (years)	Maturity Date
	2023 (in million Baht)	2022 (in million Baht)	2023 (in million Baht)	2022 (in million Baht)			
<i>Bangchak Corporation Public Company Limited</i>							
1	3,500	3,500	3,500	3,500	5.18	10	11 April 2024
2	2,000	2,000	2,000	2,000	4.72	12	3 March 2027
3	1,000	1,000	1,000	1,000	5.05	15	3 March 2030
4	-	400	-	400	2.96	5	10 August 2023
5	600	600	600	600	3.42	7	10 August 2025
6	7,000	7,000	7,000	7,000	4.04	10	20 December 2028
7	500	500	500	500	3.00	7	8 May 2027
8	4,500	4,500	4,500	4,500	3.40	10	8 May 2030
9	-	2,000	-	2,000	1.45	2	5 November 2023
10	1,000	1,000	1,000	1,000	2.29	5	5 November 2026
11	1,400	1,400	1,400	1,400	3.11	8	5 November 2029
12	2,600	2,600	2,600	2,600	3.43	10	5 November 2031
13	4,500	4,500	4,500	4,500	2.84	3	25 August 2025
14	2,000	2,000	2,000	2,000	3.26	5	25 August 2027
15	3,500	3,500	3,500	3,500	4.00	10	25 August 2032
16	3,000	3,000	3,000	3,000	3.60	4	21 October 2026
17	3,000 ⁽¹⁾	-	3,000 ⁽¹⁾	-	3.45	3	2 November 2026
<i>BBGI Public Company Limited</i>							
18	800	800	-	-	3.30	3	11 May 2024
<i>BCPG Public Company Limited</i>							
19	2,000 ⁽²⁾	2,000 ⁽²⁾	-	-	1.64	3	15 September 2024
20	1,000 ⁽²⁾	1,000 ⁽²⁾	-	-	2.14	5	15 September 2026
21	1,000 ⁽²⁾	1,000 ⁽²⁾	-	-	2.51	7	15 September 2028
22	4,000 ⁽²⁾	4,000 ⁽²⁾	-	-	3.31	10	15 September 2031
23	4,000 ⁽²⁾	4,000 ⁽²⁾	-	-	3.61	12	15 September 2033
24	1,147 ⁽³⁾	-	-	-	3.13	2	29 June 2025
25	1,612 ⁽³⁾	-	-	-	3.37	3	29 June 2026
26	2,253 ⁽³⁾	-	-	-	3.67	4	29 June 2027
27	354 ⁽³⁾	-	-	-	4.07	9	29 June 2032
28	2,825 ⁽³⁾	-	-	-	4.33	12	29 June 2035
<i>OKEA ASA⁽⁴⁾</i>							
29	-	4,216	-	-	8.75	5	10 December 2024
30	4,298	-	-	-	9.13	3	14 September 2026
	65,389	56,516	40,100	39,500			

⁽¹⁾ Digital debenture with Named-registered, unsubordinated, unsecured and debentured holders' representative at a par value of Baht 1,000 and interest is payable semi-annually, amounting to Baht 3,000 million.

⁽²⁾ Name-registered unsubordinated unsecured Green Bonds issued to institutional investors and high-net-worth investors. These debentures have par value of Baht 1,000 and interest payable semi-annually.

⁽³⁾ Named-registered, unsubordinated, unsecured and debentured holders' representative that divided into five tranches at a par value of Baht 1,000 and interest is payable semi-annually, amounting to Baht 8,191 million.

⁽⁴⁾ Unsubordinated secured debentures with debenture holders' representatives and early redemption right amounting to USD 245 million. These debentures have par value of USD 100,000 with interest payable semi-annually.

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In connection with the terms of the rights and responsibilities of the debentures issuer, the Company, as the issuer, has to comply with certain restrictions and conditions as stipulated therein, such as maintaining certain financial ratios, etc.

In September 2023, a subsidiary announced a voluntarily redemption of OKEA03 bonds, with a remaining net outstanding of USD 120 million to be called at the current call price of 103.2% of the nominal amount. The bonds were settled in September 2023.

Secured interest-bearing liabilities as at 31 December were secured on the following assets:

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Property, plant and equipment	28,655	35,021	-	-
Investment in subsidiaries	4,465	4,763	-	-
Restricted cash at bank	-	47	-	-
Total	33,120	39,831	-	-

19 Other current payables

	Note	Consolidated financial statements		Separate financial statements	
		2023	2022	2023	2022
		<i>(in million Baht)</i>			
Related parties	5	35	-	245	118
Other parties					
Accrued expenses		8,202	6,682	1,554	787
Payable for project construction and purchase assets		3,869	350	722	201
Tax payable		1,330	167	85	33
Accrued interest		941	344	315	227
Advance received for goods		932	1,788	-	-
Payable for services		686	32	64	32
Payable for utilities		379	365	379	365
Other accounts payable		1,449	1,308	339	737
Total		17,823	11,036	3,703	2,500

20 Provisions for employee benefits

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Statement of financial position				
Non-current provisions for:				
Post-employment benefits	5,838	2,258	2,000	1,983
Other long-term employee benefits	96	90	92	88
Total	5,934	2,348	2,092	2,071
Current	822	61	-	61
Non-current	5,112	2,287	2,092	2,010
Total	5,934	2,348	2,092	2,071

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	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	(in million Baht)			
Year ended 31 December				
Statement of comprehensive income:				
Recognised in profit or loss				
Post-employment benefits	242	157	147	109
Other long-term employee benefits	7	35	5	35
Total	249	192	152	144
Recognised in other comprehensive income:				
Actuarial (gain) loss recognised in the year	28	(233)	-	(236)
Cumulative actuarial losses recognised	319	263	292	292

Defined benefit plan

The Group and the Company operate a defined benefit plan based on the requirement of Thai Labour Protection Act B.E 2541 (1998) to provide retirement benefits to employees based on pensionable remuneration and length of service. The defined benefit plans expose the Group to actuarial risks, such as longevity risk, currency risk, interest rate risk and market (investment) risk.

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	(in million Baht)			
Present value of the defined benefit obligations				
At 1 January	2,348	2,529	2,071	2,284
Acquired in business combination (Note 4)	3,503	-	-	-
Include in profit or loss:				
Current service costs and interest on obligation	249	192	152	144
	249	192	152	144
Included in other comprehensive income:				
Actuarial (gain) loss				
- Demographic assumptions	6	22	-	21
- Financial assumptions	19	(252)	-	(244)
- Experience adjustment	3	(3)	-	(13)
Effect of movements in financial statements translation	(4)	(14)	-	-
	24	(247)	-	(236)
Others				
Benefit paid	(190)	(126)	(131)	(121)
At 31 December	5,934	2,348	2,092	2,071

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	(%)			
Principal actuarial assumptions				
Discount rate	0.10 - 3.80	0.10 - 3.45	2.52 - 3.45	2.52 - 3.45
Future salary growth	2 - 6	2 - 6	6	6
Employee turnover	0 - 52	0 - 57.30	1.91 - 8.6	1.67 - 11.46

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Assumptions regarding future mortality rate is based on published statistics and mortality tables.

At 31 December 2023, the weighted-average duration of the defined benefit obligation was 5 - 27 years (2022: 4 - 28 years).

Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

<i>Impact to the employee benefits obligation at 31 December</i>	Consolidated financial statements			
	1% increase in assumption		1% decrease in assumption	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Discount rate	(339)	(132)	378	148
Future salary growth	417	192	(379)	(172)
Employee turnover	(52)	(40)	51	44

<i>Impact to the employee benefits obligation at 31 December</i>	Separate financial statements			
	1% increase in assumption		1% decrease in assumption	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Discount rate	(163)	(124)	184	139
Future salary growth	206	182	(185)	(164)
Employee turnover	(44)	(31)	46	33

21 Treasury shares

At the Board of Directors' meeting held on 21 November 2019, the Board approved the share repurchase program for financial management purpose (Treasury Stock), in the maximum amount of share repurchased not exceeding Baht 2,100 million and maximum number of shares not exceeding 70 million shares with a par value of Baht 1 per share. The number of shares to be repurchased is 5% of the total issued shares. The Company is allowed to repurchase the share during the period from 6 December 2019 to 5 June 2020 with the condition that the share repurchased must be sold after 6 months after the date when the repurchase is completed but must not exceed 3 years.

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
At 1 January	248	505	248	505
Disposal	(248)	(257)	(248)	(257)
At 31 December	-	248	-	248

Share-based payment

During the year ended 31 December 2023, the Company has agreed with its directors, management team, and employees to provide a share-based payment by giving them the right to purchase not exceeding to 9 million treasury shares of the Company at the price of Baht 28.14 with treasury share premium of Baht 27 million. The payment for shares shall be made in cash. As at 31 December 2023, the Company has no treasury shares outstanding.

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22 Surplus and reserves

Share premium

Section 51 of the Public Companies Act B.E. 2535 (1992) requires companies to set aside share subscription monies received in excess of the par value of the shares issued to a reserve account (“share premium”). Share premium is not available for dividend distribution.

Capital surplus on registered and paid-up share reduction

Capital surplus on share reduction is from capital surplus on registered and paid-up share reduction in the Company’s registered share capital from Baht 1,032,761,220 to Baht 843,143,461 and the paid-up share capital from Baht 753,040,940 to Baht 563,423,181. These changes were due to the reduction of 189,617,759 shares.

Other surpluses

Surplus from the change in the ownership interest in subsidiaries

Change in parent’s ownership interest in subsidiaries within equity comprises of effect from dilution of the Company’s holding percentage in a subsidiary and difference from changes in parent’s ownership interest in subsidiaries that do not result in a loss of control.

Surplus from business combination

Surplus from business combination represents the measurement of net assets acquired and recognised at fair value from business combination.

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 (1992) requires that a company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward (if any), to a reserve account (“legal reserve”), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

Treasury shares reserve

The treasury shares reserve is the amount appropriated from the retained earnings equal to the cost of the Company’s own shares held by the Company. The treasury shares reserve is not available for dividend distribution.

Other components of equity

Translation reserve

The translation reserves comprise all foreign currency differences arising from the translation of the financial statements of foreign operations, as well as the effective portion of any foreign currency differences arising from hedges of a net investment in a foreign operation (see note 3 (d.4)).

Hedging reserve

The hedging reserve comprises the effective portion of the cumulative net change in the fair value of hedging instruments used in cash flow hedges pending subsequent recognition in profit or loss or directly included in the initial cost or other carrying amount of a non-financial asset or non-financial liability.

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Fair value reserve

The fair value reserve comprises the cumulative net change in the fair value of equity securities designated at FVOCI.

23 Subordinated perpetual debentures

On 18 October 2019, the Company completed the issuance of Subordinated Perpetual Debentures of Baht 10,000 million. The debentures are unsecured, unconvertible, with debenture holder representatives and no scheduled repayment of principal. Bullet payment is upon dissolution of the Company or upon the exercise of the debenture issuer's early redemption right per conditions as stipulated in the terms and conditions of the debentures. These debentures bear fixed interest rate of 5% per annum during the first year to the fifth year. The debenture issuer will adjust the interest rate of the debentures every 5 years and interest is payable on a semi-annual basis throughout the term of the debentures. The Company has the sole right to unconditionally defer interest and cumulative interest payments to debentures holders without time and deferral amount limitation. If the Company defers the interest payment, the Company shall not declare and make any dividend payment. From the determination of the terms and conditions of the debentures, Subordinated perpetual debentures are classified as equity. Issuance cost of debentures of Baht 59 million are recognised as a part of equity in the consolidated and separate financial statements as at 31 December 2023. The Company paid coupon payment on perpetual subordinated debentures of Baht 500 million (2022: Baht 500 million) which were recognised as a part of equity in consolidated and separate financial statement.

24 Operating segments

Management determined that the Group has seven reportable segments, as described below, which are the Group's strategic divisions for different products and services, and are managed separately because they require different technology and marketing strategies. For nine-month periods ended of 30 September 2023 prospectively, the chief operating decision-maker consider Bangchak Sriracha Public Company Limited ("BSRC") (Formerly, ESSO (Thailand) Public Company Limited) in separate segment as a result of separate resources allocation, performance assessment of such operating segments, and strategic decisions making. The following summary describes the operations in each of the Group's reportable segments.

<i>Segment 1</i>	<i>Refinery and oil trading</i>
<i>Segment 2</i>	<i>Marketing</i>
<i>Segment 3</i>	<i>Electricity</i>
<i>Segment 4</i>	<i>Bio-based product</i>
<i>Segment 5</i>	<i>Natural resource</i>
<i>Segment 6</i>	<i>BSRC</i>
<i>Segment 7</i>	<i>Others</i>

Each segment's performance is measured based on segment profit (loss) before tax, financial costs, depreciation and amortisation, gain on foreign exchange, gain (loss) on derivatives from forward contracts and impairment losses ("Group's Profit (loss) from operating segment"), as included in the internal management reports that are reviewed by the Group's CODM. Group's Profit (loss) from operating segment is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries. Inter-segment pricing determined on an arm's length basis.

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<i>For the year ended 31 December 2023</i>	Consolidated financial statements (in million Baht)							Total	
	Refinery and oil trading	Marketing	Electricity	Bio-based product	Natural resources	BSRC	Others		Eliminations
External revenue	107,897	190,684	4,765	2,598	28,848	50,759	302	-	385,853
Inter-segment revenue	181,587	41	266	11,159	-	25,480	-	(218,533)	-
Total revenue	289,484	190,725	5,031	13,757	28,848	76,239	302	(218,533)	385,853
Profit (loss) from operating segment	14,794	3,157	4,219	667	19,671	997	(328)	(1,497)	41,680
Depreciation and amortisation									(14,370)
Gain from derivatives									1
Gain on foreign exchange									401
Impairment losses									(9,447)
Gain on bargain purchase									7,389
Finance costs									(4,980)
Tax expense									(8,766)
Profit for the year									11,908
Interest income	223	31	212	28	321	32	120	(83)	884
Financial costs	(1,636)	(532)	(1,242)	(78)	(1,177)	(347)	(113)	145	(4,980)
Depreciation and amortisation	(3,984)	(1,525)	(1,808)	(471)	(5,589)	(940)	(121)	68	(14,370)
Segments assets	108,097	25,832	73,113	12,567	57,129	90,456	2,950	(29,715)	340,429
Investments in associates and joint ventures	-	-	22,268	103	-	5,637	341	-	28,349
Capital expenditure	3,180	1,458	645	218	6,551	827	86	-	12,965

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

For the year ended 31 December 2022	Consolidated financial statements						Total	
	Refinery and oil trading	Marketing	Electricity	Bio-based product <i>(in million Baht)</i>	Natural resources	Others		Eliminations
External revenue	112,143	184,897	5,395	1,980	23,583	19	-	328,017
Inter-segment revenue	173,940	41	10	11,393	-	-	(185,384)	-
Total revenue	286,083	184,938	5,405	13,373	23,583	19	(185,384)	328,017
Profit (loss) from operating segment	17,864	2,909	6,400	617	17,625	(691)	-	44,724
Depreciation and amortisation								(10,004)
Gain from derivatives								104
Gain on foreign exchange								1
Impairment losses								(2,844)
Finance costs								(3,977)
Tax expense								(12,852)
Profit for the year								15,152
Interest income	46	12	140	11	94	-	-	303
Financial costs	(1,140)	(488)	(878)	(95)	(1,285)	(91)	-	(3,977)
Depreciation and amortisation	(4,181)	(1,463)	(1,499)	(423)	(2,358)	(80)	-	(10,004)
Segments assets	98,788	22,706	55,111	13,314	51,336	1,090	-	242,345
Investments in associates and joint ventures	80	-	1,290	114	34	334	-	1,852
Capital expenditure	(866)	(1,618)	(1,911)	(387)	(5,098)	(88)	-	(9,968)

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

Disaggregation of revenue

Timing of revenue recognition of major revenues of the Group and the Company are point in time, except power plant segment, which timing of revenue recognition is over time.

Geographical segments

In presenting information on the basis of geographical segments, segment sales are based on the entity's country of domicile. Segment non-current assets (exclude derivatives and deferred tax) are based on the geographical location of the assets.

Geographical information

Consolidated financial statements

Revenue

	2023	2022
	<i>(in million Baht)</i>	
Thailand	275,015	224,241
Singapore	49,504	48,640
Norway	28,848	23,349
Korea	15,053	20,387
Laos	6,312	2,265
Others	11,121	9,135
Total	385,853	328,017

Geographical information

Consolidated financial statements

Non-current assets

	2023	2022
	<i>(in million Baht)</i>	
Thailand	128,948	69,469
Norway	41,393	35,918
United States	18,955	-
Laos	12,017	10,904
Japan	7,754	8,524
Others	6,686	5,326
Total	215,753	130,141

Major customer

Revenues from one customer of the Group's 1 and 2 segments represents approximately Baht 15,792 million (2022: Baht 20,387 million) of the Group's total revenues.

Promotional privileges

The Group has been granted promotional certificates by the Office of the Board of Investment by virtue of the provisions of the Industrial Investment Promotion Act of B.E. 2520 for Petroleum Refinery process, production of Biodiesel and production of electricity from solar cell. The privileges granted include:

Production of Biodiesel, Ethanol and Biogas

- Exemption from payment of import duty and tax on machinery approved by the Board;
- Exemption from payment of income tax for certain operations for a period of six and eight years from the date on which the income is first derived from such operations.

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Production of electricity from solar cell

- (a) Exemption from payment of import duty and tax on machinery approved by the Board;
- (b) Exemption from payment of income tax for certain operations for a period of eight years from the date on which the income is first derived from such operations.
- (c) A 50% reduction in the normal income tax rate on the net profit derived from certain operations for a period of five years, commencing from the expiry date in (b) above.

As promoted companies, the Group must comply with certain terms and conditions prescribed in the promotional certificates.

Summary of revenue from promoted and non-promoted businesses:

	Consolidated financial statements					
	2023			2022		
	Promoted businesses	Non- promoted businesses	Total	Promoted businesses	Non- promoted businesses	Total
	<i>(in million Baht)</i>					
Export sales	143	155,981	156,124	141	130,468	130,609
Local sales	7,933	393,369	401,302	11,147	333,583	344,730
Eliminations	-	-	(171,573)	-	-	(147,322)
Total	8,076	549,350	385,853	11,288	464,051	328,017

The Company has no revenue from promoted business.

25 Expenses by nature

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Changes in inventories of finished goods and work in progress	(2,930)	3,430	(1,431)	4,013
Raw materials and consumables used	239,296	192,143	148,883	180,781
Tax expenses and oil fuel fund	27,777	6,183	27,777	6,183
Depreciation and amortisation	14,370	10,004	5,353	5,425
Employee benefit expenses	8,465	6,868	2,590	2,519
Advertisement expenses	892	791	791	660
Transportation expenses	2,311	1,908	1,879	1,788
Professional and advisory fees	518	426	211	158
(Reversal of) loss from decline in value of inventories	(265)	330	(324)	324

Defined contribution plans

The defined contribution plans comprise provident funds established by the Group for its employees. Membership to the funds is on a voluntary basis. Contributions are made monthly by the employees at rates ranging from 3% to 15% of their basic salaries and by the Group at rates ranging from 3% to 10% of the employees' basic salaries. The provident funds are registered with the Ministry of Finance as juristic entities and are managed by licensed Fund Manager.

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

26 Finance costs

	Note	Consolidated financial statements		Separate financial statements	
		2023	2022	2023	2022
<i>(in million Baht)</i>					
Interest expense					
Financial institutions		1,479	751	433	257
Debentures		2,468	2,225	1,443	1,178
Lease liabilities		419	428	345	302
Total interest expense		4,366	3,404	2,221	1,737
Amortisation of transaction costs capitalised		139	143	40	19
Others finance costs		787	576	1	-
		5,292	4,123	2,262	1,756
Less Amount included in the cost of property, plant and equipment under construction	13	(312)	(146)	(42)	(29)
Net		4,980	3,977	2,220	1,727

27 Income tax

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
<i>(in million Baht)</i>				
Income tax recognised in profit or loss				
Current tax expense				
Current year	11,367	9,709	1,733	1,132
Under provided in prior years	279	29	410	-
	11,646	9,738	2,143	1,132
Deferred tax expense				
Movements in temporary differences	(2,880)	3,114	(26)	1,240
	(2,880)	3,114	(26)	1,240
Total tax expense	8,766	12,852	2,117	2,372

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Bangchak Corporation Public Company Limited and its Subsidiaries

<i>Reconciliation of effective tax rate</i>	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Profit before income tax expense	20,675	28,004	9,215	14,298
Corporate income tax rate (%)	20.00	20.00	20.00	20.00
Profit before income tax using the Thai corporation tax rate	4,135	5,601	1,843	2,859
Effect of difference tax rates in foreign jurisdictions	2,613	7,204	-	-
Income not subject to tax / Expenses that are deductible at a greater amount	(517)	(783)	(285)	(315)
Expenses not deductible / Other adjustments	2,616	646	149	(172)
Tax rate adjustment	(274)	-	-	-
Current year losses for which no deferred tax assets was recognised	119	172	-	-
Profit was derived from promoted activities	(137)	-	-	-
Under provided in prior years	278	29	410	-
Utilisation of previously unrecognised tax losses	(37)	-	-	-
Recognition of previously unrecognised tax losses	(10)	-	-	-
Others	(20)	(17)	-	-
Total	8,766	12,852	2,117	2,372
Tax rate (%)	42.40	45.89	22.98	16.59

<i>Deferred tax At 31 December</i>	Consolidated financial statements			
	Assets		Liabilities	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Total	18,633	8,565	(18,923)	(14,276)
Set off of tax	(15,884)	(7,715)	15,884	7,715
Net deferred tax assets (liabilities)	2,749	850	(3,039)	(6,561)

	Separate financial statements			
	Assets		Liabilities	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Total	818	977	(13)	(198)
Set off of tax	(13)	(198)	13	198
Net deferred tax assets	805	779	-	-

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Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated financial statement					At 31 December 2023
	At 1 January 2023	Charged / Credited to:	Other comprehensive income (in million Baht)	Acquired in business combinations (Note 4)	Translation differences	
Deferred tax assets						
Loss from impairment of assets	97	124	-	-	-	221
Property, plant and equipment	131	59	(1)	546	1	736
Provisions for employee benefits	432	(47)	2	702	-	1,089
Provision for the decommissioning cost	7,420	361	-	7,617	(105)	15,293
Loss carry forward	25	(6)	-	6	-	25
Others	460	(300)	64	1,048	(3)	1,269
Total	8,565	191	65	9,919	(107)	18,633
Deferred tax liabilities						
Property, plant and equipment	(10,778)	1,637	3	(6,553)	368	(15,323)
Intangible assets	(1,276)	37	-	(556)	73	(1,722)
Inventories	(2,195)	1,096	-	(676)	86	(1,689)
Others	(27)	(81)	99	(171)	(9)	(189)
Total	(14,276)	2,689	102	(7,956)	518	(18,923)
Net	(5,711)	2,880	167	1,963	411	(290)

Notes to the financial statements

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Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated financial statement					
	At 1 January 2022	Charged / Credited to:	Other comprehensive income <i>(in million Baht)</i>	Acquired in business combinations <i>(Note 4)</i>	Translation differences	At 31 December 2022
Deferred tax assets						
Loss from impairment of assets	124	(28)	-	-	1	97
Property, plant and equipment	119	12	-	-	-	131
Provisions for employee benefits	466	12	(46)	-	-	432
Provision for the decommissioning cost	5,095	118	-	2,557	(350)	7,420
Loss carry forward	1,364	(1,339)	-	-	-	25
Others	201	263	-	-	(4)	460
Total	7,369	(962)	(46)	2,557	(353)	8,565
Deferred tax liabilities						
Property, plant and equipment	(6,334)	(1,035)	-	(3,912)	503	(10,778)
Intangible assets	(848)	(466)	-	-	38	(1,276)
Inventories	(548)	(679)	-	(1,014)	46	(2,195)
Others	(131)	28	76	-	-	(27)
Total	(7,861)	(2,152)	76	(4,926)	587	(14,276)
Net	(492)	(3,114)	30	(2,369)	234	(5,711)

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Bangchak Corporation Public Company Limited and its Subsidiaries

28 Earnings per share

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Profit for the year attributable to ordinary shareholders of the Company	13,233	12,575	7,098	11,926
Less Cumulative coupon payment for the year on perpetual subordinated debentures	(500)	(500)	(500)	(500)
Profit for calculating earnings per share	12,733	12,075	6,598	11,426
Number of ordinary shares outstanding	1,377	1,377	1,377	1,377
Effect of treasury shares	(4)	(19)	(4)	(19)
Weighted average number of ordinary shares outstanding	1,373	1,358	1,373	1,358
Earnings per share (basic) (in Baht)	9.27	8.89	4.80	8.42

29 Dividends

	Approval Date	Payment schedule	Dividend rate per share <i>(Baht)</i>	Amount <i>(in million Baht)</i>
2023				
An interim dividend for first half year 2023	24 August 2023	19 September 2023	0.50	689
Annual dividend 2022	11 April 2023	24 April 2023	2.25	3,065
An interim dividend for first half year 2022	18 August 2022	13 September 2022	(1.25)	(1,698)
Dividend payment during the year 2023			1.50	2,056
2022				
An interim dividend for first half year 2022	18 August 2022	13 September 2022	1.25	1,698
Annual dividend 2021	8 April 2022	22 April 2022	2.00	2,715
An interim dividend for first half year 2021	26 August 2021	21 September 2021	(1.00)	(1,358)
Dividend payment during the year 2022			2.25	3,055

30 Financial instruments

(a) Carrying amounts and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy. It does not include fair value information for financial assets and financial liabilities measured at amortised cost if the carrying amount is a reasonable approximation of fair value.

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Bangchak Corporation Public Company Limited and its Subsidiaries



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	Consolidated financial statements					Fair value			
	Carrying amount					Fair value			
	Fair value - applied hedge accounting	Fair value through profit or loss	Fair value through other comprehensive income	Amortised cost - net	Total (in million Baht)	Level 1	Level 2	Level 3	Total
At 31 December									
2023									
Financial assets									
Investment in equity instruments	-	38	1,827	-	1,865	1,865	-	-	1,865
Investment in convertible bond	-	775	-	-	775	-	-	775	775
Investment in other non-marketable equity instruments	-	30	1,179	-	1,209	-	-	1,209	1,209
Loans to (fixed interest rate)	-	-	-	162	162	-	140	-	140
Derivatives assets	581	485	-	-	1,066	400	668	-	1,068
Loans to related parties	-	-	-	1,116	1,116	-	838	-	838
Financial liabilities									
Loans from (fixed interest rate)	-	-	-	14,243	14,243	-	13,927	-	13,927
Debentures	-	-	-	65,289	65,289	-	64,732	-	64,732
Derivatives liabilities	321	158	-	-	479	298	181	-	479
2022									
Financial assets									
Investment in equity instruments	-	51	1,214	-	1,265	1,265	-	-	1,265
Investment in convertible bond	-	914	-	-	914	-	-	914	914
Investment in other non-marketable equity instruments	-	5	1,313	-	1,318	-	-	1,318	1,318
Loans to (fixed interest rate)	-	-	-	1,823	1,823	-	1,800	-	1,800
Derivatives assets	72	561	-	-	633	2	631	-	633
Financial liabilities									
Loans from (fixed interest rate)	-	-	-	5,528	5,528	-	3,441	1,793	5,234
Debentures	-	-	-	56,418	56,418	4,159	43,921	-	48,080
Derivatives liabilities	63	1,991	-	-	2,054	-	2,054	-	2,054

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At 31 December	Carrying amount			Separate financial statements				Fair value			
	Fair value through profit or loss	Fair value through other comprehensive income	Amortised cost - net	Total (in million Baht)	Level 1	Level 2	Level 3	Total			
2023											
Financial assets											
Investment in equity instruments	38	320	-	358	358	-	-	358			
Investment in other non-marketable equity instruments	-	525	-	525	-	-	525	525			
Loans to (fixed interest rate)	-	-	510	510	-	510	-	510			
Derivatives assets	366	-	-	366	-	366	-	366			
Financial liabilities											
Loans from (fixed interest rate)	-	-	600	600	-	599	-	599			
Debentures	-	-	40,069	40,069	-	40,627	-	40,627			
Derivatives liabilities	158	-	-	158	-	158	-	158			
2022											
Financial assets											
Investment in equity instruments	51	425	-	476	476	-	-	476			
Investment in other non-marketable equity instruments	-	525	-	525	-	-	525	525			
Loans to (fixed interest rate)	-	-	810	810	-	808	-	808			
Derivatives assets	524	-	-	524	-	524	-	524			
Financial liabilities											
Loans from (fixed interest rate)	-	-	900	900	-	916	-	916			
Debentures	-	-	39,465	39,465	-	40,099	-	40,099			
Derivatives liabilities	1,991	-	-	1,991	-	1,991	-	1,991			

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Level 2 fair values for simple over-the-counter derivative financial instruments are based on broker quotes. Those quotes are tested for reasonableness by discounting expected future cash flows using market interest rate for a similar instrument at the measurement date. Fair values reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Group and counterparty when appropriate.

Level 3 fair values for debt instruments and equity instruments measured at fair value through profit and loss and equity instruments measured at fair value through other comprehensive income are as follows;

- For investments in non-marketable securities, the fair values are based on cost which considered as estimated fair values, except there are significant changes in their operations.

(b) Marketable financial instruments

Consolidated financial statements

<i>Marketable equity securities</i>	At 1 January	Acquired in business combination (Note 4)	Fair value adjustment (in million Baht)	Effect of financial statements translation	At 31 December
2023					
Non - current financial assets					
Equity securities measured at					
- FVTPL	51	-	(13)	-	38
- FVOCI	1,214	1,350	(737)	-	1,827
2022					
Non - current financial assets					
Equity securities measured at	55				
- FVTPL	41	-	10	-	51
- FVOCI	1,713	-	(513)	14	1,214

Separate financial statements

<i>Marketable equity securities</i>	At 1 January	Fair value adjustment (in million Baht)	At 31 December
2023			
Non - current financial assets			
Equity securities measured at			
- FVTPL	51	(13)	38
- FVOCI	425	(105)	320
2022			
Non - current financial assets			
Equity securities measured at			
- FVTPL	41	10	51
- FVOCI	341	84	425

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(c) Financial risk management policies

Risk management framework

The Group's board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The board of directors has established the risk management committee, which is responsible for developing and monitoring the Group's risk management policies. The committee reports regularly to the board of directors on its activities.

The Group's risk management policies are established to identify and analyses the risks faced by the Group, to set appropriate risk limits and controls and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities.

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board monitors the return on capital, which the Group defines as result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

(c.1) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's receivables from customers and loans to related parties of the Group.

(c.1.1) Trade accounts receivables

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the factors that may influence the credit risk of its customer base, including the default risk associated with the industry and country in which customers operate.

The Group limits its exposure to credit risk from trade accounts receivables by performing an impairment analysis at each reporting date. The provision rates of expected credit loss are based on actual credit loss experience over the past 1 year. These rates have included the consideration of current economic conditions and the Group's view of economic conditions over the expected lives of the receivables. The normal credit term granted by the Group ranges from 1 day to 120 days.

Information relevant to trade accounts receivables is disclosed in note 7

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(c.1.2) Loans to related parties and accrued interest.

The following table presents the exposure to credit risk and expected credit loss for loans to related parties and accrued interest.

<i>Allowance for expected credit loss - general approach</i>	Consolidated financial statements			Total
	12 - months ECL (Stage 1)	Lifetime ECL - not credit - impaired (Stage 2)	Lifetime ECL - credit - impaired (Stage 3)	
<i>Loans to related parties and accrued interest</i>				
2023				
At 1 January	-	27	-	27
Net remeasurement of loss allowance	-	15	-	15
Reversal of loss from impairment	-	(43)	-	(43)
Effect of financial statements translation	-	1	-	1
At 31 December	-	-	-	-
2022				
At 1 January	-	11	-	11
Net remeasurement of loss allowance	-	15	-	15
Effect of financial statements translation	-	1	-	1
At 31 December	-	27	-	27
Separate financial statements				
<i>Allowance for expected credit loss - general approach</i>	12 - months ECL (Stage 1)	Lifetime ECL - not credit - impaired (Stage 2)	Lifetime ECL - credit - impaired (Stage 3)	Total
<i>Loans to related parties and accrued interest</i>				
2023				
At 1 January	-	-	-	-
At 31 December	-	-	-	-
2022				
At 1 January	-	963	-	963
Financial assets repaid	-	(985)	-	(985)
Effect of financial statements translation	-	22	-	22
At 31 December	-	-	-	-

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(c.1.3) Cash and cash equivalents and derivatives

The Group's exposure to credit risk arising from cash and cash equivalents and derivative assets is limited because the counterparties are banks and financial institutions for which the Group considers to have low credit risk.

(c.2) Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

The following table are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted and include contractual interest payments and exclude the impact of netting agreements.

<i>At 31 December</i>	Carrying amount	Consolidated financial statements Contractual cash flows			Total
		1 year or less	More than 1 year but less than 5 years	More than 5 years	
2023					
<i>Non - derivative financial liabilities</i>					
Trade payables	23,464	23,464	-	-	23,464
Contingent consideration	140	140	-	-	140
Loans from financial institutions	61,359	22,749	34,983	7,957	65,689
Lease liabilities	12,215	1,875	5,028	8,251	15,155
Debentures	65,237	6,997	37,073	26,143	70,213
	162,415	55,225	77,084	42,351	174,661
<i>Derivative financial liabilities</i>					
Interest rate swaps					
- Cash outflow	(23)	(165)	(178)	(11)	(355)
- Cash inflow	-	152	169	11	332
Forward exchange contracts					
- Cash outflow	-	-	-	-	-
- Cash inflow	2,741	2,741	-	-	2,741
	2,718	2,728	(9)	-	2,719

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<i>At 31 December</i>	Carrying amount	Contractual cash flows			Total
		1 year or less	1 year but less than 5 years	More than 5 years	
Consolidated financial statements					
Contractual cash flows					
More than					
1 year but less than 5 years					
More than 5 years					
<i>(in million Baht)</i>					
2022					
<i>Non - derivative financial liabilities</i>					
Trade payables	17,913	17,913	-	-	17,913
Contingent consideration	243	105	138	-	243
Loans from financial institutions	23,029	8,231	8,302	7,363	23,896
Lease liabilities	11,782	1,412	4,140	6,933	12,485
Debentures	56,418	2,771	26,428	30,422	59,621
	109,385	30,432	39,008	44,718	114,158
<i>Derivative financial liabilities</i>					
Interest rate swaps					
- Cash outflow	-	(142)	(358)	(24)	(524)
- Cash inflow	7	159	346	28	533
Forward exchange contracts					
- Cash outflow	(18)	(32)	-	-	(32)
- Cash inflow	-	-	-	-	-
Crude and product oil price hedging contract					
- Cash outflow	(1,973)	(1,973)	-	-	(1,973)
- Cash inflow	-	-	-	-	-
	(1,984)	(1,988)	(12)	4	(1,996)

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For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

<i>At 31 December</i>	Carrying amount	Separate financial statements			Total
		1 year or less	More than 1 year but less than 5 years	Contractual cash flows More than 5 years	
2023					
<i>Non - derivative financial liabilities</i>					
Trade payables	13,381	13,381	-	-	13,381
Loans from financial institutions	13,956	2,300	11,800	-	14,100
Lease liabilities	9,436	1,517	4,555	5,466	11,538
Debentures	40,068	3,500	23,600	13,000	40,100
	76,841	20,698	39,955	18,466	79,119
<i>Derivative financial liabilities</i>					
Forward exchange contracts					
- Cash outflow	-	-	-	-	-
- Cash inflow	2,741	2,741	-	-	2,741
	2,741	2,741	-	-	2,741
2022					
<i>Non - derivative financial liabilities</i>					
Trade payables	14,763	14,763	-	-	14,763
Loans from financial institutions	7,495	3,904	3,600	-	7,504
Lease liabilities	8,997	1,077	3,271	4,649	8,997
Debentures	39,465	2,400	17,100	20,000	39,500
	70,720	22,144	23,971	24,649	70,764
<i>Derivative financial liabilities</i>					
Forward exchange contracts					
- Cash outflow	(18)	(32)	-	-	(32)
- Cash inflow	-	-	-	-	-
Crude and product oil price hedging contract					
- Cash outflow	(1,973)	(1,973)	-	-	(1,973)
- Cash inflow	-	-	-	-	-
	(1,991)	(2,005)	-	-	(2,005)

The cash inflows and cash outflows disclosed in the above table represent the contractual undiscounted cash flows relating to derivative financial liabilities held for risk management purposes and which are not usually closed out before contractual maturity. The disclosure shows net cash flow amounts for derivatives that are net cash-settled and gross cash inflow and outflow amounts for derivatives that have simultaneous gross cash settlement.

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Bangchak Corporation Public Company Limited and its Subsidiaries

(c.3) *Market risk*

The Group is exposed to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk is as follows:

Managing interest rate benchmark reform (IBOR reform)

The risk management committee monitors and manages the Group's transition to alternative rates. The committee evaluates the extent to which contracts reference IBOR cash flows, whether such contracts will need to be amended as a result of IBOR reform and how to manage communication about IBOR reform with counterparties. The committee reports to the Group's board of directors periodical and collaborates with other business functions as needed. It provides periodic reports to management of interest rate risk and risks arising from IBOR reform.

The Group's main IBOR exposure at 31 December 2023 was indexed to LIBOR and THBFX. The Group is in the process of amending contractual terms for all of the LIBOR indexed exposures to incorporate THOR. In respect of THBFX exposures, the Group has been a party to agreements that introduce fallback clauses into all such instruments. These clauses automatically switch the instruments from THBFX to Fallback Rate (THBFX) as and when THBFX ceases.

(c.3.1) Foreign currency risk

The Group is exposed to the transactions with foreign currency risk to the extent that there is a mismatch between the currencies in which sales, purchases, lending's and borrowings are denominated and the respective functional currencies of the Group. The functional currencies of the Group are primarily Thai Baht. The currencies in which these transactions are primarily denominated are US Dollars and Japanese Yen.

The Group primarily utilises forward exchange contracts with maturities of less than one year to hedge such financial assets and financial liabilities denominated in foreign currencies. The forward exchange contracts entered into at the reporting date also relate to anticipated sales, purchases and loans to denominated in foreign currencies. These contracts are designated as cash flow hedges. The Group's policy specifies the critical terms of the forward exchange contracts to align with the hedged item.

The Group primarily utilises cross currency swap contracts to hedge such financial liabilities denominated in foreign currencies. The cross-currency swap contracts entered into at the reporting date also relate to borrowings denominated in foreign currencies. These contracts are designated as cash flow hedges.

The Group determines the existence of an economic relationship between the hedging instrument and hedged item based on the currency, amount and timing of their respective cash flows. The Group assesses whether the derivative designated in each hedging relationship is effective in offsetting changes in cash flows of the hedged item using the hypothetical derivative method.

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

	Consolidated financial statements (in million Baht)				Separate financial statements (in million Baht)			
	United States Dollars	Japanese Yen	Pound Sterling	Others	Total	United States Dollars	Euro	Total
Exposure to foreign currency at 31 December								
2023								
Cash and cash equivalents	6,999	1	3,544	129	10,673	2,629	-	2,629
Trade and other receivables	17,625	-	54	124	17,803	34	1	35
Interest-bearing liabilities	(7,564)	(1,606)	-	-	(9,170)	-	-	-
Trade and other payables	(25,595)	(10)	(42)	(119)	(25,766)	(8,094)	-	(8,094)
Net statement of financial position exposure	(8,535)	(1,615)	3,556	134	(6,460)	(5,431)	1	(5,430)
Loans from financial institution designated as net investment hedge	-	180	-	-	180	-	-	-
Currency swaps contracts	122	-	-	-	122	-	-	-
Forward exchange purchase contracts	2,741	-	-	-	2,741	2,741	-	2,741
Net exposure	(3,813)	(1,435)	3,556	(9)	(1,701)	(2,690)	1	(2,689)
2022								
Cash and cash equivalents	5,074	40	-	166	5,280	3,573	-	3,573
Trade and other receivables	1,844	-	-	200	2,044	1,765	-	1,765
Interest-bearing liabilities	(8,923)	(4,375)	-	-	(13,298)	(2,779)	-	(2,779)
Trade and other payables	(1,213)	(6)	-	(72)	(1,291)	(9,787)	-	(9,787)
Net statement of financial position exposure	(3,218)	(4,341)	-	294	(7,265)	(7,228)	-	(7,228)
Loans from financial institution designated as net investment hedge	-	591	-	-	591	-	-	-
Currency swaps contracts	136	-	-	-	136	-	-	-
Forward exchange selling contracts	3,917	-	-	-	3,917	3,917	-	3,917
Net exposure	835	(3,750)	-	294	(2,621)	(3,311)	-	(3,311)

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

Sensitivity analysis

A reasonably possible strengthening (weakening) of the Thai Baht against all other currencies at the reporting date would have affected the measurement of financial instruments denominated in a foreign currency. This analysis assumes that all other variables, in particular interest rates, remain constant.

<i>Impact to profit or loss</i>	Movement (%)	Consolidated financial statements		Separate financial statements	
		Strengthening	Weakening	Strengthening	Weakening
<i>At 31 December 2023</i>					
USD	3 - 5	(33)	33	211	(211)
JPY	2 - 10	25	(25)	-	-
GBP	17	178	(178)	-	-
EUR	3 - 17	10	(10)	-	-
<i>At 31 December 2022</i>					
USD	5	75	(75)	(63)	63
JPY	2	(68)	68	-	-

(c.3.2) Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows because loan interest rates are mainly float. The Group mitigates this risk by using interest rate swaps, to manage exposure to fluctuations in interest rates on specific borrowings.

The Group adopts a hedging policy to ensure that interest rate risk exposure is at an appropriate level. This is achieved partly by entering fixed-rate instruments and partly by borrowing at a floating rate and using interest rate swaps as hedges of the variability in cash flows attributable to movements in interest rates.

The Group determines the existence of a relationship between the hedging instrument and hedged item based on the reference interest rates, tenors, repricing dates and maturities and the notional or par amounts.

The Group assesses whether the derivative designated in each hedging relationship is expected to be effective in offsetting changes in cash flows of the hedged item using the hypothetical derivative method.

In these hedge relationships, the main sources of ineffectiveness are:

- the effect of the counterparty's and the Group's own credit risk on the fair value of the interest rate swaps, which is not reflected in the change in the fair value of the hedged cash flows attributable to the change in interest rates and;
- differences in repricing dates between the swaps and the borrowings.

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

<i>Exposure to interest rate risk at 31 December</i>	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
<i>Financial instruments with fixed interest rates</i>				
Financial assets	1,544	-	510	-
Financial liabilities	(80,660)	-	(40,669)	-
<i>Financial instruments with variable interest rates</i>				
Financial liabilities	(44,656)	(30,626)	(12,556)	(6,594)
Net statement of financial position exposure	(123,772)	(30,626)	(52,715)	(6,594)
Interest rate swaps	537	639	-	-
Net exposure	(123,235)	(29,987)	(52,715)	(6,594)

Fair value sensitivity analysis for fixed-rate instruments

The Group does not account for any fixed-rate financial assets or financial liabilities, at FVTPL, and the Group does not designate derivatives (interest rate swaps) as hedging instruments under a fair value hedge accounting model. Therefore, a change in interest rates at the reporting date would not affect profit or loss.

Cash flow sensitivity analysis for variable-rate instruments

A reasonable possible change of 0.25% in interest rates at the reporting date; this analysis assumes that all other variables, in particular foreign currency exchange rates, remain constant.

<i>Impact to profit or loss</i>	Consolidated financial statements		Separate financial statements	
	0.25% increase in interest rate	0.25% decrease in interest rate	0.25% increase in interest rate	0.25% decrease in interest rate
	<i>(in million Baht)</i>			
2023				
Financial instruments with variable interest rate	(12)	12	6	(6)
2022				
Financial instruments with variable interest rate	45	(45)	(2)	2

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

(d) *Hedge accounting*

(d.1) *Cash flow hedges*

At 31 December 2023 and 2022, the Group held the following financial instruments to hedge exposures from changes in foreign currency and interest rates.

<i>At 31 December</i>	Consolidated financial statements					
	2023			2022		
	Within one year or less	Maturity More than 1 year but less than 5 years	More than 5 years	Within one year or less	Maturity More than 1 year but less than 5 years	More than 5 years
<i>Foreign currency risk</i>						
<i>Cross currency swaps</i>						
Net exposure (<i>in million Baht</i>)	16	61	59	15	62	75
Average THB:USD cross currency swaps	31.07	31.07	31.07	31.07	31.07	31.07
<i>Forward exchange contracts</i>						
Net exposure (<i>in million Baht</i>)	6,625	-	-	4,507	-	-
Average THB:USD forward contracts rate	34.39	-	-	34.06	-	-
Average THB:JPY forward contracts rate	0.2513	-	-	0.2635	-	-
<i>Interest rate risk</i>						
<i>Interest rate swaps</i>						
Net exposure (<i>in million Baht</i>)	13	36	10	14	41	16
Average fixed interest rate (%)	3.18	3.15	3.08	3.14	3.13	3.06

The amounts at the reporting date relating to items designated as hedged items were as follows.

<i>At 31 December</i>	Consolidated financial statements		Balance remaining in the cash flow hedge reserve from hedging relationships for which hedge accounting is no longer applied
	Change in value used for calculating hedge ineffectiveness	Cash flow hedge reserve (<i>in million Baht</i>)	
2023			
<i>Exchange rate risk</i>			
Loans from financial institutions with foreign currency	-	4	-
<i>Interest rate risk</i>			
Loans from financial institutions with variable interest rates	-	(1)	-

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<i>At 31 December</i>	Consolidated financial statements		Balance remaining in the cash flow hedge reserve from hedging relationships for which hedge accounting is no longer applied
	Change in value used for calculating hedge ineffectiveness	Cash flow hedge reserve (in million Baht)	
2022			
Interest rate risk			
Loans from financial institutions with variable interest rates	-	32	-

The amounts relating to items designated as hedging instruments and hedge ineffectiveness were as follows.

	Consolidated financial statements	
	2023	2022
	<i>(in million Baht)</i>	
Foreign currency risk		
At 31 December		
Cross currency swaps - nominal amount	122	136
Forward exchange contracts - nominal amount	6,625	4,507
Carrying amount included in:		
- other current financial assets	135	2
For the year ended 31 December		
<i>Recognised in OCI</i>		
- changes in value of the hedging instrument	4	(4)
Interest rate risk		
At 31 December		
Interest rate swaps - nominal amount	59	72
Carrying amount included in:		
- other current financial assets	-	61
- other non-current financial liabilities	(2)	(55)
For the year ended 31 December		
<i>Recognised in OCI</i>		
- changes in value of the hedging instrument	(1)	32

Notes to the financial statements

For the year ended 31 December 2023

Bangchak Corporation Public Company Limited and its Subsidiaries

The following table provides a reconciliation by risk category of components of equity and analysis of OCI items, net of tax, resulting from cash flow hedge accounting.

	Consolidated financial statements	
	2023	2022
	<i>(in million Baht)</i>	
Balance at 1 January	(17)	(45)
Cash flow hedges		
Changes in fair value:		
Foreign currency risk - Loans from financial institutions	4	(4)
Interest rate risk - Loans from financial institutions	(1)	32
Balance at 31 December	<u><u>(14)</u></u>	<u><u>(17)</u></u>

(d.2) *Net investment hedges*

Risk in foreign currency exposure arises from the Group's net investment in its Japanese subsidiaries that has a Japanese Yen functional currency. The risk arises from the fluctuation in spot exchange rates between the Japanese Yen and the Thai Baht, which causes the amount of the net investment to vary.

The hedged risk in the net investment hedge is the risk of a weakening Japanese Yen against the Thai Baht that will result in a reduction in the carrying amount of the Group's net investment in the Japanese subsidiaries.

The Group's net investment in its Japanese subsidiaries is hedged by a Japanese Yen-denominated loans from financial institutions, which mitigates the foreign currency risk arising from the subsidiaries' net assets. The loan is designated as a hedging instrument for the changes in the value of the net investment that is attributable to changes in the THB/JPY spot rate.

To assess hedge effectiveness, the Group determines the economic relationship between the hedging instrument and the hedged item by comparing changes in the carrying amount of the debt that is attributable to a change in the spot rate with changes in the investment in the foreign operation due to movements in the spot rate (the offset method). The Group's policy is to hedge the net investment only to the extent of the debt principal.

The amounts related to items designated as hedged items were as follows.

	Consolidated financial statements		
	Change in value used for calculating hedge ineffectiveness	Foreign currency translation reserve <i>(in million Baht)</i>	Balance remaining in the foreign currency translation reserve from hedging relationships for which hedge accounting is no longer applied
2023			
JPY net investment	-	36	-
2022			
USD net investment	1,123	(92)	1,031
JPY net investment	-	106	-

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Bangchak Corporation Public Company Limited and its Subsidiaries

The amounts related to items designated as hedging instruments were as follows.

	Consolidated financial statements	
	2023	2022
	<i>(in million Baht)</i>	
At 31 December		
Foreign exchange - denominated debt (USD) - nominal amount	-	2,779
Foreign exchange - denominated debt (JPY) - nominal amount	180	590
Carrying amount included in borrowings	<u>180</u>	<u>3,369</u>
For the year ended 31 December		
<i>Recognised in OCI</i>		
- changes in value of the hedging instrument	36	16

Capital Management

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board regularly monitors the return on capital, by evaluating result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

31 Commitments with non-related parties

	Consolidated financial statements		Separate financial statements	
	2023	2022	2023	2022
	<i>(in million Baht)</i>			
Capital commitment				
Construction contracts	17,365	5,226	640	555
Others	15	-	-	-
Total	<u>17,380</u>	<u>5,226</u>	<u>640</u>	<u>555</u>
Other commitment				
Bank guarantees	1,980	2,613	126	919
Letter of credit	1,581	2,618	1,269	2,618
Total	<u>3,561</u>	<u>5,231</u>	<u>1,395</u>	<u>3,357</u>

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Bangchak Corporation Public Company Limited and its Subsidiaries

32 Contingent liabilities and contingent assets

- 32.1 In 2022, the Company became a defendant in a case where a property was claimed under land title deed a No. 2465 in Tambon Bangchak, Amphoe PhraKhanong, Bangkok Metropolis. The Company was demanded to remove buildings and return such land, for which the claimant sought compensation of Baht 5 billion if such action is not taken. In 1995, the Ministry of Finance, Treasury Department, and the Company had faced litigation under the same land title deed, which in 2016 the Supreme Court dismissed, considering all the land under the title deed already eroded by the Chao Phraya River. So, this exercise represented resurrected litigation, for which the Company contested. On 28 December 2022, a lower court dismissed the claim in agreement with the facts previously decided by the Supreme Court that all the land had been eroded and had become public property. The Plaintiff has appealed the case on 28 April 2023, and the Company has filed a response to the appeal on 19 July 2023. The case is under consideration by the Appeal Court. The Company believes that the outcome of this case will not impact the Company. Therefore, the Company did not recognise contingent liability that may occur from the case.
- 32.2 In 2022, the Company and its subsidiary received the notice of arbitration from the counterparty claiming that the Company and its subsidiary have breached the investment agreement, in turn, the Company and its subsidiary have to deliver a payment of a sum of approximately USD 23 million including interest of such sum and other related costs and damages. The Company and its subsidiary insist that it has performed and complied with the terms and conditions of the disputed agreement, and make a payment of the sum which the Company and its subsidiary believe to be the amount due and payable by it according to such agreement. In this regard, the Company and its subsidiary have filed a defence denying the excess and unfair claims against it, and proceeded to appoint an arbitrator in order to settle such dispute in accordance with the relevant procedure. Therefore, the Company and its subsidiary did not recognise contingent liability that may occur from the case.
- 32.3 In July 2021, an indirect subsidiary of the Group has been filed an accusation of failing to comply with the hire of work agreement by a contractor. The dispute has requested the indirect subsidiary to compensate for the loss incurred from breaching the construction contract totaling Baht 121 million. In September 2021, the indirect subsidiary has filed an objection to the Arbitration Institute. Later in October 2022, the indirect subsidiary filed a temporary suspense order to use the dispute asset. The Civil Court dismissed the suspense order to use the dispute asset in February 2023. On 27 June 2023, the Arbitral Tribunal made an Arbitral Award for remaining disputes, The Arbitral Tribunal has considered the facts and decided that both parties are responsible for each other. Based on the Arbitral Award, an indirect subsidiary recorded income and expenses amounting to Baht 52 million and Baht 29 million, respectively, in the statement of income for the year ended 31 December 2023. The indirect subsidiary and the contractor have made their payments according to the arbitration on 26 July 2023.

33 Events after the reporting period

Dividend payment

At the Board of Directors' meeting held on 22 February 2024, the Board approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2023 dividend payment at the rate of Baht 2.00 per share of which Baht 0.50 per share was paid as an interim dividend. Thus, the remaining dividend will be at the rate of Baht 1.50 per share payable to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on 20 April 2024.

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Bangchak Corporation Public Company Limited and its Subsidiaries

At the Board of Directors' meeting of BBGI Public Company Limited, which is a subsidiary of the Company, held on 19 February 2023 the Board of subsidiary approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2023 dividend payment at the rate of Baht 0.05 per share payable to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on 5 April 2024.

At the Board of Directors' meeting of BCPG Public Company Limited, which is a subsidiary of the Company, held on 20 February 2024 the Board of subsidiary approved to submit for approval at the Annual General Meeting of the Shareholders, a full year 2023 dividend payment at the rate of Baht 0.25 per share, of which Baht 0.10 per share was paid as an interim dividend. Thus, the remaining dividend will be at the rate of Baht 0.15 per share payable to the shareholders entitled to receive dividends. This dividend is subject to the approval of the Shareholders at the Annual General Meeting to be held on 9 April 2024.

On 21 February 2024, a resolution from the Board of Directors of Bangchak Sriracha Public Company Limited was passed to seek approval for the additional dividend payment of the year 2023 from the annual shareholders' meeting at a rate of Baht 0.25 per share, totaling 865 million Baht. This dividends is subject to approval of the Shareholders at the Annual General Meeting to be held on 10 April 2024.

BCPG Public Company Limited

On 4 January 2024, BCPG Public Company Limited drew down unsecured short-term loan agreements with Bangchak Treasury Center Co., Ltd., the Group's direct subsidiary, for an amount of Baht 2,500 million to repay short-term loan from the Company.

Impact Energy Asia Development Limited

On 8 January 2024, Impact Energy Asia Development Limited ("IEAD"), which is the joint venture of Indochina Development and Operation Holdings Pte. Ltd. ("IDO"), which is an indirect subsidiary of the Group, called up the capital by USD 26 million. IDO made the payment of 45% ownership amounting to USD 12 million (approximately Baht 417 million).

Monsoon Wind Power Company Limited

On 8 January 2024, the Board of Directors' Meeting of Monsoon Wind Power Co., Ltd. ("MWP") which operates a wind power project under development with installed capacity of 600 megawatts and IEAD, which is an indirect joint venture of the Group, and SMP AS. Pte. Ltd. ("SMPAS"), which is an indirect subsidiary of the Group, have 85% and 10% ownership interests, respectively, approved the call-up of share capital amounting to USD 31 million. IEAD and SMPAS made the payment of their percentage of ownership totaling USD 26 million and USD 3 million, respectively (approximately Baht 927 million and Baht 110 million, respectively).

Pathumwan Smart District Cooling Co., Ltd.

On 9 January 2024, Prathumwan Smart District Cooling Co., Ltd. ("PSDC"), which is an associate, of the Group, called up the share capital amounting to Bath 85 million and the Company's subsidiaries made the payment of 44% ownership amounting to Baht 37 million.

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Bangchak Corporation Public Company Limited and its Subsidiaries

BSGF Company Limited

On 12 January 2024, the Board of Directors' meeting of BSGF Company Limited ("BSGF") approved the fourth issuance of the increase in share capital from the original registered capital of Baht 2,201 million to new shares issued of Baht 3,201 million. BSGF registered the authorised share capital with the Ministry of Commerce on 25 January 2024. And on 19 January 2024, the Company paid the increased shares capital in total amount of Baht 200 million.

Thanachok Vegetable Oil (2012) Company Limited

On 26 December 2023, the Company entered into a Purchase and Sale Agreement to acquired 45% shares of Thanachok Vegetable Oil (2012) Company Limited ("TVO"), with an amount not exceeding Baht 450 million. TVO operates in providing and distributing used cooking oil. On 28 December 2023, the Company already paid share in total amount of Baht 150 million and recognised advance of share payment in Statement of financial position as at 31 December 2023. On 5 January 2024, all shares of TVO have been transferred to the Company.

Bangchak Sriracha Public Company Limited

On 21 February 2024, the Board of Directors of the Bangchak Sriracha Public Company Limited ("BSRC") passed the resolution for issuing and offering 5-year debenture (2024-2028), a total amount not exceeding Baht 30,000 million at a point of time, from the annual shareholders' meeting. The limit of debenture amount is subject to approval of the Shareholders at the BSRC's Annual General Meeting to be held on 10 April 2024.

34 Thai Financial Reporting Standards (TFRSs) not yet adopted

Global minimum top-up tax

On 28 December 2023, the Federation of Accounting Professions issued TAS 12, Income Taxes - International Tax Reform - Pillar Two Model Rules.

The amendment requires that entities shall neither recognise nor disclose information about deferred taxes related to Pillar Two model rules published by the Organisation for Economic Co-operation and Development (OECD). This mandatory temporary exemption applies immediately.

The amendment also includes disclosure requirements for affected entities to help users of financial statements better understand an entity's exposure to Pillar Two income taxes arising from that legislation, particularly before its effective date. These disclosure requirements apply for annual reporting periods beginning on or after 1 January 2024, but not for any interim periods ending on or before 31 December 2024.

The Group has applied the mandatory exception by not recognising and not disclosing information about deferred tax assets and liabilities arising from Pillar Two income taxes. The management of the Group is currently in the process of assessing the potential exposure to Pillar Two income taxes on the financial statements.

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The Federation of Accounting Professions has issued and revised TFRSs which are effective for annual accounting periods beginning on or after 1 January 2024 and have not been adopted in the preparation of these financial statements because they are not yet effective. The Company has assessed the potential initial impact on the financial statements of these issued and revised TFRSs and expected that there will be no material impact on the financial statements in the year of initial application.



Attachment

Attachment 1

Profiles of Directors, Executives,
Head of Finance and Accounting,
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Attachment 2

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Corporate Governance Policy and Guidelines
(full version) and Code of Conduct
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Attachment 1

Profiles of Directors, Executives, Head of Finance and Accounting, Accounting Supervisor and Company Secretary

The Board of Directors

Mr. Pichai Chunhavajira

Chairperson of the Board and Director with Authorized Signature (Independent Director)

(Started on April 24, 2012 and Independent director since June 1, 2017)

- **Age 74**
- **Education/Training**
 - Master of Business Administration, Indiana University of Pennsylvania, USA
 - Bachelor of Business Administration (Accounting), Thammasat University
 - Honorary Ph.D. (Accounting), Thammasat University
 - Honorary Ph.D. (Financial Management), Mahasarakham University
 - Honorary Ph.D. (Financial Management), Sripatum University
 - Diploma, The Joint State - Private Sector Course (Class 13) The National Defence College
 - Certified Auditor, Federation of Accounting Professions
 - Director Accreditation Program (DAP49/2006) Thai Institute of Directors (IOD)
 - Director Certification Program (DCP143/2011) Thai Institute of Directors (IOD)
 - Top Executive Program (Class 5) Capital Market Academy (CMA) Stock Exchange of Thailand
- **Experience (5 years past experiences)**
 - 2012 - Present : Chairperson of the Board, Bangchak Corporation Public Company Limited
 - 2014 - 2017 : Member of Board, Bank of Thailand
 - 2001 - 2013 : Director, PTT Exploration and Production Public Company Limited
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Chairman, BCPG Public Company Limited
 - o Chairman, BBGI Public Company Limited
 - Non-listed companies
 - o Chairman, The Stock Exchange of Thailand (SET)
 - o President, Thailand Boxing Association
 - o Vice President, National Olympic Committee of Thailand
 - o President, The Asian Boxing Confederation (ASBC)
 - o Advisor, The Prime Minister of Thailand
 - o Advisor, Thailand Board of Investment
 - o Member, State Enterprise Director Screening Committee
 - o Member, The Monitoring committee solving problem operations for Thai Airways International Public Company Limited
- **Shareholding in the Company:** 450,000 shares or 0.03268% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Surin Chiravisit

Vice Chairperson, Independent Director and Director with Authorized Signature

(Started on April 11, 2023)

- **Age 76**
- **Education/Training**
 - Master of Laws, Chulalongkorn University
 - Bachelor of Laws, Ramkhamhaeng University
 - Bachelor of Education, Srinakharinwirot University
 - Investigation of the criminal case program (Class 44) The Royal Thailand Police
 - Senior Administrator Program (Class 29), Ministry of Interior
 - Senior Executive Program (Class 21) Office of The Civil Service Commission
 - Certificate, National Defence Course (NDC40) The National Defence College
 - Politics and Government in Democracy for Executives (Class 6) King Prajadhipok's Institute
 - Director Certification Program (DCP136/2010) Thai Institute of Directors (IOD)
 - How to Develop a Risk Management Plan (HRP1/2012) Thai Institute of Directors (IOD)
 - Successful Formulation and Execution of Strategy (SFE17/2013) Thai Institute of Directors (IOD)
 - Role of the Nomination and Governance Committee (RNG4/2013) Thai Institute of Directors (IOD)
 - Advanced Security Management Program (Class 5) The Association National Defence College of Thailand under the Royal Patronage of His Majesty the King
 - Public-private Social Peace and Order Management Training Course (Class 2) Royal Thai Police
 - Senior Executive Program in Urban Development Management (Class 5) Navamindradhiraj University
 - Advanced Audit Committee Program (AAP47/2023) Thai Institute of Directors (IOD)
- **Experience (5 years past experiences)**
 - 2006 - Present : Director and Vice President of the Council of Bangkok Suvarnabhumi University
 - 2008 - Present : Member of the Eye Procurement and Service Committee of the Thai Red Cross Society
: Senior Consultant, Amata Corporation Public Company Limited
 - 2010 - 2021 : Vice Chairperson and Chairperson of the Enterprise-wide Risk Management Committee and Authorized Signature
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Vice Chairman, National Reform Society, Office of the National Economic and Social Development Council
- **Shareholding in the Company:** None (both directly and indirectly held) (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Prasong Poontaneat

Vice Chairperson, Independent Director and Chairperson of the Enterprise-wide Risk Management Committee

(Started on November 1, 2021)

- **Age 64**
- **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 (CMA) The Stock Exchange of Thailand
 - Executive Program, Energy Academy, Thailand Energy Academy (TEA2)
 - Diploma, National Defence Course (NDC52) The National Defence College
- **Experience (5 years past experiences)**
 - 2020 : Chairperson, Krung Thai Public Company Limited
 - 2018 - 2020 : Permanent Secretary, Ministry of Finance
 - : Chairperson, The Office of Insurance Commission
 - : Commissioner, The Securities and Exchange Commission
 - : Chairperson, TMB Bank Public Company Limited
 - 2014 - 2020 : Chairperson, Airports of Thailand Public Company Limited
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Chairman, Krungthai Card Public Company Limited
 - Non-listed companies
 - o Chairman, State Enterprise Director Screening Committee
 - o Member, The Council of State, Office of the Council of State
 - o Chairman, Insurverse Public Company Limited
- **Shareholding in the Company:** None (both directly and indirectly held) (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Dr. Porameteer Vimolsiri

Independent Director and Chairperson of the Audit Committee

(Started on June 7, 2018)

- **Age 63**
- **Education/Training**
 - Doctor of Philosophy (Ph.D.) (Economics) Public Finance and Policy, Carleton University, Canada
 - Master of International Affairs (International Economics), Columbia University, USA
 - Bachelor of Economics, Chulalongkorn University
 - Diploma, National Defence Course (NDC51) The National Defence College
 - Director Certification Program (DCP86/2007) Thai Institute of Directors (IOD)
 - Audit Committee Program (ACP42/2013) Thai Institute of Directors (IOD)
 - Successful Formulation & Execution of Strategy (SFE19/2013) Thai Institute of Directors (IOD)
 - Executive Creative Economy Training (EXCET)
 - Chief Information Officer Program, Electronic Government Agency (EGA)
 - Top Executive Program in Commerce and Trade (TEPCoT), University of the Thai Chamber of Commerce
 - ASEAN Executive Management Program
 - Business Development and Industry Investment for Executive, Institute of Business and Industrial Development (IBID)
- **Experience (5 years past experiences)**
 - 2020 : Director, Electricity Generating Authority of Thailand
 - : Chairman, Government Pawnshop Board
 - 2018 - 2020 : Permanent Secretary, Ministry of Social Development and Human Security
 - 2015 - 2018 : Secretary General, Office of the National Economic and Social Development Board (NESDB)
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Independent Director, Thaicom Public Company Limited
 - Non-listed companies
 - o Chairman, Bank of Thailand
 - o Chairman, Office of Knowledge Management and Development
 - o Chairman, Stone One Public Company Limited
 - o Chairman, Pattanathai Foundation
- **Shareholding in the Company:** 150,000 shares or 0.01089% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mrs. Prisana Praharnkhasuk

Independent Director and Chairperson of the Nomination and Remuneration Committee

(Started on April 5, 2016)

- **Age 69**
- **Education/Training**
 - Master of Business Administration, Tarleton State University, USA
 - Bachelor of Business Administration, Chulalongkorn University
 - Bachelor of Business Administration (Accounting), Krirk University
 - Certificate of Insurance, College of Insurance, London, UK
 - Sasin Senior Executive Program (SEP13), Sasin Graduate Institute of Business Administration of Chulalongkorn University
 - Certificate of Completion CFO Certification Program, Federation of Accounting Professions
 - Certificate of NIDA-Wharton Executive Leadership Program, Wharton University of Pennsylvania
 - Director Certification Program (DCP119/2009) Thai Institute of Directors (IOD)
 - The Board's Role in Mergers and Acquisitions (M&A1/2011) Thai Institute of Directors (IOD)
 - Board Nomination & Compensation Program (BNCP16/2023) Thai Institute of Directors (IOD)
 - Top Executive Program (Class 14) Capital Market Academy (CMA) The Stock Exchange of Thailand
 - PTT Executive Leadership Development, GE Croton Ville, USA
 - Financial and Fiscal Management Program for Senior Executive (Class 1)
 - Cyber Resilience Leadership (2022) Bank of Thailand
- **Experience (5 years past experiences)**
 - 2019 - 2021 : Director, OKEA ASA - Oslo Stock Exchange (OSE)
 - 2018 - 2019 : Director, Thai Credit Guarantee Corporation
 - 2017 - 2019 : Director, Siam Solar Power Public Company Limited
 - 2016 - 2019 : Director, Industrial Estate Authority of Thailand
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Independent Director, Chairperson of the Audit Committee and Member of Nomination and Remuneration Committee, TOA Paint (Thailand) Public Company Limited
 - o Independent Director and Chairperson of the Audit Committee, Siamese Asset Public Company Limited
 - o Advisor to Chairman of the Board, Dhipaya Insurance Public Company Limited
 - Non-listed companies
 - o Independent Director and Member of the Audit Committee, Siam Commercial Bank Public Company Limited
 - o Member of CAC Certification Committee, Thai Private Sector Collective Action Against Corruption (CAC) Council
- **Shareholding in the Company:** 200,000 shares or 0.01452% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Narin Kalayanamit

Independent Director and Chairperson of the Sustainability and Corporate Governance Committee

(Started on April 8, 2022)

- **Age 65**

- **Education/Training**

- M.S. (Management and Human Relations), Abilene Christian University, TEXAS, U.S.A.
- B.A. (Economic Political Science), Delhi University, INDIA
- Certificate, Senior Administrator Program (Class 48) Interior College Damrong Rajanupab Institute, Ministry of Interior
- Management Development Program (Mini Master of Management Program (MMM)) (Class 34) National Institute of Development Administration (NIDA)
- Corporate Leadership Development under Globalization Fiscal Policy Research Institute, in collaboration with The Kellogg School of Management, The Schulich School of Business and The Maxwell School of Citizenship and Public Affairs
- Director Certification Program (DCP167/2012) Thai Institute of Directors (IOD)
- Financial Statement for Directors (FSD33/2017) Thai Institute of Directors (IOD)
- The Board's Role in Mergers and Acquisitions (BMA1/2022) Thai Institute of Directors (IOD)
- National Defence College (Class 50) The National Defence Course
- Leadership Program (Class 16) Capital Market Academy
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives (PDI 14), King Prajadhipok's Institute
- Top Executive Program in Commerce and Trade (TEPCoT) Commerce Academy (Class 8)
- Advanced Certificate Course, Politics and Governance in Democratic Systems for Executives (Class 15) National Defence Collage
- The Executive Program in Energy Literacy for a Sustainable Future TEA (Class 12) Thailand Energy Academy
- Tourism Management Program for Executives (Class 1) (TME) Tourism Authority of Thailand

- **Experience (5 years past experiences)**

- 2020 - 2023 : Qualified Director of Insurance Fund, Office of Insurance Commission (OIC)
: Qualified Director Life Insurance Fund Management Committee
: Chairman of Board of Directors, Industrial Estate Authority of Thailand
- 2019 - 2022 : Independent Director, BCPG Public Company Limited
- 2018 - 2019 : Chairman, Government Housing Bank
: Director, The Commission of Victim Compensation Fund, Office of Insurance Commission
: Director, Civil Penalty Committee according "Securities and Exchange Act (No. 5) B.E. 2559", The Securities and Exchange Commission, Thailand
- 2017 - 2019 : Deputy Permanent Secretary, Ministry of Finance
: Director, Committee for the Protection of Credit Information
: Director, Neighboring Countries Economic Development Cooperation Agency
: Director of National Health Security Board, National Health Security Office

- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Qualified Director General Insurance Fund Management Committee and other 5 sub-committees
 - o Investment Sub-committee and the Human Management Sub-committee of Insurance Fund, Office of Insurance Commission (OIC)
 - o Qualified Director of Economic, Finance or Fiscal, The Development of People's Finance Institution Committee, Bureau of Financial Inclusion Policy and Development, Fiscal Policy Office, Ministry of Finance
 - o Qualified Director of Economic, Ratchaphatsadu Land Committee, The Treasury Department, Ministry of Finance
- **Shareholding in the Company:** None (both directly and indirectly held) (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Pol. Lt. Gen. Samran Nualma

Independent Director

(Started on April 8, 2022)

- **Age 51**
- **Education/Training**
 - Master of Political Science, Ramkhamhaeng University
 - Bachelor of Political Science, Royal Police Cadet Academy
 - Director Certification Program (DCP322/2022) Thai Institute of Directors (IOD)
 - Law for Democracy Course (Class 11) Office of the Constitutional Court
 - Advance Master of Management (Class 9) National Institute of Development Administration (NIDA)
 - Senior Justice Administration (Class 25) College of Justice, Judicial Training Institute
 - Volunteer Course 904 - Regular Course (Class 2) Royal Office
- **Experience (5 years past experiences)**
 - 2021 - 2022 : Commissioner General of Metropolitan Police Bureau, Royal Thai Police
 - 2019 : Deputy Commissioner General of Metropolitan Police Bureau, Royal Thai Police
 - 2018 : Commander of Patrol and Special Operation Division
 - 2016 : Deputy Superintendent of Patrol and Special Operation Division
: Superintendent of Patrol and Special Operation Division
 - 2012 : Superintendent, Don Mueang Police Station
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Assistant Commissioner of Royal Thai Police
- **Shareholding in the Company:** 300,000 shares or 0.02178% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Maj. Gen. Yuttasak Raksereepitak

Independent Director

(Started on July 20, 2023)

- **Age 52**
- **Education/Training**
 - Master of Public Administration, Ramkhamhaeng University
 - Bachelor of Engineering (Ordnance Engineering), Chulachomklao Royal Military Academy
- **Experience (5 years past experiences)**
 - 2020 - 2022 : Deputy Director of Royal Thai Armed Forces Cyber Security Center
 - 2016 - 2020 : Operating Officer of 14th Military District
 - 2014 - 2016 : Chief of Mobilization Department, 14th Military District / Aide-de-camp of Minister of Justice
 - 2013 - 2014 : Inspector of 1st Army Area
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Staff Officer to the Chief of Defense Forces, Royal Thai Army
- **Shareholding in the Company:** None (both directly and indirectly held) (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Achporn Charuchinda

Independent Director and Director with Authorized Signature

(Started on January 4, 2022)

- **Age 70**
- **Education/Training**
 - Bachelor of Laws, Thammasat University
 - Thai Barrister-at-Law, Institute of Legal Education of the Thai Bar Association
 - Director's Briefing - Corporate Strategy beyond the Crisis, a Chairman/Board Perspective, Bain & Company, Inc.
 - Law Drafting Certificate, India
 - Diploma, National Defence Course (NDC46) The National Defence College
- **Experience (5 years past experiences)**
 - 2017 - 2019 : Chairman, National Reform Committee in Justice Process, National Reform Committee
: Board Member in Legal, Office of the National Economic and Social Development (NESDB)
 - 2016 : Director, Thailand Tobacco Monopoly, Ministry of Finance
 - 2015 - 2020 : Board Member, Office of the National Economic and Social Development (NESDB)
 - 2015 - 2018 : Board Member, Highland Research and Development Institute (Public Organization)
 - 2014 - 2020 : Board Member, Office of Insurance Commission
 - 2013 - 2021 : Director, PTT Exploration and Production Public Company Limited
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Executive Board, Life Insurance Fund
 - o Advisory Board, The Crown Property Bureau
 - o Special Advisory Committee, Highland Research and Development Institution (Public Organization)
 - o Member, The Risk Oversight Committee, Bank of Thailand
 - o Member, Constitution Drafting Committee
 - o Member, The Council of State, The Office of the Council of State
 - o Member, State Enterprise Director Screening Committee
- **Shareholding in the Company:** None (both directly and indirectly held) (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Chaovalit Ekabut

Independent Director

(Started on January 27, 2022)

- **Age 65**
- **Education/Training**
 - Master of Engineering, Industrial Engineering and Management, Asian Institute of Technology (AIT)
 - Bachelor of Engineering, Mechanical Engineering (Honor), Chulalongkorn University
 - Advanced Management Program (AMP), Harvard Business School, USA
 - Director Accreditation Program (DAP27/2004) Thai Institute of Directors (IOD)
 - Director Certification Program (DCP84/2007) Thai Institute of Directors (IOD)
 - Role of Chairman Program (RCP24/2010) Thai Institute of Directors (IOD)
 - Cyber Resilience for Directors of Financial Institutions, Bank of Thailand
- **Experience (5 years past experiences)**
 - 2019 - 2023 : Advisor to President & CEO, The Siam Cement Public Company Limited
 - 2018 - 2024 : Director, SCG Ceramics Public Company Limited
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Director, SCG Décor Public Company Limited
 - Non-listed companies
 - o Independent Director and Chairman of the Audit Committee, Siam Commercial Bank Public Company Limited
 - o Director and Treasurer, Friends of AIT Foundation
 - o Member, The Executive Committee and Chairman of the Audit Committee, Asian Institute of Technology (AIT)
 - o Director, Thailand Productivity Institute
 - o Director, The Foundation for Thailand Productivity Institute
- **Shareholding in the Company:** 300,000 shares or 0.02178% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mrs. Vilai Chattanrassamee

Independent Director and Director with Authorized Signature

(Started on April 11, 2023)

- **Age 69**
- **Education/Training**
 - Master's Degree (Accounting), Thammasat University
 - Bachelor's Degree (Accounting), Chulalongkorn University
 - Certified Auditor
 - Fellow Member, Thai Institute of Directors (IOD)
 - Director Certification Program (DCP13/2001) Thai Institute of Directors (IOD)
- **Experience (5 years past experiences)**
 - Director of Audit Committee, King Mongkut's Institute of Technology Ladkrabang
 - Director of Audit Committee, Saha Thai Steel Pipe Public Company Limited
 - Advisor to the Audit Committee, The Metropolitan Waterworks Authority
 - Audit Committee, Village Fund Office
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Director of Audit Committee, Director of Corporate Governance, Nominating and Compensation Committee, MK Restaurant Group Public Company Limited
 - o Chairman of the Audit Committee, Director of Risk Management Committee and Director of Nomination and Remuneration Committee, Saha Thai Terminal Public Company Limited
 - Non-listed companies
 - o Audit Committee Administration of Mahidol University
 - o Sub-Committee Procurement and Administration Government Policy, Thai Government Procurement, The Comptroller General's Department
 - o Advisor to Chancellor, Finance and Accounting of King Mongkut's Institute of Technology Ladkrabang
 - o Independent Observer of Integrity Pact, Anti-Corruption Organization of Thailand (ACT)
 - o Chairman of the Audit Committee and Member of the Nomination and Remuneration Committee, Northland Experience Company Limited
 - o Treasurer, Alumni Association Faculty of Commerce and Accountancy of Chulalongkorn University
 - o Director, Horton International Company Limited
 - o Director, Executive Search Services Company Limited
 - o Director, ERA Plus Company Limited
- **Shareholding in the Company:** 50,000 shares or 0.00363% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mrs. Woranuch Phu-im

Director and Director with Authorized Signature

(Started on April 11, 2023)

- **Age 59**
- **Education/Training**
 - Master of Public Administration, Chulalongkorn University
 - Diploma in Public Law, Thammasat University
 - Bachelor of Laws, Thammasat University
 - Ministerial Inspector General Course (Class 64), Office of the Permanent Secretary, Office of the Prime Minister
 - National Defence College (Class 62), The National Defence Course
 - Senior Legal Executive Program (Class 8), Office of the Council of State
 - Senior Executive Program (Class 11), Office of the Civil Service Commission
 - Senior Finance Executive Program (Class 6), The Comptroller General's Department
 - Public Administration and Public Law Course (Class 16), King Prajadhipok's Institute
 - High-level executive course "Thammasat for Society" (Class 3), Thammasat University
- **Experience (5 years past experiences)**
 - 2020 - 2022 : Inspector General, Office of the Permanent Secretary, Ministry of Finance
 - 2018 - 2022 : Consultant of Coin Management and Valuable Assets
 - 2016 - 2018 : Director, Royal Thai Mint, The Treasury Department
 - 2013 - 2016 : Procurement and Finance Specialist, The Treasury Department
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Deputy Permanent Secretary, Ministry of Finance
 - o Director, Government Savings Bank
 - o Director, Tourism Authority of Thailand
 - o Director, The Land Bank Administration Institute
- **Shareholding in the Company:** None (both directly and indirectly held) (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Phairoj Chotikasatien

Director

(Started on October 31, 2023)

- **Age 59**
- **Education/Training**
 - Master of Public Administration Prince of Songkla University
 - Bachelor of Political Science (Public Administration) Chiang Mai University
 - Personnel Course Certificate, Institute of Administration Development
 - Management Course for Junior Supervisors, The Office of the Civil Service Commission (OCSC)
 - Senior Executive Program (Change Management) : Government Executive (Class 83), The Office of the Civil Service Commission
- **Experience (5 years past experiences)**
 - 2021 - 2023 : Director General of the Department of Employment
 - 2020 - 2021 : Deputy Permanent Secretary, Ministry of Labour
 - 2020 : Inspector General, Ministry of Labour
 - 2019 - 2020 : Deputy Director General of the Department of Employment
 - 2017 - 2019 : Inspector General of the Department of Employment
- **Other directorship positions / other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Permanent Secretary, Ministry of Labour
- **Shareholding in the Company:** None (both directly and indirectly held) (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Chaiwat Kovavisarach

Group Chief Executive Officer and President

Executive Director, Director with Authorized Signature

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

- **Age 58**
- **Education/Training**
 - Master of Engineering, Asian Institute of Technology (AIT)
 - Master of Business Administration (MBA), Thammasat University
 - Bachelor of Engineering (Honor), King Mongkut's Institute of Technology Ladkrabang (KMITL)
 - Investment Banking, Kellogg Business School, Northwestern University, USA
 - Director Certification Program (DCP168/2013), Thai Institute of Directors (IOD)
 - Role of the Nomination and Governance Committee (RNG4/2013), Thai Institute of Directors (IOD)
 - Diploma, National Defence Course (NDC58), The National Defence College
 - Certificate, Executive Program in Energy Literacy for a Sustainable Future (Class 10) Thailand Energy Academy (TEA)
 - Top Executive Program (Class 26) Capital Market Academy (CMA), Stock Exchange of Thailand
 - Senior Justice Administration (Class 25) College of Justice, Judicial Training Institute
 - Role of the Chairman Program (RCP46/2020) Thai Institute of Directors (IOD)
- **Experience (5 years past experiences)**
 - 2022 - Present : Group Chief Executive Officer and President, Bangchak Corporation Public Company Limited
 - 2015 : President and Chief Executive Officer, Bangchak Corporation Public Company Limited
- **Other directorship positions / other positions at present**
 - Other listed companies
 - o Chairman, OKEA ASA - Oslo Stock Exchange (OSE)
 - Non-listed companies
 - o Director, BCP Trading Pte. Ltd.
 - o Qualified Committee Member of Credit Information Protection Committee, Bank of Thailand
 - o Honorary Institute Councilor of King Mongkut's Institute of Technology Ladkrabang
 - o President, Suan Kulab Witthayalai Alumnus Association Under the Royal Patronage of H.M. the King
 - o Expert Member, Government Pension Fund
 - o Chairman, Thai-Europe Business Council, Joint Committee on Private Sector 3 Institutions (Kor.Kor.Ror.)
 - o Advisory Board, The Petroleum and Petrochemical College, Chulalongkorn University
 - o Director, Thailand Management Association (TMA)
 - o Executive Chairman/Board of Trustees, Asian Institute of Technology (AIT)
 - o Vice Chairman, The Federation of Thai Industries
 - o Advisor, Investment Subcommittee, Government Pension Fund
- **Shareholding in the Company:** 2,500,000 shares or 0.18156% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

The Executives

Mr. Somchai Tejavanija

Chief Marketing Officer, Marketing Business Group

- **Age 61**
- **Education/Training**
 - Master of Business Administration (MBA), Thammasat University
 - Bachelor of Engineering, Kasetsart University
 - Stanford-SEAC Leading in a Disruptive World 4 (LDW4) The Stanford Center for Professional Development (SCPD), Stanford University
 - Strategy and Innovation for Business in Asia (SIBA7) Massachusetts Institute of Technology (MIT), College of Management Mahidol University (CMMU)
 - Director Certification Program (DCP157/2012), Thai Institute of Directors (IOD)
 - Successful Formulation & Execution of Strategy (SFE28/2016), Thai Institute of Directors (IOD)
 - Top Executive Program, Class 30, Capital Market Academy (CMA), The Stock Exchange of Thailand
 - Top Executive Program in Energy Literacy for a Sustainable Future (Class 17), Thailand Energy Academy (TEA)
 - Top Executive Program in Commerce and Trade (TEPCoT11/2018), University of the Thai Chamber of Commerce
 - Advanced Master of Management Program Class 8, National Institute of Development Administration
 - Executive Management with Business Development and Investment (IBID3), Institute of Business and Industrial Development
 - Advanced Security Management Program (ASMP) Class 6, The National Defence College
 - Thammasat Leadership Program (Class 4), Thammasat University
 - Advanced Certificate Course in Public Administration and Law for Executives (Class 12), King Prajadhipok's Institute
 - Executive Development Program (EDP6), Thai Listed Companies Association (TLCA)
 - Energy Leadership Development for Senior Managers (Class 4), Ministry of Energy
- **Experience**

Bangchak Corporation Public Company Limited

 - 2023 : Chief Marketing Officer, Marketing Business Group
 - 2017 : Chief Marketing Officer and Senior Executive Vice President, Marketing Business Group
 - 2016 : Senior Executive Vice President, Natural Resources and Business Development
 - 2014 : Senior Executive Vice President, Corporate Strategy and Business Development
 - 2013 : Executive Vice President, Business Development and Strategy
 - 2011 : Executive Vice President, Marketing Business, responsible for Retail Marketing, and Acting Vice President, Marketing Business Strategy and Planning
 - 2010 : Senior Vice President-Marketing Business Strategy and Planning, Marketing Business
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Director, Bangchak Sriracha Public Company Limited
 - Non-listed companies
 - o Chairman, Bangchak Retail Company Limited
 - o Director, Bangchak Green Net Company Limited
- **Shareholding in the Company:** 150,522 shares or 0.01093% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Pativat Tivasasit

Chief Operation Officer, Refinery and Oil Trading Business Group

- **Age 63**
- **Education/Training**
 - Bachelor of Science (Chemical Technology), Chulalongkorn University
 - Executive Development Program (EDP), Thai Listed Companies Association (TLCA)
 - Advanced Diploma, Public Administration and Public Law, Class 17/2018, King Prajadhipok's Institute
 - Advanced Security Management Program, Class 11/2019, Security Management Foundation
- **Experience**

Bangchak Corporation Public Company Limited

 - 2023 : Chief Operation Officer, Refinery and Oil Trading Business Group
 - 2021 - 2022 : Chief Operation Officer & Senior Executive Vice President, Refinery Business Group
 - 2020 : Senior Executive Vice President, Refinery Business Group
 - 2019 : Executive Vice President, Refinery Manufacturing Business,
and Acting Senior Executive Vice President, Refinery Business Unit
 - 2017 : Executive Vice President, Refinery Manufacturing Business
 - 2016 : Acting Executive Vice President, Refinery Manufacturing Business
 - 2015 : Senior Vice President, Refinery Operation
 - 2014 : Vice President, Refinery Operation
 - 2012 : Vice President, Safety Health and Environment
 - 2009 : Senior Manager, Process Division 2
 - 2006 : Senior Manager, Commissioning Project
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Director, BSGF Company Limited
- **Shareholding in the Company:** 150,500 shares (Spouse 48,500 shares) or 0.01445% (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Ms. Phatpuree Chinkulkitnivat

Chief Financial Officer and Senior Executive Vice President, Accounting and Finance

The person taking the highest responsibility in finance and accounting since October 1, 2022

- **Age 49**
- **Education/Training**
 - Master of Business Administration (High Distinction), School of Business Administration, University of Michigan, Ann Arbor, USA
 - Bachelor of Economics (First Class Honors), Faculty of Economics, Chulalongkorn University
 - Director Certification Program (DCP300/2020) Thai Institute of Directors (IOD)
 - Advanced Management Program, Harvard Business School (AMP192/2017)
 - Decentralized Finance and Blockchain, Chulalongkorn University (2022)
 - Bain APAC Executive Digital Immersion, Beijing (2017)
 - Bain Executive Digital Immersion, Silicon Valley, (2016)
 - CEDI-BABSON Entrepreneurial Leadership Program, Babson College (2013)
 - Pacific Rim Bankers Program, Foster School of Business, University of Washington (2011)
 - CFA (“Chartered Financial Analyst”) Charter holder (2002)
- **Continuing Professional Development (CPD) in 2023**
 - e-learning CFO’s Refresher Course, Stock Exchange of Thailand
- **Experience**

Bangchak Corporation Public Company Limited

 - Nov 2023 - Present : Chief Financial Officer and Senior Executive Vice President, Accounting and Finance
 - 2022 - 2023 : Senior Executive Vice President, Accounting and Finance, and Acting Executive Vice President, Financial Controller
 - 2019 - 2022 : Executive Vice President, Acting as Senior Executive Vice President, Finance and Accounting, BCPG Public Company Limited

Others

 - 2014 - 2018 : Senior Vice President, Strategic Planning Head/ Office of President, Commercial Banking Group, Bangkok Bank Public Company Limited
 - 2012 - 2014 : Senior Vice President and Regional Manager, Commercial Banking Group, Bangkok Bank Public Company Limited
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Director, OKEA ASA - Oslo Stock Exchange (OSE)
 - o Director, Bangchak Sriracha Public Company Limited
 - o Director, BCPG Public Company Limited
 - Non-listed companies
 - o Director, BCP Trading Pte. Ltd.
 - o Director, BCPR Company Limited
 - o Director, BCPR Pte. Ltd.
 - o Director, BCV Energy Company Limited
 - o Director, BCV Innovation Company Limited
 - o Director, BCP Innovation Pte. Ltd.
 - o Director, Winnonie Company Limited
 - o Director, Mee Tee Mee Ngern Company Limited
 - o Director, Bangchak Treasury Center Company Limited
- **Shareholding in the Company:** 267,600 shares or 0.01943% (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Chokchai Atsawarangsali

Senior Executive Vice President, Corporate Management and Organization Development

- **Age 55**
- **Education/Training**
 - Master of Business Administration, Kasetsart University
 - Bachelor of Engineering, Chulalongkorn University
 - Director Certification Program (DCP108/2008), Thai Institute of Directors (IOD)
 - Executive Development Program (EDP), Thai Listed Companies Association (TLCA)
 - Energy Leadership Development for Senior Managers, Class 6, Ministry of Energy
 - Senior Executive Program (SEP26), The Sasin Graduate Institute of Business Administration of Chulalongkorn University
 - Diploma courses in Public Economics Management for Executives, Class 13, King Prajadhipok's Institute
 - Leading in a Disruptive World Program (LDW), Southeast Asia Center (SEAC), Stanford University
 - Diploma, The National Defence Course (NDC63), The National Defence College
 - Digital CEO Course Program Class 5, Digital Economy Promotion Agency (DEPA)
- **Experience**

Bangchak Corporation Public Company Limited

 - 2020 - Present : Senior Executive Vice President, Corporate Management, and Organization Development
 - 2015 : Executive Vice President, Marketing Business and Oil Terminal
 - 2015 : Executive Vice President, Exploration and Production, Corporate Strategy and Business Development
 - 2014 : Senior Vice President, Exploration and Production, Corporate Strategy and Business Development
 - 2012 : Senior Vice President, Business Development, Corporate Business Development
 - 2009 : Vice President, Business Development, Corporate Business Development
 - 2007 : Vice President, Company Secretariat, and Company Secretary
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Vice Chairman, Happiness Sharing Foundation
 - o Chairman, Winnonie Company Limited
 - o Director, General Energy Manning Company Limited
 - o Director, Data Café Company Limited
- **Shareholding in the Company:** 95,500 shares or 0.00693% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Kittiphong Limsuwannarot

Senior Executive Vice President, appointed to BBGI Public Company Limited

- **Age 59**

- **Education/Training**

- Master of Business Administration (MBA), University of Dallas, Texas, USA
- Bachelor of Science, Chemical Engineering, Chulalongkorn University
- Director Certification Program (DCP191/2014), Thai Institute of Directors (IOD)
- Top Executive Program in Commerce and Trade (TEPCoT13/2020), University of the Thai Chamber of Commerce
- Capital Market Academy Executive Course, Capital Market Academy Class 32 (CMA 32)
- Thunderbird School of American Graduate School of International Management Arizona, USA (2004)
- Esso Leading ship Program II, Malaysia (2002)
- Esso Leading Change Program, Singapore (2001)

- **Experience**

Bangchak Corporation Public Company Limited

- 2021 - Present : Senior Executive Vice President, Acting as President and Chief Executive Officer, BBGI Public Company Limited
- 2020 : Acting Senior Executive Vice President, appoint to BBGI Public Company Limited Managing Director, Bangchak Biofuel Company Limited
- 2019 - 2020 : Executive Vice President, Acting as Senior Vice President, Biodiesel and New Business, BBGI Public Company Limited

Others

- 2021 - 2022 : Director, Ubon Sunflower Company Limited
- 2021 - 2022 : Director, Ubon Bio Agricultural Company Limited
- 2015 - 2020 : President Thai Bioplastics Industry Association : TBIA
- 2015 - 2019 : Vice President - Downstream Market Development PTT Global Chemical Public Company Limited
- 2014 - 2018 : Managing Director, Solution Creation Company Limited
- 2013 - 2015 : Vice President - Green Chemical Business PTT Global Chemical Public Company Limited
- 2007 - 2012 : Product manager, Global Polypropylene and Global Hydrocarbon Fluids ExxonMobil Chemical, Texas, USA
- 2002 - 2007 : Regional Manager, Sales Supply, ExxonMobil Chemical, Texas, Hongkong

- **Other directorship positions/other positions at present**

- Other listed companies
 - o President and Chief Executive Officer, BBGI Public Company Limited
 - o Director, Ubon Bio Ethanol Public Company Limited
- Non-listed companies
 - o Chairman, BBGI Utility and Power Company Limited
 - o Chairman, BBGI Bio Diesel Company Limited
 - o Director, BBGI Bioethanol (Chachoengsao) Company Limited
 - o Director, BBGI Bioethanol Public Company Limited
 - o Director, Manus Bio Inc.
 - o Director, BBGI Fermbox Bio Company Limited
 - o Director, WIN Ingredients Company Limited
 - o Director, National Energy Technology Center
 - o Director, The Institute of Industrial Energy, The Federation of Thai Industries
 - o Director, Industrial Promotion and Support, The Federation of Thai Industries
 - o Vice Chairman, Engineering Institute of Thailand (Chemical and Petrochemical Engineering)
 - o Director, National Center for Genetic Engineering and Biotechnology (BIOTEC)
 - o Director, Council of Scientific and Technological Associations of Thailand (COSTAT)
 - o Director, Plastics Institute of Thailand
- **Shareholding in the Company:** 135,500 shares or 0.00984% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Bundit Hansapaiboon

Senior Executive Vice President, appointed to Bangchak Sriracha Public Company Limited

- **Age 51**
- **Education/Training**
 - Master of Business Administration (MBA), LEHIGH University, USA
 - Bachelor of Engineering (Chemical Engineering), Chulalongkorn University
 - Director Certification Program (DCP296/2020), Thai Institute of Directors (IOD)
 - Energy Academy for New Executives, Thailand Academy Energy (TEA)
 - Executive Development Program (EDP), Thai Listed Companies Association (TLCA)
 - Financial Statements for Directors (FSD), Thai Institute of Directors (IOD)
- **Experience**

Bangchak Corporation Public Company Limited

 - Present : Senior Executive Vice President, appointed to Bangchak Sriracha Public Company Limited (The company registered its name change from Esso (Thailand) Public Company Limited on 15 November 2023)
 - 2022 - 2023 : Senior Executive Vice President, Corporate Sustainability Development and Strategic Synergy
 - 2019 - 2022 : Executive Vice President, Planning and Trading Business
 - 2018 - 2019 : Senior Vice President, Planning and Trading Business
 - 2017 : Senior Vice President, Refinery Strategic and Planning
 - 2016 - 2017 : Vice President Associate Business, Bio-based Products Business (Managing Director, Bangchak Bioethanol (Chacheongsao) Co., Ltd.)
 - 2014 - 2016 : Vice President Associate Business, Renewable Energy Business
 - 2012 - 2014 : Senior Manager Associate Business (Assistant Managing Director, Bangchak Biofuel Co., Ltd.)
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Chief Operation Officer, Bangchak Sriracha Public Company Limited
 - Non-listed companies
 - o Director, BCP Trading Pte. Ltd.
 - o Director, BCPR Company Limited
 - o Director, BCPR Pte. Ltd.
 - o Director, Bongkot Marine Services Company Limited
- **Shareholding in the Company:** 295,120 shares (Spouse 33,424 shares) or 0.02386% (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Thamarat Paryoonsuk

Senior Executive Vice President, Refinery and Oil Trading Business Group

- **Age 53**
- **Education/Training**
 - Master's Degree, Business Administration, Ramkhamhaeng University
 - Bachelor's Degree, Engineering, Kasem Bundit University
 - Product Distribution Course, Japan Cooperation Center Petroleum (JCCP)
 - Advanced Certificate Course in Public Administration and Law for Executives, King Prajadhipok's Institute
 - Strategies Course, National Defence Studies Institute
 - Anti-Corruption the Practical Guide (ACPG47/2018), Thai Institute of Directors (IOD)
 - Diploma, The National Defence Course (NDC65), The National Defence College
- **Experience**

Bangchak Corporation Public Company Limited

 - Present : Senior Executive Vice President, Refinery and Oil Trading Business Group
 - 2021 - 2022 : Executive Vice President, Refinery and Logistics Business
 - 2019 - 2020 : Vice President, Refinery and Logistics Business
 - 2017 : Senior Manager, Logistics Business and Asset Availability Management Division
 - 2011 : Manager, Logistics Business
 - 2007 : Manager, Logistics Business (Tank Yard Section)
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Director, BBGI Public Company Limited
 - Non-listed companies
 - o Director, Fuel Pipeline Transportation Company Limited
 - o Director, General Energy Manning Company Limited
 - o Director, Bangkok Fuel Pipeline and Logistics Company Limited
 - o Director, BCP Trading Pte. Ltd.
 - o Director, BSGF Company Limited
- **Shareholding in the Company:** 280,800 shares or 0.02039% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mrs. Ratrimani Pasiphol

Chief Transformation & Synergy Realization Officer

- **Age 56**
- **Education/Training**
 - Master of Business Administration (Business Administration) University of Washington
 - Bachelor of Accountancy (B.Acc.) Chulalongkorn University
 - Director Accreditation Program (DAP97/2012) Thai Institute of Directors (IOD)
 - TLCA CFO Profession Development Program
- **Experience (5 years past experiences)**
 - 2012 - Present : Director, Bangchak Sriracha Public Company
(The company registered its name change from Esso (Thailand) Public Company Limited on 15 November 2023)
 - Jan - Nov 2023 : Managing Director and Designated Chief Financial Officer,
Esso (Thailand) Public Company Limited
 - 2018 - 2023 : Director, Designated Chief Financial Officer, Esso (Thailand) Public Company Limited
: Director, ExxonMobil Limited (until August 2023)
: Business Services and Tax Manager, Esso (Thailand) Public Company Limited (Since 2020)
 - 2012 - 2020 : Director and Financial and Tax Manager, Esso (Thailand) Public Company Limited
: Director and Financial and Tax Manager, ExxonMobil Company Limited
: Treasurer, Industrial Promotion Enterprises Company Limited
: Treasurer, United Industry Development Company Limited
: Treasurer, Pacesetter Enterprises Company Limited
: Treasurer, Thai C-Center Company Limited (until 2016)
: Treasurer, ExxonMobil Exploration and Production Khorat Inc.
: Treasurer, Mobil Enterprises (Thailand) Company Limited
- **Other directorship positions/other positions at present**
 - Other listed companies
 - o Director, Bangchak Sriracha Public Company Limited
 - Non-listed companies
None
- **Shareholding in the Company:** None (both directly and indirectly held) (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Seri Anupantanan

Senior Executive Vice President Marketing Business Group

- **Age 52**
- **Education/Training**
 - Master Degree of Business Administration, Thammasat University
 - Bachelor Degree of Commerce, Thammasat University
 - Advanced Certificate Course in Public Administration and Law for Executives (Class 22), King Prajadhipok's Institute
 - Leadership Succession Program (Class 12), Institute of Research and Development for Public Enterprise (IRDP)
 - TLCA Executive Development Program, McKinsey Management Program (MMP)
 - Certificate of Management (Class 2), Cornell University and Lead Business
 - The Boss (Class 68), Management and Psychology Institute (MPI)
 - Intensive Management Development Program (IMDP), Thailand Management Association (TMA)
- **Experience**

Bangchak Corporation Public Company Limited

 - 2023 - Present : Senior Executive Vice President, Marketing Business Group
 - 2022 : Executive Vice President, Oil Retail and Corporate Marketing Business
 - 2022 : Executive Vice President, Non-oil Retail Business and Managing Director of Bangchak Retail Company Limited
 - 2020 - 2021 : Senior Vice President and Managing Director of Bangchak Retail Company Limited
 - 2017 - 2020 : Vice President and Managing Director of Bangchak Green Net Company Limited
 - 2015 - 2017 : Senior Manager, Industrial Marketing
 - 2012 - 2015 : Senior Manager, Marketing Business Division
 - 2006 - 2012 : Manager, North-East District Division
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
 - o Director, Bangchak Retail Company Limited
 - o Director, Bangchak Green Net Company Limited
- **Shareholding in the Company:** 216,500 shares or 0.01572% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Mr. Phuwadon Suntornwipart

Senior Advisor

- **Age 54**
- **Education/Training**
 - Bachelor of Engineering (Mechanical), Chulalongkorn University
 - Director Certification Program (DCP299/2020), Thai Institute of Directors (IOD)
 - Director Accreditation Program (DAP148/2018), Thai Institute of Directors (IOD)
- **ประสบการณ์การทำงาน**

Bangchak Corporation Public Company Limited

 - Present : Senior Advisor report to Group Chief Executive Officer and President
 - 2022 - Nov 2023 : Senior Executive Vice President, Acting as President, BCPG Public Company Limited
 - 2021 - 2022 : Executive Vice President, Energy and Natural Resources Business Development

Others

 - 2019 - 2021 : Director and Chief Operating Officer and Business Development Inter Far East Energy Plc. (IFEC)
 - 2018 : Managing Director, DOD Biotech Plc.
 - 2016 - 2018 : CEO, Equator Solar Capital Company Limited
 - 2012 - 2016 : Managing Director-Thailand and Neighboring Countries, SunEdison Energy (Thailand) Co., Ltd.
 - 2009 - 2012 : Vice President ASEAN Government Relation, assigned to PTTEP Global Business, Bangkok, Schlumberger
 - 2007 - 2009 : Vice President Global Strategy & Quality, Texas, USA, Schlumberger
 - 2005 - 2007 : Regional Managing Director and CEO, North ASEAN and Bangladesh Region, Bangkok, Schlumberger
 - 2003 - 2005 : Country Managing Director Schlumberger Group Vietnam, Ho Chi Minh City, Vietnam, Schlumberger
- **Other directorship positions/other positions at present**
 - Other listed companies
 - None
 - Non-listed companies
 - o Director, BCP Innovation Pte. Ltd.
 - o Director, BCV Innovation Company Limited
 - o Director, BCV Energy Company Limited
 - o Director, BTSG Company Limited
 - o Director, Winnonie Company Limited
 - o Director, BSE Power Company Limited
 - o Director, BCPG Energy Logistics Company Limited
 - o Director, Asia Link Terminal Company Limited
 - o Director, Petroleum Institute of Thailand
 - o Independent Director, Arkitektura Company Limited
 - o President, Thai Photovoltaic Industries Association
 - o Sub-committee of Electricity Price Restructuring, House of Representatives
- **Shareholding in the Company:** 37,400 shares or 0.01572% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Ms. Gloyta Nathalang

Acting Senior Executive Vice President, Sustainability Management and Corporate Communications

(Effective on January 1, 2024)

- **Age 56**

- **Education/Training**

- Bachelor of Arts, Chulalongkorn University
- Postgraduate Diploma in Public Relations, University of Stirling, UK
- Shell External Affairs Training Series (2000), UK
- Tetra Pak Communications Leadership Training (2007), Dubai
- Tetra Pak Academy Leadership Program by Ashridge Business School (2008), UK
- Tetra Pak Environmental Leadership Training (2011), Sweden
- Executive Development Program (18/2019), Thai Listed Company Association (TLCA)
- McKinsey Management Program (MMP) 2020, TLCA & McKinsey
- Strategic Executive Program, Public Communication in Broadcasting and Television Affairs (1/2020), ISRA Institute
- Thai Press Development Foundation Executive Development Program

- **Experience**

Bangchak Corporation Public Company Limited

- Present : Acting Senior Executive Vice President, Sustainability Management and Corporate Communications
- 2022 : Executive Vice President, Corporate, Branding, Communication and Sustainability Activation
- 2021 : Executive Vice President, Corporate Sustainability, Branding and Communication
- 2020 : Acting Executive Vice President, Corporate Sustainability, Branding and Communication
- 2019 : Senior Vice President, Corporate Branding and Communication

Others

- 2016 : Senior Vice President, Corporate Communication, BCPG Plc.
- 2015 : General Manager, Tea The' Cha (Thailand) Co., Ltd.
- 2013 : Communication Director, Corporate Functions, Tetra Pak International S.A., Switzerland
- 2007 : Communications and Environment Director, Tetra Pak Thailand Ltd.

- **Other directorship positions/other positions at present**

- Other listed companies
 - o None
- Non-listed companies
 - o Chairperson, Carbon Markets Subcommittee, and Committee, Thailand Carbon Neutral Network
 - o Board Member, Global Compact Network Thailand
 - o Board Member, Thai-Norwegian Chamber of Commerce
 - o Director, Baimai Punsuk (Happiness Sharing) Foundation
 - o Director, Oam Suk Social Enterprise Company Limited
 - o Director, K-Ha Sukpracha Public Company Limited
 - o Director, General Energy Manning Company Limited
 - o Chairperson, Carbon Markets Club

- **Shareholding in the Company:** 63,400 shares or 0.00460% directly held (As of December 31, 2023)

- **Familial relationship between directors and executives:** None

- **Criminal records on violation of securities and futures contract laws:** None

Mrs. Narupan Suthamkasem

Acting Senior Executive Vice President, Corporate Sustainability Development and Strategic Synergy, Bangchak Group

(Effective on January 1, 2024)

- **Age 50**
- **Education/Training**
 - Master of Business Administration (MBA), Thammasat University
 - Bachelor of Chemical Engineering, Chulalongkorn University
 - Executive Development Program (EDP), Thai Listed Companies Association
 - Leadership Development Program (LDP), Lead business and Cornell University
 - Strategies Course, National Defence Studies Institute
 - Moonshot Thinking Masterclass, Futur/io Institute and Thailand Management Association
 - Charting the future, The Institute for the Future (IETF) Foresight Essentials and Thailand Management Association
 - Design Thinking Deep Dive, Southeast Asia Center (SEAC)
 - ESG Holistic Inside-Out & Outside-In Leadership Transformation from Ego to Eco System, Thailand Productivity Institute and Asia Pacific Innovation Center (APIC)
 - Internal Control Awareness, Institute of Internal Auditors Thailand
- **Experience**

Bangchak Corporation Public Company Limited

 - Present : Acting Senior Executive Vice President, Corporate Sustainability Development and Strategic Synergy, Bangchak Group
 - 2022 : Executive Vice President, Corporate Strategy and Sustainability
 - 2022 : Acting Executive Vice President, Corporate Strategy and Sustainability
 - 2021 : Vice President Corporate Strategy and Planning
 - 2020 : Vice President Refinery Business Group
 - 2018 : Vice President Refinery Development, Refinery Project Development
- **Other directorship positions/other positions at present**
 - Other listed companies
None
 - Non-listed companies
None
- **Shareholding in the Company:** 156,200 shares or 0.01134% directly held (As of December 31, 2023)
- **Familial relationship between directors and executives:** None
- **Criminal records on violation of securities and futures contract laws:** None

Accounting Supervisor

Ms. Chantip Wongchieowittaya

Vice President, Corporate Accounting

(The person assigned to the direct responsibility of supervising accounting preparation and be a professional accountant charged with accounting duties with qualifications and conditions prescribed by the Notification of the Department of Business Development)

- Age 45
- Education/Training
 - Master of Accountancy, Faculty of Commerce and Accountancy, Chulalongkorn University
 - Bachelor's degree of Accountancy, Faculty of Commerce and Accountancy, Thammasat University
 - TLCA Executive Development Program (EDP), Thai Listed Companies Association (TLCA)
 - Digital Transformation, Kasetsart University
 - Financial Management and Business Planning, Japan Cooperation Center Petroleum (JCCP)
 - Executive Management Development Program (EMDP), Thailand Management Association (TMA)
 - CFO Focus on Financial Reporting Class 6, Federation of Accounting Professions (TFAC)
- Continuing Professional Development (CPD) in 2023
 - Trend for Thai Financial Reporting Standard of 2023 - CPD (Accounting) 6.5 hours
 - Corporate Reporting Forum 2023 - CPD (Accounting) 6 hours
 - Summary Key Issues for Thai Financial Reporting Standard for Non-Publicly Accountable Entities TFRS Update 2023 - CPD (Accounting) 6.5 hours
 - Be a professional accountant charged with accounting duties with qualifications and conditions prescribed by the Notification of the Department of Business Development
- Experience
 - Bangchak Corporation Public Company Limited
 - 2020 - Present : Vice President, Financial Accounting
 - 2019 : Acting Vice President, Financial Accounting
 - 2017 - 2018 : Manager, Accounting Policy and Consolidation Division
 - Others
 - 2014 - 2016 : Senior Manager, EY Office Limited
- Other directorship positions/other positions at present
 - Other listed companies
 - None
 - Non-listed companies
 - o Director, Bangchak Corporation Public Company Limited Registered Provident Fund
 - o Director, Baimai Punsuk (Happiness Sharing) Foundation
 - o Director, Suvarnabhumi Salt Company Limited
- Shareholding in the Company: 73,800 Shares or 0.00545% directly held (As of December 31, 2023)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws: None

Company Secretary

Ms. Wannasiri Trongtrakulwong

Executive Vice President, Corporate Compliance and Company Secretary

- Age 52
- Education/Training
 - Master of Business Administration (MBA), Chulalongkorn University
 - Bachelor's Degree in Commerce and Accounting, Thammasat University
 - Financial Advisor Course, Association of Investment Management Companies
 - Director Certification Program (DCP307/2021), Thai Institute of Directors (IOD)
 - Company Secretary Program (CSP126/2022), Thai Institute of Directors (IOD)
 - Corruption Risk and Control Workshop (CRC12/2022), Thai Institute of Directors (IOD)
 - Ethical Leadership Program (ELP27/2022), Thai Institute of Directors (IOD)
 - Subsidiary Governance Program (SGP6/2023), Thai Institute of Directors (IOD)
- Experience
 - Bangchak Corporation Public Company Limited
 - 2023 - Present : Executive Vice President, Corporate Compliance and Company Secretary
 - 2022 : Senior Vice President, Corporate Compliance and Company Secretary
 - 2021 : Senior Vice President, Acting as Senior Executive Vice President, BBGI Public Company Limited
 - 2016 - 2021 : Senior Vice President, Acting as Senior Executive Vice President, Accounting and Finance, Bangchak Retail Company Limited
 - Others
 - 2007 - 2015 : Director and Deputy Managing Director, Avantgarde Capital Company Limited
 - 2004 - 2006 : Director of Investment Banking, Turnaround Company Limited
 - 1999 - 2004 : Manager, Deloitte Touche Tohmatsu Corporate Company Limited
- Other directorship positions/other positions at present
 - Other listed companies
None
 - Non-listed companies
None
- Shareholding in the Company: 36,200 shares or 0.00262% directly held (As of December 31, 2023)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws: None

Scope of duties

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

Attachment 2

Profiles of Subsidiaries' Directors

Subsidiary	Directors		Position
1. Bangchak Sriracha Plc.	1.1	Mr. Suthep Wongvorazathe	X
	1.2	General Warakiat Rattananont	/
	1.3	Pol. Lt. Gen. Chaiwat Chotima	/
	1.4	Mr. Veerasak Kositpaisal	/
	1.5	Ms. Khaisri Utaiwan	/
	1.6	Ms. Prachit Hawat	/
	1.7	Mr. Phantong Loykulnanta	/
	1.8	Mr. Somchai Tejavanija	/
	1.9	Ms. Phatpuree Chinkulkitnivat	/
	1.10	Ms. Ratrimani Pasiphol	/
	1.11	Mr. Somchai Kuvijitsuwan	/
	1.12	Mr. Bundit Hansapaiboon	//
2. Bangchak Green Net Co., Ltd.	2.1	Mr. Meechai Veeravaidya	X
	2.2	Mr. Somkiat Thatrithorn	/
	2.3	Mr. Somchai Tejavanija	/
	2.4	Mr. Seri Anupantanan	/
	2.5	Mr. Vattana Phornpatkul	/
	2.6	Mr. Preecha Sutthilertaroon	//
3. BCP Trading Pte. Ltd.	3.1	Mr. Pativat Tivasasit	/
	3.2	Mr. Kittiphong Limsuwannarot	/
	3.3	Ms. Phatpuree Chinkulkitnivat	/
	3.4	Mr. Bundit Hansapaiboon	/
	3.5	Mr. Nut Pooree	/
	3.6	Mr. Paroche Hutachareon	/
	3.7	Mr. Thamarat Paryoonsuk	/

Note: 1. As of December 31, 2023

2. X = Chairman / = Director // = Managing Director and/of CEO (as the case may be)

3. Subsidiary is a significant subsidiary company with revenues exceeding 10% of total revenues reported in the latest annual consolidated statements of income of Bangchak.

Attachment 3

Details of Head of Internal Audit and Head of Compliance Department

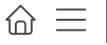
Head of Internal Audit

From the Audit Committee meeting No. 6/2020 on June 18, 2020, it was resolved to approve the appointment. Mrs. Pornjit Sojisunsanee is appointed Vice President, Internal Audit Department to perform the duty of evaluating internal control and give fair advice as well as overseeing the operations of the Internal Audit department to be in compliance with the objectives and in line with international standards. She directly report to the Audit Committee.

Mrs. Pornjit Sojisunsanee

Vice President, Internal Audit Department

- Age 51
- Education/Training
 - Master of Accountancy, Chulalongkorn University
 - Bachelor of Business Administration, (Accounting) (Honor), Prince of Songkla University
 - Certified Internal Auditor (CIA)
 - Certification in Risk Management Assurance (CRMA)
 - Strategic IT Governance & Information Security and Cybersecurity Management For Executives
 - Chief Audit Executive Professional Leadership Program
- Experience
 - Bangchak Corporation Public Company Limited
 - 2020 - Present : Vice President, Internal Audit Department
 - 2015 : Senior Manager, Internal Audit Office
 - 2011 : Manager, Internal Audit Office
- Other directorship positions/other positions at present
 - Other listed companies
None
 - Non-listed companies
None
- Shareholding in the Company: 36,366 shares or 0.00264% directly held (As of December 31, 2023)
- Familial relationship between directors and executives: None
- Criminal records on violation of securities and futures contract laws: None



Head of Compliance Department

Ms. Wannasiri Trongtrakulwong is assigned by the Company to assume Corporate Compliance roles and responsibilities. She is responsible for recommending policies, supervising the Company to comply with the rules and related laws as well as promoting and supporting the Company's operation and executives' performance as to ensure compliance with the laws, rules, and regulations in which the Company has invested. Details appear in attachment 1.

Attachment 4

Review of Business Asset and Asset Revaluation

Review of Business Asset

Details appear under (1.2) Business Description

Asset Revaluation

None

Attachment 5

Corporate Governance Policy and Guidelines (full version) and Code of Conduct (full version)

Bangchak Corporation Public Company Limited is committed to operating a business that drives the transition to sustainable energy using our innovative green solutions while maintaining a balance between energy security, quality of life, and well being. Our business priorities are the economy, the environment, and responsibility in all areas. Good governance will help to enhance the efficiency of the Company and the business group, operationally and managerially, as well as build trust in the business and support the growth of the organization, society, and nation. To achieve these goals, the Board of Directors established policies regarding good governance and business ethics and announced them company-wide since the organization's inception. The Company Board, executives, and employees shall adhere to those policies in all undertakings, showing our commitment to improving and developing good governance and maintaining an international standard of excellence.

The Company has been improving and revising our good governance and business ethics policies, keeping them up to date in regard to various changes, organizational strategy, Company mission, national and international standards of governance, and related regulations. The policies are announced to all related parties including partners, customers, and domestic and international business associates, to build an awareness of the company's governance and ethics.



The full version of the policies regarding good governance and business ethics can be found on the company policy website at:



www.bangchak.co.th/en/cg/corporate-governance



Scan the QR Code
to read the Form 56-1 One Report 2023



Bangchak Corporation Public Company Limited

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Tel : 0 2335 8888 Fax : 0 2335 8000

www.bangchak.co.th