



ANNUAL
REPORT
2018



THE POWER

OF SYNERGY



Investors can acquire company's information from the Annual Disclose Form (Form 56-1)
as shown in www.sec.or.th or the company's website at www.gpscgroup.com

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THE POWER OF SYNERGY

SYNERGY, STRENGTH, AND SUCCESS

Fostering collaboration for a sustainable future

GPSC is determined to put itself at the forefront of the industry globally by further investing in power generation, along with PTT Group, at the same time; helping government to create a strong foundation for Thailand's power industry, including advancing the development of the country infrastructure for maximum energy security.





A photograph of an industrial facility, likely a power plant, featuring a complex network of large metal pipes, valves, and structural beams. In the lower-left foreground, the arm and shoulder of a person wearing a dark work jacket are visible, partially obscuring the view of the machinery.

THE POWER OF SYNERGY

GROWTH THROUGH SYNERGY

Seeking new investment
opportunities for a sustainable growth

Committed to the future, GPSC has been continuously seeking new opportunities and investment by expanding its operating base both domestically and internationally to accommodate the growth in power demand and new uses and trading platform of electricity as well as maximizing benefit of its partners, suppliers, communities, and all other groups who hold our interest.







THE POWER OF SYNERGY

THE VALUE OF SYNERGY

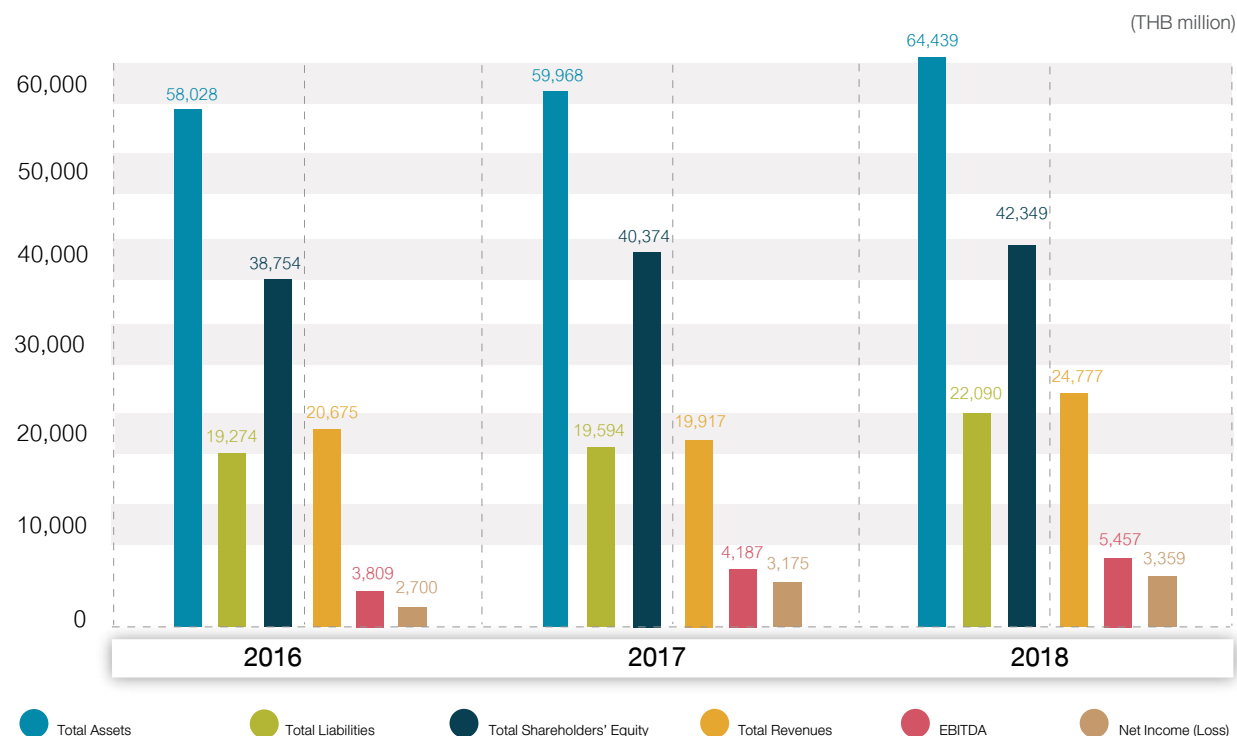
**Creating value-added business
on top of knowledge base**

GPSC ensures its business development is grounded in up-to-date knowledge and geared towards future business and thus; advancing its research and development efforts as well as formulating standard principles and reviewing processes for research and development projects and technologies. In addition, GPSC also promotes research projects and exchanges personnel within PTT Group and other organizations to enhance its knowledge for increased efficiency and capability to meet its customers' demand sustainably.



OPERATIONAL HIGHLIGHTS

Financial Highlights



	2016	2017	2018
Earnings per share (THB/ share)	1.80	2.12	2.24
Dividend per Share (THB)*	1.15	1.25	1.25
Dividend Yield (%)**	2.55	1.60	2.14

Financial Ratios

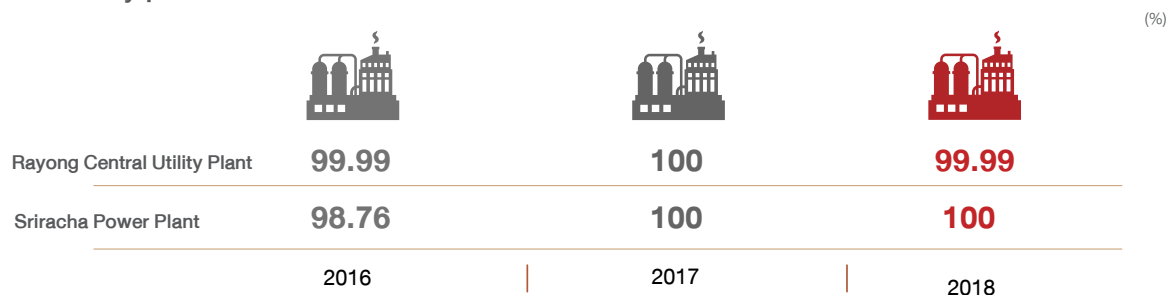
	2016	2017	2018
EBITDA to revenue from sale (%)	18.42	21.02	22.02
Interest Coverage Ratio (times)	6.09	7.85	7.11
Net Debt to Equity Ratio (times)	0.22	0.29	0.27
Return on Equity (%)	7.38	8.39	8.55
Return on Assets (%)	5.04	5.66	6.25

*Dividend payment from the 2018 operating results at THB 1.25 per share is divided into interim dividend for the first half of 2018 at THB 0.45 per share which was paid to shareholders. The remaining dividend for the second half operating results for 2018 will be paid at THB 0.80 per share. However, the rights to receive dividend payment is subject to the approval of the 2019 Annual General Meeting of Shareholders.

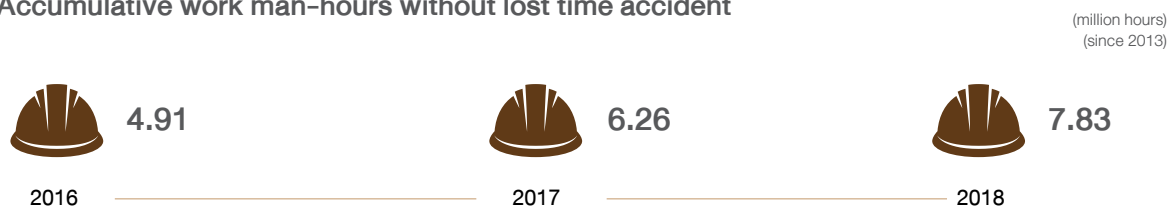
** Calculated from GPSC's closing share price on period end

Products	2016	2017	2018
Electricity (GWh)	4,603	4,365	5,412
Steam (thousand tons)	6,694	6,429	6,572
Chilled water (thousand refrigeration tons)	28,558	25,740	27,266
Industrial water (million cubic meters)	5	4	5
Refuse derived fuel : RDF (tons)	–	–	4,491

Availability per Contracted Available Hours



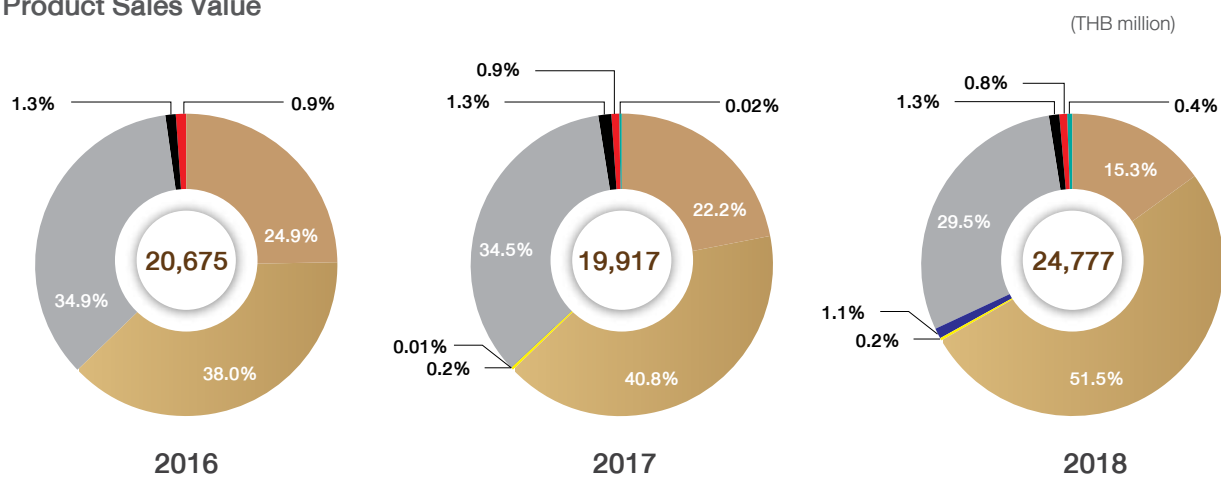
Accumulative work man-hours without lost time accident



Number of Plant Incidents (and impact to customers)



Product Sales Value



MESSAGE FROM CHAIRMAN AND PRESIDENT & CEO



Dear Shareholders,

In 2018, Global Power Synergy Public Company Limited (GPSC), PTT Group's power flagship, successfully accomplished the integrated operational goals it had defined, as evident in our operating results, which surpassed those of the previous year, significant growth, the consistency of our human resources, organization, and innovation development, and our sustainable contributions to communities, society, and the environment. In terms of its 2018 business performance, we experienced mounting pressure due to a steady rise in prices of natural gases, which are the company's main fuel type, against a slight increase in Ft rates, coupled with the maintenance turnarounds of the cogeneration power plant and the steam production unit of IRPC-CP and Sriracha Power Plant. Despite those factors, we successfully maintained high production and reliability levels of the production units under our management and the supervision of our invested companies, thanks to our strict compliance to safety, security, and environmental standards and regular review of necessary efficiency enhancement and project control to ensure adherence to plans. Furthermore, IRPC-CP Phase 2 and Ichinoseki Solar Power 1 were able to begin commercial operation as planned. Consequently, in 2018, we reported THB 3,359 million in net profit, a 6% rise from 2017.

Our consistent efforts in developing our human resources, organization, and innovation, nurturing proficient and ethical employees, and fostering an organization driven by creativity and innovation has also earned us acceptance and recognition from communities and society. Attesting to this were a number of accolades, including the 2018 National Innovation Award from the National Innovation Agency; the Asia's Best CEO Award and Best Investor Relations Award from Corporate Governance Asia Magazine; the CFO of the Year Excellence in Technology and Excellence in Treasury Management Transformation from CFO Innovation Magazine; and Power Deal of the Year-Highly Commended from The Asset Magazine for debentures offered in 2017.

In 2018, we continued to reaffirm our commitment to making sustainable contributions to communities, society, and the environment. To this end,

Mr. Surong Bulakul
Chairman

we initiated new projects, such as GPSC Young Social Innovator 2018, as well as carried on various projects, Connex ED, Light for a Better Life, and One Earth One Family etc.

These initiatives earned us widespread recognition, reflected in a number of accolades that we received, including a Green Industry Award - Level Four (Green Culture) from the Ministry of Industry, the CSR-DIW Award 2018 in the Corporate Social Responsibility Project by the Department of Industrial Works, and a Greenhouse Gas Management Certificate and Plaque from the Thailand Greenhouse Gas Management Organization. As for our corporate governance, we were rated “Excellent” – the highest level possible – in the Corporate Governance Report of Thai Listed Companies (CGR) by the Thai Institute of Directors (IOD) and ranked among ASEAN’s 50 listed companies with highest corporate governance scores (Top 50 ASEAN PLCs) at the 2nd ASEAN Corporate Governance Awards Ceremony 2018. In addition, we were certified as a member of the Collective Action Coalition of Thailand’s Private Sector Collective Action Coalition Against Corruption (CAC).

It is our conviction that by cultivating and promoting the corporate value SPIRIT in our organization, especially with respect to innovation, synergy, teamwork, and the inclusion of opinions from our shareholders and stakeholders, we will be able to accomplish our mission and vision of putting GPSC in the forefront of innovation and sustainability leadership on an international level in the near future.

On behalf of GPSC’s Board of Directors, management, and employees, we would like to express our sincerest gratitude to every shareholder for their unwavering faith in GPSC and reaffirm our commitment and determination to work collectively to advance the company toward its goals.



Mr. Chawalit Tippawanich
President and Chief Executive Officer



REPORT OF THE AUDIT COMMITTEE

Dear Shareholders,

The Audit Committee consists of three independent directors, all of whom command pertinent expertise and experience in engineering, energy businesses, law, financial accounting, and corporate management. They are, therefore, qualified to review the credibility of financial statements in accordance with the regulations of the Office of Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET). The Audit Committee comprises the Chairman, Mr. Payungsak Chartsutipol, and two audit committee members, namely Ms. Panada Kanokwat, and Maj. Gen. Chaowalek Chayansupap. In April 2018, the committee's composition changed as the end of term came due for Ms. Panada Kanokwat. As such, the Board of Directors order 4/2018 appointing Ms. Suvimol Chrityakierne to the Audit Committee, has been in effect since April 25, 2018. Serving as secretary to this Committee is Ms. Attayar Sukotanang, Vice President, Corporate Internal Audit.

The Committee independently performed its duties as prescribed by GPSC's Board and as specified in the Audit Committee Charter, in compliance with all the rules stipulated by the SEC and SET. The Audit Committee strives to ensure good corporate governance and comprehensive reviews of financial reports, connected transactions, risk management, internal controls, and internal audit systems. The Audit Committee also ensures that the Company remains in compliance with laws and regulations relevant to GPSC's domestic and overseas operations in order to create value added to the organization.

In 2018, the Committee held 12 meetings, where consultations were held with the management, Internal Audit, and the external auditor. The substance of these meetings is described in the following numbered sections.

1. Review of Financial Statements: The Committee reviewed material items and issues of quarterly and annual financial statements of GPSC and its subsidiaries for 2018 in compliance with the Thai Financial Reporting Standards (TFRS) in cooperation with related members of the management and the external auditors. Material items reviewed included the information disclosure of the financial statements, important accounting policies, and critical

projections, as well as the external auditor's observations on the review and auditing of the financial statements. The committee considered the satisfactory clarifications from the external auditor, top executives, and other relevant parties that led to the conclusion that GPSC's financial statements and disclosure in the notes to the financial statements aligned with TFRS. The external auditor's unqualified opinion was that the internal control evaluation results were appropriate in that no data were concealed, and the external auditor could work independently.

In addition, the Audit Committee, together with the external auditor, in the absence of the executives, discussed matters related to auditing plans, their independence in fulfilling their duties, and the opinions of the external auditor, with emphasis on the presentation of Key Audit Matters (KAMs) that were to be in accordance with the latest standards. The Committee found that the auditors had received full cooperation from the management and had exercised full performance with complete independence. In addition, the external auditors were deemed to be knowledgeable, with experience and expertise commensurate with their duties as auditors.

2. Review of Connected Transactions The committee reviewed connected transactions, particularly those posing potential conflicts of interest with GPSC and subsidiaries under the SET's and the SEC's announcements. This review revealed that GPSC and subsidiaries operated under regular business practices, exercised fairness and sensibility, and exhibited no benefit siphoning. In addition, its disclosure of information was carried out with accuracy and completeness in compliance with GPSC's corporate governance policies as well as the SEC's and the SET's notifications.

3. Review of Risk Management: The committee reviewed the efficiency and appropriateness of GPSC's risk management policy and processes. The Committee also monitored the progress of investment projects to ensure that GPSC and subsidiaries had in place appropriate risk management processes that minimized any negative impact and responded to changes effectively and promptly. Risk management practices were effectively executed

under the stated policy and plans, and were in line with GPSC and subsidiaries' short-term and long-term goals and strategic plans.

4. Review of Internal Control System: The committee reviewed compliance with the law and relevant regulations, together with the management, under the Three Lines of Defense concept, in which legal and regulatory compliance was audited, monitored, assessed, and reported on regular basis. In addition, the executives also assessed the internal control systems using the internal control assessment questionnaires prepared under the framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The assessment results demonstrated that there were grounds to be confident that GPSC and subsidiaries' internal control system helped to produce efficient and effective performance, and thus remained suitable for their businesses to achieve their defined objectives and goals. As a result, in 2018 no cases of violation of relevant laws and regulations were found in GPSC and subsidiaries.

5. Review of Internal Audit System: Having Corporate Internal Audit report directly to the committee ensured the unit's independence as specified necessary in the Audit Committee Charter. The committee also reviewed and approved the annual internal audit plans and three-year plans covering GPSC, its subsidiaries, and their joint ventures. The committee additionally monitored GPSC's investment project updates. It further ensured that the unit's operation was of international standards. The committee also offered recommendations on the unit's operation to ensure compliance with the approved plans and required consistency with the strategies and direction of GPSC. This included supporting the improvement of audit quality and the auditing team, so as to ensure they were functioning on a par with international professional standards. In addition, the committee assessed the annual performance of the Corporate Internal Audit and reviewed its structural suitability and efforts in the continual development of personnel. A headcount confirmed that were adequate and suitable resources to maximize the effectiveness and efficiency of audit quality. Finally, the committee addressed the Audit Committee Charter and the Internal Audit Charter. In 2018,

the Committee also recognized the importance of applying IT applications in audit work for greater efficiency and effectiveness of the internal audit as a whole.

6. Appointment of the External Auditor for 2019: This process involved selecting external auditor candidates based on their independence, skills, competence, and experience in the electricity and energy business, together with deciding upon acceptable fees. Ultimately, the Audit Committee nominated PricewaterhouseCoopers ABAS Limited to join the Board of Directors, which is to be proposed at the 2019 Annual General Meeting of Shareholders. Names of individual auditors to be proposed and appointed as GPSC's 2019 external auditors are Ms. Amornrat Permpoonwathanasuk (CPA 4599), Mr. Boonruang Lertwisetwit (CPA 6552), or Mr. Phongthawee Ratanakoset (CPA 7795). These nominated auditors have secured SEC's concurrence as being suitable.

In summary, the Audit Committee carried out its duties and responsibilities in the manner stated in the Audit Committee Charter, employing their diverse expertise, care, prudence, and adequate independence while also providing recommendations for the equitable benefit of all stakeholders. The Audit Committee's opinion is that GPSC's financial reports are accurate and credible, and are also fully consistent with generally accepted accounting standards; GPSC's operations were in full compliance with all relevant laws and business obligations. Furthermore, the Committee found that GPSC had implemented good corporate governance, put in place adequate risk management, suitable and effective internal control, and efficacious internal audit systems.

On behalf of the Audit Committee.



(Mr. Payungsak Chartsutipol)
Chairman of the Audit Committee

REPORT OF THE NOMINATION AND REMUNERATION COMMITTEE

Dear Shareholders,

The Board of Directors of Global Power Synergy Public Company Limited (GPSC) has resolved to appoint the Nomination and Remuneration Committee and prescribed that the Committee should be composed of at least three directors of GPSC, one of whom must be an independent director. Currently, the Nomination and Remuneration Committee comprises three directors, namely Mr. Kurujit Nakornthap (Independent Director), serving as the Chairman of the Nomination and Remuneration Committee, Maj. Gen. Chaowalek Chayansupap (Independent Director) and Mr. Wittawat Svasti-Xuto (Director), serving as members of the Nomination and Remuneration Committee.

In 2018, the Nomination and Remuneration Committee convened a total of five meetings. The summary of its operations is provided below.

1. Nominated qualified candidates for directorship to be submitted to the Board of Directors for consideration and proposed at the 2018 Annual General Meeting of Shareholders to be appointed as GPSC's directors to succeed retiring directors
2. Nominated qualified candidates for directorship to be submitted to the Board of Directors for consideration and appointed as GPSC's directors to replace directors who resigned before completing their terms
3. Nominated qualified candidates to serve on subcommittees to be submitted to the Board of Directors for appointment, taking into consideration the composition of the subcommittees as well as qualifications, knowledge, and expertise required for serving on such sub-committees
4. Reviewed the remuneration for the Board of Directors for 2018 to be submitted to the Board of Directors for consideration and proposed to the Annual General Meeting of Shareholders for approval, taking into consideration GPSC's operating performance and business size in comparison to other companies in the same business as well as the responsibilities of the Board of Directors
5. Reviewed the performance assessment of the President and Chief Executive Officer in 2017 to propose to the Board of Directors for approval
6. Nominated qualified candidates to be submitted to the Board of Directors for consideration and appointed as GPSC's President and Chief Executive Officer

On behalf of the Nomination
and Remuneration Committee



(Mr. Kurujit Nakornthap)
Chairman of the Nomination
and Remuneration Committee

REPORT OF THE CORPORATE GOVERNANCE COMMITTEE

Dear Shareholders,

The Board of Directors of Global Power Synergy Public Company Limited (GPSC) has appointed the Corporate Governance Committee to oversee the corporate governance and code of conduct, sustainability management, and corporate social responsibility. The Corporate Governance Committee currently comprises four members, namely Mr. Kurujit Nakornthap (Independent Director), serving as the Chairman of the Corporate Governance Committee, and Mrs. Nicha Hiranburana Thuvatham, (Independent Director), Mr. Bandhit Thamprajamchit, (Director), and Ms. Peangpanor Boonklum (Director), serving as members of the Corporate Governance Committee.

In 2018, the Corporate Governance Committee convened a total of four meetings. The summary of its operations is provided below.

1. Reviewed the GPSC's 2018 action plans for sustainability management and regularly monitored their implementation
2. Reviewed the adoption of the Corporate Governance Code 2017 issued by the Securities and Exchange Commission and the Stock Exchange of Thailand (CG Code) and defined a set of guidelines for the management, to be proposed at a Board of Directors meeting
3. Reviewed and approved the company's regulations on GPSC investment criteria and the 2018 Investment Guidelines for Companies in which GPSC Holds Investments to ensure that an efficient decision-making process that corresponds with its directions and strategies was put in place and uniformly adopted across the organization
4. Reviewed and approved the criteria for the proposal of agenda items and nomination of director candidates for the 2019 AGM
5. Reviewed the 2018 Board of Directors' performance assessment forms
6. Reviewed and updated the Corporate Governance Committee Charter to ensure correspondence with the company's corporate governance principles and with relevant charters of companies in PTT Group and the power business
7. Provided suggestions and monitored the progress of PTT Group CG Day 2018, an activity aimed at promoting compliance with PTT Group's Corporate Governance & Business Code of Conduct, hosted by PTT Group for the tenth year

As a result of GPSC's commitment to corporate governance in its operation, GPSC's corporate governance and sustainability management has been recognized on the national level, as detailed below:

- Rated "Excellent" in the Corporate Governance Report of Thai Listed Companies (CGR) by the Thai Institute of Directors (IOD)
- Named as one of ASEAN's 50 listed companies with the best corporate governance practice (Top 50 ASEAN PLCs) at the 2nd ASEAN Corporate Governance (CG) Awards, based on the score assessment of the ASEAN CG Scorecard released by the ASEAN Capital Market Forum (ACMF),
- Became a certified member of the Collective Action Coalition of Thailand's Private Sector Collective Action Coalition Against Corruption: CAC)
- Awarded with an ESG 100 Certificate for the third consecutive year, given by the Thaipat Institute to listed companies recognized for their outstanding environmental, social and governance (ESG) performance and operating results, based on the sustainability data of SET-listed securities of 683 companies
- Given a Sustainability Report Award 2018 (Excellence) by the Thai Listed Companies Association for its disclosure of its environmental, social, and governance information beneficial to investors and stakeholders

On behalf of the Corporate
Governance Committee



(Mr. Kurujit Nakornthap)
Chairman of the Corporate
Governance Committee

REPORT OF THE RISK MANAGEMENT COMMITTEE

Dear Shareholders

The Board of Directors of Global Power Synergy Public Company Limited (GPSC) appointed the Risk Management Committee (RMC) at the meeting No. 7/2015 dated June 17, 2015. As two committee members were due for retirement in 2018, there have been changes to the members of the Committee. Currently, the Risk Management Committee comprises five members, namely Mr. Payungsak Chartsutipol, serving as the Chairman of the Risk Management Committee, Mr. Wittawat Svasti-Xuto, Mr. Supattanapong Punmeechaow, Mr. Atikom Terbsiri, and Mr. Chawalit Tippawanich, serving as members of the Risk Management Committee.

The Risk Management Committee operated under the charter of the Risk Management Committee prescribed by the Board of Directors within GPSC's Enterprise Risk Management (ERM) Framework, which is in line with the COSO ERM Framework and ISO 31000:2009 Risk Management Standard, to ensure that the company achieved its business goals. The committee also reviewed risk factors in many investment projects that were growth drivers to ensure correspondence with the company's sustainable growth strategies.

In 2018, the Risk Management Committee held a total of 21 meetings, with the quorum achieved in all meetings, demonstrating their dedication to enterprise risk management. In fulfilling its roles and responsibilities, the Risk Management

Committee carried out performance outcomes related to enterprise risk management and investment projects, which can be summarized as follows

1. To establish and review GPSC's enterprise risk management framework to ensure appropriateness and correspondence with business strategy and its operations amidst shifting circumstances
2. To monitor, assess and provide recommendations on GPSC's business as usual operation and investment projects on a regular basis to ensure that top management maintain GPSC's operation within its risk appetite, as well as determine the concrete and pragmatic mitigation plans to prevent losses
3. To review and provide suggestions on the 2018 corporate risk profile in correspondence with the company's business directions, strategic plans, and business goals
4. To report the result of enterprise risk management to the Board of Directors.

On behalf of the Risk Management Committee



(Mr. Payungsak Chartsutipol)

Chairman of the Risk Management Committee

¹ The Board of Directors resolved to appoint Mr. Wittawat Svasti-Xuto to the Risk Management Committee to replace Mr. Chansin Treenuchagron on September 19, 2018. Mr. Wittawat Svasti-Xuto attended the 6/2018 meeting of the Risk Management Committee on October 3, 2018.

² The Board of Directors resolved to appoint Mr. Chawalit Tippawanich (Director) to the Risk Management Committee to replace Mr. Toemchai Bunnag on September 28, 2018. Mr. Chawalit Tippawanich attended the 6/2018.



AWARDS AND RECOGNITIONS



1. **Award :** Certified Member of the Collective Action Coalition of Thailand's Private Sector Collective Action Coalition Against Corruption: CAC)
By : Thailand's Private Sector Collective Action Coalition Against Corruption (CAC)
2. **Award :** Asian Excellence Award 2018
1. Asia's Best CEO
2. Best Investor Relations Company
By : Corporate Governance Asia Magazine
3. **Award :** For Corporate Bond Issued in 2017 Power Deal of The Year – Highly Commended
By : The Asset
4. **Award :** Water Footprint Certificate
By : Department of Groundwater Resources and The Federation of Thai Industries
5. **Award :** Green Culture Award (4th Level)
By : Ministry of Industry
6. **Award :** Corporate Social Responsibility, Department of Industrial Works (CSR-DIW) Awards 2018
By : Department of Industrial Works
7. **Award :** 3Rs and Zero Waste to Landfill
By : Department of Industrial Works
8. **Award :** Greenhouse Gas Management awards
1. Thailand Voluntary Emission Reduction Program : T-VER 1 Project
2. Carbon Footprint Product : CFP 1 Project
3. Carbon Footprint Reduction : CFR 1 Project
4. Carbon Footprint For Organization : FEO 4 Projects
5. Low Emission Support Scheme : LESS 5 Projects
By : Thailand Greenhouse Gas Management Organization (Public Organization)



9. Award : Top Innovative Organization Award 2018
By : National Innovation Agency (Public Organization), in cooperation with Stock Exchange of Thailand (SET), Market for Alternative Investment (MAI) and College of Management, Mahidol University

10. Award : Best Investor Relation Company Thailand
By : International Business Magazine

11. Award : Rated "Excellent" in the Corporate Governance Report of Thai Listed Companies (CGR) and ranked in the Top Quartile of listed companies with market capitalization over THB 10,000 million
By : The Thai Institute of Directors (IOD)

12. Award : ASEAN Corporate Governance (CG) Awards, named as one of ASEAN's 50 listed companies with the best corporate governance practice (Top 50 ASEAN PLCs) at the 2nd ASEAN Corporate Governance (CG) Awards
By : ASEAN Capital Market Forum (ACMF)

13. Award : Sustainability Report Award 2018

By : Thai Listed Companies Association, Securities and Exchange Commission Thailand, and the Thaipat Institute

14. Award : CFO Innovation Awards 2018

1. CFO of the Year Excellence in Technology
 2. Excellence in Treasury Management Transformation
By : CFO Innovation Magazine (Online)

15. Award : International Finance Awards (Most Innovative Power Company – Thailand)

By : International Finance Magazine



POLICY AND BUSINESS OVERVIEW

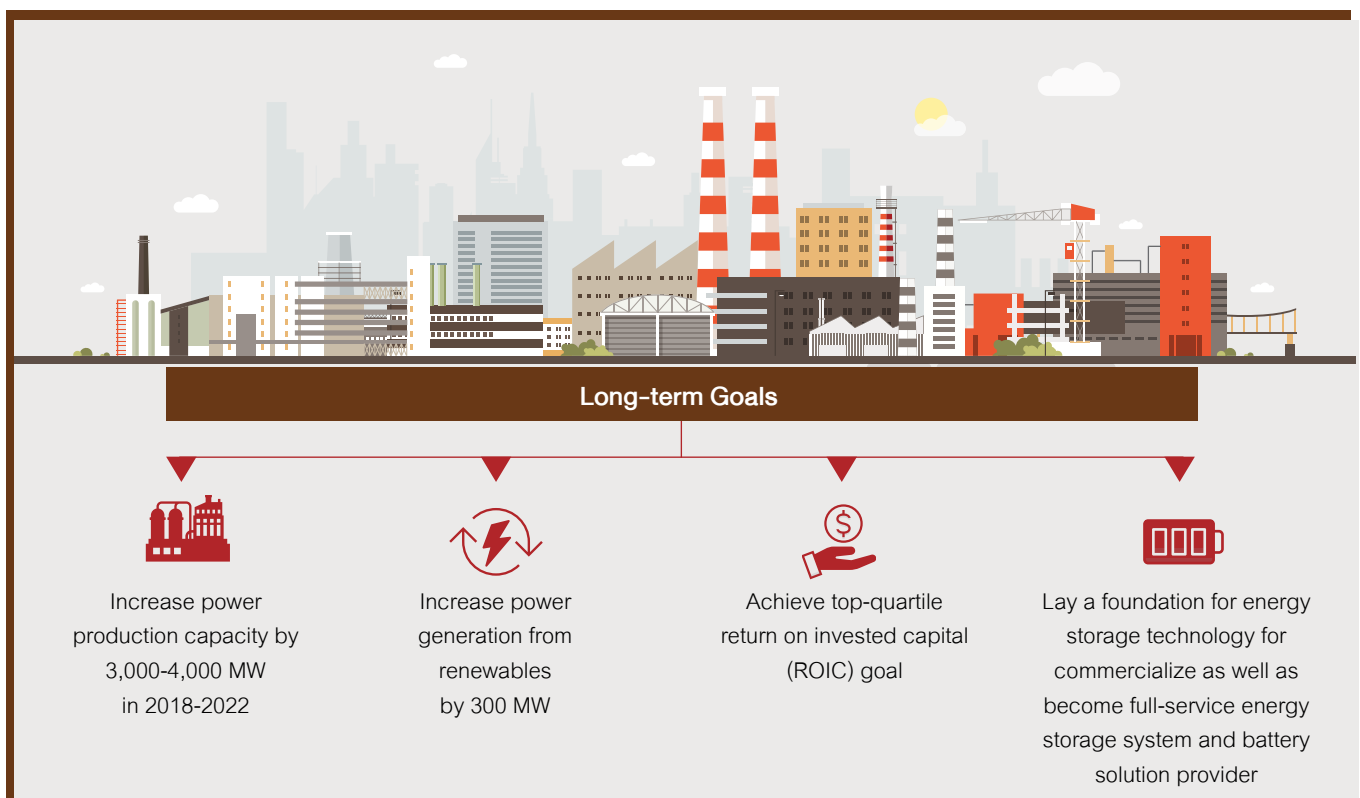
Vision, Mission, Goal, and Strategy

Global Power Synergy Public Company Limited (GPSC) is the power flagship of PTT Group, committed to energy security in support of growth of PTT Group and other industries. GPSC also seeks opportunities for investment in power projects both Thailand and abroad, while developing energy storage technology to become a global leading power company in innovation and sustainability under its vision and mission statements below:



Mission

- Create long-term shareholders' value with profitable growth
- Deliver reliable energy through operational excellence to customers
- Conduct business with social and environmental responsibility
- Seek innovation in power and utility efficiency management through energy storage technology



GPSC devises three strategies to realize its long-term growth:

1. Maximize Core Business Business “creating added value to the core operations”, namely **Sriracha Power Plant and Central Utility Plants 1–3 (CUP 1–3) in Rayong.**

This requires expertise in operation management in order to efficiently respond to customers’ demand as well as expertise in machinery management and cost management for maximum benefit. Moreover, the various factors that influence sales price, laws and regulations, contracts, safety and environment are to be closely monitored to ensure operation planning that offers maximum profit, along with stability in reliability to win customer’s trust.

2. Manage Invested Companies “management of Invested Companies”, which are subsidiaries and joint ventures,

are considered additional sources of income and profit for GPSC. The company oversees commercial projects to ensure that they meet targets while driving policies and operations of those projects to meet GPSC’s desired standards. For projects under construction, GPSC keeps control of the projects to ensure their construction completion as planned.

3. New Business developing new projects by these three main approaches

- 3.1 To grow in tandem with PTT Group’s investment with a focus on business expansion in Thailand
- 3.2 To develop projects in target countries, such as Lao PDR and Myanmar
- 3.3 To develop businesses related to energy storage system and batteries

The above growth strategies have been translated into short-term plans as follows:

- 1) Conduct the power business in response to PTT Group’s demand and develop projects both in and outside of Thailand to be in line with PTT Group’s investment direction
- 2) Develop utility projects in support of Thailand’s Eastern Economic Corridor (EEC) and Eastern Economic Corridor of Innovation (EECi) projects in its PTT Group’s power flagship capacity to support EEC and EECi as the country’s innovation and technology center.
- 3) Develop a low-cost, high standard, environmentally friendly battery factory in Thailand that is globally competitive
- 4) Develop a pilot project on energy storage systems to acquire knowledge for further development of solar rooftops and energy storage system businesses
- 5) Develop solar rooftop business
- 6) Develop power plant projects in Lao PDR and high potential industrial estates in Myanmar
- 7) Develop and/or invest in renewable-energy business in Thailand and abroad

Sustainability Management

Policy on Sustainability Management

GPSC aims to be PTT Group's power and utility flagship. The Company formulated a policy to operate sustainable business by building trust among all stakeholders while holding on to operational excellence and transparency. In parallel with continuous development in various aspects, GPSC takes responsibilities for society and the environment. GPSC has drawn up a framework to achieve sustainability management at international standards, as itemized below:

1. In conducting its business, GPSC is aware of its responsibilities for the economy, society, and the environment, as well as all groups of stakeholders, to achieve sustainable growth. The company stresses strong leadership with good corporate governance and risk management.
2. GPSC promotes human rights and protects labor rights of its own workforce and those of partners, with fairness taken into consideration.
3. GPSC is determined to minimize any possible impact caused by its operations on society, the environment, occupational health, and safety.
4. GPSC conducts its business with transparency and fairness. Each stage of the operation is open to scrutiny.
5. GPSC respects the rights of all stakeholders and initiates projects concerning development of sustainable society and communities.
6. GPSC manages its supply chain in compliance with laws and standards concerning human rights and labor rights. The company also has an effective method of information management and records.
7. GPSC is determined to keep up with standards concerning responsibility for products. This not only adhere to the laws but also develop products that can respond to social, economic, and environmental requirements as well as stakeholders' needs.
8. GPSC discloses its performance that concerns business ambition and management, as well as its economic, social, and environmental performance. The disclosed information must be accurate, relevant, transparent, and in line with Global Reporting Initiatives (GRI)¹

9. GPSC realizes the need to communicate with all stakeholders, which is considered vital to sustainability management. This includes improvement of the design and management of the way to deal with social, economic, and environmental issues to win the trust of stakeholders.
10. GPSC has an integrated sustainability management method to support sustainable policy implementation.

Policy on Social and Environmental Responsibility

GPSC has a firm intention to conduct business with responsibilities for all stakeholders, both within and outside the organization, namely staff, shareholders, customers, partners, government agencies, and society. Included in this intention are sustainable responsibilities for communities and the environment. GPSC hopes for peaceful co-existence between the business and society. In parallel, GPSC promotes appropriate stakeholder engagement. The policy regarding social and environmental responsibilities includes:

1. Conduct a transparent, fair, and auditable business with an emphasis on growth in parallel with the development of staff's quality of life, communities, society, and the environment, while protecting stakeholders' benefit according to the company's vision
2. Realize the optimal use of natural resources with the least impact on stakeholders, society, communities, and the environment
3. Be determined to conduct business with responsibilities for society and the environment, as well as all stakeholders to foster social and environmental sustainability
4. Encourage and provide opportunities for stakeholders to take part in projects or activities that benefit society and the environment using GPSC's resources to attain goals
5. Communicate and make known projects or activities initiated for the benefit of society, the environment, communities, and stakeholders.

¹Global Reporting Initiatives (GRI) are an international standard for making an efficient report on environmental management for sustainable development for industrial operators. The standard encourages disclosure of information that integrates environmental, social, and economic aspects. GRI are widely accepted standards and are supported by the United Nations.

Development and Significant Changes in 2018

January

- GPSC signed an MOU with the Federation of Thai Industries (FTI), an advisor to Thailand Greenhouse Gas Management Organization (Public Organization) to support an expansion of the carbon footprint reduction program. GPSC has been selected as a pilot company to join such extension under the industrial sector collaboration in phase 7, 2018.

February

- GPSC signed an MOU with the Department of Industrial Works on a project to manage industrial waste in the EEC.

April

- GPSC signed an MOU with Chiang Mai University on the Smart City Development Project at Chiang Mai University. The purpose was to enhance knowledge management of energy storage systems in the power management demonstration project of the smart city. At the initial stage, 17 kilowatt-hour of the energy storage system has been installed as a sample and prototype for study visits. The project also supports the Energy 4.0 Policy of the government to develop future Thailand.

May

- Company Board of Directors approved the extension project of Nava Nakorn Electricity Generating Co., Ltd. (60 MW of electricity and 10 ton/hour of steam) targeted at Industrial users. The company hold 30% which refers to the total investment to the new project at THB 3,105 million. The extension phase started in 3rd quarter of 2018 and expected COD by the same quarter of 2020. After completion, NNEG will holds a total of 185 MW of electricity and 40 ton/hour of steam.

June

- GPSC announced a resolution of Board of Directors' Meeting to the Stock Exchange of Thailand for considering entering into a share purchase transaction and tender offering of all the remaining securities of Glow Energy Public Company Limited (GLOW) under two conditions precedents 1) GPSC is granted relevant approval by the Energy Regulatory Commission and 2) GPSC is granted approval by its shareholders meeting. The Board also set the date of Extraordinary General Meeting of Shareholders No. 1/2018 in August 24, 2018.

July

- Combined Heat Power Producing Company Limited (CHPP), in which GPSC holds 100 percent shares signed an agreement with GC Logistics Solutions Company Limited (GCL) for an engineering, procurement and construction contract of a two-megawatt solar rooftop system, with a 625- kilowatt-hour battery energy storage system (BESS).

August

- The Extraordinary General Meeting of Shareholders No. 1/2018 approved the direct and indirect acquisition of shares of Glow Energy Public Company Limited (GLOW) and approve the issuance of the debentures, both within the country and abroad at the amount of not exceeding THB 68,500 million.

November

- GPSC signed an MOU with Provincial Electricity Authority on the hybrid energy storage system for off-grid electric power dispatch solution for remote areas and island areas. The cooperation aims to establish a prototype of energy storage system and energy management system as an effective off-grid electric power dispatch solution in remote areas. The model is expected to be used by several remote areas in the future.

December

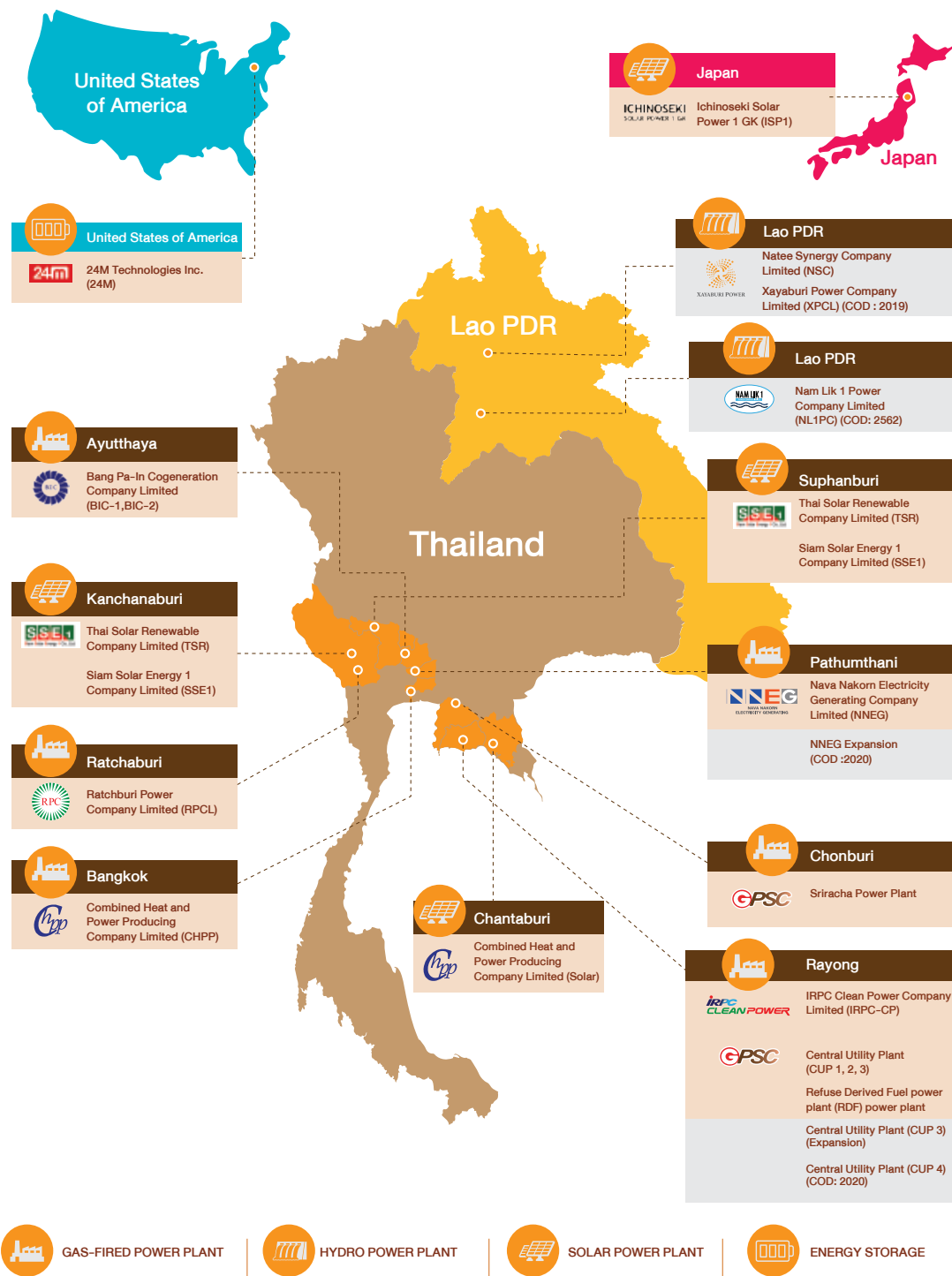
- GPSC signed a share purchase agreement, directly and indirectly through its subsidiaries, to acquire total shares of the following companies: (1) N.P.S. Star Group Company Limited (N.P.S.), (2) World Exchange Asia Company Limited (World Exchange Asia), and (3) P.P. Solar Company Limited (P.P. Solar), of which businesses are production of solar electric power, with a capacity of 39.5 megawatts. In addition, GPSC acquired Terraform Global Operating (Thailand) Company Limited (Terraform Global), of which the business was maintenance service for solar energy power plants. After completing the acquisition, these companies would become GPSC's subsidiaries.
- GPSC establishes a new subsidiary, Global Renewable Power Company Limited to support GPSC's renewable business expansion.
- The Energy Regulatory Commission (ERC) had resolved to approve, in principle, the proposed merger of GPSC and Glow Energy Public Company Limited (GLOW), subject to a condition precedent that GLOW must sell Glow SPP1 Company Limited before or at the same time as the merger of GPSC and GLOW to be explicit for problem-solving in terms of reducing competition in the Map Ta Phut area, along with 11 additional post-merger condition precedents. Consequently, GPSC and concerned parties are amending related contracts that might affect the purchase price of GLOW's shares, according to these additional conditions.



Business Overview and Shareholding Structure

Business Overview

GPSC produces and distributes public utility as its core business. The company is both the operator and investor. As of December 31, 2018, GPSC has investment in 14 companies with operations in 4 countries



GPSC operates plants include gas-fired power plants, which are both commercialized and under construction, as detailed below:

- **Combined Cycle Power Plant**
 - Sriracha Power Plant in Sri Racha district, Chon Buri province (700 MW)
- **Cogeneration Power Plant and Steam Production Unit**
 - Central Utility Plant: CUP 1-3 in Hemaraj Eastern Industrial Estate in Map Ta Phut district, Rayong province (339 MW)
 - Central Utility Plant: CUP 4, which is currently under construction, in Asia Industrial Estate, Rayong province (45 MW), expected COD by 2019

GPSC also invests in related-businesses which are

- **Refuse Derived Fuel power plant (RDF)** in Rayong Province

GPSC investment in companies are

- **Power generators of various fuel types both domestic and abroad, totaling 10 companies :**
 - Natural gas-fueled power plants
 - Ratchaburi Power Company Limited
 - Combined Heat and Power Producing Company Limited
 - Bang Pa-In Cogeneration Company Limited
 - Nava Nakorn Electricity Generating Company Limited
 - IRPC Clean Power Company Limited

Solar power plants

- Thai Solar Renewable Company Limited, which holds shares in Siam Solar Energy 1 Company Limited
- Ichinoseki Solar Power 1 GK

- Combined Heat and Power Producing Company Limited (on-ground solar energy power plant in collaboration with Chantaburi's Shrimp Farmers Cooperative Limited)
- Global Renewable Power Company Limited (to accommodate future renewable energy investment), holding shares in N.P.S. Star Group Company Limited, World Exchange Asia Company Limited, P.P. Solar Company Limited, and Terraform Global Operating (Thailand) Company Limited.

Hydropower plants

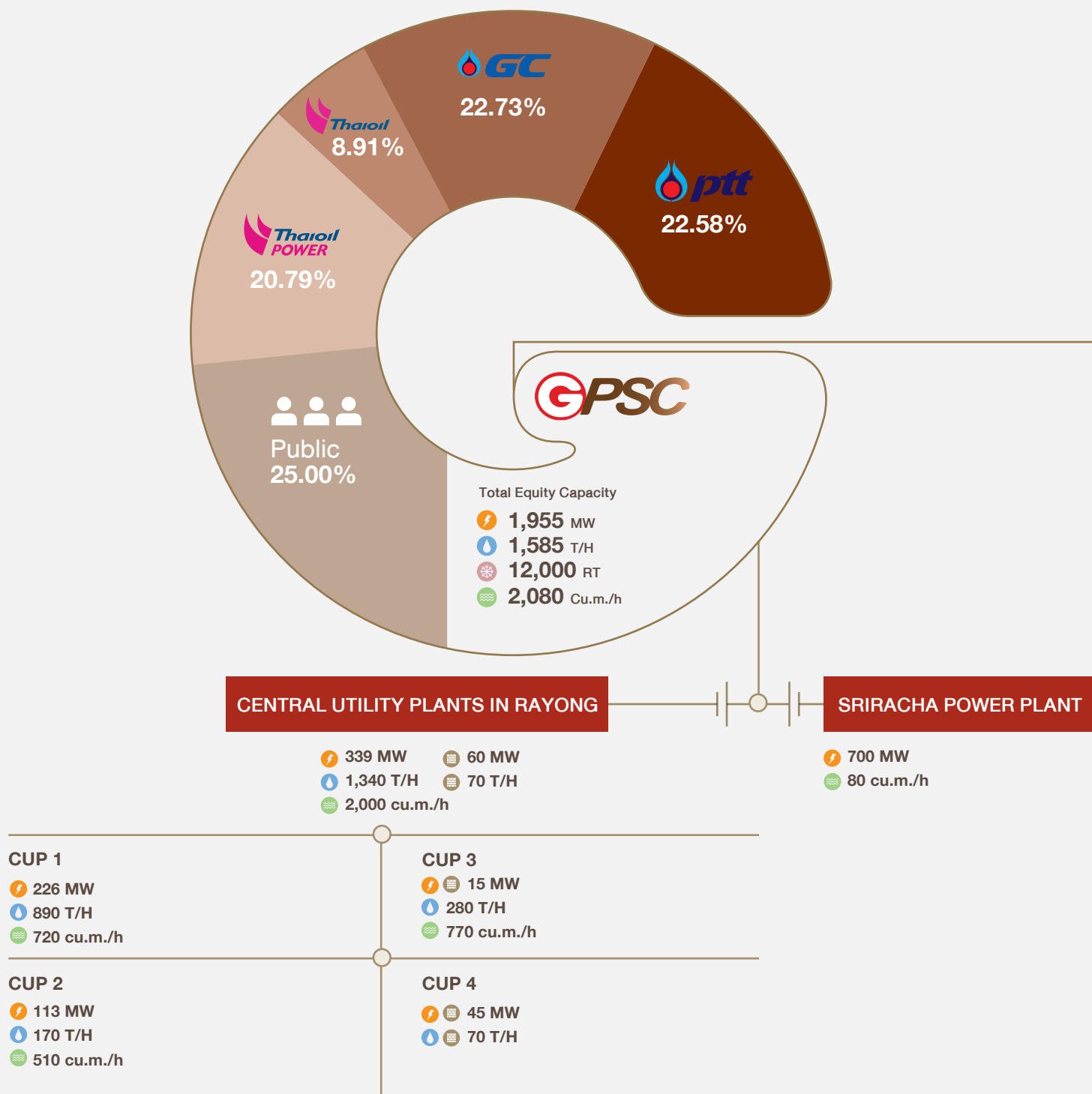
- Nam Lik 1 Power Company Limited
- Natee Synergy Company Limited, which holds shares in Xayaburi Power Company Limited

● **Other business, totaling 10 companies :**

- GPSC International Holdings Limited in Hong Kong SAR, People's Republic of China – to accommodate overseas investment
- 24M Technologies Inc. – a company engaging in research and development of batteries for energy storage and power transmission systems for the industrial sector to enhance power distribution and power network security, as well as that of power users
- Business Services Alliance Company Limited - a company engaging in service delivery and manpower supply for businesses outsourced by PTT Group
- Sam Palang Social Enterprise Company Limited (SPSE)
 - one of PTT Group's enterprise intended for producing and selling goods and services for the benefit of society, communities, and the environment and to jointly resolve their problems while advocating local employment efficiently and sustainably

GPSC's Shareholding Structure

As of December 31, 2018; GPSC holds shares in 14 companies, comprising 6 subsidiaries, 3 joint ventures, 1 associated company, and 4 long-term investments.



Power Installed capacity grouped by products

⚡ Power
💧 Steam
❄ Chilled water
🌊 Industrial water
🏗 Project under construction

Remark : MW : megawatts T/H : tons/hour RT : refrigeration tons cu.m./h : cubic meters per hour



GAS-FIRED POWER PLANT



Ratchaburi Power
Company Limited (RPCL)

⚡ 1,400 MW

GPSC 15%



Bang Pa-In Cogeneration
Company Limited (BIC)

⚡ 117 MW ⚡ 20 T/H (BIC-1)
⚡ 117 MW ⚡ 20 T/H (BIC-2)

GPSC 25%



IRPC Clean Power
Company Limited
(IRPC-CP)

⚡ 240 MW ⚡ 300 T/H

GPSC 51%



Combined Heat and
Power Producing
Company Limited (CHPP)

⚡ 5 MW ⚡ 12,000 RT

GPSC 100%



Nava Nakorn Electricity
Generating Company
Limited (NNEG)

⚡ 125 MW ⚡ 30 T/H
⚡ 60 MW ⚡ 10 T/H

GPSC 30%



SOLAR POWER PLANT



Thai Solar Renewable
Company Limited (TSR)

GPSC 40%



Siam Solar Energy 1
Company Limited (SSE1)

⚡ 80 MW

TSR 100%



Ichinoseki Solar Power 1
GK (ISP1)

⚡ 20.8 MW

GPSC 99%



Combined Heat and
Power Producing
Company Limited (CHPP)

⚡ 5 MW

GPSC 100%



Global Renewable Power
Company Limited

GPSC 100%



HYDRO POWER PLANT

Natee Synergy
Company Limited (NSC)

GPSC 100%



Xayaburi Power
Company Limited (XPCL)

⚡ 1,285 MW

NSC 25%



Nam Lik 1 Power
Company Limited (NL1PC)

⚡ 64.7 MW

GPSC 40%



OTHER BUSINESS



24M Technologies
Inc. (24M)

GPSC 29.5%



GPSC International
Holdings Limited (GPSCIH)

GPSC 100%



Business Services Alliance
Company Limited (BSA)

GPSC 25%



Sarn Palang Social
Enterprise Company
Limited (SPSE)

GPSC 10%

NATURE OF BUSINESS OPERATIONS

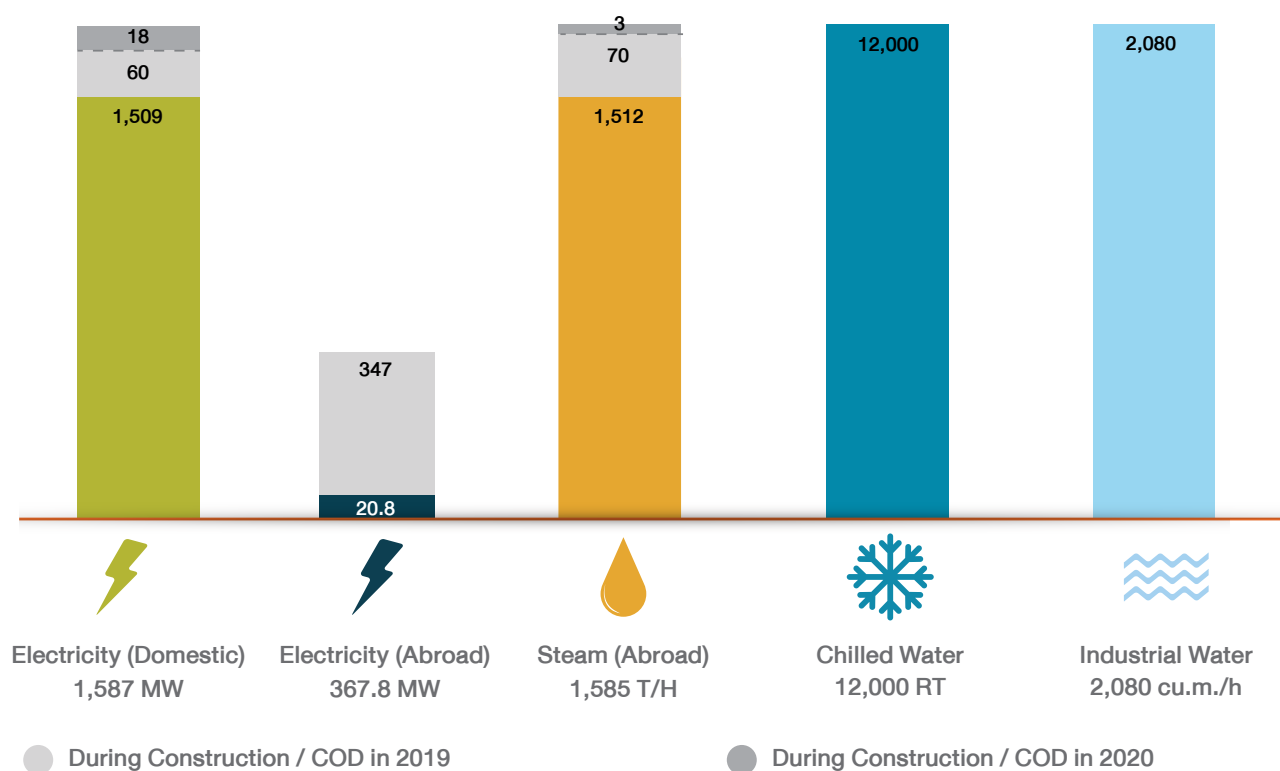
Revenue Structure

GPSC's majority of revenues are derived from sales of power, steam, industrial water, financial leases, and dividends received from Ratchaburi Power Company Limited

Product/Service	Operator	% Shareholding	Year Ended 31 December					
			2559 (2016)		2560 (2017)		2561 (2018)	
			Revenue (THB Million)	%	Revenue (THB Million)	%	Revenue (THB Million)	%
Revenue from Goods and Services								
Power	GPSC Rayong	-	6,875	32%	7,004	34%	7,493	30%
	GPSC Sriracha	-	4,506	21%	3,828	18%	3,241	13%
	IRPC-CP	51%	983	5%	1,131	5%	5,278	21%
	CHPP	100%	-	0%	40	0%	42	0%
	ISP1	99%	-	0%	2	0%	279	1%
	Total		12,364	58%	12,004	58%	16,334	65%
Steam	GPSC Rayong	-	6,142	29%	5,911	28%	6,259	25%
	IRPC-CP	51%	1,072	5%	962	5%	1,038	4%
	Total		7,214	34%	6,875	33%	7,297	29%
Industrial Water/Chilled Water	GPSC Rayong	-	247	1%	268	1%	309	1%
	GPSC Sriracha	-	17	0%	-	0%	6	0%
	CHPP	100%	195	1%	175	1%	187	1%
	Total		459	2%	442	2%	502	2%
Services	CHPP	100%	-	0%	4	0%	97	0%
	Total		-	0%	4	0%	97	0%
RDF Waste Fuel	GPSC-RDF	-	-	0%	-	0%	4	0%
			-	0%	-	0%	4	0%
Total Revenue from Goods and Services			20,037	93%	19,325	93%	24,234	96%
Revenue from Financial Leases								
Financial Leases	GPSC Sriracha		638	3%	592	3%	543	2%
Total Revenue from Financial Leases			638	3%	592	3%	543	2%
Other Revenue								
Nitrogen	GPSC		96	0%	108	1%	103	0%
Dividend Received	GPSC		420	2%	270	1%	135	1%
Other Revenue	GPSC		244	1%	478	2%	286	1%
Total Other Revenue			760	3%	856	4%	523	2%
Total Revenue			21,435	100%	20,773	100%	25,300	100%

Equity Capacity

As of December 31, 2018, GPSC commanded equity capacity in power plants that were in commercial operation and under construction as follows.



GPSC's gas-fired power plants hold the following capacity :

1. Combined-Cycle Power Plant : 700 MW of power and 80 cu.m./h of industrial water
2. Cogeneration Power Plant : 399 MW of power, 1,410 T/H of steam, and 2,000 cu.m./h of industrial water

Product Features



Electricity

is a form of energy which is processed to other useful forms of energy e.g. thermal power, mechanical energy, etc., delivered to various destinations through transmission lines under various voltages: 230, 115, or 22 kV.



Steam

is a form of thermal energy derived from surplus heat of power generation; sometimes it is obtained by direct fuel combustion, delivered to customers at required pressures.



Chilled Water

is a heat transfer medium for use in air conditioning systems, generated at the Government Complex on Chaeng Wathana Road in Bangkok.



Industrial Water

consists of boiler feed water and demineralized water, both of which are part of the electricity generation process and delivered to customers for use in production systems.

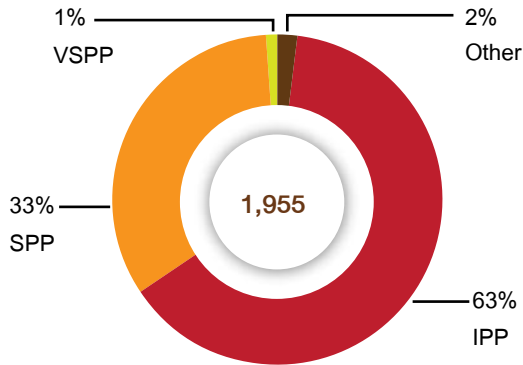


Nitrogen

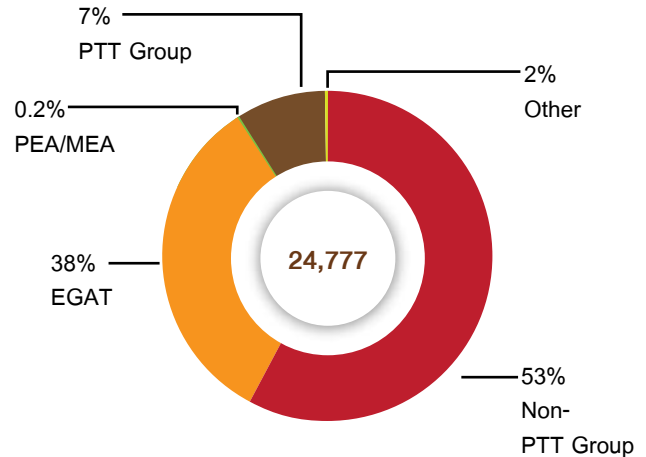
is an inert gas with the chemical formula N₂ and is a liquid at -196 °C. The company is a supplier and delivers nitrogen products to industrial customers via pipelines.

Business Highlights

Equity Capacity Breakdown (MW)



Revenue by Customer (THB million)



1) Power Flagship of PTT Group

Under PTT Group's vision to become Thailand's premier multinational energy company, the group drives a variety of business strategies, of which the power business is its core business in addition to oil, natural gas, and petrochemical businesses. Therefore, as the group's flagship company, GPSC focuses on continued growth and sustainability along with new business ventures into foreign markets.

2) Strategic advantages due to locations, customer groups, and a variety of fuels, and a balanced operating status of invested power plants.

Today, GPSC's power plants continue to grow in terms of locations, customer groups, and fuel types, which contribute to its risk diversification, as described below.

- **Locations:** GPSC's power plants and invested companies are scattered across many provinces of Thailand, with some located overseas, which helps mitigate the risk of over-reliance on any given area's or country's power demand.
- **Customer groups:** GPSC and its invested companies sell power to industrial customers and public agencies, including the Electricity Generating Authority of Thailand (EGAT), the Provincial Electricity Authority (PEA), the Metropolitan Electricity Authority (MEA). In addition, it sells power generation byproducts to industrial customers in nearby areas, preventing over-reliance on any single customer.

- **Fuel types:** GPSC and its invested companies plants include conventional power plants, hydro power plants, and renewable power plants. This diversification helps prevent over-reliance on any type of fuel.

The operating status of its invested plants shows that GPSC owns a number of operating commercial power plants that are already generating revenue, while some are under construction and are set to provide a top-up when ready for commercial operation in the near future.

3) Business growth opportunities

Apart from GPSC's core businesses of power generation and utility, GPSC's policy is to relentlessly seek new business opportunities to grow further from power generation and distribution, including the power storage system and battery business. GPSC invested in 24M Technologies, Inc. (24M), an R&D company that has conducted research and development projects on the production of lithium-ion batteries for use as a backup power storage system for industries and enhancement of the security of power distribution and power grid systems. If 24M's R&D efforts pay off and lead to a commercial production, GPSC will gain access to advanced battery technology at a lower cost than batteries currently on the market. In addition, GPSC is interested in becoming a consultant and provider of services related to power storage systems and batteries, which will be a new power business.

Distribution and Target Customer Groups

Distribution

As a rule, power is transmitted from the generator with the same voltage standard as that used by PEA and MEA with transformers located at substations. Power then travels through transmission lines and sales meters before entering the grids of EGAT, PEA, MEA, and industrial customers.

GPSC's products consist of power, steam, and industrial water, which are practically not storable for subsequent consumption. As a result, distribution and delivery systems are critical, and their reliability are highly demanded. Recognizing this, GPSC has designed separate transmission systems for individual customers, which guarantees consumption control and safety for each individual customer.

To ensure product delivery efficiency, the locations of the company's power plants are also crucial. That is, they must be located in industrial areas where demand for steam, chilled water, and industrial water for production exists and near power plants. The product must also be delivered through transmission systems with additional insulation to reduce loss of energy to the external surroundings.

Target customer groups

GPSC's target customer groups can be classified by supply chain into two groups as follows:

1. Distributed to EGAT for resale

Under Thailand's power structure, EGAT is responsible for the generation, sourcing, and transmission of power to PEA and MEA, both of which distribute it to the industrial sector and the retail. All three agencies are responsible for national power security. Since EGAT's power generation is insufficient, it purchases power from private producers through three main types of agreement.

- Independent Power Producer : IPP
- Small Power Producer : SPP
- Very Small Power Producer : VSPP

GPSC and its invested companies distribute power to EGAT, PEA, and MEA through the three types of agreement. In its distribution to EGAT, GPSC also commands reserve power under reserve power agreements, which further enhances the security of its power plants' power generation systems.

- **Product pricing:** Rates of power purchase are dictated by the power tariff structure, grouped by power producer type.

1) Independent Power Producer (IPP)

As a rule, IPP agreements break the main pricing structure down into two parts.

First: Availability Payment (AP) is the compensation paid by EGAT to power plants each month for maintaining their power distribution availability regardless of the volume actually purchased by EGAT. AP is made up of:

- APR1 : is the compensation paid by EGAT for plant construction, which includes loan repayment and GPSC's returns (also called "capacity cost")
- APR2 : is the compensation paid by EGAT for fixed expenses in operating and maintenance (also called "fixed O&M").

Second: Energy Payment (EP), to be designated by IPPs to reflect their variable production costs

2) Small Power Producer: (SPP)

SPPs' pricing varies with fuel types and agreement types.

2.1) Firm agreement pricing

Non-firm agreements are power purchase agreements with specified volumes of power to be distributed to EGAT through a period of up to five years. Such agreements do not qualify for capacity payment (CP) and are only entitled to Energy Payment (EP), to be determined from the energy cost for power generation, operating cost, and short-run avoided energy cost. As such, non-firm prices are always lower than firm ones. As for power purchase from renewable-energy power plants, an adder (a premium-like component) or feed-in tariff (FiT) also applies.

2.2) Non-firm agreement pricing

Non-firm agreements are power purchase agreements with specified volumes of power to be distributed to EGAT through a period of up to five years. Such agreements do not qualify for capacity payment (CP) and are only entitled to Energy Payment (EP), to be determined from the energy cost for power generation, operating cost, and short-run avoided energy cost. As such, non-firm prices are always lower than firm ones. As for power purchase from renewable-energy power plants, an adder (a premium-like component) or feed-in tariff (FiT) also applies.

3) Very Small Power Producer (VSPP)

By its definition, VSPPs supply up to 10 MW to PEA or MEA under each agreement. The applied pricing is dictated by the wholesale power price structure at the similar voltage where VSPPs connects to the power system plus the average wholesale Ft. if the power is derived from renewable energy, an adder or FiT also applies, in line with PEA's or MEA's announcements.

2. Direct sales to industrial customers

GPSC, as a public utility (power, steam, chilled water, and industrial water) producer, sells products to its industrial customers, most of whom are in the petrochemical business. As a one-stop service provider, the company also sells and distributes nitrogen to PTT Group companies

● Product pricing

1) Industrial customers' power purchase rates

GPSC has entered into long-term sales agreements with its industrial customers, most of whom operate industrial plants, based on the PEA prices and subject to changes in Ft according to fuel cost.

2) Steam and industrial water pricing

Steam prices and industrial-water prices are of the cost-plus type: a function of generation fuels, other cost components, and a certain profit margin. The price formula takes into account variations in costs in adjusting prices to reflect actual production costs, which normally include investment, variable costs, and operation and maintenance expenses involved in the investment of the distribution system dedicated to each customers. As for energy losses, separate calculation applies to account for different investment amounts required for system construction as a result of differences in volumes to be delivered and in customers' locations.

General pricing terms

GPSC Board of Directors has defined criteria and principles for determining standard selling prices to ensure fairness and transparency in sales to connected customers and other customers, both of which must enjoy the same standard.

Market and competition

(1) Overview of Thailand's demand and power generation capacity in 2018

As of September 30, 2018, Thailand commanded a total installed electricity generation capacity of 54,617 megawatts, of which 46,776 megawatts was contract capacity and 7,842 megawatts was from independent power supplies. The domestic peak demand for electrical power in 2018 of 34,317 megawatts occurred on April 4, 2018, a 0.6% increase from that of 2017, while the peak demand of the power authorities registered 29,968 megawatts, a 1.1% decrease from that of 2017. The number indicated a continuous increase in consumption of electrical power from sources outside the three power authorities, particularly power that industrial businesses with independent power plants generated for their own consumption and/or for sale through systems connected to the grids of the three power authorities.

(2) Thailand Power Development Plan 2018-2037 (PDP 2018)

On January 24, 2019, the National Energy Policy Council (NEPC) reviewed important energy matters, which could be summarized as follows.

Previously, the assumptions employed in domestic power demand forecast were primarily based on Thailand's economic growth rate, population growth rate, and data on power consumption from the power authorities' system. In the revised PDP, to ensure greater forecast accuracy, the power consumption data used in making the assumptions is derived from all the databases in Thailand, including data on power generation capacities and power demand of independent power supplies (IPS) or power plants that generate power for their own consumption and/or for sale and are connected to the grids of the power authorities.

In addition, regional power demand forecasts will also be made and employed in reviewing the allocation of additional power plants to each region, using its fuel potential and existing infrastructure to further enhance its power security. The PDP is subject to revision every five years or when there are changes in factors that significantly affect its goals.

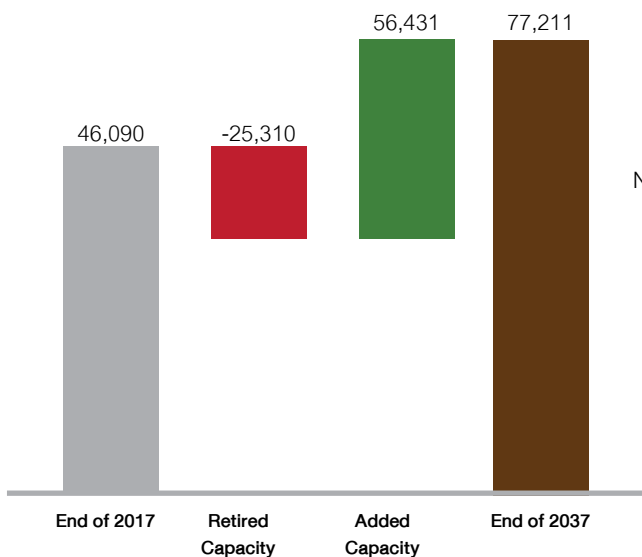
The principles of the formulation of the revised PDP can be divided into three major categories as follows.

- (1) Security: Ensuring power security and balance in each region and allocating additional major power plants to achieve an appropriate number of plants in each region
- (2) Price: Promoting low-cost power production and maintaining retail prices of electricity to prevent further increase
- (3) Environment: Promoting renewable electricity generation and the transition to the smart grid system to accommodate a shift towards prosumer markets

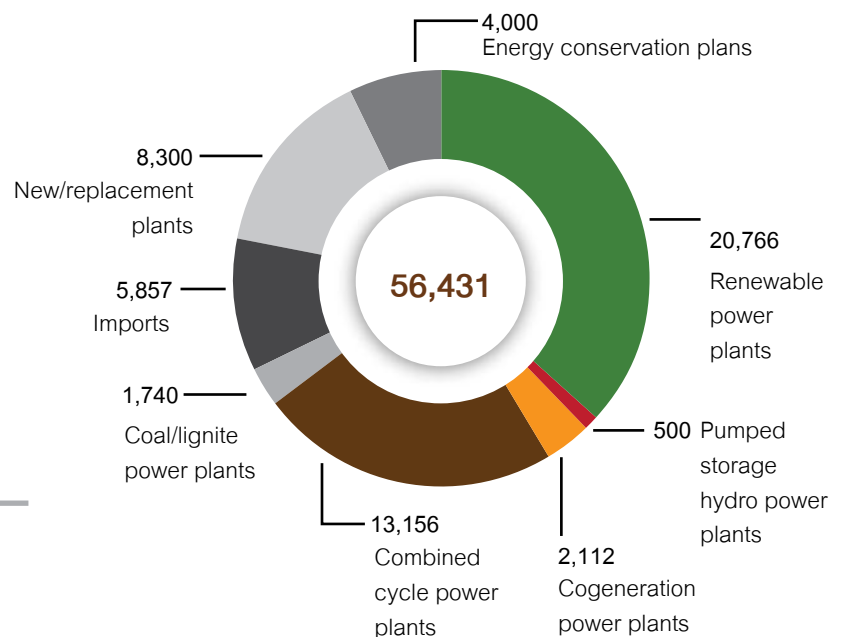
The power demand forecast suggests that in 2027, Thailand's reliable capacity will be lower than its power demand, which will translate to additional power purchase, through both IPP bidding or foreign imports. The overview of domestic capacity in 2018-2037 is as follows.



Capacity Overview in 2018-2037 (MW)



Added Capacity in 2018-2037 by Plant Type (MW)



Promotion plans for power generation from renewable energy

As of September 2018, according to the Alternative Energy Development Plan (AEDP 2015), the government sector was under power purchase obligations amounting to 10,778 megawatts in capacity. In PDP 2018, it appears likely that the government sector will stop purchasing electricity produced with renewable energy until 2026 and instead focus on promoting power generation from waste in accordance with the potential of each locality, the development of floating solar farms in areas with dams, as well as public participation in power generation through the public-sector solar power generation project. The details are as follows.

- 1) Power plants under the government's promotion policy in 2018-2037 will have a combined capacity of 520 megawatts, derived from 400 MW waste-to-energy plants and 120 MW biomass power plants under the Pracharat scheme.
- 2) (Additional) renewable energy power plants in AEDP will command a total capacity of 18,176 megawatts, with 3,376 megawatts derived from biomass power plants, 546 megawatts from biogas power plants, 10,000 megawatts from public-sector solar farms, 2,275 megawatts from solar farms and hydro power plants, 1,485 megawatts from wind energy, and 44 megawatts from industrial waste.

- 3) The Energy Policy Administration Committee (EPAC) and the Energy Regulatory Commission (ERC) will review the public-sector solar power generation project to ensure that it can practically achieve the annual capacity of 100 megawatts for a period of 10 years starting from 2019.

Agreement renewals for Small Power Producers (SPPs)

On January 24, 2019, the National Energy Policy Council (NEPC) approved the adjustment to the termination period of cogeneration SPP agreements eligible for renewal and the extension of this adjustment to 25 firm contracts of cogeneration plants expiring in 2016-2018, in line with NEPC's resolution on May 30, 2016. With this adjustment in effect, cogeneration SPPs with contracts set to expire in 2016-2025 are eligible for contract renewal and are allowed to construct new power plants of the fuel type specified in the existing agreements as well as receive power purchase rates for that specific fuel type. For future contract renewals, power purchase rates will be adjusted to ensure appropriateness and fairness to power users and will likely cover only costs of power generation. The Energy Regulatory Commission (ERC) will adopt the adjustment approved by NEPC in considering the renewal of contracts set to expire in 2019-2021 for SPPs who are unable to construct new power plants in time, in order to enable them to build new power plants.

Estimated retail electricity prices

The retail electricity prices under PDP 2018 in 2018-2037 are estimated to be 3.50-3.63 baht per unit or 3.58 baht per unit on average.

(3) Power demand arising from the development of the Eastern Economic Corridor

The development of the Eastern Economic Corridor (EEC) will boost power demand. It is expected that the power demand will rise by a maximum of 404 megawatts, thanks to investments in infrastructure (airports and ports), industrial businesses, and R&D innovations, such as EECi and Digital Park, as well as a high-speed train system, which is expected to increase power demand by 163 megawatts by 2036 according to a forecast of the Energy Policy and Planning Office (EPPO). Therefore, the development of EEC will have positive impacts on power demand in the long run, create growth opportunities for GPSC and PPT Group, and promote governmental policies.

(4) Advancement of energy innovation under Energy 4.0 Policy

The Energy 4.0 Policy is the key driver of Thailand's energy development towards true sustainable security. Since 2017, the government has adopted this directive in its oversight of Thailand's energy sector, focusing on creating energy innovation or innovation-based energy so as to enable Thailand to rise above its status of a middle-income country. This policy consists of four main components, namely electric vehicles (EV), energy storage systems (ESS), SPP Hybrid, and smart grids/smart cities, and aims to enhance the reliability and efficiency of the country's power transmission and distribution systems, which will afford greater stability to the development of renewable energy and promote further development of energy-related businesses in anticipation of changes in power consumption behaviors. The government has already begun to implement this policy, as can be seen in the support for the public-sector solar rooftop project and the unregulated solar rooftop project (private PPA) in PDP 2018. According to the Energy Policy and Planning Office (EPPO) and the Energy Efficiency Plan (EEP 2015), power demand is expected to rise by 2,466 megawatts, based on the assumption that there will be 1.2 EVs in 2036 and that Thailand will see the rise of smart cities on

the basis of the development of smart grids. With these developments, power users can expect changes in service provision thanks to infrastructural development in both the government and private sectors as well as changes in governmental policies and regulations in favor of system development and investments by power producers. In addition, service providers in the power industry will continuously pilot their technologies to enhance their services, such as demand response, smart billing, smart appliances, and micro-grid for sustainable development.

GPSC and its competitiveness in the market

GPSC holds long-term PPAs and steam purchase agreements with highly-rated industrial customers; can guarantee the reliability of its power and steam distribution to customers; operates cogeneration systems, which have lower costs than other power and steam production systems; and has direct distribution systems dedicated to each customer. As a result, the company enjoys a competitive advantage and lower costs than if individual customers in an industrial estate were to invest in public utility production by themselves.

GPSC is confident that its past performance in the power generation business, skills and experience in generating power from various fuel types, solid financial status, financing capacity, and innovation-enabled sustainable growth policies will enable it to compete effectively against other energy operators.



GENERAL INFORMATION

Company Name	: Global Power Synergy Public Company Limited
Security Name	: GPSC
Establishment Date	: January 10, 2013
Registered as Public Company Limited	: November 27, 2014
First Day of Trade on SET	: May 18, 2015
Company Registration Number	: 0107557000411
Registered Capital	: THB 14,983,008,000 as of December 31, 2018, comprising 1,498,300,800 paid-up common shares, with a par value of THB 10 per share
Business	: GPSC operates as a power, steam, and utilities producer and distributor. In addition, the company invests in other companies that generate and distribute power, steam, and utilities, including related businesses, both domestically and overseas.
Type of Business	: Energy and Utilities
Industry Group	: Resources
Number of Employees	: 318 (as of December 31, 2018)
Website	: www.gpscgroup.com

Contact Information

Investor Relations

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Fax: +66-(0)2140-4601

E-mail: ir@gpscgroup.com

Corporate Affairs and Legal Department / Company Secretary

Telephone: +66-(0)2140-5301, +66-(0)2140-4719, +66-(0)2140-4608

Fax: +66-(0)2140-4601

E-mail: company-secretary@gpscgroup.com



Head Office and Branches

- **Head Office**
555/2 Energy Complex Building B, 5th Floor, Vibhavadi Rangsit Road, Chatuchak Sub-District, Chatuchak District, Bangkok 10900, Thailand Telephone: +66-(0)2140-4600 Fax: +66-(0)2140-4601
- **Location of Branch 1 : Central Utility Plant 1 (CUP 1)**
24 Pakorn Songkro Raj Road, Huaypong Sub-District, Muang Rayong District, Rayong 21150, Thailand Telephone: +66-(0)3897-4333 Fax: +66-(0)3897-4500
- **Location of Branch 2 : Central Utility Plant 2 (CUP 2)**
92/9 Rayong Highway 3191, Map Ta Phut Sub-District, Muang Rayong District, Rayong 21150, Thailand Telephone: +66-(0)3897-4333 Fax: +66-(0)3897-4500
- **Location of Branch 3 : Central Utility Plant 3 (CUP 3)**
5/11 Pakorn Songkro Raj Road, Map Ta Phut Sub-District, Muang Rayong District, Rayong 21150, Thailand Telephone: +66-(0)3897-4333 Fax: +66-(0)3897-4500
- **Location of Branch 4 : Sriracha Power Plant**
42/3, Moo 1, Sukhumvit Road, Tung Sukhla Sub-District, Sriracha District, Chonburi 20230, Thailand Telephone: +66-(0)3840-7407 Fax: +66-(0)3840-7400
- **Location of Branch 5: Maintenance Center**
98/19 Rayong Highway 3191, Map Ta Phut Sub-District, Muang Rayong District, Rayong 21150, Thailand Telephone: +66-(0)3897-4560

References

Securities Registrar

Thailand Securities Depository Company Limited (TSD)

The Stock Exchange of Thailand Building (Next to the Embassy of the People's Republic of China)
93 Ratchadaphisek Road, Dindaeng Sub-District, Dindaeng District, Bangkok 10400, Thailand
Telephone: +66-(0)2009-9999 Fax: +66-(0)2009-9991

Audit Firm

KPMG Phoomchai Audit Company Limited

195 Empire Tower Building 1, 50th- 51st Floor, South Sathorn Road, Yannawa Sub-District, Sathorn District, Bangkok, 10120, Thailand Telephone: +66-(0)2677-2000 Fax: +66-(0)2677-2222

GENERAL INFORMATION OF GPSC'S INVESTED COMPANIES

As of December 31, 2018

Company	Type of Business	Registered Capital	Type of Share	Paid-up Capital	Share Value	GPSC's Shareholding
Subsidiaries						
Combined Heat and Power Producing Company Limited 555/2 Energy Complex, Building B, 5 th Floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand Tel: +66 (0)-2143-9644 Fax: +66 (0)-2143-9645	A very small power producer firm (VSPP) operating a combined heat and power with district cooling power plant to generate and supply electricity to EGAT and chilled water to Bangkok Government Complex	THB 500,000,000	Common share	THB 371,730,000	THB 10 /share	100%
Natee Synergy Company Limited 555/2 Energy Complex, Building B, 5 th Floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand Tel: +66 (0)-2140-46580	Invest in businesses related to power generation	THB 6,715,250,000	Common share	THB 6,505,517,250	THB 100 /share	100%
• Indirect Associate Xayaburi Power Company Limited 215 Lanexang Avenue, Ban Siang Yuen, Chantaburi District, Vientiane Capital, Lao PDR Tel: +856 (21) 251718 Fax: +856 (21) 215500	A hydropower producer, generating and supplying power to EGAT and ELECTRICITE DU LAOS (EDL)	THB 26,861,000,000	Common share	THB 25,577,069,000	THB 10 /share	25% (through Natee Synergy)
Ichinoseki Solar Power 1 GK Company 6F, Shinjuku Hanazono MJ Building, 5-16-15 Shinjuku-ku, Shinjuku, Tokyo, Japan 160-0022 Tel: +81 (3)- 5362-7035 Fax: +81 (3)-5362-7036	A solar power producer, generating and supplying solar electricity to a Japanese utility company	Yen 10,000	Common share	Yen 10,000	-	99%
IRPC Clean Power Company Limited 299 Moo 5, Sukhumvit Road, Choeng Noen Sub-district, Muang district, Rayong, 21000, Thailand Tel: +66 (0)-3861-333, +66 (0)-3861-3571-80 Fax: +66 (0)-3861-2812-3	A small power producer (SPP) operating a cogeneration plant to generate and supply electricity to EGAT and the surplus and steam to industry customers in IRPC Industrial zone	THB 3,362,300,000	Common share	THB 3,083,000,000	THB 10 /share	51%
GPSC International Holdings Limited Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong Tel: + (852) 2980-1888 Fax: + (852) 2956-2192	Support to future overseas investment and expansion	USD 100,000	Common share	USD 98,000	-	100%

Company	Type of Business	Registered Capital	Type of Share	Paid-up Capital	Share Value	GPSC's Shareholding
Global Renewable Power Company Limited 555/2 Energy Complex, Building B, 5 th Floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand Tel: +66 (0)-0-2143-9644 Fax: +66 (0)-02143-9645	To accommodate future renewable energy investment	THB 1,000,000	Common share	-	THB 100 /share	100%
Joint Ventures						
Thai Solar Renewable Company Limited 3199 Maleenont Tower, 16 th Floor, Rama 4 Road, Khlong Tan Sub-District, Khlong Toei District, Bangkok 10110, Thailand Tel: +66 (0)-2-661-2701	Invest in power generation-related businesses	THB 583,333,400	Common share	THB 583,333,400	THB 10 /share	40%
• Indirect Joint Ventures Siam Solar Energy 1 Company Limited 3199 Maleenont Tower, 16 th Floor, Rama 4 Road, Khlong Tan Sub-District, Khlong Toei District, Bangkok 10110, Thailand Tel: +66 (0)-2-661-2701	A very small power producer generating solar electricity	THB 1,800,000,000	Common share	THB 1,800,000,000	THB 10 /share	40% (through Thai Solar Renewable)
Nam Lik 1 Power Company Limited 402B of 4 th Floor, ViengVang Tower, Unit 15 Boulchan Road, Dongpalan Thong Village, Sisattanak District, P.O Box 3684, Vientiane Capital, Lao P.D.R	A run-of-river hydroelectric company, generating and supplying electricity to ELECTRICITE DU LAOS (EDL)	USD 37,200,000	Common share	USD 31,900,000	USD 10 /share	40%
Nava Nakorn Electricity Generating Company Limited 111 Moo 20, Phahonyothin Road, Khlong 1, Khlong Luang District, Pathum Thani 12130, Thailand Tel: +66 (0)-2978-5283, +66 (0)-2978-5291	A very small power producer operating a cogeneration plant to generate and supply electricity to EGAT and the surplus and steam to industry users in Nava Nakorn Industrial Promotion Zone	THB 1,550,000,000	Common share	THB 1,550,000,000	THB 10/ share	30%

Company	Type of Business	Registered Capital	Type of Share	Paid-up Capital	Share Value	GPSC's Shareholding
Associate						
Bangpa-In Cogeneration Company Limited 587 Viriyathavorn Building, Sutthisan Road, Din Daeng, Bangkok, Thailand 10400 Tel: +66 (0)- 2691-9720 Fax: +66 (0)-2691-9723	A small power producer operating a cogeneration plant to generate and supply electricity to EGAT and the surplus electricity and steam to industrial users in Bang Pa-In Industrial Estate	THB 2,705,000,000	Common share	THB 2,705,000,000	THB 10 /share	25%
Long-term Investment						
Business Services Alliance Company Limited 555 PTT Office, Phra Khanong Oil Depot, Art-Narong Road, Khlong Toei, Bangkok 10260, Thailand Tel: +66 (0)-2239-7328 Fax: +66 (0)-2239-7326	Manage human resources outsourcing for PTT Group	THB 2,000,000	Preferred share	THB 2,000,000	THB 10 /share	25%
• Indirect Long-term Investment Sport Services Alliance Company Limited 199/7 Moo 1, Tambon Choeng Noen, Muang District, Rayong 21000, Thailand Tel: +66 (0)-3894-8138 Fax: +66 (0)-3894-8139	Manage football club for PTT Group	THB 5,000,000	Common share	THB 5,000,000	THB 10 /share	25% (through Business Services Alliance)
24M Technologies, Inc. 130 Brookline Street, Cambridge, MA 02139, U.S.A Tel: (001) 617-553-1012	Carry out research and development of batteries for energy storage in the industrial sector and for enhancement of power distribution and power network security	USD 97,163.47	Preferred share	USD 82,849	USD 0.001 /share	29.5%
Ratchaburi Power Company Limited 1828 Sukhumvit Road, Bangchak Sub-District, Phra Khanong District, Bangkok 10260, Thailand Tel: +66 (0)-2311-5111-9 Fax: +66 (0)-2332-3882	Generate and supply power from combined-cycle power plant	THB 7,325,000,000	Common share	THB 7,325,000,000	THB 10 /share	15%
Sarn Palung Social Enterprise Company Limited 555/1 Energy Complex, Building A, 10 th Floor, Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900, Thailand	Produce and sell goods and services for the benefit of society, communities, and the environment	THB 10,000,000	Common share	THB 2,500,000	THB 10 /share	10%



RISK FACTORS

In a dynamic business environment that influences organization at all times, risk management to cope with such circumstances and pursue business goals is vital to GPSC, which is similar to the international practices that emphasize the management of change and risk impact. Because of that, GPSC takes risk management into account to consider both internal and external factors impacted to its objectives by implementing enterprise risk management system throughout organization, so that all business units will successfully achieve their goals.

In 2018, GPSC focuses on implementing enterprise risk management through risk identification, risk assessment, and risk monitoring process at both corporate and functional level for business as usual operation. For projects under development, the scope of risk management extends from project study phase, development phase, construction phase, to commercial and operation phase. This is to ensure that these aspects of operation do align with GPSC's strategies and business plan in both short term and long term.

Besides these regular processes, GPSC also emphasizes governing process, particularly corporate risk and those of investment projects which require close monitoring and reporting to the top management, the Risk Management Committee, and the Board of Directors. This is to ensure that overall performance, supported by effective risk management system, has aligned with GPSC business plan.

The key risks facing GPSC in 2018 are as follows:

1. Internal Risk Factors

1.1 Human Resource Capability Risk

Since GPSC engages in several types of power plants and is expanding businesses worldwide, it directly needs diversely experienced and specialist to achieve business growth in short term and long term. In 2018, GPSC focuses on developing its recruitment system as well as the retention and development to improve employee capability in order to align with its strategy for current and future business. To elaborate, the manpower planning has been designed to maximize effectiveness through Build/Buy/Borrow strategy for skillful and experienced specialists, and through succession plans for key positions, as a result

to ensure that its human resource can drive organizational effectiveness according to business plan.

GSPC also values human resource development by grooming executives under the Leadership Development Program to encourage their advancement in business growth. This shall promote a conducive atmosphere for current employees to work with high engagement and confidence in their career roadmap at the same time. In addition to individuals, individual development plans and key competencies have been drawn up in order to improve skillsets for current employee to effectively deal with changes in business.

1.2 Power Plant Reliability Risk

With a mission to continually deliver quality energy to customers for reliability in the industrial and business sectors, GPSC is given the responsibility to generate and distribute power and steam to Electricity Generating Authority of Thailand (EGAT) and industrial customers under mutually agreed condition. So as to avert impacts on customers and itself, the significance of power plant reliability risk management has been put in place, for example, to set up standard monitoring systems to minimize risk of errors in control system and equipment, to coordinate with customers before the planned maintenance to mitigate potential impacts from their preventive maintenance, and to secure spare parts in order to ensure stability of power generation.

In 2018, GSPC has applied quality management systems like the ISO 9001, ISO 14001, ISO 45001, and TIS 18001 under the Integrated Management System (R-100 IMS) in addition to the Total Productive Maintenance (TPM) and the Operational Excellence Management System (OEMS) at all sites. As a result, it earns the TPM Excellence Award, attested by the Japan Institute of Plant Maintenance (JIMS), a credible industrial institute of Japan; this award is traditionally presented to entities that succeed in process efficiency improvement, lowering production costs, and share benefit with society, communities, and the environment.

Besides power plant efficiency improvement, GPSC recognizes that good customer relationship management leads to satisfaction and lasting relations between customers and the company, notably in enhancing the probability of renewing long-term contracts with those nearing expiry. GPSC therefore seeks for feedback through the customer satisfaction survey every year, with elements focusing on product and delivery, technical staff, customer experience, etc. The outcomes reflect customers' satisfaction and expectations to GPSC and also indicate how to develop work process to address even more needs of old and new customers alike. This year GPSC has found that the overall customers of Sriracha and Rayong Power Plants are indeed satisfied with its operations (86.6% of the customer satisfaction score), with the satisfaction score on service and maintenance at the top.

1.3 Safety, Security, Health, and Environment Risk

To control risks on safety, security, health, and environment that could lead to losses of lives, injuries, and illnesses related to work by employees and contractors, which in turn lead of possible work disruptions and potential impacts on communities, society, and the environment, GPSC is committed to comply with the scope of its Quality, Safety, Security, Health, and Environmental Policy. The focus is on cultivating the corporate culture on safety ("we SAFE") to forge a safety attitude for everyone to work safely, pay attention to everyone, think before acting, and stop if unsafe. The following moves exemplified GPSC's safety enhancement for employee and contractors:

- Setting and announcing a Quality, Safety, Security, Health, and Environmental Policy
- Appointing a Safety, Occupational Health and Environment Committee
- Contractor safety management
- Health risk assessment
- Management of industrial hygiene and the Fit to Work program

- A credible system to collect data on performance outcomes of health and safety, attested by a third-party agency
- Promotion of the "we SAFE" corporate culture with measurable scores through the assessment of the security, safety, health, and environmental culture
- Management of process safety and personal safety
- Short-term and long-term strategic goals for health and safety operation
- Establishment of a suggestion program for sub-standards reports and incident report and investigation program
- Health and safety management under TIS 18001:2554 and ISO 45001:2018
- Management of work environment

GPSC has also managed its operating safety through Operational Excellence Management System (OEMS) and International Organization for Standardization (ISO) with earnest and robust compliance with the law, resulting in its winning a TIS/OHSAS 18001 certificate, presented by MASCI since 2014. The system has undergone relentless improvement, taking into account risks, opportunities, and legal requirements for health and safety management. Finally, it has successfully upgraded the international-standard certification for health and safety management to ISO 45001:2018 and Integrated Management System (IMS).

With regard to these earnest and relentless moves, GPSC has achieved its goal of being a corporation free of lost-workday cases since 2013 (as of December 31, 2018) with 7.8 million man-hours of accumulated work without lost workdays, whereas the target is 10 million man-hours.

1.4 Project Construction Risk

GPSC's three projects under construction consist of:

- (1) Central Utility Plant 4 (CUP-4), Rayong – a cogeneration power plant fueled by natural gas, located in the Asia Industrial Estate, under the management of GPSC.
- (2) XPCL – a hydropower plant project under the management of Xayaburi Power Company Limited (XPCL)
- (3) NL1PC – a hydropower plant project under the management of Nam Lik 1 Power Company Limited (NL1PC).
- (4) Nava Nakorn electricity generating expansion project located in Nava Nakorn industrial promotion zone, under the management of Nava Nakorn electricity generating company limited (NNEG).

Risks from project under construction commonly deal with projects not executed according to plans, with delays coming from construction and installation of machinery by project contractors, cost overruns, technical engineering problems, or certain limitations causing the company to derive lower returns than projections. GPSC therefore has taken a very cautious approach to manage project under construction by selecting contractors that are trustworthy and skillful, engaging them with turnkey contracts, and assigning a specific project team to control and review, and monthly reporting to the Risk Management Committee, the Audit Committee, and top management in order to ensure timely completion of project construction within budget and expected quality upon contract agreement.

1.5 Fuel Supply Risk

Due to 98% of GPSC's domestic power capacity fueled by natural gas, Thailand's pipeline and distribution systems are vital to its fuel management and power generation. Consequently, GPSC has secured long-term offtake contracts for the supply and consumption of natural gas with obligations on the quality, volumes, and prices with PTT Public

Company Limited the national leading company of energy security and stability in Thailand. Moreover, the locations of its conventional power plants are near PTT's main supply, terminals, and transmission systems, resulting in GPSC's risks of fuel security in low level.

GPSC has also proceeded additional mitigation plans if certain incidents affect GPSC's ability to generate power, namely back-up power purchase from the Provincial Electricity Authority (PEA) and diesel back-up fuel, in order to maintain the ability to supply power to its customers promptly.

1.6 Customer Concentration Risk

In 2018, around 70% of GPSC's total revenue is derived from industrial customers in which 78% of them are petrochemical companies in PTT Group that located in the vicinity. Should any requirements for operating in industrial estates, accidents, natural disasters, failures or disruption of industrial estate utility systems happen, GPSC is unavoidable to face the impacts from customer concentration risk. In addition, since most of GPSC's customers operate petroleum and petrochemical businesses, GPSC potentially experiences a drop in demand subject to business cyclicity. Any turnaround could affect GPSC's efficiency management, notably during several customers' turnaround over the same period, and reflects to the decrease in power demand.

GPSC therefore establishes an operation plan to solve such situations by closely coordinating with customers' operation and maintenance plans to come up with high performance on power generation. To secure its income, GPSC has also required a minimum take or pay clause for long-term power and steam purchase agreement, and continually sought opportunities to extend contracts with existing customers whose contract is about to expire, together with pursuing opportunities for acquiring new customers under suitable trade terms for greater income stability.

2. External Risk Factors

With the current national circumstances being more intense in the energy sector, coupled with significant changes in production technology and energy consumption, GPSC has recognized and prepared for impacts on its current and future businesses. According to GPSC business growth strategies, it determines to expand both domestically due to such changes, and internationally as well. In 2018, key external risk factors posing threats to achievement are as follows:

2.1 Investment and Business Expansion Risk

To fulfill its mission to become a leading power producer that contributes national energy security and with its leapfrog strategy, there are 3 following approaches that GPSC selects at the moment. Firstly, to pursue investment opportunities through cooperation with PTT Group. Secondly, to seek mergers and acquisitions. Lastly, to pursue New S-Curve investment to broaden the opportunity for growth and add long-term business value.

Selecting projects or businesses that fit and align with strategic direction have always been priorities GPSC takes into consideration to decrease investment and business expansion risk. Therefore, GPSC has established GPSC's investment criteria and affiliate governance approach as a framework to prudently screen investment project in various aspects such as financial return, strategic fit, execution capability, business partnership, etc. It also explores mitigation measures to prevent the impacts to business goals as well as carefully select partnership with reliable joint venture partners, considered from their reputation, experience, skills, credibility, financial status, and track record to ensure long-term business collaboration.

As for GPSC's new investment project in energy storage and battery system which in partnership with 24M Technologies, Inc. - the strategic move on the so-called disruptive technology - it is currently in the research and development stage to develop energy storage

system with higher commercial competitiveness than its rivals. There are, however, some uncertainties affected to production or commercialization. Nevertheless, GPSC has drawn up risk management plan based on prudent consideration in order to ensure that all risks in 24M investment project are to be managed within an acceptable level.

For GPSC business operation to execute according to plan, the professional change management team is the key mechanism to foresee problems and manage risks from both external and internal factors. At the same time, the result-based management system has been designed to report and track updates before tabling them to the management and the Board of Directors so as to maintain its effective governance.

Besides risk factors directly affected to investment and business expansion, operational efficiency and stakeholder management are other important issues concerned to GPSC as well. To elaborate, these include the communication to establish understanding and confidence among customers, transparent business, and strict compliance with laws and regulations under the oversight of the public sector and applicable government agencies, for example.

2.2 Climate Change Risk

GPSC partly invests in renewable-energy power plants, including solar farms and hydropower plants, which may bear the brunt of climate change. A case in point is solar intensity, which can change from year to year, thus shortening or lengthening periods for power generation. Another is variation in the water volumes needed for power generation due to seasonal variation in rainfall, which affects the projected amount of power generated.

These can affect GPSC's power generation income. As a result, before investing in such power plants, GPSC investigates statistics and trends before making a decision, for instance, past average

intensity of sunlight in invested areas to project future values, or statistics on past volumes of river water where investment will be taking place, together with annual measures to closely monitor water shortage to promptly deal with it. Additionally, GPSC has plans to diversify its investment or its project locations to decrease such risks.

2.3 Volatility of Natural Gas Price Risk

The price of natural gas used in power generation, which some of its cost passed on to customers, changes every month, while the automatic tariff adjustment called Ft is adjusted by the Energy Regulatory Commission (ERC) every four months. Had the Ft of a given period not aligned with each month's gas price movement, GPSC's profit would be somewhat lower.

In 2018, even though natural gas price rises; yet the power purchase prices has somewhat reflected these changes along with the productivity improvement successfully introduced and implemented by the Company, so GPSC is mildly affected by impacts of this volatility.

2.4 Changes in Laws and Regulations Risk

The public sector's emerging amendment of laws, regulations, and policies related to businesses could affect GPSC's competitiveness and investment schemes either positively or negatively, for instance, PDP 2019 (Thailand Power Development Plan), the policy to renew power plant licenses for old private plants nearing the end of power purchase agreements (PPAs) with EGAT, and the policy to add capacities from renewable energy. To mitigate such impacts, GPSC has closely monitored policy changes to keep pace with the environment and enable itself to cope with changes. This will allow GPSC to find suitable strategies to handle with such circumstance, including pursuit of opportunities for additional investment in new projects in return for benefits to be granted by the public sector.

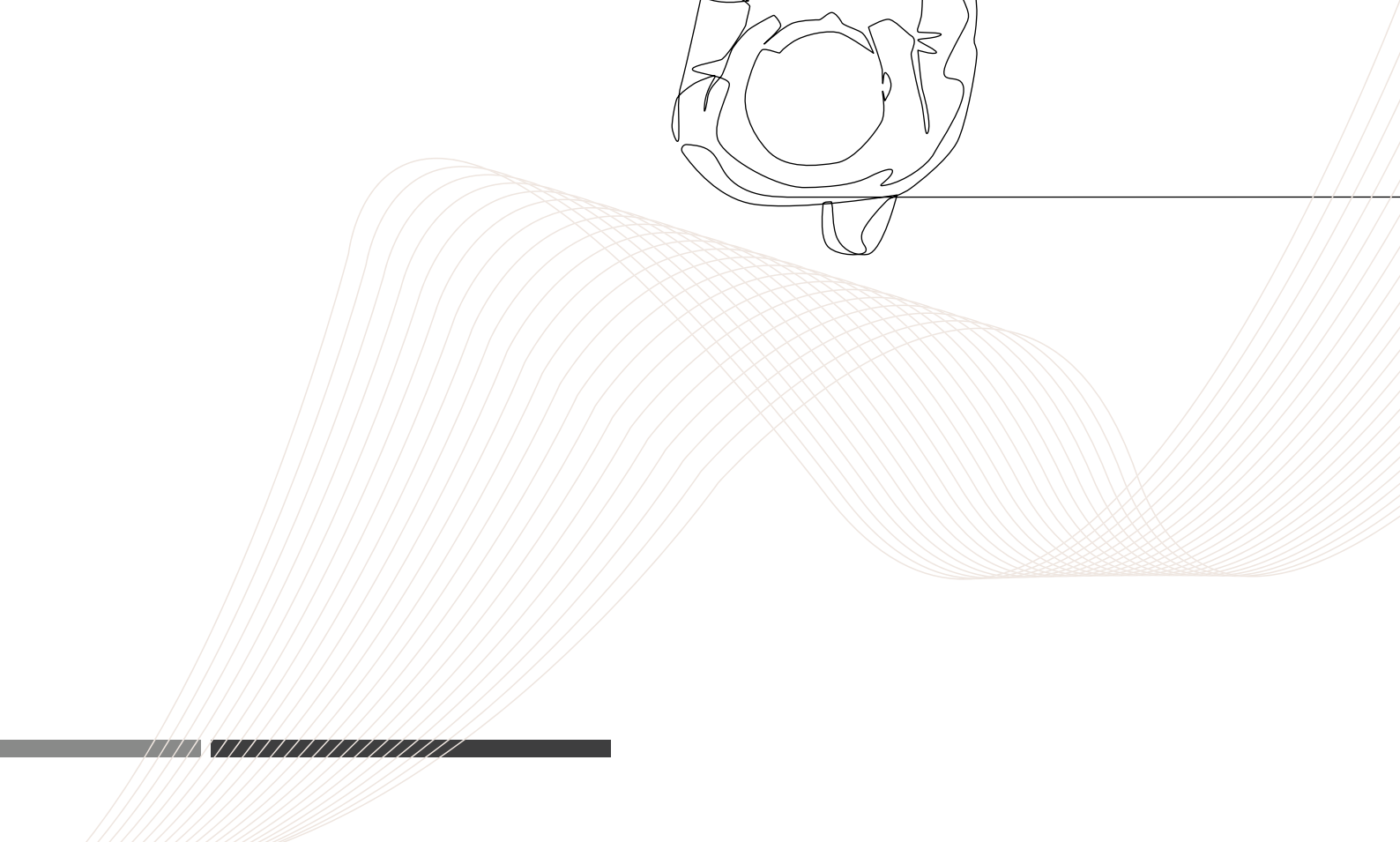
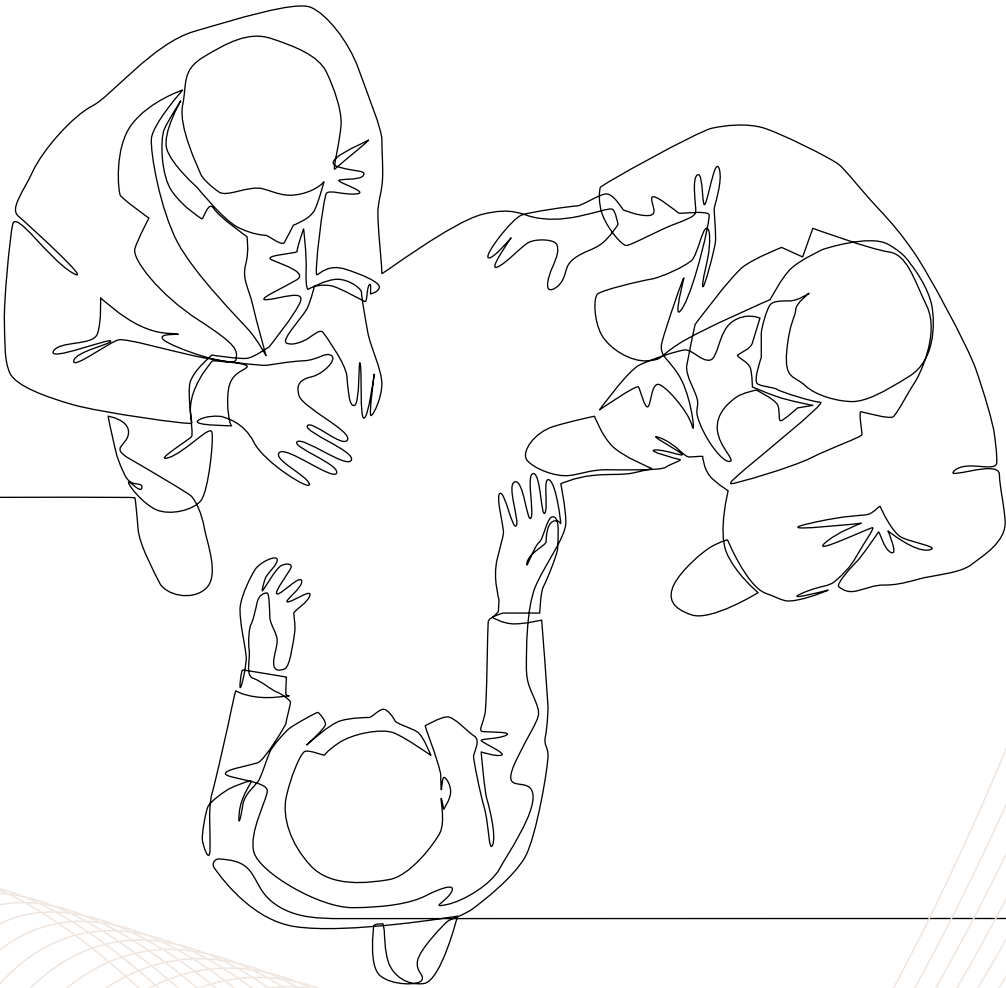
In addition, GPSC has set up a central unit responsible for preparing databases on legislation, tracking emerging legal provisions and regulations, and constantly verifying GPSC's compliance with the laws, regulations, and requirements of various agencies. It also fosters corporate values to all employee so that they can perform their duties in accordance with the corporate governance code and company's code of conduct. This is to ensure GPSC's intention to be an operator with responsibility for society, environment, and stakeholders in all sectors.

2.5 Volatility of Interest Rate Risk

GPSC entered into a loan agreement with commercial banks worth THB 5,000 million in Q2/2018, with a floating interest rate and short-term reference interest. Such interest contains low fluctuation. Yet, GPSC still retains a comparable ratio between floating interest rates and fixed interest rates, a measure to manage risks due to interest rate volatility.

2.6 Volatility of Foreign - Currency Exchange Rate (FX) Risk

GPSC's current main revenue is from domestic sale of electricity and is in the Thai Baht. Although the pricing formula of Sriracha Power Plant consists of reference to the US dollar, the amount is roughly equal to its operating expenses, which is also in US dollar. This natural hedge provides GPSC with a minimum impact of US dollar fluctuation. In the future, it is likely that GPSC will receive dividends (in Yen or other currencies) from operating a power plant in Japan or potentially other offshore plants. GPSC therefore closely monitors the FX movements, carefully considers alternative sources of fund, and applies additional hedging instruments to lower FX volatility risks.



INTERNAL CONTROL AND RISK MANAGEMENT

Global Power Synergy Limited (GPSC) values risk management in advancing business for stability, sustainability and best interests for all stakeholders from current and future business expansion. Risk management is a crucial tool that enables effective response to the changing business environment and maintains business competitiveness as planned.

GPSC has implemented risk management efficiently throughout the corporation by defining risk management into:

- (1) **Risk management - Corporate Level:** For risks potentially impacting or compromising fulfillment of corporate objectives, enterprise risk management is accomplished, consistent with business conditions and business plans by monitoring and reporting risk management results to the Board of Directors to ensure that the operations of the Company have been driven in the defined direction.
- (2) **Risk management - Functional Level:** These risks could impact or compromise unit operations, resulting in missing objectives under respective responsibilities. The risks at every unit of the risk level will be managed and controlled at an acceptable level by the responsible unit. It will be implemented, monitored and evaluated by the management to ensure that every sector of the corporation takes into account operational achievement as well as managing various risks that may cause extensive impacts on business operations.

GPSC recognizes the criticality of internal control and risk management in accordance with the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework in order to achieve the objectives of internal control in three areas, namely Effectiveness and Efficiency of Operations, Reliability of Financial Reporting and Compliance with Laws and Regulations.

The Board's Opinion towards GPSC's Internal Control System

The Board assigned the Audit Committee to assess and ensure that the Company has established an internal audit system, an internal control system and a risk management system in accordance with appropriate and effective internal control framework. Its task is to review the adequacy assessment of the internal control system and presented findings to the Board.

In 2018, the Audit Committee conducted a review to assess the Company's internal controls at Meeting No.11/2018 dated

December 19, 2018, by reviewing reports submitted by Corporate Governance and Compliance Division under Corporate Affairs and Legal, responsible for assessing the adequacy of the internal control system. With cooperation from the management and related departments and the opinion of the assessment of GPSC's internal control, it is the Audit Committee's opinion that the Company's internal control system is sufficient and appropriately fulfilling all components of internal control, namely Control Environment, Risk Assessment, Control Activities, Information & Communication and Monitoring Activities.

The Company's management of the internal control system can be summarized within all five control components as follows:

1. Control Environment

The Board and management adhere to and promote integrity and ethics, which are part of the corporate culture, in conducting business, including supervising the operations of GPSC to follow its vision and mission and impose a good internal control environment by defining the organization structure, appropriate reporting lines

- The Board and the management established integrity and ethics as one of the values of the Company. GPSC has formally established policies on good governance and the code of conduct in a manual with comprehensive contents for daily duties, stakeholder engagement, management of conflicts of interest and anti-corruption. The policies require all personnel to follow and clearly define sanctions and penalties for non-compliance. Communication to all personnel to understand policies and acknowledge them in writing is undertaken every year, including the orientation for new employees. Monitoring compliance with the code of conduct and the whistleblowing and complaint-handling policy have been implemented to ensure appropriate actions are made in a timely manner. This year, through self-assessment, the Company received a certificate of honor from Thailand's Private Sector Collective Action Coalition against Corruption (CAC) for meeting CAC's criteria regarding policies and practices to prevent corruption.
- The Board is independent of the management. They take oversight roles and responsibility, including development and implementation of internal control. This year the "Skill Matrix" was developed to determine

various qualifications that directors needed for leading the Company to achieve its objectives and main goals. GPSC has specified a scope of authority, duties and responsibilities of the Board and sub-committees with the right proportion and qualifications of the independent directors, as stipulated by GPSC and SEC.

- The Board supervises the management in reviewing the organization structure in line with the business direction, corporate strategy and internal work processes annually, enabling the organization structure to achieve effective administration and maximum flexibility by segregation of duties in key areas and clearly defining the role of risk management under the specified structure. This effort created checks and balances between each other by dividing the units into three lines of defense. The first line of defense is the unit that owns the process. The second line of defense is the legal and regulatory unit, organizations and corporate risk management units, which are responsible for supervising the operation of each process owner's unit laws, regulations and good internal controls. The third line of defense is the Internal Audit unit, an independent unit that conducts audit of the first and the second lines of defense. Internal Audit is to report the audit findings directly to the Audit Committee and report the managerial aspect to the President and CEO.
- GPSC formulates HR management policies and strategies in line with strategies and business goals and annually reviews both long-term and short-term plans covering recruitment, development, and retention of personnel. GPSC values the formulation of HR management policies by consistently aiming to provide fair compensation, career progress and other incentives and benefits. Personnel are appraised annually through their quality, achievement and potential. The GPSC Leadership Development Program was implemented to focus on the preparation and development of a potential group of management along with the implementation of strategy of recruitment, development, and retention of personnel.
- GPSC requires all management and employees to study good corporate governance and business ethics and strictly follow them as operational discipline and punishment for non-compliance by laying the foundation for personnel to know, understand and cooperate in the implementation of the internal control system and internal audit, regularly reviewing compliance with the

system through the company's internal control policy and consistently assessing incentives and rewards by focusing on the connection with the success of duties in compliance with internal control and the code of conduct.

2. Risk Assessment

The Board and management value risk management for the entire organization. Therefore, the Risk Management Committee (RMC) was established to devise and review risk management policies and scopes, supervise and support risk management and internal control, institute the risk management system and processes to ease impacts of risks on business, including monitoring and assessment of the risk management framework throughout the Company to ensure that GPSC commands risk management, adequate and appropriate internal control under the strategies and business goals of the corporation with the following management guidelines:

- GPSC clearly defines the objectives of risk management criteria, identifies and assesses various risks related to achievement of corporate objectives as well as employing guidelines consistent with international risk management principles under good corporate governance guidelines. The RMC oversees and supports the implementation of enterprise-wide risk management in line with the strategies and business goals. The Risk Management and Internal Control Committee (RMCC), comprising the senior management of the Company, is to oversee risk management, review and scrutinize the risk management plan and report risk management findings to the RMC. In addition, it provides the risk management unit, the organization responsible for coordinating with various units, to support, follow up the overall analysis of risk management throughout the corporation and file risk management performance reports to RMC and RMCC.
- GPSC requires the management and all employees to take up roles and responsibilities in risk management under the risk management guidelines, namely COSO Enterprise Risk Management Framework and Standards ISO 31000:2009, which focuses on tangible risk management throughout the corporation. All risks are identified by reviewing the nature and direction of business operations, organizational goals, performance indicators as well as the internal and external environment that affect business operations in order to assess the

significance of risks to the goals, both corporate risks and functional risks, by using the GPSC risk criteria in both likelihood and impacts. As a result, risk treatment is identified appropriately to effectively manage risks to an acceptable level and regularly monitors the results of risk management.

- The Audit Committee values prevention and anti-corruption by reviewing the Company's internal audit system, internal control system and risk management system under an appropriate and effective internal control framework and directed Internal Audit to conduct the audit properly. Internal Audit prepared a risk-based audit plan based on risks of fraud, which was one of the criteria, and conducted the audit against the internal control of processes that may be at risks of fraud, including reviewing quarterly financial statement and issues raised in the report submitted by the external auditor. In addition, the Company assessed risks of corruption at the functional level in all units and stipulated guidelines to prevent corruption. GPSC has formalized an anti-corruption policy, established channels and procedures for receiving complaints under the Complaint Handling Policy and Protection, and monitored work processes.
- GPSC has assessed its risks to come up with a GPSC Risk Profile by considering various internal and external factors which may affect business operations and developed mitigation plans to manage those risks appropriately. In addition, the management team focuses on the analysis of the form and nature of business of the Company that may change, and formalize the Management of Change to facilitate systematic management of temporary and permanent changes production processes or operations regulations, organizational structure and general administrative changes. Thus, risks are minimized to the lowest acceptable level.

3. Control Activities

GPSC has efficient and effective control activities that reduce the risks preventing the Company from achieving its objectives by conducting risk assessment at the organization level, identifying risks, analyzing them, and determining control measures to reduce risk levels as follows:

- GPSC has designed diverse and appropriate internal control systems at both the corporate level and functional level by formalizing in writing according to the standard system of GPSC, covering all business processes and regularly reviewed to ensure alignment with its business, acceptable risk level and appropriate control environment. Control measures have been approved by management with clear segregation of duties and responsibilities between approval functions, account records and information function and custody of assets function. Additionally, the Company formalized and used a Table of Authority for all business transactions.
- GPSC has focused on the use of IT systems to facilitate and support business appropriately. It has also developed such systems for control activities with IT and communication compliance standards as clear guidelines to control and secure the system. The content covers both the use of IT in the operation and control of IT systems.
- GPSC established its compliance policy for directors, management and employees to follow its principles when performing their duties and ensure that the Company conducts its business in compliance with laws, rules, regulations, notifications, announcements covering matters internal and external to the organization. In addition, the Company instituted work rules describing standards of conduct and misconduct with disciplinary actions for non-compliance with rules or orders. Communication of work rules and announcement to all employees for acknowledgment are carried out through the intranet and internal communication channels. In addition, each department has created a policy and operation manual that covers the procedures for correcting errors in operations, which are reviewed annually for their appropriateness to ensure that standards of work and good internal control are met for GPSC to achieve its goals.

4. Information and Communication

GPSC values the quality of information and communication, which is a crucial part enabling effective internal control. It has information management guidelines by designing general control technology appropriately and sufficiently as follows:

- In business operations, the Company provides a database for all systems for daily operations and other purposes. The information in the database is regularly reviewed and updated for accuracy and equipped with data security measures.
- GPSC commands processes and channels to communicate internal information appropriately and effectively, such as public relations, electronic mail, reporting processes, organizing activities via the intranet system, among others. In addition, there are suggestion boxes managed by HR and Organizational Development to handle confidential information. Complaints are submitted through letters of complaints by addressing them to Law and Corporate Affairs, electronic mail, and GPSC's website. GPSC also communicates to such personnel and third parties to acknowledge its Complaint Handling and Protection Policy.
- According to the Company's good governance policy, the Board is required to timely and equally disclose sufficient and reliable information (both financial and non-financial matters) to shareholders and stakeholders. Public Relations and Investor Relations are responsible for providing information to investors and the public, as well as establishing complaint channels under GPSC's Complaint Handling and Protection Policy.
- The Audit Committee Charter and the Internal Audit Charter contain reporting policies in case of an incident, suspected serious corruption, violation of laws or other unusual practices which may significantly affect the reputation and financial position of the Company. Policies also mandate reporting of significant deficiencies, together with recommendations for actions and progress report to the Board and the Audit Committee.

5. Monitoring

GPSC commands processes to monitor and evaluate the adequacy of internal control, together with constant improvement, to ensure that its internal control system is efficient and effective:

- GPSC conducted internal control self-assessment at the functional units. It also monitored and assessed the internal control system regularly by Internal Audit that performs under the International Standards for Professional Practice of Internal Auditing (IIA) and reports directly to the Audit Committee. The unit developed risk-based audit plans by using criteria such as major risks, efficiency of internal control and management's opinions. It is to report discrepancies to the Audit Committee and inform the management to acknowledge and take corrective action in a timely manner.

QUALITY, SECURITY, SAFETY, OCCUPATIONAL HEALTH, AND ENVIRONMENTAL MANAGEMENT

Global Power Synergy Public Company Limited (GPSC) and its invested companies recognize and value quality, security, safety, occupational health, and environment (QSHE) as a core component for its excellence in business growth and sustainability by continually being responsible to stakeholders. It also serves as a platform for developing this Power Flagship of PTT Group in the management of power generation and public utilities innovations to deliver sustainable value to stakeholders. The current QSHE policy integrates all units, tasks to achieve operational excellence and respond to internal and external stakeholders' expectations as follows.

QSHE Policy

QSHE is an essential component of GPSC Group's businesses. In pursuit of excellence, GPSC strives to continually improve the effectiveness of its operations in line with corporate governance to secure acceptance from stakeholders and sustainability in the power and utilities business.

GPSC Group's QSHE culture is to maintain full awareness among its workforce and manage their QSHE risks to deliver products and service to stakeholders in line with its following values:

1. Strive to execute business in strict compliance with related QSHE legal provisions together with applicable corporate requirements and industrial standards as a fundamental basis.
2. Generate and supply products with volumes, quality, and delivery period as agreed with the customers.
3. Continuously improve and develop the QSHE management system in operating business and also to appropriately integrate and apply the system and enhance participation in using suitable tools in line with PTT Group standards.
4. Control, protect and reduce environmental impacts by consuming resources in a sustainable way via the Eco-Efficiency principle. To this end, maintain biodiversity and the ecosystem through conformance to the international pollution prevention principle ("prevention at source"). Mitigate and adapt to climate change and improve energy efficiency to achieve a low-carbon society.
5. Prevent losses from incidents, emergencies, and crises;

promote workforce health and elevate the working environment. Protect the corporation from security threats by exercising stringent standards and measures with respect to the Universal Declaration of Human Rights.

6. Create a safety culture and process safety management to ensure the safety of everyone concerned
7. Control and develop operations with top priority on quality, safety, security, health and the environment, ranging from design, construction, installation of machinery, testing, production, maintenance, delivery, and storage of raw materials, chemical substances and products.
8. Employ research and development (R&D) to generate electricity and steam from alternative or renewable-energy sources or green products.
9. Sufficiently allocate resources for operations and continuous improvement of staff, time frame, and budgets, including appropriate and adequate training.
10. Engage and communicate QSHE programs and performances to internal and external stakeholders along with the collection of feedback and expectations to review and improve our operations.

This policy applies to all GPSC Group businesses and operations across the supply chains. All managements shall be role models and are accountable for policy alignment. All employees shall understand and continually comply with this policy in all their activities from planning, design, execution to process completion.

Quality Management

GPSC has adopted the Quality Management System (ISO 9001). A certification body, namely MASCI, has certified GPSC for ISO 9001: 2015. Total Productive Maintenance (TPM) and Operational Excellence Management System (OEMS) are also integrated into the business processes to improve the efficiency of processes, work processes, and service quality so that GPSC may meet customers', business partners' and stakeholders' satisfaction.

Security, Safety and Occupational Health Management

GPSC is committed to achieving operational excellence under its mission by paying attention to its people's safety, health, and

workplaces. It also seeks to reduce and control risks in all work processes and business execution that could lead to losses of lives, injuries, and illnesses affecting surrounding communities and the environment. Of particular value are inspections of process efficiency, machinery readiness, sufficiently suitable management measures, and strict compliance with applicable laws concerning security, safety, health, and the environment.

That is why GPSC recognizes the value of relentless responsibility for safety, society, and the environment. To this end, it harnesses proactive measures to ward off hazards arising from plant machinery or work processes. Its vision is to drive GPSC toward zero accident for incidents involving workers.

Strategies for Success

To lower and control risks of work-related losses of lives, injuries, and illnesses for employees and contractors-with impacts on work disruption and business continuity-GPSC is committed to complying with the scope of the QSHE Policy by cultivating the “we SAFE” corporate culture to promote the safety attitude of “Work safely, pay attention to everyone’s safety, think before acting, and stop if unsafe”. Below are GPSC’s guidelines promoting job safety for employees and contractors:

- Setting and announcing a Quality, Security, Safety, Health, and Environmental Policy
- Appointing a Safety, Occupational Health and Environment Committee
- Contractor safety management
- Health risk assessment
- Management of industrial hygiene and the Fit to Work program
- A credible system to collect data on performance outcomes of health and safety, attested by a third-party agency
- Promotion of the “we SAFE” corporate culture with measurable scores through the assessment of the security, safety, health, and environmental culture
- Management of process safety and personal safety
- Short-term and long-term strategic goals for health and safety operation
- Establishment of a suggestion program for sub-standards reports and incident report and investigation program
- Health and safety management under TIS 18001:2554 and ISO 45001:2018
- Management of work environment

Performance Outcomes

Process Safety

GPSC recognizes that efficient process safety management can prevent risks of severe accidents and can serve as the operation scope throughout GPSC’s value chain by taking into consideration its vision, mission, values, and safety corporate culture. That is why it cultivates and applies best-practices principles in parallel with modern technologies, ranging from engineering design, production operation, maintenance, to the management of hazardous waste.

- GPSC manages work process safety through OEMS and ISO management systems. Thanks to its robust compliance with laws and PTT Group’s business direction, the company has won MASCI’s certification of its TIS/OHSAS 18001 system since 2014. Relentless have been its system management development efforts, with due regard for risks, opportunities, and legal provisions embracing health and safety management. GPSC has successfully elevated such certification to ISO 45001:2018 and IMS (Integrated Management System).

Personal Safety

- Efficient business execution results from the efforts of corporate personnel equipped with knowhow, competencies, and-most of all-recognition of safety of lives, work-related injuries or illnesses, and company assets. To this end, GPSC has required that all employees and contractors pass basic safety training and job-specific safety training courses, ranging from personal safety concerning physical readiness before the start of work, rules or good practices for work safety, safe uniforms, to the use of personal protective equipment.

Compliance with Applicable Occupational Health and Safety Laws

- GPSC dearly values compliance with applicable occupational health and safety laws, regularly developing these knowhow and skills for employees and contractors so that workers may become aware and strictly align their task performance with such laws. The company also provides health and safety training for all new entries and all employees through the annual training plans, which in turn align with the QSHE Policy, in addition to rules and laws concerning safety, health, and the workplace. At the same time, this benefits the company by fostering confidence among stakeholders and communities around GPSC sites.
- In addition, GPSC has appointed a Safety, Occupational Health and Environment Committee, which consists of executives, operators, and work safety officers at Head Office and its power plants. Meetings take place at least once a month to report and acknowledge recommendations on corrective actions to align with work safety laws and work safety standards. Also, at its meetings the committee constantly advocates work safety activities and monitors safety performances, while the data received are used in defining and developing operating plans.

Vision, Values, and Safety Culture

GPSC actively forges the recognition and awareness of safety among its executives, employees, and all site workers under the vision of zero accident for workers, corporate values, and the “we SAFE” culture (“Work safely, pay attention to everyone’s safety, think before acting, and stop if unsafe”). The aim is to remain accident-free and injury-free, with which everyone is required to observe and comply an active and relentless way.

To ensure that this culture remains suitable to operating circumstances, GPSC launches a survey of adherence to the culture of security, safety, occupational health, and the environment (SSHE) every three years, beginning in 2017. The obtained data guide the improvement of employees’ SSHE behavior, while giving GPSC a sense of the actual corporate SSHE culture so that strengths and weaknesses may be pinpointed for proper correction. The target group for the survey is the top management, executives, supervisors, employees, and regular contractors at Head Office and power plants. The

findings will be used in revising and developing action plans for establishing a corporate culture on safety, occupational health, and the environment.

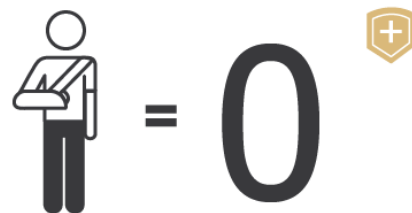
GPSC’s short-term and long-term LTIF (lost time injury frequency) and TRIR (total recordable injury rate) goals are zero; to this end, performance concerning health and safety has been included as a corporate KPI.

Thanks to serious, robust, and relentless execution of these tasks, GPSC has succeeded in its LTIF ever since 2013 (as of December 31, 2018), accumulating 7,839,305 man-hours for both employees and contractors, with the next goal set at 10,000,000 man-hours.

Total Recordable Injury Rate (TRIR) = 0

Total Recordable Occupational Illness Rate (TROIR) = 0

Total Recordable Injury Rate (TRIR)
(Number of Cases / 200,000 Man-Hours)



During 2013-2018

Environmental Management

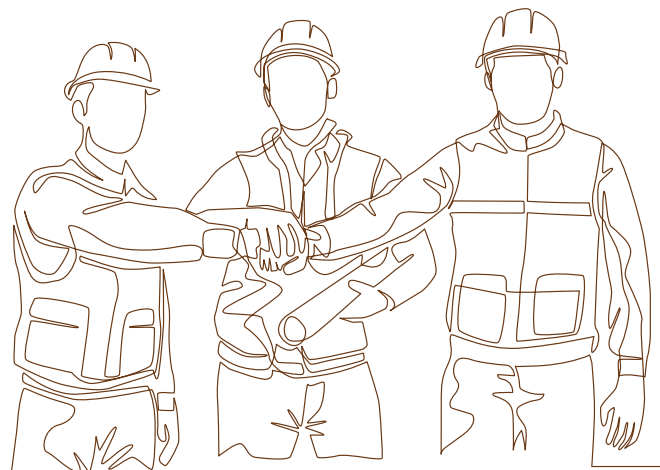
In addition to strict compliance with laws, regulations, and preventive measures required by Environmental Impact Assessment (EIA) reports, GPSC has adopted the ISO 14001 Environmental Management System to manage and continually improve all environmental work processes, which consist of air and water pollution control at sources; award of ISO 14001:2015 certification by MASCI; waste management using the 3Rs principle (Reduce, Reuse, and Recycle); and 100%

zero-waste landfill disposal. In addition, it constantly strived to improve its environmental efficiency under the Green Industry criteria for even more environmental friendliness, evident in its Green Industry Level 4 Award by the Ministry of Industry. It also continued its project on energy conservation, greenhouse gas emission management, maximization of the efficiency and effectiveness of resource consumption, and minimization of environmental, social, and health impacts on stakeholders.

To systematically measure the effectiveness of environmental protection, GPSC has adopted the Eco-Efficiency philosophy and index, including water use, energy use, wastewater generation, global warming contribution, and ozone depletion. The overall objectives are to maximize the efficiency of resource consumption and reduce the environmental impacts of activities and processes. Such green business conduct benefits GPSC's undertaking as well as future national environmental management.

Moreover, GPSC continually provides its employees with related training courses, such as safety and environmental laws and regulations, ISO 14001, ISO 45001, and TIS 18001, Pollution Management Program, and Environmental Pollution Prevention Program.

Finally, GPSC conducts business in alignment with international guidelines and standards and Dow Jones Sustainability Indices (DJSI).



SECURITIES AND SHAREHOLDERS INFORMATION

1. Registered Capital and Paid-up Capital

Global Power Synergy Public Company Limited (GPSC) is a listed company on the Stock Exchange of Thailand with a total registered capital of THB 14,983,008,000 as at December 31, 2018, fully paid up and divided into a total of 1,498,300,800 ordinary shares with a par value of THB 10 per share.

The first ten major shareholders as of the Record Date to determine the shareholders who are entitled to receive dividend payment for the 2018 interim dividend (August 29, 2018) are as follows:

No.	Major Shareholder	Number of Shares	Shareholding Percentage
1	PTT Global Chemical Public Company	340,565,223	22.73
2	PTT Public Company Limited	338,266,861	22.58
3	Thaioil Power Company Limited	311,425,457	20.79
4	Thai Oil Public Company Limited	133,468,059	8.91
5	Bualuang Long-Term Equity Fund	42,862,700	2.86
6	Mr. Thaveerat Proongpattanakul	33,024,000	2.20
7	Social Security Office	24,562,300	1.64
8	Bualuang Long-Term Equity Fund 75/25	20,330,700	1.36
9	Bualuang Top Ten Open-end Fund	15,294,800	1.02
10	Bualuang Flexible RMF	12,110,500	0.81

2. Limitations of Transferring of Shares

There is no limitation except the case of transferring of shares to foreign investors that cause such foreign investors to own more than 49% of total shares of GPSC.

3. Dividend Policy

3.1 GPSC's Dividend Policy

GPSC has a policy to pay dividends at the minimum of 30% of net profit according to financial statements after deduction of tax, capital reserves as specified in applicable laws, and the commitment as in terms of credit facility agreement. Payment of dividends is subject to the cash flow and investment plans of GPSC and its subsidiaries. The Board of Directors may consider paying the annual dividends with approval from the Annual General Meeting of Shareholders (AGM), except interim dividend payment which the Board of Directors has the authority to approve before reporting the interim dividend to the shareholders at the next shareholders' meeting.

Dividend Payment (THB/share) since GPSC has been listed on the Stock Exchange of Thailand

Dividend Payment (THB/share)				Dividend Payout Ratio (%)
Year	First Half	Second Half	Full Year	
2015	0.35	0.60	0.95	75
2016	0.45	0.70	1.15	64
2017	0.45	0.80	1.25	59
2018	0.45	0.80	1.25*	56

* The Board of Directors at the Meeting No. 2/2019 dated February 11, 2019, has passed a resolution to propose that the 2019 Annual General Meeting of Shareholders approve a dividend payment from the 2018 operating results of GPSC and its subsidiaries at THB 1.25 per share, or 56% of the net profit of the consolidated financial statements of 2018. The interim dividend for the first half operating results of 2018 (January - June 2018) was paid at THB 0.45 per share on September 10, 2018. The remaining dividend for the second half operating results for 2018 (July - December, 2018) will be paid at THB 0.80 per share. However, the rights to receive dividend payment is subject to the approval of the 2019 Annual General Meeting of Shareholders.

3.2 Subsidiaries' Dividend Policy

The Board of Directors of each subsidiary considers paying the annual dividend with approval from their shareholders meeting in each year. The dividend payment of subsidiaries is based on the investment plans and other requirements such as cash flow of each subsidiary after deduction of capital reserves required by law.

BOARD OF DIRECTORS

At of December 31, 2018



Mr. Surong Bulakul

Director / Chairman of the Board



Mr. Kurujit Nakornthap

Independent Director /
Chairman of the Nomination and
Remuneration Committee /
Chairman of the Corporate
Governance Committee



Mr. Payungsak Chartsutipol

Independent Director /
Chairman of the Audit Committee /
Chairman of the Risk Management
Committee



Maj.Gen. Chaowalek Chayansupap

Independent Director /
Member of the Audit Committee /
Member of the Nomination and
Remuneration Committee



Mrs. Suvimol Chrityakerne

Independent Director /
Member of the Audit Committee



Mrs. Nicha Hiranburana Thuvatham

Independent Director /
Member of the Corporate
Governance Committee



Mr. Wittawat Svasti-Xuto

Director / Member of the Nomination and Remuneration Committee / Member of the Risk Management Committee



Mr. Supattanapong Punmeechaow

Director / Member of the Risk Management Committee



Mr. Atikom Terbsiri

Director / Member of the Risk Management Committee



Mr. Kongkrapan Intarajang

Director



Ms. Peangpanor Boonklum

Director / Member of the Corporate Governance Committee



Mr. Bandhit Thamprajamchit

Director / Member of the Corporate Governance Committee



Mr. Chawalit Tippawanich

Director / Secretary to the Board / Member of the Risk Management Committee / President and Chief Executive Officer

Directors' Profile

As of December 31, 2018

Mr. Surong Bulakul

Director / Chairman of the Board
(Non-Executive Director)

Date Appointed

- April 4, 2016 (2nd Term)
- November 27, 2014 (1st Term)

Age : 63

Education

- Master of Business Administration, Cornell University, New York, U.S.A.
- Master of Engineering in Operations Research, Cornell University, New York, U.S.A.
- Bachelor of Science in Industrial Engineering and Operations Research, Syracuse University, New York, U.S.A.

Master of Business Administration, Cornell University, New York, U.S.A. (IOD)

- Director Certification Program (DCP 121/2009)

Other Training Record

- Program for Management Development, Harvard University, Boston, U.S.A.
- Politics and Governance in Democratic Systems for Executives (Batch 8), King Prajadhipok's Institute
- The Joint State-Private Sector Course (Batch 4919), National Defence College
- Capital Market Academy Leader Program (Batch 10), Capital Market Academy
- Senior Executives on Justice Administration (Batch 15), National Justice Academy
- Thai Intelligent Investors Program (Batch 1), Thai Investors Academy
- Top Executives in the Energy Education Program (Batch 2), Thailand Energy Academy
- Leadership Development Program (LDP) (Batch 2), Thai Listed Companies Association

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 2 Organizations

- Director, Inoue Rubber (Thailand) Public Company Limited
- Advisor, PTT Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 12 Organizations

- Chairman, Sakari Resources Ltd. (Singapore))
- Chairman, Express Way Authority of Thailand
- Director, Provincial Electricity Authority
- Director, 24M Technologies, Inc. (U.S.A.)
- Director, Bangkok Industrial Gas Company Limited
- Vice Chairman, Thai Chamber of Commerce
- Advisor, Thai Listed Companies Association
- Advisor, The Securities and Exchange Commission, Thailand
- Advisor, Federation of Thai Capital Market Organizations
- Director, Tiger Energy Trading Pte. Ltd. (Singapore)
- Independent Director, National ITMX Company Limited
- Director, Thailand Institute of Justice

Working Experience (5-Year Past Experience)

July 18, 2017 – June 25, 2018	Chairman, Port Authority of Thailand
2014 – 2017	Chairman, Thai Listed Companies Association
2014 – 2017	Committee Member, Federation of Thai Capital Market Organizations
2014 – 2016	Committee Member, Federation of Thai Industries
2014 - 2015	Chief Operating Officer Infrastructure, PTT Public Company Limited
2013 – 2015	Director / Member of the Nomination and Remuneration Committee, IRPC Public Company Limited
2013 – 2014	Director, Sakari Resources Ltd. (Singapore)
2012 – 2014	Chief Financial Officer, PTT Public Company Limited
2009 – 2012	Chief Executive Officer, Thai Oil Public Company Limited

Shareholding in GPSC (Including spouse and minor)

Self	: 73,000 shares (0.004872%)
Spouse	: 36,800 shares (0.002456%)
Total	: 109,800 shares (0.007328%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mr. Kurujit Nakornthap

Independent Director / Chairman of the Nomination and Remuneration Committee / Chairman of the Corporate Governance Committee (Non-Executive Director)

Date Appointed

- April 3, 2017 (1st Term)

Age : 63

Education

- Ph.D. in Petroleum Engineering, University of Oklahoma, U.S.A.
- Master of Science in Petroleum Engineering, University of Oklahoma, U.S.A.
- Bachelor of Science (Special Distinction) in Petroleum Engineering, University of Oklahoma, U.S.A.

Training Record with Thai Institute of Directors (IOD)

- Collective Action Against Corruption Conference (C – Conference 1/2014)
- R - CF - Chairman Forum (R – CF 2/2013)
- Role of Compensation Committee (RCC 12/2011)
- Audit Committee Program (ACP 32/2010)
- Director Accreditation Program (DAP 64/2007)

Other Training Record

- The National Defence Course (Batch 51), National Defence College
- Top Executive Program in Commerce and Trade (TEPCoT) (Batch 3), Commerce Academy, University of the Thai Chamber of Commerce
- Training Course on Administrative Justice for Executives, (Batch 2), Office of the Administrative Courts of Thailand
- Capital Market Academy Leader Program (Batch 13), Capital Market Academy
- Top Executives in the Energy Education Program (Batch 1), Thailand Energy Academy
- Bhumiपालung Phandin Course for Executives (Batch 2), Chulalongkorn University
- Civil Service Executive Program: Visionary and Moral Leadership, (Batch 46), Office of the Civil Service Commission
- Senior Executive Program (SEP), (Batch 60), London Business School, United Kingdom
- Training Course on Leadership for Change (Batch 2), Right Livelihood Foundation & Matichon Publishing Group
- Systematic Problem Solving and Decision Making (SPSDM), Office of the Civil Service Commission in cooperation with ACI Consultants Company Limited
- Academic Seminar : Money Laundering
- Seminar : Anti-corruption: Leadership Role of the Board

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 1 Organization

- Independent Director, Padaeng Industry Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 5 Organizations

- Executive Director, Petroleum Institute of Thailand Foundation
- Member of the Council of State
- Co-Chairman (Thailand), Malaysia - Thailand Joint Authority
- Member of the University Council, Khon Kaen University
- Chairman, Thailand Greenhouse Gas Management Organization (Public Organization)

Working Experience (5-Year Past Experience)

Oct, 2015 – Aug, 2017	Chairman of Energy Affairs Committee and Member of the National Reform Steering Assembly (NRSA)
Feb, 2016 – Oct, 2016	Executive Member of the National Research Council of Thailand
Jun, 2015 – Sep, 2015	Permanent Secretary, Ministry of Energy
Oct, 2014 – Jun, 2015	Deputy Permanent Secretary, Ministry of Energy
Oct, 2014 – Sep, 2015	Member of National Reform Steering Assembly
Jul, 2014 – Sep, 2014	Director - General, Department of Mineral Fuels, Ministry of Energy
2011 – 2014/2015	Director and Chairman of the Board, Electricity Generating Authority of Thailand

Shareholding in GPSC (including spouse and minor)

Self : 30,000 shares (0.002002%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mr. Payungsak Chartsutipol

Independent Director / Chairman of the Audit Committee / Chairman of the Risk Management Committee (Non-Executive Director)

Date Appointed

- April 3, 2018 (3rd Term)
- April 2, 2015 (2nd Term)
- November 27, 2014 (1st Term)

Age : 66

Education

- Honorary Doctorate Degree in Engineering, Suranaree University of Technology
- Honorary Doctorate Degree in Philosophy, Organization Development Administration, Chaopraya University
- Certificate of Management Development Program, North Western University, U.S.A.
- Bachelor of Engineering (Electrical Engineering), Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Risk Management Program for Corporate Leaders (RCL 3/2016)
- Director Accreditation Program (DAP SCC/2004)

Other Training Record

- Top Executives in the Energy Education Program (Batch 1), Thailand Energy Academy
- Executive Program, Poompalungpandin Program (Batch 1), Chulalongkorn University
- Administrative Justice for Executives (Batch 2), Administrative Court
- Capital Market Academy Leader Program (Batch 11), Capital Market Academy
- Top Executive Program in Commerce and Trade (TEPCoT) (Batch 2), Commerce Academy, University of the Thai Chamber of Commerce

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 1 Organization

- Independent Director / Chairman of the Corporate Governance and Sustainability Committee, Global Green Chemicals Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 5 Organizations

- Chairman, Siam City Leasing and Factoring Public Company Limited
- Director, Linde (Thailand) Public Company Limited
- Director, Siam United Steel (1995) Company Limited
- Independent Director / Chairman of Corporate Governance Committee / Chairman of Audit Committee Krungthai Panich Insurance Public Company Limited
- Independent Director / Vice Chairman, Sapthip Company Limited

Working Experience (5-Year Past Experience)

2016 – 2017	Chairman of the Corporate Governance Committee, Global Power Synergy Public Company Limited
2015 – 2016	Member of the Corporate Governance Committee, Global Power Synergy Public Company Limited
2012 – 2014	Director, Office of Insurance Commission
2012 – 2013	Director / Chairman of the Corporate Governance and Social Responsibility Committee, Krungthai Bank Public Company Limited
2011 – 2015	Chairman/ Qualified Member, Board of National Catastrophe Insurance Fund Committee
2011 – 2014	Chairman, Board of Executive Directors, Krungthai Bank Public Company Limited
2010 – 2014	Chairman, The Federation of Thai Industries
2010 – 2014	Member of the Council Office, Suranaree University of Technology
2010 – 2014	Director, Board of Investment
2010 – 2011	Director, Samaggi Insurance Public Company Limited
2007 – 2014	Director, Board of Trustees, Sirindhorn International Institute of Technology Thammasat University

Shareholding in GPSC (Including spouse and minor)

Self : 73,000 shares (0.004872%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Maj.Gen. Chaowalek Chayansupap

Independent Director / Member of the Audit Committee /
Member of the Nomination and Remuneration Committee
(Non-Executive Director)

Date Appointed

- April 4, 2016 (2nd Term)
- January 20, 2016 (1st Term)

Age : 62

Education

- Bachelor of Science, Chulachomklao Royal Military Academy

Training Record with Thai Institute of Directors (IOD)

- Director Certification Program (DCP 217/2016)
- Advanced Audit Committee Program (AACP 24/2016)

Other Training Record

- Top Executives in the Energy Education Program (Batch 9), Thailand Energy Academy
- Officer Basic Course, Infantry School, Infantry Center
- Officer Advance Course, Infantry School, Infantry Center
- Logistics Management Course, The Royal Thai Army Logistics School
- Command and General Staff Course, Command and General Staff College
- Officer Comptroller General Course (Manager Level), Army School, Military Finance Department

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand

- None

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand)

- The Minister's Advisory team member, Ministry of Social Development and Human Security

Working Experience (5-Year Past Experience)

2016 – 2017	Member of the Corporate Governance Committee, Global Power Synergy Public Company Limited
2013 – 2016	Army Expertise, Royal Thai Army
2012	Deputy Infantry Center Commandant, Royal Thai Army
2008	Director of Doctrine Department, Infantry Center, Royal Thai Army

Shareholding in GPSC (including spouse and minor)

- None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mrs. Suvimol Chrityakierne

Independent Director / Member of the Audit Committee
(Non-Executive Director)

Date Appointed

- April 3, 2018 (1st Term)

Age : 67

Education

- Master Degree of Accountancy (M. Acc.), Bangkok, Chulalongkorn University
- Bachelor Degree of Accountancy (B. Acc.), Bangkok, Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Ethical Leadership Program (ELP10/2017)
- Advanced Audit Committee Program (AACP 7/2017)
- Audit Committee Program (ACP 36/2011)
- Director Certification Program (DCP 92/2007)

Other Training Record

- Training Course on Tax Law (Batch 1), Institute of Judicial Officer Development
- Certified Professional Internal Auditor of Thailand (CPIAT) (Batch 1), Institute of Internal Auditor of Thailand
- Balanced Scorecard Course, Faculty of Commerce and Accountancy, Chulalongkorn University
- Seminar "PTT Group AC Forum 2017 : Infinite AC Challenge"
- "RESOURCE REVOLUTION: Another Chapter in the 4th Industrial Revolution" Seminar : "Key Audit Matters" Challenge"

- New Paradigm Leader, Transparency & Anti-Corruption (Batch 1/2018)

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 2 Organizations

- Independent Director / Chairman of Audit Committee, Khonburi Sugar Public Company Limited
- Independent Director/Member of the Audit Committee TEAM Consulting Engineering and Management Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 10 Organizations

- Managing Director, D I A International Audit Company Limited
- Executive Director, D I A Audit Company Limited
- Director, Seventy-Five CPE Limited
- Committee, the Federations of Accounting Professions Accounting Standards Committee, the Federations of Accounting Professions
- Academic Matter Committee, Faculty of Commerce and Accountancy, Alumnus Association-Chulalongkorn University
- Committee Member, Foundation to Support the Development of Academic Law - Faculty of Law, Chulalongkorn University
- Director and Treasurer, Yong Somjai Santiwattana Foundation
- Independent Chairman of Audit Committee, Thai Investors Association
- Director, Yong Som Jai Company Limited

Working Experience (5-Year Past Experience)

Feb, 2016 – Apr, 2018	Independent Director / Member of the Audit Committee, Thai Oil Public Company Limited
2014 – 2017	Auditing Standards Committee, the Federation of Accounting Professions Under the Royal patronage of His Majesty the King

Shareholding in GPSC (including spouse and minor)

- None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mrs. Nicha Hiranburana Thuvatham

Independent Director / Member of the Corporate Governance Committee (Non-Executive Director)

Date Appointed

- April 3, 2018 (1st Term)

Age : 50

Education

- Master's Degree, International Studies, Ohio University, U.S.A. (Foreign Student Scholarship)
- Bachelor of Political Science (Second Class Honors), Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- None

Other Training Record

- Senior Management Course - Visionary and Ethical Leadership, Office of the Civil Service Commission
- Advanced Certificate Course in Promotion of Peaceful Society, King Prajadhipok's Institute
- Human Resources Management for Public Sector, Office of the Civil Service Commission
- Public Sector Management Certificate

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand

- None

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 2 Organizations

- Deputy Secretary-General to the Prime Minister for Administrative Affairs, Office of the Prime Minister
- Deputy Director, Prime Minister Delivery Unit

Working Experience (5-Year Past Experience)

March 7, 2016	Deputy Secretary-General to the Prime Minister for Administrative Affairs, Office of the Prime Minister
April 1, 2015	Assistant Secretary-General to the Prime Minister
2010 - 2014	Advisor to the Prime Minister on Social, the Secretariat of the Prime Minister

Shareholding in GPSC (including spouse and minor)

- None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mr. Wittawat Svasti-Xuto

Director / Member of the Nomination and Remuneration Committee / Member of the Risk Management Committee (Non-Executive Director)

Date Appointed

- September 19, 2018 (1st Term)

Age : 57

Education

- Master of Science (Industrial Engineering), The University of Rhode Island
- Bachelor of Engineering, Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Director Certification Program (DCP 146/2011)
- Financial Statements for Directors Program (FSD 12/2011)

Other Training Record

- Capital Market Academy Leader Program (Batch 27/2018), Capital Market Academy
- Top Executives in the Energy Education Program (Batch 11), Thailand Energy Academy
- The National Defence Course (Batch 59), National Defence College
- Strategy and Innovation for Business in Asia (SIBA) (Batch 5), 2016

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 2 Organizations

- Chief Technology and Engineering Officer, PTT Public Company Limited
- Director, PTT Global Chemical Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 1 Organization

- Director, PTT Digital Solutions Company Limited

Working Experience (5-Year Past Experience)

Jan, 2018- Sept, 15, 2018 2017	Senior Executive Vice President, Innovation and Digital, PTT Public Company Limited Executive Vice President, Sustainability Management, PTT Public Company Limited
2016	Executive Vice President, Downstream Business Group Collaboration, PTT Public Company Limited
2012-2014	Executive Vice President, IRPC Public Company Limited

Shareholding in GPSC (including spouse and minor)

Self : 30,000 shares (0.002002%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mr. Supattanapong Punmeechaow

Director / Member of the Risk Management Committee
(Non-Executive Director)

Date Appointed

- April 3, 2017 (2nd Term)
- November 27, 2014 (1st Term)

Age : 59

Education

- Master of Business Administration, Chulalongkorn University
- Bachelor of Engineering (Chemical Engineering), Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Directors Certification Program (DCP 131/2010)
- Role of the Chairman Program (RCP 30/2013)

Other Training Record

- Business Revolution and Innovation Network (BRAIN) Program, 2/2018, The Federation of Thai Industries
- Advance Management Program, INSEAD University, France
- National Defence Course (Batch 50) / The Joint State-Private Sector Course (Batch 20), National Defence College
- Oxford Energy Seminar 2013, United Kingdom
- Top Executives in the Energy Education Program (Batch 4), Thailand Energy Academy
- Corporate Governance Program for Directors and Senior Executives of State Enterprises and Public Organizations (Batch 12), 2014, King Prajadhipok's Institute-State Enterprise Policy Office and Office of the Public Sector Development Commission
- Rule of Law for Democracy Course (Batch 3), The Constitutional Court of the Kingdom of Thailand
- Capital Market Academy Leader Program (Batch 23), Capital Market Academy

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 3 Organizations

- President & Chief Executive Officer / Director and Secretary to the Board of Directors / Member of the Risk Management Committee, PTT Global Chemical Public Company Limited
- Senior Executive Vice President, PTT Public Company Limited
- Chairman, Global Green Chemicals Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand 1 Organization)

- Director, PTT Chemical International Private Limited

Working Experience (5-Year Past Experience)

2014 – 2017	Vice Chairman, Vinythai Public Company Limited
2014 – 2016	Director, PTT Chemical International (Asia – Pacific ROH) Limited
2015 – 2016	Chairman, Thai Fatty Alcohols Company Limited
2014 - 2015	Chairman, Sport Services Alliance Company Limited
2014	Director, Islamic Bank of Thailand
2013 - 2014	Director / Director of the Nomination and Remuneration Committee, Bangchak Petroleum Public Company Limited
2011 – 2014	Director, Sakari Resources Ltd. (Singapore)

Shareholding in GPSC (Including spouse and minor)

Self : 73,000 shares (0.004872%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mr. Atikom Terbsiri

Director / Member of the Risk Management Committee (Non-Executive Director)

Date Appointed

- April 3, 2017 (2nd Term)
- November 27, 2014 (1st Term)

Age : 56

Education

- Master of Business Administration Finance & International Business (High Distinction), Armstrong University, U.S.A.
- Bachelor of Business Administration, Assumption University

Training Record with Thai Institute of Directors (IOD)

- Director Certification Program (DCP 125/2009)
- Risk Management Program for Corporate Leaders (RCL 4/2016)
- Role of the Chairman Program (RCP 41/2017)

Other Training Record

- Energy Literacy for the World (Batch 6), Thailand Energy Academy
- The Joint State-Private Sector Course (Batch 5), National Defence College
- Capital Market Academy Leader Program (Batch 17), Capital Market Academy
- Advanced Security Management Program (ASMP) (Batch 1), The National Defence College Association of Thailand
- Executive Education Program, Harvard Business School, Harvard University, U.S.A.

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 2 Organizations

- Chief Executive Officer and President / Director and Secretary to the Board/ Member of the Risk Management Committee, Thai Oil Public Company Limited
- Senior Executive Vice President, PTT Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand 19 Organizations)

- Chairman, Thai Lube Base Public Company Limited
- Chairman, Thailoil Marine Company Limited
- Chairman, TOP Solvent Company Limited
- Chairman, Thailoil Solvent Company Limited

- Chairman, Thailoil Power Company Limited
- Chairman, TOP SPP Company Limited
- Chairman, LABIX Company Limited
- Chairman, Thai Paraxylene Company Limited
- Member of Trustee (as Company representative), Petroleum Institute of Thailand
- Director, Policy Planning on Materials Technology Development, National Science Technology and Innovation Policy Office
- Director, Thai Listed Companies Association
- Director, Power of Innovation Foundation
- Director, Power of Learning Foundation
- Member of Council, Vidyasirimedhi Institute of Science and Technology
- Executive Director, Thailand Energy Academy
- Executive Director, Thailand Swimming Association
- Director, The Federation of Thai Industries
- Chairman, Petroleum Refining Industry Club, The Federation of Thai Industries
- Member, Backdoor Listing Transaction Committee, The Stock Exchange of Thailand

Working Experience (5-Year Past Experience)

2015 – 2018	Director, Thai Industries Estate Foundation
2014 – 2015	Chairman, Thailoil Ethanol Company Limited
2014 – 2015	Chairman, Thailoil Energy Services Company Limited
2014	Director, PTT Asahi Chemical Company Limited
2013 – 2014	Senior Executive Vice President, Petrochemicals & Refining Business Unit, PTT Public Company Limited
2013 – 2014	Director, PTT Global Chemical Public Company Limited
2013 – 2014	Director, Star Petroleum Refining Public Company Limited
2011 – 2013	President, IRPC Public Company Limited

Shareholding in GPSC (including spouse and minor)

Self : 73,000 shares (0.004872%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mr. Kongkrapan Intarajang

Director (Non-Executive Director)

Date Appointed

- August 15, 2017 (1st Term)

Age : 51

Education

- Ph.D. Chemical Engineering, University of Houston, U.S.A.
- Bachelor of Engineering (Chemical Engineering) (2nd Class Honor), Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Director Certification Program (DCP 119/2009)
- Role of the Chairman Program (RCP 21/2009)

Other Training Record

- Breakthrough Program for Senior Executives, IMD Business School
- Thailand National Defence College (NDC 60)

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 1 Organization

- Chief Operation Officer – Upstream Petrochemical Business, PTT Global Chemical Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 9 Organizations

- Director, Thai Tank Terminal Limited
- Director, PTT Chemical International Private Limited
- Director, Emery Oleochemicals (M) Sdn. Bhd.
- Director, Emery Specialty Chemicals Sdn. Bhd..
- Director, Vencorex Holding
- Director, PTTGC International (Netherlands) B.V.
- Director, /President & CEO PTTGC America Corporation
- Director, PTTGC America LLC
- Director, Myriant Corporation

Working Experience (5-Year Past Experience)

Oct 1, 2014 - Mar 30, 2017	Executive Vice President - International Business Operations, PTT Global Chemical Public Company Limited
2012 – 2014	Chief Executive Officer, Emery Oleochemicals (M) Sdn. Bhd. Executive Vice President - appointed as Chief Executive Officer of Emery Oleochemicals (M) Sdn. Bhd., PTT Global Chemical Public Company Limited
2011 – 2012	Executive Officer, Emery Oleochemicals (M) Sdn. Bhd. Senior Vice President - appointed as Chief Executive Officer of Emery Oleochemicals (M) Sdn. Bhd., PTT Global Chemical Public Company Limited

Shareholding in GPSC (Including spouse and minor)

- None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Ms. Peangpanor Boonklum

Director / Member of the Corporate Governance Committee (Non-Executive Director)

Date Appointed

- April 3, 2017 (1st Term)

Age : 52

Education

- Master of Law (LL.M.), Columbia University School of Law, U.S.A.
- Master of Law (LL.M.) (Business Law), Chulalongkorn University
- Bachelor of Law (Honors), Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Anti-Corruption: The Practical Guide (ACPG 38/2017)
- Director Certification Program (DCP 7/2001)

Other Training Record

- TLCA Executive Development Program 1/2008, Thai Listed Companies Association
- Certificate in Anti-Corruption Strategic Management for Senior Executives, Class 9/2018, Office of the National Anti-Corruption Commission
- Milbank@Harvard Corporate Counsel Program, Harvard Law School, Cambridge, Massachusetts, United States of America

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 1 Organization

- Senior Executive Vice President / Group General Counsel, Office of General Counsel, PTT Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 2 Organizations

- Director / Member of the Nomination and Remuneration Committee, PTT Oil and Retail Business Public Company Limited
- Guest Lecturer, "Corporate Organization and Governance", Executive MBA and MBA Programs, Sasiri Graduate Institute of Business Administration of Chulalongkorn University

Working Experience (5-Year Past Experience)

Oct, 2018 – Present	Member of the Nomination and Remuneration Committee, PTT Oil and Retail Business Public Company Limited
Mar, 2018 – Present	Director, PTT Oil and Retail Business Public Company Limited
Oct, 2017 – Sep, 2018	Director at East Mediterranean Gas Company S.A.E. ("EMG"), Egypt
Feb, 2017 – Jan, 2018	Member - Legal Expert, Finances and Assets Policy Committee, Srinakharinwirot University
2017	Guest Lecturer, "Relationship between Laws and Business", Master Degree, Faculty of Law, Chulalongkorn University
Mar, 2016 – Jun, 2017	Senior Counsel, Weerawong, Chinnavat & Partners Company Limited (Former Company Name : "Weerawong, Chinnavat & Peangpanor Company Limited", Changed to the current name on April 3, 2017)
2013 – Mar, 2018	Advisor / Lecturer, Investment Banking Club, Association of Thai Securities Companies
2009 – Feb 29, 2016	Partner and Associate, Weerawong, Chinnavat & Peangpanor Company Limited

Shareholding in GPSC (including spouse and minor)

- None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mr. Bandhit Thamprajamchit

Independent Director / Member of the Corporate Governance Committee

Date Appointed

- April 3, 2018 (1st Term)

Age : 48**Education**

- Master of Business Administration (Executive), Sasin Graduate Institute of Business Administration of Chulalongkorn University
- M.Sc. in Advanced Chemical Engineering (Distinction), Imperial College, University of London
- Bachelor of Engineering (Chemical Engineering) (First Class Honor), Chulalongkorn University

Training Record with Thai Institute of Directors (IOD)

- Director Certification Program (DCP 187/2014))

Other Training Record

- PTT Group Leadership Development Program 2 (with INSEAD), Thailand & Singapore
- Energy Literacy for Executives, Thailand Energy Academy
- TLCA Executive Development Program (EDP), Thailand
- Executive Development Program, Fiscal Policy Research Institute Foundation, Thailand
- PTT Group Vice President Leadership Development Program, Thailand
- NIDA-WHARTON Executive Development Program, Thailand & U.S.A.

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 1 Organization

- Senior Executive Vice President, Refinery and Petrochemical and Acting Executive Vice President, Manufacturing Thai Oil Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 5 Organizations

- Director, Thai Paraxylene Company Limited
- Director, Thailoil Ethanol Company Limited
- Director, Thai Lube Base Public Company Limited
- Director, Thailoil Power Company Limited
- Director, Thailoil Energy Services Company Limited

Working Experience (5-Year Past Experience)

Jan, 2017 – Jun, 2017	Acting Senior Executive Vice President-Refinery and Petrochemical and Executive Vice President-Manufacturing Thai Oil Public Company Limited
Aug, 2016 – Dec, 2016	Executive Vice President-Manufacturing Thai Oil Public Company Limited
Apr, 2016 – Jul, 2016	Executive Vice President-Manufacturing and Acting Senior Vice President- Refinery Thai Oil Public Company Limited
Oct, 2015 – Mar, 2016	Acting Executive Vice President-Manufacturing and Senior Vice President-Refinery Thai Oil Public Company Limited
Feb, 2015 - Sep, 2015	Senior Vice President-Refinery, Thai Oil Public Company Limited
Jan, 2014 - Jan, 2015	Vice President-Refinery, Thai Oil Public Company Limited
2008 – 2013	Technology Manager, Thai Oil Public Company Limited

Shareholding in GPSC (including spouse and minor)

- None

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

Mr. Chawalit Tippawanich

Director / Secretary to the Board / Member of
the Risk Management Committee / President and Chief
Executive Officer (Executive Director)

Date Appointed

- October 1, 2018 (1st Term)

Age : 56

Education

- Master of Engineering in Industrial Engineering Management, Asian Institute of Technology
- Bachelor of Engineering in Electrical Engineering, King Mongkut's Institute of Technology Ladkrabang

Training Record with Thai Institute of Directors (IOD)

- Director Certification Program (DCP 152/2011)

Other Training Record

- Company Management Program
- The Great Manager – Thailand Quality Award
- GE Energy Customer Executive Leadership Program (GE:PTT Executive Leadership) – GE Global Learning Crotonville Leadership Institute (U.S.A.)
- Advance Management Program (AMP 187) - Harvard Business School, Executive Education (U.S.A.)
- Leadership Development Program III (Batch 2), PTT Leadership and Learning Institute
- The Joint State-Private Sector Course (Batch 5), Police College
- Top Executives in the Energy Education Program (Batch 12), Thailand Energy Academy

Current Position in Other Organizations

Listed Company-The Stock Exchange of Thailand 1 Organization

- Senior Executive Vice President, PTT Public Company Limited

Other Organizations / Companies (Not Listed in the Stock Exchange of Thailand) 1 Organization

- Director, Xayaburi Power Company Limited

Working Experience (5-Year Past Experience)

2017-2018	Executive Vice President, Downstream Business Group Alignment, PTT Plc. secondment in the position of Executive Vice President-Organization Effectiveness of Thailoil Plc.
2015-2016	Executive Vice President, Downstream Business Group Alignment, PTT Plc. secondment in the position of President of HMC Polymers Co., Ltd.
2013-2015	Executive Vice President, Business Development and Project Management, Petrochemicals and Refining Business Unit, PTT Plc.

Shareholding in GPSC (including spouse and minor)

Self : 25,000 shares (0.001669%)

Qualified According to Related Laws and Does Not Have Prohibited Qualifications

- Qualified

Family Relation with other Directors, Executives, Major Shareholders of GPSC and its Subsidiaries

- None

MANAGEMENT TEAM

As of December 31, 2018



Mr. Chawalit Tippawanich

President and Chief Executive Officer



Mr. Smornchai Khoonrak
Executive Vice President-
Operations



Mr. Somkiat Masunthasuwun
Executive Vice President- Business
Development and Corporate Strategy
Acting Vice President, Corporate
Strategy and Planning



Mr. Sirimet Leepagorn
Executive Vice President-
Asset Management



Mrs. Wanida Boonpiraks
Executive Vice President-Corporate
Finance and Accounting
Acting Vice President, Corporate
Accounting and Tax



Mr. Kulapat Permbhusri
Vice President, Investment and
Subsidiary Management



Mr. Jaruwat Singsomdee
Vice President, Corporate
Sustainability Management



Mrs. Dutdao Phuttasuatta
Vice President, Corporate Affairs
and Legal



Mr. Pavarate Rattanasuwan
Vice President, Business
Development



Mr. Pipatpong Chandee
Vice President, Namlik 1 Project



Mr. Laksanapreecha Krutkuntode
Acting Vice President, Energy
Disruptive Innovation



Mrs. Sasitorn Stithit
Vice President, Human Resources
and Organization Effectiveness



Mr. Somsak Lertcharoensermusuk
Vice President, Project Construction
Management



Ms. Sukittee Chaiyarak
Acting Vice President, Corporate
Finance and Strategy



Mr. Surajit Bourtherng
Vice President, Engineering and
Maintenance



Mr. Saochai Sookkasem
Vice President, Plant Operations



Ms. Attayar Sukotanang
Vice President, Corporate
Internal Audit

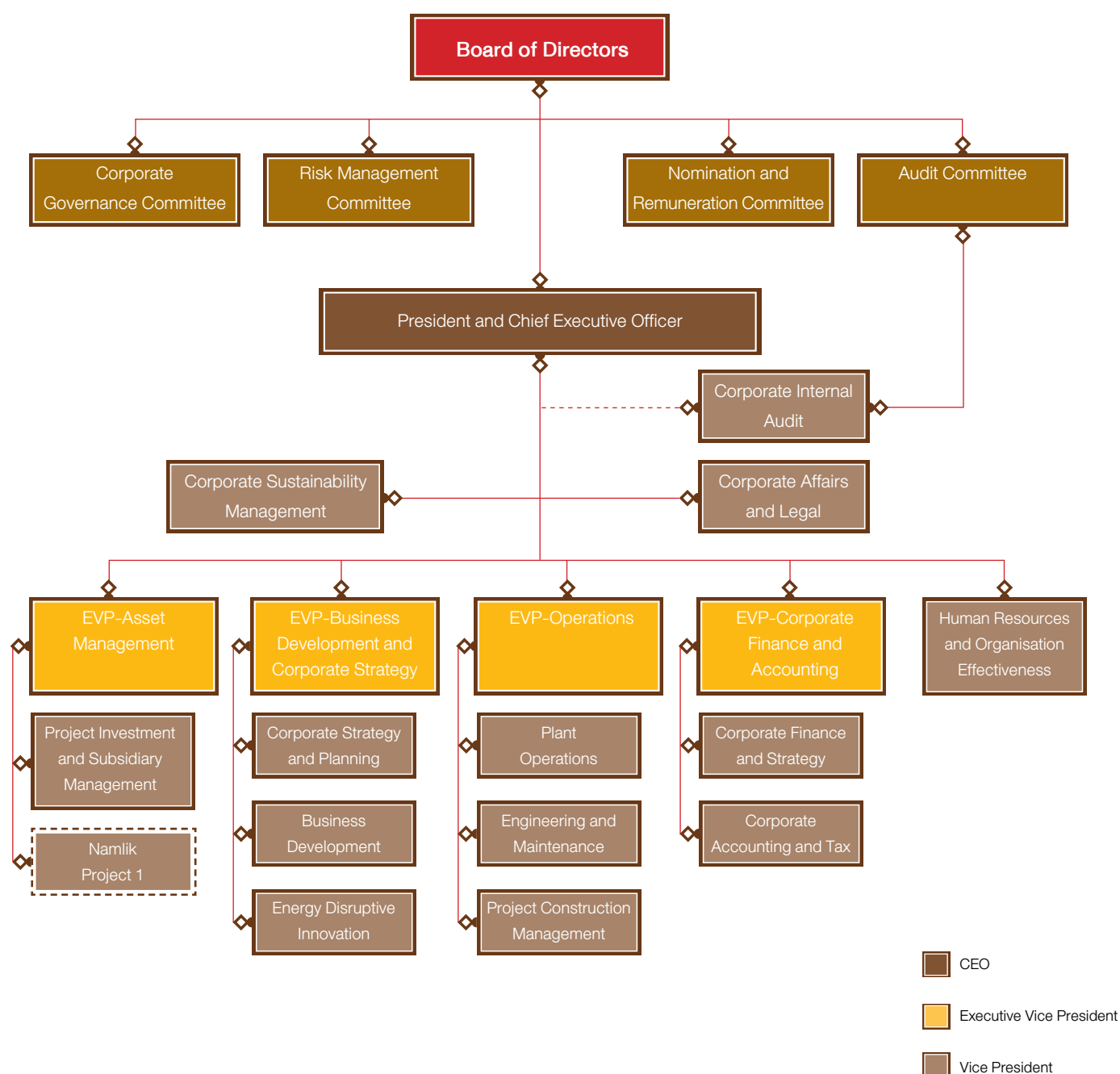


Mr. Ongkarn Srivichit
Vice President, Asset Management

MANAGEMENT STRUCTURE

As of December 31, 2018, the management structure of Global Power Synergy Public Company Limited (GPSC) comprises the Board of Directors; four Sub-Committees, namely the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance Committee, the Risk Management Committee, and the Executive Team, with the President and Chief Executive Officer as GPSC's highest-ranking executive.

GPSC Organization Structure (Department Level and Above), as of December 31, 2018



Board of Directors

Composition of the Board of Directors

As of December 31, 2018, GPSC's Board of Directors consists of 13 directors, composed of 12 non-executive directors, five of whom are independent directors, one executive director, namely the President and Chief Executive Officer. The composition above is in line with GPSC's Articles of Association, which prescribe that the Board of Directors must comprise at least five but not exceeding 13 directors, no less than half of whom must reside in Thailand.

GPSC's Board of Directors consists of qualified directors who possess appropriate mix of skills, expertise, and experiences suitable for overseeing GPSC's business operation to the

attainment of the objectives and goals of the company. The Board of Directors set the Board of Directors' Skill Matrix by classifying it to 12 subject matters under two categories :

- 1) Core Skills/Experience: Basic Expertise which is necessary for directorship position namely, policy development, business judgment, strategic planning, HR and organization development, finance and accounting, internal audit, law, risk management and internal control, and corporate governance and corporate social responsibility.
- 2) Specific Skills/Experience: Expertise which is useful for the directors to govern GPSC, namely, power industry expertise, International Business, and innovation management.

Composition of the Board of Directors

As of December 31, 2018

13 Directors
in the Board

12 Non-Executive
Directors

5 Independent
Directors

1 Executive
Director



Male
10



Female
3

Name-Surname		SEPO'S Director Pool	Skill / Expertise											
			Core Skills									Specific Skills		
			Policy Development	Business Judgment	Strategic Planning	Finance& Accounting	Internal Audit	Law	Corporate Governance &CSR	Risk Management &Internal Control	HR & Organization Development	Power Industry Expertise	International Business	Innovation Managemen
1.	Mr. Surong Bulakul	√	√	√	√	√			√	√		√	√	√
2.	Mr. Kurujit Nakornthap	√	√	√	√		√	√	√	√	√	√	√	
3.	Mr. Payungsak Chartsutipol	√	√	√	√		√		√	√	√	√		√
4.	Maj.Gen. Chaowalek Chayansupap		√	√	√		√		√		√	√		
5.	Mrs. Suvimol Chrityakierne		√	√	√	√	√		√	√	√	√		
6.	Mrs. Nicha Hiranburana Thuvatham		√		√				√	√	√			
7.	Mr.Wittawat Svasti-Xuto		√	√	√							√	√	√
8.	Mr. Supattanapong Punmeechaow	√	√	√	√	√				√		√		√
9.	Mr. Atikom Terbsiri	√	√	√	√	√			√	√	√	√	√	
10.	Mr. Kongkrapan Intarajang		√	√	√	√			√	√	√		√	√
11.	Ms. Peangpanor Boonklum		√	√	√		√	√	√				√	
12.	Mr. Bandhit Thamprajamchit		√	√	√				√	√	√	√		√
13.	Mr. Chawalit Tippawanich		√	√	√					√	√	√		√
Total		5	13	12	13	5	5	2	10	10	9	10	6	7

Board of Directors

As of December 31, 2018, the Board of Directors comprises 13 directors as follows.

No	Name-Surname	Position	Date Appointed
1.	Mr. Surong Bulakul	Director / Chairman of the Board	April 4, 2016 (re-elected)
2.	Mr. Kurujit Nakornthap	Independent Director	April 3, 2017
		Chairman of the Nomination and Remuneration Committee / Chairman of the Corporate Governance Committee	April 27, 2017
3.	Mr. Payungsak Chartsutipol ⁽¹⁾	Independent Director	April 3, 2018 (re-elected)
		Chairman of the Audit Committee / Chairman of the Risk Management Committee	April 25, 2018 (re-elected)
4.	Maj.Gen. Chaowalek Chayansupap	Independent Director / Member of the Audit Committee	April 27, 2017
		Member of the Nomination and Remuneration Committee	April 27, 2017
5.	Mrs. Suvimol Chrityakierne ⁽²⁾	Independent Director	April 3, 2018
		Member of the Audit Committee	April 25, 2018
6.	Mrs. Nicha Hiranburana Thuvatham ⁽³⁾	Independent Director	April 3, 2018
		Member of the Corporate Governance Committee	April 25, 2018
7.	Mr. Wittawat Svasti-Xuto ⁽⁴⁾	Director / Member of the Nomination and Remuneration Committee / Member of the Risk Management Committee	September 19, 2018
8.	Mr. Supattanapong Punmeechaow	Director	April 3, 2017 (re-elected)
		Member of the Risk Management Committee	April 27, 2017 (re-elected)
9.	Mr. Atikom Terbsiri	Director	April 3, 2017 (re-elected)
		Member of the Risk Management Committee	April 27, 2017 (re-elected)
10.	Mr. Kongkrapan Intarajang	Director	August 15, 2017
11.	Ms. Peangpanor Boonklum	Director	April 3, 2017
		Member of the Corporate Governance Committee	April 27, 2017
12.	Mr. Bandhit Thamprajamchit ⁽⁵⁾	Director	April 3, 2018
		Member of the Corporate Governance Committee	April 25, 2018
13.	Mr. Chawalit Tippawanich ⁽⁶⁾	Director / Secretary to the Board / Member of the Risk Management Committee / President and Chief Executive Officer	October 1, 2018

Remarks :

⁽¹⁾ Mr. Payungsak Chartsutipol was re-elected as an independent director at the 2018 Annual General Meeting of Shareholders (AGM), convened on April 3, 2018, effective as of April 3, 2018, and was re-appointed Chairman of the Audit Committee and Chairman of the Risk Management Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.

- (2) Mrs. Suvimol Chrityakierne was elected an independent director (an additional position to the Board) at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Audit Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (3) Mrs. Nicha Hiranburana Thuvatham was elected an independent director to replace Ms. Panada Kanokwat, whose term completed at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Corporate Governance Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (4) Mr. Wittawat Svasti-Xuto was appointed a director and a Member of the Risk Management Committee to replace Mr. Chansin Treenuchagron, a resigned director, in the Board of Directors Meeting No.8/2018 convened on September 19, 2018, effective as of September 19, 2018.
- (5) Mr. Bandhit Thamprajamchit was elected a director to replace Mr. Somchai Wongwattanasan, whose term completed at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Corporate Governance Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (6) Mr. Chawalit Tippawanich was appointed Director, Secretary to the Board, Member of the Risk Management Committee, and President and Chief Executive Officer to replace Mr. Toemchai Bunnag, a resigned director, in the Board of Directors Meeting (Additional Meeting) No.6/2018, convened on September 19, 2018, effective as of October 1, 2018.

Directors who Resigned and Completed the Term in the Year 2018

No.	Name-Surname	Position	Reason of Leaving
1.	Ms. Panada Kanokwat	Independent Director / Member of the Audit Committee / Member of the Corporate Governance Committee	Completed the term in the 2018 Annual General Meeting of Shareholders
2.	Mr. Somchai Wongwattanasan	Director / Member of the Corporate Governance Committee	Completed the term in the 2018 Annual General Meeting of Shareholders
3.	Mr. Chansin Treenuchagron	Director / Member of the Nomination and Remuneration Committee / Member of the Risk Management Committee	Resigned, effective on August 31, 2018
4.	Mr. Toemchai Bunnag	Director / Secretary to the Board / Member of the Risk Management Committee / President and Chief Executive Officer	Resigned, effective on September 28, 2018

Authorized Directors

The directors authorized to act on behalf of GPSC as stated in GPSC affidavit are “Mr. Chawalit Tippawanich, President and Chief Executive Officer (with his signature and the corporate seal affixed) or Mr. Surong Bulakul, or Mr. Supattanapong Punmeechaow, or Mr. Atikom Terbsiri, or Mr. Bandhit Thamprajamchit, Mr. Kongkrapan Intarajang, or Mr. Wittawat Svasti-Xuto (with signatures of any two and the corporate seal affixed).”

Roles and Responsibilities of the Board of Directors

The roles and responsibilities of the Board of Directors are to oversee GPSC's operation to ensure compliance with laws, regulations, resolutions of shareholders' meetings, and GPSC articles of association as well as strict adherence to corporate governance principles and the code of conduct for directors of listed companies to protect GPSC's and its shareholders' interest. The roles and responsibilities of the Board of Directors can be summarized as follows.

1. To devote themselves to the determination of GPSC's vision, mission, directions, and strategies by expressing their opinion fully and seeking relevant information useful for the prescription of GPSC's directions
2. To review and approve GPSC's key strategies, policies, objectives, action plans, and financial goals as well as regularly oversee and monitor the executives so that such plans are carried out in accordance with the prescribed directions and strategies and to ensure effective and efficient implementation of GPSC's vision, directions, and strategies
3. To define corporate governance policies and a code of conduct comprising appropriate guidelines and best practices for directors, executives, and employees to foster a sense of professional responsibility and understanding, which are to be complied with strictly in conjunction with the rules and regulations of GPSC to ensure equity to all stakeholders

4. To approve expenditures for investments, loaning or application for credits from financial institutions, lending, and being a guarantor as part of GPSC's regular operations without budget limits in accordance with the rules and regulations of GPSC and pertinent regulations and laws stipulated by the Stock Exchange Market of Thailand and the Securities and Exchange Commission
 5. To consider potential risk factors, formulate comprehensive risk management guidelines, ensure that the executives operate with efficient risk management systems and processes in place, and predict possible risks that may arise from new business opportunities
 6. To ensure sufficient and effective internal control as well as regular assessment of the suitability of GPSC's internal control systems
 7. Monitor and remedy issues related to potential conflicts of interest and related transactions, prioritizing major transactions that will result in maximum benefits for shareholders and stakeholders
 8. To consider and approve the appointment of qualified candidates with no prohibited characteristics under the Public Limited Companies Act B.E. 2535 (A.D. 1992) (including additional amendments) and the Securities and Exchange Act B.E. 2535 (A.D. 1992) (including additional amendments), as well as laws, notifications, regulations, and/or other relevant rules as new directors upon vacancies of directorships, either as a result of an expiration of term of office or for other reasons, and upon the rise of such necessity, as well as determine remuneration to propose at shareholders' meetings for approval
 9. To determine and amend the list of authorized directors
 10. To appoint the Audit Committee or any other sub-committees as well as define their roles and responsibilities to assist and support the Board of Directors in their operations
 11. To implement an appropriate and transparent talent acquisition and selection system to fulfill key management positions
 12. To appoint GPSC's executives with qualifications as defined by the Securities and Exchange Commission or the Capital Market Advisory Board, appoint Company Secretary, as well as determine the remuneration of the executives and Company Secretary
 13. To put in place a remuneration determination system or mechanism for GPSC's top executives to ensure appropriateness and consistency with GPSC's performance to create short-term and long-term motivation
 14. To conduct regular self-performance appraisals and the President and Chief Executive Officer's performance appraisals on a regular basis
 15. To ensure reliable accounting systems, financial statements, and audit systems as well as an efficient and effective internal auditing system
 16. To oversee the completion of GPSC's financial statements at the end of each accounting year and sign to approve such statements, to be proposed for approval at annual general meetings of shareholders
 17. To consider and approve the selection and appointment of auditors as well as determine the appropriateness of the remuneration submitted by the Audit Committee before proposing it for approval at annual general meetings of shareholders
 18. To attach significance to social and environmental responsibilities in GPSC's business operation for a better and sustainable quality of life in society
 19. To assess GPSC's performance under its corporate governance policies and code of conduct at least once a year
 20. To provide each shareholder group with appropriate communication channels and oversee that information disclosure is complete, clear, transparent, reliable, and of highest standards
 21. To encourage GPSC's directors and executives to attend courses and seminars hosted by the Thai Institute of Directors (IOD), especially those relevant to their roles and responsibilities
 22. To convene internal meetings between non-executive directors and independent directors as called for by necessity or when deemed appropriate to discuss various management issues of current interest without the presence of the management and submit the summary of such meetings to the President and Chief Executive Officer
 23. Formulate policies and perform supervisory roles to ensure that GPSC has an efficient anti-corruption system in place so as to ensure that the executives recognize the significance of anti-corruption practices, place emphasis on them, and cultivate them into the organizational culture of the company
 24. Comply with anti-corruption measures, with penalties imposed for non-compliance
- The Board of Directors may authorize and/or designate individuals to perform specific tasks on its behalf. The appointment of attorneys or sub-attorneys shall conform to the scope defined in the letter of authorization and/ or in compliance with the rules, regulations, or orders prescribed by the Board of Directors and/or GPSC. The authorization of the roles and responsibilities of the Board of Directors shall not be in such a manner that enables the Board of Directors or the appointed

attorneys, through the attorneys or sub-attorneys, to approve transactions that may benefit themselves or others who may have conflict of interest (as defined in the notifications of the Securities and Exchange Commission or the Capital Market Supervisory Board) in any manner or create conflicts of interest with GPSC or GPSC's subsidiaries, except transactions that are in accordance with the policies and criteria approved by shareholders' meetings or approved by the Board of Directors.

In addition, the operations of the Board of Directors that require approval from shareholders' meetings are as follows.

- Cases in which GPSC or GPSC's subsidiaries, as defined by the laws on securities and exchange, enter into a related transaction, or acquire, or sell major assets of GPSC in accordance with the classification of the laws on securities and exchange, in which GPSC shall comply with the prescribed criteria and processes
- Selling or transferring GPSC's business, either in its entirety or partially, to another party
- The drawing up, amendment, or revocation of contracts related to a full or partial lease of GPSC's business, the appointment of a proxy to act on behalf of GPSC, or the merging of the business with another party with the aim to share profits
- Amendment of the memorandum of association or the articles of association
- Increasing or decreasing GPSC's authorized capital
- Company dissolution or merge with another company
- Debenture issuance

Roles and Responsibilities of the Chairman

1. To supervise and monitor the performance of the Board of Directors to ensure efficiency in fulfilling the objectives and main goals of GPSC and compliance with laws, corporate governance principles, and the roles and responsibilities of the Board of the Directors of GPSC
2. To determine the agenda of the Board of Directors' meetings, taking into account recommendations of the President and Chief Executive Officer, and ensure that vital agenda items are included
3. To convene the Board of Directors' meetings and deliver meeting notices to the directors in no less than seven days prior to the meetings so as to allow sufficient time for directors to consider information necessary for decision-making (The board meetings can be convened either by the Chairman of the Board of Directors or any individual assigned by the Chairman)
4. To preside over the Board of Directors' meetings, ensure efficiency of the meetings and sufficient allocated time for

the presentations and discussion required for all agenda items, encourage careful consideration and free expression of opinions, guide the meetings towards resolutions, and conclude the meetings

5. To preside over annual general meetings of shareholders to keep them in line with laws, regulations of GPSC, and the prescribed agenda and allocate sufficient time for presentations and shareholders' inquiries
6. To oversee and encourage directors to adhere to corporate governance principles and contribute to an organizational culture characterized by ethical principles and corporate governance
7. Foster a cordial relationship between the Board of Directors and the management team

The Board of Directors' Meeting

According to the corporate governance practice, the Board of Directors designates dates of meetings in advance each year to enable the directors to allocate their time for the meetings. The Board of Directors' Meeting (additional meeting) for considering urgent matters may be arranged if required. Directors who have unexpected engagement and are unable to attend a meeting must submit a written leave of absence letter to the Chairman. Meeting invitation notice and documents will be submitted to directors at least seven days prior to each meeting to provide the directors with adequate time to review the agendas before the meeting, except urgent matters that require the calling of urgent meetings. If more information is needed, the directors can inform the Company Secretary to respond to the queries in advance.

In addition, the directors who have conflict of interest with each agenda must not take part in the decision-making process of such agenda.

After the meeting, the minutes of meeting will be prepared for the Board of Directors' approval in the next meeting. The Chairman will sign the approved minutes of meeting and it will be systematically kept for further use.

In 2018, GPSC held total 19 Board of Directors Meetings: 11 ordinary meetings and 8 additional meeting to consider special-agendas, one Non-Executive Directors Meeting, and one Independent Directors Meeting. More importantly, GPSC has set up Protocols for Meetings of the Board of Directors to obtain a clear procedure, encompassing processes prior to, during, and after each meeting, to ensure their efficiency.

Meeting Attendance of GPSC Directors in 2018

Name-Surname	Position	Board of Directors	Board of Directors (Additional Meeting)	Audit Committee (AC)	Nomination and Remuneration Committee (NRC)	Corporate Governance Committee (CGC)	Risk Management Committee (RMC)	Risk Management Committee (RMC) (Additional Meeting)	Non-Executive Directors	Independent Directors	Share holders Meeting
		11 meetings	8 meetings								
1. Mr. Surong Bulakul	Director / Chairman of the Board	11/11	6/8	12 meetings	5 meetings	4 meetings	8 meetings	13 meetings	1 meeting	1 meeting	2 meeting
2. Mr. Kurujit Nakomthap	Independent Director / NRC Chairman / CGC Chairman	10/11	8/8		5/5	4/4			1/1	1/1	2/2
3. Mr. Payungsak Chatsutipol ⁽¹⁾	Independent Director / AC Chairman / RMC Chairman	11/11	8/8	12/12			8/8	10/13	1/1	1/1	2/2
4. Maj.Gen. Chaowalek Chayansupap	Independent Director / AC Member / NRC Member	10/11	7/8	12/12	5/5				1/1	1/1	2/2
5. Mrs. Suvimol Chrityakieme ⁽²⁾	Independent Director / AC Member	8/8	8/8	8/8					1/1	1/1	1/1
6. Mrs. Nicha Hiranburana Thuvatham ⁽³⁾	Independent Director / CGC Member	6/8	6/8			4/4			0/1	0/1	1/1
7. Mr. Wittawat Svasti-Xuto ⁽⁴⁾	Director / NRC Member / RMC Member	2/3	3/3		0/0		3/3	6/6	N/A		N/A
8. Mr. Supattanapong Punmeechaow	Director / RMC Member	11/11	7/8				8/8	13/13	1/1		2/2
9. Mr. Atikom Terbsiri	Director / RMC Member	11/11	7/8				8/8	13/13	1/1		2/2
10. Mr. Kongkrapan Intarajang	Director	9/11	5/8						1/1		2/2
11. Ms. Peangpanor Boonklum	Director / CGC Member	9/11	8/8			4/4			1/1		2/2
12. Mr. Bandhit Thampajamchit ⁽⁵⁾	Director / CGC Member	8/8	7/8			3/4			1/1		1/1
13. Mr. Chawalit Tippawanich ⁽⁶⁾	Director / Secretary to the Board / RMC Member / President and CEO	3/3	3/3				3/3	5/6			N/A

Name-Surname	Position	Board of Directors	Board of Directors (Additional Meeting)	Audit Committee (AC)	Nomination and Remuneration Committee (NRC)	Corporate Governance Committee (CGC)	Risk Management Committee (RMC)	Risk Management Committee (Additional Meeting)	Non-Executive Directors	Indepen dent Directors	Share holders Meeting
		11 meetings	8 meetings	12 meetings	5 meetings	4 meetings	8 meetings	13 meetings	1 meeting	1 meeting	2 meeting
Directors who Resigned / Completed the Term in 2018											
1. Ms. Panada Kanokwat ⁽⁷⁾	Independent Director / AC Member / CGC Member	3/3	N/A	4/4					N/A	N/A	1/1
2. Mr. Somchai Wongwattanasan ⁽⁸⁾	Director / CGC Member	3/3	N/A						N/A		1/1
3. Mr. Chansin Treenuchagron ⁽⁹⁾	Director / NRC Member / RMC Member	6/7	2/3		4/4		3/4	4/7	1/1		1/1
4. Mr. Toemchai Bunnag ⁽¹⁰⁾	Director / Secretary to the Board / RMC Member / President and CEO	8/8	5/5				5/5	7/7			2/2

N/A means not attended since the Director resigned or was appointed during the year 2018.

GPSC held two meeting of shareholders in 2018; namely the Annual General Meeting of Shareholders (AGM) in April 3, 2018, and the Extraordinary General Meeting of Shareholders No. 1/2018, held in August 24, 2018.

Remarks :

- (1) Mr. Payungsak Chartsulipol was re-elected as an independent director at the 2018 Annual General Meeting of Shareholders (AGM), convened on April 3, 2018, effective as of April 3, 2018, and was re-appointed Chairman of the Audit Committee and Chairman of the Risk Management Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (2) Mrs. Suvimol Chritiyakierne was elected an independent director (an additional position to the Board) at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Audit Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (3) Mrs. Nicha Hiranburana Thuvatham was elected an independent director to replace Ms. Panada Kanokwat, whose term completed at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Corporate Governance Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (4) Mr. Wittawat Svasti-Xuto was appointed a director and a Member of the Risk Management Committee to replace Mr. Chansin Treenuchagron, a resigned director, in the Board of Directors Meeting No. 8/2018 convened on September 19, 2018, effective as of September 19, 2018.
- (5) Mr. Bandhiti Thamprajanchit was elected a director to replace Mr. Somchai Wongwattanasan, whose term completed at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Corporate Governance Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (6) Mr. Chawalit Tippawanich was appointed Director, Secretary to the Board, Member of the Risk Management Committee, and President and Chief Executive Officer to replace Mr. Toemchai Bunnag, a resigned director, in the Board of Directors Meeting (Additional Meeting) No. 6/2018, convened on September 19, 2018, effective as of October 1, 2018.
- (7) Ms. Panada Kanokwat completed her directorship term at the 2018 AGM on April 3, 2018.
- (8) Mr. Somchai Wongwattanasan completed his directorship term at the 2018 AGM on April 3, 2018.
- (9) Mr. Chansin Treenuchagron's resignation was effective on August 31, 2018.
- (10) Mr. Toemchai Bunnag's resignation was effective on September 28, 2018.

Executive Team

The Executives

As of December 31, 2018, GPSC has a total of 19 executives, as follows :

- 1) Mr. Chawalit Tippawanich
President and Chief Executive Officer
- 2) Mr. Smornchai Khoonrak
Executive Vice President-Operations
- 3) Mr. Somkiat Masunthasuwun
Executive Vice President-Business Development and Corporate Strategy Acting Vice President, Corporate Strategy and Planning
- 4) Mr. Sirimet Leepagorn
Executive Vice President-Asset Management
- 5) Mrs. Wanida Boonpiraks
Executive Vice President-Corporate Finance and Accounting/Acting Vice President, Corporate Accounting and Tax
- 6) Ms. Sukittee Chaiyarak
Acting Vice President, Corporate Finance and Strategy
- 7) Mr. Kulapat Permbhusri
Vice President, Investment and Subsidiary Management
- 8) Mr. Jaruwat Singsomdee
Vice President, Corporate Sustainability Management
- 9) Mrs. Dutdao Phuttasuatta
Vice President, Corporate Affairs and Legal
- 10) Mr. Pavarate Rattanasuwan
Vice President, Business Development
- 11) Mr. Pipatpong Chandee
Vice President, Namlik 1 Project
- 12) Mr. Laksanapreecha Krutkuntode
Acting Vice President, Energy Disruptive Innovation
- 13) Mrs. Sasitorn Stithit
Vice President, Human Resources and Organization Effectiveness
- 14) Mr. Somsak Lertcharoensermuk
Vice President, Project Construction Management
- 15) Mr. Surajit Bourthernng
Vice President, Engineering and Maintenance
- 16) Mr. Saochai Sookkasem
Vice President, Plant Operations
- 17) Mr. Ongkarn Srivichit
Vice President, Asset Management
- 18) Ms. Attayar Sukotang
Vice President, Corporate Internal Audit

The executives No. 1-6 are qualified as the first four executives, according to SEC's definition.

Scope of authority of the President and Chief Executive Officer

The President and Chief Executive Officer has the authority and duties to manage business operations as assigned by the Board and to manage plans or budgets approved by the Board of Directors with stringency, honesty, and circumspection, while protecting the interest of GPSC and shareholders. The scope of authority of the President and Chief Executive Officer entails the following matters:

- 1) To manage GPSC's daily operations
- 2) To manage GPSC's plans and budgets approved by the Board of Directors
- 3) To prepare reports, plans, and financial statements and present them to the Board of Directors on a quarterly basis
- 4) To formulate GPSC's trade policies as well as enter into or terminate any contract related to the purchase and sale of raw materials and products on GPSC's behalf at present and in the future (within the period of not exceeding three years since the day the Chief Executive Officer is appointed and if the contract value does not exceed THB 100 million)
- 5) To enter into or terminate any contract or obligations other than specified in Item 4., with the contract value not exceeding THB 300 million
- 6) To employ, appoint, remove, transfer, promote, demote, decrease salary or payment, impose disciplinary sanctions on, or terminate employment of employees on behalf of GPSC; to appoint executives; as well as to delegate authority and responsibilities to suitable personnel

In addition, the Board of Directors has granted a power of attorney to the President and Chief Executive Officer, the scope of which is defined as follows.

- The authority to manage GPSC's business operations in accordance with objectives, rules, policies, regulations, orders, and resolutions reached at the Board of Director's meetings and/or shareholders' meetings
- The authority to command, contact, order, and proceed as well as execute juristic acts, sign contracts, agreements, orders, announcements, and any other documents that are deemed necessary and appropriate in order to fulfill the assigned responsibilities.
- The authority to authorize and/or assign other individuals to act on his or her behalf to perform certain specific tasks. The appointment of a lawful attorney or assigning individuals must be conducted within the scope of authority indicated

in that specific letter of authorization and/or in accordance with relevant rules, regulations, or orders issued by the Board of Director and/or GPSC.

However, the aforementioned scope of the President and Chief Executive Officer's authority shall not apply if the Chief Executive Officer is a stakeholder or has any conflict of interest with GPSC.

Nomination and Appointment of the President and Chief Executive Officer

For the nomination and appointment of the President and Chief Executive Officer in case of vacancy, the Nomination and Remuneration shall select candidates with suitable qualifications, namely expertise, work experience beneficial to GPSC, and leadership, to propose to the Board of Directors for approval and appointment.

The Management Committee

GPSC Management Committee (GPSC MC) comprises members, secretary and advisor as follows :

1. President and Chief Executive Officer	Chairman
2. Executive Vice President- Asset Management	Member
3. Executive Vice President- Business Development and Corporate Strategy	Member
4. Executive Vice President- Operations	Member
5. Executive Vice President- Corporate Finance and Accounting	Member
6. Vice President, Human Resources and Organization Effectiveness	Member
7. Vice President, Corporate Sustainability Management	Member
8. Vice President, Corporate Affairs and Legal	Member and Secretary
9. Vice President, Corporate Internal Audit	Advisor

Roles and responsibilities of the Management Committee

GPSC Management Committee has the duties to offer consultancy and recommendations to the President and Chief Executive Officer in making significant decisions related to GPSC's strategies, directions, long-term plans, performance, investment plans, budgets, and resources allocation to GPSC and its subsidiaries. The committee is also entrusted with the duty to create uniform operation systems among the companies in which GPSC is a shareholder, which entails offering consultancy and recommendations as well as support operations in the following matters.

- 1) Defining the vision and missions of GPSC Group
- 2) Defining the strategic directions and goals of the business of GPSC Group as well as the overall performance of the business groups and GPSC Group
- 3) Reviewing GPSC Group's capital allocation structure
- 4) Reviewing GPSC Group's Portfolio Management
- 5) Reviewing and monitoring overseas business expansion of GPSC Group
- 6) Making policies and decisions regarding human resources management and ensuring the readiness and a systematic and efficient development of GPSC's executives above Level 10 to accommodate future missions of GPSC Group (Leadership Affiliation & Alignment Program)
- 7) Reviewing and offering recommendations on standards/ mechanisms of the human resources system management, the data system management, and the organization structure of GPSC and GPSC Group to achieve sustainable organizational excellence
- 8) Reviewing and formulating policies and principles in accordance with PPT Way of Conduct as well as promoting practical results as outlined
- 9) Prioritizing human and financial resources allocation to GPSC and companies in which GPSC is a shareholder
- 10) Seeking resolutions to significant conflicts
- 11) Monitoring the progress and performance of GPSC Group in comparison to the PA & KPIs
- 12) Reviewing the risk management of GPSC Group
- 13) Reviewing the meeting agenda before presenting it to the Board of Directors
- 14) Prioritizing decisions of the Board of Directors for operational efficiency
- 15) Appointing working committees and/or working team to support the operation of GPSC Management Committee
- 16) Comply with anti-corruption measures as stated in GPSC's anti-corruption policy
- 17) Fulfilling other obligations assigned by the President and Chief Executive Officer

The Company Secretary

The Board of Directors' Meeting No. 7/2017, convened on July 21, 2017 resolved to appoint Mrs. Dutdao Phuttasuatta as the Company Secretary, whose roles and responsibilities are as follows.

- 1) To prepare and maintain GPSC's documents, namely a registrar of directors, notices and minutes of the Board of Directors' meetings, notices and minutes of shareholders' meetings, and annual reports
- 2) To maintain reports on interest submitted by directors or executives
- 3) To arrange the Board of Directors' meetings and shareholder's meetings
- 4) To provide recommendations on relevant laws and regulations to the Board of Directors and executives
- 5) To organize trainings and orientations as well as provide current and new directors with information necessary to the fulfillment of their roles and responsibilities
- 6) To oversee and ensure complete compliance with laws, regulations, rules, and resolutions of the Board of the Directors' meeting and shareholders' meetings, as well as good corporate governance policies and code of business ethics
- 7) To carry out other operations in accordance with stipulations of the Capital Market Supervisory Board

Mrs. Dutdao Phuttasuatta has legal education and Company Secretary training as follows:

- Master of Laws, American University, Washington College of Law, U.S.A.
- Bachelor of Laws, Thammasat University
- Director Accreditation Program (DAP 151/2018), Thai Institute of Directors
- Company Secretary Program (CSP 84/2017), Thai Institute of Directors

Director and Executive Remuneration

Director Remuneration

In 2018, the Board of Directors, by the recommendation of the Nomination and Remuneration Committee, has considered the remuneration of the Board of Directors and the Sub-Committees, by taking into account various relating factors e.g. the company's operating results, dividend payout to shareholders, the Board of Director's performance, responsibilities of the Board of Directors and the Sub-Committees, and comparison with other listed companies within the same industry and having similar size. The matter was proposed to the 2018 AGM which the 2017 AGM resolved to approve the remuneration of the Board of Directors as proposed.

1) Retainer fee for directors (Same rate as 2017)

- Chairman 37,500 THB / month
- Directors 30,000 THB / month

2) Meeting allowance for Sub-Committee members (Same rate as 2017)

comprising Audit Committee, Nomination and Remuneration Committee, Corporate Governance Committee, Risk Management Committee and others (if any) (only the directors who attend the meeting)

- Chairman 22,500 THB / meeting
- Members 18,000 THB / meeting

The remuneration for the Chairman of the Board and Sub-Committees are 25 percent higher than directors and Sub-Committee members.

3) Annual bonus

Annual bonus The 2018 AGM resolved to approve annual bonus for the directors, including those who completed their terms and/or retired during 2017, at the rate of 0.6 percent of the 2017 net profit but not exceeding THB 15 million. The bonus portion is calculated based on the term of each director. The Chairman of the Board shall receive an amount which is 25 percent higher than other directors.

4) Other remuneration -None

Remuneration of GPSC Directors in 2018 (Unit :THB)

Name-Surname	Position	Board of Directors	Audit Committee (AC)	Nomination and Remuneration Committee (NRC)	Corporate Governance Committee (CGC)	Risk Management Committee (RMC)	Annual Bonus for 2017 Performance ⁽¹¹⁾	Total
1. Mr. Surong Bulakul	Director / Chairman of the Board	Retainer Fee 450,000.00	Meeting Allowance	Meeting Allowance	Meeting Allowance	Meeting Allowance	1,530,612.24	1,980,612.24
2. Mr. Kurujit Nakornthap	Independent Director / Chairman of the NRC / Chairman of the CGC	360,000.00	-	112,500.00	90,000.00	-	915,851.27	1,478,351.27
3. Mr. Payungsak Chartsutipol ⁽¹⁾	Independent Director / Chairman of the AC / Chairman of the RMC	360,000.00	270,000.00	-	-	382,500.00	1,224,489.80	2,236,989.80
4. Maj.Gen. Chaowalek Chayansupap	Independent Director / Member of the AC / Member of the NRC	360,000.00	216,000.00	90,000.00	-	-	1,224,489.80	1,890,489.80
5. Mrs. Suvimol Chrityakierne ⁽²⁾	Independent Director / Member of the AC	268,000.00	144,000.00	-	-	-	-	412,000.00
6. Mrs. Nicha Hiranburana Thuvatham ⁽³⁾	Independent Director / Member of the CGC	268,000.00	-	-	72,000.00	-	-	340,000.00
7. Mr. Witawat Svasti-Xuto ⁽⁴⁾	Director / Member of the NRC / Member of the RMC	102,000.00	-	-	-	108,000.00	-	210,000.00
8. Mr. Supattananong Punmeechaow	Director / Member of the RMC	360,000.00	-	-	-	324,000.00	1,224,489.80	1,908,489.80
9. Mr. Atikom Terbsiri	Director / Member of the RMC	360,000.00	-	-	-	324,000.00	1,224,489.80	1,908,489.80
10. Mr. Kongkrapan Intarajang	Director	360,000.00	-	-	-	-	466,312.55	826,312.55
11. Ms. Peangpanor Boonklum	Director / Member of the CGC	360,000.00	-	-	72,000.00	-	915,851.27	1,347,851.27
12. Mr. Bandhit Thamprajamchit ⁽⁵⁾	Director / Member of the CGC	268,000.00	-	-	54,000.00	-	-	322,000.00
13. Mr. Chawalit Tippawanich ⁽⁶⁾	Director / Secretary to the Board / Member of the RMC / President and CEO	90,000.00	-	-	-	108,000.00	-	198,000.00

(Unit :THB)

Name-Surname	Position	Board of Directors	Audit Committee (AC)	Nomination and Remuneration Committee (NRC)	Corporate Governance Committee (CGC)	Risk Management Committee (RMC)	Annual Bonus for 2017 Performance ⁽¹¹⁾	Total
		Retainer Fee	Meeting Allowance	Meeting Allowance	Meeting Allowance	Meeting Allowance		
Directors who Resigned / Completed the Term in 2018								
1. Ms. Panada Kanokwat ⁽⁷⁾	Independent Director / Member of the AC / Member of the CGC	93,000.00	72,000.00	-	-	-	1,224,489.80	1,389,489.80
2. Mr. Somchai Wongwattanasan ⁽⁸⁾	Director / Member of the CGC	93,000.00	-	-	-	-	1,224,489.80	1,317,489.80
3. Mr. Chansin Treenuchagron ⁽⁹⁾	Director / Member of the NRC / Member of the RMC	240,000.00	-	72,000.00	-	126,000.00	251,607.49	689,607.49
4. Mr. Toemchai Bunnag ⁽¹⁰⁾	Director / Secretary to the Board / Member of the RMC / President and CEO	270,000.00	-	-	-	216,000.00	1,224,489.80	1,710,489.80
Director who Resigned in 2017 (Receive annual bonus from 2017 performance)								
1. Mr. Norkun Sitthiphong	Independent Director / Chairman of the AC (Completed the Term in AGM 2017)	-	-	-	-	-	311,993.29	311,993.29
2. Mr. Chulasingh Wasantasingh	Independent Director / Member of the AC / Chairman of the NRC (Completed the Term in AGM 2017)	-	-	-	-	-	311,993.29	311,993.29
3. Mr. Chavalit Punthong	Director / Member of the NRC / Member of the RMC (Resigned, effective from October 1, 2017)	-	-	-	-	-	915,851.27	915,851.27
4. Mr. Patiparn Sukornthaman	Director / Member of the NRC (Resigned, effective from July 31, 2017)	-	-	-	-	-	707,855.75	707,855.75
Total		4,662,000.00	702,000.00	274,500.00	288,000.00	1,588,500.00	14,899,357.02	22,414,357.02

Remarks :

- (1) Mr. Payungsak Chartsutipol was re-elected as an independent director at the 2018 Annual General Meeting of Shareholders (AGM), convened on April 3, 2018, effective as of April 3, 2018, and was re-appointed Chairman of the Audit Committee and Chairman of the Risk Management Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (2) Mrs. Suvimol Chrityakierne was elected an independent director (an additional position to the Board) at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Audit Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (3) Mrs. Nicha Hiranburana Thuvatham was elected an independent director to replace Ms. Panada Kanokwat, whose term completed at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Corporate Governance Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (4) Mr. Wittawat Svasti-Xuto was appointed a director and a Member of the Risk Management Committee to replace Mr. Chansin Treenuchagron, a resigned director, in the Board of Directors Meeting No.8/2018 convened on September 19, 2018, effective as of September 19, 2018.
- (5) Mr. Bandhit Thamprajamchit was elected a director to replace Mr. Somchai Wongwattanasan, whose term completed at the 2018 AGM, convened on April 3, 2018, effective as of April 3, 2018, and was appointed Member of the Corporate Governance Committee in the Board of Directors Meeting No. 4/2018, convened on April 25, 2018, effective as of April 25, 2018.
- (6) Mr. Chawalit Tippawanich was appointed Director, Secretary to the Board, Member of the Risk Management Committee, and President and Chief Executive Officer to replace Mr. Toemchai Bunnag, a resigned director, in the Board of Directors Meeting (Additional Meeting) No.6/2018, convened on September 19, 2018, effective as of October 1, 2018.
- (7) Ms. Panada Kanokwat completed her directorship term at the 2018 AGM on April 3, 2018.
- (8) Mr. Somchai Wongwattanasan completed his directorship term at the 2018 AGM on April 3, 2018.
- (9) Mr. Chansin Treenuchagron's resignation was effective on August 31, 2018.
- (10) Mr. Toemchai Bunnag's resignation was effective on September 28, 2018.
- (11) The 2017 annual bonus was approved in the 2018 Annual General Meeting of Shareholders which was paid to the directors on May 2, 2018.

Executive Remuneration

The remuneration of executive officers of all levels is considered in accordance with Key Performance Indicators (KPIs), jointly defined by the Board of Directors, the President and Chief Executive Officer, and top executives, comprising Stakeholder Perspective, Internal Process Perspective, and Learning & Growth Perspective which includes both short-term and long-term corporate performance to make sure that the remuneration is aligned with short-term and long-term corporate performance. Each executive is assigned specific KPIs that corresponded with their roles and responsibilities. Each year, the Board of Directors considers a salary adjustment for the President and Chief Executive Officer, and the President and Chief Executive Officer considers salary adjustments for top executives based on their performance. All such salary adjustments shall be conducted in accordance with the criteria prescribed by GPSC.

Monetary remuneration

- Monetary remuneration for the executives who are not directors is as follows :

	2018
Number of persons	18
Remuneration (THB)	62,048,040

Other remuneration

- Other monetary remuneration such as provident funds and others is as follows :

	2018
Number of persons	18
Remuneration (THB)	35,324,082.49

● Chairman ◆ Director ✦ Highest-Ranking Executive ✦ Executive



Government	Percentage
Current government	85%
Previous government	15%



CORPORATE GOVERNANCE



Good Corporate Governance Policy And Code Of Business Conduct

Global Power Synergy Public Company Limited (GPSC) has operated in adherence to principles of good corporate governance and code of business conduct to ensure that in its advancement towards success and business growth, its business is still characterized by good governance, transparency, and responsibility towards each stakeholder group.

Good Corporate Governance Policy

The Board of Directors has prescribed the good corporate governance policy to guide GPSC's personnel at all levels in their operation as follows.

1. The Board of Directors, executives, and employees shall commit themselves to adhering to the following six principles of good corporate governance.



- **Accountability** Responsibility towards one's decisions and actions and the ability to provide explanations for such decisions
- **Responsibility** Responsibility towards fulfilling one's duties with competency and efficiency
- **Equitable Treatment of Stakeholders** Treating stakeholders equally with fairness and reasons
- **Transparency** Openness and accountability in business operations and information disclosure
- **Vision to Create Long Term Value** Vision for the creation of long-term added value for GPSC
- **Ethics** Integrity and ethical principles in business operations and a management structure that

promotes fairness in the relations among the Board of Directors, executives, and shareholders

2. The Board of Directors shall fulfill its duties with dedication, responsibility, and independence and shall clearly separate the roles and responsibilities between the Chairman of the Board and the President and Chief Executive Officer.
3. The Board of Directors shall play a significant role in determining GPSC's vision, strategies, policies, and key plans while taking into consideration risk factors and preparing appropriate management of such risks and ensure the reliability of the accounting system, financial statements, and the auditing.
4. The Board of Directors shall serve as a role model of integrity and adherence to GPSC's good corporate governance policy as well as oversee the management of conflicts of interest and connected transactions.
5. The Board of Directors may appoint Sub-Committees as deemed appropriate to review significant matters.
6. The Board of Directors shall perform self-assessment on an annual basis to serve as a framework for examining the performance of the Board of the Directors.
7. The Board of Directors shall define GPSC's code of business conduct to be adopted as guidelines by the Board of Directors, executives, and employees at all levels in tandem with GPSC's rules and regulations.
8. The Board of Directors shall oversee sufficient, reliable, and timely disclosure of information on financial and non-financial matters so as to ensure equal access to GPSC's information among shareholders and stakeholders as well as put in place public relations and investor relations divisions to be responsible for information disclosure for investors and the general public.
9. The Board of Directors shall oversee an appropriate, transparent, and fair talent acquisition and selection system to recruit personnel for executive positions at all levels.
10. The Board of Directors shall implement an effective anti-corruption system to ensure that the management gives precedence to anti-corruption and adhere to anti-corruption measures.
11. Shareholders shall receive equitable treatment, enjoy the right to access GPSC's information, and have appropriate channels for communication with GPSC.

In addition to the aforementioned policy, the Board of Directors has also defined five categories of good corporate governance principles, comprising rights of shareholders, equitable treatment of shareholders, role of stakeholders, disclosure and transparency, and responsibilities of the Board of Directors.

Code of Business Conduct

The Board of Directors has formulated GPSC's code of business conduct, describing standards of behavior and conduct that GPSC's personnel at all levels should adopt in carrying out business operations and performing their duties. In 2018, the code of business conduct has been improved, real-life situations and case studies are added to set clearer guidelines for GPSC's personnel.

GPSC's code of business conduct comprises 15 categories as follows.

1. Compliance with laws and human rights
2. Anti-Money laundering
3. Political support

4. Conflict of interest
5. Confidentiality and use of inside information
6. Treatment of customers and consumers
7. Treatment of business competitors
8. Procurement and treatment of business partners
9. Communities, social, and environmental responsibility
10. Treatment of employees
11. Treatment of creditors
12. Internal control and internal audit
13. Receiving and offering of gifts and other benefits
14. Safety, health, and environment
15. Intellectual properties and use of ICT

The details and guidelines of the principles of good corporate governance and GPSC's code of business conduct are available in the Corporate Governance and Code of Conduct Manual 2016 which is publicized on GPSC's website, accessible to the general public. The revised edition of the manual is being reviewed and communicated to executives and employees. GPSC will publicized the revised manual on GPSC's website once fully completed.



Good Corporate Governance in Action

1. Rights of Shareholders and Equitable Treatment of Shareholders

GPSC has treated every shareholder with respect and equity. The summary of its operations in 2018 is as follows.

1) The 2018 Annual General Meeting of Shareholders

The 2018 Annual General Meeting of Shareholders (AGM) was held on April 3, 2018 at Bangkok Convention Center, 5th Floor, Central Plaza Ladphrao. GPSC provided the shareholders convenience in attending the AGM as follows :

Pre-Meeting

- GPSC shareholder(s), which can be either one shareholder or combined shareholders, holding not less than one percent of the total voting rights of GPSC, were invited to propose agenda items and nominate director candidates from October 1 to December 31, 2017 (at least three months prior to the date of the AGM). The selection criteria and processes were published on GPSC's website
- The resolutions of the Board of the Directors on the AGM date and agenda items as well as the record date to determine the shareholders entitled to attend and vote in the AGM and receive the dividend were published through the SET's Digital Disclosure System as soon as the resolutions were reached on February 12, 2018.
- The invitation notice, both in Thai and English, meeting documents, and proxy forms were made available on GPSC's website on March 2, 2018(30 days prior to the AGM) and delivered to shareholders via post on March 13, 2018 (21days prior to the AGM) to allow sufficient time for shareholders to study the information for the AGM. Foreign shareholders were given the English version of the documents.
- Shareholders unable to attend the meeting were invited to appoint a proxy or grant proxy to independent directors to attend the meeting and vote in their lieu. Proxy Form B. (in which shareholders could cast their votes) is encouraged and was enclosed with the invitation notice sent via post to every shareholder.

- Shareholders were invited to submit inquiries about AGM attendance and the agenda prior to the meeting. The channels for inquiries were disclosed in the invitation notice.
- For institutional investors, GPSC contacted their representatives to provide information for institutional investors on the preparation of accurate and complete documents prior to the meeting.

Meeting

- The AGM was held at Bangkok Convention Center, 5th Floor, Central Plaza Ladphrao, which was accessible via various public transport and spacious enough to accommodate all attending shareholders.
- Sufficient staffers were stationed at the venue to welcome and assist shareholders with the registration and document examination. In addition, revenue stamps were prepared to ensure convenience for proxies during the document examination process.
- An IT System (Shareholder Meeting System) was employed for registration, vote counting, and result displaying processes. The technology expedited the meeting as well as ensured accuracy.
- The rules and regulations of the meeting as well as the voting procedure were announced prior to the meeting commenced.
- Voting tickets were employed for every agenda item. For director election, the shareholders were eligible to vote each director separately.
- Independent legal counselors and shareholder representatives were invited to witness the vote counting. After the meeting was concluded, no dispute over the vote counting was lodged.
- The Chairman of the meeting encouraged and invited inquiries and free expression of opinions of shareholders as well as oversaw that all inquiries were addressed.
- The meeting was conducted in accordance with the agenda detailed in the invitation notice, and no agenda item was added.

Post-Meeting

- The resolutions of the AGM were published through the SET's Digital Disclosure System, along with the results and the numbers of votes (approval, disapproval, and abstention) for each resolution.
- The minutes, which identified the list of directors and top executives attending the meeting, the information presented by the directors, inquiries and answers, and the voting result of the shareholders for each resolution, were submitted to SET and published on GPSC's website within 14 days from the date of the AGM.

2) Conflicts of Interest by Director and Executives

GPSC has stipulated that its directors and executives shall declare any vested interest of their own and their related persons so that the Board of Directors may consider transactions potentially involving conflicts of interest and make decisions in the interest of GPSC. Any directors and executives with conflicts of interest in such transactions of GPSC shall take no part in any decision-making for those transactions. In 2016, the Board of Directors approved the implementation of the Report of Interest for directors, executives, and related persons (revised version) and the criteria of interest reporting which comprises first report, report in changes of interest, and yearly report.

3) Shareholders' Site Visit

GPSC has attached utmost significance to the roles of stakeholders, from shareholders, investors, associated government agencies and other relevant agencies, employees, business partners, suppliers, contractors, customers, as well as society and communities. To this end, GPSC has defined its policy on the roles of stakeholders in its corporate governance manual and code of business conduct and published its operations relevant to its stakeholders in GPSC's 2018 Sustainability Report.

2. Roles of Stakeholders

GPSC has attached utmost significance to the roles of stakeholders, from shareholders, investors, associated

government agencies and other relevant agencies, employees, business partners, suppliers, contractors, customers, as well as society and communities. To this end, GPSC has defined its policy on the roles of stakeholders in its corporate governance manual and code of business conduct and published its operations relevant to its stakeholders in GPSC's 2018 Sustainability Report.



1) Anti-Corruption

GPSC operates its business with integrity, transparency, and responsibility towards the society and all stakeholders, as well as not tolerating all forms of corruption. In 2018, GPSC became a certified member of the Collective Action Coalition of Thailand's Private Sector Collective Action Coalition against Corruption: CAC)

GPSC's Anti-Corruption Policy

Definition

"Corruption" is defined as any act of bribery in all forms:

1. Offering / providing / promising to offer
2. Accepting / requesting

of money, assets, or other inappropriate benefits, either directly or indirectly, given to governmental or private officers or responsible individuals so that such individuals perform or refrain from performing their duty so as to deliver or preserve the business or other undue business interest, except when such an act is in compliance with laws, rules, regulations, local customs and traditions, and business customs.

Roles and responsibilities

In addition to strict compliance with the company's policies, guidelines, and measures, the roles and responsibilities of the Board of Directors, the Sub-committees, and the executives defined by the company are as follows:

The Board of Directors

- Formulate policies and perform supervisory roles to ensure that GPSC has an efficient anti-corruption system in place so as to ensure that the executives recognize the significance of anti-corruption practices, place emphasis on them, and cultivate them into the organizational culture of the company
- Comply with anti-corruption measures, with penalties imposed for non-compliance

The Corporate Governance Committee

- Formulate compliance frameworks for anti-corruption related operations of GPSC
- Prescribe and review anti-corruption policy; offer recommendations and guidance; monitor and assess anti corruption related operations

The Audit Committee

- Supervise internal control, financial statement reporting, and other anti-corruption related processes as well as oversee compliance with anti-corruption measures
- Review relevant measures and internal control to ensure anti-corruption measures are sufficient and efficient

- Review risk management and suggest practices that should be adopted to reduce risks to the Board of Directors, which the Board shall implement
- Report results of internal control auditing relevant to the company's anti-corruption measures to the Board of Directors on a regular basis and offer recommendations to the Board of Directors and the Executives.

The Risk Management Committee

- Supervise and promote anti-corruption related risk management as well as assess corruption risks and review anti-corruption measures to ensure sufficiency and appropriateness

The Executives

- Prescribe corruption risk assessment of operations with corruption risks
- Prescribe processes that support and promote anti-corruption policy and communicate the policy to employees and all relevant parties
- Implement anti-corruption policies and preventive frameworks across the organization
- Review the appropriateness of processes and standards to ensure correspondence with changes in business, laws, rules, and regulations

Guidelines

The company shall not tolerate any form of corruption, both direct and indirect, and prescribes that GPSC personnel actively follow the company's anti-corruption policy, as detailed below.

1. GPSC personnel must not accept or offer gifts, assets, or other benefits to another GPSC employee or an external party except for business purposes and in compliance with local customs only, in which case the gift must be in an appropriate price range and does not significantly influence any decision-making.
2. GPSC personnel must maintain impartiality and must not offer political contributions, as stipulated in GPSC Business Code of Conduct. They must not support or perform any act that supports a political party, either directly or indirectly, nor use the company's resources to organize activities that undermine the

company's political neutrality and/or cause damage to the company through involvement.

3. Corruption risk assessment and internal control must be regularly maintained to ensure effectiveness and suitability for corruption prevention. Risks in corruption - prone operations must be reviewed and assessed at least once per year.
4. The company must put in place inspection processes for systems and procedures for sales, marketing, procurement, and contract making as well as prescribe guidelines for the assessment of anti-corruption policy compliance.
5. Transparent and accurate financial reporting mechanisms of international accounting standards must be put in place.
6. The company must prescribe an archiving procedure to ensure that documents and records are readily available for inspection in verifying the accuracy and appropriateness of financial statements and that there is no unreported, unaccountable, or false item.
7. Any charitable donation or sponsorship granted by the company must be inspected, approved, and reviewed, with clear documentation in line with the company's regulations to ensure that the donation and sponsorship is a pretext for corruption.
8. The company's human resources management must reflect its commitment to anti-corruption measures. The company must also educate its employees on the anti-corruption policy and relevant practices as well as provide continuous communication and training to foster a clear understanding of the anti-corruption policy and practices as well as disciplinary actions for non-compliance.
9. The company must communicate its anti-corruption policy and practices to its subsidiaries, joint ventures, companies where it has a controlling interest, suppliers, stakeholders, and the general public via various channels such as the company's website and annual reports.
10. The company must provide communication channels for its personnel to submit reports, suggestions, and complaints related corruption as well as protect

whistle-blower protection measures in accordance with its whistleblowing and complaints handling policy.

11. The company must comply with relevant anti-corruption laws of Thailand and other countries where it conducts business.
12. The management is responsible for reporting the implementation results of anti-corruption measures to the Corporate Governance Committee and the Board of Directors on a regular basis, at least once per year.
13. Relevant internal control units can promptly report detected issues to the Audit Committee as well as President and Chief Executive Officer, to be subsequently reported to the Board of Directors.

Anti-Corruption in Action in 2018

- GPSC prescribe its proper internal control measure for actions against bribing government agency's officers, according to the announcement of the National Anti-Corruption Commission.
- GPSC became a certified member of the Collective Action Coalition of Thailand's Private Sector Collective Action Coalition against Corruption: CAC) on June 7, 2018
- GPSC announces its No-Gift Policy, along with related messages from the President and Chief Executive Officer to its business partners on its website www.gpscgroup.com
- GPSC participates an academic seminar on Anti- Corruption on September 6, 2018
- GPSC participates the International Anti- Corruption Day : Zero Tolerance of Corruption on December 7, 2018
- Anti-Corruption Trainings In 2018, Anti-Corruption trainings was provided for GPSC's stakeholder which are directors, management, employees, representatives from subsidiaries, and business partners. The training topics cover Anti-Corruption policy, Whistle-Blowing Policy, and No-Gift Policy. The participants also sign as acknowledgement form of Anti-Corruption policy. The details are as follows:

- **Management and Employees**

GPSC CG Day 2018, on November 28, 2018, at Banquet room, 5th Floor, Energy Complex Building C

- **Supplier**

Supplier Relationship Seminar 2018, on November 22, 2018, at PTT's Conburi Operation Center

2) Whistle-Blowing

GPSC's stakeholders are encouraged to file complaints which fair treatment and protection are in place for the whistle-blowers. Whistle-Blowing and Complaints Handling Policy Whistleblowing and Complaints Handling Policy Every stakeholder may report cases of corruption,

violation of laws, non-compliance with the code of conduct, damage from human rights violations, and others through the following channels:

Complaints channels

- **Mail Address**

Address : Global Power Synergy Public Company Limited 555/2 Energy Complex Building B, 5th Floor, Vibhavadi-Rangsit Road, Chatuchak Sub-D istrict, Chatuchak District, Bangkok 10900

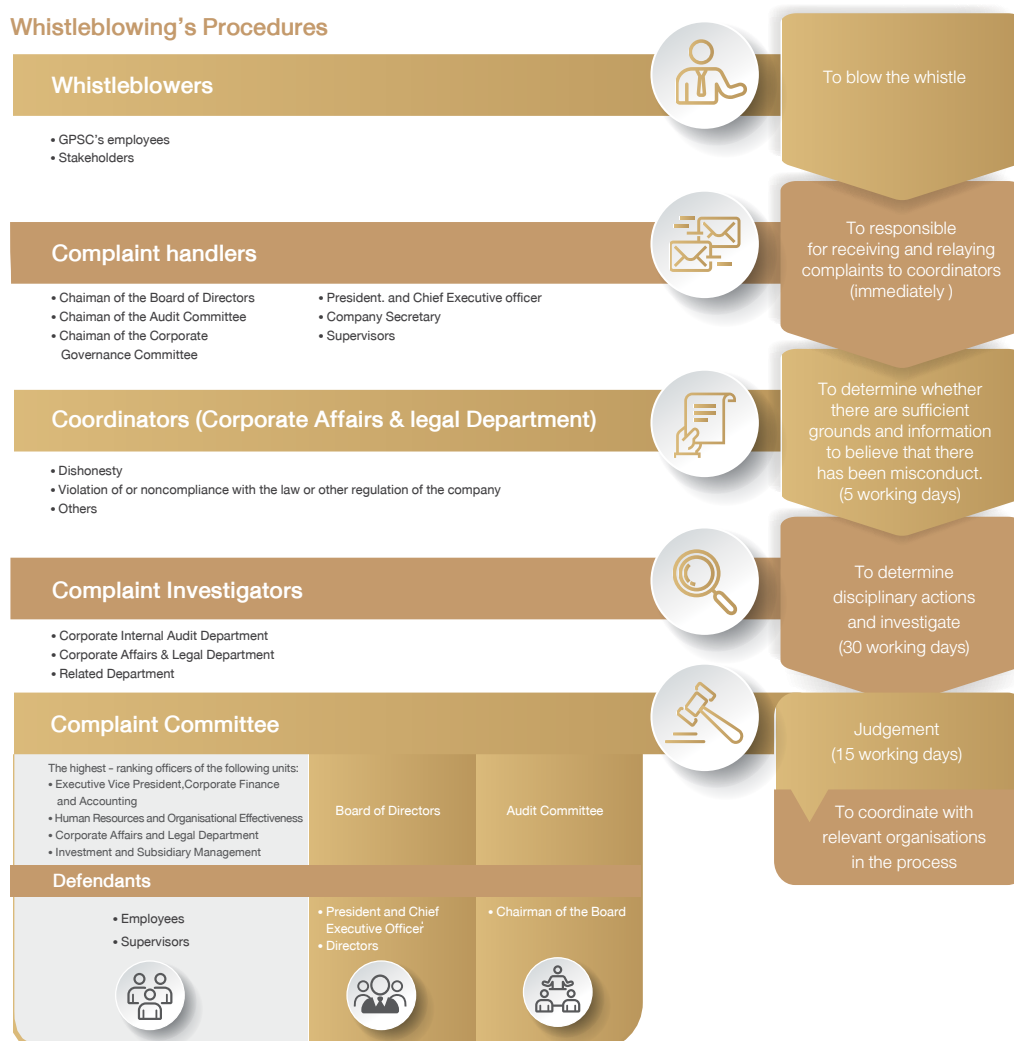
- **E-mail Address**

compliance_cg@gpscgroup.com

- **Website**

<http://www.gpscgroup.com/th/cg/whistle-blowing>

Whistleblowing's Procedures



Remarks:

The total of Whistleblowing's procedure is 50 working days. The processing period may be extended by no more than 30 days if deemed appropriate by the Complaint Committee.

Protection of whistleblowers and related parties

- The complaints can be filed anonymously however, facts and evidence about individuals provided must constitute sufficient grounds to believe that a violation of laws, rules, regulations, orders, notifications, or code of business conduct of the company has been committed.
- Whistleblowers will receive appropriate protection from changes in positions, job descriptions, or working conditions, as well as employment suspension, threats, employment termination, or other treatments that are abnormal or unfair to them.
- Any individual apprised of the complaint or other information related to the complaint according to this policy shall keep the complaint and all related information confidential and not disclose it to another party to ensure the safety and protection of the whistleblower, information sources, or related parties, except the disclosure is required by the procedure of this policy or the law.

Penalty

Any individuals, either intentionally or by negligence, do not comply with this policy as well as harass, threaten, impose undue disciplinary actions on, or discriminate against the complainants or individuals involved in the complaint filing in accordance with this policy will be considered to have committed an offense and will need to compensate the company or affected individuals as well as assume civil and criminal liabilities or bear any relevant legal consequences.

In 2018, GPSC received one complaint. The matter has been handled according to GPSC's Whistle-Blowing procedures

3. Disclosure and Transparency

1) Information Disclosure

GPSC disclosed its material information, comprising its financial and non-financial reports as required by SEC and SET, as well as other associated information such as the activities of the Board of Directors and the Sub-committees, policies on corporate governance and corporate social responsibility, and compliance with such policies. The Board of Directors placed emphasis on the accuracy and completeness of the financial statements, and the disclosed information were verified by independent auditors to ensure the statements were accurate, not misleading, and sufficient for investor decisions. In addition, GPSC also issued a Management Discussion and Analysis (MD&A) along side the quarterly financial statements so that investors are better informed and understood changes in GPSC's financial statements and performance in each quarter more thoroughly in comparison to having the financial statements alone.

2) Investor Relations

The company has attached utmost significance to disclosure of material information to investors as it recognizes that accurate and equal information is vital to investment decisions. As such, Investor Relations Division has been formed to serve as a disclosure center of material information, financial statements, and information disclosed to the SET. To this end, the company's management has pursued strategies that place emphasis on sufficient, accurate, reliable, up-to-date, and fair information disclosure, in accordance with the criteria prescribed by SEC and SET. In addition, the company has organized Investor Relations activities to present the company's performance as well as activities aimed at fostering relations and creating an understanding of the company's operation among institutional and non-institutional investors, both domestic and overseas, to inform investment decisions, which will create an appropriate shareholder structure and ultimately lead to stability and liquidity of the prices of the company's securities.

In the previous year, the Investor Relations Division executed strategies to develop its information disclosure to investors and analysts by means of various documents such as the Management's Discussion and Analysis (MD&A), analyst presentations, and investor notes to ensure sufficient, complete, accurate, and ready-to-use information on the company's performance and financial positions for investors and analysts as well as to reflect

accurate the prices of the company's securities. Other information of materiality is published on the company's website at www.gpscgroup.com both in Thai and English. Any investor with inquiries may contact the company via its website or contact Investor Relations Division Telephone Number +66 (0) 2140-4628, +66 (0) 2140-4630, +66 (0) 2140-4691, +66 (0) 2140-5318, +66 (0) 2140-4715, E-mail: ir@gpscgroup.com.

Key Activities in 2018

Activity	Frequency in 2018
Roadshow in Thailand	14
Roadshow Abroad	3
Analyst Meeting	4
Company Visit / Conference Call	10
Roadshow with SET / other institutions	5
Institutional Investors Site Visit	1
Shareholders Site Visit	1

4. Responsibilities of the Board

1) Good Corporate Governance and Code of Business Conduct

The Board of Directors has implemented good corporate governance policy and its code of business conduct. The Board has assigned the management team to promote compliance through trainings and regular communication as well as assigned the Corporate Governance Committee to monitor the operation.

2) Specification of Policies, Directions, Business Strategies, and Key Performance Indicators

- In 2018, the Board of Directors reviewed and specified the policies, directions, and business strategies of GPSC as well as reviewed GPSC's vision, mission, and goals.
- In 2018, the Board of Directors approved GPSC's Key Performance Indicators (KPIs) both financial aspects and non-financial aspects, in accordance with the Balanced Scorecard. The indicators included Financial Perspective (EBITDA and net profit),

Stakeholder Perspective (Customers, Community, and Investors' satisfaction), Internal Process Perspective, and Learning & Growth Perspective (Employee Engagement and Employee Capability).

3) Orientation of New Directors

GPSC organized an orientation for new directors prior to their first Board of Directors' Meeting so as to inform them of GPSC's business policies and relevant information such as the nature of the business, business strategies, organizational structure, shareholding structure, operating results, good corporate governance, and the code of business conduct, as well as laws and regulations beneficial to their role as GPSC's directors.

4) Director Development

It is GPSC's policy to encourage its directors to continuously develop themselves to enhance their efficiency in fulfilling their duties. The trainings attended by GPSC's directors were as follows.

Directors' Training Record with Thai Institute of Directors (IOD)

No.	Name-Surname	DCP	DAP	RCP	ACP	AACP	RCL	RCC	Others
1.	Mr. Surong Bulakul	121/2009							
2.	Mr. Kurujit Nakornthap		64/2007		32/2010			12/2011	
3.	Mr. Payungsak Chartsutipol		SCC/2004				3/2016		
4.	Maj.Gen. Chaowalek Chayansupap	217/2016							
5.	Mrs. Suvimol Chrityakierne	92/2007			36/2011	7/2017			ELP 10/2017 R-DF 1/2010
6.	Mrs. Nicha Hiranburana Thuvatham								
7.	Mr. Wittawat Svasti-Xuto	146/2011							FSD 12/2011
8.	Mr. Supattanapong Punmeechaow	131/2010		30/2013					
9.	Mr. Atikom Terbsiri	125/2009		41/2017			4/2016		
10.	Mr. Kongkrapan Intarajang	119/2009		21/2009					
11.	Ms. Peangpanor Boonklum								
12.	Mr. Bandhit Thamprajamchit	187/2014							
13.	Mr. Chawalit Tippawanich	152/2011							

DCP : Director Certification Program

DAP : Director Accreditation Program

RCP : Role of the Chairman Program

ACP : Audit Committee Program

AACP : Advanced Audit Committee Program

RCL : Risk Management Program for Corporate Leaders

RCC : Role of Compensation Committee

ELP : Ethical Leadership Program

R-DF : R-DF-Director Forum

FSD : Financial Statements for Directors

Additional Directors' Training Record in 2018

- Mr. Supattanapong Punmeechaow : Business Revolution and Innovation Network (BRAIN) Program, 2/2018, The Federation of Thai Industries
- Mr. Kongkrapan Intarajang : The National Defence Course (Batch 60), National Defence College
- Ms. Peangpanor Boonklum : Certificate in Anti-Corruption Strategic Management for Senior Executives, Class 9/2018, Office of the National Anti-Corruption Commission and Milbank@Harvard Corporate Counsel Program, Harvard Law School, Cambridge, Massachusetts, United States of America
- Mr. Bandhit Thamprajamchit : Capital Market Academy Leader Program (Batch 27), Capital Market Academy
- Mrs. Suvimol Chrityakierne, Mrs. Nicha Hiranburana Thuvatham, Mr. Bandhit Thamprajamchit, Mr. Wittawat Svasti-Xuto, Mr. Chawalit Tippawanich : GPSC's director orientation program

5) Self-Assessment of the Board of Directors and the Sub-Committees of 2018 Assessment Process and Criteria

In 2018, the Board of Directors, with recommendation from the Corporate Governance Committee approved assessment criteria and assessment forms which composed of the Board of Directors assessment form, Individual director assessment forms (self-assessment and assessment of other directors), Sub-committee assessment forms (the entire committee) for the four sub-committees, and Sub-committee assessment forms (individual member) for the Audit Committee

Assessment scales: the percentages represent the assessment results as follows :

Over	85%	=	Excellent
Over	75%	=	Very Good
Over	65%	=	Satisfactory
Over	50%	=	Good Under
Below	50%	=	Poor

The Company Secretary team then distributed these assessment forms to the directors to complete and return to the company to analyze the results. Subsequently, the assessment results were reported to the Board of Directors' Meetings to inform future improvements.

Assessment Result

1. **The Board of Directors assessment**
comprises 5 topics which are 1) Composition and qualification of the Board 2) Policy of the Board 3) Roles, duties, and responsibilities of the Board 4) Meeting of the Board 5) Self - development of the board
 - **Assessment result : "Excellent" (88.76%)**
2. **Individual director assessment (self-assessment and assessment of other directors)** comprises 6 topics which are
 - 1) Accountability
 - 2) Responsibility
 - 3) Equitable treatment of stakeholders
 - 4) Transparency
 - 5) Vision to create long- term value
 - 6) Ethics
 - **Assessment result (self-assessment) : "Excellent" (96.01%)**
 - **Assessment result (assessment of other directors) : "Excellent" (96.19%)**

3. Sub-committees assessment

3.1) Sub-committee assessment forms (the entire committee) for the four sub-committees comprises 3 topics which are 1) Composition and qualification of the committee 2) Meeting of the committee 3) Roles, duties, and responsibilities of the committee

- **Assessment result (Audit Committee) : "Excellent" (100.00%)**
- **Assessment result (Nomination and Remuneration Committee) : "Excellent" (99.44%)**
- **Assessment result (Corporate Governance Committee) : "Excellent" (92.22%)**
- **Assessment result (Risk Management Committee) : "Excellent" (86.57%)**

3.2) Sub-committee assessment forms (individual member) for the Audit Committee comprises 6 topics which are 1) Business knowledge 2) Expertise 3) Roles, duties, and responsibilities 4) Independence and fairness 5) Understanding of duties and accountability 6) Commitment to the roles

- **Assessment result : "Excellent" (98.24%)**

6) **Assessment of the President and Chief Executive Officer**

In 2018, the Board of Directors arranged the performance assessment of the President and Chief Executive Officer, taking into consideration two main factors as part of the criteria, namely the performance in relation to the Key Performance Indicators (KPIs) and the management ability and leadership. Informed by a careful review by the Nomination and Remuneration Committee, the Board of Directors conducted a performance assessment and determined the remuneration of the President and Chief Executive Officer using the aforementioned criteria in tandem with the self-assessment of the President and Chief Executive Officer.

7) **Succession Management**

GPSC has devised a succession planning system for key positions, in which a list of individuals with potential for executive positions is compiled before they are assessed for their capacity as executives on competency and personal attributes. Subsequently, the assessment results are utilized to create Individual Development Plans (IDPs) so as to prepare these individuals for succession either by taking office left vacant by retirement or filling new positions created with future expansion of the business. The progress of succession planning is constantly being reported to the executives. In 2018, 20 executives were assessed and provided with IDPs, and more executives will be assessed in the near future.

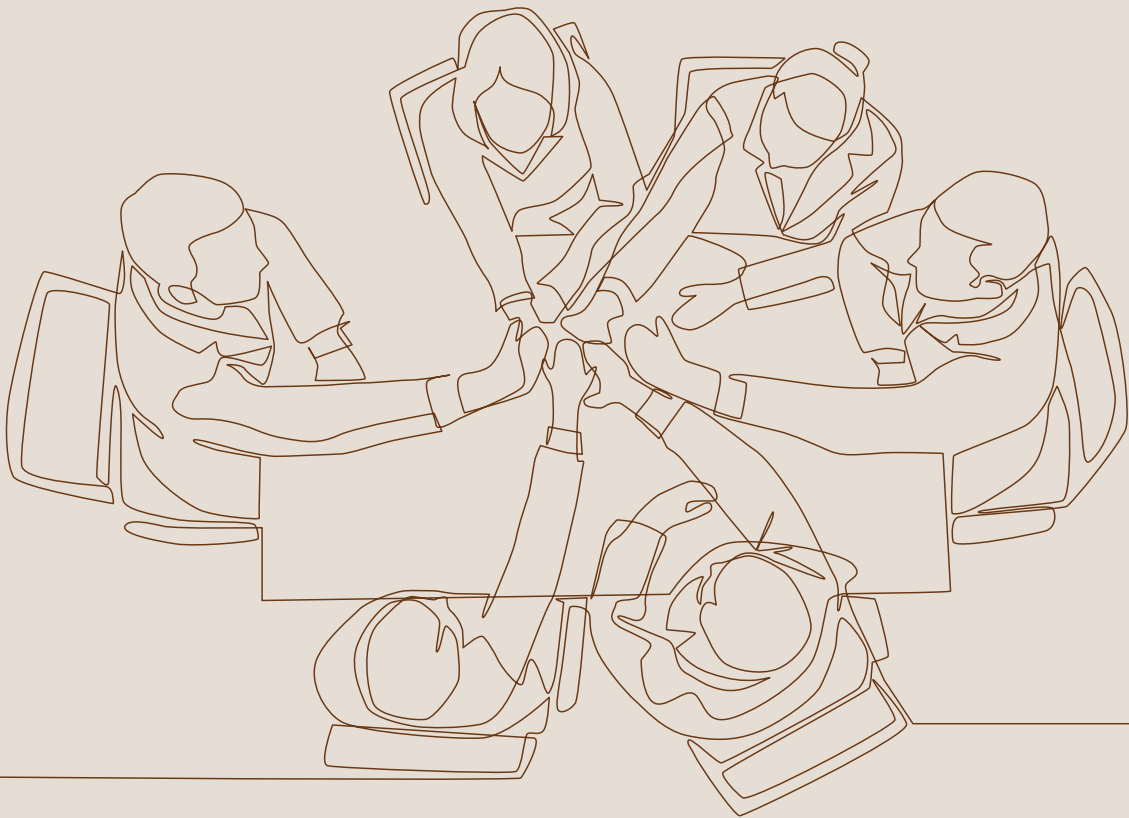
8) **Policy on Holding Directorship in Other Companies by the President and Chief Executive Officer**

The Board of Directors has determined that the President and Chief Executive Officer may hold directorship in other companies in which GPSC is a shareholder in order to ensure the uniformity and efficiency of their operations. For listed companies, the President and Chief Executive Officer may hold directorship in no more than five companies listed on SET, in accordance with GPSC's good corporate governance guidelines. As for other companies, organizations, or juristic persons, the Board of Directors has approved in principle that GPSC's directors, the President and Chief Executive Officer, and other personnel may take office in another company, organization, or juristic person so that GPSC would have a systematic review procedure.

- **Guidelines for Office Holding in Other Companies, Organizations, and Juristic Persons**

- 1) In case the highest-ranking executive of GPSC is appointed by a royal command or appointed by the Cabinet by legal authority to any office beyond his or her roles and responsibilities in GPSC, the President and Chief Executive Officer shall inform the Board of Directors on which he or she serves of such an appointment, either by a royal command or by the Cabinet.
- 2) In case the highest-ranking executive of GPSC is appointed by a governmental agency, a state enterprise, an independent organization, or a governmental educational institution as a director, subcommittee member, working team member, expert, advisor or to any office beyond his or her roles and responsibilities in GPSC, the President and Chief Executive Officer shall inform the Board of Directors to obtain acknowledgment and opinions prior to the appointment.
- 3) In case the highest-ranking executive of GPSC is taking office as a director, subcommittee member, working team member, expert, advisor or taking any office in a company or any other juristic person not defined in Item 2) and beyond his or her roles and responsibilities in GPSC, the President and Chief Executive Officer shall obtain the opinion of the Board of Directors on which he or she serves prior to accepting such an office.
- 4) For executives and employees who are not the highest-ranking executive of GPSC, in case specified in Items 1), 2), or 3), that individual shall inform the meeting of the Management Committee (MC) to obtain acknowledgment and approval on a case-by-case basis prior to accepting such an office.





THE SUB-COMMITTEES

The Audit Committee

As of December 31, 2018, the Audit Committee comprises three members as follows.

No.	Name-Surname	Position
1.	Mr. Payungsak Chartsutipol	Chairman (independent)
2.	Mrs. Suvimol Chrityakierne	Member (independent)
3.	Maj. Gen. Chaowalek Chayansupap	Member (independent)

Mrs. Suvimol Chrityakierne has adequate expertise and experience to review creditability of the financial reports. Ms. Attayar Sukotang, Vice President, Corporate Internal Audit is serving as the Secretary to the Audit Committee.

Composition of the Audit Committee

The Audit Committee shall be composed of one Chairman and no fewer than two but no more than four members. Each member of the committee must be an independent director and possess qualifications related to independence as stipulated in notifications of Securities and Exchange Commission (SEC) regarding qualifications and scope of responsibilities of an audit committee. In addition, at least one member of the committee must possess expertise and experience in finance and accountancy so as to be able to review the reliability of financial statements.

Roles and Responsibilities of the Audit Committee

1. Consider the Audit Committee Charter to conform with the scope of responsibility and communication to the Board of Directors, then review the appropriate and correctness of the Charter at least once a year.
2. Complete and review financial reports :
 - 2.1) Review the process of financial audits, financial status, and essential evidence and facts in order to ensure that they are credibly, correctly, and sufficiently illustrating the financial statements of the company, and that the company complies with accounting standard and other relevant laws.
 - 2.2) Consider, recommend the selection, appoint, disemploy as well as suggest the remuneration of

external auditors in order to propose them to The Board of Directors for consideration before approval by Annual General Meeting (AGM). In addition, the Audit Committee should hold the meeting at least once a year with the external auditors without any participation of management or other person.

- 2.3) Support the independence of external auditor and suggest the suitability of external auditors.

3. Internal control :

- 3.1) Review to ensure that the internal control systems, internal audit systems, and risk management of the company are efficient and effective, as well as to regulate appropriately the conforming the standard of Internal Audit.
- 3.2) Guide and give any advice to management to improve processes and the working system effectively in order to reduce any risk factors and report the correctness of financial statements.
- 3.3) Advice the set-up policy of good governance, to ensure that the assessment of all the actions comply with good governance policy.
- 3.4) Review operational procedures and company management to ensure that the company has operated correctly by policies, compliance, requirements, announcements, work procedures, and relevant laws.

- 3.5) Review and suggest a process for complaints and the whistle blowing policy.
4. Internal Audit :
- 4.1) Review to ensure that the internal audit system is appropriate and efficient, and that the internal audit department complies with the standard of internal audit, as well as considering the quantity of human resources, budgets, and the independence of the Internal Audit Department.
- 4.2) Set the scope of internal auditing and review auditing plan, as well as considering the approval of annual audit plans, and revising plans (if the internal audit department proposes this) including the examination of the report of audit activity.
- 4.3) Consider and assess the performance of the Chief of the Internal Audit Department.
- 4.4) Review and consider to appoint, transfer, and remove the Chief of the Internal Audit Department.
- 4.5) Review and approve the Internal Audit Charter.
- 4.6) Corporate understanding among the Audit Committee, the Management, the Internal Audit Department, and external auditor with the same direction, including the consideration of the scope of the external auditor's responsibilities that would support the internal audit and vice versa.
5. Compliance with the law and other relevant regulations :
- 5.1) Review compliance with the law on securities, the stock exchange of Thailand, the regulations of the stock exchange of Thailand, and other laws relevant to the business of the company.
- 5.2) Review the effect of related transactions or conflicts of interest or the possible corruption to the company that complies with the law and regulations of the Stock Exchange of Thailand in order to ensure that a transaction is reasonable and of the utmost benefit to the company.
- 5.3) Review the Audit Committee Charter at least once a year and propose it to the Board of Directors for approval.
- 5.4) The Audit Committee should conduct self-assessment, then report the result with problems or obstacles if the work was unsuccessful to the Board of Directors annually.
6. Reporting
- 6.1) The Board of the Audit committee report must be exposed and published on the company's annual report signed by the chairman of the Audit Committee. The report is detailed as follows:
- Committee's advice in the case of the utmost credibility and accuracy of company's financial status.
 - Committee's advice in the case of the effectiveness of the internal control system.
 - Committee's advice of the company's compliance with law on the policy of the Stock Exchange of Thailand, regulations of the stock exchange, and other relevant laws of company business.
 - Committee's advice in the case of the suitability of the Auditor's selection.
 - Committee's advice in the case of the possible incident of a conflict of interest.
 - The quantity of meeting arrangements and the frequency of Audit Committee's participation in meetings.
 - The comments of the Audit Committee regarding the compliance with the Audit Committee Charter.
 - The regulations that Shareholders and common investors should know according to The Board of Director's scope of responsibility.
7. Other duties :
- 7.1) Seek independent specialist experts in order to help review some issues continuously and most effectively to propose them to the Board of Directors for approval at the expense of the company. However, the process of employment should comply with the company's regulations. In addition, the Board of Directors is authorized to assign a team to support the Audit Committee's activities.

- 7.2) In the case that the Audit Committee has received a report from internal auditors about any unusual action against compliance, work procedures, policies, company announcements, company direction, a report to the management can be made in order to consider and take action by responsibility department.

In case that the Audit Committee has received a report from the internal auditors about any unusual items or actions with the possibility of a negative impact on company progression such as

- conflicts of interest
- corruption or unusual actions or significant defects of internal control system
- law infraction or other regulations of the Securities Exchange of Thailand or other relevant laws that are related to company business

The Audit Committee must report matters to the Board of Directors immediately in order to rectify solutions deemed appropriate. If it is found that the Board of Directors and the Management will not response to the action within limited timeframe, one of the Audit Committee might report or give notice directly to the Securities of Thailand.

- 7.3) In the case that the Audit Committee has received notice from auditors that Committee, Management or persons who responsible for the company business have any unusual actions that offend (related to Securities and Exchange Act Section 281/2 space two, Section 305, Section 306, Section 308, Section 309, Section 310, Section 311, Section 312 or Section 313), it is the responsibility of the Audit Committee to examine and report superficial results to the Board of Directors, then notify SET and the external auditor within 30 days of the first day's notification from the external auditor.
- 7.4) The Audit Committee has other responsibilities with the consent which is assigned by the Board of Directors or shareholders or other relevant laws.

In the case that the audit committee's duties are changed, the Company shall report on a resolution to change its duties, and shall prepare a name list and scope of work of the audit committee according to such change in the form as prescribed by the Exchange. Such name list and scope of work must be submitted to Stock Exchange of Thailand within 3 (three) business days from the date on which the change is made in accordance with the procedures under Stock Exchange of Thailand's regulations relating to reporting via an electronic media.

The Nomination and Remuneration Committee

As of December 31, 2018, the Nomination and Remuneration Committee comprises three members as follows.

No.	Name-Surname	Position
1.	Mr. Kurujit Nakornthap	Chairman (independent)
2.	Maj.Gen. Chaowalek Chayansupap	Member (independent)
3.	Mr. Wittawat Svasti-Xuto	Member

Mrs. Sasitorn Stithit, Vice President, Human Resources and Organization Effectiveness, is serving as the Secretary to the Nomination and Remuneration Committee

Composition of the Nomination and Remuneration Committee

The Nomination and Remuneration Committee shall be composed of at least three members, one of whom shall be an independent director. The term of each member is equal to his or her directorship term, and a vacating member is eligible for re-election.

Responsibilities of the Nomination and Remuneration Committee

1. To select qualified candidates to be nominated as GPSC's directors and President and Chief Executive Officer as well as ensure that the selection criteria and processes are principled and transparent before proposing to the Board of Directors and/or shareholders' meetings for approval
2. To review remuneration policies and criteria for GPSC's directors and President and Chief Executive Officer to ensure fairness and reasonableness for subsequent proposal to the Board of Directors and/or shareholders' meetings for approval
3. To review and nominate qualified directors as sub-committee directors before proposing to the Board of Directors for appointment as deemed necessary
4. To provide recommendations on the remuneration structure and composition for GPSC's directors to the Board of Directors
5. To assess the performance of the President and Chief Executive Officer in order to provide recommendations to the Board of Directors of GPSC regarding the appropriate remuneration
6. To review the succession plan for President and Chief Executive Officer and the list of candidates qualified for the succession consideration
7. To report the performance of the Nomination and Remuneration Committee to the Board of Directors and compile reports of the Nomination and Remuneration Committee to be disclosed in GPSC's annual reports
8. To fulfill any other obligations assigned by the Board of Directors

The Corporate Governance Committee

As of December 31, 2018, the Corporate Governance Committee comprises four members as follows.

No.	Name-Surname	Position
1.	Mr. Kurujit Nakornthap	Chairman (independent)
2.	Mrs. Nicha Hiranburana Thuvatham	Member (independent)
3.	Ms. Peangpanor Boonklum	Member
4.	Mr. Bandhit Thamprajamchit	Member

Mrs. Dutdao Phuttasuatta, Vice President, Corporate Affairs and Legal / Company Secretary, is serving as the Secretary to the Corporate Governance Committee.

Composition of the Corporate Governance Committee

The Corporate Governance Committee shall be composed of at least three members, at least half of whom shall be independent directors. The term of each member is equal to his or her directorship term, and a vacating member is eligible for re-election.

Roles and Responsibilities of the Corporate Governance Committee

- To determine and propose policies regarding GPSC's code of conduct and business ethics in accordance with good corporate governance principles to propose to the Board of Directors for approval and implementation as part of GPSC's standard practices
- To formulate policies, promote internal assessment of corporate governance standards, and apply for assessment by recognized external organizations on a regular basis
- To offer recommendations on good corporate governance to the Board of Directors
- To oversee the operation of the directors and the management to ensure adherence to good corporate governance principles stipulated by regulators such as the Stock Exchange of Thailand (SET), the Securities and Exchange Commission (SEC), and other relevant organizations
- To review GPSC's corporate governance guidelines in comparison to universal practice on a regular basis and propose to the Board of the Director
- To formulate corporate governance policies for corporate governance working teams
- To formulate policies and guidelines regarding sustainability management and corporate social responsibility
- To monitor sustainability management operations and report results to the Board of Directors
- To establish guidelines for GPSC's anti-corruption operations
- To promote the organizational culture of good corporate governance among the executives and employees at all levels to create practical results in both GPSC and its subsidiaries
- To provide consultancy to the corporate governance working team when participating corporate governance rankings by external parties at least once every three years
- To review and offer recommendations on the assessment form and the results of the performance assessment of GPSC's directors for subsequent proposal to the Board of Directors
- Formulate compliance frameworks for anti-corruption related operations of GPSC
- Prescribe and review anti-corruption policy; offer recommendations and guidance; monitor and assess anti-corruption related operations
- To report the results of corporate governance assessment to the Board of Directors. Should a factor or situation that may significantly affect GPSC arise, the Corporate Governance Committee must report it to the Board of Directors for acknowledgment and consideration immediately
- To regularly reviews the Corporate Governance Committee Charter
- To appoint the Secretary to the Corporate Governance Committee as deem appropriate.
- To fulfill other obligations assigned by the Board of Directors

The Risk Management Committee

As of December 31, 2018, the Risk Management Committee comprises five members as follows.

No.	Name-Surname	Position
1.	Mr. Payungsak Chartsutipol	Chairman (independent)
2.	Mr. Wittawat Svasti-Xuto	Member
3.	Mr. Supattanapong Punmeechaow	Member
4.	Mr. Atikom Terbsiri	Member
5.	Mr. Chawalit Tippawanich	Member

Mrs. Wanida Boonpiraks, Executive Vice President, Corporate Finance and Accounting, is serving as the Secretary to the Risk Management Committee.

Composition of the Risk Management Committee

The Risk Management Committee shall be composed of at least three members, comprising both executive directors and independent directors. The term of each member is three years, and a vacating member is eligible for re-election.

Roles and Responsibilities of the Risk Management Committee

- To determine and review risk management policies and frameworks relevant to the business of GPSC
- To oversee and support risk management operations to ensure correspondence with GPSC's strategies and business goals as well as shifting situations
- To provide recommendations for, monitor, and assess the Risk Management and Internal Control Committee (RMCC) (management level) for further implementation
- To report results of risk management, offer opinions on potential risks, and offer recommendations on risk control and mitigation plans as well as the development of GPSC's risk management system to RMCC on a regular basis to ensure efficiency
- To ensure that GPSC has risk management plans, systems, or procedures to minimize potential impact on the business of GPSC, as well as monitor and assess the implementation of the risk management framework across the organization to ensure that adequate risk management has been put in place
- Supervise and promote anti-corruption related risk management as well as assess corruption risks and review anti-corruption measures to ensure sufficiency and appropriateness
- To support and develop risk management and related instruments at all levels across the organization as well as promote risk management as part of the organizational culture
- To report risk management results to the Board of Directors. Should a factor or situation that may significantly affect GPSC arise, the Risk Management Committee must report it to the Board of Directors for acknowledgment and consideration immediately.
- To convene at least one Risk Management Committee meeting per quarter
- To fulfill any other obligations assigned by the Board of Directors

NOMINATION AND APPOINTMENT OF DIRECTORS AND THE HIGHEST RANKING EXECUTIVE

Independent Directors

As of December 31, 2018, GPSC has a total of five independent directors, in line with the criteria of the Securities and Exchange Commission, which stipulate that at least one third of the Board of Directors of a listed company must be composed of independent directors and that the Board of Directors must contain no fewer than three independent directors. GPSC has adopted the Capital Market Supervisory Board's definition of independent directors, with more stringent restrictions on the shareholding proportion, in which GPSC's independent directors may "hold shares not exceeding 0.5 percent of the total number of shares with voting rights of GPSC, its parent company, subsidiary, affiliate, major shareholder or controlling person, including shares held by related persons of such an independent director." (The Capital Market Supervisory Board has prescribed this number at one percent.) GPSC specifies the term of services for independent directors to be no more than 9 years.

Nomination of Directors and the Highest-Ranking Executive

1) Nomination, Appointment, and Retirement of Directors

Nomination of Directors

The Board of Directors has appointed the Nomination and Remuneration Committee to select and nominate qualified candidates for directorship. In this process, the Nomination and Remuneration Committee will take into consideration recommendations from major shareholders and free float as well as director's pools derived from reliable organizations, which provide a list of qualified persons in different fields, before reviewing the qualifications of the candidates in the following aspects:

- Being qualified and having none of the prohibited characteristics under the Public Company Limited Act, B.E. 2535 and do not have characteristics indicating a lack of appropriateness in respect of trustworthiness in managing business whose shares are held by

public shareholders as specified in the notification of the SEC

- Not over 70 years of age
- Knowledgeable, capable and possess a variety of skills and working experiences that are in line with GPSC's strategy and "GPSC's Director Skill Matrix"
- Being capable of devoting sufficient time for GPSC, being in good health, being capable of regularly attending the Board of Directors meetings, being an active participant in meetings, being straight-forward, and/or being a businessman with good reputation, good record of work performance and good ethics, as well as being accepted by society
- Capable of providing leadership and able to efficiently and effectively monitor the business conduct of the Company's executives
- Not serving as a director of more than 5 listed companies in the SET

The selection process shall be free from discrimination on grounds of gender, race, religion, or other considerations. The nomination of candidates to replace directors retiring by rotation at annual general meetings of shareholders shall be published on GPSC's website to invite advance nomination of qualified candidates from shareholders, after which the Board of Directors will consider their qualifications and propose qualified candidates at annual general meetings of shareholders in accordance with GPSC's criteria.

Appointment of directors

1) Appointment of directors to replace directors retiring by rotation

The Nomination and Remuneration Committee shall select and nominate qualified candidates as defined by GPSC's nomination criteria to recommend to the Board of Directors for approval and to be subsequently proposed at annual general meetings of shareholders for approval by a simple majority vote of the total votes of shareholders attending the meeting and casting votes. The voting procedure is as follows:

- A shareholder shall have one vote for each share one holds or represents.
 - Shareholders shall vote for each individual candidate nominated for directorship.
 - The candidates shall be ranked in order descending from the highest number of votes received to the lowest, and shall be appointed as directors in that order until all of the director positions are filled. Where the votes cast for candidates in descending order are tied, which would otherwise cause the number of directors to be exceeded, the remaining appointment shall be made by the chairman of the meeting, who shall have a casting vote.
- 2) Appointment of directors to fill vacancies incurred by reasons other than expiration of term of office
- The Nomination and Remuneration Committee shall select and nominate qualified candidates as defined by GPSC's nomination criteria to recommend to the Board of Directors, after which the candidates shall be appointed as directors to fill vacancies with no less than three-quarters (3/4) of the total votes of the remaining directors. The appointed directors shall be in office for as long as the remaining term of office of their predecessors.

Retirement of directors

- 1) At each annual general meeting of shareholders, one third (1/3) of the total number of the directors must retire from office by rotation. If the number is not a multiple of three, the number nearest to one third (1/3) of the total number of the directors must retire from office by rotation. The directors retiring from office in the first and second years after the registration of GPSC shall be selected by means of lot drawing. In subsequent years, the director who has held office the longest shall retire. A retiring director is eligible for re-election.
- 2) Apart from retirement upon expiration of the term of office, a director shall cease to hold office if he or she dies, resigns, possesses a prohibited characteristic under the law governing public limited companies and the law governing securities and exchange, is removed by a resolution of the shareholders' meeting, or is removed by a court order.

- 3) Any director who wishes to resign from GPSC shall submit a resignation letter to GPSC. The resignation shall be effective from the time the resignation letter reaches GPSC. A director who resigns may inform the registrar of his or her resignation.
- 4) A shareholders' meeting may pass a resolution to remove any director from office prior to the expiration of the term of office, by a vote of no less than three-quarters (3/4) of the number of shareholders attending the meeting and eligible to vote, and the shares held by the voting shareholders shall, in aggregate, be no less than one-half of the number of shares held by the shareholders attending the meeting and eligible to vote.

2) Nomination of Directors and the Highest-Ranking Executive

The Nomination and Remuneration Committee is responsible for the selection of the President and Chief Executive Officer, searching for qualified candidates with knowledge, experience, skills, attributes, leadership. The Committee then proposed the list and recommendation to the Board of Directors for further consideration and appointment.

GOVERNANCE OF THE INVESTED COMPANIES

GPSC has set a policy on close governance of its invested companies (subsidiaries, associates, and related companies) to constantly safeguard its own interests of investment capital and add value as well as confidence for its stakeholders, as detailed below.

1. Nomination of subsidiaries' and associates' directors and management

GPSC has set "Criteria for invested companies' director nomination" as a rule for nominating qualified representatives from GPSC to hold directorship or management position in its invested companies. The number of directors is essentially to be proportional to GPSC's equity or as mutually agreed. The company has no policy of closely controlling its associates.

The duties as GPSC's representatives consist of governance of subsidiaries, associates, and related companies so that they may command an approach or management practices, together with practical guidelines, that strictly agree and comply with GPSC's own policy framework and business directions, including the corporate governance policy, legal policy, finance and accounting policy, quality-safety-occupational health-environmental policy, personnel management policy, and related key policies.

2. Structuring the management of subsidiaries and associates
GPSC structures the management of subsidiaries and associates to take responsibility for steering their management and for the performances of subsidiaries, associates, and related companies under the following scope:

- Monitor and guide the businesses of subsidiaries, associates, and related companies under applicable agreements and regulations
 - Constantly track various aspects of subsidiaries', associates', and related companies' performance and mentor them to ensure that their businesses are in line with goals and that potential obstacles can be promptly and suitably overcome
 - Review, monitor, and mentor subsidiaries, associates, and related companies so that they may institute efficient and effective internal control systems and business protocols
 - Review, monitor, and organize reviews and amendment of key policies and work plans for the businesses of subsidiaries, associates, and related companies so that these policies and plans may always be up to date and suitable for business circumstances.
3. GPSC has set a policy on corporate investment and governance of subsidiaries as a framework for its subsidiary management in key aspects such as investment criteria, investment management, operational guidelines , etc.
4. GPSC defines plans and ensures that subsidiaries, associates, and related companies disclose information about their performance outcomes and financial standings together with factual, complete, and credible information to regulators, related government agencies, outside investors, and the public

5. If subsidiaries, associates, and related companies need to engage in connected transactions or those potentially causing conflicts of interest, GPSC must ensure that they do so with transparency and fairness. GPSC will comply strictly with applicable regulators' criteria on connected transaction engagement, and acquisition and disposal of assets.
6. GPSC will take necessary steps and monitor subsidiaries', associates', and related companies' systematic disclosure of information and internal control systems that are adequate and suitable for their businesses.

PROTECTION AGAINST ABUSE OF INSIDER INFORMATION

In GPSC's operation, directors, executives and employees might be required to learn or consider information that may impact securities prices. As such, GPSC has developed a policy on the protection against abuse of insider information, which has been disseminated among GPSC's directors, executives, and employees. The policy and measures against abuse of insider information are as follows.

Policy on the Protection Against Abuse of Insider Information

- 1) GPSC's directors and executives have been informed of their duty to submit reports of change in securities holding of themselves, their spouses, and their minor children to the Securities and Exchange Commission (SEC), a duty of directors and executives as stipulated by the Securities and Exchange Act B.E. 2535 (1992) (including its amendment).
- 2) GPSC's directors and executive must report changes in their holding of GPSC's securities in the Board of Directors' meetings.
- 3) GPSC's directors and executives, including executive officers in accounting or finance at or above the vice president level and employees involved in operations that give them knowledge of insider information material to changes in securities prices, must suspend their purchase and selling of GPSC's securities until the public disclosure of GPSC's financial statements or positions. These individuals will be informed of their suspension in written forms at least 30 days

prior to the public disclosure and should wait at least 24 hours after the disclosure before making any trade. They are also prohibited from divulging such material information to another party.

- 4) GPSC's directors, executives, and employees are prohibited from employing insider information that may affect changes in GPSC's securities prices which has not been publicly disclosed but is accessible to them by virtue of their offices or positions to, whether directly or indirectly, purchase or sell, offer to purchase or sell, or invite any other person to purchase, sell or offer to purchase or sell GPSC's stocks or securities (if any) in such a way as to damage GPSC, whether or not such an act is done for their own or another person's benefit, or to disclose such information so that they will receive consideration from the person who engages in the aforesaid acts.
- 5) GPSC's directors, executives, and employees, both current and former, are prohibited from disclosing GPSC's insider information and secrets as well as confidentiality of GPSC's suppliers accessible to them by virtue of their duties to an external person even if such disclosure may not damage GPSC and its suppliers.
- 6) GPSC's directors, executives, and employees, both current and former, are obligated to protect GPSC's confidentiality and/or insider information as well as the duty to use GPSC's insider information solely for its business operations. In addition, GPSC's directors, executives, and employees are prohibited from exploiting GPSC's confidentiality and/or insider information to benefit any other companies in which they are shareholders, directors, executives, and employees.
- 7) Disciplinary actions shall be enforced for any violation of the use of insider information for personal interest, ranging from warning notifications, payment cuts,

temporary suspension without pay, or termination of employment. The severity of the disciplinary action is based on the intention behind and the gravity of the violation.

Protection Against Abuse of Insider Information in Action

- 1) New directors and executives of GPSC were informed and made aware of their duty to report changes in securities holding of themselves, their spouses, and their minor children within three days after such changes via SEC's online system. In addition, current directors and executives will also be reminded regularly via notices and emails to submit reports in changes in securities holding (if applicable).
- 2) GPSC's directors, executives, and relevant employees will be notified in written forms of the black-out period designated by GPSC prior to a public disclosure of information material to changes in securities prices.
- 3) The securities holding of GPSC's directors and executives will be disclosed in annual reports and GPSC's website. In addition, the Board of Directors will also track changes in securities holding of GPSC's directors and executives on a monthly basis through reports in the Board of Directors' meetings.

Directors and Executives' Shareholding in GPSC in 2018
(including spouses and minors)

Name-Surname		Number of Shares		Increase / (Decrease)	Remark
		Dec 31, 2017	Dec 31, 2018		
Directors					
1.	Mr. Surong Bulakul	73,000	73,000	-	-
	By spouse	36,800	36,800	-	-
2.	Mr. Kurujit Nakornthap	30,000	30,000	-	-
3.	Mr. Payungsak Chartsutipol	73,000	73,000	-	-
4.	Maj.Gen. Chaowalek Chayansupap	-	-	-	-
5.	Mrs. Suvimol Chrityakierne	N/A	-	N/A	Appointed in 2018
6.	Mrs. Nicha Hiranburana Thuvatham	N/A	-	N/A	Appointed in 2018
7.	Mr. Wittawat Svasti-Xuto	N/A	30,000	N/A	Appointed in 2018
8.	Mr. Supattanapong Punmeechaow	73,000	73,000	-	-
9.	Mr. Atikom Terbsiri	73,000	73,000	-	-
10.	Mr. Kongkrapan Intarajang	-	-	-	-
11.	Ms. Peangpanor Boonklum	-	-	-	-
12.	Mr. Bandhit Thamprajamchit	N/A	-	N/A	Appointed in 2018
13.	Mr. Chawalit Tippawanich	N/A	25,000	N/A	Appointed in 2018
High-Level Executives (SEC's Definition)					
1.	Mr. Chawalit Tippawanich	N/A	25,000	N/A	Appointed in 2018
2.	Mr. Smornchai Khoonrak		63,000	-	-
3.	Mr. Somkiat Masunthasuwun		-	-	-
4.	Mr. Sirimet Leepagorn	N/A	-	N/A	Appointed in 2018
5.	Mrs. Wanida Boonpiraks	58,000	58,000	-	
6.	Mrs. Sukittee Chaiyarak	N/A	-	N/A	Appointed in 2018
7.	Mrs. Dutdao Phuttasuatta		-	-	-

Remark

(1) N/A means no information as the director/ executive was appointed during 2018

(2) Mr. Surong Bulakul is the only director who has indirect shareholding through spouse. Others do not have indirect shareholding

(3) As of December 31, 2018; total GPSC shares held directly and indirectly by directors and executives is equivalent to 0.002002%.

AUDITOR'S REMUNERATION

For the accounting year ending on December 31, 2018, GPSC and its subsidiaries paid a total of THB 3.08 million in audit fees to their auditors, divided into THB 1.18 million for GPSC's audit fee, THB 1.64 million for audit fees of GPSC's subsidiaries, and a total of THB 0.26 million for non-audit fees. KPMG Phoomchai Audit Company Limited, GPSC's auditor, has been approved by SEC and is considered to operate independently, with no directors or top executives of GPSC having ever held office or partnership in it.

APPLICATION OF SEC'S CORPORATE GOVERNANCE CODE IN 2018

The Board of Directors has properly reviewed the CG Code and assign the management to execute the application of the CG Code Principles and Sub-Principles as well as monitoring the operation. It has been reviews that in 2018, GPSC applied all CG Code principles to the business.

As for the guidelines that GPSC's operating differently from that of SEC's CG Code are 1) The chairman is not an independent director. GPSC selects its chairman considering his qualification and leadership as well as not holding a management position in the mother company; and 2) GPSC has 13 directors which is more than SEC's guideline of 12. It is due to GPSC is conducting business expansion which variety of directors' skill is needed to ensure its efficiency.

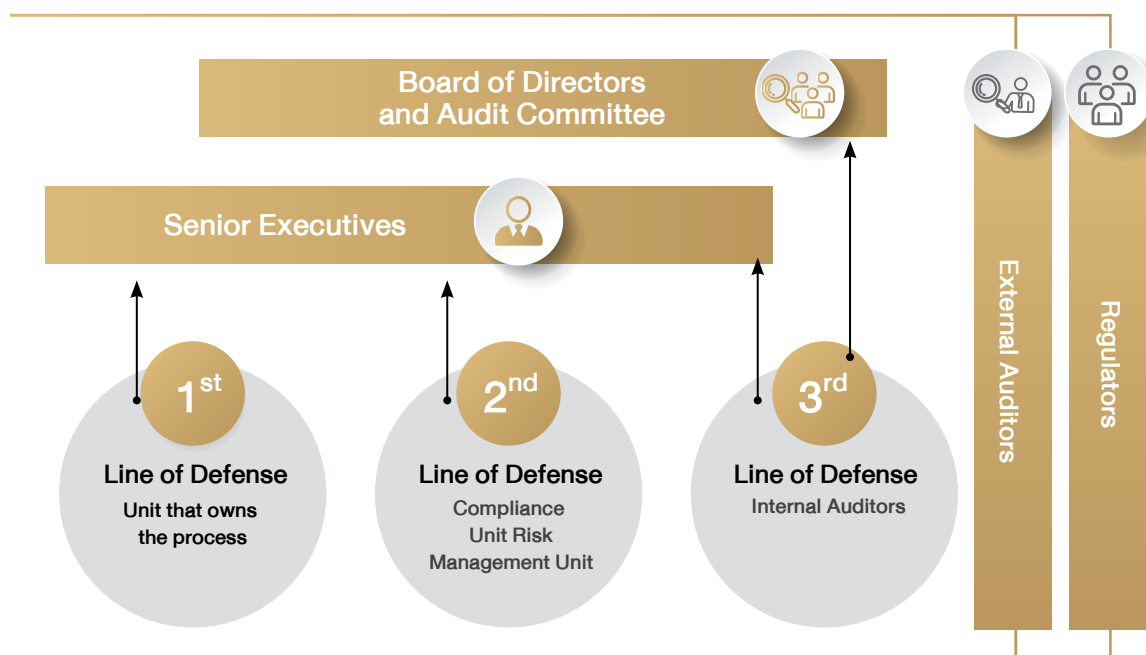
OTHER GOOD CORPORATE GOVERNANCE PRACTICES

Corporate Compliance

GPSC has demonstrated a strong commitment to elevating its compliance standards to foster confidence and trust among all shareholders and stakeholders as well as enable the company sustainably accomplish its goals. To this end, the Board of Directors approved the establishment of a Compliance unit, under the Corporate Affairs and Legal Department.

GPSC structured its compliance structure in to the concept of Three Lines of Defense :

1. **First Line of Defense** is the unit that owns the process
2. **Second Line of Defense** is the legal and regulatory unit, organizations and corporate risk management units, which are responsible for supervising the operation of each process owner's unit laws, regulations and good internal controls.
3. **Third Line of Defense** is the Internal Audit unit, an independent unit that conducts audit of the first and the second lines of defense. Internal Audit is to report the audit findings directly to the Audit Committee and report the managerial aspect to the President and CEO.



Also, GPSC has set is “Compliance Policy” to serve as guiding principles for its directors, executives, and employees in performing their duty and ensure that the company operates in compliance with laws, rules, regulations, orders, and notifications both internally and externally and help prevent risks of non-compliance. The company’s directors, executives, and employees have the duty to follow the following policy :

1. Compliance with relevant laws and regulations
2. Promotion of fair competition and anti-monopoly practices
3. Anti-corruption and anti-bribery practices
4. Respect for human rights
5. Intellectual property protection and safeguarding
6. Anti-money laundering and combating the financing of terrorism (AML/CFT)
7. Asset management, confidentiality protection, and appropriate use of the company’s information
8. Compliance with corporate governance policies and principles

Corporate Governance Activities

1. PTT Group CG Day 2018

On August 24, 2018; GPSC and PTT Group flagship companies which are PTT Public Company Limited (PTT), Thai Oil Public Company Limited (TOP) (the host), PTT Exploration and Production Public Company Limited (PTTEP), PTT Global Chemical Public Company Limited (GC), and IRPC Public Company Limited (IRPC), jointly organized PTT Group CG Day 2018 for the 10th time, under the concept “PTT Group CG Day 2018: Born to be Real” with the intention to promote “Integrity” (Disciplinary, Sufficiency, Honesty, and Voluntary) via Digital Technology (4.0). Business partners and customers of each company were invited to participate in this event.

2. GPSC CG DAY 2018

On November 27, 2018; GPSC organizes GPSC CG DAY 2018 to communicate and promote CG-related topics to the employees. The activities include a talk from Mr. Kulvech Janvatanavit - Thai Institute Of Directors’ CEO on CAC certification, as well as corporate governance policies, compliance policy, and roles of the Corporate Governance & Compliance Unit, and a closing remark from Mr. Chawalit Tippawanich, the President and Chief Executive Officer.

Corporate Governance Awards

1. ASEAN CG SCORECARD

GPSC was awarded TOP 50 ASIAN PLCs in 2nd ASEAN Corporate Governance (CG) Awards, named as one of ASEAN's 50 listed companies with the best corporate governance practice based on the score assessment of the ASEAN CG Scorecard released by the ASEAN Capital Market Forum (ACMF) as GPSC has been conducting the business with transparency and fair information disclosure, under the Board's sharp vision and supervisory. The award ceremony took place at Kuala Lumpur Convention Centre, Malaysia.

2. The Collective Action Coalition of Thailand's Private Sector Collective Action Coalition against Corruption (CAC)
GPSC became a certified member of the Collective Action Coalition of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC). The certificate ceremony took place on June 7, 2018 and the certificate will be valid for three years.

3. Corporate Governance Report of Thai Listed Companies 2018 (CGR)

GPSC is rated "Excellent" in the Corporate Governance Report of Thai Listed Companies (CGR) by the Thai Institute of Directors (IOD) with the average score of 96% in 2018, increased from 95% in 2017.





SUSTAINABILITY MANAGEMENT

Sustainability Management and Stakeholders

GPSC recognizes the importance of adherence to business codes of conduct and sustainability management in its operations. In addition, it has placed a premium on stakeholders' participation and divided stakeholders into six groups, each with dedicated communication channels overseen by a dedicated agency to ensure that the management corresponds with the interests and expectations of the stakeholders.

1. Employees

Recognizing that employees form the backbone of GPSC's economic, social, and environmental success and sustainability, GPSC provides continuous personnel development programs for all employees in sections and departments without discrimination. In addition to providing a safe work environment and suitable remuneration and welfare, GPSC consistently introduces innovative technology to support their employees to enable them to fulfill their duties with maximum efficiency. Furthermore, with a conviction that CSR is a way to enable its employees to enhance their potential and self-esteem, GPSC consistently promotes employee participation in its CSR and environmental activities, which reflect its social responsibility. These activities are hosted under its sustainable management framework, which strictly adheres to its corporate governance principles and aims to forge employees into good citizens, promote stakeholders' participation, and foster social and environmental consciousness.

2. Shareholders and investors

Recognizing its obligations to shareholders, GPSC has translated company ethics into clear policies that will maximize business growth and ensure sustainable returns from good business performance. It also respects shareholders' rights to necessary, accurate, and timely disclosure of information on GPSC's performance and all supporting data.

3. Customers

As a producer and distributor of electricity, steam, and industrial water, the company carries out its responsibility of fulfilling customers' requirements at the volumes and time specified by customers. Strictly adhering to

the principle of integrity, trust, and mutual assistance, GPSC delivers goods and services at fair prices and strives to foster good relations with its customers.

4. Business partners, suppliers, and contractors

GPSC values its business partners as stakeholders who help create sustainable business value and has therefore put in place a corporate governance framework to ensure transparency and fairness. In addition, it has established clear policies on fair and equitable treatment of business partners focusing on achieving mutual benefits. Furthermore, GPSC emphasizes good practices in business competition and do not resort to unlawful measures to gain advantage over competitors.

5. Related government and other agencies

GPSC works closely with both domestic and international government agencies in countries where it invests to avoid making inappropriate transactions with the government sector that may impact operations. Therefore, any coordination, contact, and exchange of information with these government agencies are carried out on the basis of appropriateness, transparency, and legality to ensure appropriate conduct by its employees. GPSC also supports various activities to foster long-term relations with government agencies.

6. Communities and society

GPSC strictly follows its social responsibility policy to ensure that communities and its industrial entities can co-exist and jointly create sustainable value through activities that elevate the quality of life and enhance the potential of communities. To this end, GPSC has established strategies for its social and environmental activities, which can be divided into four dimension as follows:

- 1) **Education:** GPSC supports sustainable education by providing continuing scholarships, organizing supporting activities, and helping develop schools both in and outside of its operating areas in accordance with governmental policies.
- 2) **Quality of life improvement** - In addition to creating jobs for residents in communities, GPSC hosts activities for the senior's club, capacity-building



activities for village health volunteers, mobile clinics, and activities aimed at enhancing community safety and security.

- 3) **GPSC organizes and supports public service** activities as well as public participation activities for neighboring communities to foster mutual understanding and good relations, including meetings, discussions, and public hearings aimed at receiving feedback from communities and concerned agencies as well as an open house for communities so as to inspire confidence in GPSC's operation.
- 4) **Environment:** As part of its social and environmental responsibility for nearby communities and surrounding areas, GPSC recognizes that the increasing amount of waste in Rayong, at present 900-1,000 tons per day, is a big problem. Therefore, GPSC has joined hands with the public sector and the communities to solve waste management problems. The effort has resulted in a "waste-to-energy plant," which is

expected to produce 6-9 megawatts and reduce around 500 tons of waste in the area each day. Particles and gas from waste incineration are managed in accordance with international standards and do not affect the neighboring communities. The waste-to-energy plant is expected to be a prototype for a public-private collaboration program and a social enterprise that creates shared value.

Furthermore, GPSC has introduced a project to reduce pollution emission. In addition to consistently upgrading the technology in its plants to ensure efficiency and monitoring the environmental quality of its production, it has set up air quality measuring stations in community areas and planted trees around its plants to filter any pollution.

Major Projects and Activities in 2018

Education Leadership Program for Sustainable Education Project (CONNEXT ED)

Recognizing the value and vital role of education as the foundation of the development of the country, GPSC has consistently lent support to CONNEXT ED, aimed at developing a network of leaders who will contribute to the sustainable development of Thailand's education through knowledge exchange and by planning school development with school executives. This project helps address three main needs of the country, namely disparity reduction, human resources development, and competitiveness enhancement, all of which are related to the development of the country's human resources. This activity is also in line with the Sustainable Development Goals (SDGs) established by the United Nations. GPSC joined the project in the first phase and had its CSR personnel serving as coordinators, known as school partners, to six schools, namely Ban Wang Takian School, Wat Kor School, Ban Won Ta Kraeng School, Prakob Rat Bamroong School, Wat

Ban Na School, and Wat Sukaram School in Chachoengsao. In 2018, the company joined the second phase of the initiative. In this phase, it still took care of the six schools from the first phase and took on four additional schools, namely Wat Phla School, Wat Thapma Community School, Wat Kor School, and Ban Phayun School in Rayong.

Over the past two years, GPSC has worked with the executives and teachers in these ten schools in its capacity as a school partner to develop their thinking and learning processes and improve their instruction and learning, focusing on fostering facilitator skills in teachers to enable them to design sustainable education development projects suitable for the context of their own schools. This project is a source of pride of the company and demonstrates its commitment to contributing the sustainable development of human resources in Thailand's education.





GPSC Young Social Innovator Project

GPSC recognizes the significance of sustainable social, economic, and environmental development and the adoption of the Sustainable Development Goals (SDGs) in fulfilling its primary goal related to energy, natural resources, and environmental development. To this end, the company hosted GPSC Young Social Innovator 2018 to give high school students and vocational students as well as those with equivalent degrees in Rayong, Chonburi, Chanthaburi, Trad, and Chachoengsao, an opportunity to submit proposals for projects, products, or processes aimed at sustainably solving local social, economic, natural resources, and environmental issues in their areas, which would lead to GPSC's collaboration with communities and contribute to the sustainable development of the country. Twenty teams of students were selected to participate in the project, during which they received training to help them develop their proposals. Of these, three projects that provided practical solutions to social issues in their communities were chosen to enter the final round, namely 1) Smart Biogas by Princess Chulabhorn Science High Schools, Chonburi, 2) The Food Waste Separating Machine by Kamnoetvidya Science Academy, Rayong, and 3) D.I.Y. Banana Sheath Packaging by Wang Chan Wittaya School Rayong. The final round will be held in February 2019, where awards will be given and these projects will have the opportunity to be developed into social enterprises.

Sponsorship for Kamnoetvidya Science Academy and Vidyasirimedhi Institute of Science and Technology

GPSC and companies in PPT Group have established an academy and an higher education institute geared specifically towards science, technology, and research with a caliber comparable to that of the world's leading institutions, with the goal of fostering science and technology excellence and produce students who will be able to bring about exponential growth and put Thailand in the forefront of Asia among other leading countries. The main objective of the project is to create researchers, new bodies of knowledge, innovation, as well as foster inquisitiveness to advance Thailand's development. Her Royal Highness Princess Maha Chakri Sirindhorn graciously named Rayong Science Academy and Rayong Science and Technology Institute "Kamnoetvidya Science Academy" and "Vidyasirimedhi Institute of Science and Technology," respectively. The two academies are located on an area of over 900 rai in Payupnai Sub-district, Wangchan District, Rayong. GPSC's sponsorship for the establishment and management of the two institutes spans a five-year period from 2017 to 2021. In 2018, in addition to the existing sponsorship, it also provided a four-year scholarship to a student from Kamnoetvidya Science Academy who pursued further study at Vidyasirimedhi Institute of Science and Technology.



Scholarship for the Advanced Vocational Manpower Development Project (iPEC)

PTT Group has granted scholarships to vocational students (high vocational certificate) participating in the advanced vocational manpower development project for petrochemical and energy technology students at IRPC Technology College in 2017-2020. Contributing to this initiative, GPSC has signed a memorandum of understanding (MOU) and awarded scholarships to students in the past two classes in the project.

In 2018, students from the first class took internships at Rayong Central Utility Plant 2, starting in May. In addition, GPSC also shared knowledge with students at IRPC Technology College on a field trip to the company.



AEC-Merit Scholarship

PTT Group has granted scholarships to students from AEC countries enrolling at IRPC Technology College for a high vocational certificate under the AEC-Merit Scholarship Project since 2013.

In 2018, IRPC Technology College granted high vocational certificates to the second batch of scholarship students from Myanmar and awarded scholarships to vocational students in its sixth class. GPSC joined the scholarship ceremony, attended by delegates from the Department of Electricity and Energy and Department of Education of the Republic of the Union of Myanmar





Quality of Life Improvement

Light for a Better Life Project

Previously known as the Light for a Better Life Project, the Electricity Doctor Project a project that capitalizes on the specialized expertise and skills of GPSC and its employees to maintain the electrical system for communities and society at large. Reflecting GPSC's role as the power flagship of PTT Group, the project takes advantage of its people expertise and is divided into four main components: safety, energy saving, energy security, and social enterprise.

1. **Safety:** This component involves the repair and maintenance of electrical systems to reduce risks of fire and potential damage to life and properties in schools, temples, and local hospitals. In 2018, this component of the project was carried out in various schools, namely Wat Prachummit Bamrung School in Rayong, Wat Namkhok School in Rayong, Wat Kor School in Chachoengsao, Banvontakrang School in Chachoengsao, Wat Banna School in Chachoengsao, Prakorbratbamrung School in Chachoengsao, and Wat Sukharam School in Chachoengsao, and Wat Nongfab in Rayong
2. **Saving Energy:** These operations involve the installation of solar power systems to reduce expenses for schools, so that their budgets could be put to use for school development projects and student activities. This component of the project was carried out in Wat Prachummit Bamrung in Rayong

3. **Energy Security:** This component involves the installation of alternative-energy power generation systems in remote areas to improve the quality of life of the residents, reduce obstacles in their daily life, and relieve impact of inadequate power production on hospitals and other facilities that require stable and sufficient power around the clock. An example is the installation of the solar rooftop at Pai Hospital in Mae Hong Son.
4. **Social Enterprise:** The project also aims to create "electricity doctors." To this end, GPSC has initiated the 1st Electricity Doctor Training Program, which trains local residents in communities and equips them with electrician skills in order to enable them to maintain and repair electrical systems in houses, earn extra income, and potentially become professional electricians.



Public Sector Engagement



Khiang Ba Khiang Lai Project

GPSC regularly organizes the “Khiang Ba Khiang Lai” (working side by side) project, a community dialogue project consisting of field visits to the neighboring communities in Map Ta Phut Municipality, Map Kha Patthana Municipality, and Ban Chang Municipality aimed at promoting an understanding of the company’s operations and maintaining good relations. In 2018, GPSC targeted five communities in the three-kilometer radius of its power plant or its four utility centers: Map Ta Phut Market Community, Kachetbon Community, Kachetlang Community, Fah Si Thong Community, and Phayoon Community.

In the discussions, GPSC presented an overview of its operations, especially with respect to safety, occupational health, and environment, which the communities were interested in. It also provided information under the topic of “the uses of electricity in our daily life,” which covered electrical safety, electrical system inspection, electrical appliance selection, and tips on lowering electricity bills. These discussions also included Q&A sessions.



Cultural and Religious Activities

GPSC fulfills its duty as an organization that connects religious traditions and people in communities, with the goal of preserving Buddhism, which serves as an anchor for people in communities. It also joins local temples, schools, and government agencies in hosting cultural events and religious activities to help keep local traditions alive. In 2018, GPSC, along with Buddhist in the communities around its plants, served as the host of its annual charity event at Wat Kachet in Rayong, as well as participated in various cultural festivals, such as Boon Khao Larm, Songkran, and Loy Krathong. Furthermore, GPSC employees also volunteered in various public service activities on various occasions, including a community development activity in celebration of the 66th birthday of His Majesty King Rama X.



Corporate Social Responsibility, Department of Industrial Works u (CSR-DIW)

GPSC has joined the Corporate Social Responsibility Project by the Department of Industrial Works (CSR-DIW), which aims to promote corporate social responsibility and sustainable development. The project highlights community participation in community development activities as a basis for strengthening communities and promotes an exchange of work experience.

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1. Oyster mushroom productivity enhancement in Mab Chalut Community: The project set out to enhance the efficiency and productivity of oyster mushroom cultivation in the community by introducing them to standard cultivation methods and building greenhouses, with the ultimate goal in increasing income for housewives and older people who were member of the oyster mushroom cultivation group.



2. Stage decoration training in Mabkha-Mabnai Communities: The training program taught housewives and older people in the community to create stage decorations with fabrics for formal events, so that they could save expenses otherwise required to hire people outside the community and earn extra income. The program also provided the attendees with materials and equipment to equip them for decoration services



3. Reducing recyclable waste transportation fees in Mab Chalut-Chak Klang Communities: The project's objective was to repair the electrical system of the waste compactor and other equipment to restore it to a functional condition and enhance its sanitary condition and safety, with the ultimate goal of reducing expenses and bringing additional income for the members of the communities.

The three projects were carried out in collaboration with the communities by CSR staff and GPSC volunteers, who dedicated their knowledge, skills, and energy to the cause, so that these communities can benefit from their co-existence with the organization sustainably.

Environment



Zero Waste Village

As an integrated waste management business operator, GPSC shares its waste management knowledge with communities, encourages them to carry out waste reduction activities, which can be further developed into a source of additional income or into social enterprises, and promotes sustainability within communities. The company achieves these aims through three main types of activities, namely recyclable waste banks, waste conversion into products, and organic waste management in households. In 2018, the Zero Waste Village Project was piloted in two locations, namely Modern City Village in Rayong and Moo 1 Village in Nong Taphan Sub-district, Rayong.

GPSC: One Earth One Family (Check Dam Construction and Reforestation)

GPSC values communities in its vicinity as major stakeholders in its business operations. As such, community visits are conducted on a regular basis. In addition, the company also encourages its employees to take on volunteer work or pay back to society in various forms. In 2018, GPSC and its volunteering employees worked with communities to revitalize their forests through GPSC: One Earth One Family, organized for the second consecutive year with the main goal of restoring the ecosystem and promoting sustainable mutual development between communities and GPSC. The project was jointly organized by GPSC's volunteers and communities in Ban Chang Municipality, Rayong.

The project consisted of two main activities, namely check dam construction and reforestation, which helped prevent flooding in the communities as restore forested areas. The initiative also helped raise awareness of GPSC's corporate social responsibility in the communities within its operating areas and demonstrated the volunteer spirit and altruism of GPSC's employees.



Restoration of 34-rai Forest Park

GPSC launched an initiative to restore the 34-rai forest park behind the former Mab Ta Phut Hospital in Rayong as resources in the forest park and the surrounding area in the Map Ta Phut Industrial Estate were vital and had both direct and indirect influence on the way of life of the people in the surrounding communities, as they were a source of forest products, provided water sources for agriculture, and helped absorb carbon dioxide. As encroachment and clearing of the forest were on the rise in recent years, leading to its degradation, the conservation and restoration efforts were initiated in cooperation with the neighboring communities and relevant agencies to ensure the survival of the forest.



CONNECTED TRANSACTIONS

1. GPSC and subsidiaries' connected transactions with potential parties of conflict

1.1 PTT Public Company Limited ("PTT")

PTT is a major shareholder of GPSC, with 22.58% of shares.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Other income from the award received from PTT - Revenue	0.07	GPSC received an award from PTT since GPSC's personnel presented won the PTT Group Operational Excellence contest and SPIRIT Award.
Other income from parts and components - Revenue	0.12	GPSC entered into an agreement with PTT for research and development for battery pack technology. GPSC sold parts and components to PTT at agreed prices and on terms considered normal business practice.
Purchase of natural gas - Expenses - Payable - Asset cost	16,197.67 1,814.44 7.03	GPSC and subsidiaries purchased natural gas as raw material for power generation with prices and terms considered normal business practice.
Pipe-rack rental - Expenses - Receivable	1.17 0.60	GPSC requested rental of pipe-racks with prices and terms considered normal business practice. Since GPSC paid six months' rent in advance, this was treated as an advance expense item
PTT-secondment staff - Expenses - Payable	53.26 17.52	PTT seconded its employees to GPSC in support of GPSC's business with prices and terms considered normal business practice.
Use of PTT's service center - Expenses - Payable	2.47 0.68	PTT set up a service center within its headquarters and EnCo, including a medical care center, fitness center, air booking center, and training center, and charged the fees at the same rate charged to PTT Group with prices and terms, considered normal business practice.
Purchase of lubricant oil - Expenses	0.04	GPSC purchased machinery lubes for steam turbine maintenance at costs comparable to those purchased from other sellers.
Gas Composition Analysis -Expenses	0.56	These expenses were for the yearly gas composition analysis for Sriracha Power Plant with prices and terms agreed between GPSC and PTT, considered normal business practice.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Gas pipeline system inspection - Expenses - Payable	0.73 0.36	To ensure preparedness for safe use, natural gas pipelines needed testing under the NACE SP0169 standards at costs comparable to those purchased from other sellers.
Purchase of land in Asia Estate - Asset cost	274.27	GPSC entered into a land purchase agreement in Asia Estate for Central Utility Plant 4 with PTT with prices and terms, considered normal business practice.

1.2 PTT Global Chemical Public Company Limited ("GC")

GC is a major shareholder of GPSC, with 22.73% shares. In addition, Mr. Supattanapong Punmeechaow, Mr. Wittawat Svasti-Xuto, and Mr. Kongkrapan Intarajang, GC directors and management executives, serve as GPSC directors

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, and industrial water - Revenue - Receivable	4,534.92 780.21	GPSC and GC entered into individual sales agreements of each product with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC.
Pipe-rack rental - Revenue - Payable	4.80 12.09	GPSC engaged in a pipe-rack rental agreement with GC with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
Repurchase of condensate containing water in excess of the volume specified in the contract, returned by the customers - Expenses - Payable	9.36 1.60	Under the steam agreement, GC was required to return condensate of the contractual volume. Since GPSC needed more condensate than the contractual volume, it requested to repurchase such condensate from GC over and above the contract volume with prices and terms, considered normal business practice.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Quality control of water and steam - Expenses - Payable	0.17 0.18	Testing of water for organic substances that caused damage to the power and steam generators with prices and terms comparable to other companies, considered normal business practice.
Purchase of assets - Asset cost	6.29	GPSC engaged in an agreement to purchase pipe racks with GC with prices and terms, considered normal business practice.

1.3 Thai Oil Public Company Limited ("TOP")

TOP holds 8.91% of GPSC's shares. In addition, Mr. Atikom Terbsiri and Mr. Bandhit Thamprajamchit, TOP director and management executives, serves as a GPSC director.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Purchase of diesel - Expenses - Payable	18.56 6.28	GPSC uses diesel as reserve fuel at the Sriracha Power Plant in case of natural gas delivery interruption with prices and terms, considered normal business practice.
Land rental - Expenses - Receivable - Deposit	10.45 4.91 2.83	Sriracha Power Plant lies on state property over which TOP earned possession and usage rights. TOP subleased such land to GPSC with prices and terms that followed the same guidelines as those for other customers.
Raw-water pipe rental - Expenses	4.96	GPSC rented TOP's raw-water pipes at the Sriracha Power Plant, linked to Eastern Water Resources Development and Management Plc. (EW)'s raw-water pipes, to buy water from EW with prices and terms, considered normal business practice.
Office rental and water & electricity bills - Expenses - Deposit	2.60 0.11	GPSC rented office space from TOP since Sriracha Power Plant was located on TOP's land with prices and terms, considered normal business practice.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Use of miscellaneous TOP services - Expenses	0.36	Since Sriracha Power Plant was on TOP's plant compound, GPSC made use of plant inspection, emergency medical care, health center and firefighting services provided by TOP for convenience of access and service speed with prices and terms, considered normal business practice.
Community relations activities - Expenses - Payable	0.47 0.17	TOP advanced payment for community relations activities jointly held with GPSC, to be reimbursed by GPSC, considered normal business practice.
TOP-secondment staff - Expenses	0.08	TOP seconded employees to GPSC in support of GPSC's business with prices and terms, considered normal business practice.

1.4 Thaipower Company Limited ("TP")

TP holds 20.79% of GPSC's paid-up registered capital. In addition, Mr. Atikom Terbsiri and Mr. Bandhit Thamprajamchit, serve as their common directors.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of industrial water - Revenue	0.38	GPSC and TP entered into a sales agreement of industrial water with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC.
Purchase of backup power - Expenses	2.43	GPSC used backup power for Sriracha Power Plant in case of interruption of power generation with prices and terms, considered normal business practice.

1.5 IRPC Public Company Limited ("IRPC")

GPSC and IRPC have a common major shareholder, namely PTT, which holds 48.05% of IRPC's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power and steam - Revenue - Receivable	2,307.98 567.30	IRPC-CP and IRPC entered into individual sales agreements with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to IRPC-CP.
PTT Group's sports day - Expenses	1.07	GPSC supported PTT Group's sports day for unity among PTT Group.
Property management and maintenance - Asset cost - Expenses	0.28 1.82	These monthly expenses were for the management and maintenance of properties under a land purchase agreement between IRPC-CP and IRPC. Such expenses were based on the acreage project size, at the identical rate charged by IRPC to other tenants.
Purchase of power, steam, industrial water, and wastewater treatment - Expenses - Payable	48.23 3.31	Since IRPC-CP's plant was on the compound of IRPC's plants, the company purchased each product and paid treatment charges to IRPC for system testing at the identical rate charged to others in the vicinity.
Office space rental, water and electricity bills, and central utilities - Expenses - Payable - Deposit	7.04 8.25 0.08	IRPC-CP rented EnCo's office space, and with most of its business partners' headquarters at EnCo, the company conveniently coordinated with business partners. The rental followed the rates set under an agreement with IRPC, considered normal business practice.
Advance received for steam sale under Minimum Take-or-Pay terms - Payable	162.34	Since the actual annual value of product purchase was lower than the minimum value specified in the contract, IRPC-CP requested advance payment (Minimum Take-or-Pay: MTOP) from IRPC. If the purchase volume exceeds the minimum volume specified in the contract within an agreed period, IRPC can seek refund of such advance payment commensurate with the excess volume consumed. IRPC-CP will book the remaining MTOP as the revenue for the year if IRPC is unable to consume steam over the minimum volume.
Maintenance service fees - Expenses	27.56	IRPC-CP engaged in a plant maintenance agreement with IRPC, whose personnel were skilled in maintenance, which added to GPSC Group's flexibility with prices and terms, considered normal business practice.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
IRPC secondment at IRPC-CP - Expenses	4.71	IRPC seconded employees to IRPC-CP in support of its business with prices and terms, considered normal business practice.

1.6 Business Services Alliance Company Limited ("BSA")

GPSC holds 25% preferred shares of BSA's paid-up registered capital. Also, both companies have a common major shareholder, namely PTT, which owns BSA's common shares accounting for 25% of BSA's paid-up registered capital, and GC, which holds 25% preferred shares of BSA's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Staff outsourcing service - Expenses	44.26	GPSC Group hired BSA to provide outsourcing services of personnel to fit GPSC's objectives with prices and terms, considered normal business practice.
- Payable	15.24	

1.7 PTT Phenol Company Limited ("PPCL")

GPSC and PPCL have a common major shareholder, namely GC, which wholly owns PPCL's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, industrial water, and nitrogen - Revenue	3,169.81	GPSC and PPCL entered into individual sales agreements of each product with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
- Receivable	640.98	

1.8 GC Maintenance and Engineering Company Limited ("GCME")

GPSC and GCME have a common major shareholder, namely GC, which wholly owns GCME's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Machinery maintenance and repair		GPSC engaged in a power plant service and maintenance agreement with GCME, an expert in maintenance, at mutually agreed prices and terms, considered normal business practice.
- Expenses	35.09	
- Payable	9.83	

1.9 NPC Safety and Environmental Service Company Limited ("NPC S&E")

GPSC and NPC S&E have a common major shareholder, namely GC, which wholly owns NPC S&E's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Operating safety training services		Justification and Sensibility GPSC engaged in an operating safety training service agreement with NPC S&E, which is an expert in this area with its own training center, at mutually agreed prices and terms, considered normal business practice.
- Expenses	1.09	
- Payable	0.11	
- Receivable	0.01	
- Asset cost	0.02	

1.10 Vinythai Public Company Limited ("VNT")

GPSC and VNT have a common major shareholder, namely GC, which holds 24.98% of VNT's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Pipe-rack rental		GPSC engaged in a pipe-rack rental agreement with VNT in Map Ta Phut with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
- Revenue	0.19	

1.11 HMC Polymers Company Limited (“HMC”)

GPSC and HMC have a common major shareholder, namely GC, with 41.44% of HMC’s paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, and industrial water - Revenue - Receivable	1,548.94 157.84	GPSC and HMC entered into individual sales agreements of each product with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

1.12 PTT Tank Terminal Company Limited (“PTT Tank”)

GPSC and PTT Tank have a common major shareholder, namely PTT, which wholly owns PTT Tank’s paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of nitrogen - Revenue - Receivable	7.43 1.83	GPSC and PTT Tank entered into a sale agreement with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
Pipe-rack rental - Revenue	0.22	GPSC engaged in a pipe-rack rental agreement with PTT Tank in Map Ta Phut, with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

1.13 PTT Asahi Chemical Company Limited ("PTTAC")

GPSC and PTTAC have a common major shareholder, namely GC, which holds 50% of PTTAC's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, industrial water, and nitrogen - Revenue - Receivable	308.15 29.78	GPSC and PTTAC entered into individual sales agreements of each product with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
Advance received for power sale under Minimum Take-or-Pay terms - Receivable - Payable	28.88 26.99	Since the annual actual value of product purchase was lower than the minimum value specified in the contract, GPSC requested advance payment (Minimum Take-or-Pay: MTOP) from PTTAC. If the purchase volume exceeds the minimum volume specified in the contract within the agreed period, PTTAC can seek refund of such advance payment commensurate with the excess volume consumed. PTTAC will book the remaining MTOP as the revenue for the year if GPSC is unable to consume power over the minimum volume.
Pipe-rack rental - Revenue	0.80	GPSC engaged in a pipe-rack rental agreement with PTTAC in Map Ta Phut, with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
Advance payment for equipment repair for steam pipes - Revenue - Receivable	0.10 3.64	PTTAC requested to receive more steam (from 20 tons to 80 tons) and installed a Restriction Orifice (RO) at the steam metering station in the plant. GPSC made advance payment and was refunded by PTTAC.
Purchase of steam - Expenses - Payable	278.31 23.19	Due to excess steam in PTTAC's processes, GPSC purchases such steam at mutually agreed prices and terms, considered normal business practice.

1.14 GC Logistics Solutions Company Limited ("GCL")

GPSC and GCL have common major shareholders, namely GC which holds 100.00% of GCL's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power - Revenue - Receivable	60.58 10.67	GPSC and GCL entered into a sale agreement with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
Roof-top solar panel installation - Revenue - Receivable	83.15 15.98	GCL entered into an EPC contract with CHPP for solar panel installation on its roof with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

1.15 Energy Complex Company Limited ("EnCo")

GPSC and EnCo have a common major shareholder, namely PTT, which owns 50% of EnCo's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Roof-top solar panel installation - Revenue - Payable	7.41 2.16	EnCo entered into an EPC contract with CHPP for roof-top solar panel installation of Energy Complex Building A and dormitory buildings in Vidyasirimedhi Institute of Science and Technology with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
Office space rental and related service fees, including parking fees and electricity bills - Expenses - Payable - Deposit	20.48 0.30 4.32	GPSC rented EnCo's office since most of its business partners are headquartered at EnCo and conveniently coordinated matters with them. The rent contained mutually agreed prices and terms, considered normal business practice.

1.16 PTT Digital Solutions Company Limited (“PTT Digital”)

GPSC and PTT Digital have common major shareholders, namely GC, PTT and TOP, holding 40%, 20%, and 20% of PTT Digital's paid-up registered capital. They also have a common director in Mr. Wittawat Svasti-Xuto.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Fiber optic rental		Since GPSC had surplus fiber optic capacities, it engaged in a memorandum of agreement for fiber optic use with PTT Digital with prices as agreed in the memorandum, considered normal business practice.
- Revenue	0.21	
- Receivable	0.21	
ICT		GPSC Group hired PTT Digital for their specialization in ICT services for server networks, the internet, emails, training, and installation of ICT support system for meetings, together with SAP system maintenance. The service fees are considered normal business practice.
- Expenses	49.28	
- Payable	9.61	
Capital expenditure for development of new programs	2.37	GPSC Group acquired systems and hired PTT Digital, which was skillful and appreciated the work of GPSC Group and its affiliates, at prices and terms as mutually agreed, considered normal business practice.
- Asset cost	1.36	
- Payable		

1.17 Dhipaya Insurance Public Company Limited (“TIP”)

GPSC and TIP have a common major shareholder, namely PTT, which owns 13.33% of TIP's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Plant insurance and business interruption insurance		The insurance taken out by GPSC Group was group insurance. PTT had hired TIP, an expert in the insurance business that was skillful in representing brokers for large-scale insurance to handle the entire PTT Group. Insurance premiums and other terms are considered normal business practice.
- Expenses	96.60	
- Receivable	69.06	
- Payable	0.14	
- Asset cost	6.27	

1.18 GC Glycol Company Limited ("GCGC")

GPSC and GCGC have a common major shareholder, namely GC, which wholly owns GCGC's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, and industrial water - Revenue - Receivable	721.26 95.76	GPSC and GCGC entered into individual sales agreements of each product with prices and terms followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
Advance received for steam sale under Minimum Take-or-Pay terms - Revenue - Payable	117.14 109.48	Since the annual actual value of product purchase was lower than the minimum value specified in the contract, GPSC requested advance payment (Minimum Take-or-Pay: MTOP) from GCGC. If the purchase volume exceeds the minimum volume specified in the contract within the agreed period, GCGC can seek refund of such advance payment commensurate with the excess volume consumed. GPSC will book the remaining MTOP as the revenue for the year if GCGC is unable to consume steam over the minimum volume.

1.19 Global Green Chemicals Public Company Limited ("GGC")

GPSC and GGC have a common major shareholder, namely GC, which holds 72.29% of GGC's paid-up registered capital, and they have two common directors in Mr. Payungsak Chartsutipol and Mr. Supattanapong Punmeechaow.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, and industrial water - Revenue - Receivable	408.33 79.32	GPSC and GGC entered into individual sales agreements of each product with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

1.20 Fatty Alcohols Company Limited ("TFA")

GPSC and TFA have a common major shareholder, namely GC, which wholly owns TFA's paid-up registered capital through GGC.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, and industrial water - Revenue - Receivable	111.97 21.26	GPSC and TFA entered into individual sales agreements of each product with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

1.21 Solution Creation Company Limited ("Solution Creation")

GPSC and Solution Creation have a common major shareholder, namely GC, which wholly owns Solution Creation's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Utility delivery system construction - Receivable	7.05	The cost incurred from the construction of a utility transmission system, of which Solution Creation later canceled its product purchase. The cost to be charged to the new customer using the facility is under consideration.

1.22 Thai Ethoxylate Company Limited ("TEX")

GPSC and TEX have a common major shareholder, namely GC, which owns 50% of TEX's paid-up registered capital through GGC.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, and industrial water - Revenue - Receivable	26.71 2.38	GPSC and TEX entered into individual sales agreements of each product with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Advance payment for power sale under Minimum Take-or-Pay terms		Since the annual actual value of product purchase was lower than the minimum value specified in the contract, GPSC requested advance payment (Minimum Take-or-Pay: MTOP) from TEX. If the purchase volume exceeds the minimum volume specified in the contract within the agreed period, TEX can seek refund of such advance payment commensurate with the excess volume consumed. GPSC will book the remaining MTOP as the revenue for the year if TEX is unable to consume power over the minimum volume.
- Revenue	1.08	
- Receivable	0.20	
- Payable	2.18	

1.23 Advanced Biochemical (Thailand) Company Limited ("ABT")

ABT is a wholly owned subsidiary of VNT, which has the same major shareholder as GPSC, namely GC, which owns 24.98% of VNT's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Pipe-rack rental - Revenue	0.19	GPSC signed a pipe-rack rental agreement with ABT in Map Ta Phut with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

1.24 Eastern Fluid Transport Company Limited ("EFT")

GPSC and EFT have a common major shareholder, namely GC, which directly and indirectly owns 15% of EFT's registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Pipe-laying structural maintenance - Expenses	4.36	GPSC hired EFT to maintain its pipe-laying structures. EFT was the sole provider of such service in the industrial estate where this structure was located. Prices and terms for such work followed the service agreement, considered normal business practice.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Feasibility study for CUP 3 project		GPSC hired EFT as advisor to make survey and a feasibility study for the construction of Pipeline Distribution System CUP 3. The project was prepared to deliver power and steam to customers. EFT is an expert in this area and well understood all the details. Prices and terms for such work followed the agreement, considered normal business practice.
- Expenses	2.14	
- Payable	2.29	

1.25 Vencorex Thailand Company Limited ("VCX")

GPSC and VCX have a common major shareholder, namely GC, which indirectly owns 90.82% of VCX's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Sale of power, steam, and industrial water		GPSC and VCX entered into individual sales agreements of each product with prices and terms followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
- Revenue	44.88	
- Receivable	7.12	
Advance payment for power and steam sale under Minimum Take-or-Pay terms		Since the annual actual value of product purchase was lower than the minimum value specified in the contract, GPSC requested advance payment (Minimum Take-or-Pay: MTOP) from VCX. If the purchase volume exceeds the minimum volume specified in the contract within the agreed period, VCX can seek refund of such advance payment commensurate with the excess volume consumed. GPSC will book the remaining MTOP as the revenue for the year if VCX is unable to consume each product over the minimum volume.
- Receivable	50.86	
- Payable	47.53	

1.26 Sak Chaisidhi Company Limited ("SAKC")

GPSC and SAKC have a common major shareholder, namely TOP, which holds 80.52% of SAKC's paid-up registered capital through TOP SOLVENT.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Pipe-rack rental - Revenue	0.25	GPSC signed a pipe-rack rental agreement with SAKC in Map Ta Phut with prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

1.27 PTT Retail Management Company Limited ("PTTRM")

GPSC and PTTRM have a common major shareholder, namely PTT, which wholly owns PTTRM's paid-up registered capital through PTTOR.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Installation of solar panels on gas station canopies - Revenue - Receivable	1.88 0.70	PTTRM hired CHPP to install solar panels on PTTRM's gas station canopies at mutually agreed prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.

1.28 TOP SPP Company Limited ("TOP SPP")

GPSC and TOP SPP have a common major shareholder, namely TOP, which holds 99.99% of TOP SPP's paid-up registered capital, and have a common director in Mr. Atikom Terbsiri.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Purchase of backup power - Expenses - Payable	(1.48) 0.06	Expenses for backup power for Sriracha Power Plant in case of power generation interruption. Prices and terms followed an agreement, considered normal business practice.

1.29 PTT Green Energy Company Limited ("PTTGE")

GPSC and PTTGE have a common major shareholder, namely PTT, which wholly owns PTTGE's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
PTTGE secondment - Expenses	0.31	PTTGE seconded employees to GPSC in support of GPSC's business under agreed contract prices and terms, considered normal business practice.

1.30 PTT Exploration and Production Public Company Limited ("PTTEP")

GPSC and PTTEP have a common major shareholder, namely PTT, which holds 65.29% of PTTEP's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Training Center rental - Expenses	0.02	GPSC rented PTTEP's meeting room to accommodate its training participants as it is conveniently located in the same building, with prices comparable to others in the vicinity.

1.31 PTTEP International Company Limited ("PTTEPI")

GPSC and PTTEPI have a common major shareholder, namely PTT, which wholly owns PTTEPI's paid-up registered capital through PTTEP.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Car rental - Expenses	0.04	GPSC joined PTTEPI in a visit to PTT Gas Power Project in Yangon, Myanmar. PTTEPI made advance payment for car rental, which was refunded by GPSC, considered normal business practice.

1.32 PTTEP Services Company Limited ("PTTEP Services")

GPSC and PTTEP Services have a common major shareholder, namely PTT, which wholly owns PTTEP Services' paid-up registered capital through PTTEP.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Consulting services for the battery plant construction project		GPSC hired an expert from PTTEP Services to support the construction of the Battery Plant Project. Prices and terms for such work followed the agreement, considered normal business practice.
- Expenses	4.73	
- Payable	1.63	

1.33 Sport Services Alliance Company Limited ("SSA")

GPSC and SSA have a common major shareholder, namely PTT, which wholly owns SSA's paid-up registered capital through BSA.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
PTT Rayong Soccer team support		GPSC funded SSA to support a soccer team and the company's publicity, considered normal business practice.
- Expenses	2.80	

1.34 PTT Oil and Retail Business Company Limited ("PTTOR")

GPSC and PTTOR have a common major shareholder, namely PTT, which wholly owns PTTOR's paid-up registered capital and have a common director in Ms. Peangpanor Boonklum.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Installation of solar panels on gas station canopies		PTTOR hired CHPP to install solar panels on the gas station canopies at mutually agreed prices and terms that followed the same guidelines as those for other customers, both related and unrelated to GPSC, considered normal business practice.
- Revenue	4.45	
- Receivable	1.56	

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Purchase of propane gas - Expenses - Payable	0.21 0.07	GPSC tested oil on its power generator and used propane gas for ignition of its Sriracha Power plant. The price of propane gas followed market prices, considered normal business practice.
Purchase of lubricant oil - Inventory - Payable	017 0.03	GPSC purchased machinery lubes for gas turbine maintenance at costs comparable to those purchased from other sellers

1.35 GC Estate Company Limited ("GCEC")

GPSC and GCEC have a common major shareholder, namely GC, which wholly owns GCEC's paid-up registered capital.

Transaction Description	Connected Transaction Value for the year Ended December 31, 2018	Justification and Sensibility
	(THB million)	
Facilities maintenance - Expenses	0.40	GPSC paid for facilities maintenance in the Asia Industrial Estate, where its CUP 4 was located. Prices and terms followed an agreement, considered normal business practice.

2. Approval Measures and Procedures for Connected Transactions

For connected transactions involving GPSC and/or its subsidiaries with potential parties of conflict, vested interests, or potential future conflicts of interest, the Audit Committee provides its views on the justification of transaction engagement and the price sensibility of such transactions to ensure that the terms involved follow the normal course of business, that third-party price comparison or market price comparison is made, that prices or terms of such transactions at the same level exist for third parties, or that such transaction engagement can apparently contain sensible or fair prices or terms, or all of these. If the Audit Committee cannot scrutinize potential connected transactions, GPSC may arrange for an independent expert or its own external auditor to comment on such transactions

in support of decisions by the Board, the Audit Committee, or the shareholders, as seen fit. The essential guidelines for such scrutiny are as follows:

- 1. Product sales prices or service fees:** These must be normal-business transactions or those in support of normal businesses. Prices and commercial terms must at arm's-length for all customers, both related and unrelated to GPSC.
- 2. Product purchase prices or service fees:** These must be normal business transactions or those in support of normal businesses. Prices and commercial terms must be set under compatible criteria to those charged by business partners in question to other customers. Finally, engagement in such transactions must not compromise GPSC's interests.

3. **Asset sales/purchases transactions:** These could periodically arise as needed and as seen suitable, including acquisition of businesses to grow business under GPSC's investment plans and expansion plans. In engaging in these transactions, the management or independent experts, or both (as seen fit), assess and comment on the sensibility of prices and commercial terms involved.

As for approval of connected transactions, those potential parties of conflict or vested interests have no voting rights on transaction approval so as to ensure that such engagement does not transfer or siphon interests between GPSC or its shareholders. Rather, the transactions must be in all shareholders' best interests. GPSC will disclose connected transactions in the notes to the audited financial statements signed by the external auditor in the annual report and the Annual Information Form (Form 56-1).

GPSC complies with the laws, regulations, and procedures of SEC, the Capital Market Supervisory Board, and SET on connected transactions, related party transactions, and acquisition or disposal of assets under applicable rules for listed companies

3. Independent Directors' Views

Independent directors agree with the Board of Director's views.

4. Policy for Connected Transactions

1. GPSC's directors and management prepare reports on their individual vested interests with related parties and notify the company for use as reference for taking action under applicable requirements for connected transactions.
2. Avoid engagement in connected transactions of potential conflicts of interest.
3. If a connected transaction proves unavoidable, GPSC must follow the procedures and comply with applicable laws, which include those criteria set by SEC and SET.
4. Set arm's-length prices and terms for connected transactions that are fair, sensible, and in the best interests of GPSC and all shareholders. If such prices are unavailable, GPSC must compare prices or service fees with third-party sources under the same or similar terms.
5. Those with vested interests in connected transactions cannot approve or vote on them.

6. In scrutinizing connected transactions, GPSC may appoint an independent assessor to evaluate and compare prices for significant ones to ensure that such connected transactions are sensible and in the best interests of GPSC and all shareholders

5. Trends for Connected Transactions with Potential Parties of Conflict

For future connected transactions, GPSC must comply with all laws on securities and exchanges, regulations, announcements, directives, or requirements of the Capital Market Supervisory Board, SEC, and SET. Engagement in such transactions must not result in benefit transfers or siphoning of interests between GPSC or its shareholders, or both, but rather in the best interests of GPSC and all shareholders.

For routine transactions likely to regularly occur, GPSC must follow the criteria and approaches of general commercial practices, with price references and terms that are suitable and fair, sensible, and auditable. Such transaction engagement must follow principles on agreements with general commercial terms approved by the Board of Directors. To this end, the management must prepare a summary of connected transactions for reporting to the Audit Committee each year.

Disclosure of GPSC's connected transactions must comply with all laws and regulations set by SEC and SET.

MANAGEMENT DISCUSSION AND ANALYSIS

Results of Operation – Consolidated Financial Statements

Unit: THB million

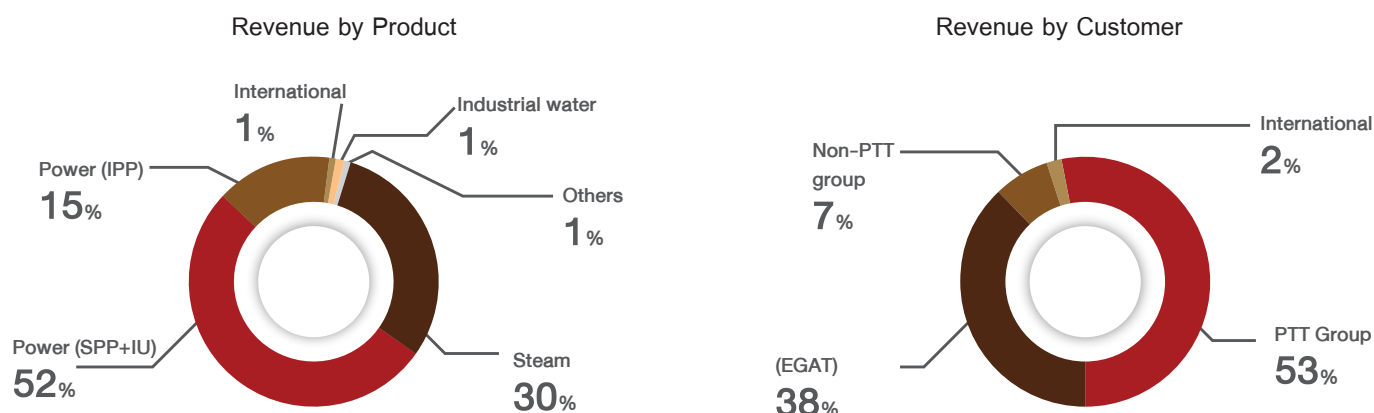
Results of operation in 2018	2017	2018	Change +/-
Operating revenue	19,917	24,777	24%
Gross profit	4,868	6,351	30%
EBITDA	4,187	5,457	30%
EBIT	2,836	3,655	29%
Other non-operating income and expenses	710	411	(42%)
Shares of profit of associates and joint ventures	517	595	15%
Net profit for the company	3,175	3,359	6%
Gross profit margin* (%)	24%	26%	2%
Net profit margin (%)	16%	14%	(2%)

*Excluding costs of depreciation and amortization

Global Power Synergy Public Company Limited (GPSC), henceforth “the company,” concluded its operations with a net profit of THB 3,359 million in 2018, an increase of THB 184 million or 6% compared to 2017, primarily attributable to a 30% increase in gross profit compared to 2017, equivalent to THB 1,483 million, derived from the power plants of IRPC Clean Power Company Limited (IRPC-CP), which began operating both phases commercially in November 2017, and from Ichinoseki Solar Power 1 GK (ISP1), which began commercial operation in December 2017. The increase in the net profit was also contributed by a 15% increase in shares of profit of associates and joint ventures compared to 2017, equivalent to THB 78 million, resulting from the beginning of commercial operation of Project 2 of Bangpa-in Cogeneration Company Limited (BIC 2) in June 2017 and the recognition of finance income from the concession of Nam Lik 1 Power Company

Limited (NL1PC) in accordance with the Thai Financial Reporting Standard Interpretations 12 (TFRIC12). However, the fact that GPSC reported operating revenue of THB 24,777 million, increased by 24% from 2017, while its net profit rose only by 6% in the same period due to various factors that affected the operations of the company, such as a considerable rise in natural gas prices against a slight increase in Fuel tariff rate (Ft); a major overhaul of Sriracha Power Plant, which resulted in reduced Availability Payment in the fourth quarter of 2018; and a dividend of THB 135 million derived from Ratchaburi Power Company Limited (RPCL) in 2018, lowered from THB 270 million in 2017, which corresponded with the trend of reduced recognized revenue among independent power producers (IPPs).

The revenue of THB 24,777 million in 2018 can be divided by product and customer as follows:



Performance Summary by Plant in 2018

Siracha Power Plant: IPP

The 2018 revenue from sales of electricity and financial lease totaled THB 3,790 million, decreased from THB 4,420 million or 14% in 2017 due to the lower dispatch of 24% according to EGAT's instruction. Also, Availability Payment revenue dropped by 42% from the accounting adjustment of Availability Payment according to TFRIC4 and major overhaul in the fourth quarter of 2018. However, the average sale price rose 12% as a result of lower dispatch, while GPSC still received Availability Payment revenue as contracted, which led to higher average sales price per unit. The cost of sales of goods and rendering of services of 2018 totaled THB 3,406 million, a decrease of THB 430 million or 11% from that of 2017, primarily attributable to a decrease in natural gas costs for electricity generation of THB 326 million or 10% and to a drop in maintenance costs of THB 87 million or 31%, corresponding to decreased operating hours.

Rayong Central Utility Plants 1-3 (CUP 1-3): Cogeneration

In 2018, the revenue from sales of electricity and steam totaled THB 14,060 million, an increase of 7% from THB 13,183 million in 2017 partly due to the 5% rise in the selling price of electricity on the back of the increased average Ft rate in 2018 compared to 2017 and partly due to the 4% increase in the average selling price of steam following an increase in natural gas prices. Also, sales volume of electricity and steam increased in the same rate at 2% from higher demand of industrial users. The cost of sales of goods and rendering of services of Rayong CUP 1-3 in 2018 amounted to THB 10,458 million, rising from the previous year by THB 830 million or 9%. This increase was attributable to the 11% rise in the cost of natural gases on the back of higher natural gas prices despite lower maintenance costs.

IRPC Clean Power Company Limited (IRPC-CP): SPP

The revenue generated by IRPC-CP in 2018 amounted to THB 6,317 million, which rose from THB 2,093 million in 2017 by 202%. The increase stemmed from the commercial operation of both Phase 1 and Phase 2, which commenced in the fourth quarter of 2017 and resulted in a 341% increase in power sales volume. Also, due to the 6% rise in the selling price of electricity on the back of the increased average Ft rate in 2018 compared to 2017 and the 6% increase in the average selling price of steam following an increase in natural gas prices. Similarly, the cost of sales of goods and rendering of services consisted of the raw material costs, made up primarily of natural gas costs, and other expenses rose by 195%. The total cost of sales of goods and rendering of services in 2018 amounted to THB 4,331 million, growing by THB 2,850 million or 192% as a result of the beginning of the commercial operation of Phase 2 stated above.

Combined Heat and Power Producing Company Limited (CHPP): VSPP

The revenue generated by CHPP in 2018 amounted to THB 326 million, which rose from THB 219 million in 2017 by 49%. The increase was attributable to more contracting services for the installation of rooftop solar panels at gas stations and buildings in PTT Group, which was also responsible for the THB 81 million increase in the cost of sales of goods and rendering of services.

Ichinoseki Solar Power 1 GK (ISP1): Other

In 2018, ISP1 generated a total of THB 279 million, which rose from THB 2 million in 2017. The increase resulted from the beginning of the commercial operation on December 15, 2017, which also contributed to the THB 39 million rise in the cost of sales of goods and rendering of services.

Milestones of 2018 and events materially significant to financial statements

- On May 25, 2018, Nava Nakorn Electricity Generating Company Limited (NNEG), a gas-fired small power producer (SPP) 30% owned by GPSC, began an investment project worth approximately THB 3,105 million to install an additional 60 megawatts power generation capacity and 10 tons/hour steam production capacity. The capacity expansion project began construction in the third quarter of 2018 and is expected to be completed and ready for commercial operation in the third quarter of 2020. After the project is completed, NNEG will have 185 megawatts power generation and 40 tons/hour steam production capacity in total.
- On June 20, 2018, the company announced the resolution of its Board of Directors to acquire 100% of the shares of Glow Energy Public Company Limited and convene the 1/2018 Extraordinary General Meeting on August 24, 2018 to seek approval for the direct and indirect acquisition of the shares of Glow Energy Public Company Limited as well as for the issuance of domestic and overseas debentures worth no more than THB 68,500 million or an equivalent amount in other currencies.
- On December 7, 2018, GPSC entered into a share purchase agreement with Brookfield Renewable Partners to directly or indirectly acquire through its subsidiaries 100% shares of three companies in which GPSC held investments, namely (1) N.P.S. Stargroup Company Limited (N.P.S), (2) World X Change Asia Company Limited (World X Change Asia), and (3) P.P. Solar Company Limited (P.P. Solar), solar power generation business with a combined capacity of 39.5 megawatts; and to invest in (4) TerraForm Global Operating (Thailand) Company Limited (TerraForm Global), a maintenance service provider for solar power plants. The combined value of the share acquisition transaction of the aforementioned companies amounted to approximately THB 3,070 million, including the acceptance of the assignment of rights under the loan agreements from the original shareholders.

Progress on Acquisition

Progress Report on Acquisition of Glow Energy Public Company Limited

On December 18, 2018, the company submitted a new application to the Energy Regulatory Commission (ERC) for Glow Energy Public Company Limited (GLOW) share acquisition transaction. The Company restructured the proposed transaction to be explicit for problem-solving in terms of reducing competition in the Map Ta Phut area. Subsequently, on December 26, 2018, the ERC approved the transaction in principle. The approval of ERC was subject to a condition

precedent that GLOW must sell Glow SPP 1 Company Limited (SPP1) before or at the same time as the merger of the company and GLOW. Accordingly, on this same day, the company and Engie Global Developments B.V. entered into an agreement to amend the Share Purchase Agreement dated June 20, 2018 by including the sale of SPP1 as an additional condition precedent of the Share Purchase Agreement, in line with the resolution of ERC. In other words, the company will be able to purchase the shares and make a tender offer for all of the remaining shares only after the sale of SPP1 has been completed. Currently, the condition precedent under the Share Purchase Agreement has not yet been satisfied.

The company is collaborating with related parties on relevant issues to reflect all necessary changes in the contractual documentation, including the adjustment of the tender price of GLOW's shares as a result of this additional condition precedent. The price will be adjusted downwardly from Baht 94.892 per share, based on the expenses that will be incurred from the selling of SPP1 and the reduced synergy impact without SPP1. The company anticipates that the relevant issues should be resolved and the purchase of GLOW shares should be completed by the first quarter of 2019.

Entering into a share purchase agreement to acquire solar power plants

According to the entering into a share purchase agreement to acquire 100% shares of the group of solar power generation business in Thailand with total power generation capacity of 39.5 megawatts as stated above, which the final acquisition price may be adjusted due to various factors. In this respect, this share purchase transaction will take place after approval of related governmental agencies and the fulfilment of the conditions precedent under the share purchase agreement. This transaction is expected to be completed in the first quarter of 2019, and the revenue recognition to GPSC will be consolidated in the second quarter of 2019. The funds for this transaction will be derived from the working capital of the company or the loan from financial institution. After the transaction, the target companies will have the status of subsidiaries of GPSC.

GPSC's acquisition of solar power plants was in line with the growth strategies of the company, which aimed to expand its renewable power business and build on its expertise in solar power generation business in Thailand. In addition, as solar power plants have long-term power purchase agreements, they will help foster continuous revenue stability for the company.

Operating Results

Unit: THB million

Operating results of the company and its subsidiaries	2017	2018	Changes +/-
Operating revenue	19,917	24,777	24%
Cost of sales (excluding depreciation and amortization)	(15,049)	(18,426)	22%
Gross profit	4,868	6,351	30%
Selling and administrative expenses	(693)	(909)	31%
Other operating income	12	15	25%
EBITDA	4,187	5,457	30%
Depreciation and amortization	(1,351)	(1,802)	33%
EBIT	2,836	3,655	29%
Financial costs	(361)	(514)	42%
Other non-operating income (and expenses)	710	411	(42%)
Shares of profit of associates and joint ventures	517	595	15%
Income tax expenses	(257)	(243)	(5%)
Profit before FX & extraordinary items	3,445	3,904	13%
Net foreign exchange gains (losses)	(3)	(15)	n/a
Legal reserves	(101)	-	(100%)
Net profit	3,341	3,889	16%
Non-controlling interests	(166)	(530)	n/a
Net profit for the company	3,175	3,359	6%
Earnings per share (THB/share)	2.12	2.24	6%
Weighted average number of common share (million shares)	1,498	1,498	0%

Comparison of Operating Results

1. Operating revenue

The operating revenue of 2018 increased by THB 4,860 million or 24% compared to 2017. The rise resulted from the higher sales of IRPC-CP and ISP1, which began commercial operation in the fourth quarter of 2017, as well as more revenue of CHPP generated by contracting services for the installation of rooftop solar panels at gas stations and buildings in PTT Group.

2. Cost of sales (excluding depreciation and amortization)

- **Natural gases:** Natural gases constituted a primary cost of the company. In 2018, the natural gas cost grew by THB 3,245 million or 25% as a result of higher natural gas prices and higher demand for natural gases of IRPC-CP, which began operating both phases commercially in November 2017.
- **Maintenance cost:** In 2018, the maintenance cost declined by THB 29 million or 4% as a result of the reduced hours of operation of Sriracha Power Plant in accordance with lower dispatch instruction by EGAT.

3. Selling and administrative expenses

In 2018, selling and administrative expenses totaled THB 909 million, an increase of THB 216 million or 31% from 2017 attributable primarily to administrative expenses incurred to accommodate business growth.

4. Depreciation

In 2018, depreciation amounted to THB 1,802 million, a rise of THB 451 million or 33% from 2017 resulting primarily from the beginning of the commercial operation of both phases of IRPC-CP in November 2017 and the beginning of the commercial operation of ISP1 in December 2017.

5. Financial costs

In 2018, the finance costs totaled THB 514 million, dropping by THB 153 million or 42% from 2017, mainly due to the recognition of the borrowing costs of IRPC-CP and ISP1 as expenses following the beginning of their commercial operation in the fourth quarter of 2017. In addition, GPSC raised an additional long-term loan of THB 2,000 million to accommodate business growth.

6. Other non-operating income and expenses

In 2018, GPSC's other non-operating income and expenses amounted to THB 411 million, a drop of THB 299 million or 42% compared to 2017. This decrease was attributable primarily to indemnities for machines at Rayong Central Utility Plant 1 and compensations from construction contractors of the first phase of IRPC-CP as received in 2017, and a drop in dividends from RPCL in 2018.

7. Shares of profit of associates and joint ventures

Unit: THB million

Company	% of shareholding	2017	2018	Changes +/-
Independent Power Producer (IPP)				
- Xayaburi Power Company Limited (XPCL)	25%	(22)	(25)	(15%)
Small Power Producer (SPP)				
- Bangpa-In Cogeneration Company Limited (BIC)	25%	88	145	64%
- Nava Nakorn Electricity Generating Company Limited (NNEG)	30%	122	112	(9%)
- Nam Lik 1 Power Company Limited (NL1PC)	40%	30	54	80%
Total for SPP		240	311	30%
Very Small Power Producer (VSPP)				
- Thai Solar Renewable Company Limited (TSR)	40%	299	309	3%
Total shares of profit of associates and joint ventures		517	595	15%

In 2018, GPSC recognized THB 595 million in its shares of profit of associates and joint ventures, which rose by THB 78 million or 15% compared to 2017. This increase could be attributed to:

- A 15% decrease in the share of profit from Xayaburi Power Company Limited, primarily caused by changes in administrative expenses during the period
- A 64% increase in the share of profit from Bangpa-In Cogeneration Company Limited (BIC), attributable to the full-year revenue recognition following the beginning of its commercial operation in June 2018
- A 9% decrease in the share of profit from Nava Nakorn Electricity Generating Company Limited (NNEG), caused by a rise in natural gas prices
- An 80% increase in the share of profit from Nam Lik 1 Power Company Limited, attributable to the recognition of finance income from its concession grantor in accordance with the Thai Financial Reporting Standard Interpretations 12 (TFRIC12)

- A 3% increase in the share of profit from Thai Solar Renewable Company Limited, accounted for lower interest payable, proportionate to a lower outstanding debt repaid in stages, and by amendments made to its loan agreement to reduce the interest rate

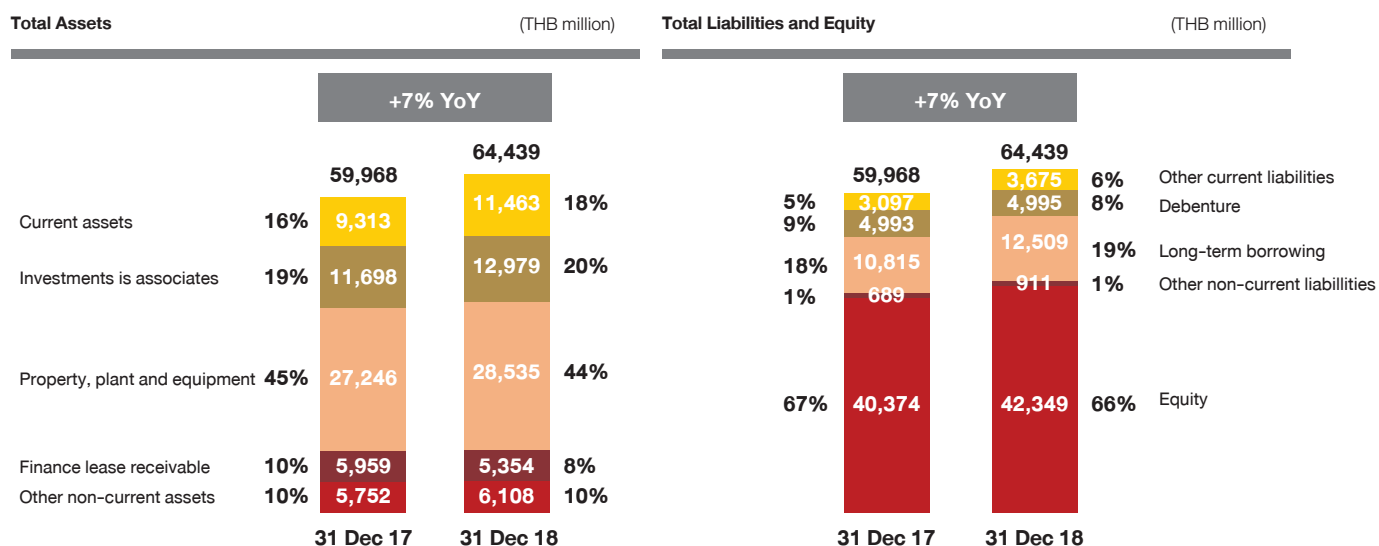
8. Net foreign exchange gains (losses)

In 2018, GPSC registered a foreign exchange loss of THB 15 million, compared to the THB 3 million foreign exchange gain in 2017.

9. Income tax expenses

In 2018, the income tax expenses totaled THB 243 million, a drop of THB 14 million or 5% compared to 2017. This decrease could be accounted for taxes on income not eligible for tax exemption according to BOI benefits, such as compensations received from the construction contractor of the first phase of IRPC-CP.

Statement of Financial Position



Assets

As of December 31, 2018, the total assets of GPSC and its subsidiaries amounted THB 64,439 million, which increased by THB 4,471 million or 7% from December 31, 2017. The increase resulted from an increase in current assets, in investments in associates, and in property, plants, and equipment of projects under construction. The details of significant changes are as follows.

- **Current assets** increased by THB 2,150 million or 23%, mainly due to:
 - A THB 429 million or 12% increase in accounts receivable on the back of increased sales volumes

- A THB 1,752 million or 14% increase in cash and cash equivalents attributable primarily to a THB 1,696 million drawdown (net from repayment)

- **Investments in associates and joint ventures** rose by THB 1,281 million or 11%, comprising THB 992 million in investments in associates and joint ventures and THB 291 million in other long-term investments, as detailed below.

Unit: THB million

Investments	Invested in 2018	Share of profit (loss)	Decrease from dividend received	Translation adjustment of currency	Increase (Decrease)
Investments in associates					
- Bangpa-In Cogeneration Company Limited (BIC)	-	145	(81)	-	64
- Xayaburi Power Company Limited (XPCL)	878	(25)	-	-	853
Total investments in associates	878	120	(81)	-	917
Investments in joint ventures					
- Thai Solar Renewable Company Limited (TSR)	-	309	(382)	-	(73)
- Nava Nakorn Electricity Generating Company Limited (NNEG)	7	112	(108)	-	11
- Nam Lik 1 Power Company Limited (NL1PC)	83	54	-	-	137
Total investments in joint ventures	90	475	(490)	-	75
Total	968	595	(571)	-	992

- **Property, plants and equipment - net** rose by THB 1,289 million or 5%, mainly caused by the land purchase and other expenses for operations related to the construction of Rayong Central Utility Plant 4.
- **Financial lease receivables – net** decreased by THB 605 million or 10% as a result of a gradual decline in the EGAT's financial lease receivable with respect to revenue recognition basis under TFRIC4.

Liabilities

As of December 31, 2018, the total liabilities of the company and its subsidiaries amounted to THB 22,090 million, an increase of THB 2,495 million or 13% from December 31, 2017. This increase could be attributed primarily to the following components.

- **Long-term loans from financial institutions** increased by THB 1,696 million or 11% due to a drawdown of THB 866 million on the existing agreements of IRPC-CP and ISP1 and an additional long-term loan of THB 2,000 million raised to accommodate business growth. However, a principal repayment of THB 1,199 million was made by ISP1, IRPC-CP, and CHPP.
- **Other current liabilities** increased by THB 578 million or 18%, primarily accounted for by construction payable in the construction of Rayong Central Utility Plant 4.

Equity

As of December 31, 2018, the total shareholders' equity of GPSC and its subsidiaries was THB 42,349 million, which increased by THB 1,975 million or 5% from December 31, 2017, mainly due to an increase of THB 1,309 million in the unappropriated retained earnings, as well as an increase of THB 530 million in non-controlling interests resulting from profit from operations of GPSC and its subsidiaries in 2018. In addition, GPSC paid out dividends amounting to THB 1,873 million in April and September 2018.

Statement of cash flow

In 2018, GPSC and its subsidiaries reported an increase in net cash and cash equivalents after effects of exchange rates of THB 1,752 million or 41% from the end of 2017, mainly attributable to an increase in cash received from operating activities. In 2017, the beginning cash and cash equivalents balance was THB 4,257 million and the ending cash and cash equivalents balance was THB 6,009 million. Details of cash flow by activity can be described as follows:

Unit: THB million

	2018
Net cash flow from operating activities	6,108
Net cash used in investing activities	(3,608)
Net cash used in financing activities	(716)
Net increase in cash and cash equivalents (prior to effects of exchange rates)	1,784
Effects of exchange rates to cash and cash equivalents	(32)
Net increase in cash and cash equivalents (after effects of exchange rates)	1,752
Cash and cash equivalents at the beginning of the period*	4,257
Cash and cash equivalents at the end of the period*	6,009

*Including restricted cash and temporary investment

• Cash flow from operating activities

In 2018, GPSC and its subsidiaries reported THB 6,108 million of net cash flow from operating activities, of which THB 6,473 million was obtained from operating activities during the period, with corporate income tax payment of THB 365 million

• Cash flow from investing activities

In 2018, GPSC and its subsidiaries spent THB 3,608 million baht on its investing activities, attributable to their payment of THB 3,220 million in construction payable during the period, THB 1,068 million in investments in additional capital paid-up in the associates and the joint ventures and other long-term investments, and THB 88 million in loan to related companies. At the same time, GPSC received THB 696 million in dividends from RPCL and other subsidiaries and THB 72 million in cash flow from other investing activities.

• Cash flow from financing activities

In 2018, GPSC and its subsidiaries spent THB 716 million net on financing activities. This sum came from drawdowns on long-term loans from financial institutions by ISP1 and IRPC-CP amounting to THB 2,866 million, against long-term loan repayment to financial institutions by ISP1, IRPC-CP, and CHPP totaling THB 1,199 million, interest payment for such loans amounting to Baht 510 million, and dividend payment of Baht 1,873 million.

Key Financial Ratios

Key Financial Ratios	Unit	2017	2018
Profitability ratios			
Gross profit margin*	%	24.44	25.63
Net profit margin	%	16.08	15.37
Debt ratios			
Interest coverage	times	7.85	7.11
Net debt-to-equity (Net D/E)	times	0.29	0.27
Total debt-to-equity (Total D/E)	times	0.49	0.52
Liquidity ratios			
Current ratio	times	2.43	2.58
Quick ratio	times	1.94	2.14

* Excluding costs of depreciation and amortization

Financial formulas

Ratios	Formula
Gross profit margin	$\frac{\text{Gross profit}}{\text{Revenue from sales of goods and rendering of services} + \text{Revenue from finance lease}}$
Net profit margin	$\frac{\text{Net profit}}{\text{Total Revenue}}$
Interest coverage ratio	$\frac{\text{Earnings before interest and tax expenses}}{\text{Interest expense}}$
Net Debt to Equity ratio	$\frac{\text{Interest bearing debts - (Cash and cash equivalents + Restricted cash + Current investments)}}{\text{Total shareholder's equity}}$
Debt to Equity ratio	$\frac{\text{Total liabilities}}{\text{Total shareholder's equity}}$
Current Ratio	$\frac{\text{Total current assets}}{\text{Total current liabilities}}$
Quick Ratio	$\frac{\text{Cash and cash equivalents + Restricted cash + Current investments + Trade account receivable}}{\text{Total current liabilities}}$
Debt Service Coveragr Ratio (DSCR)	$\frac{\text{EBITDA for DSCR for the last 12 months}}{\text{Principal and interest to be paid in the next 12 months}}$
Earning per share (EPS)	$\frac{\text{Net profit for the company}}{\text{Weighted average number of shares of the company}}$
Return on equity (ROE)	$\frac{\text{Net profit for the company}}{\text{Average shareholder's equity}}$
Return on asset (ROA)	$\frac{\text{Net profit for the last 12 months}}{\text{Average assets}}$
Book Value per share (BVPS)	$\frac{\text{Shareholder's equity of the company}}{\text{Weighted average number of common shares of the company}}$



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