



ENHANCE
SUSTAINABLE
DEVELOPMENT FOR
BETTER FUTURE

Form 56-1 One Report 2021



RATCH Group Public Company Limited

Vision

To become a leading value-oriented energy and infrastructure company in Asia Pacific.



Strategy

-  **S1** Optimize current asset efficiency and manage project in development to meet goals and budget
-  **S2** Further development of new power and infrastructure projects in established markets and emerging markets
-  **S3** Seek partners for business expansion of the power and infrastructure business in creating the sustainable value
-  **S4** Increase value through business expansion in related and other businesses
-  **S5** Strengthen organizational capability



Goals 2025

- G1** To seek new investment that maintains production capacity at 10,000 megawatts after capacity expiration or to increase enterprise value to Baht 200,000 million
- G2** To expand into businesses in the value chain and infrastructure business for optimum benefits
- G3** To raise revenue from overseas investment to no less than 50 percent of the Company's total revenue
- G4** To increase production capacity from renewable sources by no less than 25 percent of the total capacity
- G5** To be a high performance organization with concerns about sustainable environment, society and governance

Corporate Value



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Definition

Full name	Abbreviation
• RATCH Group Public Company Limited	The Company
• RATCH Group Public Company Limited, subsidiaries and affiliates	The Group
Group's power plants	
Domestic power plants	
Fossil fuel power plants	
• Ratchaburi Power Plant, Ratchaburi Electricity Generating Company Limited	Ratchaburi Power Plant
• Ratchaburi Power's Power Plant, Ratchaburi Power Company Limited	Ratchaburi Power's Power Plant
• Hin Kong Combined-Cycle Power Plant, Hin Kong Power Company Limited	Hin Kong Combined-Cycle Power Plant
• Ratchaburi World Cogeneration Company Limited's SPP Power Plant	Ratchaburi World SPP Power Plant
• Nava Nakorn Electricity Generating Company Limited's SPP Power Plant	Nava Nakorn SPP Power Plant
• Nava Nakorn Electricity Generating Company Limited's SPP Power Plant (Extension)	Nava Nakorn SPP Power Plant (Extension)
• Berkprai Cogeneration Company Limited's SPP Power Plant	Berkprai Cogeneration SPP Power Plant
• RATCH Cogeneration Company Limited's SPP Power Plant	RATCH Cogeneration SPP Power Plant
• RATCH Cogeneration Company Limited's SPP Power Plant (Extension)	RATCH Cogeneration SPP Power Plant (Extension)
• Nexif RATCH Energy Rayong SPP Power Plant, Nexif RATCH Energy Rayong Company Limited	Nexif RATCH Energy Rayong SPP Power Plant
• Independent Power Supply Project, R E N Korat Energy Company Limited	R E N Korat Energy Power Plant
• Sahacogen (Chonburi) Public Company Limited	Sahacogen Power Plant
Renewable power plants	
• Solarta Solar Farm, Solarta Company Limited	Solarta Solar Farm
• Solar Power Korat 3 Solar Farm, Solar Power (Korat 3) Company Limited	Solar Power Korat 3 Solar Farm
• Solar Power Korat 4 Solar Farm, Solar Power (Korat 4) Company Limited	Solar Power Korat 4 Solar Farm
• Solar Power Korat 7 Solar Farm, Solar Power (Korat 7) Company Limited	Solar Power Korat 7 Solar Farm
• Huay Bong 2 Wind Farm, K. R. Two Company Limited	Huay Bong 2 Wind Farm
• Huay Bong 3 Wind Farm, First Korat Wind Company Limited	Huay Bong 3 Wind Farm
• Songkhla Biomass Power Plant, Songkhla Biomass Company Limited	Songkhla Biomass Power Plant
Overseas power plants	
• Hongsa Thermal Power Plant, Hongsa Power Company Limited in Lao	Hongsa Thermal Power Plant
• Xe-Pian Xe-Namnoy Hydroelectric Power Plant, Xe-Pian Xe-Namnoy Power Company Limited in Lao	Xe-Pian Xe-Namnoy Hydroelectric Power Plant
• Nam Ngum 2 Hydroelectric Power Plant, Nam Ngum 2 Power Company Limited in Lao	Nam Ngum 2 Hydroelectric Power Plant

Full name	Abbreviation
<ul style="list-style-type: none"> Renewable Power Plant by EDL-Generation Public Company RATCH-Australia Corporation Limited's power plants in Australia Riau Combined-Cycle Power Plant, PT Medco Ratch Power Riau in Indonesia Asahan-1 Hydroelectric Power Plant, Fareast Renewable Development Pte. Ltd. in Indonesia Paiton Energy's thermal power plant in Indonesia Thang Long Coal-Fired Power Plant in Vietnam Ecowin (Thanh Phong) Wind Farm in Vietnam Nexif Energy Ben Tre Wind Farm in Vietnam 	Renewable Power Plant by EDL-Generation RATCH-Australia Power Plants Riau Combined-Cycle Power Plant Asahan-1 Hydroelectric Power Plant Paiton Energy's thermal power plant Thang Long Coal-Fired Power Plant Ecowin (Thanh Phong) Wind Power Plant Nexif Energy Ben Tre Wind Farm
Group's infrastructure projects, related and other businesses	
<ul style="list-style-type: none"> Optic Fiber Network Project, Smart Infranet Company Limited Internet of Things Project, Things On Net Company Limited Sandin Tap Water Project, Asia Water Company Limited in Lao PDR MRT Pink Line Project (Khae Rai - Min Buri), Northern Bangkok Monorail Company Limited MRT Yellow Line Project (Lat Phrao - Samrong), Eastern Bangkok Monorail Company Limited 	Optic Fiber Network Project Internet of Things Project Sandin Tap Water Project MRT Pink Line Project MRT Yellow Line Project
Other organizations	
<ul style="list-style-type: none"> The Securities and Exchange Commission The Stock Exchange of Thailand Thailand Securities Depository Company Limited Thai Institute of Directors Association Metropolitan Electricity Authority Electricity Generating Authority of Thailand Provincial Electricity Authority Mass Rapid Transit Authority of Thailand 	SEC SET TSD IOD MEA EGAT PEA MRTA
Technical terms	
<ul style="list-style-type: none"> A company whose ordinary shares are listed on the Stock Exchange of Thailand Power Development Plan Independent Power Producer Small Power Producer Very Small Power Producer 	Listed Company PDP IPP SPP VSPP

Board of Directors

01 Mr. Boonyanit Wongrukmit

Chairman
(EGAT's Representative Director and Authorized
Director)
Chairman of the Investment Committee

03 Mr. Chartchai Rojanaratanangkule

Independent Director
Chairman of the Audit Committee
Member of the Corporate Governance and Social
Responsibility Committee

02 Mr. Ratanachai Namwong

Independent Director
Member of the Risk Management Committee



04 Mr. Apichart Chinwanno

Independent Director
Chairman of the Human Resources and Remuneration Committee
Chairman of the Corporate Governance and Social Responsibility Committee

06 Mr. Suthon Boonprasong

Director
(EGAT's Representative Director and Authorized Director)
Member of the Investment Committee
Member of the Risk Management Committee

05 Mr. Boonsong Kerdklang

Independent Director
Member of the Audit Committee



Board of Directors

07 Mr. Somboon Nhookeaw

Independent Director
Member of the Audit Committee

09 Miss Nantika Thangsuphanich

Director (EGAT's Representative Director)
Chairman of the Risk Management Committee
Member of the Human Resources and
Remuneration Committee

08 Mr. Kriengkrai Rukkulchon

Independent Director
Member of the Human Resources and
Remuneration Committee



10 Mr. Prasertsak Chongchawano

Director
(EGAT's Representative Director and Authorized Director)
Member of the Investment Committee

12 Miss Choosri Kietkajornkul

Director
(EGAT's Representative Director,
Authorized Director and Executive Director)
Chief Executive Officer
Secretary to the Board of Directors

11 Miss Niramarn Laisathit

Director (EGAT's Representative Director)
Member of the Investment Committee



Management Team and Company Secretary



Miss Choosri Kietkajornkul

Chief Executive Officer



Mr. Sakarin Tangka-vachiranon

Chief Business Development Officer



Mr. Boonchai Jarunwaraphan

Chief Project Development Officer



Mr. Nimit Lekcharoensuk

Chief Asset Management Officer



Mrs. Wadeerat Charoencoop

Chief Financial Officer
(Top Responsible Person in Accounting and Finance)



Mr. Nawapol Disathien

Executive Vice President – Corporate Administration



Miss Suwannee Sirisajjawat

Senior Vice President – Head of General Accounting Division
(Directly Responsible Person for Accounting Supervision)



Miss Phavika Smanratana

Vice President – Head of Financial Planning
and Management Division



Miss Titiporn Komsartra

Vice President – Head of Accounting Control
and Analysis Division



Miss Puthachard Smitamegha

Vice President – Head of
Tax Management and
General Ledger Division



Miss Wanphen Chamkham

Vice President-Head of Company
Secretary Office and
Company Secretary



Miss Kamolkarn Hinviman

Vice President-Head of
Internal Audit Division
(Head of Internal Audit)



(Mr. Boonyanit Wongrukmit)
Chairman

Message from Chairman

Dear all shareholders and stakeholders,

2021 marked another challenging year for RATCH as the COVID-19 was continuing to spread around the world. As such, we adapted and changed our operating process more resilient to accommodate changing environment. RATCH consequently moved forward our mission and accomplished the targets for acquisition of capacity, new business, impressive operating and financial results, and progress of sustainability development.

Caring employees' health and safety, as well as society's aids during COVID-19 outbreak

RATCH devised the measures that helped protect workers and prevent them from infection. Good health was promoted through the provision of alternative vaccine and appropriate health insurance and strict compliance with public health measures. Our power plants were announced restricted zones and accommodations were provided to operators remaining safe from the virus. RATCH also informed, advised and assisted employees and their families who were at risk and closely monitored the condition. We facilitated necessity to boost efficiency and flexibility when employees worked at home or anywhere outside the office. At the result, we ably prevented the infectious diseases spread at Head Office, encouraging employees' motivation to work to the fullest and contribute to the Company's achievements.

Additionally, RATCH provided financial assistance, medical equipment and in-kind supports to hospitals, medical professionals, government agencies and communities across Thailand, to give them moral supports and ease their hardship caused by the COVID-19.

Striking the balance of economic values and social/environmental values

RATCH realizes that the power generation business, our core business, is in a transition period due to the climate change. The Board of Directors and the Management jointly reviewed and revised the business strategy and investment targets in the medium and long terms taking into consideration of high potential businesses especially in renewable and low-carbon energy. RATCH subsequently raised the target of renewable capacity to 2,500 MW or 25 percent of total capacity in 2025 and 4,000 MW or 40 percent in 2035. In addition, the Company planned to increase investment in portfolio of non-power business to 20 percent of the total. Importantly, the coal-fired generation was limited at 2,000 MW or 20 percent of the total targeted capacity.

In 2021, two large wind farms in Australia with attributable installed capacity of 377 MW effectively commenced commercial operations. In the meantime, one wind farm in Vietnam with attributable installed capacity of 15 MW was under construction and scheduled for commercial operations in 2022. Moreover, RATCH successfully raised stake indirectly in 180-MW Asahan-1 Hydroelectric Power Plant in Indonesia, to 47.89 percent. At the year end, RATCH's renewable attributable installed capacity totaled 1,346 MW or 14.8 percent of total attributable installed capacity of 9,115 MW.

This year, RATCH put an emphasis on power and energy related innovation development and investment and invested 30 percent stake in Innopower Company Limited, a joint venture with Group of Electricity Generating Authority of Thailand (EGAT Group). The joint company is set to commercialize EGAT's invention and innovation, as well as seek for investment in energy-related start-ups and new S-Curve businesses. Innopower will turn risks to opportunities, moving the Company in light of the energy transition to a green industry. RATCH also

diversifies into the hospital and healthcare business, as the basic needs demonstrates growth potential. Consumers nowadays pay more attention to healthcare due to the COVID-19 outbreak and the ageing conditions. In 2021, RATCH completed 2 transactions including 10 percent share purchase of Principal Capital Public Company Limited; an operator of 12 hospitals in Bangkok and upcountry, and 9.91 percent equity acquisition of Bangkok Chain International (Lao) Company Limited, the operator of a 254-bed hospital in Lao PDR.

The Company is confident that the approaches and targets will continually grow our enterprise values and the supply chain, meanwhile contributing benefits to the environment and society, helping mitigate the climate change impacts.

On path to sustainable future

RATCH remains the commitment to economic, environmental and social value creation under the 3 principal strategies; Growth Strategy, Green Strategy, Generate Strategy, together with 4 key targets: growth in power generation business particularly renewable energy; growth in non-power industry in response to low-carbon society and digital economy; capacity building for enhancing our competitiveness and leadership in the industry; and partnership with all parties for the sake of environment and society to uplift sustainability standards particularly in environmental, social and governance aspects that matter to stakeholders.

In the meantime, RATCH is on alert and prepared for the COVID-19 situation, to ensure that our operations at all locations enable to proceed and achieve growth target.

Lastly, we would like to express appreciation all shareholders, the Board of Directors, the Management, employees and stakeholders for continuous cooperation, supports and recommendations. We affirm the commitment to drive RATCH Group towards growth and sustainability.

Sincerely yours,



(Mr. Boonyanit Wongrukmit)

Chairman

Audit Committee's Report



(Mr. Chartchai Rojanaratanangkule)

Chairman of the Audit Committee

RATCH Group Public Company Limited's Audit Committee comprises 3 independent directors namely (1) Mr. Chartchai Rojanaratanangkule as Chairman of the committee, (2) Mr. Boonsong Kerdklang and (3) Mr. Somboon Nhookeaw as the committee's members. All three members performed their duties as the Audit Committee with Miss Kamolkarn Hirviman, Vice President - Head of Internal Audit Division, serving as the committee's secretary.

All members of the Audit Committee performed their tasks independently and had complete qualifications as stated in the Company's Regulation on the Board of Directors B.E. 2562 and the Company's Regulation on the Audit Committee B.E. 2563. Both regulations are compliant with the regulations of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET).

In 2021, the Audit Committee convened all 6 E-meetings as scheduled in advance, under the Emergency Decree on Electronic Meetings B.E.2563. Each meeting was attended by all members. The Committee also held 1 meeting with the auditors without the presence of the Management to assure the auditor's freedom in obtaining information and scrutinizing the information significant for the preparation of financial statements.

The Committee also held a meeting with the Risk Management Committee to share and exchange opinions on risk management. (Details of the Audit

Committee individual members' meeting attendance appeared in the Meeting Attendance Table in the Corporate Governance Section.) The Managements of the Company and subsidiaries and auditors participated in the Audit Committee's meetings to present information, listen to opinions and suggestions useful for the Company's operations. The results of each meeting were reported to the Board of Directors on a regular basis.

In the past year, the Audit Committee's significant activities can be summarized as follows:

- Review the accuracy, completeness and credibility of quarterly and annualized financial statements of the Company and its subsidiaries, to ensure compliance with financial reporting standards. The review covered significant issues and extraordinary items as well as the explanations from auditors and the Managements, to ensure the statements were prepared accordingly to legal requirements and financial reporting standards before submission to the Board of Directors.
- Review and assess the sufficiency of the internal control system including IT-related control, to ensure the Company's effective and efficient operations that would enable goal achievements. The review showed the Company's directors, the Management and employees strictly followed and actively applied the anti-corruption policy through participation with Thailand's Private Sector Collective Action Coalition Against Corruption (CAC).

- Review the Company's compliance with the Securities and Exchange, the Stock Exchange of Thailand's rules and regulations, relevant business laws, corporate governance best practices, the Company's regulations and policies that encompass the anti-fraud and corruption policy.

- Review the transactions that may cause conflicts of interest and ensure that they comply with laws and regulations specified by the Capital Market Supervisory Board and relevant agencies. Connected transactions or other transactions that may cause conflicts of interest must be approved by the Audit Committee before submission to the Board of Directors for further consideration. The Management reported transactions in these categories to the Audit Committee for acknowledgment on a quarterly basis.

- Ensure the appropriate internal control of the accounting system and financial reports as well as risks related to fraud and corruption; as well as the complete and efficient implementation.

- Review together with the Management risk management, risk management policy, compliance with the policy and risk management guidelines. A meeting with the Risk Management Committee was held to ensure effective and efficient risk management and its alignment with the internal audit, taking into account the Company's Key Corporate Performance Appraisal and the assessment of enterprise risks in terms of production targets, new business targets, performance targets, financial targets, sustainability targets, etc.

- Monitor the internal audit to ensure efficiency and effectiveness by approving the annual audit plan and long-term audit plan, acknowledging audit results and giving comments so that the internal control is effective in preventing or mitigating possible risks. Recommendations were made on the implementation, follow-up and improvement along with the review on the internal control division's budget, workforce and

personnel development. The Committee also proposed improvements to the internal control, by improving the internal control's efficiency and effectiveness accordingly to the results of Quality Assurance Review completed by external experts and ensuring the internal control meet professional audit standards and international best practices.

The Audit Committee conclusively considered that the financial statements of the Company and subsidiaries met the generally accepted accounting standard; that the disclosed information was adequate, accurate, complete and credible; and that the internal control as well as risk management was sufficiently efficient and effective with clear separation of authority and duty and without signs of weaknesses or deficiency. There was no observation or any issue related to fraud and corruption. The operations of the Company and subsidiaries and connected transactions fully complied with the securities and exchange law, the Stock Exchange of Thailand's regulations and relevant laws, consistent with the auditor's assessment. The Audit Committee's opinions appearing in meeting minutes were forwarded to the Board of Directors for further consideration.

Concerning the auditor appointment, the Audit Committee consented the appointment of Mr. Vairoj Jindamaneepitak (CPA (Thailand) No. 3565) or Mr. Nattapong Tantichattanond (CPA (Thailand) No. 8829) or Miss Dussanee Yimsuwan (CPA (Thailand) No. 10235) of KPMG Poomchai Audit Limited as the auditor of the Company and its subsidiaries in 2022. The named auditors are independent, qualified and certified by the Office of Securities and Exchange Commission. The total audit fee is Baht 4.53 million (excluding Out-of-Pocket expenses at actual amount but not exceeding Baht 0.17 million). The Company's audit fee is Baht 2.4 million (excluding Out-of-Pocket expenses at actual amount but not exceeding Baht 0.05 million). The Audit Committee submitted the matter to the Board of Directors, to further seek shareholders' approval at the Annual General Meeting.

Human Resources and Remuneration Committee's Report



A handwritten signature in black ink, appearing to read 'Apichart Chinwanno'.

(Mr. Apichart Chinwanno)

Chairman of the Human Resources
and Remuneration Committee

RATCH Group Public Company Limited's Human Resources and Remuneration Committee consists of Mr. Apichart Chinwanno, an independent director who acts as the Committee's chairman; and two other members - Mr. Kriengkrai Rukkulchon, an independent director; and Miss Nantika Thangsuphanich, a director.

In 2021, the Human Resources and Remuneration Committee cautiously executed the Board of Directors' assignments and the tasks stipulated in the regulation of the Human Resources and Remuneration Committee with due care and thoroughness. It selected and proposed suitable candidates, reviewed and provided the Board of Directors with recommendations on issues of importance. The Committee held 9 meetings in 2021 all of which were attended by all members. The Committee considered several significant matters as summarized below:

- Appoint directors in replacement of those who retired or resigned based on the candidates' qualifications as specified by laws, the Company's rules and regulations and corporate governance practices, without prejudices based on gender or

ethnic origin. The appointment took into account the individuals' knowledge, ability, skills and expertise relevant to their duties in accordance with to the "Board Skills Matrix". Designed to promote board diversity, the matrix enabled RATCH to have the directors whose expertise matches the Company's business strategies.

- Determine the remunerations of directors and Sub-committees' members that correspond with their duties and responsibilities, taking into account the remunerations of listed companies in the same industry and top local corporations; and directors' annual performance assessment. The remunerations were proposed to the Board of Directors and submitted to the annual shareholders meeting for approval.

- Determine the remunerations of the Chief Executive Officer and executives holding the Executive Vice President position or higher, commensurate with their assigned duties and responsibilities. The remunerations are considered, based on the Company's performance, rates offered by listed companies of comparable sizes and similar nature of business,

as well as the Chief Executive Officer's performance evaluation by the Board of Directors.

- Encourage the Company to provide opportunities for minority shareholders to nominate candidates for appointment as directors at the Annual General Meeting for the year 2022. Nevertheless, no such nomination was submitted.

- Review the selection process for executives holding the Executive Vice President position or higher by taking into consideration the knowledge, capabilities, skills, experiences, expertise and vision towards the organization that would be beneficial to the Company's operations. Under the new selection process, experts were invited to the committee to interview and consider the candidates' vision. The nomination of suitable candidates would then be submitted to the Board of Directors for further consideration and appointments.

- Consider together with the Management the guidelines on additional manpower requirement to meet the Company's business expansion; the pay increase criteria for the year 2022; and the annual bonus payment policy. The salary increase and bonus rates were maintained in line with the Company's performance, the duties and responsibilities assigned and the individual's performance, to attract and retain talents.

The Human Resources and Remuneration Committee performed its duties independently, transparently and in line with good governance practices, to ensure appropriate nomination and remuneration setting procedure for the Company's benefits. All tasks were executed chiefly to build trust and confidence among shareholders and all stakeholders.

Corporate Governance and Social Responsibility Committee's Report



A handwritten signature in black ink, appearing to read 'Apichart Chinwanno'.

(Mr. Apichart Chinwanno)

Chairman of the Corporate Governance
and Social Responsibility Committee

In 2021, the Corporate Governance and Social Responsibility Committee comprises 2 members. Mr. Aprichart Chinwanno, an Independent Director, serves as Chairman of the Committee and Mr. Chartchai Rojanaratanangkule, an Independent Director, is the Committee's member. The Committee's meeting is scheduled every 3 months. Amid the COVID-19 pandemic, the Committee held 4 meetings, in person and online, with the Management. All meetings were attended by all members.

For the execution of corporate governance, environmental and social work, the Corporate Governance Working Group and the Working Committee on Environment, Society and Governance are responsible for reviewing and considering issues of importance as well as improving operation rules to ensure compliance with domestic and international principles, standards and best practices, and submit recommendations to the Committee for consideration and endorsement.

In the past year, the Committee gave the Management guidance and suggestions on the enhancement of the Company's governance, environmental and social practices, to be in line with internationally-accepted practices. It also ensured they were applicable to the organization's context and nature of business, so that the organization is guided towards sustainable growth goals. The significant issues under consideration in 2021 were summarized as follows:

- The review of the compatibility of the Company's corporate governance practices with the Principles and Code of Good Corporate Governance for Listed Companies 2017 specified by the Office of Securities and Exchange Commission. The review confirmed the compatibility and the coverage of significant aspects.
- The review of the compatibility and completeness of RATCH Group Public Company Limited's Regulation on Anti-Fraud and Corruption with the Thai Private Sector Collective Action Against Corruption's principles.

Following the review, rules and guidelines on facilitating payments and state officials' employment were added, to make the suppression and prevention measures more comprehensive and more efficient.

- The review of the objectives of 2 corporate social responsibility activities – the Love the Forests and the Community and the Community Energy Conservation Projects, so that they are responsive to the Company's greenhouse gas management guidelines and goals as well as supporting SDG 13: Climate Action on taking urgent action to combat climate change and its impacts.

- The recommendation on the Company's sustainability disclosure, supporting the Company's participation in corporate sustainability assessment of the Stock Exchange of Thailand and S&P ESG Indices, and providing relevant information to domestic and foreign institutional investors, that should lead to the improvement and raise the Company's operation on sustainability closer to international standards.

- The recommendation and support on participation in the Corporate Governance Report of Thai Listed Companies (CGR) in 2021, ASEAN Corporate Governance Scorecard 2021, and the evaluation of Annual Shareholders General Meeting in 2021. All scores will be received and considered for further improvement.

- The review of the Corporate Governance Working Group's reports concerning the compliance with the Company's Code of Conduct and complaints. There is no violation against the Code of Conduct nor complaint filed in 2021.

Thanks to the determination to meet the international standards on corporate governance and the efforts in continuously improving environmental and social activities in line with the sustainable development principles, RATCH has won recognition of various organizations which granted awards and votes of recognition including;

- Highly Commended in Sustainability Awards in Sustainability Excellence category of SET Awards 2021 organized by the Stock Exchange of Thailand,

- Listed in the 2021 Thailand Sustainability Investment (THSI) by the Stock Exchange of Thailand for 7 consecutive years,

- 96% total average score from 2021 Corporate Governance Report of Thai Listed Companies (CGR) organized by the Thai Institute of Directors Association (IOD) and the Stock Exchange of Thailand,

- Full score in the evaluation of Annual Shareholders General Meeting's quality in 2021 conducted by the Thai Investors Association,

- Honorable Award in Sustainability Disclosure Award in 2021 organized by Thai Pat Institute.

The Committee is committed to desire and the goal of further development and enhancement of level of the Company's corporate governance, environmental and social standards. The Committee is convinced that these standards are the key components in strengthening the organization's foundation and driving the organization towards sustainable values in economic, environmental and social dimensions.

Investment Committee's Report



A handwritten signature in black ink, appearing to be 'Boonyanit Wongrukmit'.

(Mr. Boonyanit Wongrukmit)

Chairman of the Investment Committee

As of 31 December 2021, the Investment Committee comprised 4 members namely 1) Mr. Boonyanit Wongrukmit, as Chairman of the Investment Committee, 2) Mr. Suthon Boonprasong 3) Miss Niramarn Laisathit and 4) Mr. Prasertsak Cherngchawano, as committee members. Mr. Sakarin Tangkavachiranon, Chief Business Development Officer served as the committee's secretary.

During 2021, the committee witnessed 2 changes of the Investment Committee's members: 1) On 20 July 2021 when Mr. Nutthavutthi Chamchang resigned to vacate his position and 2) on 1 October 2021 when Miss Choosri Kietkajornkul vacated her director position following the appointment as the Company's Chief Executive Officer. She was replaced by Mr. Prasertsak Cherngchawano. The Investment Committee's duties and responsibilities are as follows:

1. Determine strategies, objectives, investment plans, investment budgets, return on investment and other benefits from investment projects, to grow the corporate values in a sustainable manner.
2. Screen investment projects proposed by the Management, to ensure that all power plant projects (Greenfield, Brownfield, and those acquired through mergers and acquisitions), related businesses including infrastructure and new businesses in Thailand and

abroad support and stay interconnected and aligned with the Company's investment policy and objectives as well as the Company's vision of a leading value-oriented energy and infrastructure company in Asia Pacific. The process takes into account return on investment and the management of risks according to risk appetite.

3. Examine, monitor and evaluate the approved projects and report to the Board of Directors for its acknowledgement.

In 2021, the Investment Committee convened 12 meetings, attended by all incumbent directors. At the meetings, members independently discussed, asked questions and expressed opinions, acting in favor of the Company's overall interests. The members reviewed, followed up and assessed the Company's investment projects, to ensure the expected returns. The members also helped prevent and tackle obstacles that might affect project development and operations. The Investment Committee viewed that the Company's investment decision should be based on prudent, careful and cautious study and analysis of circumstantial factors, in depth and breadth, by internal and external experts in line with corporate good governance principles, anti-corruption policy and equitable treatment of all stakeholders, for the Company's stable and sustainable growth.

Risk Management Committee's Report



A stylized, handwritten signature in black ink.

(Miss Nantika Thangsuphanich)

Chairman of Risk Management Committee

2021 was a year of challenges in growing the electricity generation business both in Thailand and abroad as well as in exploring new investment opportunities in order to diversify revenue risks. Amid the challenges, RATCH encountered risks that obstructed the operations including the transition of the global energy industry tilting towards sustainability and reduction in carbon emissions to reduce environmental impacts; the COVID-19 impacts on construction works and commercial operation schedule; and the climate change that affected project-level and enterprise-level operations as resource utilization must be optimized with concerns about the ESG (environmental, social and governance) principles.

Under these circumstances, RATCH realized the importance of risk management, to reduce the likelihood and impacts from those risks and ensure the accomplishment of corporate strategies. The process will reassure shareholders and stakeholders of the Company's growth opportunities and profitability.

RATCH promoted the enterprise risk management under the structure led by the Risk Management Committee (RMC). RMC considers and reviews risk issues thoroughly as well as gives recommendations and guidelines on risk management to the Risk Management Team (RMT). Consisting of functional chiefs, RMT is tasked to manage and control risks within the Company's risk appetite accordingly to the COSO ERM 2017 framework.

In 2021, the Risk Management Committee continuously and closely supervised risk management, to ensure operational efficiency. Risk factors that may send significant impacts on the operations and business objectives were under surveillance. The key tasks performed in the year were summarized as follows:

- 1) Assess, monitor and advise on project risk management involving the projects in operation phase and construction phase, so that all could proceed as planned in line with risk appetite.

2) Assess, monitor and advise on corporate risk management as well as schedule the assessment of risks involving with the Company's short-term and long-term targets, opportunities and impacts if the targets are achieved or not achieved, so that proper guidelines can be formulated to achieve the targets.

3) Monitor and analyze the impacts from emerging risks such as the climate change and the COVID-19 outbreak. The response process was reviewed for timely and appropriate responses to circumstances, as required by the authorities.

4) Review the risk management policy and the risk management framework and improve the key risk factors, to ensure the efficiency of risk management and alignment with the enterprise strategies and changing circumstances.

Amid these uncertainties and rapid changes, the Risk Management Committee and the Management vow to maintain and improve the risk management efficiency, to help the Company achieve business objectives as planned for the organization's stability and sustainability.

Shareholders

Top 10 Major Shareholders as at 8 September 2021^{/1}

NO.	Major Shareholders	No. of shares (share)	%
1.	ELECTRICITY GENERATING AUTHORITY OF THAILAND ^{/2}	652,500,000	45.00
2.	THAI NVDR COMPANY LIMITED ^{/3}	77,276,896	5.33
3.	SOCIAL SECURITY OFFICE	67,913,700	4.68
4.	EGAT SAVING AND CREDIT COOPERATIVE LIMITED	56,792,500	3.92
5.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	37,855,165	2.61
6.	MR. MIN TIENWORN	20,076,200	1.38
7.	STATE STREET EUROPE LIMITED	12,880,959	0.89
8.	MR. PRATEEP TANGMATITHAM	11,888,600	0.82
9.	SUPALAI PROPERTY MANAGEMENT COMPANY LIMITED	8,036,300	0.55
10.	VAYUPAK FUND 1 BY MFC ASSET MANAGEMENT PUBLIC COMPANY LIMITED	7,068,750	0.49
11.	VAYUPAK FUND 1 BY KRUNGTHAI ASSET MANAGEMENT PUBLIC COMPANY LIMITED	7,068,750	0.49
Total		959,357,820	66.16
Other shareholders		490,642,180	33.84
Grand total		1,450,000,000	100.00

Note: ^{/1} As of September 8, 2021, list of Shareholders was compiled by Thailand Securities Depository Company Limited (the Company's registrar.)

^{/2} Electricity Generating Authority of Thailand is a state enterprise operating in electricity business and related businesses, including investing with others in operating such businesses, and is a major shareholder of the Company with 6 representatives sitting in the Company's 12-member Board of Directors.

^{/3} Thai NVDR Company Limited is responsible for issuing Non-Voting Depository Receipts (NVDRs) having Thai shares as underlying assets. Details are in "Registered Capital and Paid-up Capital". RATCH's NVDR holders as at 8 September 2021 are as follows:

No.	Major Shareholders	No. of shares (share)	%
1.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	20,652,768	1.42
2.	STATE STREET BANK AND TRUST COMPANY	13,454,900	0.93
3.	STATE STREET EUROPE LIMITED	13,399,298	0.92
4.	GIC PRIVATE LIMITED	3,040,356	0.21
5.	UBS AG LONDON BRANCH	1,948,873	0.13
6.	NORTRUST NOMINEES LTD-CL AC	1,455,800	0.10
7.	NORTRUST NOMINEES LIMITED-QSUPER	1,109,400	0.08
8.	THE BANK OF NEW YORK (NOMINEES) LIMITED	1,088,200	0.08
9.	BNY MELLON NOMINEES LIMITED	1,001,460	0.07
10.	J.P. MORGAN IRELAND (NOMINEES) LIMITED	972,200	0.07
Total		58,123,255	4.01
Other shareholders		19,153,641	1.32
Grand total of shares held via Thai NVDR Company Limited		77,276,896	5.33

Note: Data as shown on SET's website: (<https://www.set.or.th/set/companyholder.do?symbol=RATCH-R>)

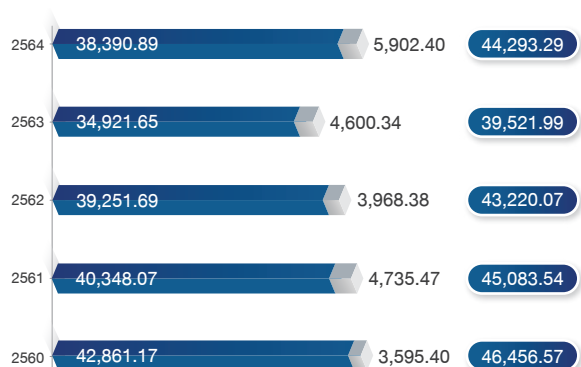
Financial Highlights

		2021	2020	2019	2018	2017
Statement of Income						
Total revenue	Million baht	44,293.29	39,521.99	43,220.07	45,083.54	46,456.57
Earnings before interest, taxes, depreciation and amortization (EBITDA)	Million baht	11,661.61	9,664.80	9,996.24	9,599.80	9,236.32
Profit - Owners of the parent	Million baht	7,772.02	6,286.68	5,963.28	5,587.60	6,038.55
Statement of Financial Position						
Assets	Million baht	154,855.31	112,132.25	100,229.43	101,251.90	93,794.41
Liabilities	Million baht	77,045.77	51,610.68	40,815.50	41,315.88	34,784.91
Shareholders' equity	Million baht	77,809.54	60,521.57	59,413.93	59,936.02	59,009.50
Stock information						
Book value	Baht	48.48	41.74	40.97	41.34	41.16
Earnings per share	Baht	5.36	4.34	4.11	3.85	4.16
Dividend per share	Baht	2.50**	2.40	2.40	2.40	2.40
Dividend payout ratio	%	46.64	55.36	58.36	62.28	57.63
Year-end share price	Baht	45.00	53.00	68.75	50.75	54.25
Financial Ratios (excluding foreign currency effects)						
Liquidity ratio	X	1.25	2.69	2.70	2.22	2.44
Profit to revenue (excluding fuel costs)	%	40.30	37.03	38.90	43.53	36.15
Return on equity	%	11.57	9.98	10.21	10.79	9.43
Return on assets	%	7.10	7.24	8.33	8.53	8.34
Return on total assets	%	8.74	9.10	9.92	9.84	9.73
Debt to equity	X	0.99	0.85	0.69	0.69	0.59
Net debt to equity	X	0.64	0.57	0.38	0.32	0.20
Change in finance leases contracts	Million baht	2,575.60	3,346.05	1,359.51	3,654.89	3,920.38

Note: * excluding currency effects and changes in finance lease contracts

** Submitted to the 2021 Annual General Meeting of Shareholders, held on April 29

Total Revenue (Million Baht)



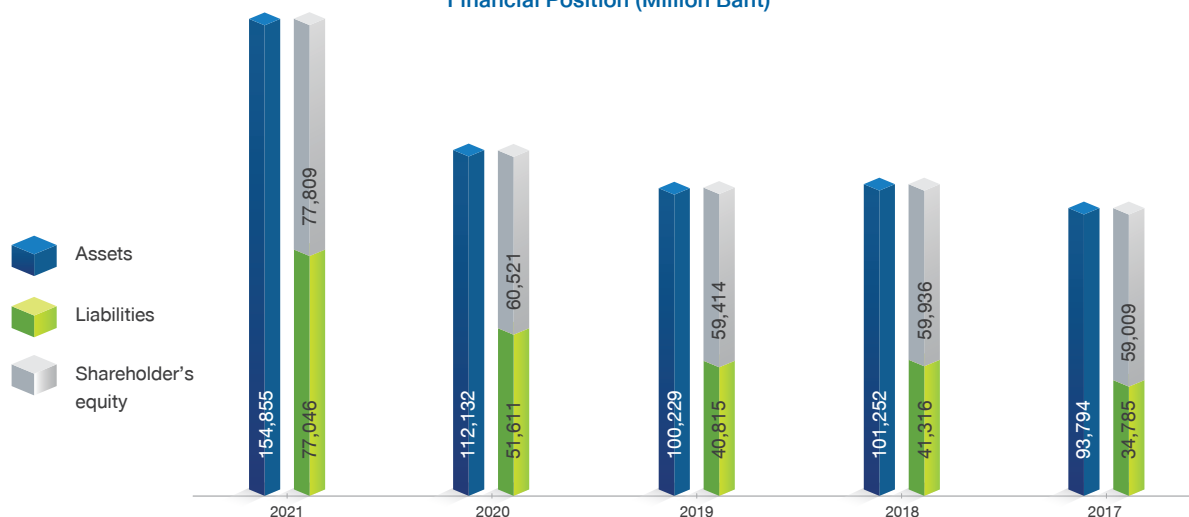
Revenue from the Company and subsidiaries Share of profit from investment in associates and joint ventures

The Company's Profit (Million Baht)



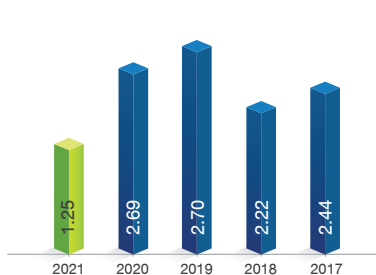
Profit from the Company and subsidiaries Share of profit from investment in associates and joint ventures

Financial Position (Million Baht)

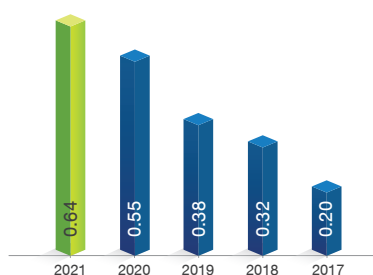


Assets
Liabilities
Shareholder's equity

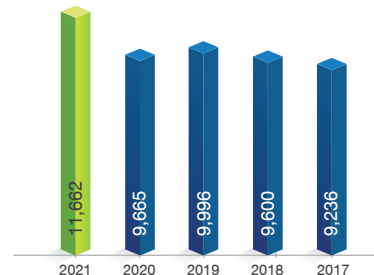
Current Ratio (x)



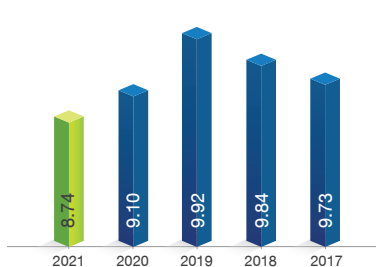
Net Debt to Equity ratio (x)



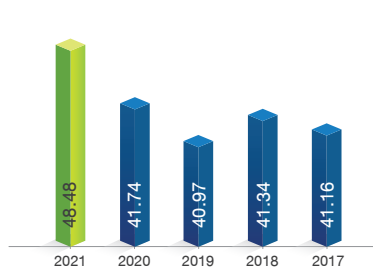
EBITDA (Million Baht)



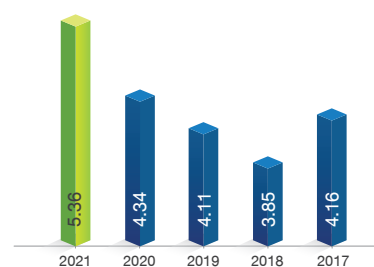
EBITDA to Total Assets (%)



Book Value (Baht)



Earnings per share (Baht)



Part 1: Business Operations and Performance

1. Structure and Operations

1.1 Policy and Business Overview

Vision

To become a leading value-oriented energy and infrastructure company in Asia Pacific.

Mission

- M1** To ensure shareholders' value creation by generating financial returns with sustainable accountability for environment, society and corporate governance
- M2** To achieve world-class operational excellence and enhanced competitiveness
- M3** To conduct business in a fair and sustainable manner, comply with all related laws and regulations
- M4** To raise employee awareness and self-development motivation in preparation for business competition and future changes
- M5** To support long-term domestic energy security and infrastructure
- M6** To seek new and alternative opportunities in related and other businesses that generate growth and expand business base for shareholders

Goals 2025

- G1** To seek new investment that maintains production capacity at 10,000 megawatts after capacity expiration or to increase enterprise value to Baht 200,000 million
- G2** To expand into businesses in the value chain and infrastructure business for optimum benefits
- G3** To raise revenue from overseas investment to no less than 50 percent of the Company's total revenue
- G4** To increase production capacity from renewable sources by no less than 25 percent of the total capacity
- G5** To be a high performance organization with concerns about sustainable environment, society and governance

Strategies



Optimize efficiency of current assets and ensure under-development projects meet business and budgeting targets



Emphasize power and infrastructure projects in established markets and emerging markets



Seek partners for business expansion in power and infrastructure businesses that create sustainable value



Increase added-value through diversification into related and other businesses

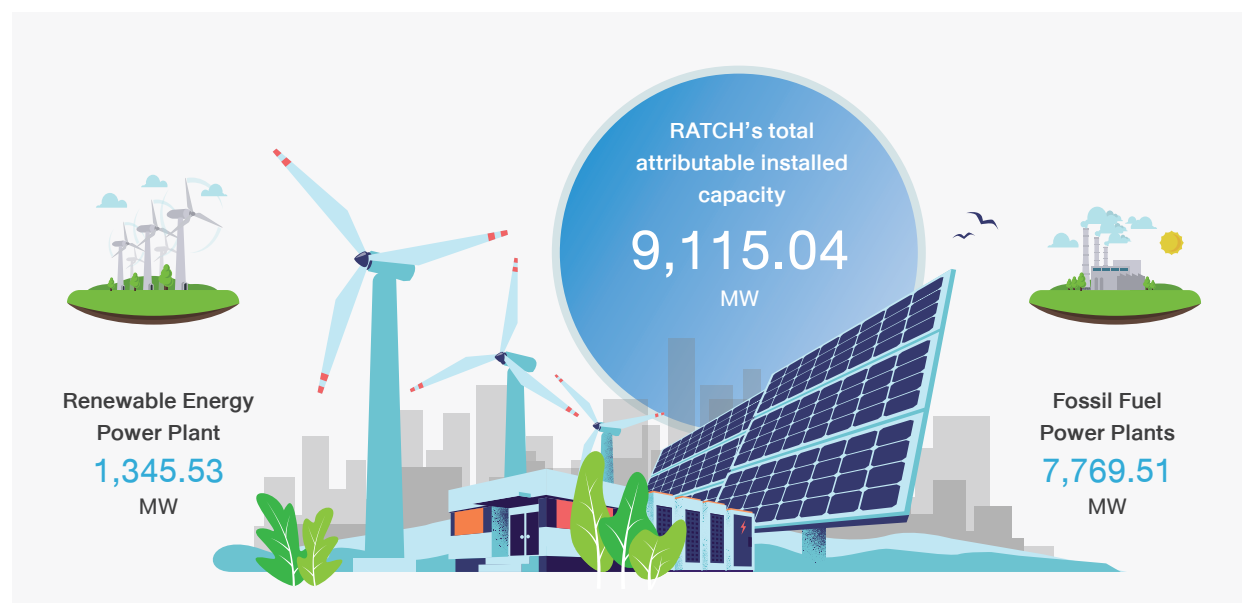


Strengthen organizational capability

The Board of Directors schedules an annual review on the vision, mission and short- and long-term targets, to cope with changing circumstances and materialize corporate strategies. The Board of Directors also places importance on the follow-up of the operations of all functions through the operational assessment committee, so that they are stay on course and efficiently achieve the targets. In the assessment of operations in 2021, the management applied financial and non-financial indicators for multi-dimensional results. While the Power Group set the target to raise capacity by 700 MW for growth and substitution of expiring capacity, the Non-Power Group sought further investment opportunities in infrastructure and related businesses. All the targets of both groups were achieved as planned in 2021.

Major changes

RATCH operates with concerns about governance and upholds the sustainable development principles that underlines social and environmental responsibility, under the vision “to become a leading value-oriented energy and infrastructure company in Asia Pacific” and grow through the diversification from energy business to infrastructure. In 2021, the impacts of the coronavirus (COVID-19) outbreak were deeply felt in Thailand and across the world. The impacts, continuing from 2019, were wide-spread but RATCH had prepared for the unexpected. The Company ably withstood challenges and significantly reduced the impacts. Key events in the year are summarized below:



At the end of December 2021, RATCH's equity installed capacity reached 9,115.04 MW; 7,769.51 MW contributed by fossil fuel power plants and 1,345.53 MW by renewable energy plants. The renewable energy capacity increased by 11.5 percent from 2020, in line with RATCH's long-term goal (2021-2025) to raise renewable energy to no more than 25 percent of total capacity. RATCH invested in large and small fossil fuel power plants and renewable power plants

in Thailand and abroad, to diversify fuel risks in 2021. In the year, the Company acquired a stake in Paiton Energy, the operator of thermal power plants in Indonesia that would propel and stabilize corporate growth in the long run. Paiton Energy's power plants have performed favorably and generated returns that are significant to the Company's long-term revenue and corporate values. Their capacity will also compensate RATCH's capacity which is gradually

dropping accordingly to the expiration of power purchase agreements. Moreover, in October 2021, RATCH collaborated with partners like Saha Group in investing in power plants, particularly renewable ones, in Thailand and overseas. Under the deal, RATCH bought the common shares and capital-increase shares of Sahacogen (Chonburi) Public Company Limited, or 51 percent, from Saha Group.

Meanwhile, the non-power sector is the New S-Curve RATCH will penetrate in cooperation with experienced partners, foreseeing its importance to national economic and social development. Investment in the sector will also strengthen RATCH's partnership. A long-term target is set, to raise investment in the non-power sector to at least 20 percent of the investment budget. The non-power investment portfolio has been continuously rising since 2017 when RATCH's BSR JV won the bidding for the MRT Yellow Line and the MRT Pink Line projects. RATCH's investment in Things on Net Company Limited in 2020 then paved way for the Company's diversification into the Internet of Things (IoT) industry, which is the foundation technology to drive the digital economy under Thailand 4.0 national strategy. In 2020, RATCH invested in a 25 percent stake in Siphandone RATCH-Lao Company Limited, a wood pellet manufacturer and distributor in Lao PDR, with 60,000 tons of annual capacity. With a partner, RATCH also established Smart Infranet Company Limited (SIC) to operate the fiber optic communication network installation business. 2021 marked another important year as RATCH diversified non-power businesses: Healthcare, through investment in Principal Capital Public Company Limited and in Kasemrat International Company Limited that operates a hospital in Vientiane, Lao PDR; energy-related technology business through the establishment of Innopower Company Limited; aviation fuel business through the acquisition of shares in Bangkok Aviation Fuel Services Public Company Limited from Thai Airways International Public Company Limited; and highway operation and maintenance business.

As of 31 December 2021, RATCH's attributable installed capacity reached 9,115.04 MW, contributed by:

1. Commercially-Operated Power Plants

1.1 Thailand

Power Plant	Equity installed capacity (MW)
Fossil fuel power plants	
Independent Power Producers (IPPs)	
Ratchaburi Power Plant	3,645.00
Ratchaburi Power's Power Plant	372.50
Small Power Producers (SPPs)	
Ratchaburi World SPP Power Plant	93.60
Nava Nakorn SPP Power Plant	55.65
Nava Nakorn SPP Power Plant (Extension)	23.99
Berkprai Cogeneration SPP Power Plant	34.73
RATCH Cogeneration SPP Power Plant	119.11
Sahacogen Power Plant (Chon Buri)	109.14

Power Plant	Equity installed capacity (MW)
Renewable power plants	
Solarta Solar Farm	20.73
Solar Power (Korat 3, 4 and 7) Solar Farm	8.64
Huay Bong 3 Wind Farm, First Korat Wind Company Limited	20.70
Huay Bong 2 Wind Farm, K R Two Company Limited	20.70
Songkhla Biomass Power Plant	3.96
BAFS Solar Farm	5.65
Sahacogen Green Power Plant	4.89
Saha Green Forest Power Plant	2.87
Impact Solar	6.43
Total	4,548.29

1.2 Lao PDR

Power Plant	Equity installed capacity (MW)
Fossil fuel power plants	
Hongsa Thermal Power Plant	751.20
Renewable power plants	
EDL-Gen's Hydropower plants	185.64
Nam Ngum 2 Hydroelectric Power Plant	153.75
Xe-Pian Xe-Namnoy Hydroelectric Power Plant	102.50
Total	1,193.09

1.3 Australia

Power Plant	Equity installed capacity (MW)
Fossil fuel power plants	
Townsville Power Station	234.00
Kemerton Power Station	315.20
Renewable power plants	
Windy Hill Wind Farm	12.00
Toora Wind Farm	21.00
Starfish Hill Wind Farm	33.00
Mt Emerald Wind Farm	180.45
Collinsville Solar Farm	42.50
Yandin Wind Farm	149.94
Collector Wind Farm	226.80
Total	1,214.89

1.4 Indonesia

Power Plant	Equity installed capacity (MW)
Renewable power plant	
Asahan-1 Hydroelectric Power Plant	86.20
Total	86.20

1.5 Vietnam

Power Plant	Equity installed capacity (MW)
Fossil fuel power plant	
Thang Long Coal-Fired Power Plant	136.71
Total	136.71

1.6 Japan

Power Plant	Equity installed capacity (MW)
Renewable power plant	
BAFS Solar Farm	2.02
Total	2.02

2. Power Plants under development and construction

2.1 Thailand

Power Plant	Equity installed capacity (MW)
Fossil fuel power plants	
Hin Kong Combined-Cycle Power Plant	714.00
Nexif RATCH Energy Rayong SPP Power Plant	45.08
RATCH Cogeneration SPP Power Plant (Extension)	31.19
R E N Korat Energy Power Plant	12.48
Total	802.75

2.2 Indonesia

Power Plant	Equity installed capacity (MW)
Fossil fuel power plants	
Riau Combined-Cycle Power Plant	145.15
Paiton Energy's thermal power plants *	930.78
Total	1,075.93

Note: * Paiton Energy's thermal power plants have combined capacity of 2,045 MW. They are: 1st power plant (P7/8) consisting of 2 generators with 615 MW capacity each or a total of 1,230 MW, under a 43-year power purchase agreement with PLN (1999-2042); and 2nd power plant (P3) with 815 MW capacity, under a 30-year power purchase agreement with PLN (2012-2042). The remaining period of both power plants' PPAs is 21 years.

RATCH's shareholders at the 1/2021 extraordinary meeting (21 October 2021) approved the share acquisition and other transactions to complete the investment in Paiton Energy's power plants.

2.3 Vietnam

Power Plant	Equity installed capacity (MW)
Fossil fuel power plant	
Ecwin (Thanh Phong) Wind Farm	15.16
Nexif Ben Tre Wind Farm	40.00
Total	55.16

● RATCH Group's investment in non-power businesses as at 31 December 2021 is as follows:

Company name	Detail
Infrastructure business	
1) Telecom and digital technology	
Smart Infranet Company Limited	Providing fiber optic networks
Things on Net Company Limited	Providing Internet of Things services with Sigfox technology
2) Tap water	
Asia Water Company Limited	Investing in Sandin water supply project, to produce tap water for Vientiane Water Supply Enterprise, Lao PDR
3) Transport	
Northern Bangkok Monorail Company Limited	MRT Pink Line Project (Khae Rai - Min Buri)
Eastern Bangkok Monorail Company Limited	MRT Yellow Line Project (Lat Phrao - Samrong)
BGSR 6 Company Limited	Intercity Highway from Bang Pa-In to Nakhon Ratchasima (M6)
BGSR 81 Company Limited	Intercity Highway from Bang Yai to Kanchanaburi (M81)
Bangkok Aviation Fuel Services Public Company Limited (BAFS)	Providing aviation refueling and storage service at airports and pipeline transportation service (RATCH acquired a stake in BAFS.)
Electricity and energy-related business	
1) Power plant operation and maintenance	
Chubu Ratchaburi Electric Service Company Limited	Providing operation and maintenance for Ratchaburi Power's Power Plant
2) Gas turbine parts maintenance	
EGAT Diamond Service Company Limited	Providing maintenance services for gas turbines' Hot Gas Path Parts
3) Fuel supply	
Songkhla Biofuel Company Limited	Supplying fuel to Songkhla Biomass Power Plant
Siphandone-RATCH LAO Company Limited	Manufacturing wood pellets in Lao PDR
4) Coal mining	
Phufai Mining Company Limited	Operating a coal mine for supply to Hongsa Thermal Power Plant
5) Innovation and invention	
Innopower Company Limited	Operating as a joint venture with EGAT Group to commercialize the group's researches on innovation and invention
Healthcare and medical service business	
Principal Capital Public Company Limited (PRINC)	RATCH acquired a stake in PRINC, an operator of private hospitals and provider of healthcare services
Bangkok Chain International Public Company Limited (BCIL)	Through a stake in BCIL, RATCH's subsidiary invests in Kasemrat International Hospital Vientiane.

Major changes in the year

January

- 19 January 2021: RH International Corporation Limited (RHIC) called for the 3rd round of capital increase worth Baht 705 million, to subsequently raise the capital of RH International (Mauritius) Corporation Limited (RHIM) and RH International (Singapore) Pte. Ltd. (RHIS), direct and indirect subsidiaries of RHIC, by USD 23 million each. On 11 May 2021, RATCH paid another Baht 495 million for RHIC's 4th round of capital increase, which was subsequently used to recapitalization of RHIM and RHIS by USD 16 million each. The recapitalization was to finance investment in several overseas projects, return short-term loans and reserve as working capital. The three subsidiaries will subsequently call for the payment for next recapitalization rounds according to investment needs.

- 19 January 2021: RATCH was transferred Bangkok Aviation Fuel Services Public Company Limited (BAFS)'s 98,983,125 shares (or 15.53 percent of total issued and paid-up shares of BAFS) at 27.40 per share from Thai Airways International Public Company Limited, after the Company completed all steps under the bidding process and paid for the shares to THAI.

March

- 19 March 2021: Yandin Wind Farm in Australia commenced commercial operations at full capacity following initial certification for grid connection test. It was completing the process to win the full certification. The wind farm has secured a 15-year power purchase agreement.

April

- On 1 April 2021, RATCH issued the Environmental Conservation Bond (Green Bond) worth Baht 8,000 million under RATCH Group Public Company Limited's Baht 15,000 million debenture program in 2020.

Through the bond issue, RATCH won "Deal of the Year" and "Environmental, Social and Governance Bond - Private Sector" awards from the Thai Bond Market Association in the year. It subsequently won the "Best Local Currency Green Bond Award" at The Asset Triple A Sustainable Capital Markets Regional Awards 2020, organized by The Asset Magazine, an international finance publication.



- 7 April 2021: Collector Wind Farm in Australia operated at full capacity under power purchase agreements with Infigen Energy (for 60 percent of capacity) and ALDI Foods Pty Ltd. (a subsidiary of retail giant ALDI) for 19.6 percent of capacity. The remaining output will be sold via Australia's National Electricity Market.

May

- 5 May 2021: RHIS signed the contract to buy a 50 percent stake in Nexif Energy BT Pte. Ltd. for USD 8.68 million (approximately Baht 272.58 million) from Nexif Energy Pte. Ltd., in a bid to join the development of Nexif Energy Ben Tre wind power project in Vietnam. The near-shore wind power project is operated by Nexif Energy Ben Tre One Member Co., Ltd., a subsidiary of Nexif Energy Pte. Ltd., under a 20-year purchase agreement with ũ Vietnam Electricity (EVN). The project is under development and main contracts were under negotiation. The construction is expected to take 18 months before the commercial operations can start in December 2022.

- 24 May 2021: RATCH acquired a 10 percent stake in Principal Capital Public Company Limited (PRINC): (A) 346,233,682 capital-increase shares (9.09 percent of issued and paid-up shares of PRINC) at Baht 4.09 apiece and (B) 34,623,369 (0.91 percent of issued and paid-up shares after capital increase) from Miss Satita Withayakorn at Baht 4.09 apiece. The transaction was valued at Baht 1,557,705,338.59.

June

- 22 June 2021: RHIS signed a deal to buy a 45.515 percent stake in Paiton Energy (PE) and Minejesa Capital B.V. (MCBV) and 65 percent in IPM Asia Pte. Ltd. (IPM). PE is an independent power producer that owns coal-fired power plants while MCBV is responsible to source funds for PE. IPM is the operator of PE's power plants. The power plants' power purchase agreements with PT Perusahaan Listrik Negara (PLN), the national electricity utility, will expire in 21 years. The transaction was considered the acquisition of assets with the value amounting of 55.4 percent on a net operating profit basis. RATCH thus asked for shareholders' approval at the extraordinary general meeting on 21 October 2021 and won the approval. The process was disclosed on SET's disclosure system as required.



- 22 June 2021: RATCH's Board of Directors resolved to propose at the extraordinary general meeting a capital increase from Baht 14,500,000,000 to Baht 22,192,307,700 บาท by the issuance of 769,230,770 new shares at the par value of Baht 10

or a total of Baht 7,692,307,700 million. The shares would be offered to existing shareholders accordingly to their current holdings, excluding shareholders whose holding of such share would subject the Company to any obligations under the law of other jurisdictions (Preferential Public Offering : PPO) or a private placement. RATCH disclosed the information and would submit updates when the Board of Directors called for a shareholder meeting.

- 30 June 2021: RHIS, as a borrower, and RATCH, as the guarantor, signed a USD 150 million sustainable loan facility with International Finance Corporation. The fund will finance investment and/or repay loans involving renewable projects and/or environmental conservation infrastructure and/or infrastructure projects in Thailand, the Socialist Republic of Vietnam, the Republic of Indonesia and Lao PDR.

July

- Ratch-Lao Services Company Limited (RL), a wholly-owned subsidiary based in Lao PDR, raised capital by 124,875 million kip or approximately Baht 384 million, by issuing 12.75 million new shares and called for the first payment (approximately Baht 259 million). The proceeds were for overseas investment. After the capital increase, RL's registered capital would be 144,875 million kip or approximately Baht 462 million.

- CN Biomass Company Limited and PB Biomass Company Limited, indirect subsidiaries via Ratchaburi Energy Company Limited's 99.99 percent holding) registered business liquidation.

- 30 July 2021: RL signed a contract to buy Bangkok Chain International (Lao) Co., Ltd. (BCIL)'s capital-increase shares that amounted to 9.91 percent of issued shares for Baht 190 million. On 26 August 2021, RL paid for the shares and registered the ownership. The transaction was to invest in Kasemrat International Hospital in Vientiane, Lao PDR. After the transaction, BCIL's shareholders consisted of

Bangkok Chain Hospital Public Company Limited, 68.47 percent; RATCH-Lao Services Company Limited, 9.91 percent; and minority shareholders in Lao PDR and Thailand, 21.62 percent. Kasemrat International Hospital is a tertiary hospital with 110 beds in the first phase and 254 beds in the second phase. It was inaugurated on 19 August 2021.

September

- 13 September 2021: RATCH, Electricity Generating Authority of Thailand (EGAT) and Electricity Generating Public Company Limited (EGCO) jointly established Innopower Company Limited (Innopower) as a 30:40:30 joint venture. Innopower has Baht 600 million in registered capital, consisting of 6 million common shares at Baht 100 per share. Twenty five percent of the registered capital was paid-up. Innopower was established to commercialize the innovation-related researches of EGAT Group and partners, in preparation of R&D spin-off and investment in New S-Curve start-ups in the energy business.

- Hin Kong Power Company Limited (HKP), an indirect subsidiary 51 percent owned by RATCH, entered into 2 contracts that involved EGAT: 1) the Operation and Routine Maintenance Contract, valued below Baht 200 million per year, for a period of 10-12 years and 2) the 38-month Owner's Engineer Services: Site Supervision Contract, valued at Baht 113.87 million (excluding value-added tax).

- 29 September 2021: BGSR 6 Company Limited (BGSR 6) and BGSR 8 Company Limited (BGSR 8) - the 10:40:40:10 joint ventures of RATCH, BTS Group Holdings Public Company Limited, Gulf Energy Development Public Company Limited and Sino-Thai Engineering and Construction Public Company Limited - signed the operation and maintenance service contracts with the Department of Highways. The service involved two intercity highways: Highway No. 6 from Bang Pa-in to Nakhon Ratchasima (M6), 196 km; and Highway No.81 from Bang Yai to Kanchanaburi (M81), 96 km. The contracts were

divided into 2 phases: Phase 1, system design and construction, for 3 years from Day 1; and Phase 2, operation and maintenance (O&M) for the civil works invested by the government and the private party for a period of 30 years from Day 1 of Phase 2. The Department of Highways is expected to give BGSR 6 and BGSR 8 an access to the construction sites within December 2021. For the design and construction, the joint ventures are entitled to quarterly payments for 20 years after Phase 2 starts. Regarding the O&M, the joint ventures will receive quarterly fees for 30 years from the start of Phase 2. Both highways are scheduled for operations in 2024.

October

- 28 October 2021: RATCH acquired common shares in Sahacogen (Chonburi) Public Company Limited (SCG) from its existing shareholders and capital-increase shares offered via a private placement. RATCH entered into the following contracts. First, 34 share sale and purchase agreements between RATCH (buyer) and 34 SCG shareholders (sellers) including Saha Pattana Inter-Holding Public Company Limited (SPI) for 384,789,131 shares (40.29 percent of SCG's total issued and allocated shares prior to capital increase or 33.07 percent of SCG's total issued and allocated shares after capital increase) for the price of Baht 5.75 or a total of Baht 2,212,537,503.25. (All are collectively called "share sale and purchase agreements" and "share transactions".) Second, the share subscription contract between RATCH (investor) and SCG, for 208,695,652 capital-increase shares at the book value of Baht 1 (accounting for 17.93 percent of SCG's total issued and allocated shares after the private placement) at the subscription price of Baht 5.75 or a total of Baht 1,199,999,999. (Subscription contract and subscription transaction). Later, on 13 December 2021: RATCH acquired a total of 593,484,783 SCG shares or 51 percent of the company's total issued and allocated shares, making SCG a subsidiary of RATCH. On 14 December 2021 and 22 December 2021, RATCH filed the tender offer (Form 247-3) to the Office of Securities and Exchange Commission and

the Stock Exchange of Thailand for the remaining 570,210,869 shares of SCG (49 percent of SCG's total issued and allocated shares) at the price of Baht 5.75 apiece.

November

- 19 November 2021: RHIS acquired additional 13,544,257 shares or 40 percent of Fareast Renewable Development Pte. Ltd. (FRD)'s shares for USD 54.31 million or approximately Baht 1,789 million from Hydro Sumatra International Pte. Ltd. (HSI). HSI took over the share ownership from Fareast Green Energy Pte. Ltd. following an internal restructuring of the old shareholder group which partnered with RATCH in the operation of Asahan-1 Hydroelectric Power Plant in the Republic of Indonesia. After the transaction, RHIS owns 90 percent of FRD (from 50 percent) and the remaining 10 percent is owned by HSI. The transaction raised RATCH's indirect holding in Asahan-1 Hydroelectric Power Plant through RHIS and FRD to 47.89 percent (from 26.61 percent). RHIS will be represented by 3 directors, out of total 4 members of FRD's board of directors.

December

- 24 December 2021: RATCH received the "Best Public Company Award 2021 - Resources Sector from Finance Minister Mr. Arkhom Termpittayapaisith who presided over Money & Banking Awards 2021. RATCH's Chief Financial Officer represented RATCH in receiving the award.

Joining the event was Mr. Santi Viriyarungsarit, Group Editor of Money & Banking Magazine. The magazine ranked 300 Best Public Companies of the Year 2021 from best-performing listed companies and non-listed companies based on their size, profitability, return on investment and liquidity.



● **Thailand's Private Sector Collective Action against Corruption (CAC)**

- RATCH continued to demonstrate its commitment to fight against frauds and corruption in 2021. The Company filed for the 2nd membership recertification from the Thai Private Sector. Collective Action Against Corruption (CAC). On 6 January 2022, CAC's Board of Directors at the 3rd quarter/2021 meeting resolved to recertify RATCH's membership for the second time. The recertification lasts 3 years. In 2021, RATCH contracted an external consultant to audit the sufficiency and appropriateness of the anti-corruption policy and measures as well as risk management and preventive measures of the Company and core subsidiary (Ratchaburi Electricity Generating Company Limited). The consultant would also audit the self-assessment form and recommend improvements in line with CAC requirements.

- In 2021, RATCH announced the "Facilitating Payments" and "Government Office Recruitment" policies, to complement the anti-fraud and corruption measures. The policies are expected to prevent corruption risks stemming from contacts with government officials or government offices or recruitment of government officials. The guidelines on government official recruitment were outlined for clarity and the employees have been continually informed.

● **Human Resources Management**

RATCH prepares personnel for high level executive positions under the Successor Program. The program is executed in 4 stages: Phase 1, Evaluation by Assessment involving the assessment of their potential and capability; Phase 2, Analysis for Development involving the analysis of data to put executives into the development process that meets their capabilities; Phase 3, Development Plan & Process involving the development plans that address the Company's expectations; and Phase 4, Building Successor involving the closing of gaps and motivating a change. Stage 1 and Stage 2 were

implemented in 2021, entailing manager-level operators or same-level personnel. RATCH expected to gain an insight into their skills, capabilities and attitudes of the personnel who can be promoted as vice presidents or same-level positions. The analysis will also assist further development of the personnel.

● **Employee care amid COVID-19 outbreak**

RATCH launched the "Work From Home" measures based on the outbreak situations and the measures that control employee access to workplace. All employees must have their body temperature measured, report their 14-day travel information, and for those unvaccinated, submit test results, to prevent and reduce infections at workplace. Aside, RATCH bought the 1-year COVID-19 insurance for directors and employees to reduce infections. The Company has implemented preventive measures; procured vaccines for directors, employees and their family members; and campaigned for awareness in self-protection and preparation. Employees were educated on methods to describe COVID-19 symptoms, RT-PCR test process, Antigen Test Kit, rapid test centers, home isolation guidelines and protection at home, to help them prepare for the outbreak.

● **Progress on High-Performance Organization (HPO)**

In 2021, RATCH outlined the work plan to improve work processes that involved: 1) Preparation of manuals for all functions for systematic and clear operations so that job operators better understand work processes and can speed up their work for greater efficiency 2) Strengthening internal communications, online and offline, for a better understanding in the Company's policy, business direction and goals and 3) Creation of knowledge collection process through Knowledge Sharing activities where executives share and exchange experiences with job operators. In 2021, 5 Knowledge Sharing activities were held and 99.31 percent of participants said they gained more knowledge and could apply the knowledge with their routines.

● Preparation for the enforcement of Personal Data Protection Act B.E. 2562

RATCH has prepared for the enforcement of the Personal Data Protection Act B.E. 2562 (PDPA). The content management process has been completed to gain data owners' consent. Tools and technology to ensure security have been deployed before the enforcement in 2022.

● IT Security management

In 2021, in light of the COVID-19 outbreak, RATCH developed the information technology system that supported the Work From Home policy of all employees. Distant communication platforms with higher performance were deployed along with the expansion of the communication network signal. In collaboration with a leading and experienced IT company, RATCH installed equipment to safeguard and examine the usage of the Group's computer network to ensure Group's IT security. The protection and examination is expected to alert IT Security Unit for timely block/rejection of potential risks.

● Eco-friendly office building management

RATCH was bestowed Green Office Award - Gold Level in 2021 by the Department of Environmental Quality Promotion, the Ministry of Natural Resources and Environment, in collaboration with Mahidol University's Faculty of Environment and Resource Studies. The award reflected RATCH's comprehensive and standardized office building management process that covers safety, occupational health and work environment; energy saving; continuous planning and improvement; communications to raise awareness in energy saving and environment; measures to optimize resources and energy; reduction in resource and energy consumption; orderly data storage; waste management and control to reduce impacts on the environment; standardized environmental and safety management; as well as promotion of eco-friendly procurement process.

● Zero accident

RATCH successfully maintained its goal to keep lost-time injury rate at zero or Zero Accident in 2021, for accumulated 2,245,862 hours worked from 27 January 2018 to 31 December 2021. Safety training courses were held for 57 security officers - supervisor and executive levels, along with annual fire distinguish and fire escape drills. A number of 112 employees joined the drills in 2021 and the result was satisfactory as all were evacuated in 3 minutes and 20 seconds. On occupational health, none of RATCH's employees contracted COVID-19 or spread the virus at the office building.

Utilization of funds raised from securities issuance

Regarding the proceeds from Environmental Conservation Bond (Green Bond), RATCH used the proceeds accordingly to the objectives stated in the offering document. RATCH issued the bond on 4 November 2021 worth Baht 8,000 in a private placement to institutional and high-networth investors. The name-bearing, senior and unsecured bonds with trustee bonds was issued in 4 tranches. The proceeds are to finance investment and/or repay loans and/or return partial or entire loans of existing or future projects of the Company and subsidiaries that involved with environmental conservation. Details are as follows:

Utilization	Disbursement as of 31 December 2021 (million baht)	Disbursement period	Details
1. To acquire securities or invest in businesses related to current businesses	1,550	14 months	Investment in wind power projects in Australia and Vietnam as well as MRT Pink Line and MRT Yellow Line in Thailand
2. To repay loans/capital	6,348	1 month	
Total	7,898		

Obligations under the disclosure of securities offering information and/or the Office's terms and conditions (if any) and/or the terms and conditions of the Stock Exchange of Thailand (if any) and actions in subsequent years in honor of the obligations

- None

Company's Name:
RATCH Group Public Company Limited

Registration No.:
0107543000031

- | | | |
|---|--|---|
| <ul style="list-style-type: none">• Industry:
Resources• Sector:
Energy and Utilities• Nature of Business:
Invest, develop and operate electricity generation, infrastructure and related businesses | <ul style="list-style-type: none">• Establishment:
7 March 2000• Listed Date:
13 October 2000• Symbol:
RATCH• First Trade Date:
2 November 2000 | <ul style="list-style-type: none">• Registered Capital:
Baht 14,500 million
(1,450 ordinary shares)• Par Value:
Baht 10 Paid-up• Capital :
Baht 14,500 million
(as at 26 October 2000) |
|---|--|---|

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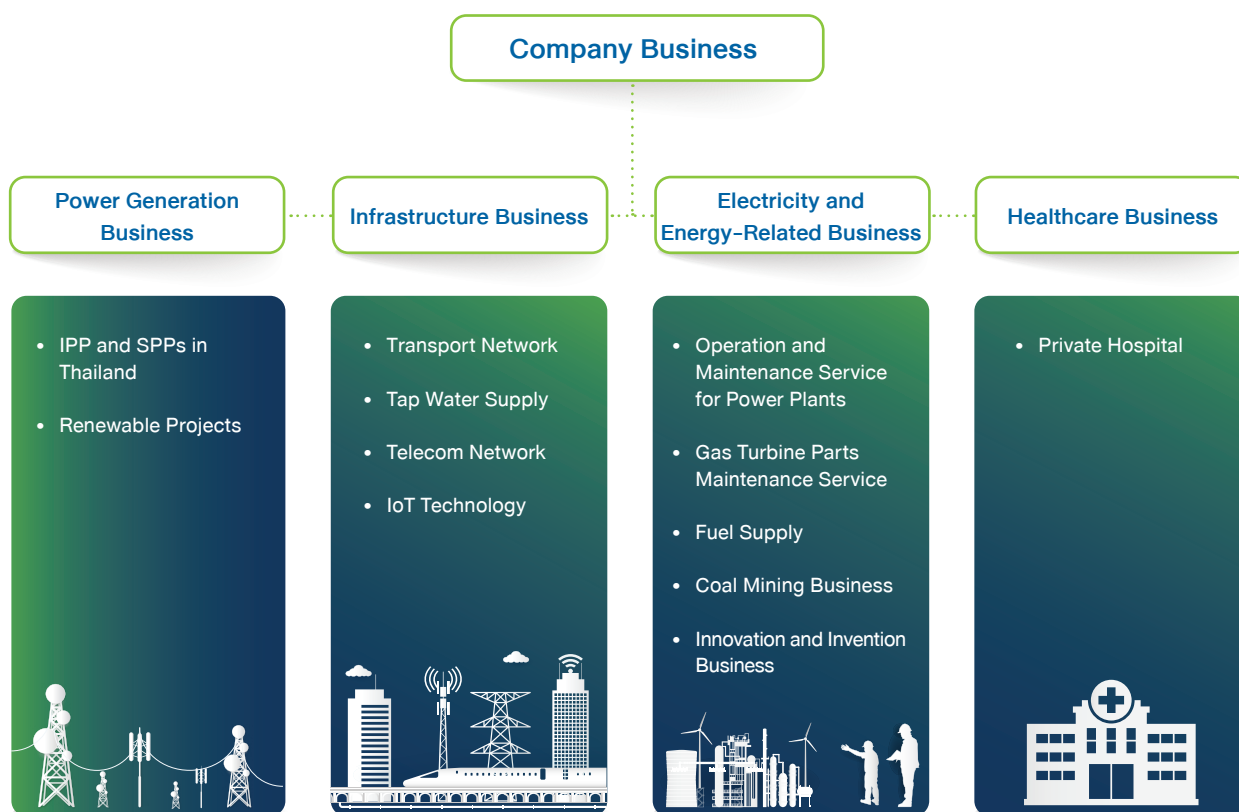
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1.2 Nature of Business Operations

Product Information and Nature of Business Operations

Product Characteristics and Business Innovation Development

RATCH Group PCL is one of the largest electricity generating companies in Thailand. The Company was established on March 7, 2000, with the registered capital of 14,500 million Baht. It was listed on the Stock Exchange of Thailand on November 2, 2000, with the Electricity Generating Authority of Thailand (EGAT) as the major shareholder of 45%. The Company had been operating under the name “Ratchaburi Electricity Generating Holding PCL”, with the trading symbol “RATCH”, before changing the name on 19 April 2019 to RATCH Group PCL and operates as a holding company, with the objective of investing in equity of other companies operating diverse businesses in Thailand and overseas. The investment portfolio of the Company can be categorized into 4 types; power generation and infrastructure business, electricity and energy-related business and healthcare business.



Power Generation is the core business that generates revenue for the Company, while maintaining focus in seeking investment opportunities to strengthen the business and its stability to maintain production capacity and achieve growth of 10,000 megawatts by 2025. The power plant business can be categorized into 2 groups; 1) fossil-fuel power plants and 2) renewable energy power plants.

■ Power Generation Business

Power plants that have commenced commercial operations

• Power Plants in Thailand

Fossil Fuel Power Plants

Ratchaburi Power Plant

Ratchaburi Power Plant has the installed capacity of 3,645 MW in which subsidiary with 100% equity held by RATCH, from 2 generating units at a thermal power plant and 3 generating units at a combined-cycle power plant. The power plants utilize natural gas as the primary fuel. All electrical output is distributed to EGAT on the 25-year PPA.

RATCH Public Company Limited, as the controller of Ratchaburi Power Plant's operations, received the following awards:

- 2 safety and environmental awards

1. Silver plaque and certificate from the Zero Accident Campaign 2021, for reported zero lost-time injury for 4,747,589 hours worked for the 2nd consecutive year, from the Ministry of Labor

2. Sustainability Disclosure Acknowledgement Certificate 2021 by Thaipat Institute, in recognition of sustainability disclosure to the public and relevant stakeholders

- 1 social responsibility award

1. CSR DIW Continuous Award 2021 from the Department of Industrial Works' Eco Industrial Development Division, Ministry of Industry for the 10th consecutive year. The award is to promote factories' sustainable social and community responsibility.

Ratchaburi Power's Power Plant

Ratchaburi Power's Power Plant has the installed capacity of 1,490 MW, 25% of the equity is held by

Ratchaburi Alliance Co., Ltd.; a subsidiary of the Company. The installed capacity in proportion to the investment is 372.50 MW. The power plant utilizes natural gas as the primary fuel. All electrical output is distributed to EGAT on the 25-year PPA.

Ratchaburi World SPP Power Plant

Ratchaburi World SPP Power Plant has the installed capacity of 234 MW and steam generation capacity of 40 tons/hour. The Company's shareholding proportion is 40%; equivalent to the installed capacity in proportion to the investment of 93.60 MW.

The Company was established to operate the small cogeneration power plant business, using natural gas as the fuel. It has a firm cogeneration-system PPA with EGAT for 25 years. The facility is comprised of Ratchaburi World Cogeneration Unit 1 and 2, which have commenced commercial operations and distributed electricity to EGAT on November 1, 2014 and March 1, 2015 respectively.

Nava Nakorn SPP Power Plant

Nava Nakorn SPP Power Plant installed capacity of 199.11 MW and the steam generation capacity is 40 tons/hour. The equity of 40% is held via Ratchaburi Electricity Generating Co., Ltd.; a subsidiary of the Company. The installed capacity in proportion to the investment is equivalent to 79.64 MW.

Nava Nakorn SPP Power Plant operates under a firm cogeneration-system PPA using natural gas as the fuel. The first phase has the installed capacity of 139.13 MW and the steam generation capacity of 30 tons/hour. It has commenced commercial operations on June 3, 2016. The second phase has the installed capacity of 59.98 MW and the steam generation capacity of 10 tons/hour. It has commenced commercial operations on October 31, 2020, with the PPA of 90 MW with EGAT, as well as the electricity and steam purchase agreement with industrial users in Navanakorn Industrial Promotion Zone.

Nava Nakorn SPP Power Plant strictly followed quality, safety and environmental standards and received the following awards and recognitions:

1. ISO 9001:2015 standards for quality management systems and ISO 14001:2015 standards for environmental management
2. Green Industry Award (Level 3) from the Ministry of Industry
3. Good Environmental Governance Award from the Ministry of Industry
4. Certificate from the Zero Accident Campaign 2021 from Thailand Institute of Occupational Safety And Health (Public Organization)

Berkprai Cogeneration SPP Power Plant

Berkprai Cogeneration SPP Power Plant has the installed capacity of 99.23 MW and the steam generation capacity of 15 tons/hour. The equity of 35% is held via Ratchaburi Electricity Generating Co., Ltd. The installed capacity in proportion to the investment is equivalent to 34.73 MW, with a firm cogeneration-system PPA with EGAT for 25 years. The power plant has commenced commercial operations on June 1, 2019 and has the electricity and steam purchase agreement with Ratchaburi Ethanol Co., Ltd. for 2.5 MW and 5 tons/hour respectively. It performed satisfactorily and strictly followed quality, safety and environmental standards. It received Green Industry Award (Level 2) from the Department of Industrial Works, the Ministry of Industry on 1 March 2021.

RATCH Cogeneration SPP Power Plant

RATCH Cogeneration SPP Power Plant has the installed capacity of 119.15 MW and the steam generation capacity of 10 tons/hour. The Company's shareholding proportion is 99.97%, whereby the installed capacity in proportion to the investment is equivalent to 119.11 MW. The construction of the expansion phase is now in progress, with the installed capacity of 31.20 MW and steam generation capacity of 7.16 tons/hour. There are the 25-year PPA of

90 MW with EGAT, 21.83 MW with industrial estates, and 12 MW with the National Science and Technology Development Agency, which was activated on 31 October 2013 following the commercial operations. The Company strictly operates under the quality standard, safety and environmental measures.

Sahacogen (Chonburi) Public Company Limited (SCG)

SCG has the installed capacity of 214 MW and steam generation capacity of 96 ton/hour. The equity of 51% is held by the Company, equivalent to the installed capacity of 109.14 MW. The commercial operation have commenced since 1999 and the power plant has the PPA of 90 MW with EGAT, which will remain effective until 2024. SCG signed a new power purchase agreement with EGAT (SPP replacement) for a 30 MW supply and a contract to supply electricity and steam to Saha Pathana Inter-Holding Public Company Limited through a 22 kV transmission line, for redistribution to industrial users in Sriracha Saha Group Industrial Park



Power Plants under Sahacogen Group

SCG has interests in the following 3 companies.

Sahacogen Green Company Limited (SGN) (99.99 percent shareholding)

SGN generates electricity from biomass, with the installed capacity of 9.6 MW and steam generation capacity of 25 tons/hour; equivalent to the installed capacity in proportion to the investment of 4.89 MW.

It is located in Sahaphat Industrial Park – Lampoon. It distributes the electricity of 8 MW to the Provincial Electricity Authority and steam to factories in Sahaphat Industrial Park – Lampoon.

Its commercial operations started in December 2012 to generate power for the Provincial Electricity Authority.

Saha Green Forest Company Limited (SGF)
(75.00 percent shareholding)

has the installed capacity of 7.5 MW; equivalent to the installed capacity in proportion to the investment of 2.87 MW.

A joint venture with Siam Forestry Company Limited, a business unit of SCG Paper Group, to generate power from eucalyptus tree bark and crown which are the pulp and paper industry's waste as well as agricultural waste in the vicinity. The power plant is located in Phran Kratai District, Kamphaengphet Province. Its commercial operations started in December 2012 to generate power for the Provincial Electricity Authority.

Impact Solar Co., Ltd. ("ISL")
(21 percent shareholding)

has the installed capacity of 60 MW; equivalent to the installed capacity in proportion to the investment of 6.43 MW. It operates a fully-integrated solar rooftop manufacturing and procurement business. ISL currently provides solar rooftop installation service under Private PPA and Turnkey EPC contracts. ISL is contracted for the 25 MW solar rooftop & floating installation at Sriracha Saha Industrial Park and 14 MW installation has been completed.

Renewable Energy Power Plants

- **Solar Power**

Solarta Solar Energy Power Plant

Solarta Solar Energy Power Plant has the installed capacity of 42.30 MW, which is held 49% by Ratchaburi Energy Co., Ltd.; a subsidiary of the Company. The installed capacity in proportion to the investment is

equivalent to 20.73 MW. It has a non-firm VSPP PPA with the Provincial Electricity Authority (PEA) and receives adder from Power Development Fund, Office of the Energy Regulatory Commission (OERC) at the rate of 8 Baht per unit for a period of 10 years.

Korat 3, 4, 7 Solar Energy Power Plants

Korat 3, 4, 7 Solar Energy Power Plants have the installed capacity of 21.60 MW. The equity of 40% is held by Ratchaburi Energy Co., Ltd.; a subsidiary of the Company, with the installed capacity in proportion to the investment of 8.64 MW. It generates electricity from solar energy, with a non-firm VSPP PPA with the Provincial Electricity Authority (PEA) and receives adder from Power Development Fund, Office of the Energy Regulatory Commission (OERC) at the rate of 8 Baht per unit for a period of 10 years.

- **Wind Power**

Huay Bong 2 Wind Power Plant (KR 2 Co., Ltd.) and Huay Bong 3 Wind Power Plant (First Korat Wind Co., Ltd.)

Huay Bong 2 Wind Power Plant (KR 2 Co., Ltd.) and Huay Bong 3 Wind Power Plant (First Korat Wind Co., Ltd.) have the installed capacity of 207 MW. The equity of 20% is held by the Company; equivalent to the installed capacity in proportion to the investment of 41.40 MW. It has a PPA and a non-firm VSPP PPA with EGAT. It receives an adder from the electricity development fund at the rate of 3.50 Baht per unit for a period of 10 years.

- **Biomass Power**

Songkla Biomass Power Plant

Songkhla Biomass Power Plant has the installed capacity of 9.90 MW. The equity of 40% is held via Ratchaburi Energy Co., Ltd.; a subsidiary of the Company, which is equivalent to the installed capacity in proportion to the investment of 3.96 MW. It has a 5-year PPA with the Provincial Electricity Authority, with 5-year automatic renewal (20 years in total). It has commenced commercial operations and distributed electricity since November 9, 2015.

The power plant was awarded ISO 9001:2015 standards for quality management systems on 30 March 2017; certified for Carbon Credits (CDM Program of Activities) on 18 May 2017; awarded for energy-efficiency enhancement in the heating system by the Department of Alternative Energy Development and Efficiency on 27 April 2018; bestowed Good Environmental Governance Award from the Ministry of Industry on 3 August 2018; certified for drug prevention measures by Songkhla Province on 10 September 2020; and bestowed Thailand Energy Awards 2020 on Alternative Energy - On-Grid Category.

- **Lao PDR**

Fossil Fuel Power Plants

Hongsa Thermal Energy Power Plant

Hongsa Thermal Energy Power Plant has the installed capacity of 1,878 MW. The equity of 40% is held via RH International (Singapore) Corporation Limited (“RHIS”), a subsidiary of the Company which is equivalent to the installed capacity in proportion to the investment of 751.20 MW. The power plant is equipped with 3 generators which started commercial operations on 2 June 2013, 2 November 2015 and 2 March 2016, respectively. The electricity is mainly distributed to EGAT, with 25 years PPA. The revenue can be categorized into 3 sources; availability payment, electricity charge and revenue from lease contracts.

Renewable Energy Power Plants

EDL-Gen Renewable Energy Power Plants

A renewable energy power plant in Lao PDR that is invested via shareholding of EDL-Generation Public Company (EDL-Gen); a listed company is Laos’ stock exchange, via RATCH-Lao Service Co., Ltd., and RH International (Singapore) Corporation Pte. Ltd.

Hydro Power Plant – Nam Ngum 2

Nam Ngum 2 Hydro Power Plant has the installed capacity of 615 MW. The equity of 25% is held via Southeast Asia Energy Co., Ltd., which is equivalent to the installed capacity in proportion to the investment

of 153.75 MW. The project has commenced commercial operations on January 1, 2013, with the PPA of 25 years with EGAT.



Xe Pian – Xe Namnoy Hydro Power Plant

Xe Pian – Xe Namnoy Hydro Power Plant has the installed capacity of 410 MW. The equity of 25% is held by the Company, which is equivalent to the installed capacity in proportion to the investment of 102.5 MW. It has a long-term PPA of 27 years with EGAT and has commenced commercial operations on December 6, 2019.

- **Australia**

Fossil Fuel Power Plants

RATCH-Australia Corporation Pty. Ltd., (RAC)

RATCH-Australia Corporation Pty. Ltd., a subsidiary, currently owns 9 commercially-operated power plants: 6 wind farms, 1 solar farm, and 2 gas-fired power plants that constituted 623.19 MW, 42.50 MW and 549.20 MW in equity installed capacity, respectively. The subsidiary continually maintained growth rate while exploring opportunities to invest in more renewable energy businesses in the Commonwealth of Australia

Townsville Power Station

Townsville Power Station has the installed capacity of 234 MW, whose equity is held 100% by RAC. It is a combined-cycle power plant located in the state of Queensland, Australia, using natural gas as the fuel; Combined Cycle Type.

Kemerton Power Station (Included Black Start)

Kemerton Wind Farm has the installed capacity of 315.20 MW, whose equity is held 100% by the Company. It is located in Western Australia, using natural gas as the fuel; Combined cycle Type.

Renewable Energy Power Plants

Windy Hill Wind Farm

Windy Hill Wind Farm has the installed capacity of 12 MW, whose equity is held 100% by the Company. It is located in the state of Queensland.

Toora Wind Farm

Toora Wind Farm has the installed capacity of 21 MW, whose equity is held 100% by RAC. It is located in the state of Victoria.

Starfish Hill Wind Farm

Starfish Wind Farm has the installed capacity of 33.0 MW, whose equity is held 100% by RAC. It is located in the state of Queensland.

Mount Emerald Wind Farm

Mount Emerald Wind Farm has the installed capacity of 180.45 MW, whose equity is held 100% by RAC. It is located in the state of Queensland.

Collinsville Solar PV

Collinsville Solar PV has the installed capacity of 42.50 MW, whose equity is held 100% by RAC. It is located in the state of Queensland.



Yandin Wind Farm

Yandin Wind Farm has the installed capacity of 214.2 MW. RAC holds 70% shares, representing an installed capacity of 149.94. It secures a 15-year power purchase agreement from Alinta Sales Pty Ltd.,

a subsidiary of Alinta Energy. The project received initial certification for the grid connection and commenced commercial operations on 19 March 2021.

Collector Wind Farm

Collector Wind Farm has the installed capacity of 226.80 MW which the Company owns 100%, is located in New South Wales. Australia wind farm is located in New South Wales. It secures two 10-year power purchase agreements for the supply of 79.6 percent of capacity to Infigen Energy (60 percent) and ALDI Foods Pty Ltd., a subsidiary of leading retail business group ALDI, (19.4 percent). The remaining output will be sold via Australia's National Electricity Market. The wind farm operated at its full capacity on 7 April 2021 and was officially approved for commercial operations on 18 June 2021.



Indonesia

Renewable Energy Power Plants

Asahan-1 Hydro Power Plant

Asahan-1 Hydro Power Plant has the installed capacity of 180 MW. The equity of 47.89% is held by a subsidiary of the Company, which is equivalent to the installed capacity in proportion to the investment of 86.20 MW. Asahan-1 is a run-of-river hydroelectric power plant, located on Asahan River, Northern Sumatra, Republic of Indonesia. It has commenced commercial operations since January 2011. It operates under a long-term PPA of 30 years with Indonesia's Electricity Authority, which will be valid until December 31, 2040.

On 19 November 2021, RHIS acquired another 40 percent in FRD, through the purchase of 13,544,257 common shares from Hydro Sumatra International Pte.

Ltd. (HSI) for USD 54.31 million or approximately Baht 1,789 million. The transaction increased RHIS's holding in FRD to 90 percent (from 50 percent) and its indirect ownership via FRD in Asahan-1 to 47.89 percent (from 26.61 percent).

- **Vietnam**

Fossil Fuel Power Plants

Thang Long Coal-Fired Power Plant

Thang Long Coal-Fired Power Plant has the installed capacity of 620 MW. The equity of 49% of An Binh Energy and Infrastructure Fund (ABEIF) is held via RH International (Singapore) Corporation Limited ("RHIS"), a subsidiary of the Company. ABEIF holds 45% of the equity in Thang Long Power Plant, which is equivalent to the installed capacity in proportion to the investment of 136.71 MW. The project is located in the north of Vietnam.



Power Plants under Development and Construction

- **Thailand**

Fossil Fuel Power Plants

Hin Kong Combined-Cycle Power Plant

Hin Kong Combined-Cycle Power Plant has the installed capacity of 1,400 MW. The equity of 51% is held by the Company, which is equivalent to the installed capacity in proportion to the investment of 714.00 MW. The commercial operations dates for Unit 1 and 2 have been scheduled in 2024 and 2025 respectively, with the PPA of 25 years with EGAT, counting from the COD.

- The power plant has received key licenses including factory license, electricity generation license, investment promotional certificate from the Board of Investment, etc.

- June 2021: The terms for a bridge loan were concluded while the EPC contractor kicked off under the Limited Notice to Proceed (LNTN) on 1 June 2021.

- October 2021: The Environmental Impact Assessment for the RRPP5-HKP natural gas pipeline was approved by the Office of Natural Resources and Environmental Policy and Planning.

- November 2021: The EPC contractor started the piling works for TG Foundation #1,2 and fuel oil tank.

- The project is currently concluding the terms and conditions of a long-term loan as well as follow up on licenses and approvals from relevant agencies.

Nexif RATCH Energy Rayong SPP Power Plant

Nexif RATCH Energy Rayong SPP Power Plant has the installed capacity of 92 MW. The equity of 49% is held by the Company, which is equivalent to the installed capacity in proportion to the investment of 45.08 MW. The investment capital is approximately 4,409.6 million Baht. The construction has commenced on April 23, 2020, which is likely to take around 24 months to complete and achieve the COD in 2022. Apart from distributing electricity to EGAT under the 25-year PPA, the electricity will also be distributed to industrial users in SSP Industrial Park, which is located in the Eastern Economic Corridor zone.

Important milestones:

- Connection of the power plant's electrical system with the national grid (Power Receiving) on 30 September 2021

- Main gas turbine reached the site and installation started on 9 November 2021.

- Service Water System was successfully tested, able to provide water for general and fire-extinguisher purposes, on 15 November 2021.



Overview of Nexif RATCH Energy Rayong Power Plant



Gas turbine installation site



Installation site for machinery and infrastructure systems

RATCH Cogeneration SPP Power Plant (Expansion)

RATCH Cogeneration SPP Power Plant (Expansion) has the installed capacity of 31.20 MW. The equity of 99.97% is held by the Company, which is equivalent to the installed capacity in proportion to the investment of 31.19 MW and steam generation capacity of approximately 7.15 tons/hour. The investment capital is approximately 1,600 million Baht. The construction has commenced on March 1, 2021, with the expected

COD in October 2022. The total electricity and steam generation capacity after the COD should be about 150.35 MW and 17.15 tons/hour respectively. Key customers are the Electricity Generating Authority of Thailand, National Science and Technology Development Agency, Thammasat Chalerm Phrakiat Hospital, including industrial customers in Navanakorn Industrial Promotion Zone and Chumnumsap Industrial Park area.

Important milestones:

- 1 March 2021: Construction works started.
- 26 June 2021: Piling works started.
- 14 September 2021: Foundation works and structural works started.
- 28 December 2021: Installation works gas engine started.



Photo 1: Construction site of the extension part



Photo 2: Construction progress

R E N Korat Energy Power Plant

R E N Korat Energy Power Plant has the installed capacity of 31.2 MW. The equity of 40% is held by the Company, which is equivalent to the installed capacity in proportion to the investment of 12.48 MW. It is an independent power supply (IPS) facility located in Nava Nakorn Industrial Zone (Nakhon Ratchasima). its Environmental Impact Assessment was endorsed by the Office of the Natural Resources and Environmental Policy and Planning on 29 December 2021. It is under the process to hire the main contractor. The power plant is scheduled for commercial operation in 2023. Nava Nakorn Korat demands about 30 MW and the demand tends to rise. Located in the park are mainly factories that manufactures electronic devices, automotive and motorcycle parts, natural and synthetic rubber-based products and sanitaryware. As these factories operate around the clock, the load factor (on peak/off peak) is high (above 75 percent). Electronic parts and solar panel manufacturers have started constructing plants in the zone.

A power purchase agreement was signed with AVX (Thailand) Company Limited on 15 September 2020 and the power plant is under negotiation with other potential clients.

- **Indonesia**

Fossil Fuel Power Plants

Riau Combined-Cycle Power Plant

Riau Combined-Cycle Power Plant has the installed capacity of 296.23 MW. The equity of 49% is held via RH International (Singapore) Corporation Pte. Ltd. (RHIS); a subsidiary of the Company, which is equivalent to the installed capacity in proportion to the investment of 145.15 MW. It uses natural gas as the fuel, with the 20-year PPA with Perusahaan Listrik Negara (PLN) or Indonesia's electricity authority for 275 MW.

The project requires an investment of USD 293 million and estimates an annual return of USD 28.2 million. It has completed the 40-km gas pipeline while

the power plant construction and transmission lines are 99 percent complete. It is being under the commissioning while the performance testing is being prepared. The power plant is slated for commercial operation in February 2022.

Important milestones:

- Connection of the power plant's electrical system with the national grid (Power Receiving) on 10 March 2021
- Receiving natural gas (Gas in) for the commissioning on 30 April 2021.
- First firing and First Synchronization took place on 1 June 2021 and 18 June 2021, respectively.



Construction progress



Gas receiving station

Paiton Energy Coal-Fired Power Plant

Paiton Energy Coal-Fired Power Plant has the installed capacity of 2,045 MW. The equity of 45.515% is held via RH International (Singapore) Corporation Pte. Ltd. (RHIS); a subsidiary of the Company, which is equivalent to the installed capacity in proportion to the investment of 930.78 MW. It is located in the city

of Probolinggo, East Java, Republic of Indonesia. It has already commenced commercial operations with the long-term PPA with PLN until 2042. The remaining contract period is 21 years, under the Build-Own-Operate (BOO) investment.

- RATCH, through its indirect wholly-owned subsidiary, RH International (Singapore) Corporation Pte. Ltd. (RHIS), acquired a 45.515 percent stake in PT Paiton Energy and Minjasa Capital B.V. that operate coal-fired power plants with combined capacity of 2,045 MW; and a 54.65 percent stake in PT Paiton Operation and Maintenance Indonesia (POMI) or a 65 percent stake in IPM Asia Pte.Ltd. (IPMA). The transactions are valued at USD 809.6 million (approximately Baht 25,421.68 million).

- RATCH held an extraordinary shareholder meeting on 21 October 2021 and 99.6928 percent of shareholders approved the transactions. RATCH is currently in the process to complete conditions precedent to closing.

*** Note:** Under the 1/2564 Extraordinary General Meeting's resolution, RH International (Singapore) Corporation Pte. Ltd. received the approval to acquire a 45.515 percent stake in PT Paiton Energy and Minjasa Capital B.V. and a 65 percent stake in IPM Asia Pte.Ltd while RATCH and/or RH International (Singapore) Corporation Pte. Ltd. was allowed to allocate the investment capital accordingly to the transaction conditions.

- **Vietnam**

Renewable Energy Power Plants

Ecwin (Thanh Phong) Wind Farm

Ecwin (Thanh Phong) Wind Farm has the installed capacity of 29.70 MW and commenced construction late 2020 with a 20-year power purchase agreement with Vietnam Electricity (EVN). The equity of 51.04% is held via RH International (Singapore) Corporation Pte.Ltd. ("RHIS"); a subsidiary of the Company. The project is installing the gas turbine and constructing the high-voltage power station and transmission line. It is scheduled for commercial operation in March 2022. The project contributes 15.16 MW in equity installed capacity to RATCH.

- All 9 Units of wind turbine's principal parts arrived at Long An Port, Vietnam in September 2021.

- The power plant is scheduled for reliability test and taking over in April 2022.

- The first wind turbine was successfully installed in November 2021.

Nexif Ben Tre Wind Farm

Nexif Energy Ben Tre (NEBT) is an 80-MW wind farm, the 50 percent investment in the wind farm is made through a subsidiary, RH International (Singapore) Corporation Limited (RHIS). The wind farm contributes 40 MW in equity installed capacity. It is located in Ben Tre Province, Socialist Republic of Vietnam, and has a 20-year power purchase agreement with Vietnam Electricity (EVN).

- The EPC contract and the wind operation and maintenance contract (WOM) have been signed. The construction under the Limited Notice To Proceed (LNTP) was kicked off in May 2021.

• **Infrastructure Business**

1) Telecommunication and Digital Technology Business

Optic Fiber Network Project by Smart Infranet Company Limited

The company provides optic fiber cable network services (SIC). RATCH holds a 51 percent stake in the subsidiary while ALT Telecom Public Company Limited (ALT) owns the remaining 49 percent.

SIC invests in optic fiber cable networks to serve mobile operators, broadband operators and related businesses. Initially, SIC focuses on brand building and establishing a client base, to raise awareness in its products and services. SIC has established 2 networks: the first is along railroads and highways and the other through Metropolitan Electricity Authority's underground pipes.

Things on Net Company Limited

The company, 35 percent owned by RATCH, provides Internet of Things services in Thailand using Sigfox's Technology (IoT Networks) and related businesses. In 2020, it has 350 base stations covering Bangkok, peripheral provinces and target provinces with population density, and other provinces across Thailand. The company's IoT networks are now ready for nationwide services.

- In 2021, the company successfully installed 370 base stations that covered all areas in Thailand. The policy is to have at least 1 base station in each province. Altogether 67 partners have signed MOU/NDA, which strengthened the service availability of Sigfox Networks. POC was demonstrated to potential customers, public and private, like Metropolitan Electricity Authority, Provincial Electricity Authority, Metropolitan Waterworks Authority, Provincial Waterworks Authority and National Institute of Development Administration. Besides, in 2021, Things On Net Co., Ltd. was granted Mike Award - Silver Tier; an award for the organization with outstanding performance in innovation and knowledge base in the international arena.

In 2022, the company plans to install additional 180 base stations, to bring the total number to 550 stations. It will also install 200 micro bases to strengthen the network capacity and coverage to cover Smart City Project in Chaiyaphum Province.

2) Tap Water Supply

Asia Water Company Limited,

through an investment in Saendin Water Supply project in Lao PDR by RATCH-Lao Service Co., Ltd.; a subsidiary of the Company, whereby 40% of the equity is held by RATCH-Lao Service Co., Ltd. The revenue is generated from production and distribution of water to Vientiane Water Supply Enterprise in Lao PDR under a concession period of 50 years. The production capacity in the first phase is 24,000 cubic meters per day.

3) Transport Network

MRT Pink Line Project (Khae Rai-Min Buri) and MRT Yellow Line Project (Lad Phrao-Samrong): The projects are carried out under BSR JV, which is 10 percent owned by RATCH,

75 percent by BTS Group Holdings Public Company Limited and 15 percent by Sino-Thai Engineering and Construction Public Company Limited. The construction started on 29 June 2018 and will run for 3 years and 3 months. The 30-year operation concession will begin after the completion. The Mass Transit Rapid Authority of Thailand (MRT) extended the construction deadline by 265 days for Yellow Line and extend the deadline for Pink Line twice, 365 days and 290 days or a total of 655 days. The Yellow Line is scheduled for completion in June 2022 and the Pink Line in July 2023. The deadline extension did not take into account the impacts from COVID-19 infections. To ease impacts from delays, the joint venture and MRT plan to launch partial operation for both lines in August 2022. In the first phase, the Yellow Line will operate 22 stations from Samrong Station to Phaowana Station. The Pink Line will operate 18 stations from Min Buri Station to Government Complex Station with Nopparat Station to be opted out. The full service that covers all stations is scheduled for late 2022 for the Yellow Line and in July 2023 for the Pink Line.

As of December 2021, the Pink Line has been 83.88 percent complete (0.19 percent behind schedule) and the Yellow Line has been 88.70 percent complete (7.57 percent behind schedule). Both lines are now installing the crossbeam, constructing a way up and down the station as well as completing architectural works and service buildings. The operating system is being installed and test while train carriages are being assembled for a test run.

2021 Milestones

- 23 February 2021: The Mass Transit Rapid Authority of Thailand (MRT) and Northern Bangkok Monorail Company Limited signed a revised version of the concession contract concerning the Pink Line extension part from Si Rat Station to Muang Thong Thani Station. The NTP for the line is expected early 2022.

- 16 September 2021: MRT Board of Directors approved the deadline extension for the Pink Line (Khae Rai - Min Buri) by 290 days on delayed access to the construction site, following a change in the locations for Nonthaburi Civic Center Station and Nopparat Station; disrupted installation of prefab parts on the rail as power supply cut did not go as planned; difficulties to work in the overlapping area; and the Department of Highways' floodway which will affect the construction of Chaeng Wattana 14, Government

Complex and TOT stations and Pak Kret's power supply. The deadline extension did not take into account the impacts of COVID-19 infections.

- 8 October 2021: The MRT Pink Line conducted a manual drive test at the speed of 5km/hour, from the depot to the adjacent Min Buri Station. On 9 December 2021, another test was conducted from the depot to Min Buri Station, Min Buri Market Station, Setthabutbampnen Station, and Bang Chan Station, 4.45 km altogether.

- 25 November 2021: The MRT Yellow Line conducted a manual drive test at the speed of 5km/hour, from the depot to the adjacent Si lam Station. On 29 November 2021 and 23 December 2021, another test was conducted from the depot to Si lam Station, Si Udom Station, Suan Luang Rama IX Station, Srinakarin 38 and Si Nut Station, 6 km altogether.

Captions for Pink Line:



Construction of concourse column at Nonthaburi Civic Center Station (PK01)



Construction of crossbeam and column at Si Rat Station (PK10)



Installation of Lightning Protection at Min Buri Market Station (PK29)



Bulk Substation at Pakkret Intersection (PK06)



Train No.8 - Manual drive test from main workshop to Min Buri Station (PK30)



Installation of Antenna Pole



Installation of conductor rail near Setthabutbampnen Station (PK28) and Min Buri Market Station (PK29)



Subsystem stand-alone test (SSAT) for Public Announcement communication system at OCC Building

MRT Yellow Line



Lat Phrao Station
(YL01)



Installation of Ticket Office
at Hua Mark Station (YL11)



Installation of Steel Walkway
at Kalantan Station (YL12)



Park & Ride Building



Train No. 09 – Bogie swing
test at Silamas Yard in Laem
Chabang



Installation of Conductor Rail
between Srinakarin 38 Station
(YL14) and Suan Luang Ror 9
Station (YL15)



Track Switches: Post
Installation Check Out (PICO)
Electrical at Ramp A was
completed on 29 October
2021.



Installation of station
doorways

Private Sector Joint Investment Project in the Operations and Maintenance for the Inter-City Highways; Bang Pa-In – Nakhon Ratchasima (M6) and Bang Yai – Kanchanaburi (M81):

BGSR Joint Venture; comprising of; the Company (10% shareholding), BTS Group Holdings PCL (40% shareholding), Gulf Energy Development PCL (40% shareholding) and Sino-Thai Engineering and Construction PCL (10% shareholding), has been selected as the winner in the bidding of the Private Sector Joint Investment Project in the Operations and Maintenance for the Inter-City Highways; Bang Pa-In – Nakhon Ratchasima (M6) and Bang Yai – Kanchanaburi (M81) in the PPP Gross Cost format for a period of 30 years. The operational progress in 2021 can be summarized as follows:

- On September 29, 2021, BGSR Joint Venture signed a concession agreement with the Department of Highway.
- The selection of contractors is now being considered and the negotiation of contractors' proposals for both projects are in progress. It is expected that all contractor agreements should be

signed as planned in accordance with the terms of the concession.

- BGSR Joint Venture is now proceeding with the acquisition of loan, with consideration of suitable terms and conditions for the projects.

Acquisition of Bangkok Aviation Fuel Services Public Company Limited's shares: RATCH bought Bangkok Aviation Fuel

Services Public Company Limited's 98,983,125 shares or 15.53 percent from Thai Airways International Public Company Limited for Baht 2,712,137,625, by joining the electronic auction on 19 December 2020. The sale/purchase agreement was signed and the payment was transferred on 19 January 2021. BAFS operates aviation fuel storage and refill at Don Mueang International Airport and Suvarnabhumi Airport through the hydrant pipeline network. It also operates pipeline transport services to key airports (Don Mueang International Airport and Suvarnabhumi Airport), the central part and the northern part of Thailand.

BAFS also has interests in solar farms in Thailand and Japan, with installed capacity of 36.4 MW and

13 MW, contributing 5.65 MW and 2.02 MW in equity installed capacity, respectively.

RATCH expects long-term returns from BAFS and expects to develop business partnership to further grow its business. Under the strategic plan to expand its investment in infrastructure and energy-related businesses and seek strong partners, RATCH considered that the investment in BAFS corresponds with the plan

● Electricity and Energy-Related Business

RATCH has operated related businesses through subsidiaries, affiliates and joint ventures, to ensure the Group's continual growth. These businesses concern power plant operation and maintenance services, gas turbine parts maintenance services, coal mining, fuel supply, etc.

1) Operation and Maintenance Service for Power Plants

Chubu Ratchaburi Electric Service Company Limited

RATCH and Chubu Electric Power (Thailand) Company Limited (presently called Jera Power (Thailand) Company Limited established a 50:50 joint venture namely Chubu Ratchaburi Electric Service Company Limited (CRESCO). The joint venture has secured an operation and maintenance contract for Ratchaburi Power Company Limited's 1,400 MW thermal power plant (2x700 MW). After the 12-year contract expired in 2020, it was renewed for another 12 years. EGAT was appointed the sub-contractor.

In 2021, Chubu Ratchaburi Electric Service Company Limited fulfilled its contract, allowing Ratchaburi Power Company Limited to fully honor its power purchase agreement and successfully maintain the availability payment and fuel ratio as planned.

2) Gas Turbine Parts Maintenance Service

EGAT Diamond Service Company Limited

Established on 15 December 2009 by 4 partners with Baht 623,000,000 registered capital, EGAT Diamond Service Company Limited provides the

maintenance service for gas turbines' Hot Gas Path Parts in 18 countries - Thailand, Malaysia, Singapore, Lao PDR, Myanmar, Vietnam, Cambodia, Brunei, Australia, New Zealand, India, Pakistan, Bangladesh, Sri Lanka, Bhutan, Nepal, Afghanistan and the Maldives. Its 4 shareholders are EGAT, 45 percent; Mitsubishi Power Asia Pacific Pte. Ltd., 30 percent; Mitsubishi Corporation, 15 percent; and RATCH, 10 percent. The factory is located in Navanakorn Industrial Zone, Pathum Thani Province. The service started in April 2011. EGAT Diamond Service is capable of fixing Hot Gas Path Parts, having been certified by Mitsubishi Power Ltd. It is also certified for ISO 9001:2005 maintenance quality standard. It is enhancing the capability to fix the Hot Gas Path Parts of other gas turbines, aside from Mitsubishi Power (MPW) turbines.

3) Fuel Supply

Songkhla Bio Fuel Company Limited

The company supplies fuel to Songkhla Biomass Power Plant. RATCH owns the company via Ratchaburi Energy Company Limited's holding.

Siphandone-RATCH LAO Company Limited

Produces and distributes wood pellets in Lao PDR.

4) Coal Mining Business

Phu Fai Mining Co., Ltd.

Operates a coal mining business to supply as fuels to Hongsa Thermal Energy Power Plant

5) Innovation and Invention Business

Innopower Company Limited

Innopower was established to commercialize the innovation-related researches of EGAT Group and partners, in preparation of R&D spin-off and investment in New S-Curve start-ups in the energy business

RATCH, Electricity Generating Authority of Thailand (EGAT) and Electricity Generating Public Company Limited (EGCO) jointly established Innopower Company Limited (Innopower) as a 30:40:30 joint venture

The Company also recognizes revenue from shares of profit from investment in joint venture projects with other investors, including other revenue such as management service revenue, interest received, dividend, etc., with details stated in the Revenue Structure on page xx.

■ Healthcare Business

Investment in Health sector

Acquisition of Principal Capital Public Company Limited:

RATCH bought 346,233,682 capital-increase shares of Principal Capital Public Company Limited and bought 34,623,369 shares from major shareholders, or a total of 380,857,051 shares or a 10 percent stake. The transaction was valued at Baht 1,557.71 million. The share sale/purchase agreement was signed on 24 May 2021 and the payment was completed on 25 May 2021. PRINC is specialized in private hospital management and operations and healthcare services. At present, it operates 12 hospitals across Thailand and is expanding the network to cover 20 hospitals in 2023.

RATCH sees the long-term growth potential of the healthcare industry, due to the ageing society and increasing care for physical well-being. The COVID-19 outbreak is a major growth catalyst. RATCH considered the healthcare investment model is close to power generation business model, in the way that both require huge capital and take time to break even. Importantly, both involve the daily-life and can create positive impacts on society and the economy as a whole. RATCH thus has the confidence that it is ready to cautiously and efficiently managing risks and return on investment.

Acquisition of Kasemrat International Hospital, Vientiane:

On 30 July 2021, RATCH-Lao Services Company Limited, a wholly-owned subsidiary of RATCH based in Lao PDR, signed a contract to buy a 9.91 percent stake in Bangkok Chain International (Lao) Company

Limited (BCIL) for Baht 190 million. Through the stake, it establishes interests in Kasemrat International Hospital in Vientiane, Lao PDR. The integrated tertiary hospital has 254 beds but in the initial stage, 110 beds are on offer. The hospital was inaugurated on 19 August 2021.

Through the investment, RATCH and Bangkok Chain Hospital Public Company Limited (BCH) jointly penetrated the private hospital business in Lao People's Democratic Republic (Lao PDR), to satisfy increasing healthcare demand as well as the Lao government's goal to uplift the national public health and Lao people's quality of life.

Revenue Structure of the Company, Subsidiaries, Affiliates and Joint Ventures

RATCH Group's core revenue generated by the Company, subsidiaries and joint ventures derives from the long-term PPAs with EGAT of independent power producers (IPPs). The 3 main sources of the revenue are the Availability Payment (AP), Energy Payment (EP) and finance leases (Revenue from Lease Contract) Regarding small power plants that supply electricity and steam to industrial customers, their revenue comes from the Capacity Payment (CP), Energy Payment (EP), fuel savings (FS) and the electricity and steam prices

The Company's revenue primarily comes from the sale of electricity generated by Ratchaburi Electricity Generating Company Limited, a subsidiary, to EGAT under a 25-year Power Purchase Agreement. The revenue structure from Ratchaburi Power Plant and Tri Energy Power Plant contains the 3 main parts as follows;

1. Availability Payment (AP)

AP is designed to cover the entire fixed operating costs, such as maintenance expenses and management expenses. Generally, AP depends on the power plant's readiness to generate and distribute electricity as required by EGAT.

2. Energy Payment (EP)

EP is realized after electricity is generated and transmitted to the EGAT's transmission system. EP comprises two major parts:

- 1) Fuel Payment
- 2) Variable Operating and Maintenance Payment

3. Revenue from Lease Contract

Revenue from Lease Contract is based on revenue from availability payment for loans and shareholders' returns. It is booked under effective interest rate method.

Besides the sale of electricity generated by Ratchaburi Electricity Generating Company Limited, the Company's additional revenue comes from the sales of electricity generated by RATCH Cogeneration Company Limited, a subsidiary, mainly to EGAT under a 25-year PPA. Remaining electricity and steam are sold to industrial users. RATCH Cogeneration SPP Power Plant's revenue consisted of 4 main parts:

1. **Capacity Payment (CP)** covers all investment, including maintenance expenses and variable expenses for generation and maintenance as well as actual capacity availability as specified in the PPA.

2. **Energy Payment (EP)** is received when electricity is generated, primarily paid for the fuel cost.

3. **Fuel Saving (FS)** revenue is received when monthly electricity generation meets the fuel saving clause specified in the PPA.

4. **Revenue from electricity and steam sold to industrial users.**

The Company also recognized revenue from the sale of electricity generated by RATCH Australia Corporation Pty Ltd (RAC), a subsidiary located in the Commonwealth of Australia whose main revenue is from a long-term PPA for its thermal power plants, wind farms and solar farms. The basic revenue structure according to the long-term PPA for thermal power plants is as follows:

1. **Capacity Payment (CP)** covering the total investment including maintenance costs and actual capacity availability in electricity generation and distribution as stated in the PPA.

2. **Energy Payment (EP)** which is received when electricity is generated, primarily to cover the fuel cost and variable operating and maintenance expenses.

RAC's wind farms' income is the volume of generated electricity multiplied by the per-unit price.

RATCH also realized revenue from joint ventures under the equity method along with other revenues including management fees, interest receivables and dividends. Details appeared in the revenue structure on Page 60-64.

Revenue Structure 2019 – 2021

Types of Revenue Generated By	Company's stake	Revenue (Million Baht)					
		2021		2020		2019	
		Million Baht	%	Million Baht	%	Million Baht	%
Revenue from sale and rendering of services							
Ratchaburi Electricity Generating Company Limited	99.99	28,992.37	65.46	26,839.80	67.91	31,901.76	73.81
RATCH-Australia Corporation Pty Ltd	100.00	3,734.35	8.43	2,684.83	6.79	2,990.26	6.92
RATCH Cogeneration Company Limited	99.97	2,219.38	5.01	2,065.88	5.23	495.38	1.15
Sahacogen (Chonburi) Public Company Limited	51.00	239.41	0.54	-	-	-	-
Fareast Renewable Develwable Pte. Ltd.	90.00	(23.29)	(0.05)	-	-	-	-
RATCH-Lao Services Company Limited	99.99	69.26	0.16	62.03	0.16	53.71	0.12
Revenue from lease contracts							
Ratchaburi Electricity Generating Company Limited	99.99	1,953.58	4.41	2,553.21	6.46	2,923.23	6.76
Fareast Renewable Development Pte. Ltd.*	90.00	141.72	0.32	-	-	-	-
Share of profit (loss) of jointly- controlled and associated entities							
Hongsa Power Company Limited	40.00	3,415.67	7.71	3,035.99	7.68	2,623.52	6.07
Ratchaburi Power Company Limited	25.00	219.03	0.49	152.30	0.39	82.82	0.19
Perth Power Partnership (Kwinana)	30.00	(86.69)	(0.20)	(176.65)	(0.45)	34.91	0.08
An Binh Energy and Infrastructure Fund	49.00	70.40	0.16	125.19	0.32	-	-
Ratchaburi World Cogeneration Company Limited	40.00	195.50	0.44	202.30	0.51	208.78	0.48
Nava Nakorn Electricity Generating Company Limited	40.00	154.64	0.35	125.40	0.32	67.21	0.16
Berkprai Cogeneration Company Limited	35.00	121.80	0.27	113.88	0.29	62.66	0.14

Note : * On November 19, 2021, the Company purchased additional shares in Fareast Renewable Development Pte. Ltd. from 50% to 90%.

Types of Revenue Generated By	Company's stake	Revenue (Million Baht)					
		2021		2020		2019	
		Million Baht	%	Million Baht	%	Million Baht	%
SouthEast Asia Energy Limited	33.33	303.43	0.69	(73.46)	(0.19)	180.60	0.42
Xe-Pian Xe-Namnoy Power Company Limited	25.00	553.31	1.25	(70.77)	(0.18)	(272.30)	(0.63)
Fareast Renewable Development Pte. Ltd.	50.00	236.24	0.53	213.25	0.54	158.45	0.37
Solarta Company Limited	49.00	168.52	0.38	203.98	0.52	197.83	0.46
Solar Power (Korat 3)	40.00	32.74	0.07	31.86	0.08	34.61	0.08
Solar Power (Korat 7)	40.00	30.75	0.07	33.31	0.08	33.49	0.08
Solar Power (Korat 4)	40.00	32.88	0.07	31.38	0.08	31.56	0.07
Impact Solar Company Limited	21.00	(0.29)	-	-	-	-	-
First Korat Wind Company Limited	20.00	23.47	0.05	19.44	0.05	29.44	0.07
K.R. TWO Company Limited	20.00	19.24	0.04	14.39	0.03	24.20	0.05
Songkhla Biomass Company Limited	40.00	29.96	0.07	40.49	0.10	39.09	0.09
Songkhla Biofuel Company Limited	40.00	(0.01)	-	(0.01)	-	(0.01)	-
Yandin WF Holdings Pte. Ltd.	70.00	106.65	0.24	28.29	0.07	(34.21)	(0.08)
Asia Water Company Limited	40.00	3.03	0.02	3.17	0.01	0.38	-
Smart Infranet Company Limited	51.00	(25.70)	(0.06)	(16.14)	(0.04)	(0.10)	-
Things on Net Company Limited	35.00	(22.80)	(0.05)	(11.97)	(0.03)	(2.26)	(0.01)
Bangkok Aviation Fuel Services Public Company Limited	15.53	(121.11)	(0.27)	-	-	-	-
Chubu Ratchaburi Electric Services Company Limited	50.00	27.93	0.06	20.41	0.05	18.94	0.04
Phu Fai Mining Company Limited	37.50	197.16	0.45	187.72	0.47	285.77	0.66
Under Construction Projects							
PT Medco Ratch Power Riau	49.00	224.84	0.51	159.73	0.40	163.00	0.38
R E N Korat Energy Company Limited	40.00	(5.46)	(0.01)	(2.63)	(0.01)	-	-

Note : * On November 19, 2021, the Company purchased additional shares in Fareast Renewable Development Pte. Ltd. from 50% to 90%.

Types of Revenue Generated By	Company's stake	Revenue (Million Baht)					
		2021		2020		2019	
		Million Baht	%	Million Baht	%	Million Baht	%
Hin Kong Power Holding Company Limited **	51.00	(14.70)	(0.03)	(7.80)	(0.02)	-	-
Nexif Ratch Energy Singapore Pte. Ltd.	49.00	(30.68)	(0.07)	(12.69)	(0.03)	-	-
RATCH & AIDC Wind Energy Pte. Ltd.	63.80	(11.98)	(0.03)	-	-	-	-
NEXIF Energy BT Pte. Ltd.	50.00	(4.16)	(0.01)	-	-	-	-
Eastern Bangkok Monorail Company Limited	10.00	32.20	0.07	118.96	0.30	-	-
Northern Bangkok Monorail Company Limited	10.00	29.48	0.07	111.02	0.28	-	-
Siphandone-RATCH Lao Co., Ltd.	25.00	(2.89)	(0.01)	-	-	-	-

Management service income

RATCH Group Public Company Limited		222.85	0.51	275.25	0.70	244.24	0.57
RATCH-Lao Services Company Limited	99.99	1.45	-	1.06	-	-	-

Interest income

RATCH Group Public Company Limited		45.13	0.10	45.78	0.12	89.38	0.21
Ratchaburi Electricity Generating Company Limited	99.99	46.00	0.10	52.31	0.13	60.78	0.14
RATCH-Australia Corporation Pty Ltd	100.00	1.32	-	8.38	0.02	29.83	0.07
RH International (Singapore) Corporation Pte. Ltd.	100.00	110.85	0.25	49.54	0.13	20.32	0.05
RH International Corporation Limited	99.99	0.07	-	1.25	-	2.77	0.01
Sahacogen (Chonburi) Public Company Limited	51.00	0.10	-	-	-	-	-
Fareast Renewable Develwable Pte. Ltd.*	90.00	0.04	-	-	-	-	-

Note : * On November 19, 2021, the Company purchased additional shares in Fareast Renewable Development Pte. Ltd. from 50% to 90%.

** On January 3, 2020, the Company sold its shares in the Company. Hin Kong Power Holding Co., Ltd. from 49 %, remaining 51 %

Types of Revenue Generated By	Company's stake	Revenue (Million Baht)					
		2021		2020		2019	
		Million Baht	%	Million Baht	%	Million Baht	%
RATCH-Lao Services Company Limited	99.99	1.79	-	1.59	-	2.17	0.01
Ratchaburi Energy Company Limited	99.99	0.05	-	0.55	-	0.20	-
Ratchaburi Alliances Company Limited	99.99	-	-	0.01	-	0.03	-
RH International (Mauritius) Corporation Limited	100.00	-	-	-	-	0.02	-
RATCH O&M Company Limited	99.99	-	-	-	-	0.01	-
Hin Kong Power Holding Company Limited **	99.99	-	-	-	-	0.01	-

Dividend income

RATCH-Lao Services Company Limited	99.99	31.34	0.07	33.46	0.08	55.59	0.13
RH International (Singapore) Corporation Pte. Ltd.	100.00	24.98	0.06	26.71	0.07	44.40	0.10
RATCH Group Public Company Limited		2.51	0.01	1.01	-	0.89	-

Other incomes

Ratchaburi Electricity Generating Company Limited	99.99	105.02	0.24	161.81	0.41	45.94	0.11
RH International (Singapore) Corporation Pte. Ltd.	100.00	-	-	0.19	-	11.07	0.03
RATCH Group Public Company Limited		13.83	0.03	5.01	0.01	8.44	0.02
Ratchaburi Energy Company Limited	99.99	0.06	-	0.18	-	0.73	-
RH International (Mauritius) Corporation Limited	100.00	-	-	-	-	0.31	-
RATCH Cogeneration Company Limited	99.97	152.19	0.34	5.19	0.01	0.30	-
RATCH-Australia Corporation Pty Ltd	100.00	119.70	0.27	46.62	0.12	-	-

Types of Revenue Generated By	Company's stake	Revenue (Million Baht)					
		2021		2020		2019	
		Million Baht	%	Million Baht	%	Million Baht	%
Sahacogen (Chonburi) Public Company Limited	51.00	7.10	0.02	-	-	-	-
RATCH-Lao Services Company Limited	99.99	0.06	-	-	-	-	-
Gain on bargain purchase							
RATCH Group Public Company Limited		-	-	-	-	269.92	0.62
RH International (Singapore) Corporation Limited	100.00	177.67	0.40	-	-	-	-
		44,293.29	100.00	39,521.99	100.00	43,220.07	100.00

Privileges from the Investments

1) Privileges from Investment in Domestic Power Plants

Power Plant	Type of Power Plant	PPA / SPP/ VSPP Period	Location	COD	Investment Promotion Period	Adder
Ratchaburi Power Plant	IPP	25 Years	Muang, Ratchaburi	Unit 1-2 : October 31, 2000 Phase 1-2 : April 18, 2002 Phase 3 : November 1, 2002		
Ratchaburi Power Company's Power Plant	IPP	25 Years	Muang, Ratchaburi	Phase 1: March 1, 2008 Phase 2 : June 1, 2008		
Huay Bong 2 Power Plant	SPP	5 Years (Automatic-Renewal)	Dan Khun Tod, Nakhon Ratchasima	February 8, 2013	8 Years from the COD	3.5 Baht; 10 Years
Huay Bong 3 Power Plant	SPP	5 Years (Automatic-Renewal)	Dan Khun Tod, Nakhon Ratchasima	November 14, 2012	8 Years from the COD	3.5 Baht; 10 Years
Ratchaburi World Cogeneration Power Plant Phase 1 and 2	SPP	25 Years	Pho Tharam, Ratchaburi	Phase 1 : November 1, 2014 Phase 2 : March 1, 2015	8 Years from the COD	None
Navanakorn Power Plant	SPP	25 Years	Navanakorn Industrial Promotion Zone, Pathumthani	June 3, 2016 / October 31, 2020 (Expansion)	8 Years from the COD 4 Years from the COD	None
Berkprai Cogeneration Power Plant	SPP	25 Years	Banpong, Ratchaburi	June 1, 2019	8 Years from the COD	None
Ratch Cogen Combined - Cycle Power Plant	SPP	25 Years	Pathumthani	October 31, 2013	8 Years from the COD	None
Solar Power Plant - Solarta Co., Ltd.	VSPP	5 Years (Automatic-Renewal)			8 Years from the COD	8 Baht; 10 Years
<ul style="list-style-type: none"> Saisena Project Sai Prapa Project 			Saisena, Ayutthaya Banglen, Nakhonpathom	April 17, 2011 July 20, 2012		

1) Privileges from Investment in Domestic Power Plants (Cont.)

Power Plant	Type of Power Plant	PPA / SPP/ VSPP Period	Location	COD	Investment Promotion Period	Adder
• Sai Tatong Project			Songpeenong, Suphanburi	July 25, 2012		
• Sai Thong Project			Banglen, Nakhonpathom	August 1, 2012		
• Sai Yai Project			Banglen, Nakhonpathom	August 10, 2012		
• Sai Saphan 1 Project			Songpeenong, Suphanburi	August 17, 2012		
• Sai Yoi Project			Banglen, Nakhonpathom	August 31, 2012		
• Sai Saphan 2 Project			Songpeenong, Suphanburi	November 28, 2012		
Solar Power Plant - Solar Power (Korat 3) Co., Ltd.	VSPP	5 Years (Automatic-Renewal)	Seeda, Nakhon Ratchasima	March 9, 2012	8 Years from the COD	8 Baht; 10 Years
Solar Power Plant - Solar Power (Korat 4) Co., Ltd.	VSPP	5 Years (Automatic-Renewal)	Chokechai, Nakhon Ratchasima	May 14, 2012	8 Years from the COD	8 Baht; 10 Years
Solar Power Plant - Solar Power (Korat 7) Co., Ltd.	VSPP	5 Years (Automatic-Renewal)	Dan Khun Tod, Nakhon Ratchasima	May 30, 2012	8 Years from the COD	8 Baht; 10 Years
Biomass Power Plant - Songkhla Biomass	VSPP	20 Years	Chana, Songkhla	November 9, 2015	8 Years from the COD	Feed in Tariff (FIT)
Navanakorn Power Plant	SPP	25 Years	Navanakorn Industrial Promotion Zone, Pathumthani	June 3, 2016 / October 31, 2020 (Expansion)	8 Years from the COD	None

2) Privileges from Investment in Overseas Power Plants

Power Plant	Type of Power Plant	PPA / SPP / VSPP Period	Location	COD	Investment Promotion Period	Adder
Hydro Power Plant - Nam Ngum 2	IPP	27 Years (IOD+COD)	Nam Ngum River; about 35 km. north of Nam Ngum Reservoir 1, and 90 km. north of Vientiane	March 26, 2011 (IOD) January 1, 2013 (COD)	None	None
Hongsa Thermal Power Plant	IPP	25 Years	Chaiburi District, Lao PDR	Phase 1 : June 2, 2015 Phase 2: November 2, 2015 Phase 3: March 3, 2016	None	None
Thang Long Coal-Fired Power Plant	IPP	25 Years	Halong, Quang Ninh, Socialist Republic of Vietnam	Unit 1 : May 16, 2018 Unit 2: July 30, 2018	15 Years from revenue recognition date	Distribute in Vietnam Wholesale Electricity Market (VWEM)
RATCH-Australia Corporation Limited's power plant	SPP		Australia		None	None
• Townsville Power Plant		February 2025	North Queensland	1999		
• Kemerton Power Plant		October 2030	West Australia	2005		
• Windy Hill Wind Power Plant		National Energy Market	Queensland	2000		
• Toora Wind Power Plant		December 2022	Victoria	2002		
• Starfish Hill Wind Power Plant		National Energy Market	South Australia	2003		
• Mount Emerald Wind Power Plant		December 2030	Queensland	2018		
• Collinsville Solar PV Power Plant		December 2030	Queensland	2019		
• Collector Wind Farm***		(According to the details attached)	New South Wales	June 18, 2021		
• Yandin Wind Farm		June 2035	Western Australia	December 9, 2021		
Asahan -1 Power Plant		Ending in 2040	North Sumatra, Indonesia	2011	None	None
Xe-Pian Xe-Namnoy Hydroelectric Power Plant	IPP	27 years (COD)	Attapeu and Champasak	December 6, 2019 (COD)	None	None

Remark: IOD = Initial Operation Date
COD = Commercial Operation Date

*** Collector Wind Farm: 60% PPA: Iberdrola Australia Markets Pty Ltd. End of contract December 2030
19.4% PPA: ALDI End of contract April 2031
20.6% sold through National Energy Market, without expiration of distribution period

Marketing and Competition

In the future, changes in energy are going to be very rapid, accelerated by global warming from greenhouse gas as the main catalyst. The electricity generation trend in the future is going to change to renewable energy sources instead of fossil fuel. However, such changes take time and factors in different aspects, due to certain limitations of renewable energy that cannot offer stability to electricity distribution into the system. Hence, main power plants, energy storage system or hydro power plants are still necessary to enhance the stability of the system. Every sector is aware of and understand the direction and impact, and is focused on increasing production capacity from renewable energy to reduce the emission of carbon dioxide, in accordance with the 26th United Nations Framework Conference on Climate Change (COP26), whereby Thailand's energy policy is also in the same direction.

Power Development Plan 2022 (PDP 2022)

The preparation of the PDP 2022 is considered an important structural reform. The key rationale is that the proportion of fuel used in electricity generation should be balanced and not rely heavily on any of the fuels, with an emphasis on the stability of the system, minimization of environmental impact and creation of stability in electricity rate that reflects true cost. Currently, electricity users' behaviors have changed, meaning that household electricity users can generate electricity by themselves from the sunlight. So they are both producers and consumers at the same time (prosumer), causing electricity utilization of these prosumers out of the system, while at the same time causing fluctuation in the system by using electricity generated elsewhere. Therefore, the electricity authority still bears the investment burden in improving the electricity system to enhance stability. The Ministry of Energy is now preparing to launch the Loss of Load Expectation (LOLE) index that will allow 0.7 day of blackout in 1 year as the criteria instead of 15% electricity reserve, which will allow higher purchase of electricity generated from renewable energy into the system.

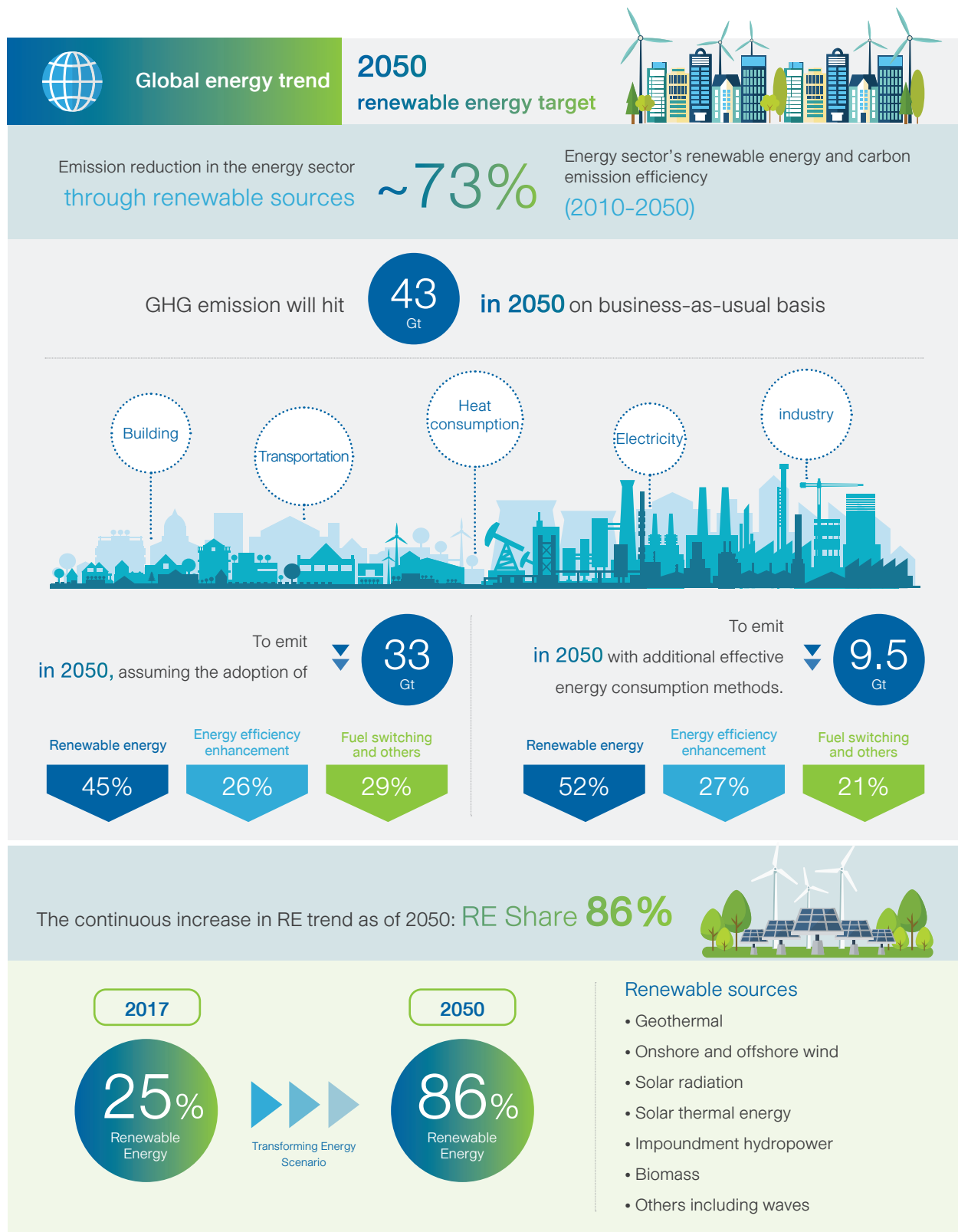
Strategic Energy Plan

Currently, the Ministry of Energy is operating under the 4D+1E policy, which will be the foundation of PDP 2022 in the future, as follows:

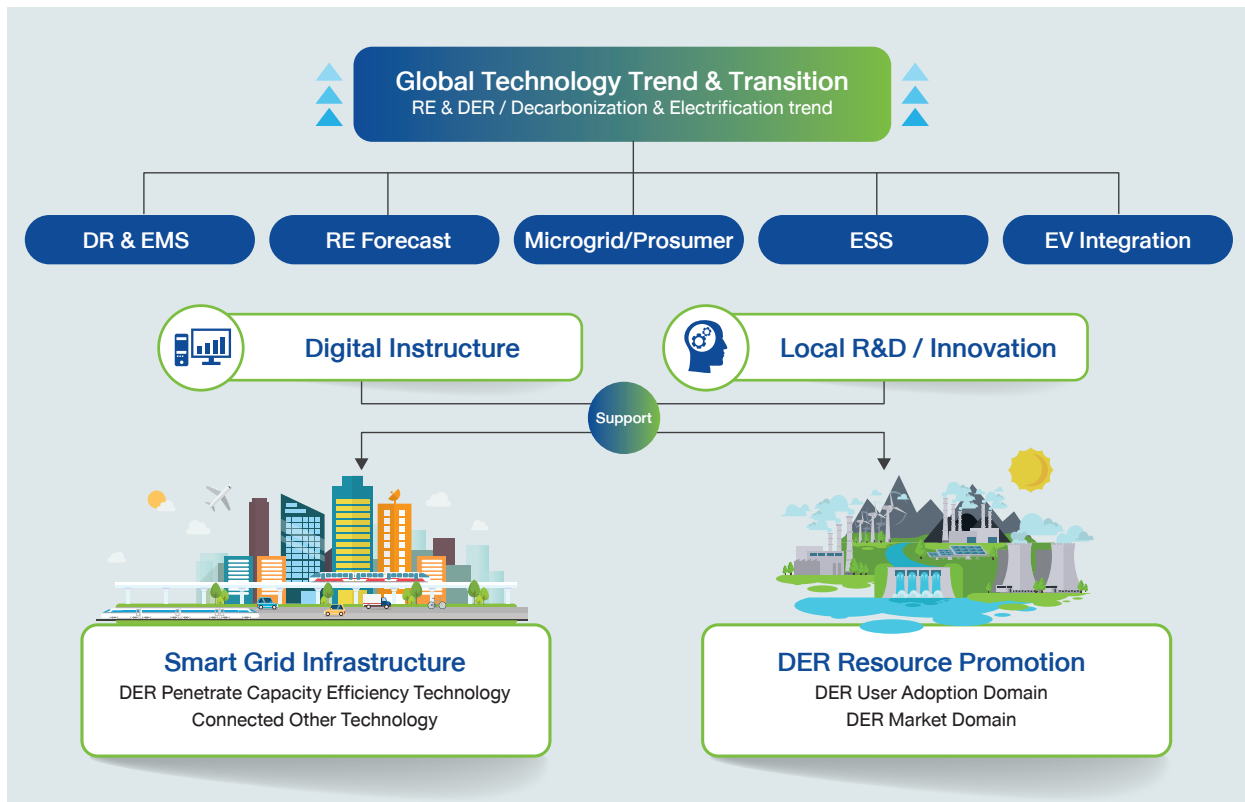


Source: Energy Policy and Planning Office Ministry of Energy

1. Decarbonization: Targeting at controlling atmospheric temperature not to increase by more than 2 degrees Celsius by 2050, whereby the Ministry of Energy will encourage electricity generation from renewable energy of more than 50% of all energy categories to achieve Carbon Neutrality by 2050 and Net Zero by 2065.



2. Decentralization: Decentralize energy production by dispersing small power plants using renewable energy in communities (Distributed Energy Resources: -*+ DERs). So, the electricity user structure will change, with a combination of pure consumers and prosumers.



3. Deregulation: Deregulate the rules to encourage electricity generation with renewable energy. Allow for the development and testing of energy innovation with the easing of regulations that may be the obstacles, encouraging energy start-ups, amendments of regulations that allow using money from the energy conservation fund to support community energy business, unlocking the energy produced by citizens to enter the transmission line system.

4. Digitalization (Internet of Things : IoTs + Blockchain): Venturing into the digital age has changed the electricity industry, coupled with the role of IoTs, for instance, the connection of electricity network from production sources to end-users, with the in-depth and real-time data transmission on the actual energy usage, and the compilation and processing of big data to forecast maintenance activities (Predictive Maintenance) to reduce maintenance and operational costs, significantly minimize energy loss in the electricity distribution system, reduce cost and carbon emission, as well as enhance reliability of the power supply as a result of having a modern system.

5. Electrification: Encouraging higher usage of electric power such as electric vehicles, which requires systems or platforms to facilitate energy management

In this regard, Thailand's energy development plan in the future features the following tendencies:

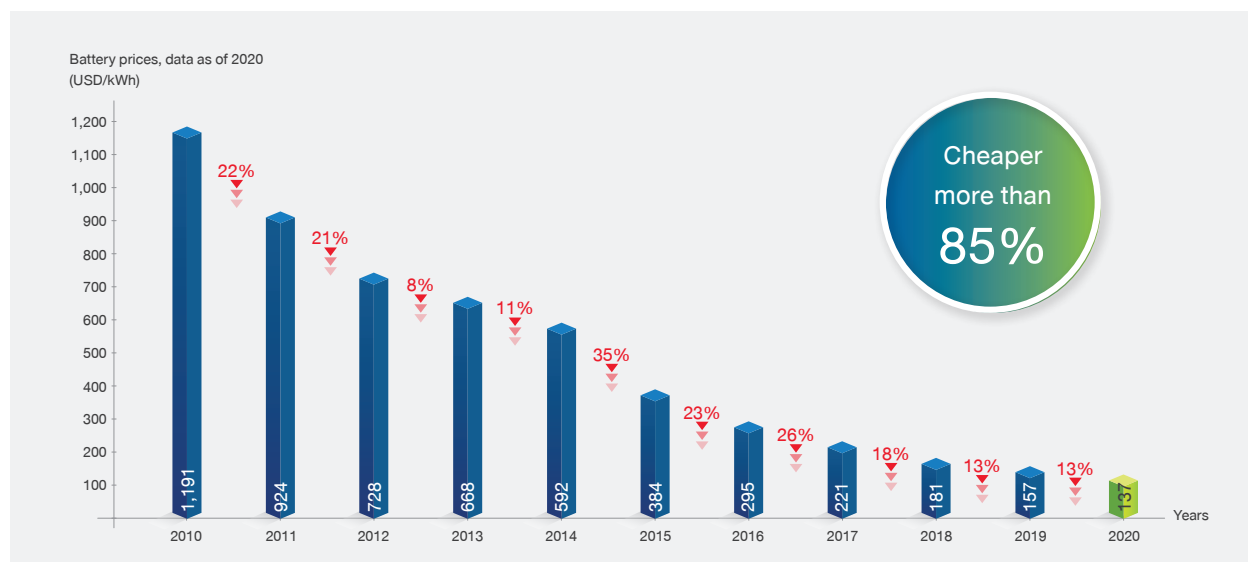
- Demand Response & Energy Management System is a fundamental energy management in terms of energy conservation, to help minimize consumption of electricity generated from fossil fuel to reduce pollution caused by greenhouse gas, through energy management approach, seconded by electricity generation from renewable energy, as it is a low-cost technology (compared to battery and electric vehicles), can be executed fast and enhance flexibility of the power system, and suitable for use in the energy transition period towards higher adoption of renewable energy.

- Renewable energy forecast (RE Forecast) is a primarily important technology, using data from power plants' locations, attributable production capacity, actual electricity generation, power plants' availability, meteorological data, aerial and satellite photos during 2018-2020, studies of electricity generation forecast from renewable energy, development of institutional structure and establishment of a forecast center for electricity generation from renewable energy.

- Micro grid and electricity generation by consumers that generate electricity and withdraw themselves from the main power network (Conventionally National Grid) for 100% the entire time or at any particular point in time. They may be electricity distributors that still purchase electricity from the main power system, but in a reduced portion and can supply the excess

back to the national grid, or they may be the power users that own generators and distribute electricity to the network in large portion in a continuous manner, and only purchase electricity from the system to temporarily and occasionally enhance stability and reserve for their power system. The chances of using micro grid are common for power users in remote areas where electricity is not available, commercial and industrial sectors, communities, public utilities, research institutes, universities, military bases or areas prone to disasters, which may require credibility and flexibility in electricity generation. They can also be the environmental advocates that use renewable energy in electricity generation to encourage the use of clean energy and reduce greenhouse gas emission.

- Battery energy storage system will play a part since energy in the new era will be the age of electric vehicles, batteries for electric vehicles are the key driving force in the development of battery technology to achieve targets in high-current charge and quick charge. Currently, there are research studies in Zero Emission Vehicles, featuring the advancement in batteries required of electric vehicles that are smaller in size, enable long distance drive, weigh less, charge more quickly, faster acceleration rate, longer life, and can accommodate the vehicle for at least 3,000 cycles or 10 years. The safety feature should also be enhanced in a more reasonable price point. The research also includes the reuse and disposal technology to enhance values and reduce cost.



From the direction, tendency and development in digital technology, artificial intelligence and energy, for instance, smart grid, solar energy technology, high efficiency energy storage system and electric vehicles, there have been vigorous changes in the market, business models and consumer behaviors. The Company is aware of the importance and changes from the fossil fuel era to renewable energy era, as well as the competitive landscape, so the Company has been trying to seek investment expansion opportunities in fundamental public utility business, energy-related business, and health service business, in addition from the operations and investment in core businesses related to energy, in order to expand business bases and seek more alliances in business development.

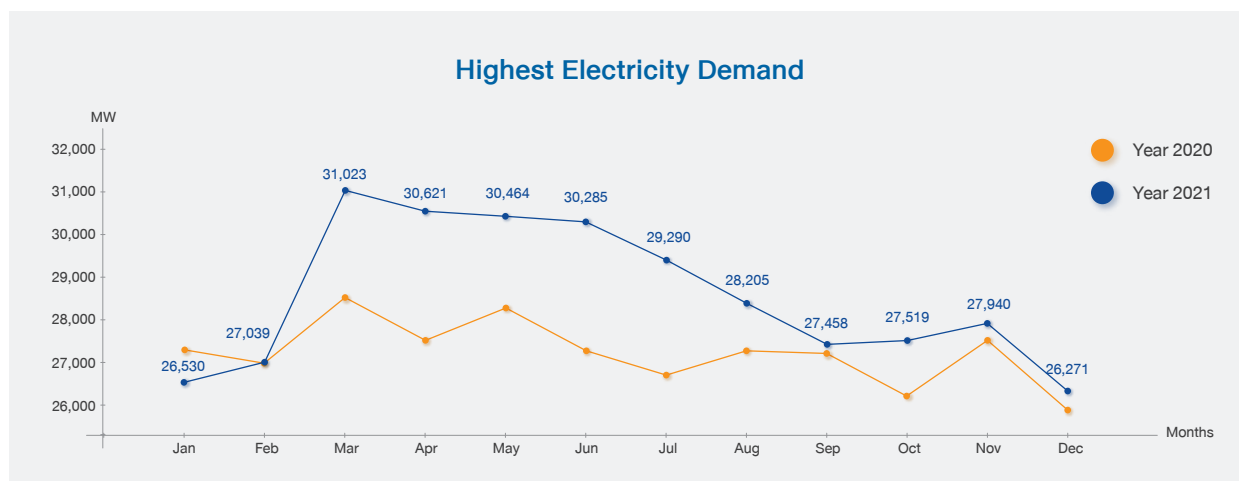
Domestic Industry Outlook

The COVID-19 pandemic has caused the global economy to slow down. The data from the International Monetary Fund (IMF) in October 2021 reported that IMF has adjusted the global gross domestic product (GDP) forecast during 2021-2022 to be 5.9% and 4.9% (decreased from the July report at 6.0% and 4.4%), which reflects the drop in GDP of developed countries caused by supply chain disruption. For ASEAN countries, the initial expansion of 4.3% has been reduced to 2.9%, coupled with a worry in higher inflation rate caused by continuously increasing energy prices. IMF has forecasted that the Thai economy is going to expand by only 1.0% before recovering to 4.5%

in 2022, which is lower than the initial projection. Meanwhile, the Office of the National Economic and Social Development Council (NESDC) has announced that the GDP in 2021 would increase by 1.2% as forecasted in August, and 2022 GDP growth will be 4%.

The GDP forecast in 2021 for other ASEAN countries is; the Philippines; 3.2%, Malaysia; 3.5%. The Vietnamese economy is still growing at a fast pace, despite a severe COVID-19 transmission. Vietnam has been able to maintain its capacity in attracting foreign investment, whereby GDP growth in Vietnam in the first half of 2021 was reported at 5.64%, while export revenue increased by 28.4%, compared to the same period of time in 2020. ADB forecasted that the GDP growth in 2021 was 3.8%, while World Bank suggested 4.8%.

Even though Thailand is still battling with the transmission of COVID-19 that has been continuing from 2021 and has impacted the economy especially in terms of reduced energy demand, domestic electricity demand has started to recover and exceeded the same period in 2021 due to the hot weather and the Work from Home scheme, leading to higher use of air conditioners. The peak electricity demand in EGAT's system in 2021 was reported on April 3, 2021 at 9:03 PM at 30,135.30 megawatts, increasing from the peak record in 2020 on March 12, 2020 at 8:30 PM at 28,636.70 megawatts.



Source: Energy Policy and Planning Office

The demand for maximum electricity (Peak) in the system in year 2021 occurred on March 31, 2021 at 2.49 p.m., was at 31,023 megawatts which was higher than the previous year's which was on March 13, 2020 at 2.14 p.m., at 30,342 megawatts.

Overseas Industry Outlook

The clean energy trend has enabled the Company to identify investment opportunities and renewable energy production capacity expansion overseas, as summarized below:



Australia

Australia is an interesting market for renewable energy opportunities and energy storage technology. It has forecasted that electricity generation capacity from clean energy not including hydro energy will increase to 30% of the total energy within 2030. Besides, Australia has a market to sell and purchase renewable energy, with the greenhouse gas reduction policy, enabled by a rapid development in the solar energy technology, including low installation cost that easily allows the household sector to access.



Lao PDR

Lao PDR or "Battery of Asia" has set goals to become the leading clean energy producer of ASEAN. Lao PDR has clean energy sources with high potential; hydro, solar and wind. The government has set goals to free itself from being the least developed country (LDC) by 2026, so it has to accelerate investment with a facilitative policy to allow independent power producers (IPP) to jointly invest in projects and attract foreign investment capital. Electricity is considered the second most important export product to different countries in the region in accordance with the MOU, for instance, Thailand; 9,000 megawatts, Cambodia; 6,000 megawatts, Vietnam; 5,000 megawatts, Myanmar; 300 megawatts and Malaysia; 300 megawatts.

Recently, the Thai Ministry of Energy has expanded the amount of power purchase of the MOU from 9,000

megawatts to 10,500 megawatts from the request of the government of Lao PDR.



Indonesia

Indonesia has the largest economy in Southeast Asia, with diverse and fertile natural resources, and high energy demand in relation to the size of its population.

With regards to the energy goals, Indonesia aims to achieve Carbon Neutrality by 2060 and increase the proportion of renewable energy to 48% in the country's electricity generation plan 2021-2030. Therefore, in order to achieve the plan and greenhouse gas emission plan put forth by President Susilo Bambang Yudhoyono to aim for a 26% reduction in greenhouse gas emission (compared to the amount of greenhouse gas in 2005) by 2020. The parliament of Indonesia has enacted the law supporting the geothermal energy industry, given its advantage in being located in the Pacific Ring of Fire, with more than 130 volcanoes, including the geothermal energy that is believed to generate up to 28,000 megawatts of electricity or equivalent to 40% of the geothermal energy that can be used globally. However, Indonesia currently generates only 1,300 megawatts of electricity from geothermal energy, while the majority of electricity consumed domestically is from other sources such as coal and oil that cause emission of greenhouse gas into the atmosphere.

Apart from the geothermal energy, Indonesia also has high potential in solar and wind energy, due to its being a dispersed island geography, making it suitable for energy management with micro grid to reduce fuel transport and investment in the transmission system.



Vietnam

Vietnam has generated a robust economic growth from the strong manufacturing and export sectors. The government has set renewable energy goal to represent 25-30% of the total energy production by 2045, from the current capacity of 13% of the total energy production. Besides, Vietnam has continuously been able to attract foreign investment capital, whereby the investment in

solar and wind energy in 2021 was equivalent to 7.4 billion USD, ranking the 8th country in the world with highest renewable energy investment.



The Philippines

The primary fuel used in electricity generation in the Philippines is fossil fuel; coal, natural gas and oil, accounting for 73.5% of the total energy demand in the country. The main reason is because fossil fuel-based energy is cheaper, especially coal, which is the most commonly used fuel in the country. However, the government of the Philippines has launched a balanced energy policy, with an attempt to reduce reliance on coal, though 100% change to clean energy is not yet attainable as it is necessary to maintain low level of cost to drive the economy. The island geography also poses an obstacle in the electricity transmission system, while the government has the policy that encourages an integrated renewable energy and connecting the micro grid to the power network on different islands. The renewable energy target has been set at 35% of the total production capacity by 2030, whereby wind energy should represent no less than 2 gigawatts.

Like Indonesia, the Philippines is one of the world leading producers of geothermal energy as it is situated in the Pacific Ring of Fire. Currently, there are 7 geothermal energy sources in the Philippines, which supply 12% of the energy to the country. The government has a long-term plan to double the production capacity from geothermal energy by 2040.



Malaysia

The 12th edition of the strategic development plan that spans over a 5-year period during 2021-2025 has set the target that Malaysia will step up to be a high-tech country with high income per capital by 2025. Citizens will have better quality of lives and the country should be categorized as a developed country. Moreover, the government aims to achieve Carbon Neutrality by 2050 and reduce greenhouse gas emission by 43% within 2030 by encouraging the clean energy technology.

Malaysia has been mainly reliant on fossil fuel in electricity generation at the proportion as high as 82% as it has its own energy sources. The government is also trying to push forth electricity generation from renewable energy by setting the target of 20% in 2035. Furthermore, Malaysia's important agricultural product is oil palm, which can be used as biomass fuel in electricity generation, with an estimated potential of approximately 1,340 tons in 2030.

Product Management

The main raw material for electricity generation is fuel, meaning that thermal power plants use natural gas as the primary fuel and fuel oil as the secondary fuel. Combined-cycle power plants use natural gas as the primary fuel and diesel as the secondary fuel. Besides, water and other chemicals are used in water quality improvement procedures, which play an important role in the production process as detailed below:

Fuel Management

1. Natural Gas

Thermal and combined-cycle power plants use natural gas as the primary fuel, whereby the Company has entered into a gas sales agreement with PTT PCL directly on October 27, 2000, which is valid for 25 years. Under this agreement, PTT PCL would procure and supply natural gas from Yadana and Yetagun gas fields in Myanmar to Ratchaburi Power Plant, and ensure it is sufficient for the Company's demand. The natural gas sales and purchase amount has been determined at 431,000 million BTU/day, and will be supplied by PTT PCL. and transported via pipelines that span over a distance of 416 miles from Yadana gas field through Thong Pha Phum border, Kanchanaburi, to Ratchaburi Power Plant.

In this regard, EGAT has entered into a Master Gas Sales Agreement with PTT PCL on October 27, 2000, with an identification of a Minimum Take Liability required of EGAT in case Ratchaburi Electricity Generating Co., Ltd., is unable to take the gas supplied by PTT PCL as agreed in the master gas sales agreement.

Since the Master Gas Sales Agreement has clearly stated the quality of fuel, if PTT PCL supplies natural gas that is below the agreed quality, Ratchaburi Electricity Generating Co., Ltd. is entitled to refuse receipt of the fuel and regard PTT PCL as unable to supply the fuel. The PPA also clearly stated that Ratchaburi Electricity Generating Co., Ltd. is still entitled to continue to receive availability payment. Therefore, Ratchaburi Electricity Generating Co., Ltd. is not exposed to the risks caused by PTT PCL's inability to supply natural gas or Ratchaburi Electricity Generating Co., Ltd.'s refusal to receive under-quality natural gas, as it does not affect the Company's availability payment or reduce the Company's capacity under the PPA.

On August 29, 2002 and September 30, 2002, the Company signed an agreement with EGAT and PTT PCL to improve the combustion system at Ratchaburi Power Plant to be able to take natural gas with higher heat rate. The previous heat rate stated in the gas sales agreement was about 730-800 BTU/cubic feet, whereby the Company got compensated for the wear and tear and damage of the equipment, fuel and others for 238.10 million Baht. The first batch of compensation of 132.10 million Baht was received in 2002 for the improvement of the combustion system at Ratchaburi Power Plant to be able to take natural gas with the heat rate of 830-840 BTU/cubic feet and the second batch of compensation in 2005 of 106 million Baht was received for the improvement of the combustion system at Ratchaburi Power Plant. In this regard, Ratchaburi Electricity Generating Co., Ltd. was not affected by the changes in the heat rate of the natural gas.

2. Fuel Oil

According to the PPA with EGAT, Ratchaburi Electricity Generating Co., Ltd. is required to allocate a sufficient reserve for fuel oil, which is the secondary fuel, for 5 days of full operations, whereby EGAT is to execute construction, installation and commissioning of fuel oil transportation system on Petchakasem Road, which is about 6.5 kilometers away from Ratchaburi Power Plant, with reference to the asset purchase agreement for thermal power plants made on October 31, 2000.

Currently, the construction, installation and commissioning of the fuel oil transportation system on Petchakasem Road was completed, and Ratchaburi Electricity Generating Co., Ltd. has commenced operation since January 1, 2005.

3. Diesel Oil

Combined-cycle power plants use diesel oil as the secondary fuel, in case the amount of natural gas is insufficient. Ratchaburi Electricity Generating Co., Ltd. is required to allocate sufficient diesel oil reserve for 3 days of full operations. Diesel oil will be transported via oil trucks to Ratchaburi Power Plant. Besides, thermal energy power plants and combined-cycle power plants also use diesel as the start-up fuel as well.

Ratchaburi Power Plant (comprising of 2 types of power plants; thermal power plant and combined-cycle power plant) and Navanakorn Power Plant use natural gas as the fuel. Ratchaburi Thermal Power Plant can use fuel oil as the secondary fuel, while Ratchaburi Combined-Cycle Power Plant uses diesel oil as the secondary fuel. The secondary fuel is hereby used in replacement of natural gas, when natural gas fields in Myanmar have maintenance shutdown. The fuel consumption of a power plant varied with the production rate of energy and type of fuel managed by the National Control Center (NCC) of the Electricity Generating Authority of Thailand (EGAT) in order to secure the entire power system of the country.

Water Sources Management

Ratchaburi Power Plant relies on Mae Khlong River as the water source, with water pumping station located in Tha Rab sub-district, Muang district, Ratchaburi. The amount of water in Mae Khlong River has been determined based on the amount of water released from Mae Khlong Dam, which receives water from 3 dams up north; Sri Nakin Dam, Wachiralongkorn Dam and Tha Thungna Dam. These 3 dams are directly under the supervision of EGAT, while Mae Khlong Dam is under the supervision of the Royal Irrigation Department.

The power plant usually pumps water from Mae Khlong Dam to the reservoir in the power plant via the steel pipeline with the diameter of 1.5 meters. The pipeline is buried underground at the depth of at least 1.5 meters below ground and covered with soil for a distance of 10.7 kilometers from the pumping station to the power plant. The interval that passes through the highway will be pushed through the concrete layer, while the interval that passes through the canal will be buried beneath the canal bed. The reservoir can hold up to 1.68 million cubic meters of water, which is

sufficient for use in the project for as long as 8.5 days in case no water is supplied into the reservoir.

The water transportation pipeline runs along the same boundary as the existing 115 kV high-voltage transmission line and 500 kV high-voltage transmission line built to connect with the power plant, whereby the royalties and compensation are paid to those along the power transmission line to allow for servitude and use the land to lay water transportation pipeline to avoid disputes in using the land.

Assets

As of Dec 31, 2021

1) RATCH Group PCL

Unit: Million Baht

List of Assets	Net Residual Value
1. Land	295.99
2. Buildings and Structures	197.81
3. Durable Articles	
3.1 Office Decoration Equipment	4.11
3.2 Office Supplies	0.73
3.3 Computer System	8.48
3.4 Other Equipment	0.05
Total	507.17

Remark:

- The assets detailed above are under the ownership of RATCH Group PCL in entirety.
- Not including the land for development projects in the future, the asset value at the acquisition date was 305.39 million Baht. The net residual value as of December 31, 2021 was equivalent to 305.39 million Baht

2) Ratchaburi Electricity Generating Co., Ltd.

Unit: Million Baht

List of Assets	Net Residual Value
1. Land; comprising of	645.34
2. Power Plants, Machinery and Equipment for Manufacturing and Maintenance	544.80
3. Buildings and Other Construction	12.37
4. Vehicles	0.05
5. Durable Articles	4.60
Total	1,207.16

Remark:

- The assets detailed above are under the ownership of Ratchaburi Electricity Generating Co., Ltd.
- The value of land dropped by Baht 103.30 million from the 2020 level, as some land was reclassified as investment property.
- Excluding land for future development worth Baht 63.71 million and investment property worth Baht 110.83 million.

3) Ratchaburi Energy Co., Ltd.

No asset items

Remark: Not including the land for development projects in the future. The asset value at the acquisition date was 3.82 million Baht. The net residual value as of December 31, 2021 was equivalent to 3.82 million Baht

4) RATCH-Lao Service Co., Ltd.

Unit: Million Baht

List of Assets	Net Residual Value
1. Buildings and Construction	0.06
2. Durable Articles	
2.1 Office Decoration Equipment	0.09
2.2 Office Supplies	0.30
2.3 Computer System	0.29
3. Assets under construction and installation	1.08
Total	1.82

Remark: The assets detailed above are under the ownership of RATCH-Lao Service Co., Ltd. in entirety.

5) RATCH-Australia Corporation and Subsidiaries

Unit: Million Baht

List of Assets	Net Residual Value
1. Land	213.65
2. Power Plants, Machinery and Equipment for Manufacturing and Maintenance	23,023.54
3. Buildings and Construction	172.92
4. Durable Articles	
4.1 Computer System	0.71
5. Assets under Construction and Commissioning	136.86
Total	23,547.68

Remark:

1. The assets detailed above are under the ownership of RATCH Australia Corporation Co., Ltd. and subsidiaries in entirety.
2. On December 31, 2021, RATCH Australia Corporation Co., Ltd. and subsidiaries signed a mortgage contract for the land, building and power plant, as well as the equipment of 5 power plants, at the net book value of 1,011.36 million Australian dollar (equivalent to 23,275.58 million Baht) as a collateral for a long-term loan from a financial institution.

6) RATCH Cogeneration Co., Ltd.

Unit: Million Baht

List of Assets	Net Residual Value
1. Land	502.04
2. Power Plants, Machinery and Equipment for Manufacturing and Maintenance	4,103.67
3. Buildings and Construction	2.58
4. Decorative Items	0.88
5. Assets under Construction and Commissioning	1,069.91
Total	5,679.08

Remark:

- The assets detailed above are under the ownership of RATCH Cogeneration Co., Ltd.
- As of 31 December 2021, RATCH Cogeneration Company Limited pledged all land and some machinery for a long-term loan from financial institutions.

7) Sahacogen (Chonburi) PCL

Unit: Million Baht

List of Assets	Net Residual Value
1. Land	616.33
2. Power Plants, Machinery and Equipment for Manufacturing and Maintenance	4,198.55
3. Buildings and Construction	159.11
4. Decorative Items	8.25
5. Vehicles	3.34
6. Assets under Construction and Commissioning	295.51
Total	5,281.09

Remark:

- The assets detailed above are under the ownership of Sahacogen (Chonburi) Co., Ltd.
- On December 31, 2021, Sahagreen Forest Co., Ltd. (subsidiary) signed a mortgage contract for the land with buildings and machinery, at the net book value of approximately 370 million Baht as a collateral for a long-term loan from one of the financial institutions.

8) Fareast Renewable Development Pte. Ltd.

Unit: Million Baht

List of Assets	Net Residual Value
1. Building and structure	0.04
2. Vehicles	0.74
3. Decorative items	2.86
Total	3.64

Remark:

- The assets as shown above are the property of Fareast Renewable Development Pte. Ltd.

Investment in Subsidiaries, Joint Ventures, Associates and Other investments

Unit: Million Baht

Company Name	Type of Business	Registered Authorized Capital	Proportion of Investment	Investment Cost
Subsidiaries				
1. Ratchaburi Electricity Generating Co., Ltd. <ul style="list-style-type: none"> Holds 40% of the equity in Navanakorn Electricity Generating Co., Ltd.; a joint venture Holds 40% of the equity in Ratchaburi World Cogeneration Co., Ltd.; a joint venture Holds 35% of the equity in Berkprai Cogeneration Co., Ltd.; a joint venture 	Generates and distributes electricity and invests in electric power businesses	21,900.00	99.99 %	21,900.00
2. Ratchaburi Alliance Co., Ltd. <ul style="list-style-type: none"> Holds 25% of the equity in Ratchaburi Power Co., Ltd.; a joint venture 	Invests in electric power-related businesses	420.20	99.99 %	420.20
3. Ratchaburi Energy Co., Ltd. <ul style="list-style-type: none"> Holds 99.99% of the equity in RE Solar 1 Co., Ltd.; a subsidiary Holds 99.99% of the equity in CN Biomass Co., Ltd.; a subsidiary (Liquidation completed in 2021) Holds 99.99% of the equity in LP Biomass Co., Ltd.; a subsidiary (Liquidation completed in 2021) Holds 99.99% of the equity in BP Biomass Co., Ltd.; a subsidiary (Liquidation completed in 2021) Holds 49% of the equity in Solarta Co., Ltd.; a joint venture Holds 40% of the equity in Solar Power (Korat 3) Co., Ltd.; an associate Holds 40% of the equity in Solar Power (Korat 4) Co., Ltd.; an associate Holds 40% of the equity in Solar Power (Korat 7) Co., Ltd.; an associate Holds 40% of the equity in Songkhla Biomass Co., Ltd.; a joint venture Holds 40% of the equity in Songkhla Biofuel Co., Ltd.; a joint venture 	Invests in electric power-related businesses	640.00	99.99 %	640.00

Unit: Million Baht

Company Name	Type of Business	Registered Authorized Capital	Proportion of Investment	Investment Cost
4. RATCH-Lao Service Co., Ltd. <ul style="list-style-type: none"> Holds 40% of the equity in Asia Water Co., Ltd.; a joint venture Holds 25% of the equity in SIPHANDONE-RATCH LAO CO., LTD.; a joint venture 	Provides operations and maintenance services for power plants, and invests in electric power and fundamental utility businesses	144,875.00 Million LAK	99.99 %	336.86
5. RH International Corporation Co., Ltd. <ul style="list-style-type: none"> Holds 100% of the equity in RH International (Mauritius) Corporation Co., Ltd.; a subsidiary, whereby RH International (Mauritius) Corporation Co., Ltd. holds 100% of the equity in RH International (Singapore) Corporation Pte. Ltd.; a subsidiary. In this regard, RH International (Singapore) Corporation Pte. Ltd. <ul style="list-style-type: none"> Holds 100% of the equity in RATCH-Australia Corporation Co., Ltd. and subsidiaries Holds 100% of the equity in RATCH China Power Co., Ltd.; a subsidiary Holds 90% of the equity in Fareast Renewable Development Pte. Ltd.; a joint venture Holds 40% of the equity in Hongsa Power Co., Ltd.; a joint venture Holds 37.50% of the equity in Phu Fai Mining Co., Ltd.; a joint venture Holds 49% of the equity in PT Medco Ratch Power Riau; a joint venture Holds 63.8% of the equity in RATCH & AIDC Wind Energy Pte. Ltd.; a joint venture Holds 49% of the equity in An Binh Energy and Infrastructure Fund; a joint venture Holds 50% of the equity in Netxif Energy Bt Pte. Ltd.; a joint venture 	Invests in electric power-related businesses	32,650.00	99.99 %	27,130.00
6. RATCH O&M Co., Ltd.	Provides operations and maintenance services for power plants	10.00	99.99 %	2.50
7. RATCH Cogeneration Co., Ltd.	Generates and distributes electricity and steam	Common stocks; 479.34 Preferred stocks; 1,170.66	99.97%	1,866.05

Unit: Million Baht

Company Name	Type of Business	Registered Authorized Capital	Proportion of Investment	Investment Cost
8. Sahacogen (Chonburi) PCL <ul style="list-style-type: none"> Holding 99.99% shares in Sahacogen Green Company Limited, a subsidiary Holding 75% of shares in Saha Green Forest Company Limited, a subsidiary 21% holding shares in IMPACT Solar Company Limited, an associated company 	Generates and distributes electric power and steam for the industrial sector	1,163.70	51.00%	3,412.54
Total				55,708.15

Joint Ventures and Associates

Unit: Million Baht

Company Name	Type of Business	Registered Authorized Capital	Proportion of Investment	Investment Cost
1. Southeast Asia Energy Co., Ltd.	Invests in electric power-related businesses	6,606.75	33.33%	2,202.25
2. Chubu Ratchaburi Electric Service Co., Ltd.	Provides operations and maintenance services for power plants	20.00	50.00%	10.00
3. Xe Pian - Xe Namnoy Power Co., Ltd.	Generates and distributes electric power	306.00 Million USD	25.00%	2,523.73
4. First Korat Wind Co., Ltd.	Generates and distributes electric power	1,996.02	20.00 %	399.20
5. KR2 Co., Ltd.	Generates and distributes electric power	1,827.00	20.00 %	365.40
6. Smart Infranet Co., Ltd.	Invest in the installation and commercial service of fiber optic networks in the country.	550.00	51.00 %	280.50
7. Things On Net Co., Ltd.	Invest in the installation of telecommunication networks to provide commercial Internet of Things (TOT) services in the country.	133.00	35.00 %	180.02
8. Hin Kong Power Holding Co., Ltd.	Invests in electric power-related businesses	3,652.00	51.00 %	467.77
9. R E N Korat Energy Co., Ltd.	Generates and distributes electric power and steam	300.00	40.00 %	120.00
10. Nexif Ratch Energy Singapore Pte. Ltd.	Invests in electric power-related businesses	34.67 Million USD	49.00 %	984.81
11. Northern Bangkok Monorail Co., Ltd.	Public transportation business	14,400.00	10.00 %	1,440.00
12. Eastern Bangkok Monorail Co., Ltd.	Public transportation business	14,400.00	10.00 %	1,440.00

Unit: Million Baht

Company Name	Type of Business	Registered Authorized Capital	Proportion of Investment	Investment Cost
13. Bangkok Aviation Fuel Services PCL	Aviation fuel services	637.50	15.53 %	2,712.14
14. Innopower Co., Ltd.	Invests in start-up and R&D spin-off, as well as future energy businesses	600	30.00 %	45.00
Total				13,170.82

Other Businesses

Unit: Million Baht

Company Name	Type of Business	Registered Capital	Proportion of Investment	Investment Cost
1. EGAT Diamond Service Co., Ltd.	Provides gas turbine equipment maintenance service for electricity generation system	623.00	10.00 %	62.30
2. BGSR 6 Co., Ltd.	Jointly invests with the government institutes in the design, construction and civil maintenance, and toll booth operations for inter-city expressway projects	1,000	10.00%	100.00
3. BGSR 81 Co., Ltd.	Jointly invests with the government institutes in the design, construction and civil maintenance, and toll booth operations for inter-city expressway projects	850	10.00%	85.00
4. Principal Capital PCL	Hospital Business	3,808.57	10.00 %	1,557.71
Total				1,805.01

In this regard, the Company is determined to invest, develop and operate electricity generation business and relevant businesses to achieve the vision to be the leading energy and fundamental public utility company that aims to deliver values in the Asia Pacific region. The Company has established an investment committee to identify the strategy, objectives, investment plan, investment budget, returns and other benefits from investment in different projects, to enhance production capacity and growth for the Company. The Committee is also responsible for screening investment projects proposed by the management to ensure linkages and coherence with the policies and objectives in accordance with the Company's investment plan, with consideration of the economic returns that are worthwhile. The Committee is also in charge of considering other relevant risk factors, verifying, following-up and evaluating projects that have been given approval to invest, and reporting to the Board of Directors for acknowledgement.

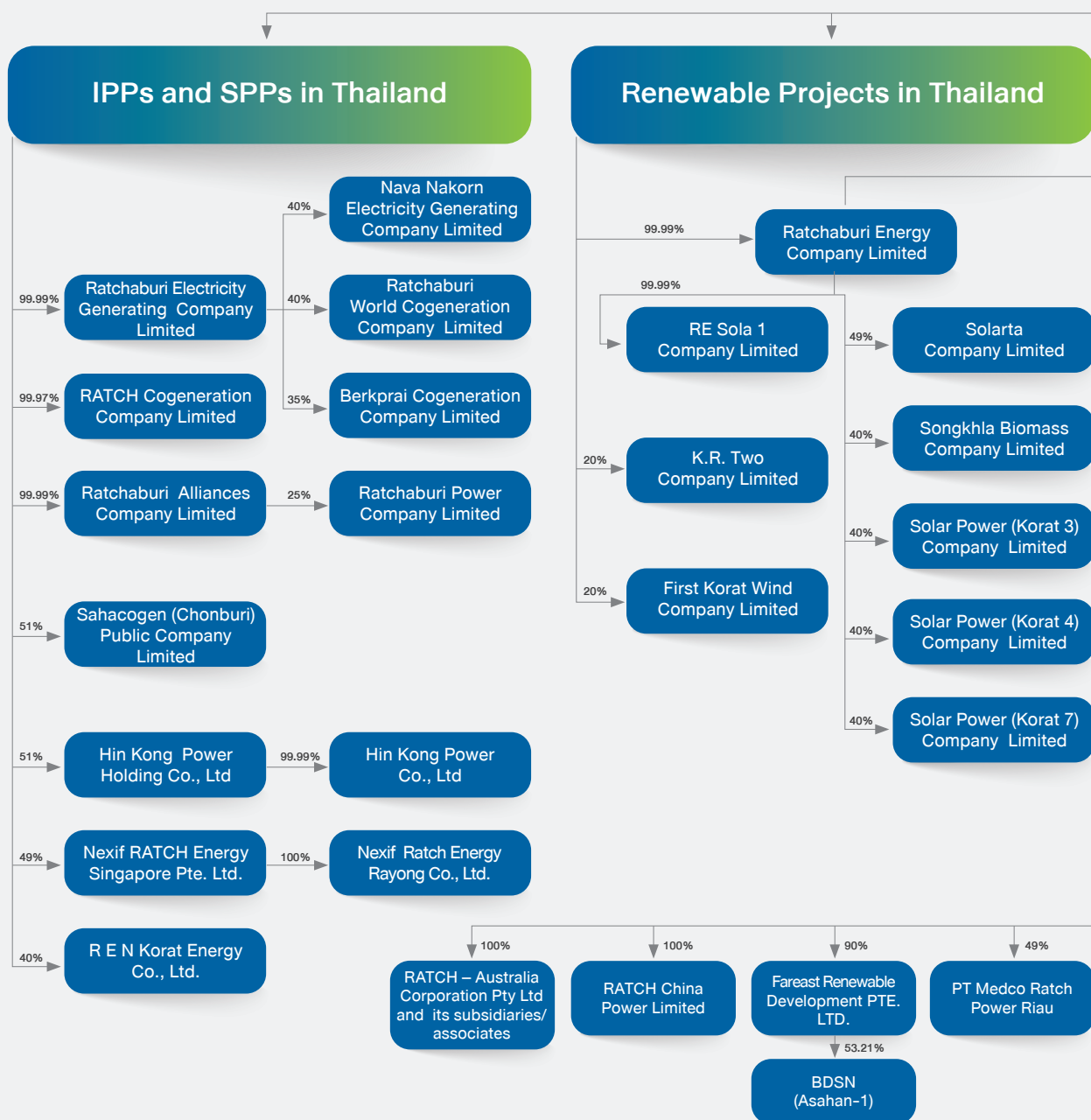
■ Projects under development and construction.

There are 12 projects under development and construction as detailed below:

Project	Country	Status	Fuel	The Company's Shareholding (%)	Attributable Production Capacity (MW)	Commercial Operation Date (COD)
Riau Combined-Cycle Power Plant	Indonesia	Construction	Natural Gas	49.00	145.15	2022
Ecowin Wind Power Plant	Vietnam	Construction	Wind Energy	51.04	15.16	2022
Nexif RATCH Energy Rayong SPP	Thailand	Construction	Natural Gas	49.00	45.08	2022
RATCH Cogeneration SPP (Expansion)	Thailand	Construction	Natural Gas	99.97	31.19	2022
MRT Yellow Line Project	Thailand	Construction	-	10.00	n.a.	2022
MRT Pink Line Project	Thailand	Construction	-	10.00	n.a.	2023
Nexif Energy Ben Tre Wind Energy Power Plant	Vietnam	Construction	Wind Energy	50.00	40.00	2023
R E N Korat Energy Power Plant	Thailand	Pending Environmental Impact Evaluation	Natural Gas	40.00	12.48	2023
Hin Kong Combined-Cycle Power Plant Unit 1-2	Thailand	Site Preparation for Construction in Progress	Natural Gas	51.00	714.00	2024/2025
Paiton Energy Power Plant	Indonesia	Share Purchase Terms Execution in Progress	Coal	45.515%	930.78	1999/2012*
Bang Pa-In - Nakhon Ratchasima Inter-City Expressway No.6	Thailand	Construction	-	10.00	n.a.	2024
Bang Yai - Kanchanaburi Inter-City Expressway No.81	Thailand	Construction	-	10.00	n.a.	2024

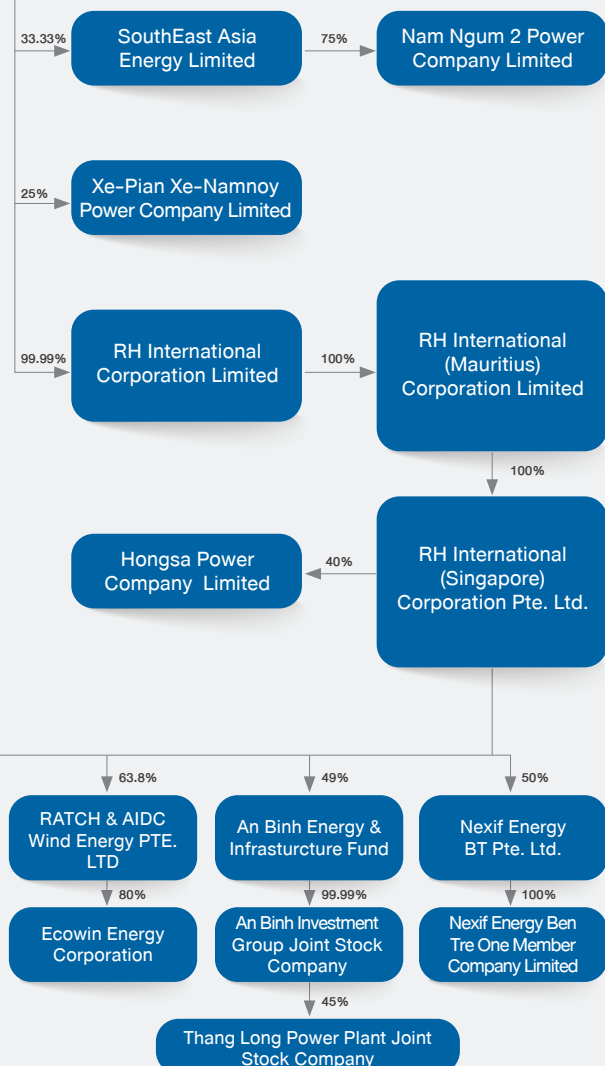
Remark: * Paiton Energy Power Plant's total production capacity is equivalent to 2,045 megawatts. The first power plant (P7/8) is comprised of 2 electricity generating units, with the capacity of 615 megawatts each, totaling 1,230 megawatts, with a 43-year PPA with Indonesia's electricity authority (PLN) during 1999-2042. The second power plant (P3) has the total production capacity of 815 megawatts, with a 30-year PPA with Indonesia's electricity authority (PLN) during 2012-2042. In this regard, the PPAs with PLN for both power plants will still remain valid for another 21 years.

1.3 Shareholding Structure of the Group

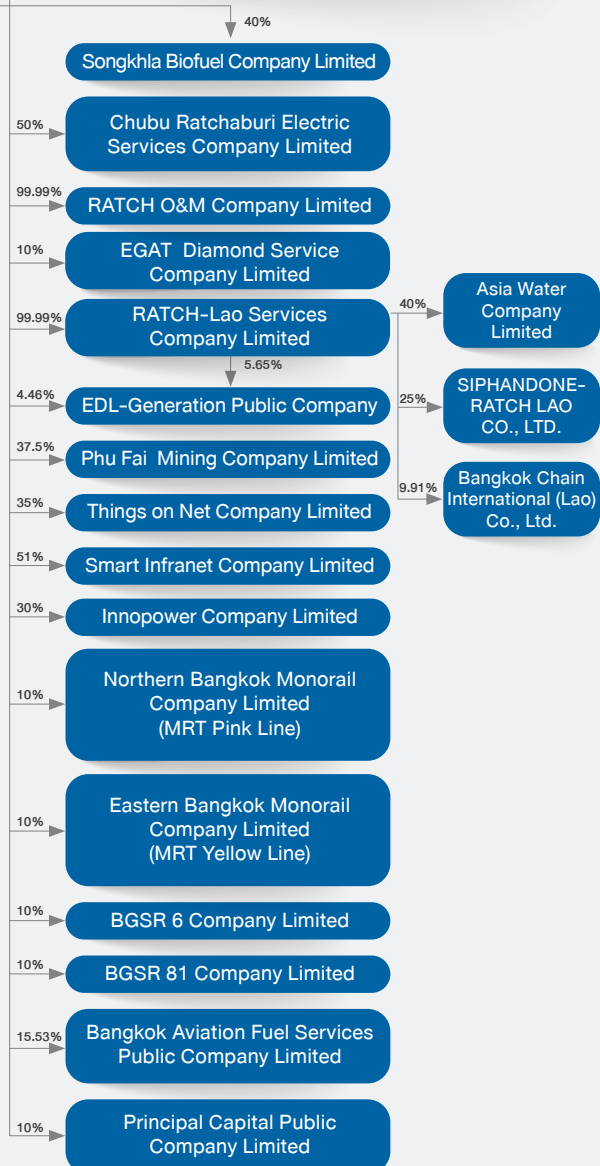


As of December 2021

International Projects



Related Businesses Infrastructure and Other Businesses



Group's shareholding structure

RATCH operates as a holding company with investment in 4 business categories which are Power Generation Business, Infrastructure Business, Energy Related Business and Healthcare Business.

Relationship with major shareholder's business group

RATCH is listed on the Stock Exchange of Thailand. It operates as a holding company with chief interests in electricity generation, infrastructure and related businesses. The Electricity Generating Authority of Thailand (EGAT) is a major shareholder, holding a 45 percent stake, while the remaining 55 percent stake is held by other shareholders. EGAT is a state enterprise under the Ministry of Energy and the Ministry of Finance. Its operations concern the production, procurement and distribution of electric power in Thailand and neighboring countries. It also has joint ventures incorporated under the EGAT Act for investment in those businesses. EGAT has 7 subsidiaries. The shareholding structure is shown in the diagram below.



EGAT supports RATCH's operations in the area of operation and maintenance for RATCH's small and large power plants. RATCH's Management has placed trust in EGAT's personnel as they occupy greater experience and expertise than other competitors. RATCH has competitive relationship with other EGAT subsidiaries operating in the same business which are Electricity Generating Public Company Limited, EGAT International Company Limited and District Cooling System and Power Plant Company Limited. All have competed under fair bidding, in line with regulatory requirements and generally-accepted international standards.

However, EGAT and its subsidiaries see the importance of synergy, to strengthen their operations and business potential. The view leads to their cooperation and their joint ventures have been established, starting from Innopower Company Limited. It is a 40:30:30 joint venture of EGAT, Electricity Generating Public Company Limited and RATCH, established to invest in energy innovation and future technology (New S-Curve).

Innopower is expected to create new energy products, support the digital transition and commercialize innovation researches of EGAT and its subsidiaries. The joint venture is a major step in creating synergy, which will lead to new business development in the future.

Shareholders

Top 10 Major Shareholders as at 8 September 2021^{/1}

NO.	Major Shareholders	No. of shares (share)	%
1.	ELECTRICITY GENERATING AUTHORITY OF THAILAND ^{/2}	652,500,000	45.00
2.	THAI NVDR COMPANY LIMITED ^{/3}	77,276,896	5.33
3.	SOCIAL SECURITY OFFICE	67,913,700	4.68
4.	EGAT SAVING AND CREDIT COOPERATIVE LIMITED	56,792,500	3.92
5.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	37,855,165	2.61
6.	MR. MIN TIENWORN	20,076,200	1.38
7.	STATE STREET EUROPE LIMITED	12,880,959	0.89
8.	MR. PRATEEP TANGMATITHAM	11,888,600	0.82
9.	SUPALAI PROPERTY MANAGEMENT COMPANY LIMITED	8,036,300	0.55
10.	VAYUPAK FUND 1 BY MFC ASSET MANAGEMENT PUBLIC COMPANY LIMITED	7,068,750	0.49
11.	VAYUPAK FUND 1 BY KRUNGTHAI ASSET MANAGEMENT PUBLIC COMPANY LIMITED	7,068,750	0.49
Total		959,357,820	66.16
Other shareholders		490,642,180	33.84
Grand total		1,450,000,000	100.00

Note: ^{/1} As of September 8, 2021, list of Shareholders was compiled by Thailand Securities Depository Company Limited (the Company's registrar.)

^{/2} Electricity Generating Authority of Thailand is a state enterprise operating in electricity business and related businesses, including investing with others in operating such businesses, and is a major shareholder of the Company with 6 representatives sitting in the Company's 12-member Board of Directors.

^{/3} Thai NVDR Company Limited is responsible for issuing Non-Voting Depository Receipts (NVDRs) having Thai shares as underlying assets. Details are in "Registered Capital and Paid-up Capital". RATCH's NVDR holders as at 8 September 2021 are as follows:

No.	Major Shareholders	No. of shares (share)	%
1.	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	20,652,768	1.42
2.	STATE STREET BANK AND TRUST COMPANY	13,454,900	0.93
3.	STATE STREET EUROPE LIMITED	13,399,298	0.92
4.	GIC PRIVATE LIMITED	3,040,356	0.21
5.	UBS AG LONDON BRANCH	1,948,873	0.13
6.	NORTRUST NOMINEES LTD-CL AC	1,455,800	0.10
7.	NORTRUST NOMINEES LIMITED-QSUPER	1,109,400	0.08
8.	THE BANK OF NEW YORK (NOMINEES) LIMITED	1,088,200	0.08
9.	BNY MELLON NOMINEES LIMITED	1,001,460	0.07
10.	J.P. MORGAN IRELAND (NOMINEES) LIMITED	972,200	0.07
Total		58,123,255	4.01
Other shareholders		19,153,641	1.32
Grand total of shares held via Thai NVDR Company Limited		77,276,896	5.33

Note: Data as shown on SET's website: (<https://www.set.or.th/set/companyholder.do?symbol=RATCH-R>)

1.4 Registered and paid-up capital

1) RATCH has a total paid registered capital of Baht 14,500 million, all paid-up, with 1,450 million shares at Baht 10 par value.

2) RATCH issued only one type of shares, common shares, each entitled to one vote.

3) Non-Voting Depository Receipt (NVDR) is a new trading instrument issued by Thai NVDR Company Limited, a subsidiary of the Stock Exchange of Thailand. It is automatically regarded as a listed security. The main purpose of NVDRs is to stimulate investment and trading activities in the Thai stock market. It is an alternative option for foreign investors who are interested in making investment in listed companies but cannot under Thai laws due to the companies' foreign ownership limits. By investing in NVDRs, investors receive the same financial benefits such as dividends and right issues as those who invest directly in a company's ordinary shares. The only difference is NVDR holders cannot attend shareholders' meetings and vote on the companies' delisting from the Stock Exchange of Thailand. Though NVDRs were launched to draw foreign investment, Thai investors can also invest in NVDRs. (Investors can study more details of NVDRs on the SET's website: www.set.or.th).

As at 8 September 2021, Thai NVDR Company Limited's shareholding in RATCH amounted to 77,276,896 shares or 5.33 percent of the Company's issued and allocated shares.

1.5 Issuance of other securities

Environmental Conservation Bond

On 4 November 2020, RATCH issued and offered the Environmental Conservation Fund (or Green Bond) worth Baht 8,000 million. The debentures are under the Baht 15,000 million Medium Term Note Program. The Green Bond was offered in 4 tranches in a private placement to institutional and high net worth investors. The senior and unsecured green debentures with trustee were issued under the Green Bond Framework developed in alignment with the International Capital Market Association (ICMA)'s Green Bond Principles (GBP) and the Asean Capital Markets Forum (ACMF)'s Asean Green Bond Standards (GBS). The debentures were assigned "AAA" rating with "Stable" outlook by Tris Rating Company Limited on 1 October 2020. The proceeds will be used to for investment, repayment of existing loans in part and/or in whole of the new or existing eligible green projects related to environmental conservation of RATCH and the Group's companies that meet the Green Financing Framework's criteria. The eligible projects include these following projects:

1. Renewable Energy that includes direct and/or indirect investment in wind projects by the issuer and/or subsidiaries)

2. Clean Transportation that includes investment in the MRT Pink Line Project and the MRT Yellow Line Project

RATCH will use the proceeds from the Green Bond accordingly to the issuance objectives within 2022.

As of 31 December 2021, RATCH's outstanding debentures are as follows:

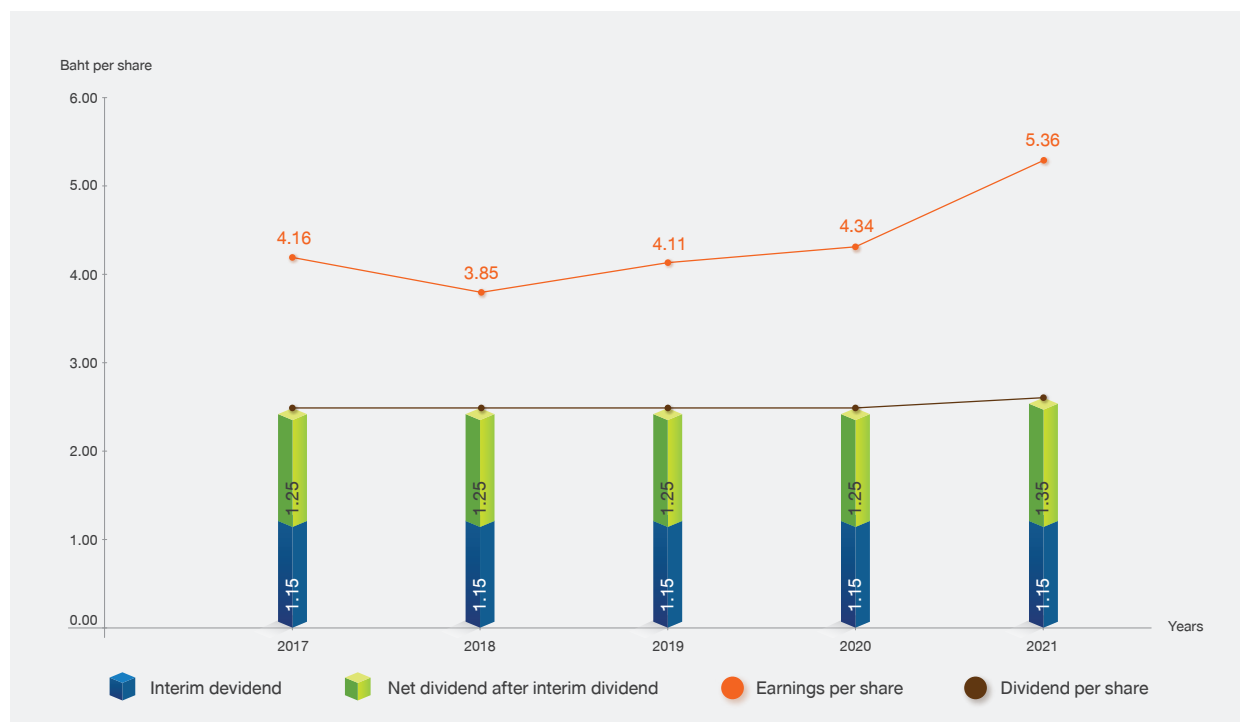
Green bonds	Symbol	Issuance date	Maturity date	Maturity (Year)	Coupon rate	Value (Baht million)
Tranche 1	RATCH23NA	4/11/2020	4/11/2023	3	1.32%	1,000
Tranche 2	RATCH25NA	4/11/2020	4/11/2025	5	1.76%	1,500
Tranche 3	RATCH30NA	4/11/2020	4/11/2030	10	2.61%	1,500
Tranche 4	RATCH35NA	4/11/2020	4/11/2035	15	2.94%	4,000



1.6 Dividend Payment Policy

The Company has a policy to pay dividend of at least 40 percent of net profit according to the consolidated financial statements after legal reserves and other reserves. Nevertheless, dividend payments depend on the Company's cash flow.

The Company's 5-Year Dividend Payment



5-Year Dividend Payment Information

		2017	2018	2019	2020	2021
Earnings per share	Baht	4.16	3.85	4.11	4.34	5.36
Dividend per share	Baht	2.40	2.40	2.40	2.40	2.50*
Interim dividend	Baht	1.15	1.15	1.15	1.15	1.15
Net dividend after interim dividend	Baht	1.25	1.25	1.25	1.25	1.35
Dividend payout ratio	%	57.63	62.28	58.36	55.36	46.64

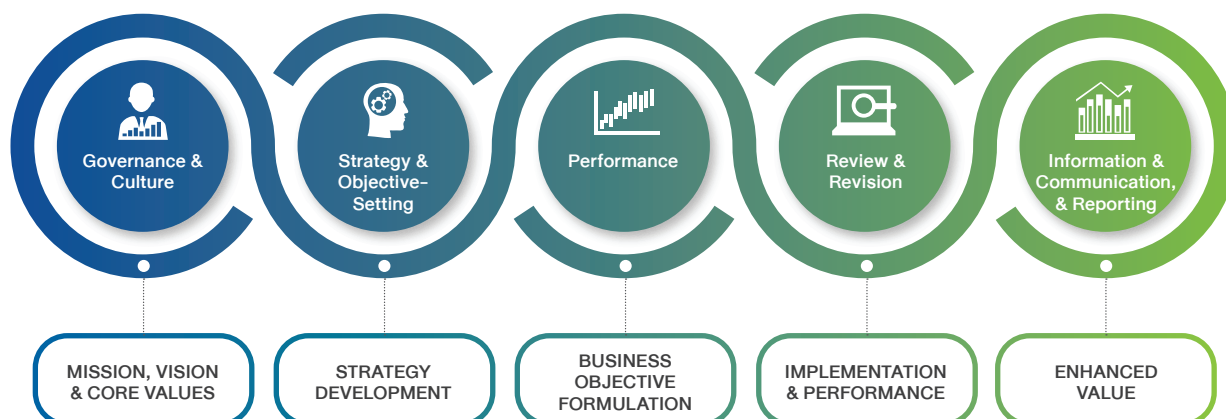
Note: * Being an agenda item to be considered at the 2022 Shareholders' Annual General Meeting to be held on 27 April 2022. The Company paid the interim dividend for the first 6-month performance of 2021 (January-June 2021) to shareholders at Baht 1.15 per share on 23 September 2021.

2. Risk Management Policy

2.1 Risk Management Policy and Plan

The Company is aware of the importance of effective risk management, which is a critical factor enabling sustainable and stable business operations, by containing risks in the acceptable level, with the adoption of the COSO-ERM 2017 framework or the Committee of Sponsoring Organization of the Treadway Commission-Enterprise Risk Management 2017 as the risk management principle and framework both at the corporate and project levels to help improve chances of success and minimize uncertainty in the Company's overall operating performance that will lead to achievement of goals and objectives, through the integration of risk management mechanism and the Company's strategies and operations ("Integrating with Strategy and Performance"). This is the representation of the significance of risk management towards the Company's viability and growth to cohere with the vision, objectives and operational goals both in the short term and long term. It has been regulated that risk management should take into account potential opportunities and threats by identifying, analyzing, evaluating, categorizing, managing, controlling, following up, reporting, assessing and communicating the information related to risks to internal stakeholders continuously and regularly, at least every quarter to ensure the Board of Directors, Risk Management Committee and top-level executives acknowledge and are aware of the critical risks facing the Company, as well as factors that may impact the Company's risk status in the future.

The risk management procedures are comprised of 5 components as follows:



1) Governance and Culture: The Board of Directors' roles, operational structure according to strategic objectives, identification of desired culture, dedication to organizational values and the strengthening of human capital.

2) Strategy & Objective Setting: The analyses of business context, identification of the ability to take risks, evaluation of organizational risk management alternatives and identification of business goals under the risks.

3) Performance: Identification of risks, evaluation of the severity, risk prioritization, responding to risks and consideration of the overall aspect of risks.

4) Review & Revision: Evaluation of changes arising from risk management, review of the ability to manage risks, level of risks and the development of the risk management system.

5) Information, Communication & Reporting:

The use of information to support risk management, utilization of different communication channels to support risk management and the report of success, execution and risk culture.

Risk Management Structure

The Company has systematically established the risk management structure via:

1) Company of Risk Management Team (RMT):

The team comprises of managerial-level representatives from each department serving as a team member of the risk management team, to supply risk management information and the mitigation plan, as well as risk factors under responsibilities at the project and corporate levels. The planning and work system improvement teams are responsible for gathering the information and organizing meetings.

2) Risk Management Committee (RMC): This is a sub-committee serving to review the information from the risk management team to determine if it is appropriate and adequate, as well as manage different risk factors. The Committee is also expected to offer additional suggestions in risk assessment and the plan to manage significant risks, in order to allow for effective management of organizational risks.

3) Meetings between the Risk Management Committee and the Audit Committee serve to integrate and align the risk management and audit activities to be in the same direction and support one another. The project and corporate risk assessment results are the topics of joint consideration, monitoring and following-up, to determine whether those matters are being comprehensively and adequately managed, as well as in cases where other shortcomings are detected, they will be taken into consideration on the level of risks both in terms of opportunities and threats, to identify ways of improvement accordingly.

2.2 Risk Factors in Business Operations

Key Risk Factors

1) Strategic Risk: Taking into consideration changes from the external environment, for instance, laws, standards, operational guidelines, political changes, economy, government policies, changes in landscape, new technology and innovation both domestically and internationally, which may impact the operations in terms of sustainability and long-term goal achievement.

1.1 Risks concerning strategic execution to achieve organizational objectives; since there are changes in different factors such as climate change movement and energy policies and technology, etc., which can abruptly affect the business plan, if the organization fails to respond to such changes in a timely manner, it may lead to missed opportunities for business growth both for the short and long terms.

Mitigation Plan: The Company has considered different factors that can affect strategic execution, such as political, economic, social and technological factors, as components in identifying the direction and objectives in operating the business to align with the policy context, government regulations, trends and outlook of the electric power industry in the future. The Company also considers the expansion of investment opportunities in the utility and other businesses both domestically and internationally to enhance opportunities and alternatives in fostering growth in accordance with the Company's vision.

1.2 Risks from expanding investment overseas, as each country has different policies, conditions and culture varying by each country's context.

Mitigation Plan: The Company has identified the investment and risk assessment criteria, with the Investment Committee considering the appropriateness and values of the investment with prudence under the

acceptable level of risks, as well as regularly following up with the operating results of risk management activities via the Risk Management Team and the Risk Management Committee to ensure that the execution of investment projects is according to plan.

2) Operation Risk: The evaluation of opportunities and threats from risks concerning different incidents exposed to projects under execution, for those that have proceeded to commercial operations, i.e. the ability to generate revenue as expected, management and control of the machinery's effectiveness, planned and unplanned maintenance of the machines, as well as projects under construction and development in order to monitor and ensure that the execution is in accordance with the goals and plans.

Mitigation Plan: A regular analysis and assessment of operational competency and revenue generation of each project, both in terms of the effectiveness and readiness, as well as the identification of a proper maintenance plan to ensure that the quality of maintenance works is up to the standards. The plan also applies to the management of projects under construction and development to align with the goal and execution plan, with an awareness of cost, commercial operation schedule, safety, environment and community.

3) Financial Risk: An analysis of risks in the Company's business operations that may be affected by the volatility of the interest rates, foreign exchange and liquidity. Given that the Company has investment projects overseas, it is possible to be affected by the 3 aforementioned factors.

Mitigation Plan: Consideration of an appropriate financial policy to manage financial risks, to contain the impact that may happen from the volatility of the interest rates, exchange rate and liquidity to be at the appropriate and acceptable level, as well as financial planning, both in terms of the values and time period to suit the Company's investment plan.

4) Compliance Risk: Since the Company seeks investment opportunities in other types of projects and the expansion of investment portfolio both in Thailand and overseas, regulations, criteria and laws in each country do vary, as well as traditions, cultures and operational procedures. Hence, these are the inevitable risks facing the Company, so it is necessary to evaluate potential opportunities and threats from such investments.

Mitigation Plan: Study and understand the laws, regulations, principles, procedures and rules, including traditions and cultures of that particular country from reliable sources of information. The information obtained should be consulted with the experienced legal advisors to minimize chances of mistakes. The Company may also seek and consider jointly investing with alliances in the area (local partner) with experiences and expertise to minimize the impact and risks related to the laws, regulations, traditions, culture and rules. Besides, the Company has announced the "anti-corruption" policy and regulations as the operational framework for the group and all staff members to ensure transparent and fair business operations in accordance with the principle of good governance.

5) Emerging Risk: In previous execution of risk management activities, matters taken into consideration were usually those that have happened before, so in order to cover all aspects of the risks, it is critically necessary to consider and evaluate the emerging risks in different dimensions. In 2021, there have been a lot of emerging risks that affect the economic growth and the way we do business, for instance:

5.1 The transmission of COVID-19 pandemic that spreads very quickly and widely in many countries, resulting in higher number of infected patients and higher mortality rate, consequently affecting people's way of life, travel restrictions both domestically and internationally as well as the business sectors, leading to economic slowdown in many countries and a significant decline in fuel and electric power demand.

Mitigation Plan: The directives and measures have been prescribed to minimize opportunities and threats that may impact the business caused by COVID-19, for instance, temperature screening of staff members and visitors, space control, grouping people into teams, maintaining distance, online meetings, working from home, disinfecting and cleaning, etc. These measures also apply to projects that have commenced commercial operations, while the maintenance plan and spare parts management plan are being reviewed to suit the situation. The construction plan and machinery delivery for projects under construction and development are adjusted, and the travel plan for experts travelling from abroad has also been made in advance as they need to pass through the state quarantine as required by the government, as well as virtual business negotiation, etc.

5.2 Cyber threats concerning the network, information systems and personal data protection from the current development of the information technology have been improving rapidly and effectively. They also facilitate the way we do business and manage things in different aspects, causing the format of cyber threats to develop and change as well. This has urged the business sector to learn and understand, and to always come up with updated preventive measures to be able to cope with and minimize the threats in a timely manner, as well as to place emphasis on personal data protection to prevent leakages of significant information in accordance with the Personal Data Protection Act B.E.2562.

Mitigation Plan: There has been an improvement of the cyber security system that is modern and up to date, including the implementation of a backup system to ensure business continuity, regulations on setting passwords to access files and data, as well as encouraging an awareness and understanding among operators of maintaining cyber security and protection of personal data in a cautious manner.

5.3 Climate change and natural disasters

happen more frequently with more severe fluctuation, affecting people's way of life and business operations in many regions of the world. The root cause of such a vigorous change is the rising global temperature; the subject that many countries treat as a significant matter to take action on. This has led to COP26 summit to discuss a resolution and set goals to reduce greenhouse gas emission worldwide, including Thailand, that has also announced the intention to achieve Carbon Neutral by 2050 and Net Zero by 2065, urging each country to consider prescribing regulations, measures and rules related to the reduction of greenhouse gas emission, which may impact the execution plan and business operations or the goals set forth by the Company.

Mitigation Plan: Analyze and monitor the tendency of changes in the rules, measures and regulations, including government policies that support businesses or entities that contribute to the alleviation of global warming. The Company also considers increasing the investment target in renewable energy to at least 25% of the total production capacity by 2025 to resonate with the government's policy in the reduction of greenhouse gas emission.

5.4 Environment, Social and Governance (ESG) risks have played a major part and become more significant, causing the Company to be aware of the important implication of ESG towards the strategic plan and sustainability of business operations in the long run.

Mitigation Plan: The ESG working team has been established, with representatives from all divisions to monitor and manage ESG policy in a tangible manner. The ESG goals have also been set on the short and long terms, for instance, increasing the production capacity of renewable energy, community forests and the compilation of Supplier Code of Conduct, etc.

3. Driving towards sustainability

3.1 Sustainability Policy and Targets

RATCH Group strives to lift sustainable development in environmental, social and governance (ESG) aspects to international standards, with the ultimate goal to achieve corporate sustainability that is supported by governance, social and environmental responsibility, stakeholder stewardship, promotion of environmental quality and stabilization of national energy security. The Corporate Sustainability Development Policy is in place, to govern development strategies in various dimensions and serve as operational guidelines for the Group's businesses in Thailand and abroad. For greater efficiency and effectiveness, the Environmental, Social and Governance Working Committee was established so that ESG issues are integrated into the corporate strategies and targets, to enhance corporate competitiveness and sustainability in the long run.

(Full details on Corporate Sustainability Development Policy are here: <https://www.ratch.co.th/th/cg/corporate-policy/corporate-sustainability-policy>)

Environmental aspect

Environmental and climate change guidelines

- Manage environmental quality and biodiversity in line with relevant laws and regulations; invest, develop, and improve the environmental quality management systems; and explore new solutions to enhance the management efficiency and environmental quality.
- Create and explore solutions to reduce resource and energy consumption and waste as well as the emissions of pollutants and greenhouse gases, to prevent, control and minimize impacts on the environment, community and society.
- Set the targets on greenhouse gas emissions by the power generation business and other operations;

outline the procedure to assess climate risks and impacts on the production and operations; and explore measures to reduce the emissions of greenhouse gas and response solutions to ensure stable and sustainable operations.

Targets:

- Reduce the Group's greenhouse gas emissions through a long-term target to generate 25 percent of total output from renewable sources in 2025.
- Comply fully with relevant laws and regulations without any penalties on environmental violations.

Social aspect

Guidelines on social and community treatment

- Invest in employee capability development through training supports and necessary resources as well as safe work environment that motivates creativity and encourage them to work at full capability and capacity.
- Respond to customer needs to ensure customer satisfaction with the quantity and quality of products and services as specified in contracts.
- Build and promote the engagement of community and stakeholders by opening up for their opinions; initiating transparent and creative consultation; promoting fair treatment and respect for differences; and improving the quality of life and community strengths.
- Cooperate with the government sector, private organizations, business partners, civil society and other stakeholders for engagement in the development and/or applied implementation of best practices for the sustainability of industries and/or other parties.

Guidelines on human rights

- Practice non-discriminatory treatment of employees and workers through equal opportunity, proper assignments, and appropriate returns; and prohibit child labor. These practices should also be honored by suppliers and/or stakeholders.
- Protect and ensure the safety of employees, workers and property without infringing the rights and safety of others; protect individual rights; and safeguard confidential information through proper disclosure and usage of personal data.
- Respect the rights of employees and workers of the Company and suppliers and honor their human dignity.

📌 Targets:

- Zero complaint or compensation demand from community and/or stakeholders.
- Maintenance of customer and community satisfaction as well as employee engagement.

Governance aspect

Corporate governance guidelines

- Uphold moral and transparent practices in carrying out corporate activities and comply with laws, regulations, rules, requirements and international best practices.
- Uphold and follow the guidelines specified in the Code of Conduct as well as the policies, regulations and orders on relevant issues concerning corporate governance, risk management, business continuity, accounting and finance, shareholders, employees, society and the environment, anti-fraud and corruption practices, safety, occupational health, work environment and usage of computers and network.

📌 Targets:

- Alignment with the governance practices for listed companies
- Continuous recertification of the membership of Thai Private Sector Collective Action Against Corruption (CAC)

3.2 Management of impacts on stakeholders in the value chain

Value chain of RATCH

The electricity generation, RATCH's core business, is carried out in 3 main stages: 1) project development 2) production management and 3) product and service delivery. Each stage concerns stakeholders who can influence the Company's business achievements. As such, the guidelines to handle stakeholders in the value chain have been outlined.

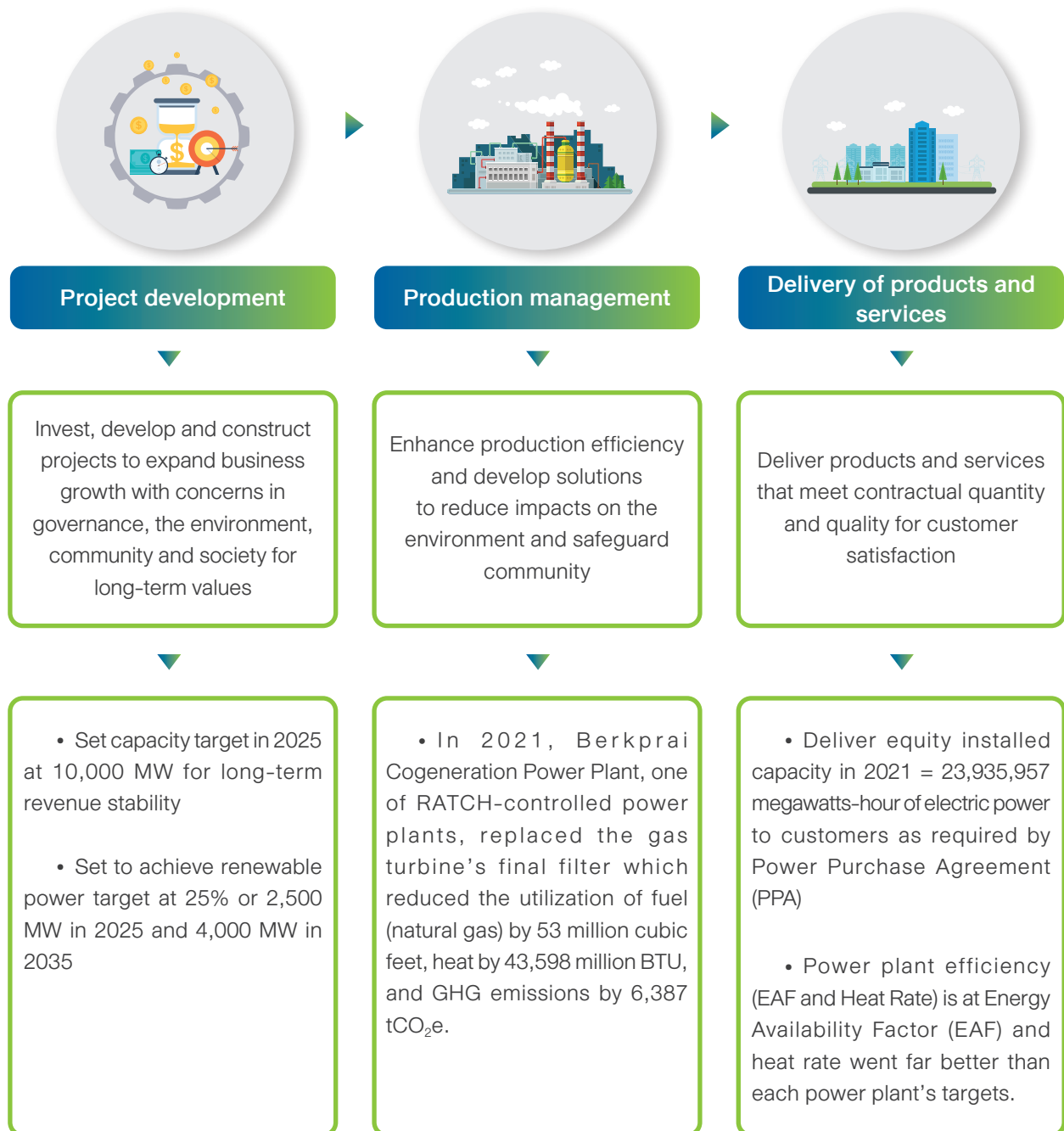
Value Chain of RATCH's electricity generation business



Note:


- RATCH's executives and employees are the stakeholders involved in all business activities in the value chain.
- O&M means the operation and maintenance operators.
- EPC means the provider of Engineering, Procurement and Construction services.

Creating shared values in the value chain



Stakeholders' roles in the value chain of RATCH's electricity generation business

The analysis of stakeholders throughout the value chain covers those who are affected and who can create impacts on RATCH's operations. There are 8 main stakeholder groups and 19 sub-groups that are significantly related to RATCH's electricity business.

Stakeholders		Relations with business activity
Main group	Sub-group	
1. Employees 	1) Executives/employees of parent company 2) Executives/employees of subsidiaries 3) Executives/employees of joint ventures	All activities in the value chain
2. Shareholders/ investors 	1) Major/minority shareholders 2) Bondholders 3) Investors/funds	Business development, investment, and funding
3. Suppliers 	1) EPC contractors 2) Suppliers 3) Service providers (waste handlers)	Project construction Product and service production Environmental impact management
4. Customers 	1) EGAT 2) PEA 3) Industrial customers	Business development and investment Product and service production Product and service delivery
5. Creditors 	1) Local financial institutions 2) Foreign financial institutions	Funding
6. Business partners 	1) Business partners 2) Collaborating agencies/individuals	Business development and investment
7. Government sector 	1) Regulatory bodies	Project construction Environmental impact management
8. Community/ society 	1) Community near power plants 2) Society as a whole	Project construction Environmental impact management

■ Impacts on stakeholders and expectations

In analyzing the impacts on stakeholders and their expectations, their needs, expectations and concerns in each business activity throughout the value chain have been gathered for the identification of issues that matter to stakeholders. The material issues then support the preparation of a plan and approach to manage relationship and respond to the impacts on stakeholders and their expectations. The key impacts that might affect stakeholders are classified into the following 4 aspects:

Key impacts that may concern stakeholders			
Governance aspect	Social aspect	Economic aspect	Environmental aspect
<ul style="list-style-type: none"> Transparency and sufficiency of information disclosure (All stakeholder groups) Investment activities that may cause social and environmental impacts (Community/Society) Abuse of power to demand for benefits (Employee/Supplier) Unfair recruitment/rewarding and evaluation (Employee) Top leaders' transparency and capability in corporate governance (Shareholders/investors) Bribery and demand for benefits (Suppliers/Regulators) 	<ul style="list-style-type: none"> Trust and confidence in the Company among stakeholders (All stakeholder groups) Violations of human rights concerning equality/equitability/non-discriminatory practice (Employee/Worker/Labor) Safety of life and property (Employee/Labor/Community) Personal data disclosure (Employee/Relevant stakeholders) Eligible welfare and benefits Response to complaints and remediation (Employee/Community/Relevant stakeholders) Change in livelihood caused by the Company's operations (Community/impacts) Health impacts (Community/Employee/Labor) 	<ul style="list-style-type: none"> Pay and benefits (Employee/Worker/Labor) Debt default or inability to repay debts (Creditor) Value and consistency in procurement and service contracts (Supplier) Failure to honor product/service delivery schedules (Contractual Party - Supplier/Customer) Enhancement of community quality of life (Community near power plants) Employment of local workers (Community) 	<ul style="list-style-type: none"> Corporate measures to address environmental impacts (Community/Society) Production waste management (Supplier) Management of safety, occupational health and work environment (Employee/Worker/Labor) Pollutant emissions that cause impacts on community and society (Community/Society) Impacts on the environment/ecosystem/biodiversity caused by production activities (electric power and steam) (Community/Society)

Approach to manage relationship and respond to stakeholders' expectations

RATCH deploys various patterns to build relationship with stakeholders and their engagement including meetings, hearings, complaint receiving, information disclosure, social activities and company visits. The approach to manage relationship and respond to the expectations of each stakeholder group is then mapped out, based on their opinions, recommendations and concerns as shown below:

Stakeholders	Needs/Expectations	Management approach	Relationship building and engagement channels
1) Employees	<ul style="list-style-type: none"> • Appropriate income and welfare • Favorable and safe work environment • Continuous capability development • Career advancement • Work system that ably cope with the outbreak of emerging diseases • Fair, equitable and non-discriminatory treatment • Respect for individuality and human dignity • Sufficient communications of necessary information 	<ul style="list-style-type: none"> • Schedule a review on remuneration and welfare against peer companies every 3 years • Create safe and liveable work environment that inspire creative thinking • Prepare plans for group and individual training • Prepare succession and career advancement plans • Improve IT system that supports the new way of working • Welcome employees' opinions and recommendations • Support activities that promote teamwork and innovation, to establish corporate culture and engagement • Follow human rights principles and the labor law • Establish complaint-receiving channels • Sufficiently communicate and disseminate necessary information 	<ul style="list-style-type: none"> • Personnel Management Committee • Performance Evaluation Committee • Group training and Knowledge Sharing activities • Engagement activities in all functions and Employee Volunteer activities • Biannual town hall meetings and meetings of each function to inform them of strategy, targets and performance • Communications via email, Intranet and media • Annual employee engagement survey • Welfare Committee • Safety, Occupational Health and Work Environment Committee • Complaint channels
2) Shareholder/ investors	<ul style="list-style-type: none"> • Ability to manage risks on ESG (Environmental, Social and Governance) and corporate sustainability strategy • Ability to generate good returns • Board of Directors' supervision • Professionalism and operational excellence 	<ul style="list-style-type: none"> • Assessment of ESG and emerging Risks for a review in operational plans and strategies • Training on corporate governance for directors and executives • Review and formulate strategies with clear targets and governance • Diversification to other businesses to generate additional revenue for corporate stability • Management of power plant efficiency in support of national energy security as expected by EGAT 	<ul style="list-style-type: none"> • Annual General Meeting • EGAT Group Meeting • Quarterly Analyst Meeting • Open House for shareholders • Company visit/Roadshow/ Investor meeting • Form 56-1 One Report/ Sustainability Report • Communications via corporate website and news media • ESG Questionnaire • Interview of major shareholders

Stakeholders	Needs/Expectations	Management approach	Relationship building and engagement channels
2) Shareholder/ investors	<ul style="list-style-type: none"> • Corporate adaptability to changes in technology and emerging risks • Short, medium- and long-term growth strategies and targets • Efficiency in examining and preventing fraud and corruption • Transparent and sufficient information disclosure 	<ul style="list-style-type: none"> • Seeking business partners to strengthen competitiveness in national and international stages • Membership certification by Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) • Participation in Stock Exchange of Thailand's sustainability assessment of listed companies and SET Awards • Disclosure of information via communications channels 	<ul style="list-style-type: none"> • Maintain the inclusion in Thailand Sustainability Investment (THSI) • Cooperation with institutional investors in terms of information sharing and sustainability questionnaire
3) Suppliers	<ul style="list-style-type: none"> • Corporate reliability, reputation and governance • Financial stability • Transparent operations and procurement processes • Compliance with contracts • Supports or development of suppliers • Development of long-term cooperation 	<ul style="list-style-type: none"> • Preparation of standardized and transparent procurement procedure to prevent conflict of interest • Supplier pre-qualification and selection • Prioritization of suppliers to short-list favorable suppliers; and pre- and post-evaluation • Contract management that outlines clear work process, monitoring and budget control • Consultation for mutually-agreed work practices that cover safety, occupational health and work environment measures; employment of child, female and migrant labor; management of social and environmental impacts caused by suppliers; knowledge sharing; collaboration on innovation development; etc. • Improvement of suppliers' anti-fraud and corruption practices by helping them win CAC's membership • Improve and maintain sustainable relationship with suppliers that demonstrate the quality and value for money in terms of techniques, products and services; and respect for the other party. 	<ul style="list-style-type: none"> • Discussion and seeking mutual solutions to address problems • Monitoring and assessment of suppliers' operations and notify them of possible improvement • Interview to learn their opinions on corporate sustainability and their expectations • Knowledge sharing activities • Cooperation pact on innovation development

Stakeholders	Needs/Expectations	Management approach	Relationship building and engagement channels
4) Customers	<ul style="list-style-type: none"> • Response to customer need and supports to ensure national electricity security • Delivery of products accordingly to the quantity and quality prescribed in contracts • Professionalism and transparency • Cooperation in problem solving and maintaining good relationship • Listening to customers' problems and opinions • Transparent, complete and sufficient disclosure of product and service information 	<ul style="list-style-type: none"> • Strictly follow the operation and maintenance schedules to maintain efficiency, and availability to promptly and efficiently respond to customers' requests for the national electricity security • Jointly manage contracts; or negotiate terms or disputes • Organize meetings and activities to maintain good relationships with customers • Establish a system and procedure to handle customers' opinions • Disclose the complete, accurate and undistorted information on products and services 	<ul style="list-style-type: none"> • Meeting/Negotiation • Seminars to exchange opinions • Interview to learn their opinions on corporate sustainability and their expectations • Disclosure of the information on products and services via channels like meetings, emails, Annual Report, Sustainability Report and corporate website
5) Creditors	<ul style="list-style-type: none"> • Credible credit ratings • Efficiency and ability to generate revenue and profits • Ability to repay • Investment and financing plans for a particular project • Ability to manage financial risks (interest and currency exchange) • Continuous business relationship • Credibility, reputation and governance • Strict compliance with terms and conditions • Transparent, complete and sufficient information disclosure 	<ul style="list-style-type: none"> • Maintain credit ratings at the investment grade • Strictly follow through repayment schedules to gain creditors' trust • Analyze and forecast revenue as well as manage financial risks • Search for low-cost financing methods suitable for project type, for example, Green Bond; and honor repayment terms • Strictly comply with the Company's financial and tax policy as well as relevant laws • Inform creditors in advance if the Company cannot meet conditions and seek mutually-agreed solutions • Prepare financial reports 	<ul style="list-style-type: none"> • Meeting • Disclosure/provision of actual, complete, punctual and constant financial information • Project site visit to monitor progress • Memoranda of understanding and safeguarding business confidentiality

Stakeholders	Needs/Expectations	Management approach	Relationship building and engagement channels
6) Business partners	<ul style="list-style-type: none"> • RATCH's financial stability and positive image • Capability, track records and professional team • Operational excellence and corporate governance • Long-term partnership 	<ul style="list-style-type: none"> • Conduct business in the way that results in good image, returns and credit ratings • Appointed dedicated and professional employees to represent the Company in working with partners and leading joint businesses towards profitability • Set clear guidelines on the disclosure of information relating to partners • Outline the partnership strategy and partner selection criteria for joint ventures, as part of project risk management • Evaluate partners' credibility through the monitoring/examination of information from various sources as well as due diligence • Ensure each party's understanding in the other's business approaches • Strictly comply with the agreements and obligations to partners 	<ul style="list-style-type: none"> • Meetings to exchange ideas and solutions • Memoranda of understanding and safeguarding business confidentiality • Prototype project visit • Monitoring of progress • Establishment of a joint working group
7) Government/regulators	<ul style="list-style-type: none"> • Compliance with relevant domestic and international laws and regulations • Corporate governance • Organizational capability in cooperating and supporting government policies • Transparent, complete and sufficient disclosure of information 	<ul style="list-style-type: none"> • Monitor regulatory changes relating to business operations in the country and abroad and continuously review compliance with the relevant laws • Apply for licenses as required by the licensing process • Full disclosure of information as required by relevant laws and regulations • Put in place the environmental management, safety and other relevant systems • Seek continuous recertification of Thai Private Sector Collective Action Against Corruption (CAC)'s membership • Support regulators' measures that will uplift corporate and regulatory bodies' sustainability 	<ul style="list-style-type: none"> • Contact for collaboration • Reporting • Company visit

Stakeholders	Needs/Expectations	Management approach	Relationship building and engagement channels
8) Community/ society	<ul style="list-style-type: none"> • Operation with responsibility for the environment and community • Transparent and timely information disclosure • Building engagement in project inspection • Participation in sustainable development of community quality of life and society • Welcoming of community issues and timely response 	<ul style="list-style-type: none"> • Ensure the compliance of environmental and safety management with relevant laws and regulations and continuously prevent possible impacts on community • Establish close and two-way communications with community through various channels such as social network, visits and participation in community development activities • Engage community in the inspection of power plants' environmental management through the establishment of the Environmental Inspectors Committee; and enhance the committee's knowledge and capability • Prepare the plan to improve community quality of life in each aspect from career to education and public health, accordingly to community needs. • Prepare emergency response plans together with community and organize drills 	<ul style="list-style-type: none"> • Meeting to build relationship • Quality of life enhancement activities • Site visits to observe power plants or other projects' operations • Community engagement in inspecting power plants' operations and environmental management, for example, through the establishment of the Environmental Inspectors Committee or a tri-partite committee • Complaint channel and procedures to address complaints/prevent impacts • Joint drill on emergency response plan • Engagement with community's cultural and traditional activities

3.3 Sustainability management in environmental aspect

RATCH is committed to sustainably managing the environmental quality and biodiversity and optimizing resource utilization. The Company has been seeking for approaches, best practices and technology that will constantly improve the efficiency. The Company has thrown strong supports to reduce greenhouse gas emissions in response to the national strategy and climate impacts. The environmental management framework has been integrated in the “Corporate Sustainability Development Policy”.

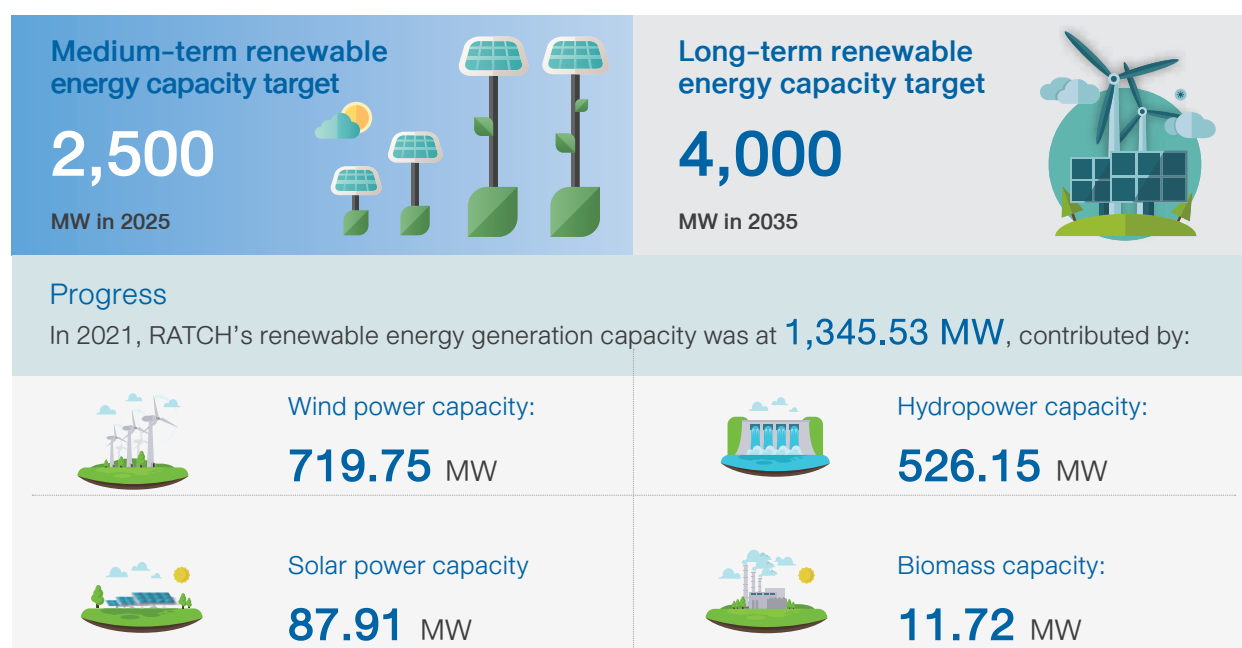
Corporate Sustainability Development Policy

Environmental management and response to climate change

- Manage the environmental quality and biodiversity according to legal requirements and specified regulations as well as investing, developing and improving the environmental management system and new applicable methodology ensuring higher efficiency of environmental quality management and control.
- Create and seek approaches and methods that reduce resource and energy consumption, emissions, waste and greenhouse gases in order to protect, control and minimize impacts on the environment, community and society.
- Define the targets of emissions from electricity generation and other operations; define the assessment methodology for climate change risks and impacts that may affect electricity generation and business; and explore solutions to reduce greenhouse gas emissions and respond to climate change to ensure business growth and sustainability.

Environmental targets

RATCH targets to increase renewable energy generation to continuously reduce greenhouse gas emissions.



Environmental quality management and performance in 2021

RATCH-controlled power plants – Ratchaburi Power Plant, Nava Nakorn Power Plant, Berkprai Cogeneration Power Plant and RATCH Cogeneration Power Plant in Thailand use natural gas as primary fuel. Their resource utilization has been systematic and efficient and met regulatory requirements and generally-accepted standards. The performance in 2021 is summarized below:

Fuel ratio and heat rate

Generation data		Unit	2019*	2020	2021
Net energy output	MWh		14,249,996	14,933,403	14,625,418
Volume of natural gas	Million cubic feet		121,916	129,310	121,482
Volume of diesel	liter		395,848	2,020,571	9,244,423
Volume of fuel oil	liter		0	0	161,121,423
Average heat rate	IPP (BTU/kWh)		7,094	7,144	7,148
	SPP (BTU/kWh)		7,872	7,755	7,671

Note: * Information of Ratchaburi Power Plant including Tri Energy Power Plant and this power plant has ceased operation when the PPA expires in June 2020.

Water management

Ratchaburi Power Plant and Berkprai Cogeneration Power Plant in Ratchaburi Province have relied on raw water from the Mae Klong River Basin for electricity generation. Data shows the power plants' water withdrawal has averaged at 0.71 percent of the volume of water in the river. The water management of power plants under RATCH's control in the previous year is summarized below:

Power plant	Water source	Raw water (million cubic meters)	Net water consumption (million cubic meters)
Ratchaburi Power Plant	Mae Klong River	11.60	0.99
Nava Nakorn Power Plant	Tap water made from water in the Chao Phraya River	1.88	0.10
Berkprai Cogeneration Power Plant	Mae Klong River	0.99	0.29
RATCH Cogeneration Power Plant	Tap water made from water in the Chao Phraya River	0.97	0.12
Power plants in Australia • Kemerton • Townsville	Tap water and surface water	0.12	0.03

Wastewater is treated separately accordingly to its type for proper quality management. Partial treated water will be reused and the unused wastewater goes to the water retention pond. The volume of discharge and quality management has met regulatory requirements, with the measurement of the BOD and COD values and online reporting to the Department of Industrial Works before discharge to natural water channels.

Waste management

The Group's power plants have applied the 3Rs principles (Reduce, Reuse and Recycle) in handling production waste, to optimize resource utilization and minimize waste to landfill which will prevent and reduce the contamination in soil, water source and the food chain. In 2021, Ratchaburi Power Plant exercised the following waste management approach:

Waste	Type	Volume (tons)	Management approach
Waste for reuse			
<ul style="list-style-type: none"> Used lubricants Discarded lead-batteries 	Hazardous	63	<ul style="list-style-type: none"> Shipment for recycle process by authorized service provider Monitor the handling Hazardous Waste Manifest system
<ul style="list-style-type: none"> Gypsum 	Non-hazardous	4,946	<ul style="list-style-type: none"> Store in the gypsum HPDE liner pond waiting for shipment for gypsum board production. The gypsum boards are handed over to nearby communities. Monitor the handling Hazardous Waste Manifest system
Waste for elimination			
<ul style="list-style-type: none"> Chemical-contaminated water 	Hazardous	249	<ul style="list-style-type: none"> Hire authorized-work handlers to turn waste to fuel for reuse or eliminate it in accredited incinerators for hazardous waste Monitor the handling Hazardous Waste Manifest system
<ul style="list-style-type: none"> Oil-contaminated packaging 	Hazardous	0.5	<ul style="list-style-type: none"> Hire authorized-work handlers to handle waste stabilization and solidification before proceeding to secure landfill Monitor the handling Hazardous Waste Manifest system
<ul style="list-style-type: none"> Slag Sludge from the wastewater treatment system 	Non-hazardous	28	<ul style="list-style-type: none"> Hire waste handlers to handle sanitary landfills under non-hazardous waste method Monitor the handling Hazardous Waste Manifest system

Air quality management

The Group's major power plants use natural gas as primary fuel with some using diesel and bunker oil as secondary fuel. The electricity generation process emits nitrogen oxide (NO_x), sulfur dioxide (SO₂) and dust. All power plants are equipped with Dry Low NO_x burner to reduce NO_x emission and flue gas desulfurization to reduce sulfur dioxide when bunker oil is used. Continuous Emission Monitoring System (CEMs) is installed at the top of the stack, to monitor combustion efficiency and keep emitted pollutants within legal limits. Real-time data is reported to the operation control rooms and the Department of Pollution Control.

Air quality management		Monitoring of pollutants at the top of stacks
Natural gas	<ul style="list-style-type: none"> Dry Low NO_x burner to reduce NO_x emission Low NO_x Burner system and technology to recycle hot gas from combustion chamber 	<ul style="list-style-type: none"> Install Continuous Emission Monitoring System (CEMs) for constant monitoring. Measure SO₂, NO_x and opacity. Verify CEMs accuracy every 6 months accordingly US EPA standards, by external inspectors registered with Department of Industrial Works.
Diesel	<ul style="list-style-type: none"> Demineralized water injection to keep temperature below the point that NO_x can be produced 	
Bunker oil	<ul style="list-style-type: none"> Flue Gas Desulfurization system (FGD) 	

Results of air quality measurement at the top of stacks in 2021

Power plant	Average pollutant density from combustion emitted by power plants in 2021				
	NO _x (ppm)		SO ₂ (ppm)		Secondary fuel
	Natural gas	Fuel oil	Natural gas	Fuel oil	
Ratchaburi Thermal Power Plant	58	89	6	143	Bunker oil
Ratchaburi Combined Cycle Power Plant	27	90	3	17	Diesel
Legal standard	120	180	20	320	
Nava Nakorn Power Plant	36	-	0.4	-	None
Berkprai Cogeneration Power Plant	39	-	3.5	-	None
RATCH Cogeneration Power Plant	27	-	0	-	None
Limit in accordance with EIA requirement	60	-	10	-	

Note : * The notification of Ministry of Industry on the limit of air pollutants emitted by power-generating, transmission or distribution plants B.E. 2547

Noise management

RATCH-controlled power plants have precisely monitored and controlled the noise chiefly caused by the generation process, to limit impacts on job operators and community. Silencers are installed to fully cover the machine or equipment that cause loud noise. Buffers for noise control are in place and operators are required to wear proper protection gears.

Results of noise measurement in 2021

Power Plant	24-hour average noise level (dB(A))	Maximum noise level in the community area (dB(A))
Ratchaburi Power Plant	46.7 - 62.3	52.8 - 103.9
Berkprai Cogeneration Power Plant	47 - 55.8	51.6 - 96.1
Ratch Cogeneration Power Plant	47.6 - 64.4	72.2 - 93.6
Standard	70	115

Note: Standard values according to the Notification of the Environment Board No. 15 (BE 2540) regarding general noise level standards.

In 2021, the community around the power plant filed no complaint regarding to noise level.

Biodiversity conservation

The Group's power plants have given importance to biodiversity and ecological balance and carry the mission to maintain the natural conditions as best as possible. At Ratchaburi Power Plant, the monitoring of biodiversity change has been carried out since 1997 when the construction began. Biannual surveys have been carried out to monitor the number, diversity, population, dispersal, concentration and status of wild animals, one in the rainy season (August) and the other in the dry season (December). The surveys focused on the status of 4 categories of species namely mammals, birds, reptiles, and amphibians.

In 2021,

Ratchaburi Power Plant found **97** species of wild animals which are:



69

bird species,



6

mammal species



9

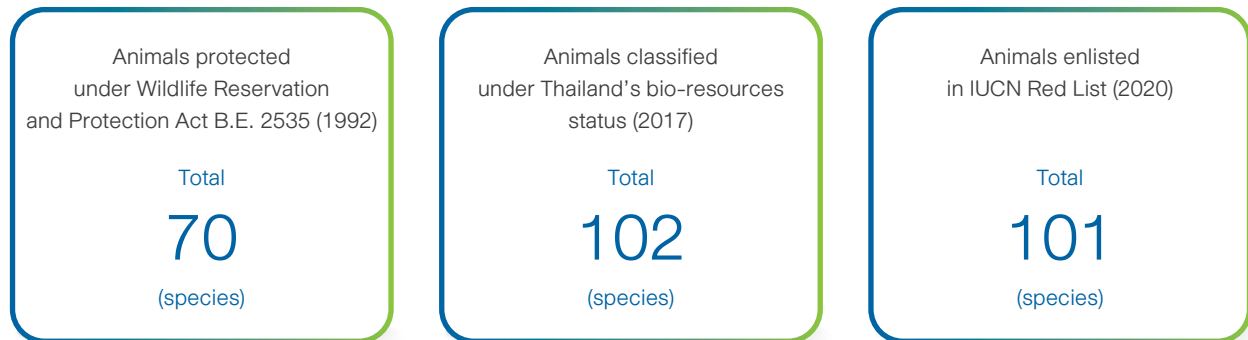
amphibian species



13

reptile species

Wildlife categorized by conservation status



Greenhouse gas management

Group's greenhouse gas management approach

Approach	Activity	Target
Reduce emissions at point source	<ul style="list-style-type: none"> Develop renewable projects Enhance production efficiency Reduce energy consumption Use renewable energy Green Office Project Carbon Footprint for Organization Green procurement 3Rs (Reduce/ Reuse/Recycle) principles Community Energy Project 	<ul style="list-style-type: none"> Raise renewable energy ratio to 25% of total capacity of 10,000 MW by 2025 Reduce direct and indirect emissions
Promote natural carbon sinks	<ul style="list-style-type: none"> Expand green areas Reforestation projects 	<ul style="list-style-type: none"> Increase carbon sinks
Apply voluntary GHG reduction mechanism	<ul style="list-style-type: none"> T-VER Scheme - energy efficiency T-VER Scheme - forest and green areas T-VER Scheme - renewable energy Low Emission Support Scheme (LESS) 	<ul style="list-style-type: none"> Awareness among employees and community Reduction in emissions

Performance in 2021

Emission reduction approaches	
Activities to reduce GHG	Amount (Unit: tons of carbon dioxide equivalent (tCO ₂ e))
Reduced emissions contributed by equity installed capacity of renewable energy	1,984,144
Reduced emissions contributed by energy efficiency and conservation activities*	21,573
Community forest promotion activities to preserve carbon sinks**	3,034
T-VER carbon credits	781,068

Note : * The activities are organized by Ratchaburi Power Plant, RATCH Cogeneration Power Plant, Nava Nakorn Power Plant, Berkprai Cogeneration Power Plant and RATCH Group.

** Average CO₂ sequestration capacity at 6.3 tons/rai

Renewable energy development

RATCH witnessed progress in developing renewable power projects, in order to achieve the target to raise renewable energy output to 25 percent of total capacity of 10,000 MW in 2025. In 2021, the equity installed capacity from renewable sources reached 1,345.53 MW or 14.8 percent of total capacity of 9,115.04 MW. In 2021 a number of commercially-operated projects contributed 1,290.37 MW and the net produced and distributed electricity, based on the equity installed capacity of 3,028,429.42 MWh, reduced greenhouse gas emissions by approximately 1,984,143.89 tons of carbon dioxide equivalent.

Renewable power projects, commercially-operated and under construction, and GHG reduction in 2021

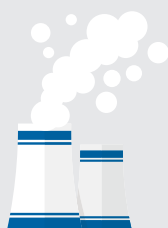
Project Info	Status	Shareholding (percentage)	Equity installed capacity (megawatt)	Reduced GHG emissions based on equity installed capacity/year (Unit: tCO ₂ e)
Yandin Wind Farm Location: Australia Type: IPP Operator: RATCH-Australia Corporation Limited	Commercial operation commenced in March 2021	70	149.94	357,060
Collector Wind Farm Location: Australia Type: IPP Operator: RATCH-Australia Corporation Limited	Commercial operation commenced in April 2021	100	226.80	373,281
Asahan-1 Hydroelectric Power Plant Location: Indonesia Type: IPP Operator: BSN	Commercial operation commenced in 2011	47.89	86.20	221,915
Ecwin Energy Corporation Co., Ltd. Location: Vietnam Type: SPP Operator: Ecwin Energy Corporation Co., Ltd.	Under construction, scheduled for commercial operations in 2022	51	15.16	26,260 (Estimated amount of GHG: tons of carbon dioxide equivalent)
Nexif Ben Tre wind power project Location: Vietnam Type: SPP Operator: Nexif Energy BT Pte. Ltd.	Under construction, scheduled for commercial operations in 2024	50	40	66,288 (Estimated amount of GHG: tons of carbon dioxide equivalent)

Carbon Footprint for Organization (CFO)

RATCH Group measured GHG emissions in 2021, focusing on primary assets – Ratchaburi Power Plant, RATCH Cogeneration Power Plant and Head Office. The assessment was based on emissions scopes 1-2 under Thailand Greenhouse Gas Management Organization (Public Organization)'s Carbon Footprint for Organization methodology. The results are as follows:



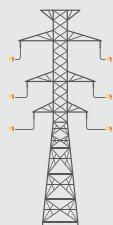
Carbon Footprint for Organization (CFO)



Direct GHG emissions (Scope 1)

- Consumption of fuels including natural gas, bunker oil and diesel in production process
- Consumption of fuels for transportation
- Applying limestone in desulfurization
- Leakage of sulfur hexafluoride (SF₆) and coolants

GHG emissions (tCO ₂ e)	
year	2021
Ratchaburi Power Plant	4,950,948
RATCH Cogeneration Power Plant	300,110
RATCH Group Building	43



Indirect GHG emissions (Scope 2)

- Power supply from Electricity Generating Authority of Thailand
- Power supply from Provincial Electricity Authority
- Power supply from Metropolitan Electricity Authority

GHG emissions (tCO ₂ e)	
year	2021
Ratchaburi Power Plant	28,131
RATCH Cogeneration Power Plant	1,069
RATCH Group Building	813

● **Performance/ Activities to reduce energy and enhance production efficiency in 2021**

Project/Activity	Reduce heat consumption (Million BTU)	Saved energy (MWh)	Saved expenses (Baht)	Reduced GHG emissions (tCO ₂ e)
Ratchaburi Power Plant	-	1,534	4,631,182	767
Nava Nakorn Power Plant	22,725	47	4,682,809	3,353
RATCH Cogeneration Power Plant	74,481	21,827	34,817,611	10,911
RATCH Group Building	-	309	1,201,923	155
Berkprai Cogeneration Power Plant	43,598	-	9,659,054	6,387
Total	140,084	23,717	54,992,579	21,573

● **Natural carbon sinks**

RATCH has continually promoted and supported the preservation and rehabilitation of forests and the environment, the natural carbon sinks. The Company has raised community awareness and drawn their engagement in forest management and preservation through “Love the Forest and the Community Project”. The project has been organized in collaboration with the Royal Forest Department since 2008.

In the National Community Forest Contest 2021, under the through “Love the Forest and the Community Project”, 146 community forests have been awarded. Covering 124,114.75 rai in total forest areas, they can sequester 781,068 tons of carbon dioxide (based on the average sequestration rate of 6.3 tons per rai).

● **Thailand Voluntary Emission Reduction Program (T-VER)**

Ratchaburi Power Plant has proceeded with its 3 projects implemented under Thailand Voluntary Emission Reduction Program (T-VER). The Monitoring, Reporting and Verification system (MRV) has been applied to achieve standardized calculation of greenhouse gas emissions, in preparation for Thailand’s Emission Trading Scheme (ETS) which is under a development stage. In 2021, RATCH’s 2 T-VER registered projects were granted carbon credits for 3,034 tons of carbon dioxide equivalent by Thailand Greenhouse Gas Management Organization (Public Organization).

No.	Project	Type of project	Status		Project phase	Amount of carbon credits (tCO ₂ e)	
			Registered	Carbon Credit Certified		Crediting period	Assessments throughout the project.
1	Energy Efficiency Project through LED Lighting Replacement by Ratchaburi Electricity Generating Company Limited	Energy efficiency (EE)	✓	2018 - 2021	7 years (1 Jul 2017- 30 Jun 2024)	3,064	5,397
2	Solar Floating Project at Ratchaburi Electricity Generating Company Limited	Renewable energy (RE)	✓	2021	7 years (2021-2027)	1,513	12,418
3	Sustainable Forestation Project of Ratchaburi Power Plant by Ratchaburi Electricity Generating Company Limited	Forest and Green area (FOR)	✓	-	20 years (1 Sep 2019- 31 Aug 2039)	Filed in 2022	1,140

3.4 Sustainable development in social aspect

Sustainability management in social aspect

RATCH's strategic plan calls for the building of relationship with partners and relevant stakeholders as it plays an important role in ensuring business achievements and continuous growth. Under the sustainable development principles in social aspect the stakeholders related to the Company's operations cover shareholders, employees, customers, business partners, suppliers, creditors, regulators, community and society, trade competitors and the environment. Treatments of these stakeholders have been specified in the Code of Conduct. (Read the full version on the website: <https://www.ratch.co.th/th/cg/the-code-of-conduct>)

Stakeholders	Code of Conduct
Shareholders	<ul style="list-style-type: none"> Operate business in the way that it continuously generates growth and profits so that shareholders receive good returns as well as creates enterprise value added which will have a positive impact on the returns to shareholders in a long term. Conduct business with care, prudence, honesty, fairness and equality to all shareholders for the maximum benefit of overall shareholders. Respect the shareholders' rights to receive necessary information for the management assessment and equally and thoroughly discloses information to shareholders regarding the operating results, financial position and other relevant reports whether they are monetary and non-monetary, as well as future prospects of the organization. Such reports are based on possibility, have sufficient supportive information and are reasonable, regular, complete and accurate, based on fact and in line with internationally accepted standards of domestic and foreign capital markets. Outline the policy to correctly and completely record accounting transactions in accordance with accounting standards and related laws. The records are reviewed by internal auditors, the Audit Committee and endorsed the Company's independent auditor. Executives and employees at all levels dedicate their knowledge and abilities and apply knowledge and skills in management and operate with their full capacity.

Stakeholders	Code of Conduct
Employees	<ul style="list-style-type: none"> • Give priority to thorough and regular human resources management and development so that they have knowledge and ability. • Provide fair remuneration and welfare that is comparable to other leading companies. • Strictly comply with laws and regulations related to employees. • Provide a safe and supportive working environment in accordance with the occupational health standards. • Appoint, transfer, reward and punish employees equitably with honest and justice based on each employee's knowledge, ability, and suitability. • Accept comments and suggestions that are based on employees' professional knowledge. • Treat employees with respect to individuality and human dignity. • Avoid any unfair actions which may affect the stability of the employee's work, threaten or create pressure on the mental state of employees. • Prepare channels to which employees can file complaints in the event that they do not receive justice from the specified system and process.
Customers	<ul style="list-style-type: none"> • Stay committed to producing and delivering quality and responsible products and services to customers and to continuously and seriously raise standards. • Disclose accurate and complete information about products and services without distorting facts. • Guarantee products and services under appropriate time condition. • Arrange systems and procedures so that customers can file complaints about products and services and operate at its best so that customers receive a quick response. • Demand all executives and employees to maintain the confidentiality of customers and not to use the confidentiality for the benefit of themselves or those involved. • Demand all executives and employees not to ask for, accept or pay any illegal benefits while dealing with customers. • Demand all executives and employees to strictly comply with the conditions with customers. If the conditions cannot be fulfilled, customers must be immediately notified in order to find mutual solutions.
Creditors	<ul style="list-style-type: none"> • Strictly honor creditors' conditions. • Demand all executives and employees not to ask for, accept or pay any illegal benefits while dealing with the Company's creditors. • Seriously cooperate in solving the problems of asking for, accepting or paying any illegal benefits while dealing with creditors. • Disclose accurate, complete, punctual and regular reports relevant to financial information to the creditors of the Company. • Notify the Company's creditors in advance if the Company cannot fulfill their conditions, in order to find mutual solution.
Suppliers/Product and service providers	<ul style="list-style-type: none"> • Demand all executives and employees to consider the Company's maximum benefit, not personal or related persons' benefits. • Provide equal opportunities to suppliers to compete whether they are small businesses or businesses of the underprivileged, minorities, women and disabled veterans. • Ensure bidders' competition as well as fair and appropriate selection. • Establish the criteria to evaluate and select business suppliers and prepare appropriate and internationally accepted contract forms. • Set up a system to manage and monitor contracts, to ensure complete compliance with conditions and prevent fraud and illegal behaviors at all stages of the procurement process. • Develop and maintain sustainable relationships with suppliers who have clear objectives in terms of technical quality, product and service that are worth the monetary value and have mutual trust. • Demand all executives and employees to strictly comply with the conditions that the Company has with the Company's suppliers under the rules of fair competition. • Demand all executives and employees not to ask for, accept or pay any illegal benefits while dealing with the Company's suppliers. • Notify the suppliers in advance if the Company cannot fulfill the conditions, in order to find mutual solution.

Stakeholders	Code of Conduct
Business partners	<ul style="list-style-type: none"> • Demand all executives and employees to fully and strictly honor the agreements and obligations jointly reached with business partners. • Extend business assistance that will contribute mutual benefits, having the Company's best interests as the priority for fair returns to both sides. • Demand all executives and employees to provide factual information and carry out negotiations with concerns about business relationship.
Trade competitors	<ul style="list-style-type: none"> • Treat trade competitors under the international framework and principles of good competition. • Demand all executives and employees not to seek confidential information of trade competitors in a dishonest or inappropriate way. • Demand all executives and employees not to accuse trade competitors without any ground for the accusation. • Demand all executives and employees not to ask for, accept or pay any illegal benefits in trading with the Company's competitors. • Demand all executives and employees to strictly comply with the conditions with trade competitors.
Government/regulators	<ul style="list-style-type: none"> • Support the operation of the government sector and comply with the policies and principles of the relevant regulatory agencies. • Promote and encourage cooperation in the activities of government agencies in order to create stability and growth for community and society.
Community/society/ environment	<ul style="list-style-type: none"> • Carry out business activities with concerns about responsibility for community, society and the environment and integrate this objective in the Company's mission, to build and maintain good corporate image, reputation and credibility. Such is to secure the acceptance and trust from community and society at large, which will lead to business success and sustainable development. • Support the projects and activities organized by the Company and by the Company and partners, that benefit community and society in line with the corporate strategy and mission to address stakeholders' expectations. • Engage with activities that demonstrate responsibility for community and society, to enhance stakeholders' quality of life. • Support and assist local-level and national-level society and community as deemed appropriate. • Respect local norms, traditions, cultures and way of life. • Support community activities near the Company's premises, as deemed appropriate. • Utilize natural resources in the way that minimizes impacts on society and the environment. • Promote executives and employees' awareness and responsibility for society and the environment. • Promote efficient energy utilization and conservation for the sake of next generations. • Provide opportunities, support and ensure a proper process that allow community and relevant parties' engagement in activities with possible impacts on community and their filing of opinions or complaints regarding to the Company's operations. • Cooperate with related government offices in implementing international standards or agreements that will prevent or reduce social and environmental impacts. • Cooperate with related government offices in reducing garbage or waste from the production and other activities and dispose the garbage or waste with appropriate methods. • Assess risks and impacts on the environment, society, health and safety before making an investment or entering into a joint venture for any activity.

RATCH has put in place the Corporate Sustainability Development Policy, of which guidelines on social and community aspects are aligned with the Code of Conduct. (Read the full version on the website: <https://www.ratch.co.th/eng/cg/corporate-policy/corporate-sustainability-policy>) The policy specifies other issues that are significant to the current business operations. They are summarized below:

- Invest in the personnel capability enhancement by providing the skill and knowledge development and relevant resources as well as safety in workplace to build 'creative thinking' atmosphere and fully optimize employees' potential and competency
- Respond to customer needs and gain their satisfaction in products and services quantity and quality fully aligned with contractual agreement.
- Encourage and promote engagement of relevant community and stakeholders by listening to their advices; leading a constructive and transparent dialogue; providing fair treatment; respecting others' differences; and supporting the enhancement of community quality and strengths.
- Collaborate with the public sector, industrial associations, business partners, civil society and other stakeholders in developing and/ or applying sustainability standard and practices generally accepted by industry and/or relevant sectors.

■ Performance in 2021

Stakeholders	Action/Activity	Results 2021
Stakeholders	<ul style="list-style-type: none"> • 2021 Annual General Meeting 	<p>Organized on 5 April 2021 at 14.00 hours, at World Ballroom, Level 23, the Centara Grand and Bangkok Convention Center, Central World, No. 999/99 Rama 1 Road, Pathumwan, Bangkok and attended by 307 shareholders and 977 proxies. Altogether, the 1,284 attendants owned a total of 1,016,185,546 shares or 70.0818 per cent of total issued shares which made a quorum as required. The meeting agenda were as follows:</p> <p><u>Agenda 1:</u> To consider and approve the minutes of the 2020 Shareholders' Annual General Meeting held on 10 July 2020</p> <p><u>Resolution:</u> The majority of attending and voting shareholders approved the minutes of the 2020 Shareholders' Annual General Meeting held on 10 July 2020.</p> <p><u>Agenda 2:</u> To acknowledge the Board of Directors' annual report on the Company's performances in the previous year and other activities to be undertaken in the future</p> <p><u>Resolution:</u> Shareholders acknowledged the Board of Directors' annual report on the Company's performances in the previous year and other activities to be undertaken in the future, without casting votes.</p>

Stakeholders	Action/Activity	Results 2021
	<u>Agenda 3:</u>	To consider and approve the statements of financial position and the statements of income for the year ended 31 December 2020
	Resolution:	The majority of attending and voting shareholders approved the statements of financial position and the statements of income for the year ended 31 December 2020, which was audited and verified by the Company's auditor, the Audit Committee and the Board of Directors.
	<u>Agenda 4:</u>	To consider and approve the appropriation of the 2020 annual profit and dividend payment
	Resolution:	The majority of attending and voting shareholders approved the dividend payment at Baht 2.40 per share or a total of Baht 3,480 million, 55.36 percent of the annual profit for the performance from 1 January 2020 to 31 December 2020. The shareholders approved the appropriation of the 2020 annual profit and dividend payment without the allocation of additional legal reserves as the Company's legal reserves reached Baht 1,450 million or 10 per cent of the registered capital.
	<u>Agenda 5:</u>	To consider the appointment of the Company's auditor and determination of the auditor remuneration
	Resolution:	Shareholders approved the appointment of KPMG Phoomchai Audit Limited and the appointment of Mr. Vairoj Jindamaneepitak (C.P.A. (Thailand) No. 3565) or Mr. Natthaphong Tantichattanon (C.P.A. (Thailand) No. 8829) or Miss Dussanee Yimsuwan (C.P.A. (Thailand) No. 10235) as the Company's auditor in the year 2021. Any of these auditors shall be authorized to conduct the audit and express an opinion on the statutory financial statements of the Company.
	<u>Agenda 6:</u>	To consider and determine directors' remuneration
	Resolution:	Shareholders approved the directors' remuneration at the same rate and criteria with that of the previous year. The approval required at least two thirds of the total votes of shareholders present at the meeting.

Stakeholders	Action/Activity	Results 2021
	<p>Agenda 7:</p> <p>Resolution:</p> <p>Agenda 8:</p>	<p>To consider the election of directors to replace those retiring by rotation</p> <p>The majority of attending and voting shareholders elected directors to replace those retiring by rotation and the election will be effective from the date after the 2021 Shareholders' Annual General Meeting. The elected directors are:</p> <ol style="list-style-type: none"> 1) Mr. Ratanachai Namwong Independent director (newly-elected) 2) Mr. Suthon Boonprasong Director (re-elected) 3) Mr. Nutthavutthi Chamchang Director (re-elected) 4) Mr. Kijja Sripatthangkura Director (re-elected) <p>To consider other businesses - None</p>
<ul style="list-style-type: none"> Extraordinary General Meeting of Shareholders 2021 	<p>Held on 21 October 2021 at 14.00 hours in the electronic meeting format pursuant to the Emergency Decree on Electronic Meetings B.E.2563 as well as other relevant laws and requirements. The meeting was chaired by Mr. Boonyanit Wongrukmit, chairman of RATCH Group Public Company Limited and attended by 36 shareholders and 442 proxies. The 478 attendants owned ๙๙ 939,605,097 shares or 64.8003 per cent of total issued shares, which made a quorum as prescribed in the Company's regulation. The meeting agenda were as follows:</p> <p>Agenda 1:</p> <p>Resolution:</p> <p>Agenda 2:</p> <p>Resolution:</p> <p>Agenda 3:</p>	<p>To consider and approve the minutes of the 2021 Shareholders' Annual General Meeting held on 5 April 2021</p> <p>The majority of attending and voting shareholders approve the minutes of the 2021 Shareholders' Annual General Meeting.</p> <p>To consider and approve the purchase of 45.515 percent ordinary shares of PT Paiton Energy and 65 percent ordinary shares of IPM Asia Pte. Ltd.</p> <p>Shareholders approved RH International (Singapore) Corporation Pte. Ltd.'s entering into an agreement for the proposed transaction; and approved RATCH Group Public Company Limited and RH International (Singapore) Corporation Pte. Ltd.'s allocation of funds and investment payable according to the adjustment mechanism as of the share transfer date.</p> <p>To consider other businesses - None</p>

Stakeholders	Action/Activity	Results 2021
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Employees

- Protecting employees against COVID-19

1) Protecting employees against COVID-19

Protection list	Measure/Detail
Addition in health protection	The Company provided additional insurance coverage against COVID-19 for employees, on top of general health insurance.
Preventive measures	<ul style="list-style-type: none"> Procure vaccines for employees and family members Hand out face masks and Antigen Test Kit (ATK) to employees and find hospital beds for employees and family members tested positive for COVID-19 Instruct them to work from home. If needing to enter the office building, they must report their timeline in the past 14 days. Arrange a drop point for the delivery of documents and parcels, which are disinfected before entering the building. Set up the screening point for body temperature measurement of all persons entering the premises.
Facilitation to employees working from home	<ul style="list-style-type: none"> Provide necessary software, computer network, user database and guidelines to all employees working from home. Adjust work process and procedure for greater flexibility, in support of working from home. Relax the rules to match the situation and the new way of working.

- Internal transfer and sharing of knowledge and experience

Topic	Survey on application in routines (%)	Benefits to participants
Lesson learned from RATCH business in the face of COVID-19	100	<ul style="list-style-type: none"> Flexible solutions that are aligned with circumstances Address each project's issues of concern and operational limitations, and apply the knowledge with their routines Long-term planning for the COVID-19 pandemic

Stakeholders	Action/Activity	Results 2021	
	M&A and Lessons Learned from Australia, Indonesia and Thailand	97.22	<ul style="list-style-type: none"> Futuristic business views Overall picture of project development, relevant procedures and important issues of each step M&A process and the points to be concerned
	RATCH Group's view on 8 Stages of Power Plant Life Cycle	100	<ul style="list-style-type: none"> Knowledge on power plants' life cycle and operational procedure Understanding in the points to be concerned, to minimize errors Power plants' technical operations
	Experience sharing from a power plant: a joke that is not funny	100	<ul style="list-style-type: none"> Summary of power plants' issues Points of concern and solutions Strategic and operational planning to reduce impacts in the long term Learning from lessons and solutions, applicable to current and future projects

Customers

- Nava Nakorn Electricity Generating Company Limited

Platform	Customer/ Stakeholder	Frequency	Objective/Target
Meeting	EGAT executives	Once a year or more (depending on situation in the year)	Discussion on troublesome issues and solutions concerning production efficiency enhancement
	Industrial customers' executives	Two meetings a year or more (depending on situation in the year)	Discussion on troublesome issues and solutions concerning production efficiency enhancement
	EGAT operating-level officers	Once a month or more (depending on situation in the year)	Discussion on contractual agreements
	Industrial customers' operating-level officers	4 times a year or more (depending on situation in the year)	Discussion on contractual agreements

Stakeholders	Action/Activity	Results 2021
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Responses to customers in 2021

Customers	Responded issues
Electricity Generating Authority of Thailand	Power plant efficiency enhancement, to ensure compliance to contractual agreements on electricity generation and transmission throughout the power purchase agreement period
Industrial customers	Development and improvement of power transmission to industrial users to ensure stability and alignment with the electricity system standards

Customer satisfaction in 2021

Customer satisfaction (%)	Electricity buyers (%)	Steam buyers (%)	Total satisfaction (%)
Total	88.99	93.20	89.83

- Berkprai Cogeneration Company Limited

Platform	Customer/Stakeholder	Frequency	Objective/Target
Meeting	EGAT executives	1 time/year	"Generation and Transmission Plan 2021" to guarantee the best results in planning and implementation of generation and transmission work plan
	Industrial customers' executives	1 time/year	Meeting on electricity and steam supply
	EGAT operating-level officers	1 time/year	Meeting on DC step down during New Year holiday period
	Industrial customers' operating-level officers	1 time/year	<ul style="list-style-type: none"> • Electricity and steam purchase plan • Maintenance schedule

2021 Customer Satisfaction

- Target 75 percent
- Result 90 percent

Stakeholders	Action/Activity	Results 2021										
		Responses to customers in 2021										
		<table><tr><th>Customers</th><th>Responded issues</th></tr><tr><td>Responded issues</td><td>EGAT requested for SPP power plants' voluntary disconnection or capacity reduction during 31 December 2021- 2 January 2022 as part of New Year Step Down process. The company voluntarily stepped down production during the period.</td></tr><tr><td>Industrial customers</td><td>Customers requested for additional steam, 5 tons per hour, on top of their contracts. The company satisfied the request without causing impacts on electricity sale to EGAT.</td></tr></table>	Customers	Responded issues	Responded issues	EGAT requested for SPP power plants' voluntary disconnection or capacity reduction during 31 December 2021- 2 January 2022 as part of New Year Step Down process. The company voluntarily stepped down production during the period.	Industrial customers	Customers requested for additional steam, 5 tons per hour, on top of their contracts. The company satisfied the request without causing impacts on electricity sale to EGAT.				
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Industrial customers	Customers requested for additional steam, 5 tons per hour, on top of their contracts. The company satisfied the request without causing impacts on electricity sale to EGAT.											
Creditors	<ul style="list-style-type: none">Signing of Sustainable Loan Facility	On 30 June 2021, RH International (Singapore) Corporation Pte. Ltd. entered into an agreement for the USD 150 million Sustainable Loan Facility with the International Finance Corporation. The proceeds are reserved for investment in renewable energy projects and/or infrastructure projects for environmental conservation and/or other infrastructure projects in Thailand and Indonesia.										
Suppliers	<ul style="list-style-type: none">Supplier pre-qualification in 2021	106 suppliers were subjected to pre-qualification in 2021: 69 were existing suppliers and 37 were newly-included. All met the criteria which concern: <ul style="list-style-type: none">Integrity, transparency and responsibilityEnvironmental management and responsibilityLabor and social responsibilityConflict of interest										
	<ul style="list-style-type: none">Suppliers in 2021 sorted by procurement value by RATCH and subsidiaries which are Ratchaburi Electricity Generating Company Limited, RATCH Cogeneration Company Limited and RATCH-Australia Corporation Pty Ltd.	<table><tr><th>Procurement value</th><th>No. of suppliers</th></tr><tr><td>Not more than Baht 1,000,000</td><td>618</td></tr><tr><td>Baht 1,000,000-Baht 5,000,000</td><td>120</td></tr><tr><td>Baht 5,000,001-Baht 10,000,000</td><td>21</td></tr><tr><td>More than Baht 10,000,000</td><td>34</td></tr></table>	Procurement value	No. of suppliers	Not more than Baht 1,000,000	618	Baht 1,000,000-Baht 5,000,000	120	Baht 5,000,001-Baht 10,000,000	21	More than Baht 10,000,000	34
Procurement value	No. of suppliers											
Not more than Baht 1,000,000	618											
Baht 1,000,000-Baht 5,000,000	120											
Baht 5,000,001-Baht 10,000,000	21											
More than Baht 10,000,000	34											

Stakeholders	Action/Activity	Results 2021
Business partners	<ul style="list-style-type: none"> Joint businesses in healthcare services 	<ul style="list-style-type: none"> RATCH and Principal Capital Public Company Limited (PRINC) collaborated in a sustainable healthcare business, to extend access to quality healthcare services across the country in support of the national public health. Under the transaction, RATCH purchased 380,857,051 shares or 10 percent of total issued shares. RATCH and Bangkok Chain Hospital Public Company Limited collaborated in penetrating the private hospital business in Lao PDR, in response to increasing demand for healthcare services and the Lao government's policy to improve the public health and quality of life of Lao people. Under this agreement, RATCH purchased a 9.91 percent stake in Bangkok Chain Hospital (Lao) Company Limited, which invests in Kasemrat International Hospital Vientiane, Lao PDR, an integrated tertiary private hospital with 254 beds.
	<ul style="list-style-type: none"> Joint venture in technology and innovation 	<ul style="list-style-type: none"> RATCH, Electricity Generating Authority of Thailand and Electricity Generating Public Company Limited established a 30:40:30 joint venture, namely Innopower Company Limited (Innopower). The joint venture is tasked to commercialize innovation researches of EGAT Group and joint venture partners, which is aligned with RATCH's strategy to diversify 20 percent of investment to non-electricity businesses including innovation and technology that supports the post-COVID-19 Next Normal way of life.
Government/regulators	Reporting and compliance with laws and regulations relating to business operations, tax, labor, occupational health, the environment, etc.	RATCH fully complied with laws and incurred no penalties on violations.
Community/society	Love the Forest and the Community Project's National Community Forest Contest	<ul style="list-style-type: none"> 1,362 entries were submitted and 146 community forests were awarded. RATCH handed over a total of Baht 3,155,000 in prize money to the awarded forests. The 146 forests covered 123,979.06 rai in forest areas, capable of sequestering 781,068.08 tons of carbon dioxide equivalent.
	Community Energy Project Phase 3 (2020-2022) at Yang Hak Sub-district, Pak Thor District, Ratchaburi Province	<ul style="list-style-type: none"> Develop 8 solar-powered pumps that benefit 100 households and reduce fuel consumption by 17,280 liters or 37,836.29 kg of carbon dioxide equivalent. Establish 2 community energy learning centers at Charoen Phol Farm and Tanaosri Coffee Community Enterprise to promote solar power and demonstrate solar-powered devices.

Stakeholders	Action/Activity	Results 2021		
	Education for Career Empowerment Project in Lao PDR Phase 2 (2018–2023)	Workshop improvement	Training for teachers (person)	Training for students (person)
		Workshop and equipment improvement at 4 colleges	17	189
		Improvement of renewable energy lab (solar power) in Khammouane Province	Renewable energy	Welding
				PLC electricians
				General maintenance
Solar power installation				
<ul style="list-style-type: none">The survey covered 658 students studying in PLC electrician, welding and mechanics since the project started in 2011 until 2019. The students accounted for 57 percent of all trained students. Seventy seven percent of the respondents were employed, 13 percent pursued higher studies, and the rest were looking for jobs.				

More details appear in Sustainability Report 2021.

4. Management Discussion and Analysis

For the Year Ended 31 December, 2021

Abbreviation	
The Company	RATCH Group Public Company Limited
The Group	RATCH Group Public Company Limited and its subsidiaries
EGAT	Electricity Generating Authority of Thailand
COD	Commercial Operation Date
EBITDA	Earnings before Interest, Tax, Depreciation and Amortization
FX	Foreign Exchange Rate
IPP	Independent Power Producer
PPA	Power Purchase Agreement
SPP	Small Power Producer

Projects/Companies	
BCIL	Bangkok Chain International (Lao) Co., Ltd, RL in proportion of 9.91 percent
FRD	Fareast Renewable Development Pte. Ltd., RHIS in proportion of 90 percent
HKH	Hin Kong Power Holding Company Limited, a joint venture in proportion of 51 percent
HKP	Hin Kong Power Company Limited, an indirect joint venture wholly-owned by HKH
HPC	Hongsa Power Company Limited, an indirect joint venture in proportion of 40 percent
NRER	Nexif Ratch Energy Rayong Company Limited, an indirect joint venture wholly-owned by NRES
NRES	NEXIF RATCH ENERGY SINGAPORE PTE LTD, an indirect joint venture in proportion of 49 percent
PNPC	Xe-Pian Xe-Namnoy Power Company Limited, a direct joint venture in proportion of 25 percent
PRINC	Principal Capital Public Company Limited, in proportion of 10 percent
RAC	RATCH-Australia Corporation Pty Ltd, a wholly-owned indirect subsidiary
RCO	RATCH Cogeneration Company Limited, a subsidiary in proportion of 99.97 percent
RG	Ratchaburi Electricity Generating Company Limited, a wholly-owned subsidiary
RHIS	RH International (Singapore) Corporation Pte Ltd, a wholly-owned indirect subsidiary
RIAU	PT Medco Ratch Power RIAU, an indirect joint venture in proportion of 49 percent
RL	RATCH-Lao Services Company Limited, a wholly-owned subsidiary
SCG	Sahacogen (Chonburi) Public Company Limited, a subsidiary in proportion of 51 percent
SEAN	Southeast Asia Energy Limited, a joint venture in proportion of 33.33 percent

Executive Summary

Unit : Million baht

	2021	2020	Increase (Decrease)	%	2019
Total revenues	44,293.29	39,521.99	4,771.30	12.1	43,220.07
Total cost and expenses	36,720.96	33,539.73	3,181.23	9.5	37,124.31
EBITDA	11,661.61	9,664.80	1,996.81	20.7	9,996.24
Gain (Loss) on FX	206.29	304.45	(98.16)	(32.2)	(132.48)
Profit to owner of the Company	7,772.02	6,286.68	1,485.34	23.6	5,963.28
Profit before FX	7,565.73	5,982.23	1,583.50	26.5	6,095.76

The operating result for the year 2021 showed the profit (attributable to owners of the Company) of THB 7,772.02 million, increasing from the previous year by THB 1,485.34 million. The increase is mainly owing to the increase in the share of profit of associates and joint ventures. Without the effect of FX of the Company and subsidiaries, the operating result for the year 2021 showed the profit of THB 7,565.73 million, increasing from the previous year by THB 1,583.50 million.



Business Overview and Significant Events in 2021

In 2021, the Company operates mainly in electricity generation, infrastructure and energy-related businesses in Thailand and throughout Asia Pacific and electricity generation remains our primary business. The Company has realized and emphasized the importance of business operation that creates economic, social, and environmental values. In 2021, the Company can reduce greenhouse gas through various campaigns such as increase in energy efficiency, renewable projects, forest planting, and green area via Love the Forest and the Community Project.

Every year, the Company reviews changes of the stakeholders involved in the Company's businesses from electricity generation and energy-related to infrastructure businesses. The review is to ensure appropriate, transparent and fair responses in all aspects to stakeholders affected by the Company's operations and those whose actions may send impacts on the Company.

In the circumstance of the COVID-19 pandemic, the Company put in place preventive measures in line with the government and the Ministry of Public Health's measures. In addition, the company has been supporting various hospitals through monetary donation for medical equipment and medicines in order to prevent and stop the spread of the virus.

The Company has intended to operate with sustainability and good governance. On November 4, 2021, the Company was granted Highly Commended in Sustainability Awards in Sustainability Excellence category of SET Awards 2021. The SET Awards is for listed companies who exceptionally conduct business based upon sustainable development principles by implementing good governance practice and responsibility for all relevant stakeholders in order to balance economic growth, and social and environment development. In addition, the Company has been listed in the 2021 Thailand Sustainability Investment (THSI 2021) by the Stock Exchange of Thailand, for seventh consecutive year. In December 2021, the Company was also granted Money and Banking Awards 2021 for listed companies with outstanding financial performance and Sustainability Disclosure Award, for third consecutive year, from Thaipat Institute for companies who disclose economic, social, and environmental information, not limit to financial information. This can be considered that the Company has been widely recognized for its sustainable business operations.

Significant Events of the Year 2021

1.1 Shareholding in Bangkok Aviation Fuel Services Public Company Limited

On January 19, 2021, the Company has been completely transferred the shares of Bangkok Aviation Fuel Services Public Company Limited (“BAFS”) for 98,983,125 shares (or equivalent to 15.53 percent of total issued and paid-up shares in BAFS) from Thai Airways International Public Company Limited (“THAI”). The purchase price is THB 27.40 per share at the total amount of THB 2,712.14 million.

1.2 Full Operation Commencement of Yandin Wind Farm in the Commonwealth of Australia

On March 19, 2021, Yandin Wind Farm in the Commonwealth of Australia, the Company held 70 percent through RAC, achieved Interim Approval from the grid connection authority and entered commercial operation at full capacity. Yandin has officially commenced COD on December 9, 2021.

Yandin Wind Farm has the capacity of 214.2 megawatts with a 15-year PPA with Alinta Sales Pty Ltd.

1.3 Full Operation Commencement of Collector Wind Farm in the Commonwealth of Australia

On April 7, 2021, Collector Wind Farm in the Commonwealth of Australia, the Company held 100 percent through RAC, entered commercial operation at full capacity. The project has two long term PPAs covering 79.6 percent of output. These are with Infigen Energy for 60 percent of output and ALDI Foods Pty. Ltd. (a subsidiary of global supermarket company, ALDI) for 19.6 percent of generation and the remaining electricity generated will be sold in the Commonwealth of Australia’s National Electricity Market. Both PPAs can now operate, and certifications are finalized with the grid connection authority on June 18, 2021.

1.4 Signing of Share Purchase and Subscription Agreement to Invest in Near-Shore Wind Power Plant Project in the Socialist Republic of Vietnam

On May 5, 2021, RHIS has entered into share purchase and subscription agreement to purchase 50 percent of ordinary shares of NEXIF ENERGY BT PTE. LTD. (“NEBTP”), totaling USD 8.68 million (equivalent to THB 272.58 million) from NEXIF ENERGY PTE. LTD., the existing shareholder.

The Project is a near-shore wind power plant with the capacity of 80 megawatts. It is located in Thanh Phu district of Ben Tre Province, Socialist Republic of Vietnam. It has a 20-year PPA with Vietnam Electricity (“EVN”). The project is currently under development (Green-field) and negotiating on the relevant contracts. The project is expected to commence COD in 2024 with an aim to distribute electricity generation to EVN under long-term PPA.

1.5 Investment in Ordinary Shares of Principal Capital Public Company Limited

On May 24, 2021, the Company invested in ordinary shares of Principal Capital Public Company Limited (“PRINC”) at the proportion of 10 percent of PRINC’s issued and paid-up shares for 380,857,051 shares at THB 4.09 per shares (or equivalent to THB 1,557.71 million).

PRINC had previously operated in real estate business. Afterwards, it acquired private hospital business and transformed its core business to private hospital business and private hospital management.

1.6 Signing of Share Purchase Agreement to Invest in the Coal-Fired Thermal Power Plants in the Republic of Indonesia and the Extraordinary General Meeting of Shareholders No. 1/2021

On June 22, 2021, RHIS has signed a share purchase agreement for a purpose of investment in the coal-fired thermal power plants in the Republic of Indonesia, the transaction of which comprise the purchase of ordinary shares of 45.515 percent in each of PT Paiton Energy (“PE”) and in Minejasa Capital B.V. (“MCBV”) in the power plant business, and the purchase of ordinary shares of 65 percent in IPM Asia Pte. Ltd. (“IPM”) in the power plant operation and maintenance business (collectively referred to as the “Paiton”), totaling USD 809.60 million or equivalent to THB 25,421.68 million).

Paiton is a project operating the coal-fired thermal power plants with a total capacity of 2,045 MW located at Paiton Power Complex in East Java, the Republic of Indonesia.

The Board of Directors’ Meeting of the Company No. 8/2021 held on August 24, 2021 has proposed to shareholders for the approval of RHIS investment in the transaction. On October 21, 2021, the Extraordinary General Meeting had approved such investment.

1.7 Capital Increase and Issuing and Offering of New Ordinary Shares in Proportion to the Shareholding of Existing Shareholders, excluding Shareholders whose Holding of Such Share that would Subject the Company to any Obligations under the Law of Other Jurisdictions

On June 22, 2021, the Board of Directors of the Company has approved to propose to the Extraordinary General Meeting of Shareholders to consider and approve the increase of the registered capital of the Company from THB 14,500.00 million to THB 22,192.31 million by way of issuing new ordinary shares in the amount of 769,230,770 shares at par value of THB 10 each, totaling THB 7,692.31 million for issuing and offering to existing shareholders in proportion to their shareholding, excluding shareholders whose holding of such share would subject the Company to any obligations under the law of other jurisdictions (Preferential Public Offering: PPO), at an offering ratio of not less than 1.885 existing ordinary shares to 1 new ordinary share.

1.8 Signing of Sustainable Loan Agreement

On June 30, 2021, RHIS (as the Borrower) and the Company (as the Guarantor) have executed USD 150 million Sustainable Loan Agreement with International Finance Corporation (“IFC”) to fund and/or refinance the capital expenditures incurred or to be incurred to support renewable power projects or other green infrastructure projects or projects in other non-infrastructure sectors in Thailand, Socialist Republic of Vietnam, Republic of Indonesia and Lao PDR.

1.9 Signing of Capital Increase Share Purchase Agreement to Invest in Private Hospital in Lao PDR

On July 30, 2021, RL has signed a capital increase share purchase agreement of Bangkok Chain International (Lao) Company Limited (“BCIL”) at 9.91 percent totaling THB 190 million. The purpose of the transaction is to invest in Kasemrad International Hospital in Vientiane, Lao PDR. On August 26, 2021, RL has already paid for the capital increase shares and registered the share transfer.

Kasemrad International Hospital in Vientiane, Lao PDR is a private tertiary hospital, offering a complete range of services with the total of 110 beds (in the first phase which) with a plan to increase to 254 beds in the second phase. It began commercial service on August 19, 2021.

Such investment is in line with the Group's investment plan, which will generate new S-curve in Lao PDR and expand into new stable business with high growth potential and appropriate return on investment. The transaction will also create business partnership with Bangkok Chain Hospital Public Company Limited ("BCH"), which could increase the opportunity to jointly invest in health care and related businesses in the future.

1.10 Establishment of a Joint Venture Company for Innovation and Invention

On September 13, 2021, the Company in collaboration with EGAT and Electricity Generating Public Company Limited ("EGCO") has registered the establishment of Innopower Company Limited ("Innopower"), a joint venture company with the investment proportion of 30, 40 and 30 percent respectively.

Innopower is established to enhance research in innovation and inventions occurring within EGAT Group or arising from the cooperation with partners to expand commercial business through this company. The purpose is also to prepare for the establishment of R&D spin-off projects including investment in start-up business of new S-curve business of energy industry through 4 main units of Innopower comprising new business idea support unit (Collaborator), business incubator unit (Incubator), business growth accelerating unit (Accelerator) and Corporate Venture Capital Unit (CVC).

1.11 Execution of the Public Private Partnership for Operation and Maintenance (O&M) contracts of M6 and M81 Intercity Motorway projects

On September 29, 2021, BGSR 6 Company Limited ("BGSR 6") and BGSR 81 Company Limited ("BGSR 81"), joint venture companies in which the Company holds equity interest of 10 percent with BTS Group Holdings Public Company Limited, Gulf Energy Development Public Company Limited, and Sino-Thai Engineering and Construction Public Company Limited, which hold equity interests of 40, 40 and 10 percent respectively, have entered into Public Private Partnership for Operation and Maintenance (O&M) contracts with the Department of Highways to operate the Bang Pa-In – Nakhon Ratchasima M6 Intercity Motorway project, with a distance of 196 kilometers, and the Bang Yai – Kanchanaburi M81 Intercity Motorway project, with a distance of 96 kilometers. The commercial operations of both projects are scheduled in 2024.

1.12 Purchasing of Ordinary Shares of a Hydroelectric Power Plant in the Republic of Indonesia

On November 19, 2021, RHIS has invested in an additional 40 percent of ordinary shares in FRD, totaling 13,544,257 shares, valuing at approximately USD 54.31 million or equivalent to approximately Baht 1,789 million. Such shares were purchased from Hydro Sumatra International Pte. Ltd. (“HSI”). The shareholding structure would be RHIS with 90 percent ownership (previous ownership is 50 percent) and HSI with 10 percent ownership in FRD. As a result, the Company’s indirect shareholding in Asahan-1 Hydroelectric Power Plant through RHIS and FRD will be increased to 47.89 percent (previously 26.61 percent).

In this regard, Asahan-1 is a run-of-river hydroelectric power plant with the generation capacity of 180 megawatts. It is located in Asahan River, North Sumatra Province in the Republic of Indonesia. It has commenced commercial operation since January 2011 and has 30-year power purchase agreement ending on 31 December 2040 with PT PLN (Persero).

1.13 Purchasing of Ordinary Shares of Sahacogen (Chonburi) Public Company Limited

On December 13, 2021, the Company has completed the purchase of the ordinary shares of Sahacogen (Chonburi) Public Company Limited (“SCG”) from 34 shareholders in the total amount of 384,789,131 shares, and the purchase of newly issued ordinary shares of SCG in the amount of 208,695,652 shares. The company has therefore acquired a total amount of 593,484,783 ordinary shares in SCG, equivalent to 51 percent of the total issued shares in SCG, resulting in SCG to become a subsidiary of the Company.

SCG operates the business of producing and selling electricity and steam. It has a total power generation capacity of 214 megawatts and 96 tons per hour using natural gas fuel. In addition, SCG has invested in 2 biomass power plants, one of which located in the Saha Group Industrial Park-Lamphun, Lamphun Province with a capacity of 9.6 megawatts and the other one located in Kamphaeng Phet province with a capacity of 7.5 megawatts.

Progress of Projects under Construction (as of December 31, 2021)



Riau Power Plant	
Type of Fuel	Natural Gas
Install Capacity (MW)	296.23
Location	Republic of Indonesia
Ownership	49%
PPA	20 Years with PT PLN
COD	February 2022
Progress	99.37%



MRT Pink Line Project	
Technology	Monorail
Route	Khae Rai-Min Buri
Ownership	10%
Contract Term	30 Years
COD	Year 2023
Progress	Civil Works = 85.59% Railway System = 81.45%



MRT Yellow Line Project	
Technology	Monorail
Route	Lad Prao-Sam Rong
Ownership	10%
Contract Term	30 Years
COD	Year 2022
Progress	Civil Works = 90.60% Railway System = 86.23%



Nexif Ratch Energy Rayong Power Plant (NRER)	
Type of Power Plant	Firm-Cogeneration SPP Power Plant
Type of Fuel	Natural Gas
Capacity (MW)	92
Location	Rayong Province
Ownership	49%
PPA	25 Years with EGAT
COD	April 2022
Progress	93.81%



Hin Kong Power Plant (HKP)	
Type of Power Plant	IPP
Type of Fuel	Natural Gas
Install Capacity (MW)	1,400
Location	Ratchaburi Province
Ownership	51%
PPA	25 Years with EGAT
COD	Year 2024 and 2025
Progress	24.50%



Ratch Cogeneration Power Plant (RCO) - Extension	
Type of Power Plant	Firm-Cogeneration SPP Power Plant
Type of Fuel	Natural Gas
Install Capacity (MW)	Power Generating Capacity 30 MW / Steam Generating Capacity 5.46 Tons per Hour
Location	Pathum Thani Province
Ownership	100%
Customers	Navanakorn Industrial Promotion Zone, Pathum Thani Province
COD	Year 2022
Progress	57.18%



Thanh Phong Wind-Turbine Power Plant (ECOWIN)	
Install Capacity (MW)	29.7
Location	Ben Tre Province, Vietnam
Ownership	51%
PPA	20 Years with Vietnam Electricity
COD	Year 2022
Progress	73.20%



R E N Korat Energy Power Plant (R E N)	
Type of Power Plant	Cogeneration IPS Power Plant
Type of Fuel	Natural Gas
Install Capacity (MW)	12
Location	Nakhon Ratchasima Province
Ownership	40%
Customers	Industrial Promotion Zone, Nakhon Ratchasima Province
COD	Year 2023
Progress	Construction will start 1 st Quarter of 2022

2. Operation performance according to consolidated financial statement

Unit : Million baht

	2021	2020	Increase (Decrease)	%	2019
Total revenues	44,293.29	39,521.99	4,771.30	12.1	43,220.07
Total cost and expenses	36,720.96	33,539.73	3,181.23	9.5	37,124.31
	7,572.33	5,982.26	1,590.07	26.6	6,095.76
Non-controlling Interests	(6.60)	(0.03)	(6.57)	n.a.	-
Profit before FX - the Company and subsidiaries	7,565.73	5,982.23	1,583.50	26.5	6,095.76
Gain (loss) on FX - the Company and subsidiaries	206.29	304.45	(98.16)	(32.2)	(132.48)
Profit to owner of the Company	7,772.02	6,286.68	1,485.34	23.6	5,963.28

The operating result according to the consolidated financial statement showed the profit (attributable to owners of the Company) of THB 7,772.02 million or THB 5.36 per share, increasing by THB 1,485.34 million. The main reason was due to the increase in the share of profit of associates and joint ventures such as PNPC, HPC and SEAN. The operating result without the effect of FX gain (loss) of the Company and subsidiaries showed the profit of THB 7,565.73 million, increasing from the same period of the previous year by THB 1,583.50 million.

2.1 Analysis of Revenues

Unit : Million baht

	2021	2020	Increase (Decrease)	%	2019
Revenue from sales and rendering of services	35,231.48	31,652.54	3,578.94	11.3	35,441.11
<i>RG</i>	28,992.37	26,839.80	2,152.57	8.0	31,901.76
<i>RAC</i>	3,734.35	2,684.83	1,049.52	39.1	2,990.26
<i>RCO</i>	2,219.38	2,065.88	153.50	7.4	495.38
<i>FRD / SCG</i>	216.12	-	216.12	-	-
<i>RL</i>	69.26	62.03	7.23	11.7	53.71
Revenue from leases contracts	2,095.30	2,553.21	(457.91)	(17.9)	2,923.23
Share of profit of associates and joint ventures	5,902.40	4,600.34	1,302.06	28.3	3,968.38
<i>IPPs</i>	3,828.55	3,288.76	539.79	16.4	2,904.25
<i>SPPs</i>	435.80	426.26	9.54	2.2	338.65
<i>Hydro Power Plants</i>	1,092.98	69.02	1,023.96	n.a.	66.75
<i>Renewable Power Plants</i>	427.77	403.13	24.64	6.1	356.00
<i>Infrastructure and Others</i>	117.30	413.17	(295.87)	(71.6)	302.73
Management service income	224.30	276.31	(52.01)	(18.8)	244.24
Interest income	205.35	159.41	45.94	28.8	205.52
Dividend income	58.83	61.18	(2.35)	(3.8)	100.88
Gain on bargain purchase	177.67	-	177.67	-	269.92
Other income	397.96	219.00	178.96	81.7	66.79
Total revenues	44,293.29	39,521.99	4,771.30	12.1	43,220.07

2.1.1 Revenue from sales and rendering of services

(1) Revenue from sales of RG increased. The main reason was the increase in Energy Payment due to the increase in fuel price. In contrast, Availability Payment decreased since Base Availability Credit in 2021 decreased, comparing to that of 2020, as specified in the PPA. In addition, the PPA of Tri Energy Power Plant was expired in June 30, 2020.

(2) Revenue from sales of RAC increased as Collector Power Plant has commenced COD on June 18, 2021. In addition, Mount Emerald Wind Farm Project generated more electricity than that of the previous year.

(3) Revenue from sales of RCO increased since the power plant generated more electricity than that of the previous year. In addition, the fuel price increased.

(4) Revenue from sales of FRD has been consolidated after the additional acquisition on November 19, 2021, and revenue from sales of SCG has been consolidated after the acquisition on December 13, 2021.

2.1.2 Share of profit of associates and joint ventures

Hydro Power Plants

The share profits of PNPC and SEAN increased as the water level of Xepian Xe-Namnoy and Nam Ngum 2 Hydro Power Plants was higher than that of the previous year. As a result, they generated electricity more than that of the previous year.

IPPs

The share profit of HPC increased. The main reason was the higher availability and generated electricity than those of the previous year.

2.1.3 Gain of bargain purchase of a Hydroelectric Power Plant in the Republic of Indonesia

On November 19, 2021, RH International (Singapore) Corporation Pte Ltd, a wholly-owned indirect subsidiary, has additionally invested in FRD in a total of 90 percent (previously 50 percent). As a result, the Company recognized gain on bargain purchase from such transaction in the amount of THB 177.67 million

2.2 Analysis of Cost and Expenses

Unit : Million baht

	2021	2020	Increase (Decrease)	%	2019
Cost of sales and rendering of services	33,116.50	30,228.69	2,887.81	9.6	33,228.03
<i>RG</i>	<i>28,536.48</i>	<i>26,576.47</i>	<i>1,960.01</i>	<i>7.4</i>	<i>30,959.28</i>
<i>RAC</i>	<i>2,164.64</i>	<i>1,795.69</i>	<i>368.95</i>	<i>20.5</i>	<i>1,795.58</i>
<i>RCO</i>	<i>2,145.37</i>	<i>1,813.52</i>	<i>331.85</i>	<i>18.3</i>	<i>435.32</i>
<i>SCG</i>	<i>226.21</i>	<i>-</i>	<i>226.21</i>	<i>-</i>	<i>-</i>
<i>RL</i>	<i>43.80</i>	<i>43.01</i>	<i>0.79</i>	<i>1.8</i>	<i>37.85</i>
Administrative expenses	1,701.84	1,601.09	100.75	6.3	1,595.99
(Gain) Loss on fair value adjustment of derivatives	(143.51)	130.24	(273.75)	(210.2)	(0.35)
Finance costs	1,868.07	1,551.35	316.72	20.4	1,430.57
Tax expense	178.06	28.36	149.70	527.9	870.07
Total Cost and expenses	36,720.96	33,539.73	3,181.23	9.5	37,124.31

2.2.1 Cost of sales and rendering of services

(1) Cost of sales of RG increased due to the increase in fuel cost more than that of the previous year.

(2) Cost of sales of RAC increased since Collector Power Plant has commenced COD on June 18, 2021.

(3) Cost of sales of RCO increased due to the recognition of the maintenance expenses of the gas turbine that was damaged in September 2020 (maintenance completed in September 2021). In addition, fuel cost increased.

(4) Cost of sales of SCG has been consolidated after the acquisition on December 13, 2021.

2.2.2 The effect of fair value adjustment of derivatives

The Company recorded the effect on fair value adjustment of derivatives according to the adopted accounting policies for derivatives and hedge accounting. The main reason was the change in fair value adjustment of cross currency swap contract between JPY and AUD currencies to manage exposure of fluctuations in foreign exchange risk on borrowings.

2.2.3 Finance Costs

Finance costs increased due to the increase in loans from financial institutions.

2.2.4 Income Tax

Income tax increased since in year 2020, RG received tax benefit from the sale of Tri Energy Power Plant more than that of the year 2021.

2.3 The effect of exchange rate of the Company and its subsidiaries

In 2021, the Company recorded gain on FX. The main reason was from JPY Bond. As JPY depreciated in relative to USD, the liability value in JPY decreased. Likewise, the Company recorded gain on FX in 2020. The main reason was from loan to related parties in AUD. As AUD appreciated in relative to USD, the asset value in AUD increased.

3. Analysis of statement of financial position

3.1 Analysis of assets

As at December 31, 2021, the total assets were THB 154,855.31 million, increasing by THB 42,723.06 million or 38.1 percent from THB 112,132.25 million as at December 31, 2020. The details were as follows:

	Dec 31, 2021	Dec 31, 2020	Increase (Decrease)	%	(Million Baht) 31-Dec-19
Current assets	25,315.77	18,484.69	6,831.08	37.0	20,479.77
Non-current assets	129,539.54	93,647.56	35,891.98	38.3	79,749.66
Total Assets	154,855.31	112,132.25	42,723.06	38.1	100,229.43

3.1.1 Investments in joint ventures and associates increased in the amount of THB 10,279.23 million. The main reasons were from additional investments in the amount of THB 4,657.65 million, the share of profit contributed during the year in the total amount of THB 5,902.40 million, and exchange rate adjustment in the amount of THB 3,151.34 million. In contrast, investments in joint venture decreased in the amount of THB 2,930.15 million, as FRD became a subsidiary.

3.1.2 Trade accounts receivable from related parties of RG increased in the amount of THB 3,450.44 million as the electricity sales in November and December 2021 were higher than those in November and December 2020.

3.1.3 Property, plant and equipment increased in the amount of THB 6,748.27 million. The main reason was the Company has completed the purchase of the ordinary shares of SCG on December 13, 2021, as described in no. 1.13.

3.1.4 Lease receivables increased in the amount of THB 15,111.42 million since RHIS has invested in FRD on November 19, 2021, as described in no. 1.12.

3.2 Analysis of liabilities and equity

As at December 31, 2021, the total liabilities and equity were THB 154,855.31 million, increasing by THB 42,723.06 million or 38.1 percent from THB 112,132.25 million as at December 31, 2020. The details were as follows:

	Dec 31, 2021	Dec 31, 2020	Increase (Decrease)	%	(Million Baht) Dec 31, 2019
Liabilities	77,045.77	51,610.68	25,435.09	49.3	40,815.50
Equity	77,809.54	60,521.57	17,287.97	28.6	59,413.93
Total Liabilities and Equity	154,855.31	112,132.25	42,723.06	38.1	100,229.43

3.2.1 Liabilities increased in the amount of THB 25,435.09 million, the main reasons were as follows:

(1) The Company and RHIS received short-term loan from financial institutions during the year in the amount of THB 2,536 million and USD 45 million respectively.

(2) Trade accounts payable of RG increased in the amount of THB 3,151.10 million as the power plant generated more electricity in November and December 2021 than that in November and December 2020.

(3) Long-term loan from financial institutions increased in the amount of THB 11,161.42 million since the Company received long-term loans from financial institutions during the year in the amount of THB 5,000 million. In addition, FRD and SCG has been consolidated after the additional acquisition, as described in no. 1.12 and 1.13 respectively, and loans in USD increased since THB depreciated in relative to USD.

3.2.2 Equity increased in the amount of THB 17,287.97 million. The main reasons were as follows:

(1) The Company had the profit of the year 2021 in the amount of THB 7,772.02 million

(2) Non-controlling interests increased by Baht 7,519.15 million.

(3) Other components of equity increased in the amount of THB 5,476.80 million. The main reasons were due to translation reserve in the amount of THB 3,199.77 million, share of other comprehensive income (expense) of associates and joint ventures in the amount of THB 1,599.14 million, and hedging reserve in the amount of THB 601.64 million.

(4) The dividend payment during the year 2021 decreased retained earnings in the amount of THB 3,480 million.

4. Analysis of cash flows

Cash and cash equivalents of the Company and its subsidiaries as at December 31, 2021 were THB 6,961.49 million, increasing by THB 2,104.90 million from THB 4,856.59 million on December 31, 2020. The details were summarized below:

	(Million Baht)
	2021
Net cash from operating activities	7,153.57
Net cash used in investing activities	(7,648.75)
Net cash from financing activities	2,384.57
Effect of exchange rate changes on cash and cash equivalents	215.51
Net cash increase during the period	2,104.90

4.1 Net cash from operating activities increased cash flow in the amount of THB 7,153.57 million. The reason was the operating result of the year 2021 improved cash position by THB 5,290.51 million, adjusted by the change in operating assets and liabilities in the amount of THB 1,863.06 million.

4.2 Net cash used in investing activities decreased cash flow in the amount of THB 7,648.75 million. The main reasons were as follows:

4.2.1 The Company paid for plant and equipment in the amount of THB 1,893.53 million.

4.2.2 The Company paid for additional investment in subsidiaries, joint ventures and associates in the total amount of THB 7,181.84 million.

4.2.3 The Company received dividends in the total amount of THB 2,208.83 million.

4.3 Net cash from financing activities increased cash flow in the amount of THB 2,384.57 million. The main reasons were as follows:

4.3.1 The Company and RHIS received short-term loans from financial institutions during the year in the amount of THB 2,536 million and USD 45 million respectively.

4.3.2 The Company received long-term loans from financial institutions during the year in the amount of THB 5,000 million. In contrast, SCG and FRD repaid long-term loans from financial institutions in the amount of THB 308.92 million and USD 4.48 million respectively.

4.3.3 The Company paid dividend to owners in the amount of THB 3,480.22 million.

4.3.4 The Company paid for interest expenses during the year in the amount of THB 1,715.47 million.

5. Significant financial ratios (excluded the effect of foreign exchange rate of the Company and its subsidiaries)

Ratios		2021	2020	2019
Current Ratio	(Times)	1.25	2.69	2.70
Profit to Total Revenue (excluded fuel costs)	(%)	40.30	37.03	38.90
Return on Equity	(%)	11.57	9.98	10.21
Return on Assets	(%)	7.10	7.24	8.33
EBITDA *	(Million THB)	11,662	9,665	9,996
EBITDA to Total Assets	(%)	8.74	9.10	9.92
Debt to Equity Ratio	(Times)	0.99	0.85	0.69
Debt Service Coverage Ratio	(Times)	3.69	4.53	1.90
Book Value per Share	(THB)	48.48	41.74	40.97

* Not included the change in lease receivable (Million THB) 2,575.60 3,346.05 1,359.51

5. General information and important information

5.1 General information

Registrar

- **Thailand Securities Depository Company Limited**

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Contact

Custodian

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Debenture registrar

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Auditor

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5.2 Company 's others information

Recapitalization

Following the Board of Directors' resolution to seek shareholders' approval at the extraordinary meeting for the recapitalization from 14,500,000,000 baht to 22,192,307,700 baht through the issuance of 769,230,770 shares at 10 baht par value or a total of 7,692,307,700 baht for the preferential public offering (PPO) without allocation to the shareholders in the United States, Canada, People's Republic of China, South Africa and other countries as deemed appropriate (including US persons as specified in the US Securities Act of 1993's Regulation S). The new shares will be allocated at the ratio of at least 1.885 existing shares to 1 new share. Shareholders can subscribe for shares beyond their rights. The unsubscribed shares in the first allotment shall be allocated to all shareholders who subscribe for shares beyond their rights and make full payments. The leftover shares shall be allocated to the shareholders who subscribe for shares beyond their rights accordingly to their existing shareholding.

5.3 Legal disputes

1. RATCH is held a defendant in a civil case, Black Case No. Por. 678/2557, being pressed for damage claims worth 825 million baht. The plaintiff alleged that the Company, the subsidiary and directors of breaching an agreement to enter into a joint venture and bid for a power plant project; and that the Company committed a dishonest act by opting out from the bidding, blocking the plaintiff from winning the project and causing the plaintiff damage. The Nonthaburi Provincial Court dismissed the case on 25 October 2018, Red Case No. Por. 2448/2561, ruling that the Company, the subsidiary and directors acted in good faith and had never committed any fraudulent act against the plaintiff. On 10 June 2020, the Nonthaburi Provincial Court read the Court of Appeal Region 1's decision to uphold the provincial court's

judgement on the rationale that the plaintiff's evidences could not prove that the Company agreed to enter into a joint venture contract or join the power plant bidding together with the plaintiff. As such, the Company, the subsidiary and directors did not commit any fraudulent act against the plaintiff as alleged.

2. The Company was held a defendant in a civil case, Black Case No. Tor Por. 199/2561, being pressed for damage claims worth Baht 5,271.10 million. The Company was alleged of trade secret infringement, by using the plaintiff's trade secret without its consent and depriving the plaintiff from any entitled benefits. The civil court (Central Intellectual Property and International Trade Court) dismissed the case on 30 September 2020 on the rationale that the claimed secret reached a time limit and the plaintiff could no longer claim the right to such secret.

5.4 Secondary market

- None

5.5 Frequently Contacted Financial Institutions

- ABN AMRO Bank
- Asian Development Bank
- Asian Infrastructure Investment Bank
- Australia and New Zealand Banking Group Limited
- Bangkok Bank Public Company Limited
- Bank of America
- Bank of Ayudhya Public Company Limited
- Bank of China
- BNP Paribas
- China Construction Bank
- China Development Bank
- CIMB Thai Bank Public Company Limited
- Citibank
- Clean Energy Finance Corporation
- DBS Bank
- Deutsche Bank
- Export-Import Bank of Thailand
- Government Savings Bank

- Industrial and Commercial Bank of China (Thai) Public Company Limited
- ING Bank N.V.
- International Finance Corporation
- Japan Bank for International Cooperation
- Kasikornbank Public Company Limited
- Kiatnakin Phatra Bank Public Company Limited
- Krung Thai Bank Public Company Limited
- Land and Houses Bank Public Company Limited
- Mizuho Corporate Bank
- MUFG bank, Ltd.
- National Australia Bank
- Natixis
- Oversea-Chinese Banking Corporation Limited
- Small and Medium Enterprise Development Bank of Thailand
- Société Générale
- Standard Chartered Bank
- Sumitomo Mitsui Banking Corporation
- Sumitomo Mitsui Trust Bank
- The Hongkong and Shanghai Banking Corporation Limited
- The Siam Commercial Bank Public Company Limited
- TMB Thanachart Bank Public Company Limited
- United Overseas Bank

6. Corporate Governance

RATCH is aware of and gives importance to governance best practices with the aspiration to ensure the organization's transparent management system that does not tolerate the giving or taking of bribes and demonstrates concerns in equitable treatment of stakeholders as well as responsibility for the environment and society. RATCH believes that the adherence to governance practices accordingly to the business context will help build trust in our investment and create added value to the enterprise, shareholders and all stakeholders. This will bring about organizational excellence and long-term competitiveness, paving way for the achievement of sustainable growth targets.

6.1 Corporate Governance Policy

Overview of Corporate Governance Policy and Guidelines

The Board of Directors has formulated the Corporate Governance Policy, the Code of Conduct and policies that concern stakeholders from shareholders to employees as well as society, the environment, personal data protection, information classification, prevention of information misuses, information and technology security, business continuity, and sustainable development. All have been aligned with changing circumstances and specify the guidelines for directors, the Management, employees and all stakeholder groups. The policies are clearly written in Thai and English languages and posted on the Company's website under Corporate Governance Section. The Board of Directors assigned the Corporate Governance and Social Responsibility Committee to review, support, supervise and monitor actions on governance and sustainable development of the Company and subsidiaries. Under the committee, the Corporate Governance Working Group and the Environmental, Social and Governance Working Group having the chiefs of all function as its

members are tasked to study, consider, monitor, review and assess the compliance at least once a year, in a bid to improve and help the Company achieve the governance standards for listed companies and international standards. RATCH's corporate governance framework contains the elements as follows:

• Corporate Governance Policy

1. Realize the Board of Directors' responsibility as the leader in creating sustainable enterprise values, through the defining of vision, missions and business goals for the 3 main pillars of sustainability - economic, social and environmental.
2. Follow good governance practices and the anti-fraud and corruption policy, and comply with relevant laws, rules and regulations.
3. Build up an effective Board of Directors with concerns in the structure, component, qualification, and the selection and nomination process.
4. Ensure an effective and merit-based process in the selection and development of high level executives and human resource management, for the benefits of the organization, the country and global society.
5. Promote innovations, responsible business operations, and lawful treatment/protection for all stakeholders.
6. Establish an efficient and thorough risk management system, anti-corruption practices and the internal control system that appropriately covers finance, operation, supervision, execution and inspection.

7. Maintain financial creditability and promote accurate, sufficient, transparent and timely information disclosure.

8. Promote and support equitable engagement, treatment and communications with stakeholders.

Additionally, RATCH specifies in the Corporate Sustainability Development Policy the need to raise awareness among executives and employees through thorough communications and annual training on morals, ethics, integrity and governance practices.

The Company has put in place the policies, regulations and orders to supervise the operations as summarized below:

Policy and guidelines concerning the Board of Directorss

Independent directors

The definition of “independent directors” is included in the Regulation of the Board of Directors B.E. 2562, posted on the Company’s website. They should possess the following qualifications:

- Holding shares not exceeding 0.5 percent of the total number of voting rights of the Company, its subsidiary, affiliate, joint venture or juristic person which may have conflicts of interest, including the shares held by related persons of the independent director (The threshold is stricter than that of the Capital Market Supervisory Board, which is set at 1 percent.)
- Neither being nor having been an executive director, employee, staff or monthly-paid advisor, or a controlling person of the Company, its subsidiary, affiliate, joint venture, same-level subsidiary or juristic person who may have conflicts of interest unless the foregoing status has ended not less than two years prior to the date of appointment as the independent director
- Not being a person related by blood or registration under laws, such as father, mother,

spouse, sibling, and child, including spouse of the children of the executives, major shareholders, controlling persons, or persons to be nominated as executive or controlling persons of the Company or its subsidiary

- Not having a business relationship with the Company, its subsidiary, affiliate, joint venture, or juristic person who may have conflicts of interest, in the manner which may interfere with his independent judgement, and neither being nor having a major shareholder, non-independent director or executive of any person having business relationship with the Company, its subsidiary, affiliate, joint venture or juristic person who may have conflicts of interest unless the foregoing status has ended not less than two years prior to the date of appointment as the independent director

(The term “business relationship” includes any normal business transaction, rental or lease of immovable property or extending loans, guarantee, providing assets as collateral, including any other similar actions, which bind the Company or contractual party to indebtedness payable to the other party in the amount of 3 percent or more of the Company’s net tangible assets or 20 million baht or more, whichever is lower. The debt obligation shall be calculated according to the calculation method for value of connected transactions under the Notification of the Board of Governors of the Stock Exchange of Thailand Re: Disclosure of Information and Act of Listed Companies Concerning the Connected Transactions mutatis mutandis. The combination of such obligation shall include indebtedness taking place during the course of one year prior to the date on which the business relationship with the person commences.

- Neither being nor having been an auditor of the Company, its subsidiary, affiliate, joint venture or juristic person who may have conflicts of interest, and not being a major shareholder, non-independent director, executive or partner of an audit firm which employs the auditors of the Company, its subsidiary, affiliate, joint venture or juristic person who may have conflicts of interest unless the foregoing relationship

has ended not less than two years prior to the date of appointment as the independent director

- Neither being nor having been any professional advisor including legal advisor or financial advisor who receives an annual service fee exceeding two million baht from the Company, its subsidiary, affiliate, joint venture or juristic person who may have conflicts of interest. If the professional advisor is a juristic person, the definition is extended to the firm's major shareholders, non-independent directors, executives or partners unless the foregoing relationship has ended not less than two years prior to the date of appointment as the independent director

- Not being a director appointed to represent the Company's directors, major shareholders or other shareholders related to the major shareholders.

- After the appointment with the aforementioned qualifications, the independent directors may be assigned by the Board of Directors to take part in the business decision of the Company, its subsidiary, affiliate, joint venture, same-level subsidiary or juristic person who may have conflicts of interest on the condition that such decision must be a collective one.

Nomination of Directors & Executives

- Selection of directors

The Company has in place a director selection and nomination process. The Human Resources and Remuneration Committee is tasked to select, screen and nominate qualified persons as directors and independent directors, regardless of their gender, accordingly to pre-set criteria and procedure. The committee will review the shareholders' nominations, which may involve incumbent directors or individuals enlisted in the Director Pool of recognized institutions like the Thai Institute of Directors and the Ministry of Finance's list of state enterprise directors. Taken into consideration are the persons' qualifications, diversity of technical knowledge and expertise, necessary skills and ability that are supportive to the corporate mission

and goals. The nominated directors shall not have prohibited qualifications by law and related rules and regulations or corporate governance principles. They must be ready to devote time and support the Board of Directors' decisions for a more complete and effective result.

The Company has allowed minority shareholders to nominate a person with proper qualifications for director positions since 2008. The detailed criteria, methods and consideration process and period as designed by the Board of Directors are disclosed on the Stock Exchange of Thailand's website and the Company's website every year. Being a major shareholder, EGAT has the right to nominate directors accordingly to its shareholding. Once the nominated director list is obtained from minority and major shareholders, RATCH will proceed with the director selection process, with the Human Resources and Remuneration Committee's screening of the candidates' qualifications and prohibited qualifications under relevant laws, corporate regulations and definition of independent directors as well as their knowledge, ability, relevant experience, alignment with the Company's operations and business context, and the necessity of particular director seats. The screening is based on the Board of Directors-defined Board Skills Matrix which requires directors to possess:

1) **Experience in the business and/or industry** (experience in electricity/energy and/or infrastructure); at least 3 directors

2) **Knowledge, skills and/or experiences in relevant fields** - legal and accounting/finance: at least 1 director in each respective area

Knowledge, skills and/or experiences in other fields are subjected to the Human Resources and Remuneration Committee and the Board of Directors' consideration, accordingly to the Company's mission and business objectives.

After the Human Resources and Remuneration Committee completes the selection process, taking into account knowledge and skills as required by the Board Skills Matrix, the list will be forwarded to the Board of Directors and/or the shareholders' meeting for approval. The director appointment falls into 2 cases as follows:

Case 1: When a director position is vacated due to reasons other than rotation of office, the Board of Directors is empowered to appoint any person to replace the vacant position. The appointed director shall retain his/her office during such time only as the director he/she replaces is entitled to retain. The appointment in this case must win approval from at least three fourths of the remaining directors.

Case 2: When a director position is vacated due to rotation of office, the Board of Directors shall ask for shareholders' decisions at the annual general meeting, in accordance with the criteria and process specified in the Company's Articles of Association.

- Nomination of high level executives

"High level executives" mean Chief Executive Officer, Chief Officers, and Executive Vice Presidents

In appointing high level executives, the Company bases the decision on their educational background, knowledge, skills, work experience and other qualifications deemed necessary, appropriate and aligned with preferences and the requirements of their positions. Importantly, their appointment should benefit the Group in terms of efficiency, effectiveness and sustainable growth.

The Company sets the nomination criteria, approach and evaluation process, having the Human Resources Committee complete the pre-qualification process. A list of candidates will then be submitted to the Human Resources and Remuneration Committee, for the screening candidates within the organization and outsiders based on their qualifications, educational background, vision, specialized expertise, skills, work

experience, suitability and necessity of their positions in fulfilling the organization's preferences. Other factors concern their performance, knowledge in their work areas, understanding in the business, leadership, personality, enthusiasm, relationship building, working style, etc.

Pre-qualified candidates are interviewed by the Human Resources and Remuneration Committee, where they present the vision, policy and management framework for the particular position. The interview will focus on their current responsibility, performance and/or achievements, as well as the vision and approaches to fulfil the future role. The results will be submitted to the Board of Directors for consideration and approval.

The nomination for the Chief Executive Officer, who is EGAT's secondment, will fall under the Human Resources and Remuneration Committee's high level executive nomination process, on the basis of individual skills not gender. The committee will consider the qualifications regarding competency, skills, and work experience that the Company lacks and needs in accomplishing its mission, business objectives and strategies in the short and long term. The nominated shall not have prohibited qualifications by law and related rules and regulations or corporate governance principles and shall be ready to devote time for being the leader of the organization the screening result will then be submitted to the Board of Directors for consideration and approval.

Remuneration of Directors and Executives

The Board of Directors set the policy and criteria on remuneration of directors and high level executives in writing, to attract and retain quality individuals as well as motivate and incentivize individuals with the right qualifications, knowledge, skills and experiences, which will lead the Group towards success. The criteria, method and process are clear, appropriate, transparent, up-to-date and most beneficial to the Company's operations. The remuneration has been linked to performance targets of the Group,

depending on level of designated responsibilities and comparable to that of organizations in same industry and with same size.

- Remuneration of the Board of Directors and All Sub-Committees

The Human Resources and Remuneration Committee, assigned by the Board of Directors, considers and sets the remuneration criteria of the Board of Directors, sub-committees and high level executives before seeking the endorsement of the Board of Directors and then shareholders at the annual general meeting. The criteria are as follows:

1. Regular Remuneration

1.1 Board of Directors: The retainer for the Company's Board of Directors is paid on monthly basis. The first 75 percent of the retainer is fixed while the remaining 25 percent is paid when the director attends meetings. The Chairman of the Board's retainer is 25 percent higher than that paid to other directors.

1.2 Sub-committees: The retainer is paid when a committee member attends a sub-committee meeting. The sub-committee chairman's retainer is 25 percent higher than that paid to other directors.

2. **Bonus:** Bonus is allocated accordingly to the period of service and attendance to the Board of Directors meetings. When a director holds directorship in more than 1 company in the Group, the director shall receive higher bonus for the period. The Chairman of the Board's bonus is 25 percent higher than that paid to other directors.

3. **Other forms of benefits:** Directors received no other benefits, cash or non-cash.

- Remuneration of high level executives

High level executives' remuneration is in line with the principle and policy set by the Board of Directors. The remuneration is reviewed by the

Human Resources and Remuneration Committee and benchmarked against the criteria mutually agreed in advance in each year, before submitting for the Board of Directors' approval. During the consideration of high level executives' remuneration, none of executives with conflicts of interest were present. The Board of Directors considered remuneration based on the performance appraisal result and the Chairman informed the Chief Executive Officer of such result which will be used as a guideline for future performance improvement.

- Policy and criteria on remuneration of executives serving as subsidiaries' Board of Directors on secondment

The executives appointed as subsidiaries' directors will not receive any remuneration, whether it is regular remuneration, bonus or other forms of benefit. Details of the appointed executives' remuneration appear in Remuneration of Executive Directors and Executives.

Board of Directors' independence from Management

The Board of Directors maintains its independence from the Management through the following approaches:

- Separation of Chairman and Chief Executive Officer positions

The Chairman is not the same person as the Chief Executive Officer and has no relations with the Management. The separation of Chairman and Chief Executive Officer positions ensures proper checks and balances and prevents excessive use of power. Their roles and scopes of responsibility are clearly defined: while the Chairman is the leader and plays a significant role in deciding the Company's policy based on the Board of Directors' resolutions as well as business goals per discussions with the Management. The Chairman leads and conducts meetings in an efficient and effective manner, by encouraging directors to be engaged with the meetings and openly

express their opinions. The Chairman also supports and regularly provides the Management, through the Chief Executive Officer, with recommendations on the operations without interfering routines which are the Management's responsibilities. Meanwhile, the Chief Executive Officer is the only executive director and is the Management's chief.

- Separation of powers of Board of Directors and Management

The Board of Directors has clearly segregated the authority of the Board of Directors and the Management. In summary, the Board of Directors is tasked to formulate policies and supervise the policy implementation by the Management. Details are disclosed in Board of Directors' roles, authority and responsibilities Section. Meanwhile, the Management is responsible for implementing the policies and reporting the results to the Board of Directors. Chief Executive Officer is the top executive who is authorized to manage the Company's operations: 1) supervise employees at all levels; 2) hire, appoint, promote, approve resignation, order disciplinary actions, transfer, re-assign positions, as well as delay or adjust the salary of employees at all levels, except those in Executive Vice President or upper levels who are under the Board of Directors' control; 3) define work conditions, work rules and responsibilities of each job position, and issue orders or announcements regarding operational guidelines that do not contradict the Company's regulations and the Board of Directors' resolutions; 4) ensure that the operations follow the Company's regulations and make final decisions when operational problems arise; and 5) divide job functions with the approval from the Board of Directors.

The Board of Directors clearly specifies the authority to approve procurement and charitable donation as follows:

Procurement	Authorized signatory
1. Procurement project not exceeding Baht 30 million	Chief Executive Officer
2. Procurement project exceeding Baht 30 million	Board of Directors
Charitable donation	Authorized signatory
1. Charitable donation not exceeding Baht 300,000	Chief Executive Officer
2. Charitable donation above Baht 300,000 but not exceeding Baht 500,000	Chairman
3. Charitable donation exceeding Baht 500,000	Board of Directors

The Chief Executive Officer is authorized to act as a signatory in transactions with external entities, except in matters that the Chief Executive Officer or related persons may have conflicts of interest with the Company or subsidiaries. Such matters can proceed only with a resolution reached at the Board of Directors meetings, with the presence of independent directors. In such case, the Chief Executive Officer may authorize any other person to act on his/her behalf, except for any matter that binds the Company as a borrower, lender or outsourcer for transactions worth more than 30 million baht.

For any transaction the Chief Executive Officer struck in violation of the Company's rules or the Board of Directors resolutions, such transaction will not bind the Company except with the Board of Directors' ratification.

In case the Chief Executive Officer is absent or cannot perform his/her duty or when the position is vacated, the Chief Officer in the next rankings as assigned by the Board of Directors will act as the Acting Chief Executive Officer. He shall have full authority, except for the role as a member of the Board of Directors.

Director development

Newly-appointed directors will be given an orientation and/or a briefing by the Chief Executive Officer on the nature of business, the roles and duties of the Board of Directors and sub-committees, investment structure, corporate structure, financial performance, the Company's projects and assets, the Company's corporate governance practices, regulations, policies, Code of Conduct, as well as directors' remunerations and privileges. They will be handed annual reports, sustainability reports, the manual for listed companies' directors, compliance database of listed companies' regulators, and documents regarding the above subjects. The orientation is held according to the Board of Director's policy to prepare directors for their duties.

Director development is to enhance understanding in their roles, duties and responsibilities as well as necessary skills for efficient performance as a listed company's directors. The Company financially supports directors' participation in competency-enhancement training and seminars arranged by related organizations, such as Thai Institute of Directors Association (IOD), the Stock Exchange of Thailand and Thailand Energy Academy. Financial supports cover seminars and field trips in Thailand and overseas, to broaden their knowledge and experiences which will benefit the Company's business development. Directors' knowledge and understanding are regularly and appropriately bolstered through the Company's communications channels and internal activities.

Assessment of directors' performance

In 2021, the Board of Directors reviewed the self-assessment forms for the Board of Directors and sub-committees on an individual basis and in a group format, as endorsed by the Human Resources and Remuneration Committee to ensure that the forms are up-to-date and aligned with their roles and the Company's business operations. The Board of Directors conducted its self-assessment with the objective to utilize the result, observation and recommendations for further improvement of the

Board and sub-committees in line with good corporate governance principles and the Company's regulation of the Board of Directors. The regulation requires the Board of Directors and sub-committees to conduct self-assessment at least once a year, in December, on a group and individual basis, so that members collectively review their performance and seek improvement. The assessment criteria, process and results must be included in the Annual Report/Form 56-1 One Report. The results are also utilized to enhance specific knowledge and skills of individual directors.

The assessment for the Board of Directors and sub-committees as well as on an individual basis covers various dimensions according to the good corporate governance principles for listed companies, including 1) the Board of Directors' readiness (in terms of structure, component, independence, responsibilities and director development) 2) formulation of strategy, business plan and budget 3) separation of roles, responsibilities and delegation 4) supervision and monitoring 5) human resource management 6) risk management, internal control and conflict of interest 7) communications with stakeholders 8) Board of Directors meeting (covering the entire process from (1) pre-meeting: meeting notice is sent in advance to provide sufficient time for consideration and requests for additional information from the Management (2) during meeting: presentation of information and key issues, discussion and question answering, absence and vote abstention in the agenda in which they have vested interests, and voting and (3) post-meeting: ensuring accurate, complete, sufficient meeting minutes, which should be completed in an appropriate period, endorsed and ready for relevant parties' cross-examination.)

The sub-committees' self-assessment, as a "whole" and "individual", is based on the following factors: 1) sub-committee's readiness (covering structure, component, independence, roles and responsibilities, and members' development) 2) sub-committees' meetings (meeting dates scheduled a year in advance, completion of assignments from the Board of Directors, and meeting process from

(1) pre-meeting: provision of document ahead of meetings for sufficient consideration period and requests for additional information from the Management and (2) during meeting: presentation of data and key issues, discussion and question answering, and voting to (3) post-meeting: ensuring accurate, complete, sufficient meeting minutes, which should be completed

in an appropriate period, endorsed and ready for relevant parties' cross-examination and 3) roles, duties and responsibilities of sub-committees.

The self-assessment is required once a year, in December, under the following criteria on whole and individual basis:

Board of Directors' self-assessment criteria				Sub-committees' self-assessment criteria			
Whole		Individual		Whole		Individual	
Score	Level	Score	Level	Score	Level	Score	Level
90 points or higher	Excellent	54 points or higher	Excellent	72 points or higher	Excellent	36 points or higher	Excellent
80 - 89 points	Very good	48 - 53 points	Very good	64 - 71 points	Very good	32 - 35 points	Very good
70 - 79 points	Good	42 - 47 points	Good	56 - 63 points	Good	28 - 31 points	Good
60 - 69 points	Fair	36 - 41 points	Fair	48 - 55 points	Fair	24 - 27 points	Fair
Below 60 points	Poor	Below 36 points	Poor	Below 48 points	Poor	Below 24 points	Poor

Supervision of subsidiaries, affiliates and joint ventures

The Company has a policy to appoint its directors and executives as the directors and/or executives of subsidiaries, affiliates and joint ventures, with the Board of Directors' approval, to smooth operations, fulfill assignments, streamline the Group's management in line with the Company's policy, and monitor the operational performance of subsidiaries, affiliates and joint ventures. Investors can find more details on subsidiaries, affiliates and joint ventures in the topic Shareholding structure of the Group.

Policies and practices concerning shareholders and stakeholders

In 2021, the Company followed through governance practices as summarized below:

1. Shareholders' rights

The Company has followed corporate governance practices, emphasizing equitable treatment of all shareholders regarding their rights to, for example, attend the annual general meeting, propose agenda and/or nominate directors at the meeting; express opinion and ask questions at the meeting; appoint a proxy to attend meetings and vote on their behalf; receive dividends; appoint, dismiss and determine remuneration for directors; appoint and determine the fee for the auditor; vote on significant transactions like capital increase or capital decrease, acquisition or disposal of major assets and related-party transactions; register share ownership and transfer; and receive significant information in an accurate, sufficient, timely and equal manner. The Board of Directors determined and announced the shareholder policy as well as equitably promote and protect the rights of all shareholder groups.

- [Rights to attend the annual general meeting](#)

Shareholders' meeting

As business owners, shareholders, individual and institutional, are encouraged to attend annual meetings and vote on significant agenda, as well as acknowledge and examine the performance of the Board of Directors and the Management. The Board of Directors scheduled the shareholder general meeting every year, within 4 months at the end of the accounting year. Should the Company urgently need shareholders' approval for a special transaction, it will call for an extraordinary shareholder.

The 2021 Annual General Meeting was held on 5 April 2021, with full compliance with law, related rules and regulations, as well as requirements on meeting quality and efficiency development. The Company encouraged shareholders to exercise their basic rights and prepared meeting facilities in accordance with measures to prevent the spread of the coronavirus (COVID-19). The 2021 meeting took place under the following procedure:

Pre-meeting preparation

- Minority shareholders were given an opportunity to propose issues to be added in the meeting agenda and/or nominate qualified director candidates at the 2021 Shareholders' Annual General Meeting. The process was based on the Board of Directors' criteria and carried out from 1 September 2020 to 31 December 2020, totaling 4 months. The Company announced the consideration criteria, method, and process on SET's disclosure system and the Company's website (on 24 August 2020). At the end of the period, no shareholder proposed meeting agenda or nominated any director candidate.

- The Company informed shareholders of the meeting in advance, by publicizing the Board of Directors' resolution at the 1/2021 meeting on 15 February 2021 to organize the Annual General Meeting on Monday 5 April 2021 at 14.00 hours. The

meeting date, time, venue and agenda together with relevant details and the Board of Directors' opinions on each agenda was contained in the resolution, posted on the SET's information disclosure system on the same day (more than 14 days prior to the record date).

- The meeting notice provided both in Thai and English, covering details of the date, time, venue, map of the meeting venue, agenda which was arranged accordingly to their priority, background, reasons and key issue of each agenda item proposed for shareholders' approval or acknowledgement. The Board of Directors' opinion on each agenda item was clearly and sufficiently provided. Supporting documents contain related documents such as the minutes of the previous year meeting; the Annual Report; details and explanation on identification documents required for the meeting; proxy document and proxy appointment procedure and instruction; the list of Independent Directors, Chief Executive Officer and other persons shareholders would appoint as proxy to attend the meeting and vote on their behalf; registration form; and the Company's Articles of Association related to shareholders' meeting to assist shareholders' voting on each agenda item. The notice was published on the Company's website on 3 March 2021 (more than 30 days ahead of the meeting date). The Meeting QR Code, containing all above information on the website, was sent out to Thai and foreign shareholders on 12 March 2021 (more than 21 days ahead of the meeting date), so that shareholders have ample time to study the information.

- The Company sent the meeting notice to the Registrar on 17 March 2021 (well ahead of the requirement to be sent no less than 7 days prior to the meeting date) and to the auditor and relevant persons on the same day.

- The Company gave shareholders an opportunity to submit questions and/or recommendations beneficial to the operations before the meeting date. by post, fax or email to the address published on SET's disclosure system and meeting notice. The questions and recommendations were gathered for clarification on the meeting date and they were recorded in the meeting minutes.

- The Company published the meeting announcement in Thai and English daily newspapers during 12-14 March 2021, 3 consecutive days and no less than 3 days prior to the meeting date as required by relevant laws and the Company's Articles of Association.

Procedure on the meeting date

- Registration opened at 12.00 hours (2 hours prior to the meeting time).

- Prior to the start of meeting, a video was played to advise shareholders of guidelines for emergencies or fire incidents. Meeting attendants were then informed about the preventive guidelines and measures against COVID-19 which were aligned with public health measures, to safeguard all attendants and facilitate the screening process should any attendant be infected thereafter. Complying with the measures also demonstrated their responsibility towards others. The process was exactly as it was explained in the meeting notice.

- The Company provided necessary meeting facilities, including audio-visual equipment to support presentation, computer and barcode system recording individual shareholder's information for their registration and vote counting. This enabled convenient, fast, accurate, transparent and accountable vote counting.

- Identification documents that shareholders had to present to attend the meeting were checked by the legal officers appointed by the Company's Chairman. The checking process was simple and as specified in the meeting notice.

- The meeting began at 14.00 hours. The Chairman of the Board, as chairman of the meeting, announced 1,284 shareholders including proxy holders were present at the venue (307 shareholders and 977 proxy holders), holding a total of 1,016,185,546 shares or 70.08 percent of total issued shares, which was sufficient to make a quorum accordingly to the

Company's Articles of Association. The Chairman assigned the Company Secretary to record and prepare the meeting minutes, and introduced all 12 directors present at the meeting or 100 percent of the members of the Board of Directors and each sub-committee. The Chairman introduced the Management - the Chief Executive Officer (top executive), Chief Business Development Officer, Chief Project Development Officer, Chief Asset Management, Chief Financial Officer (the Company's top executive in accounting and finance) and Executive Vice President for corporate administration; the auditor from KPMG Poomchai Audit Limited; legal advisors from Baker & McKenzie Limited who could provide additional information, answer questions asked in the meeting, and play a neutral role in determining the appropriateness and completeness of the meeting procedure. Shareholders were then informed about the meeting procedure, which was summarized below:

- Presentation of VDO on the voting and vote counting method, and the announcement of individual resolutions, to comply with SET's guidelines on annual shareholders meeting and to affirm the clarity. The procedure followed the details included in the meeting notice and the announcement on the Company's website.

- Preparation of separate ballots for each agenda item. All shareholders received such ballots at registration. Voting process was made simple: shareholders disagreeing or wishing to abstain simply raised their hands and the Company's staff members collected their ballots. Computerized and barcode systems were used in vote counting.

- Neutral legal advisors were invited to check the accuracy, completeness and transparency of matters including the inspection procedure for shareholders' or their proxies' identification document, the quorum, persons with conflicts of interest who could not exercise the voting right, the voting and vote counting method, to ensure that the process complies with the Company's Articles of Association and the

rules announced to the meeting. The inspectors also ensured that all ballots were collected from all shareholders especially when it concerned director appointment and that meeting resolutions and vote counting were correct.

- The meeting proceeded as announced earlier without abrupt addition of significant information or new agenda or abrupt change in significant information without prior notice. The matters proposed to the 2021 Shareholders' Annual General Meeting complied with law and the Company's Articles of Association.

- The meeting proceeded in the order as stated in the meeting notice without any switch in agenda items, as the Board of Directors realized the necessity that shareholders needed sufficient time to study the information before making a decision and consequently avoided any action that would infringe or deprive shareholders' right at all shareholders' meetings.

- The discussion on each agenda item began with the Chairman completely and sufficiently providing background, reasons of necessity and related information. The Chairman stated whether the agenda was for approval or acknowledgement, as stated in the meeting notice. Then, the Chairman allocated appropriate time for questions. The Chairman, directors and the Management then jointly clarified for full understanding on related matter before shareholders were asked to cast their votes.

- Presentation of VDO summarizing the Company's operations in the previous year when the 2nd agenda item about last-year performance and plans for next years was discussed. The VDO allowed more time for questions and answers.

- Director appointment and remuneration approval were treated as two different agenda items and were voted separately. Shareholders voted separately for each director candidate. All ballots were kept for reference to ensure accuracy and

transparency.

- In each agenda voting, the Company provided a ballot for each shareholder. A computerized system was used to facilitate vote counting.

- After vote counting of each agenda item, voting results were announced, divided into "approval", "disapproval", "abstention", and "voided ballot" votes.

- Other agenda items (if any) were allowed in order to provide shareholders an opportunity to propose additional issues other than those set in the meeting agenda. According to the Company's Articles of Association, the new agenda proposed for the shareholders meeting's consideration must be proposed by the shareholders whose combined shares are at least one third of the Company's tradable shares. In the 2021 Shareholders' Annual General Meeting, no other agenda item was proposed for voting. Only some recommendations and questions about the Company's operations were raised and recorded in the meeting minutes.

- Shareholders had the liberty to attend the whole meeting or not and maintained the right to vote on the agenda under discussion. Registration for the meeting opened until the end of the meeting, to benefit shareholders arriving late.

- As the meeting was about to end, the number of attendants grew to 1,484: 405 shareholders and 1,079 proxy holders, who held a total of 1,039,584,634 shares or 71.6955 percent of tradable shares.

- The meeting was adjourned at 15.30 hours, lasting one and a half hour from the start (at 14.00 hours).

Post-meeting procedure

- The resolutions of the 2021 Shareholders' Annual General Meeting were published on SET's disclosure system immediately after the stock market

closed on 5 April 2021. The resolutions were clearly presented with details on “approval”, “disapproval”, “abstention” and “voided ballot” with percentage of each category.

- The written meeting minutes were prepared, clearly and adequately recording essence of each agenda, questions by the shareholders and clarifications by the Board of Directors and the Management, attendants’ recommendations, and the meeting resolutions, including detailed voting result and percentage of each category.

- The meeting minutes were published on the SET’s disclosure system and the corporate website on 9 April 2021 (within 14 days after the meeting date as required by law).

- The Company submitted the complete minutes signed by the Chairman of the meeting to the SET for reviewing and reference on 9 April 2021 (within 14 days as required).

- The financial statements reviewed by the auditor and approved by shareholders, the annual report, a copy of balance sheets and profit/loss account, a copy of the meeting minutes signed by the Company’s authorized signatories, and a copy of the list of shareholders at the annual general meeting date (Bor Mor Jor 006) were submitted to the Registrar on 2 May 2021 (within 1 month as required by law).

- In compliance with the COVID-19 preventive measures and keep the meeting concise, shareholders and proxies who had questions or recommendations were asked to send their questions prior to the start of the particular agenda item. Should they seek to raise questions or express opinions during the discussion of an agenda item, they were kindly asked to raise their hand and the Company’s officer picked up their questions for an answer from the Chairman and the Management. In case that many questions followed, they would be recorded and included in the meeting minutes with answers. All questions were completely answered as appearing in the meeting minutes,

published on the Company’s website in Investor Relations Section.

Aside, the Company held the 1/2564 extraordinary meeting on 21 October 2021 via an electronic channel, in line with the Emergency Decree on Electronic Meetings, B.E. 2563 as well as relevant laws and requirements. At the meeting, shareholders were asked to consider the acquisition of a 45.515 percent stake in PT Paiton Energy and Minejesa Capital B.V. and a 65 percent stake in IPM Asia Pte. Ltd. It was not considered a connected transaction but the transaction is considered the acquisition of assets of a listed company on Type 1 of the net profit basis: when the acquisition value is 50 percent but below 100 percent, it needs shareholders’ approval. The Company followed all legal requirements, the Company’s rules and regulations and governance best practices relating to meetings and shareholders. Shareholders and investors can study the details of such meeting, involving the meeting notice, meeting recordings, photos and meeting notice, on the Company’s website in Investor Relations Section.

- **Right to appoint proxy holders to attend meeting and vote on their behalf:** The Company allows shareholders to appoint persons who have come of age as their proxies to attend shareholder meetings and vote on their behalf. Proxy appointment document must be in the format designed by the Registrar. The proxy has to present the proxy document to the meeting chairman or the person assigned by the chairman before joining the meeting.

- **Right to receive dividend:** The Company’s policy is to pay dividend at no less than 40 percent of consolidated net profits after the provisions of legal reserves and other reserves, depending on the Company’s cash flow. In 2021, the Company set the “Record Date” on 3 March 2021 to gather the list of shareholders allowed to participate in the shareholders meeting and voting and receive dividend. The annual dividend was paid on 23 April 2021. The dividend payment announcement was published in Thai and English newspapers for 3 consecutive days, during

6 – 8 April 2021, as required by law and the Company's Articles of Association.

The Company annually checks and follows dividend receiving to protect shareholders' rights. The Company finds a certain amount of accrued dividend payment that shareholders have not yet collected. The Company has contacted the shareholders based on contact details in the Registrar's database, notifying them of their accrued dividend and the procedure to receive the dividend. The Company also facilitates shareholders on cheque reissuing in case of loss or expiration and also assists in the transfer of dividends to shareholders' heirs in case the shareholders passed away.

The application form for e-Dividend service was also sent to shareholders, for a convenient, fast and safe means to receive dividends in the next rounds. It is found that more shareholders tend to switch to the e-Dividend service.

- **Right to appoint, dismiss and determine remuneration for directors:** The Company requires the Board of Directors to submit director nominations to the annual general meeting so that shareholders consider and appoint directors to replace those retiring on rotation as well determine the remuneration for directors. Details on the determination are stated in the topic remuneration for directors and executives while the remuneration of each director is shown in the remuneration.

- **Right to appoint auditors and set audit fee:** The Company requires the Board of Directors seek the shareholders' approval at the annual general meeting for the appointment of auditors and the setting of audit fee on an annual basis.

- **Right to share ownership registration or transfer:** The Company appoints Thailand Securities Depositories Company Limited (TSD) as its registrar responsible for the depositing, collecting and updating shareholders' information and provides services to shareholders, such as issuing, depositing, withdrawing and transferring

of share certificates, as well as remitting benefits to the shareholders. Shareholders can contact TSD directly at the TSD Call Center at +66 2009 9999 or apply for internet-based Investor Portal service at <http://www.set.or.th/tsd/th/investorportal/investorportal.html>.

- **Right to receive significant information in accurate, sufficient and timely manner:** The Company has completely, accurately and timely followed the regulations, criteria, conditions and procedure related to listed companies' information disclosure and other activities.

- **Right to attend corporate activities:** including the visit to the Company's operational sites in Thailand and abroad. Minority and institutional investors can apply to join the Company visit every year. Through a random process, applicants who meet the Company's criteria will be selected. In 2021, the activity was postponed in compliance with preventive measures against COVID-19.

In 2021, there was no punishment due to failure or delay in report submission or incident or action deemed violating or depriving shareholders' rights.

2. Equitable Treatment of Shareholders

The Company exercises equitable treatment of all shareholders regardless of their status as major shareholders, minority shareholders or institutional shareholders and regardless of their nationalities. Key practices are as follows:

- **Access to the Company's information:** To ensure shareholders' equal access to the Company's information, the Company uses SET's disclosure system as the main communication channel and appointed the Chairman of the Board of Directors, Board of Directors, Chief Executive Officer and Chief Officers as the authorized persons responsible for the Company's information disclosure. The Company also establishes other communication channels: through the Company's website and responsible divisions such as the

Secretary Office, Internal Audit Division, Corporate Relations Division and Investor Relations Department.

- **Preparation of bilingual documents:** For equitable access of both Thai and foreign investors, the Company's information published in the SET's disclosure system and the Company's website are prepared in Thai and English.

- **Encouraging minority shareholders to propose items for the shareholder meetings' agenda and/or nominate directors:** The invitation is sent out every year through the SET's disclosure and the criteria, method, screening process and address for submission are clearly published on the Company's website.

- **Proxy appointment:** The Company prepared the proxy document as designed by the Department of Business Development, Ministry of Commerce, and delivered them to shareholders together with meeting notice, to facilitate the shareholders who cannot participate in the shareholders' meeting and prefer appointing other persons to attend and vote on their behalf. Shareholders can prepare their own proxy document, as deemed appropriated

At the 2021 Shareholders' Annual General Meeting, the Company proposed 3 independent directors - Mr. Samack Chouvaparnante, Mr. Chartchai Rojanaratanangkule and Mr. Apichart Chinwanno and the Chief Executive Officer (Mr. Kijja Sripatthangkura) as shareholders' proxies. Details of each person including their vested interest was included in the meeting agenda. A total of 752 shareholders appointed the Company's independent directors as their proxies and the Chief Executive Officer was the proxy of 122 shareholders.

- **Ballots:** The Company requires shareholders to cast their votes through ballots. A computerized system was deployed for tallying and the legal advisor, as a neutral party, inspected the accuracy of vote counting. Concerning director appointment, votes were counted for each candidate and all the ballots were stored as reference for accuracy and transparency.

- **Additional agenda item:** No additional agenda was proposed for the 2021 Shareholders' Annual General Meeting as the Board of Directors realized the significance and necessity that shareholders should have sufficient time in studying information before making a decision. Nonetheless, if shareholders found it necessary to propose additional agenda, they could do so when the agenda on other matters for consideration was being discussed, under the procedure specified in the Company's Articles of Association.

3. Prevention of abuse of inside information:

The Company followed corporate governance practices in preventing the abuse of inside information. The policies, practices and guidelines are in writing to safely keep inside information from abusive acts. The policies and guidelines are included in the Company's Code of Conduct, regulations, orders and related announcements for the acknowledgement and compliance by directors, executives, employees and stakeholders. Directors, executives and employees signed their acknowledgement on their first day of employment or on the orientation day. The practices were reviewed and improved at least once a year by the Corporate Governance Working Group, the Corporate Governance and Social Responsibility Committee, and the Board of Directors, respectively, aside from the Audit Committee's supervision through the Internal Audit Division or other assigned divisions. The policies, practices and preventive measures has been continually published in the internal communication channel on the Company's website. Key policies are summarized below:

Inside Information Policy

- All executives and employees must protect the Company's confidential information and must not use such information for personal benefits or suggest others to do so, particularly concerning the trading of the Company's securities.

- Do not disclose/abuse/transfer inside information and/or confidential information to outsiders

or all irrelevant persons including family members, relatives, siblings and friends. Do not commit any act that may hurt the Company's benefits.

- Sharing or giving confidential information to colleagues is allowed as deemed necessary or when such is to support the persons' tasks.

- Prohibit directors, executives including vice presidents or those in equivalent levels, relevant officers, spouses and underaged children or those persons as well as persons knowing of the Company's information that will influence the Company's share prices from buying/selling the Company's shares or recommending others to do so during a 30-day period prior to the public disclosure of such information, during a 24-hour period after the public disclosure, or during any given Blackout Period.

- Directors and executives from Vice President to higher levels in Accounting and Finance Function, under the Securities and Exchange Act, are required to report the Office of Securities and Exchange Commission their holding of the Company's shares as well as the holdings by spouses, children and related persons through the Company's Strategic Shareholder list. Such report shall be submitted on the appointment date or within 3 business days after a change in the shareholdings following a buy, sell or transfer. They must also report the shareholdings to the Board of Directors on a monthly basis.

Other employees must report Chief Executive Officer their holdings of the Company's shares as well as the holdings by spouses and underaged children within 3 business days after a change in the shareholdings following a buy, sell or transfer. Such reports have been part of the Board of Directors' monthly meeting agenda.

- Executives and Investor Relations' staff are prohibited from agreeing to an interview or answering questions on financial results in the foreseeable future to investors or analysts at least 10 business days prior to the scheduled disclosure of such information.

- Wrongful use of inside information for personal benefits is subjected to disciplinary actions, verbally or non-verbally, that may involve probation, a freeze on salary or annual bonus, or the termination of employment. Violators and related persons may also be liable to punishments under the criminal and civil laws.

Data Classification Policy

The Company outlined and announced the Data Classification Policy, to raise awareness on the importance of data access to fulfill one's duty and responsibility in achieving targets and operational efficiency as well as in communication and cross-functional data transfer. The policy is also aimed at preventing data loss and leak or abuse, which will significantly affect the Company's operational capability. The data is separated into 4 classification levels: 1) data for public disclosure 2) general information for internal use or for the authorized only 3) data restricted only for relevant persons and 4) sensitive data accessible only to those authorized by high-level executives.

Information Technology (IT) Security Policy

The Company outlined and announced the "IT Security Policy" and "the Computer and Network Usage Policy" that encompassed the security and management of IT-related risks associated with internal communication channels and the Company's website. The policies are to ensure the Company's IT and network/computer operations comply with the Computer Crimes Act and relevant laws; stay suitable and safe; support operational continuity; offer efficient and optimized use of the Company's IT, computer and network systems; and guard against harmful Cyber Security. IT Security Policy is scheduled for a review at least once a year or in light of changes that may interfere with the Company's IT security safeguarding.

Personal Data Protection Policy

To ensure the compliance of the Company's personal data protection with the Personal Data

Protection Act B.E. 2562, the Company outlined and announced the Personal Data Protection Policy on the internal communication channels and the Company's website. The policy is aimed at raising awareness in the protection of personal data; treatment and the gathering of personal data; objectives of data collection and storage; data owners' rights; disclosure of personal data; and involved security measures. Mr. Nawapol Disathien, Executive Vice President - Corporate Administration, was appointed as Data Protection Officer. The channels to contact the Company are clearly specified, in line with laws.

4. Preventing conflict of interest

The Board of Directors formulated and included the policy and practices to prevent conflict of interest in the Code of Conduct. The transparent and verifiable guidelines on vested interest handling were included in the Company's Article of Association, the regulation of the Board of Directors and the regulation of the Audit Committee. The Board of Directors and the Audit Committee play an essential role in outlining the management and preventive measures in alignment with laws and relevant regulations; monitoring the appropriateness of transactions; and ensuring accurate and complete information disclosure as required for the Company's overall benefits. Concerning connected transactions of the Company and subsidiaries, the Audit Committee and the Board of Directors reviewed the transactions, respectively, to ensure compliance with laws and related criteria for the benefits of the Company and subsidiaries.

Aside, the Board of Directors set the policy and guidelines on directors and executives' reporting of the interests of their own and their related persons once taking their positions as specified in the "Directors' and Executives' Interests Report Form". The original report shall be submitted to the Company Secretary for record keeping and the copy shall be submitted

to the Chairman of the Board of Directors and the Chairman of the Audit Committee. Subsequent reports must be submitted on an annual basis and updated immediately after a change, to assist the Board of Directors in deciding which person, with vested interests, should not involve in the voting on the Company's transactions or which persons have conflict of interest. The information will help the Board of Directors reach a conclusion that benefits the Company in an appropriate and transparent manner.

A written procedure and guidelines are established to supervise and monitor the operations of subsidiaries, affiliates and joint ventures, through the individuals serving as directors or executives of the companies on a secondment term. All functional chiefs are required to attend the Audit Committee's meetings on a regular basis, or at least once a quarter, to update the committee on the subsidiaries, affiliates and joint ventures' operations and obstacles.

5. Policy and guidelines on stakeholders

- **Policy on stakeholders:** The Board of Directors clearly set the policy and guidelines on each stakeholder group. The Code of Conduct has been improved, being the framework for directors, executives and employees in treating stakeholders. Such is to ensure the lawful rights of stakeholders such as shareholders, employees, customers, creditors, partners, competitors, the public sector and community near operational sites are protected and they are respectfully treated. The policy and guidelines have been announced and published for the acknowledgement of all on various channels and the Company's website: <https://www.ratch.co.th/th/cg/the-code-of-conduct>. The policy concerns the treatment of shareholders, employees, community, society and the environment, customers, creditors, vendors or suppliers, competitors, business partners and the public sector. Key elements of the policy are as follows:

Stakeholders	Policy and guidelines
Shareholders/ investors	<ul style="list-style-type: none"> • Operate business to create growth, profit and positive returns to shareholders. • Operate business with carefulness, caution, integrity and fairness for all shareholders. • Respect the right to receive information and disclose quality, accurate, complete, sufficient, and equitable information. • Monitor and ensure compliance with the stakeholder policy and Code of Conduct concerning their basic rights; fair and equitable treatment; access to quality information; participation in shareholders meetings to vote on significant issues, acknowledge the Company's operations and activities, raise opinions, make recommendations and monitor the Board of Directors and the Management's actions; and measures against directors and executives' exploitation of inside information for personal benefits and other actions that infringes or lessens shareholders' rights.
Employees	<ul style="list-style-type: none"> • Promote quality of life by providing decent work environment, occupational health and safety. • Emphasize continuous and thorough management and enhancement of personnel's knowledge and capability. • Manage and ensure appropriate remuneration and welfare, comparable to that offered by other leading companies. • Transfer, appoint, reward and punish employees equitably and fairly. • Allow employees to lodge complaints accordingly to the prescribed system and procedure. • Monitor and ensure compliance with work-related laws and regulations.
Community, Society and Environment	<ul style="list-style-type: none"> • Promote community engagement mainly through communications. • Support community development and enhance community strengths. • Promote the conservation and restoration of local traditions and enhance social quality. • Support environmental conservation and restoration. • Operate business with responsibility for community, society and environment.
Customers	<ul style="list-style-type: none"> • Produce and deliver quality products and services responsibly. • Provide warranty for products and services under an appropriate condition and period of time. • Disclose complete and accurate information on products and services. • Provide a complaint-receiving system and process whereby customers can lodge complaints on products and services, and handle complaints as best as possible. • All executives and employees must keep customers' information confidential. • Do not ask for, receive or pay any dishonest benefits to customers and strictly comply with contractual conditions.
Creditors	<ul style="list-style-type: none"> • Strictly follow creditors' conditions. • Do not ask for, receive or pay any dishonest benefits to creditors. • Cooperate fully with creditors to solve problems related to requests for, acceptance or payment of dishonest benefits. • Provide accurate, complete, timely and regular financial reports. • Inform creditors in advance if the Company cannot meet conditions and mutually seek solutions.
Suppliers/Vendors	<ul style="list-style-type: none"> • Give Company's benefits the priority, not personal benefits. • Offer suppliers and vendors a fair and equitable opportunity. • Adopt international standards for supplier assessment and selection as well as contract formats. • Put in place a system to monitor full compliance with contracts and conditions. Do not ask, receive or pay any dishonest benefits to suppliers by, for example, including conditions or rules in the Term of Reference (TOR) with each supplier. • Inform suppliers/vendors in advance in case the Company cannot meet the conditions and mutually seek solutions

Stakeholders	Policy and guidelines
Competitors	<ul style="list-style-type: none"> • Respect internationally-recognized competition guidelines and principles. • Do not seek competitor's confidential information through dishonest or inappropriate means. • Do not accuse competitors groundlessly. • Do not ask for, receive or pay any dishonest benefits to trade competitors. • Strictly respect trade conditions.
Business partners	<ul style="list-style-type: none"> • Strictly adhere to agreements and commitments. • Provide business assistance that will bring about mutual benefits, having the Company's benefits as the priority but ensuring fair returns for both parties. • Provide accurate information and reports and clear problems with concerns about business relations.
Public sector	<ul style="list-style-type: none"> • Support government activities and comply with government policies and related regulators' requirements. • Promote and support collaboration for government offices' activities.

Investors and the interested can find more information on the management of relationships and process to satisfy stakeholders in Sustainability Report 2021 on the Company's website.

- **Human Rights:** The Board of Directors realizes and gives importance to human rights principles which are the basic rights of all and essential for peaceful and sustainable coexistence. The policy and guidelines on human rights are written as part of the Code of Conduct and published on the Company's website. Details are summarized below:

Intention: Any business decision or activity is carried out with profound concerns about human rights principles. Employees are educated on the matter so that they include the principles in their routines. The Company has a policy not to support any businesses that violate the principles. The Company's policy is to respect and strictly comply with laws and regulations; treat stakeholders fairly and equitably regardless of nationalities, religions, gender, race, social status and economic status; treat employees with respect in their human dignity and support to gender equality at workplace; and regularly engage in the development of neighboring communities' quality of life. Suppliers will be persuaded to adopt international human rights principles in treating their own employees and community.

Respect to others' rights, freedom and equality: Employees' personal data will not be revealed to irrelevant parties. Employees treat each other with respect, accepting others' different opinions and not involving in conversations on nationalities, religions, gender, education or social and economic status or any issues that may lead to conflicts. Employees are prohibited from harassing others physically or psychologically or committing any acts unfair to others. However, employees maintain their political rights, able to support or become a member of political parties, to vote or to exercise other political rights.

Protection of individual rights and personal data: Safekeep and use personal data as deemed necessary, appropriate, fair and honest, in accordance with legal and regulatory requirements or business requirements.

The Company applies the labor law's standard practices in the work process. The treatment, protection and employment, including local workers which have been recruited since 2013, is based on the practices. The Company also respects community's rights to be informed about community stewardship and the operations, through various communications that are appropriate and efficient. Regarding suppliers, their treatment of workers is in focus, in alignment with the International Labor Organization (ILO)'s guidelines that shape the Company's practices towards the 3 stakeholder groups - employees, community and

suppliers. The Company includes the required practices on human rights in the Code of Conduct, educate employees on the issues and demands employees' acknowledgement and implementation out of concerns about the Company's sustainability. Human rights-related risks may dampen stakeholders' confidence and harm corporate reputation.

- **Intellectual Property Utilization and Protection:**

The Board of Directors holds all employees responsible for the protection of the Company's intellectual property. They are instructed to use the intellectual property accordingly to the guidelines in the Code of Conduct and the Computer and Network Policy. Employees must respect and avoid violating the intellectual property of the Company and others. Access to the Company's intellectual property is terminated along with the employment status.

- **Network and computer usage:** The Board of Directors stipulates that all employees are granted access to the Company's computer and network as well as the data system with given usernames and passwords under the Network and Computer Usage Policy, IT Security Policy and the Group's information technology manual. A plan is in place to systematically tackle Cyber Attacks and internal and external crises. Responsible persons to supervise, prevent, analyze, assess and tackle each incident are named and given a manual. The Company deploys counter-attack programs. It also prohibits employees from using computer or the network for illegal, defamation, unethical and commercial acts or personal gains; revealing confidential information obtained as part of their job, concerning the Company employees and external parties; conducting any acts that infringe the Company and others' intellectual property, etc. Such rules are to ensure the security of network and computer, prevent business disruption from Cyber Attacks and efficiently use network resources. They are in line with the corporate policies such as Network and Computer Usage Policy, Data Classification Policy and Business Continuity Plan as well as the Computer Crimes Act. They are also aligned with the protocol to manage Cyber Attacks-related risks. Employees'

access to the Company's data or intellectual property concerning computer and network will be terminated along with the end of employment contracts. The Company demands relevant units to assess the sufficiency of information technology security system and undertakes regular improvement on the technology side.

Any employee violating the rules and causing damage to the Company or any individual is subjected to disciplinary actions and liable to legal punishment if such acts are deemed legal violations.

6. Efficient resource utilization

The Company promotes efficient resource utilization, as reflected in the Energy Conservation Policy and the Office Building's Environmental Management Policy. The policies call for efficient utilization of resources and energy in the production process and office buildings. Employees have been continually engaged in activities to protect the environment and there is a process to raise their awareness in environmental conservation, occupational health, safety and working environment. On the next step, the process will be extended to cover the general public. (The policies in detail are published on the Company's website.)

7. Environment

The Company encourages the Group to embrace internationally-recognized operational standards like the ISO 14001 environmental standard and the OHSAS 18001 which is the standard on safety and occupational as well as the Department of Industrial Works' standards in their power plants. The implementation has been continuously and earnestly monitored and improved. In 2022, the emphasis on environment is heightened as ESG Sustainability is held as the Company's major operational goal in line with the sustainable development policy that promotes social and environmental responsibility as the corporate culture. Thorough communications are in place to raise awareness in the responsibility among executives and employees aside from annual training on social and

environmental issues significant to the Company's sustainability.

8. Safety, occupational health and working environment

The Company places emphasis on the safety, occupational health and work environment guidelines of employees, suppliers and other stakeholders working for the Company and especially at the Company's premises. Training is organized to raise safety awareness for all tasks to achieve the zero accident target. The Safety, Occupational Health and Work Environment Working Committee is tasked to monitor and assess the effectiveness of the guidelines. On the Board of Directors' instruction, it is also tasked to define preventive and corrective measures for different circumstances and ensures efficient and effective resource utilization, as stated in the Company's policies and Code of Conduct. The Safety, Occupational Health and Working Environment Policy has been published on internal channels and the Company's website and communicated to stakeholders to ensure their understanding and compliance.

9. Promotion of community engagement

The Board of Directors has continuously reviewed the published social and environmental policies and used them to guide the Company's operations that have continuously promoted community engagement, communications; the development and strengthening of communities; local tradition preservation and restoration; and environmental conservation and restoration. The emphasis reflects in every phase of the Company's projects. During project development period, the Company studies preliminary technical information in parallel with a study on the community's economic and social conditions, traditions and way of life, in order to prepare community participation plan and key communication message as well as activities to promote understanding in the project and hearing

communities' opinions on various issues as required by relevant government agencies and regulators. During the construction period, the Company regularly communicates with communities on its operations and the policy towards community. Close and regular communications continue after the project commences operations, to welcome recommendations for further improvement of the Company's activities so that they truly address community needs.

An important project concerns Ratchaburi Electricity Generating Company Limited that established the "Ratchaburi Power Plant Environmental Inspector Committee", comprising representatives from communities, community leaders, as well as local and provincial administrative offices. The committee monitors and ensures that the Ratchaburi Power Plant's environmental impact prevention and mitigation measures follow the instructions stated in its environmental impact assessment report. The committee also acts as the body that coordinates with the power plant, provides information and gathers communities' problems, concerns and recommendations. It serves as an important channel that promotes community engagement in the systematic and continuous monitoring of the Company's operations.

In 2021, the Company promoted community engagement through CSR activities. Further details are in 2021 Sustainability Report.

10. Information disclosure and transparency

Types of disclosed information

The Company discloses both financial and non-financial information in periodic and non-periodic reports. The objective of the reports is to provide accurate, complete, sufficient and timely information that support the investment decision-making process. In 2021, the Company's disclosed information is summarized as follows:

Summary of reports in 2021	Times
• Periodic reports	22
• Non-periodic reports (including reports on analyst meetings)	50
• Reports on analyst meetings (Analysts were invited to question-and-answer sessions)	4
• Meeting with domestic investors (Virtual Roadshow/Conference Call)	20
• Meeting with foreign investors (Virtual Roadshow/Conference Call)	17
• Press releases on financial statements and major activities (Mass media and analysts were invited)	5
• Media participation in CSR activities	1
• Press and photo releases	29
• Corporate website visit (monthly average) (From 1 January 2021 to 31 December 2021, totaling 232,054 times)	19,337

Information quality

Information quality concerns accuracy, clarity, completeness, sufficiency, timeliness, transparency and verifiability. The Company disclosed both significant financial and non-financial information. It is not one-sided as it presented both positive and negative aspects. The disclosure complies with relevant criteria and regulations, such as immediate disclosure of significant information, comprehensive distribution to the general public, clarification on rumors and news, actions on irregular stock trading, unnecessary promotional disclosure, and insider trading. The disclosure must not cost the Company excessively or infringe the Company's competitiveness. Other details are presented under the Rights of Shareholders section and Board of Directors' Report on Its Responsibility to the Financial Reports which is published along with the Independent Auditor's Report in the Form 56-1 One Report and the Audit Committee's opinion on the quality of financial reports appearing in Audit Committee's Report.

Disclosing quality information to outsiders not only reflects the Company's operational transparency but also strengthens the confidence and trust of investors and relevant parties. As a result, the Board of Directors closely supervised and monitored the disclosure to ensure that responsible persons not only meet minimum legal disclosure requirement but also emphasize investors' significance and their equal access to information.

Disclosure channels

The Company primarily discloses information via SET's disclosure system and uses other channels as deemed appropriate such as the Company's website, press conferences to reveal financial results, analyst meetings, press releases, roadshows in Thailand and overseas, and other activities.

The Board of Directors and the Management give importance to the disclosure of significant information. They closely monitored the disclosure to ensure compliance with prescribed principles and rules and strictly supervised the implementation of such activity. Authorized and responsible persons were designated while information distribution channels are improved to ensure the quality of disclosed information as follows:

- **Authorized persons for information disclosure:** Designated to disclose the Company's information are the Chairman of the Board of directors, Board of directors, Chief Executive Officer and Chief Officers, who are supported by information prepared by all functions. The Corporate Relations Division and Investor Relations Department were assigned to prepare significant information and issue for mass media, investors or analysts. The Office of Company Secretary was tasked to supervise the disclosure and works in liaison with regulatory bodies as required by relevant protocol. Finance Function is responsible for the

preparation of financial information, to be disclosed accordingly to relevant rules and procedures.

- **Communication channels:** Based on the commitment to providing complete and equitable access to the Company's significant information, the Company communicated via various channels that covered both one-way and two-way communication. The disclosed information was prepared in Thai and English and distributed at the same time chiefly via SET's electronic channel. The information was also published on the Company's website (www.ratch.co.th), for better understanding and greater convenience of shareholders, investors, the interested and the general public. The Company also released information via analyst meetings; domestic and international roadshows; press conferences to announce quarterly and annual performances; news releases and photo releases of the Company's activities; executive interviews; and media relations activities.

11. Compensation for violations

Concerning transactions or agreements with suppliers, partners, community and other stakeholders, the Company promises to follow the conditions, agreements and contracts accordingly to relevant laws, regulations and rules. In case of violations, the Company obligates itself to compensate for the incurring damage appropriately and fairly in line with conditions in the agreements and contracts as well as relevant laws, rules and regulations.

The Board of Directors requires the Management propose the Directors and Officers Liability Insurance (D&O) for its consideration on an annual basis, to protect Directors and Chief Executive Officer from lawsuits filed as a result of their earnest actions for the Company. The insurance will be in line with business diversification. The more diversified, the higher number of transactions prevail. Many require as the Company's business portfolio has been expanded, resulting in massive business transactions that Directors and Chief Executive Officer must dutifully endorse, give opinions, guarantee or involve with. In some cases, directors or Chief

Executive Officer may risk lawsuits from outsiders including shareholders or other stakeholders as a result of their earnest actions for the Company. Nonetheless, the Directors and Chief Executive Officer will not be covered by the insurance for malpractices or fraud and they must be responsible for all expenses incurring from the legal process.

Besides, should such violation concern the violation of the Code of Conduct, the violators will be subjected to prescribed disciplinary actions or legal punishment should they are against the laws.

12. Anti-fraud and corruption

The Board of Directors outlined the guidelines in regularly communicating the Corporate Governance Policy and guidelines with internal stakeholders through appropriate channels. In this effort, the Board of Directors formulated in writing the anti-fraud and corruption policy and guidelines, prohibiting all forms of fraud and corruption in transactions with the public or private sector; the risk management policy; and the policy to communicate the Group's governance and anti-fraud and corruption policies to subsidiaries, joint ventures, suppliers and stakeholders for optimized efficiency and effectiveness.

- Define the role and duty of individuals responsible for the supervision, control and management of corruption-related risks, in line with the Company's objectives, intention and commitment relating to fraud and corruption.

- Prepare the work plan on fraud and corruption-related risk management through a working committee represented by all functions' administrative departments, to reduce risks and occasionally improve the Company's internal control for higher comprehensiveness and efficiency.

- Prepare a communication plan and training, mobilizing collaboration from all functions. The annual plan is prepared in advance and communicated with the Group's employees and representatives through

various forms such as newsletters, experts' talks, or recreational activities. The goal is to spread out the understanding, raise awareness in the corporate fight against fraud and corruption, etc.

- Require the subsidiaries, in which the Company owns more than 50 percent and have control, follow the Company in operating in line with the CAC policy and guidelines. Regarding affiliates, associates and joint ventures owned less than 50 percent, the Company will prepare an agreement to pass on the policy and guidelines to those companies through the Company's representatives in the companies' board of directors or the management.

- Extend CAC policy and multi-dimensional guidelines to other stakeholders such as through the integration of conditions and requirements in the term of reference (TOR) with all suppliers.

The Company has been a member of the Private Sector Collective Action Coalition Against Corruption (CAC) since 22 April 2016 and the certified membership has been renewed twice. On 6 January 2022, the CAC Committee resolved at the 3/2021 meeting to extend the second membership certification. The certification period will last 3 years (to expire on 31 March 2025).

6.2 Business Code of Conduct

In doing business under good governance principles, the Company upholds ethics, morality and integrity. The Company has strictly followed the Code of Conduct that entails the aspects significant to stakeholders throughout the value chain, taking it as a key factor of sustainable success.

The Company Code of Conduct compiles the best practices for business operation, aligned with the Company's rules so that the Management and employees can easily understand the essence and strictly follow it. The Board of Directors and the Management constantly reviews the Code of Conduct as an assurance that the Company's business principles correspond with circumstances and the economic,

social and environmental contexts. Any employee violating the rules is subjected to disciplinary actions and liable to legal punishment if such acts are deemed legal violations.

In the past year, no incident or practices in violation of the Code of Conduct was reported. The interested can study the Code of Conduct on the Company's website.

1. Business Operations Guidelines

- Sustainable development
- Anti-Corruption and bribery
- Transaction with Government Sector
- Prevention of conflict of interest
- Compliance with laws
- Appropriate giving/receiving gift, receptions and other benefits
- Political Neutrality
- Prevention of money laundering
- Fair trade competition
- Use of internal information
- Business operations in foreign countries

2. Treatment of Stakeholders

- Treatment of Shareholders
- Treatment of Employees
- Treatment of Customers
- Treatment of Creditors
- Treatment of Suppliers/Vendors
- Treatment of Trade Competitors
- Treatment of Business Partners
- Treatment of Government Sector
- Treatment of Communities, Society and Environment

3. Operational Excellence

- Safety, Occupational health and working environment
- Prevention and correction of drug problems in the office
- Security
- Crisis management

4. Data Protection and Asset and Financial Supervision of the Company

- Recording, reporting and data storage
- Accurate and credible accounting controllership according to international standards
- Usage and treatment of the company's assets
- Usage and treatment of intellectual property
- Usage and treatment of computer systems, emails, internet and information and technology systems of the Company
- Usage of inside information for securities trading and/or providing securities trading advice

5. Human Rights

- The intention of the Company
- Treatment of others under the rights, freedom and equality
- Protection of privacy and confidentiality of information

6. Information Disclosure

- Use of inside information for external communication
- Communication with investors, analysts and media
- Investor Relations guidelines

7. Environmental Care

- Conservation of natural resources
 - Handling global climate change

Any employee violating the rules is subjected to disciplinary actions and liable to legal punishment if such acts are deemed legal violations.

In the past year, no incident or practices in violation of the Code of Conduct was reported. The interested can study the Code of Conduct on the Company's website.

6.3 Material changes and developments regarding policy, guidelines and governance system in the preceding year

In 2021, the Company followed through good governance principles. The Board of Directors reviewed, monitored and assess compliance with the principles and the Code of Conduct. Based on the results, the Company considered adjusting and improving to achieve international governance standards. The principles are based on numerous sets of criteria such as CG Code, CGR, ASEAN Corporate Governance Scorecard (ASEAN CG Scorecard), ESG other relevant practices. The principles give importance and takes into account all stakeholder groups in economic, social and environmental dimensions as well as governance. They are assessed and monitored by the Good Governance Working Committee, the Corporate Governance and Social Responsibility Committee and the Board of Directors, respectively. The list of approved changes and improvements is summarized below:

1. Amendments to the Regulations of Anti-Fraud and Corruption: Items 3.5 and 3.6 were added into Section 1: General Information, amendment of Item 1 (5) of Section 3: and the addition of item 8. Item 1 (2) of Section 6: Communications and Training was amended. Through the amendments, the regulations were aligned with CAC Council's self-assessment criteria Version 4.9. The regulations are published on the Company's website.

2. Setting criteria, method and assessment for the appointment of high-level executives, along with an interview assessment form. The process is as follows:

- Candidates for high-level executive positions enter the preliminary qualification round held by the Human Resources Committee. The results were then submitted to the Human Resources and Remuneration Committee.

- The Human Resources and Remuneration Committee interviews the candidates, presenting their vision, policy and management framework for the particular position. The interview encompasses their current responsibility, performance and/or achievements, as well as the vision and approaches to fulfil the future role once appointed as a high-level executive.

- The Human Resources and Remuneration Committee reviews the pre-qualification results, based on each candidate's vision, management concept, and other parts of their interview accordingly to the assessment form. The results are submitted to the Board of Director for consideration and further appointment.

3. Termination of the Regulations of Chief Executive Officer's Directorship in State Enterprises and Listed Companies B.E. 2562, to singly follow the Regulations of the Board of Directors B.E. 2562: Item 6 (2) that states Chief Executive Officer shall "hold directorships in no more than three listed companies".

4. Adjustment in the Company's 2022 mission to: "To ensue shareholders' value creation through financial returns sustainably generated with accountability for environment and society and good governance" in line with the Company's current emphasis the environment, society and governance (ESG) for long-term sustainability.

In addition, other parts of the Company's operations were adjusted for alignment with the Group's good governance principles and overall sustainable development.

Policy and guidelines adopted in replacement of the policy and guidelines under good governance principles

No incident or action that violated laws, regulations, the Good Governance Policy, the Code of Conduct and the Regulations of Anti-Fraud and Corruption was found in the previous year. The Company conducted a review on some significant issues and considered that the policy and guidelines that it adheres to remain appropriate and aligned with good governance principles and the Group's business, social and environmental contexts. The issues are summarized as follows:

Chairman of the Board should be an independent director: though the Company's chairman is not an independent director, he is not the same person as Chief Executive Officer, the Company's top executive, and has no relationship whatsoever with the Management, though representing a major shareholder. At the Board of Directors meetings, the Chairman encourages and gives all directors an opportunity to express their opinions and discuss openly before voting on a given agenda, without manipulating or guiding others during the discussion. The process promises appropriate checks and balances and guarantees the chairman's independence.

Half of the directors are independent directors: Independent directors constituted half of the Board of Directors' members (6 of total 12), in line with the Capital Market Supervisory Board's requirement that at least one third of directors or at least 3 directors must be independent directors. Directors representing the major shareholder are appointed accordingly to the shareholders' shareholding. The Board of Directors will consider increasing the number of independent directors as deemed necessary.

At least 1 female independent director: the Company promotes equality and equitability without gender discrimination. At present, the Company has 3 female directors. The Company gives importance to the nomination of independent directors without gender discrimination, depending on their qualifications, circumstances and business contexts.

Cumulative voting for director election: The Company specifies that directors are elected by the majority votes of shareholders present at the meeting and casting their votes. In each vote, each shareholder is entitled to one vote. The process does not equate to cumulative voting.

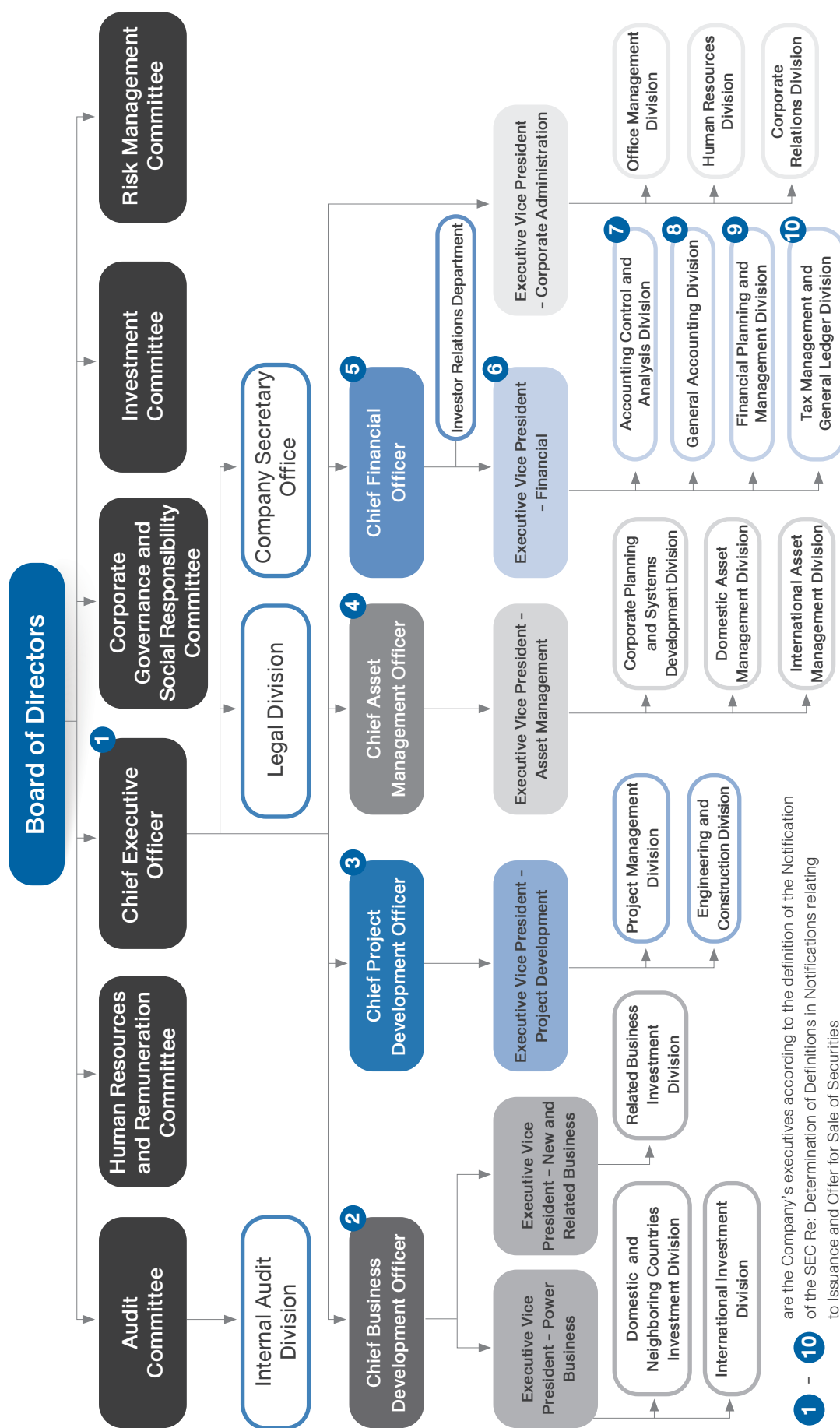
Compliance with other good governance principles

In 2021, the Corporate Governance Working Committee, the Environmental, Society and Governance

Working Committee, the Corporate Governance and Social Responsibility Committee, the Audit Committee, the Risk Management Committee and the Board of Directors reviewed and monitored the Company's compliance with good governance principles, for improvement and preparation for external governance assessment initiatives which are Corporate Governance Report (CGR), ASEAN CG Scorecard and Annual General Shareholders' Meeting Assessment. The goal is to get closer to international sustainability standards. Thanks to the commitment, the Company was bestowed the following governance awards in 2021.

- Highly Commended in Sustainability Awards in Sustainability Excellence category of SET Awards 2021 and inclusion in Thailand Sustainability Investment (THSI) for the 7th consecutive year.
- Sustainability Disclosure Award 2021 from Thaipat Institute (Public-Interest Organization)
- Assessment of Corporate Governance Report of Thai Listed Companies in 2021: Excellent Level for 14th consecutive years
- Annual General Shareholders' Meeting Assessment in 2021 by Thai Investors Association, receiving full points (100 points)
- Outstanding Company 2021 - Resources Sector at Money & Banking Awards 2021 by Money & Banking Magazine
- MEA Energy Awards for RATCH Group Building - Office Building Category by Metropolitan Electricity Generating
- Green Office Award - Excellent Level (G-Gold) by the Department of Environmental Quality Promotion for the third time (since 2013)

7.1 Corporate governance structure



are the Company's executives according to the definition of the Notification of the SEC Re: Determination of Definitions in Notifications relating to Issuance and Offer for Sale of Securities

7.2 Information on the Board of Directors

Components of the Board of Directors

- Comprising at least 7 members and no more than 15 members, appointed by shareholders or the Board of Directors.
- Executive directors shall not exceed one third of the total members.
- Independent directors shall comprise no less than one third of the total directors and no fewer than 3 members.
- At least half of the directors shall reside in the country.
- The Chairman must be a non-executive member and not the same person as the Chief Executive Officer who is the Management's chief.

The Board of Directors specifies that the directors shall have knowledge and experience

- Experience in business and/or industry
 - Electricity, energy and/or infrastructure business, at least 3 directors
- Knowledge, skills and/or relevant experiences
 - Knowledge, skills and/or experiences in accounting/finance, at least 1 director
 - Knowledge, skills and/or experiences in legal, at least 1 director
- Knowledge, skills and/or experiences in other areas

The Human Resources and Remuneration Committee and the Board of Directors base their consideration in consistent with the Company's necessity, in support of the mission and business objectives. Directors shall have the following qualifications:

- Not older than 72 years old

- Hold directorship in no more than 3 listed companies
- Have no prohibited qualifications by law. Not being a bankrupt person or an incapable or quasi-incompetent person
- Have never been convicted and imprisoned in for violation of laws related to assets in a fraudulent action
- Have never been terminated from government agencies or private organizations due to malpractice
- Have never been dismissed as a director, manager, employee or an authorized executive of other organizations
- Not being a politician, a Member of Parliament, Senate, or a member of a local administrative office or a local administrator
- Possess educational background, experience or other qualifications as specified by the Company
- Devote sufficient time and full capability for the best benefits of the Company and honor the duty to attend company meetings
- Do not commit or involve with an act that may undermine the Company's interests or benefit other person or entity, whether that is for personal or for other person's benefits

Directors' tenures are as follows:

- At every shareholders' annual general meeting, one-third of the directors, or the nearest to one-third in case the number cannot be equally divided by three, shall retire from office.
- Directors with the longest stay in office shall retire.
- A retiring director by rotation may be re-elected.
- Directors and independent directors shall remain in office for no more than 6 consecutive years.
- In addition to retirement by rotation, directors may leave office in case of:

- Death
 - Resignation
 - Disqualification or having prohibited qualifications according to the Securities and Exchange Act and the Company's Articles of Association and the Company's regulations on Board of Directors
 - Dismissal by the votes of no less than three fourths of all present shareholders with voting rights who hold at least half of the shares owned by all present shareholders with voting rights
 - Court order
- Director's resignation is effective when the Company receives the resignation letter.
 - The CEO's directorship ends when he/she vacates the CEO position.
 - In case any director vacates the position by reasons other than rotation, the Board of Directors shall appoint any person to replace the vacant position and the appointed director shall retain his/her office during such time only as the director he/she replaces is entitled to retain.
- As of 31 December 2021, the Board of Directors consisted of 12 members. Six of them are independent directors, or 50 percent. Eleven of them are non-executive directors, or 91.97 percent. Of total, 3 are female directors or 25 per cent.

Board of Directors and controlling persons

As of 31 December 2021, the Board of Directors consisted of 12 members.

Board of Directors	Position in the Board of Directors	Position in sub-committee
1. Mr. Boonyanit Wongrukmit	Chairman (EGAT's representative director/ Authorized director)	Chairman of the Investment Committee
2. Mr. Chartchai Rojanaratanangkule	Independent Director	Chairman of the Audit Committee Member of the Corporate Governance and Social Responsibility Committee
3. Mr. Apichart Chinwanno	Independent Director	Chairman of the Human Resources and Remuneration Committee Chairman of the Corporate Governance and Social Responsibility Committee
4. Miss Nantika Thangsuphanich	Director (EGAT's representative director)	Chairman of the Risk Management Committee Member of the Human Resources and Remuneration Committee
5. Mr. Boonsong Kerdklang	Independent Director	Member of the Audit Committee
6. Mr. Somboon Nhookeaw	Independent Director	Member of the Audit Committee
7. Mr. Kriengkrai Rukkulchon	Independent Director	Member of the Human Resources and Remuneration Committee
8. Mr. Suthon Boonprasong	Director (EGAT's representative director/ Authorized director)	Member of the Investment Committee Member of the Risk Management Committee
9. Miss Niramarn Laisathit	Director (EGAT's representative director)	Member of the Investment Committee

Board of Directors	Position in the Board of Directors	Position in sub-committee
10. Mr. Prasertsak Chergngchawano	Director (EGAT's representative director/ Authorized director)	Member of the Investment Committee
11. Mr. Ratanachai Namwong	Independent Director	Member of the Risk Management Committee
12. Miss Choosri Kietkajornkul	Director, Chief Executive Officer, and Secretary to the Board of Directors (EGAT's representative director/ executive director/authorized director)	-

Board of Directors and controlling persons of Ratchaburi Electricity Generating Company Limited, a subsidiary operating in the Company's core business:

Board of Directors	Position in core-business subsidiary
1. Miss Choosri Kietkajornkul	Chairman (Authorized director)
2. Mr. Nimit Lekcharoensuk	Director
3. Ms. Jiraporn Sirikum	Director
4. Mrs. Ranee Kositvanich	Director
5. Mr. Thana Boonyasirikul	Director, Managing Director and Secretary to the Board of Directors (Executive director/Authorized director)

The qualifications, experiences and shareholdings of directors of the Company and core-business subsidiary appear in Item: "Details on Directors, Executives, Controlling Persons and Chief accounting/finance officers, Responsible persons for accounting, Company Secretary and Coordinators of overseas companies". (Appendix 1)

Roles, Duties and Responsibilities of the Board of Directors

The Board of Directors is responsible for the Company's entire operations and empowered to ensure compliance with laws, business objectives, rules and shareholders' resolutions. The Board of Directors may delegate power to one or more directors or other persons to act on its behalf, except in the following transactions that shareholders' pre-approval is a must: 1) transactions required by law to be approved at the shareholders' general meeting and 2) connected transactions or asset acquisition/disposal of the Company's or subsidiaries' key assets based on the

Stock Exchange of Thailand notification on listed companies' transactions. The Board of Directors shall be aware of its roles, duties and responsibilities, being committed to independence in the decision making process for the best benefits of the Company and its shareholders. All directors shall give importance to and honor the responsibility towards shareholders who own the business and appoint directors so as to supervise the operations for shareholders' maximum benefits. The Fiduciary Duty covers four major responsibilities namely Duty of Care (perform with care), Duty of Loyalty (perform with integrity), Duty of Obedience (compliance with laws, goals, regulations and shareholders' resolutions), and Duty of Disclosure (disclosure of accurate, complete, transparent and timely information). The Board of Directors' duties and responsibilities are summarized as follows:

- Outline, review and approve the Company's strategy, business plan, policy, budget, business direction and operational supervision with participation of the Management on an annual basis.

- Consider and approve the human resource management strategy, the executive development plan, the organization structure, the remuneration structure, and the performance-based remuneration plan; ensure the availability of director and high level executive selection/dismissal/termination criteria, methods and process as well as transparency; and ensure the effective evaluation process of high-level executives by benchmarking the performance against mutually agreed goals.

- Ensure an efficient and appropriate communications system with stakeholders and the general public and monitor compliance.

- Monitor the progress, efficiency and results of the strategic plan implementation, benchmarking against short and long term targets and competitors' operational efficiency; disclose the implementation result and governance under good corporate governance principles in the annual report; and require regular reports from the Management as follows:

- Monthly reports covering monthly operational performance analysis; summary of short and long term invested capital; cash flow statement; progress of invested projects; peak load and electricity supply of EGAT and Thailand; securities holdings and/or change in holdings of directors, executives as well as their spouses and minor children; and share prices of energy stocks.

- Quarterly reports on quarterly financial results, sub-committees' summary reports, risk management reports and reports on social and environmental responsibility.

- Annual reports covering annual financial statements, annual performance evaluation against targets, sub-committees' meeting minutes and the Board of Directors' annual report.

In 2021, the Board of Directors reviewed and adjusted the strategic plan as the Company is to diversify to new businesses for coping with changing

circumstances in today's business and future trends as well as strengthen the business foundation and pave way for sustainable growth. The plan is aligned with the environmental, social and governance principles. The investment in renewable energy is set to be at least 25 percent in 2025 and 40 percent in 2035, having the Company's vision, mission, objectives and performance evaluation criteria as the goal. The 2022 business strategy is shaped around the investment plan, to support the long-term target to achieve 10,000 MW capacity or Baht 200,000 million in enterprise value in 2025.

In case that the targets are not reached due to controllable factors, the cause of the problems will be analyzed and corrected. In case that such problems arise from uncontrollable factors, the plan will be reviewed and a new and/or alternative target shall be set at least every quarter or as deemed appropriate.

To promote mutual understanding among directors and between directors, the Management and employees, in 2021, the Company arranged informal meetings of directors, the Management and employees, which included activities such as those under CSR projects, annual recreational activity for directors and internal knowledge development activity.

- Ensure completeness of significant matters namely the right mix of independent directors to balance the power of the Management and/or major shareholders; review and approve vision, strategy, mission and Code of Conduct, and communicate with employees at all levels for their acknowledgement and implementation; verify and approve annual financial reports to strengthen shareholders' confidence; supervise internal audit procedure, internal control and risk management system, prevention of conflict of interest, related party transactions, protection of corporate reputation, optimal resources exploitation efficiency and effectiveness; and ensure continuous and full compliance with related laws, rules, regulations, Articles of Association, Code of Conduct as well as good corporate governance principles.

- Establish and outline the roles and responsibilities of sub-committees as deemed appropriate and necessary.

- Set the criteria for the annual evaluation of the Board of Directors and sub-committees, covering the whole Board and sub-committees as well as their individual members, and disclose the results in the Annual Report /Form 56-1 One Report.

- Schedule Board of Directors' meetings and voting
 - Schedule Board of Directors' meeting at least once a month and set the meeting dates a year in advance so that all directors can be present at the meetings. At least one meeting for non-executive directors is organized per year to offer the directors a chance to review the performance of the Board of Directors, the Management and the Company, and to discuss significant management issues without the Management's presence. The Chief Executive Officer will be informed of the meeting results and subsequently improve operational efficiency based on the non-executive directors' recommendations.
 - Directors with vested interests in specific agenda item shall not be present at the meeting and shall abstain from voting.
 - Assign one vote to each director. Directors with vested interests in a specific agenda item shall not have the right to vote on the item. In case the number of votes is equal, the chairman of the meeting shall make the casting vote.

Shareholders and investors can study the Board of Directors' duties and responsibilities in the Company's Regulations of the Board of Directors B.E.2562, published on the Company's website.

- Directorship in other companies

None of the Company's directors hold director position in more than 2 listed companies, in line with the Regulations of the Board of Directors that specifies

that directors must not hold directorship in more than 3 listed companies which include RATCH as well as the SET's recommendations that concern directors' efficiency and devotion. Details of individual directors are disclosed in Item: "Details on Directors, Executives, Controlling Persons and Chief accounting/finance officers, Responsible persons for accounting, Company Secretary and Coordinators of overseas companies". (Appendix 1)

Concerning the appointing of RATCH's directors and executives to sit in the subsidiaries and affiliates' board of directors or the Management, the Board of Directors bases its decision on the knowledge, capability, duty, responsibility and time allocation, after receiving the list prepared by the Human Resources and Remuneration Committee accordingly to the selection criteria. The criteria focus on the appointees' qualifications, suitability and benefits to the Group.

The Board of Directors outlined the regulation of Subsidiaries, Affiliates and Joint Ventures Supervision which clearly specified the criteria in appointing the Company's representatives on secondment term. These representatives are expected to share the Board of Directors' policies to those ventures and report on the ventures' operations, as detailed in Item: Details on subsidiaries' directors. (Appendix 2)

- Independence of the Board of Directors and the Chairman

The Board of Directors comprises 6 independent directors, representing 50 percent of the total 12 directors, in line with the criteria that independent directors shall account for at least one third of all directors. All can rest assured that the Board of Directors can independently perform their duties as the shareholders' representative with appropriate checks and balances. Though being the representative of EGAT, a major shareholder with 45 percent stake, the Chairman is not an executive director. As such, the Chairman independently performs his duty and does not influence or convince other directors during discussions. He also encourages all directors to

discuss and express opinion openly, giving them sufficient and appropriate time for thorough, complete and beneficial decisions. Resolutions are thus reasonable and effective.

- Board of Directors' meetings

- Board of Directors meeting principle and guidelines: the Company puts an emphasis on the Board of Directors' independence. The Board of Directors is required to perform its duties with integrity and caution, in order to protect the Company's interests. They shall be fully aware of the role as shareholders' representatives who must take the lead in closely observing, recommending, assisting and supporting the Management for sustainable benefits to the Company and shareholders, as guided by the environmental, social and governance principles.

- Meeting scheduling and preparation of meeting agenda and supporting document: The Board of Directors approves the advance meeting schedules around November or December. The schedules approved in 2021 fix the monthly meeting on every third Tuesday of each month, at 14.00 hours. In the year, each sub-committee considered and approved the advance schedules accordingly to their respective missions and each director was notified of the schedules. Additional meetings may be organized if necessary.

To ensure that all significant matters are included, the Chairman and Chief Executive Officer jointly considered the matters to be included in meeting agenda. Directors are informed of the agenda in advance and the meeting notice was distributed at the appropriate time according to the Company's regulation. Directors are allowed to propose other matters by submitting the proposal 10 days prior to the meeting date. In case of urgent matters which may directly or indirectly affect the Company, directors were free to propose such matters for consideration or acknowledgement during the meeting. (The procedure to include special issues in the meeting agenda and how directors can propose their agenda are stated in the Company's regulation of the Board of Directors

which is published on the Company's website. Board members are individually informed about the process via meeting notices.)

Meeting agenda is grouped and the meeting runs in the pre-set sequence namely matters to be informed by the chairman, approval of minutes of the previous meeting, matters related to issues considered at the previous meeting, matters proposed for consideration, matters proposed for acknowledgement, and others (if any). Regular matters to be proposed to the Board of Directors at specific periods such as monthly, quarterly and annual agenda are set in advance. Monthly performance analysis and progress of investment projects are to be reported to the Board of Directors on a monthly basis.

In 2021, the Company sends meeting notice, agenda and related documents to each director approximately 5 business days to the meeting date, providing them sufficient time to study the information. Directors may ask for more information from Chief Executive Officer and the Company Secretary Office. Members of the sub-committees can ask for more information related to their tasks from Chief Executive Officer and the secretary of each sub-committee.

- Roles of Chairman, directors, executives and meeting atmosphere

- Chairman: Leads the meeting; ensures a 100 percent quorum (which is more than two thirds of directors present at the meeting); sufficiently, adequately and equally allocates time for directors to discuss and express opinions; encourages directors to participate in the discussion and freely express opinions; and concludes the meeting.

- Directors: Share opinions based on the information provided by the Management and other necessary and relevant information; discuss constructively, taking into account the comprehensive benefits and impact as well as risks for the Company and all stakeholders in order to obtain appropriate meeting resolutions; and fully contribute knowledge and

experience to their role as directors of a listed company.

- Executives: Provide accurate, sufficient, complete, timely, relevant and necessary information to support the Board of Directors' decision; submit the information in advance in order to allow the Board of Directors sufficient time to study the information; propose options; clarify or provide more information when asked to be present at the meetings; and orders functions' chiefs to attend the meetings and summons other executives and/or relevant advisers to the meetings for clarification on specific issues.

- Meeting atmosphere and expression of opinions: The Company provided appropriate and sufficient meeting equipment and facilities. The meeting atmosphere was stimulative, as all directors were encouraged to discuss and express opinions in a constructive and creative manner, having in mind mutual benefits and impacts on all stakeholders. Each meeting appropriately lasted 2 hours to 2 and a half hours on average.

- Meeting process: Generally, prior to the consideration of each agenda, the Management presented the background, rationale, necessity, clarifications and related information. The Chairman then allowed thorough discussion on the matter, with each director being given opportunity to express opinions or ask for more information from the Management, before voting on the agenda.

- Directors with vested interests on specific items cannot vote on the matters (based on the reports of the interests of each director and executive and related persons submitted to the Company Secretary and the Board of Directors and reviewed by the Chairman). This has been strictly honored at all Board of Directors meetings.

- Consideration of related party transaction and items that may involve conflict of interest takes into account the benefits of the Company and shareholders. The necessity and rationale of each

matter is compared with transactions of similar nature. Correct and complete process and the disclosure of accurate and complete information as required by law are highly weighted.

- Preparation and storage of meeting minutes

- Company Secretary Office is assigned by the Board of Directors to record, prepare and safekeep the minutes of the Board of Directors' meeting and shareholders' meetings.

- Meeting minutes are in writing and cover all important details, including date and time, the start and the end, meeting venue, list of attending directors and executives, list of absent directors, summary of the matters presented in the meeting, summary of the matters being discussed, opinions and observation of the directors, meeting resolutions, and the signatures of the minutes taker and the meeting chairman. Meeting minutes are completed within approximately 3 business days after meeting dates and sent to all directors for their consideration. Without request for revision within 7 days, the minutes are considered approved by the Board of Directors and then delivered to the meeting chairman for his signature. A copy of the signed meeting minutes is then delivered to each director for reference. The minutes will be added as an agenda for acknowledgement in the next Board of Directors meeting.

The Company deploys both paper-based and E-document systems to safekeep important documents such as those concerning Board of Directors' meetings and shareholder meetings, to assist the Company's operations and facilitate the usage. Storage sites are reported as required by the SEC. Proper and systematic security system is in place; for example, the identification of user access to each type of documents accordingly to the Company's confidential information management policy; the issuance of usernames; the limit on the number of meeting attendants; and the automatic backup system at Head Office and branches in case of emergencies.

- Dissemination of meeting resolutions: Chief Executive Officer as the secretary to the Board of Directors informs function chiefs in writing about the Board of Directors' resolutions for acknowledgement and/or implementation; as well as monitored and reported the progress to the Board of Directors.

7.3 Information on Sub-committees

The Board of Directors appointed 5 sub-committees which are the Audit Committee, the Human Resources and Remuneration Committee, the Corporate Governance and Social Responsibility Committee, the Investment Committee and the Risk Management Committee, taking into account the suitability and necessity in helping digest and consider specific information as well as enhance the Board of Directors' efficiency.

Details of sub-committees

1. Audit Committee

The Audit Committee is appointed by the Board of Directors. The members' term is 3 years and they can hold the position no more than 6 consecutive years. The members must possess knowledge, experience and qualifications as required by the SEC and the SET's regulations. Its duties and responsibilities are as follows:

- Audit financial reports; ensure the accuracy of material issues and compliance with financial reporting standards in consultation with the auditor; and give opinions on the sufficiency, suitability and effectiveness of internal control, concerning the preparation of financial reports.
- Ensure the Company has appropriate and effective internal control system that covers Information Technology and the internal audit system.
- Ensure the Company's compliance with the Securities and Exchange Act, the SET's rules and regulations, relevant laws, the Company's regulations,

policies including anti-corruption policy, governance practices and the Code of Conduct.

- Consider the selection, nomination and termination of the employment of an independent person as the Company's auditor and propose the remuneration for such person. The auditor must be certified by the Office of the SEC.
- Review connected transactions or transactions that may have conflict of interest based on laws and the SET's rules and regulations, to make sure the transactions are appropriate and for the Company's maximum benefits.
- Review and endorse significant amendments to the Company's accounting policies, before submission to the Board of Directors for final approval.
- Prepare the Audit Committee's report with opinions on related matters and the Chairman's signature, for inclusion in the Annual Report/Form 56-1 One Report.
- Review the Internal Audit Division's performance in terms of scope of responsibility; annual audit plan; budget; appointment, transfer and termination of the Head of Internal Audit Division; the reporting on internal audit and its independence.
- Review the audit criteria and process to suit business environment on a regular basis.
- Summarize the Audit Committee's actions for the Board of Directors' acknowledgement.
- Report the transactions or acts that may have significant impacts on the Company's financial status or operational performance to the Board of Directors in order to correct them within the time frame deemed appropriate by the Audit Committee.
- Examine the auditor's report on possible malpractices as described in the Securities and

Exchange Act involving directors, executives or the Company's employees, and report initial investigation results to the Office of the SEC and the auditor.

- Continuously review, monitor and the report the management of significant risks to the Board of Directors.

- Conduct the Audit Committee's annual performance assessment and report the result to the Board of Directors.

- Review the Company's regulations of the Audit Committee on an annual basis.

- Consider and approve the Company's orders on internal audit.

Investors can study the Audit Committee's duties and responsibilities in the Company's Regulations of the Audit Committee, published on the Company's website.

As of 31 December 2021, the Audit Committee comprised Mr. Chartchai Rojanaratanangkule, Chairman of the Audit Committee; Mr. Boonsong Kerdklang; and Mr. Somboon Nhookeaw, as audit Committee Members. All the three members are independent directors. Mr. Chartchai Rojanaratanangkule has the knowledge and ability in auditing the Company's operations including financial statements. Miss Kamolkarn Hirviman, Vice President - Head of Internal Audit Division, serves as the committee's secretary.

2. Human Resources and Remuneration Committee

The Human Resources and Remuneration Committee is appointed by the Board of Directors, with the 3-year term. Its duties and responsibilities are as follows:

Human Resources Recruitment

- Define the vision and strategy on human resources management and talent management for the Group.

- Define the vision and strategy on human resources management and talent management for the Group.

- Set a clear, transparent, appropriate and supportive policy, criteria and procedure in nominating, dismissing or terminating directors and high level executives for the Board of Directors' approval so that the Group has the persons with appropriate qualifications, knowledge and experiences who can efficiently lead the Group towards success.

- Select and nominate qualified persons for the Group's director and high-level executive positions.

- Prepare the succession plan for key executive positions which must be reviewed constantly, taking into account the importance of the positions; and the development system so that the successors attain the right knowledge, competency, experience and other qualifications that will benefit the Group's expansion efficiently and effectively.

Remuneration Setting

- Set the Group's remuneration policy and strategy concerning salary, meeting allowance, per diem, bonus or other benefits as well as Directors' and high-level executives' remuneration and other benefits for the Board of Directors' approval. The criteria shall be clear, transparent and appropriately corresponding with the scope of responsibility and performance, to attract, retain and motivate potential people with desired qualifications.

- Determine effective guidelines, criteria, procedures and process for the assessment of the Group's Board of Directors and high level executives' performance, by benchmarking it against the annual targets based on business objectives and mutually agreed in advance. Annual remunerations are based on the performance, responsibility and involved risks. An increase in shareholders' equity in the long term is an assessment factor.

- Disclose the remuneration policy as well as the remuneration amounts paid to Directors and high-level executives in the Annual Report.

Investors can find more information on the Human Resources and Remuneration Committee's duties and responsibilities in the Company's regulations of the Human Resources and Remuneration published on the Company's website.

As of 31 December 2021, the Human Resources and Remuneration Committee comprised Mr. Apichart Chinwanno, as the Committee's Chairman; and two members - Miss Nantika Thangsuphanich and Mr. Kriengkrai Rukkulchon. Mr. Nawapol Disathien, Executive Vice President - Corporate Administration, serves as the Committee's secretary.

3. Corporate Governance and Social Responsibility Committee

The Corporate Governance and Social Responsibility Committee is appointed by the Board of Directors with a 3-year term. Its duties and responsibilities are as follows:

- Review and endorse the policy, strategy, targets, guidelines and work plan regarding the Company's corporate governance and social responsibility.
- Promote the engagement of the Board of Directors, executives and employees in the Company's CSR activities.

- Ensure the alignment of the Company's practices with corporate governance and social responsibility policy and relevant regulations.

- Monitor the policy implementation and submit regular reports on the results to the Board of Directors.

- Review and propose the Board of Directors the amendments to the policy and guidelines on corporate and social responsibility as deemed appropriate on a continuous basis, benchmarking against leading companies' practices and the current trends.

Investors can find more information on the Corporate Governance and Social Responsibility Committee's duties and responsibilities in the Company's regulations of the Corporate Governance and Social Responsibility Committee published on the Company's website.

As of 31 December 2021, the Corporate Governance and Social Responsibility Committee consisted of Mr. Apichart Chinwanno, as the Committee's Chairman; and another member - Mr. Chartchai Rojanaratanangkule. Mr. Nawapol Disathien, Executive Vice President - Corporate Administration, serves as the Committee's secretary.

4. Investment Committee

The Investment Committee is appointed by the Board of Directors with a 3-year term. Its duties and responsibilities are as follows:

- Define investment strategy, targets, the investment plan, budgets, return on investment and other benefits from the projects earmarked to increase the Company's capacity and prosperity.
- Review and scrutinize the Management's investment proposals to ensure that they are consistent with the investment policy and targets, taking into account cost-effective investment return and the ability to keep relevant risk factors within risk appetite.

- Examine, follow up and evaluate the approved investment projects as well as keep the Board of Directors informed.

Investors can find more information on the Investment Committee's duties and responsibilities in the Company's regulations of the Investment Committee published on the Company's website.

As of 31 December 2021, the Investment Committee comprised Mr. Boonyanit Wongrukmit, as the Chairman of the committee; and 3 members – Mr. Suthon Boonprasong, Miss Niramarn Laisathit and Mr. Prasertsak Chongchawano. Mr. Sakarin Tangkavachiranon, Chief Business Development Officer, serves as the Committee's secretary.

5. Risk Management Committee

The Risk Management Committee is appointed by the Board of Directors, with a 3-year term. Its duties and responsibilities are as follows:

- Screen the Company's risk management policy and framework for the Board of Directors' approval, ensuring the process covers significant risks such as financial risks, investment risks and risks on corporate reputation.
- Formulate the risk management strategy and management guidelines in line with the Company's risk management policy, so that the risks can be assessed, monitored and kept at an acceptable level.
- Monitor and ensure compliance with the risk management policy, with the implementation of activities in line with the policy and guidelines approved by the Board of Directors.
- Determine the risk assessment criteria and risk appetite.

- Devise risk management measures for changing circumstances.

- Review the sufficiency of risk management policy and management system including the effectiveness of the system and compliance.

- Submit regular reports to the Board of Directors about the performance and risk status as well as changes and areas of improvement to align risk management with the Company's policy and strategy.

- Establish the Risk Management Working Group as deemed necessary, and support the team in terms of personnel, budget and other necessary resources in line with its scope of responsibility.

Investors can find more information on the Risk Management Committee's duties and responsibilities in the Company's regulations of the Risk Management Committee published on the Company's website.

As of 31 December 2021, the Risk Management Committee consisted of Miss Nantika Thangsuphanich, as the Chairperson of the Committee; and 2 members – Mr. Suthon Boonprasong and Mr. Ratanachai Namwong. Mr. Pairat Janjungjit, Vice President – Head of Corporate Planning and Systems Development Division, served as the Committee's secretary.

7.4 Information on Executives

High level executives are appointed by the Board of Directors based on the selection process detailed in the topic Nomination of Directors and Executives.

Executives' names and positions

As of 31 December 2021, RATCH's executives are:

Executive	Position
1. Miss Choosri Kietkajornkul	Chief Executive Officer (Top executive)
2. Mr. Sakarin Tangkavachiranon	Chief Business Development Officer
3. Mr. Boonchai Jaranworaphan	Chief Project Development Officer
4. Mr. Nimit Lekcharoensuk	Chief Asset Management Officer
5. Mrs. Wadeerat Charoencoop	Chief Financial Officer (Top Responsible Person in Accounting and Finance)
6. Mr. Nawapol Disathien	Executive Vice President - Corporate Administration
7. Miss Suwannee Sirisajjawat	Senior Vice President - Head of General Accounting Division (Directly Responsible Person for Accounting Supervision)
8. Miss Phavika Smanratana	Vice President - Head of Financial Planning and Management Division
9. Miss Titiporn Komsartra	Vice President - Head of Accounting Control and Analysis Division
10. Miss Puthachard Smitamegha	Vice President - Head of Tax Management and General Ledger Division

Note: Executives #1-5 and #7-10 meet the SEC's definitions in Notifications relating to Issuance and Offer for Sale of Securities.

RATCH appointed the following executives to replace the retiring ones, effective on 1 January 2022.

Executive	Position
1. Mr. Thana Boonyasirikul	Chief Asset Management Officer (replacing Mr. Nimit Lekcharoensuk)
2. Miss Suwannee Sirisajjawat	Acting Executive Vice President – Financial (Directly Responsible Person for Accounting Supervision)

Note: Executives #1-2 meet the SEC's definitions in Notifications relating to Issuance and Offer for Sale of Securities.

As of 31 December 2021, the Management of Ratchaburi Electricity Generating Company Limited, a core-business subsidiary, consisted of:

Executive	Position
1. Mr. Thana Boonyasirikul	Managing Director (Top executive)
2. Mr. Payat Chinvil	Deputy Managing Director
3. Ms. Tatsawan Na-Bangchang	Director - Operating Division
4. Mr. Khemachart Sathittantiwech	Senior Director - Corporate Relations Division
5. Mrs. Patcharaporn Maleevan	Senior Director - Administration & Finance Division

Note: Executives #1-5 meet the SEC's definitions in Notifications relating to Issuance and Offer for Sale of Securities.

From 1 January 2022 onwards, Mr. Jatuporn Soparaksa will be appointed as Ratchaburi Electricity Generating Company Limited's Managing Director, to replace Mr. Thana Boonyasirikul. The appointment was in line with RATCH Group's executive rotation.

More details of executives appear in Item: "Details on Directors, Executives, Controlling Persons and Chief accounting/finance officers, Responsible persons for accounting, Company Secretary and Coordinators of overseas companies". (Appendix 1)

Remuneration of executive directors and executives

The Human Resources and Remuneration Committee is assigned to prepare the director's remuneration and submit the proposal to the Board of Directors, which will forward the matter to the shareholders' annual general meeting for approval. The type, rate and criteria of remuneration is based on the financial results, performance, responsibility, and comparable to the peers. The remuneration is also meant to attract and retain talent individuals with the right knowledge and capability in driving the organization towards success and long-term goals of the Company and shareholders.

Meanwhile, the remuneration of executives and employees concerns a pay increase and annual bonus payment, based on individual performance, responsibility and ability to support the division and the organization, respectively. The criteria also take into account the

country's economic condition and outlook and the rates paid out by the business in the same industry and of the same size, to maintain and attract talent that will drive the Company towards sustainable growth.

Performance evaluation: The Company requires the Board of Directors' and sub-committee's self-assessment in December of each year, on an individual basis and in a group format, on various dimensions such as directors' preparedness, the Board of Directors' meetings and the Board of Directors' duties and responsibilities.

The evaluation of the top executive, or Chief Executive Officer, is carried out in June and December of each year by each director. They fill up the evaluation form pre-designed accordingly to 2 assessment criteria - execution of the Company's plans as approved by the Board of Directors (70 percent weight) and capabilities (30 percent weight).

The Human Resources and Remuneration Committee submitted the Board of Directors' and sub-committees' self-assessment along with the result of Chief Executive Officer's evaluation. They will support further improvement on efficiency and alignment with the effectiveness enhancement of the Board of Directors and the Management under good corporate governance principles for listed companies. The consideration on executives' remuneration is also based on the evaluation results.

Remuneration of executive directors and directors paid by the Company and subsidiary against the Group's total remuneration

The remuneration of executives serving of the Company and core-business subsidiary in 2021 are as follows:

Remuneration of executives of the Company

Remuneration	Number of executives	Amount (million baht)
Salary	5	29.040
Bonus	5	17.360
Contribution to Provident Fund	5	2.004
Total	5	48.404

Note: – Executives' remuneration means the remuneration for Chief Executive Officer and the first four executives after Chief Executive Officer, according to the definition stated in the Capital Market Supervisory Board's Announcement No. Tor Chor. 44/2556.

Executive Remuneration of Ratchaburi Electricity Generating Company Limited, a core-business subsidiary

Remuneration	Number of executives	Amount (million baht)
Salary	3	6.642
Bonus	3	2.673
Contribution to Provident Fund	3	0.664
Total	3	9.979

Note: Executives' remuneration means the remuneration for Chief Executive Officer and the first four executives after Chief Executive Officer, according to the definition stated in the Capital Market Supervisory Board's Announcement No. Tor Chor. 44/2556.

7.5 Information on Employees

Employees are the Company's core driving force in its bid to achieve targets and sustainable growth. The Company's employee policy therefore entails the recruitment, management and development, the improvement of quality of life, job contentment and engagement. Taken into consideration is the social, environmental and ethical circumstances as well as the anti-fraud and corruption.

In 2021, there was no significant change in the number of employees. At the end of the year, the number of employees increased by 5 to 215, compared to 2020.

There was neither significant labor dispute nor collective bargaining as the Company has no labor union.

- Number of employees by function

Number of employees by function as of 31 December 2021 is as follows:

(Unit: persons)

Sorted by function	Gender		Employment		Executive	Total
	Male	Female	Employee	Worker		
1. Business Development	26	12	35	-	3	38
2. Project Development	20	6	24	-	2	26
3. Asset Management	26	12	35	-	3	38
4. Finance	9	31	39	-	1	40
5. Corporate Administration	23	24	46	-	1	47
6. Chief Executive Officer	4	22	25	-	1	26
Total						215

Note: Executives are employees at Vice President level or higher.

Ratchaburi Electricity Generating Company Limited has a total of 54 employees as follows:

Sorted by function	Number of employees
1. Accounting and Finance	6
2. Technical and Engineering	17
3. Service	20
4. Corporate Communications	11
Total	54

Remuneration of Employees

Policy and Criteria on Employees' Remuneration and Welfare

Policy and Criteria

The Company has the policy and criteria to provide employees with fair remuneration, in line with their positions, job descriptions, responsibilities and the Company's performance in short and long terms. Remunerations are set accordingly to the importance of jobs, national economic condition, and average remuneration offered in the labor market and companies in the same business. Remuneration and welfare consideration include employee annual performance and the performance of the Company and stakeholders, to be fair and incentivize employees. The Company annually surveys average market pays and uses the results as the basis for adjusting the pay structure. The adjustment takes place every 3 years to keep the Company's pays at a reasonable and competitive level, under the process approved by the Board of Directors, the Human Resources and Remuneration Committee and the Personnel Management Committee.

The Company's remuneration includes cash forms such as salary, over time and bonus as well as non-cash forms like welfare.

Employee Welfare

To ensure that employees enjoy quality of life and ably perform at their full capability, the Company provides minimum welfare as required by law and add on the list with other benefits beyond legal requirements. Additional welfare includes assistance in case of disasters, life and accident insurance, medical service, annual health check-up, dental services, eyesight check, vaccination, emergency loan, financial support in case of death, home loans, financial assistance on baby delivery and provident fund. Concerning provident fund, employees have the right to join the “Electricity Generating Authority of Thailand Employees Provident Fund” and can choose the proportion of employee contribution within the range of 5-15 percent of their salary, while the Company contributes 5 percent, 7 percent or 10 percent depending on employees’ years of service. Under the “Employee’s Choice”, employees can adjust the investment plan to match individual needs.

Employee Remuneration in 2021

Employees’ remuneration of the Company

Remuneration	Number of employees	Amount (Million Baht)
Salary	210	238.000
Bonus	210	104.054
Contribution to Provident Fund	210	21.148
Total		363.202

Note: Employees’ remuneration excludes the payments to the top 4 executives according to the definition of executives on Capital Market Regulatory Commission’s Announcement No. Tor Chor. 44/2556.

Employees’ remuneration of Ratchaburi Electricity Generating Company Limited

Remuneration	Number of employees	Amount (Million Baht)
Salary	51	37.114
Bonus	51	19.148
Contribution to Provident Fund	51	3.293
Total	51	59.555

Human Resource Development

Due to the intensifying COVID-19 infection rates in 2021, the Company introduced the Work From Home policy for greater operational flexibility. Work schedules were arranged for those working at the Head Office, with primary concerns in their health. Digital technology was utilized as the main channel for internal communications and human resource development. Online trainings were organized through Zoom and Microsoft Teams applications. Microsoft Teams application also served Knowledge Sharing activities and facilitated communications between executives with employees. In the year, the Company’s campaign against fraud and corruption remained active with electronic media and online assessment on employees’ knowledge about fraud and corruption, to raise employee awareness in the Company’s anti-fraud and corruption principles.

The Company also proceeded with its campaign for environmental and energy conservation in 2021. Training courses were organized to bolster employee awareness in the value of the environment and energy as well as vivid impacts on energy consumption. Aside from the awareness, the employees could apply the knowledge on environmental and energy conservation in their daily life.

Internal training courses in 2021 are as follows:

Type of course	Courses organized in 2020	Attendees	Training hours
Job-based courses	Business negotiation	Manager-level operators	6
Courses to support corporate policies	Work-related governance, corporate governance and Anti-Corruption	Operators at all levels	5-minute clip
	Safety, occupational health and work environment	Newly-recruited employees	6
	Safety Officer - Executive Level	Vice presidents and high level executives	12
	Safety Officer - Supervisor Level	Manager-level operators	12
	Raising environmental awareness	Operators at all levels	2
	Building awareness in energy saving	Operators at all levels	2
	Legal knowledge on PDPA (Personal Data Protection Act)	RATCH's Personal Data Protection Working Committee	3
Other skill-enhancement courses	Guidelines for Foreign Power Project Investment	Relevant job operators	18
	Basic Power Plant for Non-Engineer	Relevant job operators	12
	Professional presentation	Operators at all levels	12
	Communications for relationship building and corporate image communications	Operations employees	6

Aside from internal training, executives and employees were selected for external training programs to build networks and exchange knowledge and experience with participants from other organizations, public and private. The following programs were considered a tool to enhance executives' capabilities.

1. King Prajadhipok's Institute	1 course	1 representative
2. Fiscal Policy Research Institute Foundation	1 course	1 representative

In 2021, 89 percent of all employees, in executive and operational levels, attended internal trainings and external courses organized by local and foreign organizations. The average training hours/person of each group are summarized as follows:

Target	Average training hours (hours/person/year)
High-level executives	6.64
Mid-level executives	20.04
Primary-level executives	20.47
Employees	19.57

7.6 Other significant information

- Company Secretary and Head of Compliance Department

Company Secretary: Appointed by the Board of Directors to provide initial advice to the Management and the Board of Directors, to ensure their compliance with laws and relevant requirements that include the disclosure of asset acquisition or disposal and connected transactions as well as governance best practices.

Company Secretary also plays an important role in promoting good corporate governance by supporting Directors and Chief Executive Officer in performing their duties and taking responsibility for corporate governance activities through Compliance Department under the Company Secretary Office.

Miss Wanphen Chamkham, Vice President - Head of Company Secretary Office, was appointed by the Board of Directors at the 14/2018 meeting dated 24 December 2018 as the Company Secretary since 1 January 2019. The profile of Company Secretary and Compliance Department Head appeared in Item: "Details on Directors, Executives, Controlling Persons and Chief accounting/finance officers, Responsible persons for accounting, Company Secretary and Coordinators of overseas companies". (Appendix 1)

Head of Investor Relations and contact information

Ms. Ananda Muthitacharoen, Senior Manager-Head of Investor Relations Department. Contacting Investor Relations can be done by sending documents by post to the address of the Company, by Telephone number:

0 2794 9841, by Fax number: 0 2794 9888 ext. 9841, by the Company's website, and by Electronic mail: IR@ratch.co.th

Audit fee and other expenses in 2021

The audit fee of the Company and subsidiaries namely Ratchaburi Electricity Generating Company Limited, Ratchaburi Energy Company Limited, Ratchaburi Alliances Company Limited, RH International Corporation Limited, RATCH-Lao Services Company Limited, RATCH O&M Company Limited, RE Solar 1 Company Limited, and RATCH Cogeneration Company Limited, in the previous accounting year was valued at Baht 3,860,000 (excluding out-of-pocket cost of Baht 165,000 and the examination fee of compliance with an investment promotion certificate worth Baht 70,000). Out of total, the Company's audit fee accounted for Baht 1,900,000 (excluding out-of-pocket cost of Baht 50,000) while the audit fee for subsidiaries, shouldered by the subsidiaries, totaled Baht 1,960,000 (excluding out-of-pocket cost of Baht 115,000 and the examination fee of compliance with an investment promotion certificate worth Baht 70,000).

In the year, the Company awarded a consulting contract to a business unit of the audit company to which the auditor works for, for a special project. The Baht 13,477,366 consulting fee was booked in the year.

The contract that involved the auditor's employer for a service other than auditing incurred no conflict of interest. The auditor did not audit the contract, hence maintaining independence and neutrality in performing the auditing task.

8. Reports on key corporate governance performance

Board of Directors' performance summary

Nomination, development and assessment of the Board of Directors

1. Independent directors

In 2021, the Company selected and nominated independent directors according to the prescribed process and definition of "Independent Directors" as specified in the topic "Policy and Guidelines on the Board of Directors."

As of 31 December 2021, the Company had 6 independent directors who met the defined qualifications, from a total of 12 directors (or 50 percent), in line with the Capital Market Advisory Board's requirement that independent directors shall constitute at least one third of all directors and no fewer than 3 persons: Mr. Chartchai Rojanaratanangkule, Mr. Apichart Chinwanno, Mr. Boonsong Kerdklang, Mr. Somboon Nhookeaw, Mr. Kriengkrai Rukkulchon and Mr. Ratanachai Namwong. In the previous accounting year, none of independent directors had business relationship with the Company.

2. Selection of directors and high level executives

The policy and guidelines concerning the selection of directors and high level executives appear in the topic "Corporate Governance." In 2021, the Company reported the following changes in the Board of Directors and the Chief Executive Officer, the Management's Chief.

April 6 April 2021

- Mr. Samack Chouvaparnante vacated his positions as an independent director position and chairman of Risk Management Committee as his tenure was expired at the 2021 Annual General Meeting.
- Mr. Ratanachai Namwong was appointed an independent director at the 2021 Annual General Meeting and a member of the Risk Management Committee.
- Miss Nanthika Thangsuphanich, a director and a member of the Risk Management Committee, was appointed the chairperson the Risk Management Committee.

July 20 July 2021

- Mr. Nutthavutthi Chamchang resigned as a director and a member of the Investment Committee.
- Miss Choosri Kietkajornkul was appointed a director and a member of the Investment Committee.

October 1 October 2021

- Mr. Kijja Sripatthangkura resigned as a director and his Chief Executive Officer title was expired following his retirement.
- Miss Choosri Kietkajornkul, a director and a member of the Investment Committee, was appointed Chief Executive Officer. She no longer served as a member of the Investment Committee.
- Mr. Prasertsak Cherngchawano was appointed a director and a member of the Investment Committee.

The Board of Directors consisted of directors with knowledge and expertise as specified in the Board Skills Matrix as of 31 December 2021.

- **Experience in business and/or industry** (electricity/energy business and/or infrastructure business): 9 directors from the specification of at least 3: 1) Mr. Boonyanit Wongrukmit 2) Mr. Chartchai Rojanaratanangkule 3) Miss Nantika Thangsuphanich 4) Mr. Boonsong Kerdklang 5) Mr. Somboon Nhookeaw 6) Mr. Suthon Boonprasong 7) Mr. Ratanachai Namwong 8) Mr. Prasertsak Cherngchawano and 9) Miss Choosri Kietkajornkul.

- **Qualifications, skills, knowledge and experiences in related areas:**

- Legal: 2 from the specification of at least 1: 1) Mr. Kriengkrai Rukkulchon and 2) Suthon Boonprasong.
- Accounting/Finance: 3 from the specification of at least 1: 1) Mr. Chartchai Rojanaratanangkule 2) Miss Niramarn Laisathit and 3) Miss Choosri Kietkajornkul.

The Company directors who are included in the Ministry of Finance's state enterprises board of directors listings are Mr. Boonyanit Wongrukmit, Miss Nantika Thangsuphanich, Mr. Somboon Nhookeaw, Mr. Suthon Boonprasong, Mr. Prasertsak Cherngchawano and Miss Choosri Kietkajornkul.

3. Development of directors and executives

Directors' attendance in director training and development courses in 2021 and the previous years that appear in the profiles of individual directors.

Aside from the director training and development courses, directors attended other courses to enhance their knowledge and experience, summarized below:

1. Three newly-appointed directors (Mr. Ratanachai Namwong, Miss Choosri Kietkajornkul and Mr. Prasertsak Cherngchawano) attended the Company's orientation. They were briefed on the Group's nature of business, operational information, strategies, and business direction. The orientation took place at the Board of Directors meeting when a new director is

appointed to the Board. The new directors were handed documents and manuals to support their role.

2. All 12 incumbent directors joined a meeting to strengthen relationship among directors, executives and job operators on 21 December 2021 at Rajpruek Club, Bangkok, aside from informal meetings in a smaller group.

3. The Board of Directors acknowledged and understood the notifications, rules, regulations, guidelines and circulars - newly-issued and revised - of the SEC, the SET and the Company on a regular basis through communications channels such as Board of Directors meetings, summary reports, video clips and others. The Board of Directors used the information as the guideline to adjust the Company's practices accordingly to regulatory rules and regulations and find ways for sustainable development.

Development of executives and employees

The Company encouraged executives and relevant employees to seek in-house trainings, external trainings, online trainings relating to the Company Secretary, corporate governance, internal audit, anti-fraud and corruption practices, risk management and relevant courses organized by various institutions. The training is expected to bolster their understanding in their roles so that they can more efficiently assist the Board of Directors, sub-committees and the Management.

Details of high level executives' individual development appear in their profiles in Appendix 1-2

4. Assessment of director performance

- **Self-assessment of the Board of Directors and sub-committees**

The results of the Board of Directors' and sub-committees' self-assessment in 2021, compared to 2020, are summarized below:

Board of Directors	Whole assessment				Individual assessment			
	Score (100 points)		Level		Score (60 points)		Level	
	2021	2020	2021	2020	2021	2020	2021	2020
Board of Directors	96.83	97.67	Excellent	Excellent	58.41	58.67	Excellent	Excellent

Sub-committees	Whole assessment				Individual assessment			
	Score (80 points)		Level		Score (40 points)		Level	
	2021	2020	2021	2020	2021	2020	2021	2020
1. Audit Committee	78.33	76.70	Excellent	Excellent	39.00	37.70	Excellent	Excellent
2. Human Resources and Remuneration Committee	79.33	79.00	Excellent	Excellent	40.00	39.67	Excellent	Excellent
3. Corporate Governance and Social Responsibility Committee	78.50	78.30	Excellent	Excellent	39.50	39.00	Excellent	Excellent
4. Investment Committee	78.33	79.30	Excellent	Excellent	39.66	40.00	Excellent	Excellent
5. Risk Management Committee	79.33	78.50	Excellent	Excellent	40.00	39.70	Excellent	Excellent

The results will be the basis for the Company's further improvement in the Board of Directors and sub-committees' efficiency as well as individual director development, for the alignment with the Corporate Governance Policy.

- **High-level executives' performance assessment**

The Board of Directors, supported by the screening from the Human Resources and Remuneration Committee, conducts an annual assessment of high level executives' performance, based on the Key Performance Indicator (KPI) that were mutually agreed upon early of each year.

In 2021, the performance of Chief Executive Officer, the top executive, was assessed biannually, in June and December, by individual directors according to the form and pre-set criteria. The criteria covered 2 aspects: 1) performance against corporate targets (as approved by the Board of Directors with 70 percent weight) in quantitative and qualitative terms concerning Capacity Target Including Equivalent Capacity, New Business or Start Up Project, Net Profit Before FX and Special Items, Financial Ratio management, Sustainability Awards Score, High Performance Organization and Engagement in raising enterprise value or supporting corporate goals; and 2) competency (30 percent weight) concerning leadership, formulation and compliance with strategy; financial planning and management, relationship building and networking, understanding in business, and personal character traits.

The assessment results were used in improving Chief Executive Officer's performance, to be in line with the director and executive effectiveness development principles under the Company's business context and corporate governance principles. The results were also factored in the determining of Chief Executive Officer's remuneration.

5. Succession plan for high-level executives

The succession plan for the Chief Executive Officer follows the policy of EGAT, the Company's major shareholder. EGAT selects its executive who has appropriate qualifications, knowledge and capability beneficial to the Company and nominates the person for the screening and nomination to the Board of Directors by the Human Resources and Remuneration Committee, which is tasked to prepare the succession plan for high level executive positions.

Regarding the succession plans for other executive positions, the Company has prepared and developed career path of individual position as guided by the systematically-developed competency model. The model covers the analysis of competency and expected qualifications for different positions, to guide the Company on human resource development and nomination of qualified persons. The results will assist the planned promotion, demotion, dismissal, transfer and prepare personnel for current and future business expansion as outlined in the Company's vision and mission.

In 2021, the Human Resources and Remuneration Committee held a joint discussion with the Management on the appointment of potential and qualified replacements for vacant positions. The decision took into account factors: experience, performance, knowledge and understanding in business, leadership, personality, enthusiasm, relationship and teamwork spirit, in line with the process and plan of successor and talents selection to match the annual retirement of the Company executives, working in Thailand and abroad.

Individual director meeting attendance and remuneration

• Meeting attendance

In 2021, the Board of Directors convened physical meetings at meeting venues, electronic meetings and hybrid meetings. The meetings of the Board of Directors and sub-committees are summarized below:

- The Board of Directors convened 13 meetings (4 physical meetings, 8 electronic meetings, and 1 hybrid meetings). At the 13/2021 meeting, only non-executive directors were present prior to the Board of Directors' meeting.
- The Audit Committee convened 8 meetings (2 physical meetings, 6 electronic meetings). There was one meeting with the auditor without the presence of executives at 7/2021 meeting.
- The Human Resources and Remuneration Committee convened 9 meetings (5 physical meetings, 4 electronic meetings).
- The Risk Management Committee convened 5 meetings (2 physical meetings, 1 electronic meetings, and 2 hybrid meetings).
- The Corporate Governance and Social Responsibility Committee convened 4 meetings (2 physical meetings, 2 electronic meetings).
- The Investment Committee convened 12 meetings (3 physical meetings, 9 electronic meetings).
- The Audit Committee and the Risk Management Committee held 3 joint meetings (1 physical meeting 1 electronic meeting and 1 hybrid meeting).

Individual directors' meeting attendance

Director	Board of Directors				Shareholders' meeting			% of Board of Directors meeting attendance	% of attendance at shareholders' meeting	Audit Committee				Human Resources and Remuneration Committee				Corporate Governance and Social Responsibility Committee				Investment Committee				Risk Management Committee				Audit Committee and Risk Management Committee			
	Physical	e-Meeting	Hybrid	Total	"AGM" (Physical)	"EGM" (e-Meeting)	Total			Physical	e-Meeting	Hybrid	Total	Physical	e-Meeting	Hybrid	Total	Physical	e-Meeting	Hybrid	Total	Physical	e-Meeting	Hybrid	Total	Physical	e-Meeting	Hybrid	Total	Physical	e-Meeting	Hybrid	Total
1. Mr. Boonyanit Wongrukmit	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00					3/3	9/9	-	12/12													1/1	1/1	1/1	3/3
2. Mr. Chartchai Rojanatanangkule	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00	2/2	6/6	-	8/8					2/2	2/2	-	4/4												
3. Mr. Apichart Chinwanno	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00	5/5	4/4	-	9/9	2/2	2/2	-	4/4																
4. Miss Nantika Thangsuphanich	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00	5/5	4/4	-	9/9					2/2	1/1	2/2	5/5	1/1	1/1	1/1	3/3								
5. Mr. Boonsong Kerdklang	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00	2/2	6/6	-	8/8																	1/1	1/1	1/1	3/3
6. Mr. Somboon Nhookeaw	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00	2/2	6/6	-	8/8																	1/1	1/1	1/1	3/3
7. Mr. Kriengkrai Rukkulchon	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00					5/5	4/4	-	9/9																
8. Mr. Suthon Boonprasong	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00									3/3	9/9	-	12/12	2/2	1/1	2/2	5/5	1/1	1/1	1/1	3/3				
9. Miss Niramarn Laisathit	4/4	8/8	1/1	13/13	1/1	1/1	2/2	100.00	100.00									3/3	9/9	-	12/12												
10. Mr. Prasertsak Chengchawano	1/1	1/1	3/3	-	-	1/1	1/1	100.00	100.00									-	1/1	-	1/1												
11. Mr. Ratanachai Namwong	1/1	8/8	1/1	10/10	-	1/1	1/1	100.00	100.00													1/1	1/1	2/2	4/4	1/1	1/1	1/1	3/3				
12. Miss Choosri Kietkajornkul	1/1	5/5	1/1	7/7	-	1/1	1/1	100.00	100.00									-	2/2	-	2/2												
13. Mr. Samack Chouvaparnante	2/2	-	-	2/2	1/1	-	1/1	100.00	100.00													1/1	-	-	1/1								
14. Mr. Nutthavutthi Chamchang	3/3	3/3	-	6/6	1/1	-	1/1	100.00	100.00													3/3	6/6	-	9/9								
15. Mr. Kijja Sripattangkura	3/3	7/7	-	10/10	1/1	-	1/1	100.00	100.00																								
Total (average)								100.00	100.00																								

⁽¹⁾ Figure before/ = No. of meetings attended⁽²⁾ Figure after/ = No. of meetings during directors' tenure⁽³⁾ % of Board of Directors meeting attendance is based only on the meetings organized when the directors are in office.⁽⁴⁾ Physical = meeting that attendants are present at meeting venues.⁽⁵⁾ e-meeting = meeting that is attended via electronic media⁽⁶⁾ Hybrid = the combination of physical meetings and e-meetings.⁽⁷⁾ Changes in Board of Directors and sub-committees during 2021 appeared in the topic Nomination of Directors and Executives

Directors shall dutifully attend the Board of Directors meetings, unless being tied up with urgent or crucial business. In that case, they may skip meetings. Nevertheless, directors may express their opinions on the agenda delivered prior to the meeting date. In 2021, all directors' attendance to the Board of Directors meetings was not lower than 75 percent of all meetings during the year. The average attendance of the Board of Directors meetings was 100 percent.

All directors attended the shareholders' 2021 Annual General Meeting and the 1/2021 Extraordinary General Meeting. The average attendance was 100 percent.

Directors' remuneration

Unit: Baht

Director	Board of Directors	Audit Committee	Human Resources and Remuneration Committee	Corporate Governance and Social Responsibility Committee	Investment Committee	Risk Management Committee	Audit Committee and Risk Management Committee	Director bonus in 2020 ¹	Remuneration as a director of a subsidiary	Total
1. Mr. Boonyanit Wongrukmit ^{2,3}	600,000.00				384,000.00			1,264,110.00		2,248,110.00
2. Mr. Chartchai Rojanaratanangkule ^{3,4,5}	480,000.00	240,000.00		102,000.00			90,000.00	1,200,000.00		2,112,000.00
3. Mr. Apichart Chinwanno ^{3,5}	480,000.00		270,000.00	114,000.00				1,200,000.00		2,064,000.00
4. Miss Nantika Thangsuphanich ^{3,4}	480,000.00		216,000.00			144,000.00	90,000.00	1,200,000.00		2,130,000.00
5. Mr. Boonsong Kerdklang ^{4,5}	480,000.00	192,000.00					72,000.00	1,200,000.00		1,944,000.00
6. Mr. Somboon Nhookeaw ^{4,5}	480,000.00	192,000.00					72,000.00	1,200,000.00		1,944,000.00
7. Mr. Kriengkrai Rukkulchon ^{4,5}	480,000.00		216,000.00					572,050.00		1,268,050.00
8. Mr. Suthon Boonprasong ⁴	480,000.00				288,000.00	192,000.00		243,290.00		1,203,290.00
9. Miss Niramam Laisathit	480,000.00				288,000.00			46,030.00		814,030.00
10. Mr. Prasertsak Chermgchawano ⁴	120,000.00				24,000.00					144,000.00
11. Mr. Ratanachai Namwong ^{4,5}	353,333.33				24,000.00	96,000.00	72,000.00	631,230.00		1,176,563.33
12. Miss Choosri Kietkajornkul ^{4,6}	95,483.87				48,000.00					143,483.87
13. Mr. Samack Chouvaparnante ^{3,5}	125,000.00					30,000.00		1,200,000.00		1,355,000.00
14. Mr. Nutthavutthi Chamchang ⁴	264,516.13				216,000.00			302,470.00		782,986.13
15. Mr. Kijja Sripattangkura ⁶										-
Total	5,398,333.33	624,000.00	702,000.00	216,000.00	1,272,000.00	462,000.00	396,000.00	10,259,180.00	-	19,329,513.33

Note: ¹ Director bonus for 2020 was paid in April 2021 upon the 2021 Annual General Meeting of Shareholders on 5 April 2021.

² Chairman of Board of Directors

³ Chairman of sub-committee

⁴ Member of sub-committees

⁵ Independent directors

⁶ Executive director

Director remuneration of Ratchaburi Electricity Generating Company Limited, a core-business subsidiary

Unit: Baht

Director	Meeting allowance	2020 director bonus ^{/1}	Total
1. Mr. Paruhath Wongthanate	0.00	187,980.00	187,980.00
2. Mr. Boontawee Kangwankit	0.00	598,910.00	598,910.00
3. Mr. Roengchai Kongthong	0.00	397,810.00	397,810.00
4. Mr. Suthichai Chuprasertporn	288,000.00	155,190.00	443,190.00
5. Mr. Prasertsak Cherngchawano	288,000.00	155,190.00	443,190.00
6. Mrs. Ranee Kositvanich	96,000.00	0.00	96,000.00
7. Miss Jiraporn Sirikham	96,000.00	0.00	96,000.00
8. Mr. Kijja Sripatthangkura ^{/2}	0.00	0.00	0.00
9. Miss Choosri Kietkajornkul ^{/2}	0.00	0.00	0.00
10. Mr. Nimit Lekcharoensuk ^{/2}	0.00	0.00	0.00
11. Mr. Thana Boonyasirikul ^{/2}	0.00	0.00	0.00
Total	768,000.00	1,495,080.00	2,263,080.00

Note: ^{/1} Director bonus for 2020 was paid in March 2021 as approved at the Annual General Meeting on 25 March 2021

^{/2} Executive director

Supervision of subsidiaries and joint ventures

In 2021, the Company controlled subsidiaries and joint ventures accordingly to the Company's regulation on Subsidiaries, Affiliates and Joint Ventures Supervision B.E.2562. Details of the directors and executives of significant subsidiaries appear in Appendix 1-2

Supervision on compliance with corporate governance policy and guidelines

The Company places an emphasis on corporate governance. Relevant policies and guidelines have been set forth in the Corporate Governance Policy, the Code of Conduct, regulations and orders. All parties are encouraged to ensure the effectiveness to build confidence among all stakeholder groups.

In 2021, the Board of Directors monitored the Company's adherence with governance principles, through the Corporate Governance and Social Responsibility Committee, the Audit Committee and relevant working groups, to ensure effective compliance to the principles and the Code of Conduct and the comprehensive coverage from anti-corruption practices to compliance with laws, fair competition, treatment of stakeholders, safeguarding of the Company's information and property, human rights, information disclosure, safety, occupational health, work environment, etc. The Company is in compliance with the prescribed guidelines.

Aside, the Board of Directors monitored the compliance with governance principles and the Code of Conduct through sub-committees and relevant working groups. Key actions are as follows:

1. Prevention of conflict of interest

In the previous year, via the Audit Committee, the Board of Thailand monitored the compliance with laws, governance principles and the Code of Conduct regarding the prevention of conflict of interest. The monitoring result showed that the Company complied with laws and guidelines. Directors or shareholders with vested interest in any issue had no right to vote on the issue. None of directors or executives who had or may have had conflict of interest attended the Board of Director meeting and voted on the particular agenda.

2. Abuse of inside information

In the previous year, none of the Company's directors and executives was implicated in using inside information for their securities trading or faced charges on insider trading for their own or others' benefits.

No reports of breach or violation of human rights, intellectual property, computer crime laws and/or threat against the Company's computer network.

In 2021, the Company's directors and executives reported their shareholdings and changes as follows:

Directors' and Executives' Securities Holdings in the Company as at 31 December 2021 ^{/1}

Name		Position ^{/2}	RATCH Group Public Company Limited			
			Ordinary Shares			Shareholding Proportion (%)
			1 Jan 21 ^{/3}	31 Dec 21 ^{/4}	Changes During the Year Increase / (Decrease)	
Directors and Executives						
1.	Mr. Boonyanit Wongrukmit	Chairman	-	-	-	-
	Indirect securities holding		-	-	-	-
2.	Mr. Chartchai Rojanaratanangkule	Independent Director	5,000	5,000	-	0.00034
	Indirect securities holding		-	-	-	-
3.	Mr. Apichart Chinwanno	Independent Director	-	-	-	-
	Indirect securities holding		-	-	-	-
4.	Miss Nantika Thangsuphanich	Director	-	-	-	-
	Indirect securities holding		-	-	-	-
5.	Mr. Boonsong Kerdklang	Independent Director	-	-	-	-
	Indirect securities holding		-	-	-	-
6.	Mr. Somboon Nhookeaw	Independent Director	-	-	-	-
	Indirect securities holding		-	-	-	-

Name	Position ^{/2}	RATCH Group Public Company Limited			
		Ordinary Shares			
		1 Jan 21 ^{/3}	31 Dec 21 ^{/4}	Changes During the Year Increase / (Decrease)	Shareholding Proportion (%)
7. Mr. Kriengkrai Rukkulchon	Independent Director	-	-	-	-
Indirect securities holding		-	-	-	-
8. Mr. Suthon Boonprasong	Director	-	-	-	-
Indirect securities holding		-	-	-	-
9. Miss Niramarn Laisathit	Director	-	-	-	-
Indirect securities holding		-	-	-	-
10. Mr. Prasertsak Cherngchawano ⁽¹⁾	Director	-	-	-	-
Indirect securities holding		-	-	-	-
11. Mr. Ratanachai Namwong ⁽²⁾	Independent Director	7,500	7,500	-	0.00052
Indirect securities holding		-	-	-	-
12. Miss Choosri Kietkajornkul ⁽³⁾	Director	21,884	21,884	-	0.00151
Indirect securities holding	Chief Executive Officer	-	-	-	-
13. Mr. Sakarin Tangkavachiranon	Chief Business Development Officer	-	-	-	-
Indirect securities holding		-	-	-	-
14. Mr. Boonchai Jarunwaraphan	Chief Project Development Officer	-	-	-	-
Indirect securities holding		-	-	-	-
15. Mr. Nimit Lekcharoensuk	Chief Asset Management Officer	10,095	10,095	-	0.00070
Indirect securities holding		-	-	-	-
16. Mrs. Wadeerat Charoencoop	Chief Financial Officer	-	-	-	-
Indirect securities holding		-	-	-	-
17. Miss Suwannee Sirisajjawat	Senior Vice President - Head of General Accounting Division	-	-	-	-
Indirect securities holding		200	200	-	0.00001
18. Miss Phavika Smanratana	Vice President - Head of Financial Planning and Management Division	-	-	-	-
Indirect securities holding		-	-	-	-
19. Miss Titiporn Komsartra	Vice President - Head of Accounting Control and Analysis Division	-	-	-	-
Indirect securities holding		-	-	-	-
20. Miss Puthachard Smitamegha	Vice President - Head of Tax Management and General Ledger Division	2,012	2,012	-	0.00014
Indirect securities holding		-	-	-	-
Gand Total		46,691	46,691	-	0.00322

Securities Holdings of Directors and Executives Who Vacated Their Positions During 2021

Name	Position ^{/2}	RATCH Group Public Company Limited			
		Ordinary Shares			
		1 Jan 21 ^{/3}	31 Dec 21 ^{/4}	Changes During the Year Increase / (Decrease)	Shareholding Proportion (%)
1. Mr. Samack Chouvaparnante ⁽⁴⁾	Independent Director	-	-	-	-
Indirect securities holding		-	-	-	-
2. Mr. Nutthavutthi Chamchang ⁽⁵⁾	Independent Director	-	-	-	-
Indirect securities holding		-	-	-	-
3. Mr. Kijja Sripatthangkura ⁽⁶⁾	Director and Chief Executive Officer	5,165	5,165	-	0.00036
Indirect securities holding		-	-	-	-

Notes:

- ^{/1} The information on the securities holdings of the Company's directors and executives shall only disclose the shareholdings of the directors, Chief Executive Officer, top four executives and those in position equal to the top four executives, including vice president level executives and equivalent or above in the accounting and financial function. The disclosed shareholdings include the aforementioned persons' direct shareholdings (their own shareholdings) and indirect shareholding (shareholdings of their respective spouse and minor children) including the shareholdings by nominees of the directors or the executives, and respective spouse and minor children of the aforementioned persons according to the criteria in the Notification of the Capital Market Supervisory Board No. TorChor 44/2013. In 2021, there was no report regarding shareholdings by nominees of the directors, executive, respective spouses or minor children of such person.
- ^{/2} Disclosing the director's position in the Board of Directors only. The information of each director's position in the Committees is disclosed in his or her respective profile. More information regarding changes of positions in Sub-Committees can be found under the topic Nomination of Directors and Executives.
- ^{/3} For directors and executives who were appointed during the year 2021, the number of securities disclosed in the table is the number of securities held on the day they took office.
- ^{/4} For directors and executives who left office during the year 2021, the number of securities disclosed in the table is the number of securities held on the day they left office.

Assumption of Office of Directors and Executives During 2021

- ⁽¹⁾ Mr. Prasertsak Chongchawano was appointed a director on 1 October 2021.
- ⁽²⁾ Mr. Ratanachai Namwong was elected an independent director in the 2021 Annual General Meeting of Shareholders held on 5 April 2021.
- ⁽³⁾ Miss Choosri Kietkajornkul was appointed as a director on 20 July 2021 and afterward she was appointed as Chief Executive Officer on 1 October 2021.

Vacation of Office of the Directors and Executives During 2021

- ⁽⁴⁾ Mr. Samack Chouvaparnante left the position as an independent director due to the end of term in the 2021 Annual General Meeting of Shareholders held on 5 April 2021.
- ⁽⁵⁾ Mr. Nutthavutthi Chamchang resigned from his position as a director on 20 July 2021.
- ⁽⁶⁾ Mr. Kijja Sripatthangkura resigned from his position as a director and vacated the position as Chief Executive Officer due to retirement on 1 October 2021.

3. Anti-fraud and corruption

The Company adheres to transparency, fairness and social and environmental responsibility with concerns about all stakeholders, in alignment with good governance practices, the Code of Conduct and the Company's policy and intention to fight against all forms of corruption. With the Board of Directors' consent, the Company has been a member of the Thai Private Sector Collective Action Coalition Against Corruption (CAC) since 2016. The certified membership lasts 3 years from the certification date. On 4 February 2019, the membership was recertified for the first time.

The Company filed for membership recertification in 2021, to affirm the Company's intention to operate with concerns about governance principles, transparency, verifiability and non-involvement with all forms of corruption, direct or indirect, when dealing with the public or private sectors. All personnel from the Board of Directors to executives and employees are prohibited from asking for, receiving or committing any fraudulent/corrupt act. On 6 January 2022, the Company was informed about the CAC committee resolution at the Quarter 3/2021 meeting that the membership was recertified for the second round. The recertification period will last 3 years.

The Board of Directors outlined the anti-fraud and corruption risk management framework and the internal control system and defined the responsibilities of responsible persons, guidelines and rules on the issue in writing, to provide a clear operational framework against corruption in all business activities for the Company's sustainability. The framework is communicated to stakeholders through communications channels, for their strict compliance. On top of this, the Board of Directors, the Corporate Governance and Social Responsibility Committee, the Audit Committee and the Management must be role models in the fight against corruption for employees, business partners and the public, to garner trust in the Group's business operations.

Anti-Fraud and Corruption Policy

1. The Board of Directors outlined and imposed

the written anti-fraud and corruption policy, which can be summarized as follows:

- Promote the anti-fraud and corruption culture, to raise awareness and joint commitment on non-involvement in corruption, direct or indirect.
- Ensure clear principles, process and guidelines for business operations to prevent fraud and corruption. Relevant persons must be educated about the anti-fraud and corruption policy.
- Impose the internal control system related to fraud and corruption risks.
- Undertake appropriate assessment and supervision criteria for appropriate implementation of the anti-fraud and corruption policy.
- Put in place the anti-corruption regulations and corruption-related risk management in writing.
- Establish an appropriate complaint and whistleblowing channel where fraud and corruption-related complaints and reports can be filed.

2. The Board of Directors outlined the Company's anti-fraud and corruption regulation which contain significant criteria as follows:

2.1 Define the roles and responsibilities of all relevant persons in the organization to fight against fraud and corruption.

- The Board of Directors oversees the overall picture, outline the anti-fraud and corruption policy and guidelines, as well as review the policy and regulation on a regular basis.
- The Corporate Governance and Social Responsibility Committee ensures that compliance with the policy and regulation, manage corruption-related risks, outline preventive measures, inspect possible traces, respond to any spotted risks and review the policy.

- The Audit Committee oversees the internal control, accounting standard, financial reporting and internal audit systems and ensures that all systems are appropriately controlled and the policy is fully and efficiently exercised.

- Chief Executive Officer and executives establish guidelines that support the anti-fraud and corruption regulation, communicate and organize training for employees at all levels.

- Employees must carry out their tasks accordingly to the anti-fraud and corruption regulation and relevant orders. In case of doubt or witnessing any violations, they must report the incidents to the prescribed channel.

2.2 Define key anti-fraud and corruption principles such as non-involvement with all forms of bribe offering or taking through business interactions with government or private parties. Being prohibited are inappropriate payments in return for facilitation or payments to a third party. The Company's employees must maintain integrity and honor transparency, not ignoring any possible corruption acts. They must not support political parties. Donations must be for charitable causes, not for corruption-related gains. Gift giving or taking must be in line with acceptable norms and the values must not significantly influence decisions. No corruption-related gains are expected from receptions and they must not significantly influence decisions. Employing government officials as executives, employees or workers must be done with caution and follow the Company's prescribed rules, not to cause conflict of interest or create unfair business advantages.

2.3 Define fraud risk management and internal control rules as summarized below:

- Outline measures to manage fraud-related risks, covering prevention, inspection and response to fraudulent cases.

- Establish appropriate and sufficient internal control as well as a regular review, to ensure the efficiency and effectiveness of internal control.

- Arrange assessment on enterprise fraud and corruption risks to ensure the availability of management approaches for various forms of risks.

- Establish measures and guidelines for some spending items that may cause fraud and corruption risks such as charitable donations or sponsorships funds, the giving and taking of gifts and souvenirs and reception allowance, as concrete approaches against fraud and corruption.

- Establish a transparent and precise financial reporting mechanism, based on internationally-accepted accounting standards.

- Organize the financial documentation and storage process, to ensure accurate and complete booking and compliance with relevant rules. The process is also to assure that expenses are appropriate and are not for corrupt activities.

- Establish a channel to receive whistleblower reports, recommendations or complaints and put in place the penalties and the processes concerning investigation and case reporting to the Board of Directors and high-level executives.

- Communicate and organize training on the anti-fraud regulation and orders for personnel at all levels.

2.4 Whistleblower reports and protection: Employees witnessing corrupt acts or possible corrupt activities, direct or indirect, must not ignore the acts and report such activities to the prescribed whistleblowing channel. To protect honest whistleblowers and witnesses, the Company guarantees fairness and protection. Their identities will be concealed and disclosed only by legal orders. No actions will be launched against the persons who deny corruption, though such acts may cause opportunity loss to the

Company. Upon requests, executives and staff must cooperate with the investigating committee.

2.5 Communications and training: The Company uses internal communications channels and annual reports as the tools to communicate the anti-fraud and corruption policy and related information to raise employee awareness. Training is provided for all levels of employees. Training is organized for employees at all levels. Newly-recruited employees will receive orientation for their acknowledgement and understanding on the Company's anti-fraud and corruption policy and related rules and regulations.

Preventive measures against fraud and corruption

Under the anti-fraud and corruption policy and the written regulation outlined by the Board of Directors, the Company undertakes the following actions:

- Issue orders or operational guidelines for fraud risk management: To define activities and responsibility of persons in charge as well as procedure and guidelines to prevent fraud risks, so that the risks are tackled in an appropriate and timely manner.
- Prepare, improve and review the Company's policy, rules, orders and Code of Conduct on a regular basis. Communicate with employees so that they understand and strictly follow the Company's anti-fraud and corruption policy and practices.

In 2021, the Company improved the anti-fraud and corruption regulation and order and enforced additional policies and measures regarding facilitating payments and employment of government officials, to prevent risks possibly stemming from contacts with government officials and meet CAC's additional guidelines.

- Assess fraud risks and prepare Fraud Risk Register as well as fraud risk chart by defining risk assessment criteria, potential causes, impacts, likelihood and risk appetite: The process is to assess the internal control system, impose risk-alleviating

measures and analyze the severity of impacts, likelihood and residual risk under the current control system. The Corporate Governance Working Group is tasked to advise the Management on risk assessment, gather assessment reports and monitor the implementation of the risk management plan, before submitting reports to the Board of Directors, the Corporate Governance and Social Responsibility Committee, the Audit Committee, the Management and relevant division. Meanwhile, the Internal Audit Division is assigned to review the fraud-risk policy, management procedure and process on an annual basis, to ensure complete compliance and efficient implementation.

In 2021, the corruption risk assessment charts of the Company and core subsidiaries were reviewed and improved, along with control activities. The Company also scheduled an annual review on corruption risk assessment.

- Communications and training: The Company prepares annual communications and training plans, covering communications channels, frequency, content and implementation to ensure effective communications both internally and externally. The objective is to raise awareness on the importance of the policy, engage employees with fraud risk management with transparency and determination to fight against fraud and corruption at all levels, and pass the message on to business partners and stakeholders.

In 2021, the working group represented by all functions brainstormed to outline the annual anti-fraud and corruption communications and training plan. The working group held quarterly meetings. Key actions in communications and training are as follows:

1. Prepare information on fraud and corruption in newsletter and VDO clip formats and publicize it via the internal information system and communications media.
2. Run a test to assess employee awareness, understanding and adherence to anti-fraud and

corruption practices via the e-learning system. All executives and employees must take the test and score at least 80 percent to be eligible for the annual performance evaluation. The test was improved in 2021 to be in line with the revision in the Code of Conduct and the Anti-Fraud and Corruption Policy.

3. Organize the orientation on the anti-fraud and corruption policy for newly-recruited employees.

4. Assign executives and employees to attend external training and seminars, so that the Company's management of fraud and corruption risks and fighting against fraud and corruption can be improved for greater efficiency.

5. Announce and publicize the anti-fraud and corruption policy and guidelines, and prepare an acknowledgement form for the Company's representatives, business partners and stakeholders for their stern compliance.

6. Notify suppliers of the anti-fraud and corruption measure that concerns the "No Gift Policy" for the New Year.

- Run background checks before hiring new employees or contractors and before entering into transactions: The Human Resource Division is tasked to check the backgrounds, credibility and work experience of applicants for key positions, prior to the signing of employment contracts, to prove their integrity. Employment contracts contain corruption-related clauses. Meanwhile, the Office Administration Department is responsible for the supplier selection and assessment criteria. It will examine the background of suppliers, particularly vendors, contractors and service providers, to check on their qualifications, reputation, financial conditions and credibility. It must also inform business partners about the Company's anti-fraud and corruption policy in writing.

- Internal control: All the Company's units shall have in place written work process and job descriptions in support of internal control. Such shall be reviewed constantly. On an annual basis, the Internal Audit

Division is designated to assess the internal control of each work process, to cover possible fraud risks, policy review, the implementation and procedures as required by the Anti-Fraud and Corruption Policy. The assessment is to determine if the implementation is complete, sufficient and efficient and is in line with CAC's requirement and assessment guidelines. If finding any irregularities, it must analyze the probability of related fraud.

- Define corruption finding and response measures:
 - Establish the complaint or whistleblower channel for employees and outsiders who should be able to keep their identity concealed. The complainants must also be protected from harm or threats. Complaints can be filed to the Chairman, directors, independent directors/Audit Committee, Chief Executive Officer, Vice President - Head of Internal Audit Division or supervisors. Individuals knowing of corrupt acts are subjected to disciplinary actions if failing to report the acts to the Company or filing false reports.

- Chief Executive Officer forms an investigation committee, to collect facts relating to reported corrupt acts and report the results to the Board of Directors.

Audit Committee's roles

The Audit Committee is tasked to oversee and review the completeness and sufficiency of the anti-fraud and corruption process. The task is exercised via the Internal Audit Division. The results are submitted for the Board of Directors' acknowledgement. The task concerns activities as summarized below:

- Review the Anti-Fraud and Corruption Policy and the fraud risk management process; and assess the internal control sufficiency to prevent possible fraud and corruption.

- Set internal audit criteria and ensure that the division's operations cover the fight against fraud and corruption, to ensure appropriate compliance with the Company's policy and alignment with international standards.

- Review the communication policy regarding fraud and corruption; and ensure all employees, outsiders and all having business contacts with the Company acknowledge and comply with the involved policies and principles.

- Review the adherence to the Company's regulation, orders and Code of Conduct regarding fraud and corruption, the giving and taking of gifts and souvenirs, charitable donation and sponsorship, employment of government officials, allowances, fraud risk management, etc.

- Schedule the annual plan to audit the Company's fraud risk management, to ensure its compliance with the prescribed criteria or measures.

In 2021, no fraudulent or unethical action was found and no director or executive resigned due to corporate governance issues.

4. Whistleblowing

In 2021, there was no whistleblowing report nor complaint relating to fraud, breach or violation of the Corporate Governance Policy and the Code of Conduct's guidelines. There was no such case that non-executive director resigned due to a corporate governance issue or a negative impact on the Company's reputation and image from an act of directors.

5. Safety, occupational health and work environment

Due to increasing COVID-19 infections in 2021, the Company witnessed operational limits as a result of the orders by the Center for COVID-19 Situation Administration (CCSA) and Ratchaburi Provincial Governor. Below is the summary of key developments.

Safety

- The Company reported zero lost-time injury for 2,245,862 hours worked. (The counting started on 27 January 2018).

- Training for safety officers – supervisor level was organized on 23–24 June 2021, with 35 attendees.

- Training for safety officers – executive level was organized on 14–15 July 2021, with 22 attendees.

- Annual fire extinguisher and fire escape drill was held on 24 December 2021, with 112 attendees. The drill was successfully carried out as all evacuees were cleared from the building in 3 minutes and 20 seconds.

- Head Office's safety features were improved accordingly to the 23 recommendations from the ASEAN Building Fire Safety Awards competition.

Occupational health

- The Work from Home policy was announced with details as follows:

- Phase 1: 50 percent as in 2020

- Phase 2: 100 percent from 19 April 2021 to 31 October 2021

- Phase 3: 50 percent from 1 November 2021 until present.

The policy requires compliance from subsidiaries and suppliers carrying out tasks at Head Office.

- The measures and guidelines for those requiring to enter the office:

- They were asked not to travel to risk areas as defined by the Center for COVID-19 Situation Administration (CCSA).

- Documents, parcels, food and other items must be dropped at the drop point, at the back of the building. All will be sprayed, except documents, before entering the building.

- Limit the number of lift passengers.
- Apply overlapping breaks to reduce the crowdedness at the canteen.
- Apply social distancing with seating arrangements for more space.
- Campaign for communications via telephone, email or other channels.
- Request all to consider online meetings as the priority and avoid large-group gathering at Head Office. If needed, such activities must follow the meeting procedures of the Public Health Ministry's Department of Disease Control on a case by case basis. Visitors' meeting attendance is limited at M Floor.
- Set up the screening point to check the body temperature of all persons entering the building.
- Clean the surface of central areas every 2 hours with disinfectant and deodorizer.
- Clean the air with small ozone generators every Saturday and disinfect the entire building with ozone twice a year.
- Distribute 4 ATK test kits per employee if they show COVID-19 symptoms or when needing to work in risk areas.

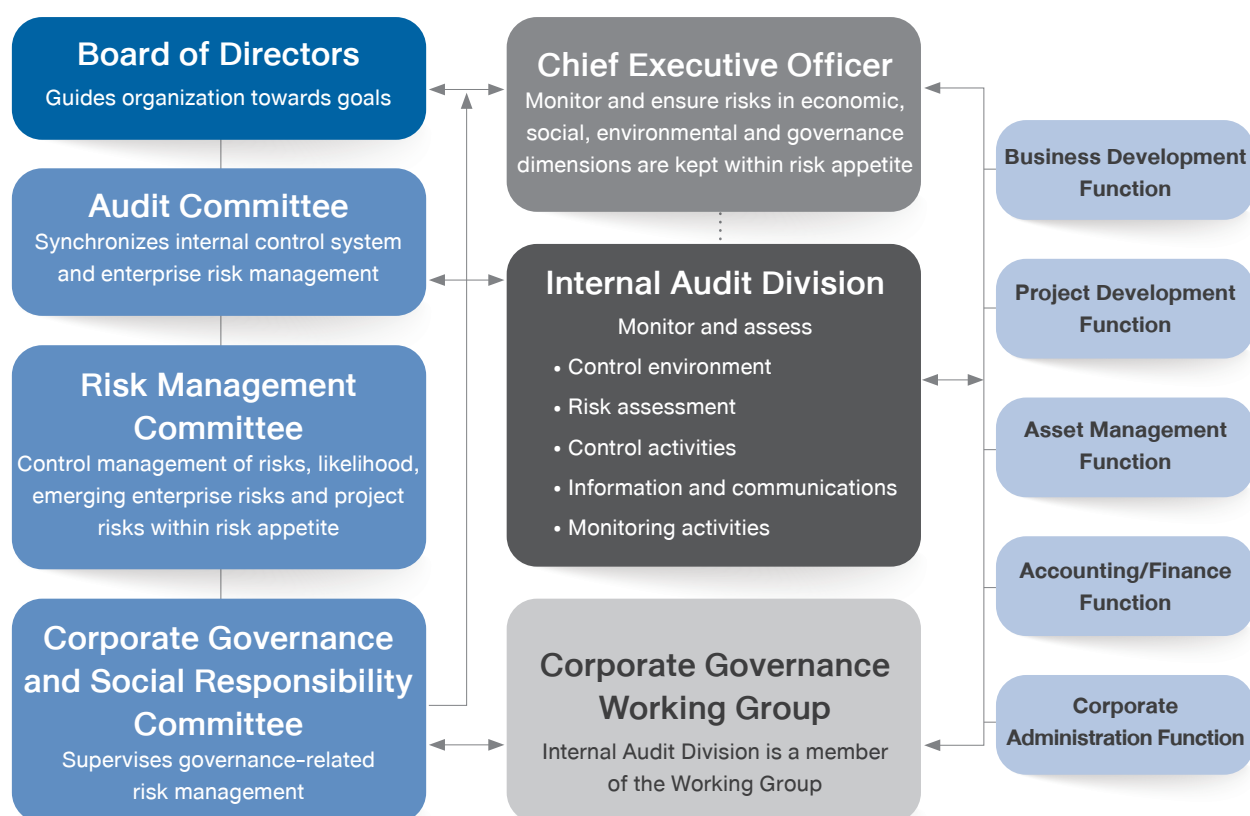
Management of work environment and indoor air quality

- Measure the lighting, noise, temperature and air quality of the building twice in 2021, in June and December, for the work environment assessment. The results showed they were within legal limits.
- The improvement in wastewater system was completed in April 2021 and the quality of wastewater was within legal limits. Treated water is used for tree watering, to reduce tap water consumption.

9. Internal Control and Related Party Transactions

9.1 Internal Control

Internal Control Structure



Realizing the importance of efficient and sufficient internal control, the Board of Directors formulates an integrated internal control system in line with the Committee of Sponsoring Organizations of the Treadway Commission's COSO Internal Control - Integrated Framework 2013 (COSO 2013). The goal is to achieve control in 3 aspects - operational, reporting and compliance. In this regard, the Audit Committee is tasked to monitor, follow up and examine the internal control system. The task is carried out via the Internal Control Division. The division assesses the sufficiency and appropriateness of the system on an annual basis together with the Company's units, to ensure the Company's work processes in all aspects are efficient, effective and in line with international standards.

The sufficiency assessment in 2021 covered the 5 control aspects prescribed in the Securities and Exchange Commission's Internal Control Sufficiency Evaluation Form. The result was submitted to the Audit Committee for forwarding to the Board of Directors.

At the 13/2021 meeting on 21 December 2021, the Board of Directors acknowledged the result of the Audit Committee's assessment and shared the committee's opinion that the Company's internal control system is adequate and appropriate without significant flaws. For efficiency, the monitoring task was supported by a sufficient number of personnel. Under the follow-up, the Company and subsidiaries had sufficiently prevented wrongful and unauthorized use of assets by directors or executives, which included transactions with the parties that may cause conflict of interest.

The overview of the 5 control aspects is summarized below:

1. Control Environment

- The Company adheres to ethics, morals and integrity. The Board of Directors have in place the Code of Conduct and written policies on corporate governance, anti-fraud and corruption, shareholders, society, the environment and sustainable development, which serve as guidelines to be followed by directors, executives and employees. In operating business, the Company upholds transparency and compliance, keeping in mind the shared benefits of all stakeholder groups and human rights.

- The Board of Directors forms the top layer of the hierarchy. Independent from the Management, the Board of Directors composes members with diverse knowledge and capabilities. The charters of the Board of Directors and sub-committees have been formulated so that they can perform their tasks efficiently and effectively and in line with good governance practices.

- The Company appropriately outlines the organizational charts and working committees. The Company clearly specifies business functions and a separation of authorization and duties of each function, with constant review of work procedures for efficiency.

- The Company upholds the Corporate Governance Policy, with written rules and guidelines (Code of Conduct). The Corporate Governance and Social Responsibility Committee is appointed to supervise and monitor compliance with the policy.

- The Company became a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) on 22 April 2016.

The membership recertification request was filed in 2021, to affirm the Company's intention to operate with concerns about governance, transparency and verifiability and vow not to involve with all forms of corruption. The recertification was endorsed by CAC's committee at the Quarter 3/2021 meeting on 6 January 2022. The recertification period will last 3 years.

- The Company received the "Excellent (5-star)" CG Score 2021 from Corporate Governance Report of Thai Listed Company (CGR), as assessed by Thai Institute of Directors Association and was included in the Stock Exchange of Thailand (SET)'s Thailand Sustainability Investment 2021 for 7th consecutive years.

- The Company clearly sets Key Performance Indicator (KPI) and remuneration plans, consistent with the Company's strategy and business plans. The Board of Directors has been constantly updated on the performance benchmarked against KPI.

- The Company promotes favorable work environment and organizes continuous training for employees under the individual development plan to enhance their efficiency.

2. Risk Assessment

- Risk management is a crucial part of the Group's operations. The Company has the policy to keep risks on the Group's business within risk appetite, as guided by good governance principles and consistent with the corporate objectives, strategies, targets and direction.

- The Company appoints the Risk Management Committee to formulate the risk management policy and guidelines and regularly monitor the compliance. The Risk Management Working Committee was set up, comprising high level executives of all functions, to screen the management plan for enterprise and project risks and report the management results to the Risk Management Committee on a quarterly basis.

- The operational and risk management objectives or targets are clearly set, taking into account internal and external risks. Aside from strategic risks, operational risks, financial risks and compliance risks, the risk management policy covers risks on production targets and new businesses as well as risks relating to corruption, the environment, society, community, emerging risks, etc. Through the comprehensive list, the Management is expected to truly understand particular incidents and situations and accordingly formulate the policy and guidelines to manage those risks.

- The work plans, strategy and objectives have been constantly adjusted to meet changing circumstances and risk factors.

- The risk assessment criteria, principles and approach are systematically designed, taking into consideration the likelihood and impacts to determine risk levels and risk appetite.

- The Audit Committee and the Risk Management Committee convene at least one joint meeting per year, to streamline risk management and internal audit for effective and timely responses to emerging and constantly-evolving risks.

- The Company gave importance to COVID-19 impacts following persistently high infections in 2021 and launched measures to manage involved risks. Possible impacts on the operations had been monitored so as to tackle the risks and appropriately review preventive measures.

3. Control Activities

- The Company establishes the internal control in enterprise and business unit levels, to ensure operational efficiency and the maintenance of risk appetite. Internal control measures are specified in the Company's regulations and cover the following significant activities:

- Procedure to approve transactions in regard to financial transactions, procurement, and general administration, with clear scope of authorities and authorized limits for each type of transactions being appropriately determined. They are clearly written in the Company's regulations.

- Connected transactions: The policy and procedure involving connected transactions are set, considering the Company's best interests and rationale. The transactions shall be taken as they are carried out by unrelated parties (Arm's Length Basis), which requires the consideration and approval from the authorized persons who have no vested interest in the transactions. Such transactions must be endorsed by the Audit Committee before submission for the consideration of the Board of Directors or the Shareholders' Annual General Meeting, whichever is the case.

- Monitor subsidiaries' operations: the Company's executives are appointed subsidiaries' directors to take part in the policy formation, supervision and follow up on the operating results. Chief Asset Management Officer is tasked to monitor subsidiaries' performance and report the Board of Directors on a monthly basis.

- The Management Committee is set up, comprising chief officers of all functions. The committee is tasked to draw policies, strategies, work plans towards business targets, and screen the operational plans prior to submission to the monthly Board of Directors.

- Business strategies, for the short, medium and long term, are drawn up to ensure all units follow through business plans.

- The policy and regulation on fraud and corruption are in place while the Corporate Governance Working Committee and relevant units chart preventive measures and prepare the fraud risk registry as well as communication/training for employees' understanding in the guidelines. The Corporate Governance Working Committee monitors the compliance and reports to Corporate Governance and Social Responsibility while the independent Internal Audit Division reviews the policy and the fraud-risk management process and procedure; assess the internal control of each work process that possesses fraud risk and likelihood; and define corrective measures.

- The Personal Data Protection Working Committee was set up to prepare for the formulation of policy, measures and guidelines on the management of personal data, for its safety and compliance with the Personal Data Protection Act B.E. 2562.

4. Information and Communications

- The data management system is in place, with the formulation of management policy, information classification procedure, confidential information classification, storage and access approval process, so that significant information is stored in the computer network in full and in proper category to prevent information leak and enhance the efficiency of cross-functional coordination.

- The Company provides the Board of Directors with the invitations to the Board of Directors and sub-committee meetings and documentation for the meetings which contain necessary and sufficient information for consideration. The meeting minutes contained their questions, clarifications, opinions, observations and recommendations on each agenda as well as the resolutions for reference and verification.

- An efficient internal communications system is in place with the meetings of functional chief officers to monitor work progress and obstacles and brainstorm for solutions. The information is communicated to executives at all levels and significant information is reported to the Board of Directors on a regular basis.

- Regarding external communications, the Company discloses information via the SET's disclosure system and the Company's website to reach the general public, shareholders and investors in a fair and equitable manner. Complaint and whistleblowing channels are established to receive unscrupulous reports or complaints from employees and outsiders for submission to the Board of Directors, the Audit Committee or relevant business units.

- The financial reports are audited jointly by the top executive responsible for accounting and finance and the independent auditor before submission to the Audit Committee together with details and clarifications on issues such as revision in financial policies, amendments to significant accounting standards or other significant issues that may affect the balance sheets.

- The Intranet communications channel is in place along with the emailing systems via Lotus Notes and Microsoft Outlook and the teleconference system and Microsoft Teams to ensure all employees' fast and convenient access to information. Town Hall Meeting was organized where the Management communicated the Company's policies and important information with employees at all levels. The Knowledge Management System was developed to gather knowledge and prepare the capability enhancement plans for employees. Knowledge Sharing activities have been organized on a regular basis so that employees can exchange their work-related knowledge and experiences.

- Information risks are managed through an efficient information and communications safety management system. The emergency plan is in place to respond to serious accidents that lead to the information system failure and drills have been organized.

- Measures are in place to safeguard the computer network (Network Security) against attacks from Phishing mail, Malware or hackers. Software is installed to guard against risks while risks to IT and communications system are assessed. Monthly reports on the implementation of safety measures for the computer network and emailing system are prepared for the Management, containing information on attack incidents, mail filtering results and Antivirus.

The Company announced the IT and Communications Security Policy in 2021, as part of the management policy on the IT system.

5. Monitoring Results

- The Internal Audit Division monitors the implementation of work plans accordingly to the pre-set agreements with the Management of the Company and subsidiaries on a quarterly basis and reports the results to the Audit Committee for further submission to the Board of Directors.

- The Internal Audit Division's personnel receives capability building training. The training program, internal and external, and budgets are set along with the plan to attain international audit certificates. The implementation of such development plan is reported to the Audit Committee and training contents are integrated into the Knowledge Management Portal.

- The policy and guidelines are set for the immediate reporting of serious fraud incidents, violations or unscrupulous acts which significantly affect the Company's reputation and financial position to the Board of Directors. Relevant business units are instructed to prepare response plans and report the implementation results to the Management and subsequently to the Board of Directors.

- Business targets are set accordingly to the strategic planning and business plan, with the specification of Key Performance Indicator (KPI) for all functions and all levels. The performance is benchmarked against targets. Failures to achieve the

targets and impacts are analyzed. The response and impact-mitigating plans are outlined and reported to the Management and the Board of Directors according to a specified schedule.

- The risk chart is prepared, to determine the likelihood and level of impacts from strategic risks, operational risks, financial risks and compliance risks. Measures to keep the risks within risk appetite are devised and the implementation of those measures is monitored and reported to the Risk Management Committee as well as the Board of Directors according to a specified schedule, to ensure the achievements of the Company's short, medium and long-term targets.

Details of the Company's internal control adequacy assessment form are on the Company's website: www.ratch.co.th.

Internal Audit Division

The Internal Audit Division maintains independence under the guidance of Vice President - Head of Internal Audit Division who acts as the secretary of the Audit Committee and reports internal audit activities directly to the Audit Committee and reports general operations to Chief Executive Officer. The division operates under the Company's orders on the duties and responsibilities and business units and on internal audit. The orders clearly define the division's scope of responsibility and authority. The division is tasked to complete the Audit Committee's assignments as given by the Board of Directors. The Internal Audit Division's main responsibility is to assert assurance and provide independent advice, ultimately to raise enterprise value and improve the organization's operations. Its responsibilities are summarized as follows:

- Assess the effectiveness of the internal control system, the risk management system and anti-fraud and corruption activities as well as assert assurance and offer advice. The division draws up short and long-term assessment plans, taking into account strategic risks, operational risks, financial risks, compliance risks and corruption probability; and

analyzes the likelihood and impacts of those risks. The plans are approved by Chief Executive Officer and endorsed by the Audit Committee. The division schedules regular monitoring on its performance, through self-assessment and the assessment by an external verifier, to ensure continuous improvement and completely and efficiently fulfill the internal audit objectives. The division has no limitation in giving advice and no unsolved conflict with the verifier.

- In auditing the efficiency and appropriateness of risk management, the division collaborates with those responsible for risk management. Being reviewed are the indicators of risk incidents or risk factors that may affect risk-management objectives, strategy and approaches, to ensure that risks were properly identified and assessed, systematically tackled, efficiently maintained at the acceptable risk level, and timely reported. The Internal Audit Division schedules continuous and constant audit on risk management.

- In auditing the effectiveness of the internal control system, the division prepares evaluation forms on internal control sufficiency for each function in line with the SEC guidelines. The operational performance is audited and each division is encouraged to review its work process, to ensure that the Company efficiently and effectively achieves its operational, financial and compliance goals and guard against corruption risks.

The Internal Audit Division has adhered to the International Standards for the Professional Practice of Internal Auditing (IPPF) and COSO-ERM. It has regularly reviewed its charter and operational manual. The self-assessment is conducted annually and the division is audited by an independent external verifier every 5 years, in order to meet international standards. All personnel have maintained independence and carried out the tasks with fairness in line with the Code of Ethics for internal auditors. They have been trained continuously, accordingly to short and long-term individual development plans.

• Head of Internal Audit Division

The Audit Committee appointed Miss Kamolkarn Hinviman as Vice President – Head of the Internal Audit Division, effective on 1 January 2020. She is tasked to review and assess the adequacy and efficiency of the internal control and risk management systems of the Company and its subsidiaries. Miss Kamolkarn Hinviman has experience in internal audit, understands the Company's business activities and has attended internal audit training courses.

In 2021, the Audit Committee evaluated the Vice President - Head of Internal Audit Division's performance, focusing on knowledge and ability to supervise internal audit activities as well as understanding in the role and responsibility of the Audit Committee's secretary. The result is as follows:



The appointment, removal, transfer, termination or the consideration of the independence of the person who acts as Head of Internal Audit Division shall be approved by the Audit Committee.

Profile of Head of Internal Audit Division appeared on Page 377

Summary of Audit Committee's opinions on business activities

The Audit Committee shall maintain independence. It comprises at least 3 independent directors appointed by the Board of Directors (Details of the Audit Committee appeared in Audit Committee Section, Page 185-186) Below is the summary of the Audit Committee's opinions on key topics in 2021.

Topics	Audit Committee's opinions
Significant flaws in the Company or subsidiaries' internal control system	<ul style="list-style-type: none"> The Audit Committee did not find any significant flaw in the Company or subsidiaries' internal control system. The Audit Committee recommended the Internal Audit Division to adjust auditing guidelines in light of the COVID-19 outbreak, as the outbreak disrupted on-site audits. The Audit Committee recommended joint ventures to improve work procedures, to be more precise and appropriate for their operations.
Internal control audit	<ul style="list-style-type: none"> The Audit Committee is of the view that the Company's internal control is sufficient and suitably supportive to the achievements of business objectives, targets and compliance. The system effectively prevents the wrongful use of the Company's resources and ensures credible financial reporting. The Audit Committee was informed about anti-corruption updates and found no violation or possible corrupt acts in the Company or subsidiaries subjected to the annual audit. The Audit Committee recommended the Management hold a joint meeting for relevant functions, to follow up on the investment analysis of each project including the approved financial model. The data shall be analyzed against actual performance, to serve as guidelines for future project management/investment.
Conflict of interest	<ul style="list-style-type: none"> The Audit Committee acknowledged the audit report which found no conflict of interest involving employees, the Management or the Board of Directors. The Audit Committee found no related party transaction that demonstrated conflict of interest in the quarterly audit of financial statements, as reported by Chief Financial Officer. Related party transactions take into account the needs and the Company's best interests. The opinion is reported to the Board of Directors, which found no conflict of interest.

9.2 Related party transactions

RATCH Group Public Company Limited

Related Party Transactions

For the year 2021, ended 31 December 2021

The Company and its subsidiaries have entered into related party transactions. The relations are either by being shareholders of one another or having mutual shareholders or directors as disclosed in the 2021 financial statements under Notes to financial statements Section. Significant related party transactions are summarized as follows:

1. RATCH Group Public Company Limited

Related party transaction	Related company	Value (Baht million)			Necessity and rationale	
		2021	2020	2019		
1.1 Revenue from service and management fee						
1.1.1 Providing management service through secondment agreement, with the Company’s employees assigned to be Managing Director and Deputy Managing Director; as well as internal audit, legal, secretariat to the Board of Directors, accounting, budgeting, financial, tax, information technology, human resource management, corporate relations and corporate image enhancement services	Ratchaburi Electricity Generating Co., Ltd.	105.51	105.53	105.82	Ratchaburi Electricity Generating Co., Ltd. does not have employees with these skills but the Company has experts in these areas. A monthly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.	
1.1.2 Providing legal, secretariat to the Board of Directors, accounting, budgeting, financial and tax services; and power plant management, supervision, planning and performance monitoring services	Ratchaburi Energy Co., Ltd.	0.82	0.82	0.18	Ratchaburi Energy Co., Ltd. does not have employee with these skills but the Company has experts in these areas. A quarterly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.	
1.1.3 Providing internal audit, legal, tax, secretariat to the Board of Directors, information technology, financial and human resource management services	RATCH-Lao Services Co., Ltd.	4.02	4.02	4.02	RATCH-Lao Services Co., Ltd. requested for the services and the Company has experts in these areas. A monthly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.	

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.1.4 Providing legal, secretariat to the Board of Directors, accounting, budgeting, financial and tax services, and power plant management, supervision, planning and performance monitoring	Ratchaburi Alliances Co., Ltd.	0.54	0.54	0.15	Ratchaburi Alliances Co., Ltd. requested for the services and the Company has experts in these areas. A quarterly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.5 Providing legal, secretariat to the Board of Directors, accounting, budgeting, financial and tax services	RH International Corporation Ltd.	0.95	0.95	0.95	RH International Corporation Ltd. requested for the services and the Company has experts in these areas. An annual fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.6 Providing legal, personnel, accounting, financial management and tax services Details in 2021 - Management fee: Baht 23.41 million - Service fee from advance expense payment: Baht 44.48 million	RH International (Singapore) Corporation Pte. Ltd.	67.89	23.48	87.38	RH International (Singapore) Corporation Pte. Ltd. requested for the services and the Company has experts in these areas. An annual fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.7 Providing loan securing and loan guarantee service	RH International (Singapore) Corporation Pte. Ltd.	14.76	14.90	15.73	RH International (Singapore) Corporation Pte. Ltd. requested for the assistance, as the Company is capable of guaranteeing the loan and its employee can assist in securing a loan.
1.1.8 Providing accounting, budgeting and financial services	RE Solar 1 Co., Ltd.	0.06	0.06	0.06	Such company has no staff in the areas and the Company has experienced employees in these fields. An annual fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.9 Providing accounting, budgeting and financial services	CN Biomass Co., Ltd.	-	0.03	0.06	Such company has no staff in the areas and the Company has experienced employees in these fields. An annual fee was charged at the rate as stated in the Management Service Agreement plus other actual expenses.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.1.10 Providing accounting, budgeting and financial services	LP Biomass Co., Ltd.	-	0.03	0.06	Such company has no staff in the areas and the Company has experienced employees in these fields. An annual fee was charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.11 Providing accounting, budgeting and financial services	PB Biomass Co., Ltd.	-	0.03	0.06	Such company has no staff in the areas and the Company has experienced employees in these fields. An annual fee was charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.12 Providing accounting, budgeting and financial services	RATCH O&M Co., Ltd.	0.06	0.06	0.06	Such company has no staff in the areas and the Company has experienced employees in these fields. An annual fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.13 Providing accounting, budgeting and financial services	RATCH China Power Ltd.	0.12	0.11	0.11	Such company has no staff in the areas and the Company has experienced employees in these fields. An annual fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.14 Providing accounting, budgeting and financial services	RH International (Mauritius) Corporation Ltd.	0.12	0.11	0.11	Such company has no staff in the areas and the Company has experienced employees in these fields. An annual fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.15 Providing management service through secondment agreement, assigning employees to work at RATCH Cogeneration Co., Ltd. Details in 2021 - Management fee: Baht 6.60 million - Service fee from advance expense payment: Baht 3.96 million	RATCH Cogeneration Co., Ltd.	10.56	13.53	1.88	Such company has no staff in the areas and the Company has experienced employees in these fields. A monthly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.1.16 Providing management service through secondment agreement, assigning an employee to be Ratchaburi Power Co., Ltd.'s Financial Executive	Ratchaburi Power Co., Ltd.	4.84	4.83	4.82	Ratchaburi Power Co., Ltd. requested for the service and the Company has experienced employees. A monthly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.17 Management Agreement with Ratchaburi Power Co., Ltd.	Ratchaburi Power Co., Ltd.	77.88	77.32	78.08	The Company provides public relations service and technical consultation on power plant construction, operation and maintenance. The fee is charged quarterly from the first day Power Plant Unit 1 commenced commercial operations (1 Mar 2008). The agreement lasts 25 years and 3 months.
1.1.18 Providing management service through secondment agreement, assigning employees to be Chubu Ratchaburi Electric Services Co., Ltd.'s Managing Director and Administration and Finance Manager	Chubu Ratchaburi Electric Services Co., Ltd.	10.43	10.52	10.42	Chubu Ratchaburi Electric Services Co., Ltd. requested for the Company's service and the Company has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
1.1.19 Service Agreement with Nam Ngum 2 Power Co., Ltd.	Nam Ngum 2 Power Co., Ltd.	25.00	25.00	25.00	Nam Ngum 2 Power Co., Ltd. entered into a Service Agreement with the Company. A quarterly fee is charged at the rate stated in the Management Service Agreement.
1.1.20 Providing management service through secondment agreement, assigning employees to be Nava Nakorn Electricity Generating Co., Ltd.'s Managing Director and Deputy Managing Director.	Nava Nakorn Electricity Generating Co., Ltd.	8.73	13.94	12.27	Nava Nakorn Electricity Generating Co., Ltd. requested for the Company's service and the Company has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.1.21 Providing management service through secondment agreement, assigning employees to be Solarta Co., Ltd.'s Managing Director and Deputy Managing Director	Solarta Co., Ltd.	10.83	10.31	9.85	Solarta Co., Ltd. requested for the Company's service and the Company has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
1.1.22 Leasing office space and other services	Solarta Co., Ltd.	0.84	0.84	0.86	The company leased out 72-square meter office space in its premises and other services including computer and network system and telephone system. The contract period is 36 months (from 1 Jan 2019 through 31 Dec 2021).
1.1.23 Providing management service through secondment agreement, assigning employees to be Xe-Pian Xe-Namnoy Power Co., Ltd.'s Deputy Managing Director-Finance	Xe-Pian Xe-Namnoy Power Co., Ltd.	6.60	6.44	6.76	Xe-Pian Xe-Namnoy Power Co., Ltd. requested for the Company's service and the Company has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
1.1.24 Providing construction control and inspection service for the Xe-Pian Xe-Namnoy Hydroelectric Power Plant in Lao PDR	Xe-Pian Xe-Namnoy Power Co., Ltd.	-	15.04	77.84	The company signed the Construction Supervision Contractor Services contract with Xe-Pian Xe-Namnoy Power Co., Ltd. and charged a monthly service fee at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.25 Providing management service through secondment agreement, assigning employees to be Songkhla Biomass Co., Ltd.'s Managing Director	Songkhla Biomass Co., Ltd.	-	-	1.12	Songkhla Biomass Co., Ltd. requested for the Company's service and the Company had experienced employees. A monthly fee was charged at the rate stated in the Management Service Agreement plus other actual expenses. The contract lasted 36 months (1 May 2016-30 Apr 2019.)

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.1.26 Providing management service through secondment agreement, assigning employees to be Berkprai Cogeneration Co., Ltd's Managing Director and Deputy Managing Manager	Berkprai Cogeneration Co., Ltd.	5.88	6.25	6.12	Berkprai Cogeneration Co., Ltd. requested for the Company's service and the Company has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
1.1.27 Providing management service for Huay Bong 3 Wind Farm	First Korat Wind Co., Ltd.	1.14	1.14	1.12	First Korat Wind Co., Ltd. requested for the Company's service and the Company has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
1.1.28 Providing management service for Huay Bong 2 Wind Farm	K. R. Two Co., Ltd.	1.14	1.14	1.12	K. R. Two Co., Ltd. requested for the Company's service and the Company has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
1.1.29 Providing legal, secretariat to the Board of Directors, accounting, budgeting, financial and tax services	Hin Kong Power Holding Co., Ltd.	-	-	0.10	Such company has no staff in the area and the Company has experienced and ready employees. A monthly fee was charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.30 Guarantee service	Hin Kong Power Holding Co., Ltd.	0.02	-	-	Hin Kong Power Holding Co., Ltd. requested for the Company's guarantee for its securities and the Company was capable of providing the service.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.1.31 Providing management service through secondment agreement, assigning executives and employees to work for Hin Kong Power Co., Ltd. Details in 2021 - Management fee: Baht 37.08 million - Service fee from advance expense payment: Baht 0.81 million	Hin Kong Power Co., Ltd.	37.89	41.85	11.80	Hin Kong Power Co., Ltd. requested for the Company's service and the Company has experienced employees. The fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
1.1.32 Leasing office space and other services	Hin Kong Power Co., Ltd.	1.13	-	-	The Company leased out 130-square meter office space in its premises and other services including computer and network system and telephone system. The contract period was 12 months (from 1 Jan 2021 through 31 Dec 2021).
1.1.33 Securities guarantee service	Hin Kong Power Company Limited	10.62	-	-	Hin Kong Power Co., Ltd. requested for the Company's service and the Company was capable of doing so.
1.1.34 Providing management service through secondment agreement, assigning employees as PT Medco Ratch Power Riau's Project Quality Assurance Manager and Contract Management Manager	PT Medco Ratch Power Riau	4.30	57.02	8.48	The Company has experienced employees. A quarterly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.35 Providing management service through secondment agreement, assigning an employee to be Chief Operating Office	Nexif RATCH Energy Rayong Co., Ltd.	4.75	1.80	-	The Company has experienced employees. A monthly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.36 Providing legal, accounting, financial, tax, information technology and human resource management services	Smart Infranet Co., Ltd.	1.74	1.20	-	Smart Infranet Co., Ltd. requested for the Company's service and the Company has experienced employees. The fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.1.37 Leasing office space and other services	Smart Infranet Co., Ltd.	0.38	-	-	The Company leased out 65-square meter office space in its premises and other services including computer and network system and telephone system. The contract period was 12 months (from 1 Jan 2021 through 31 Dec 2021).
1.1.38 Providing management service through secondment agreement, assigning an employee to be Managing Director	R E N Korat Energy Co., Ltd.	1.60	0.46	-	The Company has experienced employees. A monthly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
1.1.39 Providing loan guarantee service	Ecwin Energy Corporation	7.04	-	-	Ecwin Energy Corporation requested for the service and the Company was capable of doing so.
1.1.40 Selling and installing rooftop solar panels, energy storage and Energy Management System	EGAT	7.09	-	-	The Company was selected by EGAT to sell and install rooftop solar panels, energy storage, and Energy Management System worth totally Baht 24.98 million.
1.1.41 Providing coordination service	Fareast Renewable Development Pte. Ltd.	1.22	-	-	Fareast Renewable Development Pte. Ltd. requested for the Company's service and the Company has experienced staff.
1.2 Interest income from loans					
1.2.1 Loan to Ratchaburi Energy Co., Ltd. through promissory notes	Ratchaburi Energy Co., Ltd.	-	0.16	4.03	To finance the purchase of shares in Solarta Co., Ltd., Solar Power (Korat 3, 4, 7) Co., Ltd., Songkhla Biomass Co., Ltd. and Songkhla Biofuel, Co., Ltd. The interest rate was 4.00-4.50% per annum.
1.2.2 Loan to RATCH-Lao Services Co., Ltd. through a loan agreement. Outstanding loan value as of 31 Dec 21: USD 32.60 million.	RATCH-Lao Services Co., Ltd.	40.07	36.21	35.80	To finance the purchase of EDL Generation Public Company (EDL Gen) shares, listed on Lao Securities Exchange. The interest rate is 3.65% per annum.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.2.3 Loan to RATCH-Lao Services Co., Ltd. through a loan agreement. Outstanding loan value as of 31 Dec 21: Baht 160.20 million	RATCH-Lao Services Co., Ltd.	7.21	7.23	2.47	To repay loans and finance investment projects. The interest rate is 4.50% per annum.
1.2.4 Loan to RATCH Cogeneration Co., Ltd. through a loan agreement. Outstanding loan value as of 31 Dec 21: Baht 136.13 million	RATCH Cogeneration Co., Ltd.	6.13	6.07	1.51	To repay short-term loans. The interest rate was 4.50% per year.
1.2.5 Loan to RATCH Cogeneration Co., Ltd. through promissory notes. Outstanding balance as of 31 Dec 21: Baht 186.27 million	RATCH Cogeneration Co., Ltd.	1.87	0.53	0.01	To be used as working capital and investing in fixed assets. The interest rate was 3-month floating rate plus fixed margin per annum.
1.2.6 Loan to RATCH Cogeneration Co., Ltd. through a loan agreement. Outstanding balance as of 31 Dec 21: Baht 815.32 million	RATCH Cogeneration Co., Ltd.	8.14	-	-	To reserve for investment in the 30 MW extension part. The interest rate was 3.34% per annum.
1.2.7 Loan to Xe-Pian Xe-Namnoy Power Co., Ltd. through a Shareholders' Loan Agreement. Outstanding balance as of 31 Dec 21: USD 1.32 million	Xe-Pian Xe-Namnoy Power Co., Ltd.	3.37	1.89	1.84	To support Lao Holding State Enterprise's equity guarantee. A total of USD 4 million was borrowed from shareholders for repayment within 27 years for both principal and interest. The interest rate is 3M LIBOR plus fixed margin per annum.
1.2.8 Loan to Xe-Pian Xe-Namnoy Power Co., Ltd. through a Shareholders' Loan Agreement. Outstanding loan value as of 31 Dec 21: USD 16.78 million	Xe-Pian Xe-Namnoy Power Co., Ltd.	26.62	23.81	6.58	Reserved for project financing. A total of USD 51 million was borrowed from shareholders and will be repaid, for both principal and interest, whenever the borrower has excess cash. The interest rate is 3M LIBOR plus fixed margin per annum.
1.2.9 Loan to Smart Infranet Co., Ltd. through a loan agreement. Outstanding balance as of 31 Dec 21: Baht 25.50 million	Smart Infranet Co., Ltd.	0.59	-	-	To reserve for working capital and expenses in the study/development/preparation/investment of pilot projects as well as due diligence and other related activities. The interest rate is 5.30% per annum.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
1.2.10 Loan to Hin Kong Power Co., Ltd. through a loan agreement.	Hin Kong Power Co., Ltd.	-	0.36	0.31	To be used as working capital. The interest rate was 4.50% per annum.
1.2.11 Loan to Things on Net Co., Ltd. through a loan agreement. Outstanding balance as of 31 Dec 21: Baht 5.60 million	Things on Net Co., Ltd.	0.19	-	-	To reserve for working capital. The interest rate is 5.30% per annum.
1.2.12 Loan to Northern Bangkok Monorail Co., Ltd. through a loan agreement. Outstanding balance as of 31 Dec 21: Baht 32.25 million	Northern Bangkok Monorail Co., Ltd.	0.15	-	-	To finance the MRT Pink Line's extension. The interest rate is 5.00% per annum.

1.3 Interest expenses on loans

1.3.1 Borrowing from Ratchaburi Electricity Generating Co., Ltd. through promissory notes. Outstanding loans as of 31 Dec 21: Baht 5,140 million.	Ratchaburi Electricity Generating Co., Ltd.	40.84	9.87	-	Reserved for working capital and repayment of short-term loan from financial institutions. The interest rates are 0.78-0.80% per annum.
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2. Ratchaburi Electricity Generating Co., Ltd.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
2.1 Income from Power Purchase Agreement					
2.1.1 Power Purchase Agreement: Ratchaburi Power Plant Details in 2021 - Power sales income: Baht 28,992.37 million - Finance lease income: Baht 1,953.58 million	EGAT	30,945.95	28,717.01	33,061.12	Under the conditions stated in the 25-year Power Purchase Agreement with EGAT (signed on 9 Oct 2000), Ratchaburi Power Plant is obligated to supply electricity to EGAT and receive income from EGAT. This is considered a normal business practice.
2.1.2 Power Purchase Agreement: Tri Energy Power Plant	EGAT	-	676.00	1,763.87	Under the conditions stated in the 20-year Power Purchase Agreement with EGAT (signed on 22 May 97), Tri Energy Power Plant is obligated to supply electricity to EGAT and receive income from EGAT. This is considered a normal business practice.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
2.2 Expenses on contracts for backup electricity and power for water supply system	EGAT	207.53	142.84	160.02	Ratchaburi Electricity Generating Co., Ltd. needs electricity supply from EGAT for the operations of its power plant and the water supply system. The fee is charged at the same rate levied on other EGAT customers.
2.3 Expenses on Operation and Maintenance contracts					
Ratchaburi Electricity Generating Co., Ltd. hires EGAT to provide power plant operation and major/general maintenance services for Ratchaburi Power Plant. Details in 2021 - Monthly fee Baht 1,077.99 million - Other expenses Baht 127.30 million	EGAT	1,205.29	1,196.61	1,249.13	EGAT has experience and expertise in power plant operations and maintenance. Service fee is charged with annual incremental adjustment according to Thailand's consumer price index, which is considered a normal business practice.
2.4 Expenses on EGAT's contracts					
2.4.1 Ratchaburi Electricity Generating Co., Ltd. hires EGAT to provide maintenance service for Ratchaburi Power Plant's wastewater quality monitoring system.	EGAT	1.33	1.33	1.31	Ratchaburi Electricity Generating Co., Ltd. does not have experienced personnel while EGAT has highly experienced specialists and charges normal business fee.
2.4.2 Ratchaburi Electricity Generating Co., Ltd. hires EGAT to coordinate the procurement and transport of fuel (bunker oil). In 2021, Ratchaburi Power Plant purchased bunker oil from EGAT amounting to Baht 459.85 million	EGAT	2.17	2.17	2.16	As a major client of PTT, EGAT possesses strong bargaining power in terms of pricing, supply volume and speed of delivery. EGAT also charges normal service fee.
2.5 Revenue from management service contracts					
2.5.1 Ratchaburi Electricity Generating Co., Ltd. leased 143 rai of land to Ratchaburi Power Co., Ltd. for the construction of a power plant and another 2 rai for the construction of natural gas receiving station.	Ratchaburi Power Co., Ltd.	12.14	12.07	12.07	Ratchaburi Power Plant's premises are equipped with comprehensive facilities and utilities that support power generating business. Ratchaburi Electricity Generating Co., Ltd. charges leasing fee, which is adjusted every 5 years in accordance with Thailand's consumer price index. The transaction is considered a normal business practice.

Related party transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
2.5.2 Ratchaburi Electricity Generating Co., Ltd. grants Ratchaburi Power Co., Ltd. an access to its facilities. Details in 2021 - Environmental service fee Baht 3.51 million - Diesel tank rental fee Baht 2.18 million - Utility service fee Baht 19.04 million	Ratchaburi Power Co., Ltd.	24.73	22.68	29.94	Ratchaburi Electricity Generating Co., Ltd. sits on comprehensive utilities and facilities that support power generating business. Service fees comprise: - Environmental service - Diesel oil tank rental service of which fee will be increased every 5 years according to Thailand's inflation rate, which is considered a normal business practice. - Utilities of which fee is based on the contract, which is considered a normal business practice.
2.5.3 Ratchaburi Electricity Generating Co., Ltd. provides management service through secondment agreement, assigning executives and employees to work at RATCH Cogeneration Co., Ltd.	RATCH Cogeneration Co., Ltd.	2.68	2.71	0.84	RATCH Cogeneration Co., Ltd. has no staff in the areas and Ratchaburi Electricity Generating Co., Ltd. has experienced personnel. A monthly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.
2.5.4 Ratchaburi Electricity Generating Co., Ltd. leases a 175-rai land plot to Hin Kong Power Co., Ltd. for the latter's power plant construction	Hin Kong Power Co., Ltd.	40.45	-	-	- Ratchaburi Power Plant's premises are equipped with comprehensive facilities and utilities that support power generating business. Ratchaburi Electricity Generating Co., Ltd. charges leasing fee, which is adjusted every 5 years, in line with normal business transactions.

3. RATCH Cogeneration Co., Ltd.

Related Party Transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
3.1 Revenue from Power Purchase Agreement	EGAT	1,910.21	1,826.46	448.71	Under the conditions stated in the 25-year Power Purchase Agreement with EGAT (signed on 3 Dec 09), RATCH Cogeneration SPP Power Plant is obligated to supply electricity to EGAT and receive income from EGAT. This is considered a normal business practice.

4. RH International (Singapore) Corporation Pte. Ltd.

Related Party Transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
4.1 RH International (Singapore) Corporation Pte. Ltd. extended a loan to RATCH-Australia Corporation Pty Ltd. The outstanding balance as of 31 Dec 21: AUD 220.50 million.	RATCH-Australia Corporation Pty Ltd.	209.85	211.59	279.32	To repay RAC's loan and assist its loan restructuring. The interest rate is charged at the BBSY rate plus fixed margin per annum.

5. RATCH-Lao Services Co., Ltd.

Related Party Transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
5.1 Revenue from operation and maintenance service for Hongsa Thermal Power Plant in Lao PDR	EGAT	60.23	55.93	53.19	EGAT considered RATCH-Lao Services Co., Ltd. is a Lao legal entity which has high flexibility in coordinating in Lao PDR. Therefore, EGAT hires RATCH-Lao Services Co., Ltd. to provide O&M services for Hongsa Thermal Power Plant.
5.2 Revenue from operation and maintenance service for Nam Ngiep 1 Hydroelectric Power Plant in Lao PDR	EGAT	6.95	4.10	-	EGAT considered RATCH-Lao Services Co., Ltd. is a Lao legal entity which has high flexibility in coordinating in Lao PDR. Therefore, EGAT hires RATCH-Lao Services Co., Ltd. to provide O&M services for Nam Ngiep 1 Hydroelectric Power Plant.
5.3 Revenue from accounting service, procurement, and human resource services for Sandin Water Supply Project in Lao PDR	Asia Water Co., Ltd.	1.05	1.06	0.25	Asia Water Co., Ltd. requested for service and RATCH-Lao Services Co., Ltd. has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
5.4 Revenue from operation and maintenance service for Sandin Water Supply Project in Lao PDR	Asia Water Co., Ltd.	2.08	1.99	0.52	Asia Water Co., Ltd. requested for service and RATCH-Lao Services Co., Ltd. has experienced employees. A monthly fee is charged at the rate stated in the Management Service Agreement plus other actual expenses.
5.5 Revenue from office space rent	SIPHAN-DONE-RATCH LAO Co.,Ltd.	0.05	-	-	SIPHANDONE-RATCH LAO Co., Ltd. needed to rent office space under a 133-month contract. (1 Dec 2021-31 Dec 2032)

Related Party Transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
5.6 Revenue from accounting, budgeting, finance, tax, human resource and secretariat services	SIPHAN-DONE-RATCH LAO Co.,Ltd.	0.04	-	-	SIPHANDONE-RATCH LAO Co., Ltd. requested for the services and RATCH-Lao Services Co., Ltd. has experts in these areas. A monthly fee is charged at the rate as stated in the Management Service Agreement plus other actual expenses.

6. Sahacogen (Chonburi) Public Company Limited

Related Party Transaction	Related company	Value (Baht million)			Necessity and rationale
		2021	2020	2019	
6.1 Revenue from Power Purchase Agreement	EGAT	112.85	-	-	Under the conditions stated in the 25-year Power Purchase Agreement with EGAT, Sahacogen (Chonburi) SPP Power Plant (commercially operated since 1999) is obligated to supply electricity to EGAT and receive income from EGAT. This is considered a normal business practice.

Relationship between related parties is as follows:

1. RATCH Group Public Company Limited

- 1.1 The Company and EGAT are related as:
 - EGAT holds a 45.00 percent stake in the Company.
- 1.2 The Company and Ratchaburi Electricity Generating Company Limited are related as:
 - The Company holds a 99.99 percent stake in Ratchaburi Electricity Generating Company Limited.
 - Some of the Company's executives are directors of Ratchaburi Electricity Generating Company Limited.
- 1.3 The Company and Ratchaburi Energy Company Limited are related as:
 - The Company holds a 99.99 percent stake in Ratchaburi Energy Company Limited.

- Some of the Company's executives are directors of Ratchaburi Energy Company Limited.

- 1.4 The Company and RATCH-Lao Services Company Limited are related as:
 - The Company holds a 99.99 percent stake in RATCH-Lao Services Company Limited.
 - Some of the Company's executives are directors of RATCH-Lao Services Company Limited.
- 1.5 The Company and Ratchaburi Alliances Company Limited are related as:
 - The Company holds a 99.99 percent stake in Ratchaburi Alliances Company Limited.
 - Some of the Company's executives are directors of Ratchaburi Alliances Company Limited.

1.6 The Company and RH International Corporation Limited are related as:

- The Company holds a 99.99 percent stake in RH International Corporation Limited.
- Some of the Company's executives are directors of RH International Corporation Limited.

1.7 The Company and RH International (Singapore) Corporation Pte. Ltd. are related as:

- The Company holds a 99.99 percent stake in RH International Corporation Limited.
- RH International (Singapore) Corporation Pte. Ltd., the Company's subsidiary, owns a 100.00 percent stake in RH International (Mauritius) Corporation Limited
- RH International (Mauritius) Corporation Limited owns a 100.00 percent stake in RH International (Singapore) Corporation Pte. Ltd.
- Some of the Company's executives are directors of RH International (Singapore) Corporation Pte. Ltd.

1.8 The Company and RE Solar 1 Company Limited are related as:

- Ratchaburi Energy Company Limited, the Company's subsidiary, holds a 99.99 percent stake in RE Solar 1 Company Limited.
- Some of the Company's executives are directors of RE Solar 1 Company Limited.

1.9 The Company and CN Biomass Company Limited are related as:

- Ratchaburi Energy Company Limited, the Company's subsidiary, holds a 99.99 percent stake in CN Biomass Company Limited.
- Some of the Company's executives are directors of CN Biomass Company Limited.

1.10 The Company and LP Biomass Company Limited are related as:

- Ratchaburi Energy Company Limited, the

Company's subsidiary, holds a 99.99 percent stake in LP Biomass Company Limited.

- Some of the Company's executives are directors of LP Biomass Company Limited.

1.11 The Company and PB Biomass Company Limited are related as:

- Ratchaburi Energy Company Limited, the Company's subsidiary, holds a 99.99 percent stake in PB Biomass Company Limited.
- Some of the Company's executives are directors of PB Biomass Company Limited.

1.12 The Company and RATCH O&M Company Limited are related as:

- The Company holds a 99.99 percent stake in RATCH O&M Company Limited.
- Some of the Company's executives are directors of RATCH O&M Company Limited.

1.13 The Company and RATCH China Power Limited are related as:

- The Company holds a 99.99 percent stake in RH International Corporation Limited.
- RH International Corporation Limited, the Company's subsidiary, holds a 100.00 percent stake in RH International (Mauritius) Corporation Limited.
- RH International (Mauritius) Corporation Limited holds a 100.00 percent stake in RH International (Singapore) Corporation Pte. Ltd.
- RH International (Singapore) Corporation Pte. Ltd. holds a 100.00 percent stake in RATCH China Power Limited.
- Some of the Company's executives are directors of RATCH China Power Limited.

1.14 The Company and RH International (Mauritius) Corporation Limited are related as:

- The Company holds a 99.99 percent stake in RH International Corporation Limited.
- RH International Corporation Limited, the Company's subsidiary, holds a 100.00 percent stake in RH International (Mauritius) Corporation Limited.
- Some of the Company's executives are directors of RH International (Mauritius) Corporation Limited.

1.15 The Company and RATCH Cogeneration Company Limited are related as:

- The Company holds a 99.97 percent stake in RATCH Cogeneration Company Limited.
- Some of the Company's executives are directors of RATCH Cogeneration Company Limited.

1.16 The Company and Ratchaburi Power Company Limited are related as:

- Ratchaburi Alliances Company Limited, the Company's subsidiary, holds a 25.00 percent stake in Ratchaburi Power Company Limited.
- Some of the Company's executives are directors of Ratchaburi Power Company Limited.

1.17 The Company and Chubu Ratchaburi Electric Services Company Limited are related as:

- The Company holds a 50.00 percent stake in Chubu Ratchaburi Electric Services Company Limited.
- Some of the Company's executives are directors of Chubu Ratchaburi Electric Services Company Limited.

1.18 The Company and Nam Ngum 2 Power Company Limited are related as:

- SouthEast Asia Energy Limited, the Company's joint venture, holds a 75.00

percent stake in Nam Ngum 2 Power Company Limited.

- Some of the Company's executives are directors in Nam Ngum 2 Power Company Limited.

1.19 The Company and Nava Nakorn Electricity Generating Company Limited are related as:

- Ratchaburi Electricity Generating Company Limited, the Company's subsidiary, holds a 40.00 percent stake in Nava Nakorn Electricity Generating Company Limited.
- Some of the Company's executives are directors of Nava Nakorn Electricity Generating Company Limited.

1.20 The Company and Solarta Company Limited are related as:

- Ratchaburi Energy Company Limited, the Company's subsidiary, holds a 49.00 percent stake in Solarta Company Limited.
- Some of the Company's executives are directors of Solarta Company Limited.

1.21 The Company and Xe-Pian Xe-Namnoy Power Company Limited are related as:

- The Company holds a 25.00 percent stake in Xe-Pian Xe-Namnoy Power Company Limited.
- Some of the Company's executives are directors of Xe-Pian Xe-Namnoy Power Company Limited.

1.22 The Company and Songkhla Biomass Company Limited are related as:

- Ratchaburi Energy Company Limited, the Company's subsidiary, holds a 40.00 percent stake in Songkhla Biomass Company Limited.
- Some of the Company's executives are directors of Songkhla Biomass Company Limited

1.23 The Company and Berkprai Cogeneration Company Limited are related as:

- Ratchaburi Electricity Generating Company Limited, the Company's subsidiary, holds a 35.00 percent stake in Berkprai Cogeneration Company Limited.
- Some of the Company's executives are directors of Berkprai Cogeneration Company Limited.

1.24 The Company and First Korat Wind Company Limited are related as:

- The Company holds a 20.00 percent stake in First Korat Wind Company Limited.
- Some of the Company's executives are directors of First Korat Wind Company Limited.

1.25 The Company and K. R. Two Company Limited are related as:

- The Company holds a 20.00 percent stake in K. R. Two Company Limited.
- Some of the Company's executives are directors of K. R. Two Company Limited.

1.26 The Company and Hin Kong Power Holding Company Limited are related as:

- The Company holds a 99.99 percent stake in Hin Kong Power Holding Company Limited.
- Some of the Company's executives are directors of Hin Kong Power Holding Company Limited

1.27 The Company and Hin Kong Power Company Limited are related as:

- Hin Kong Power Holding Company Limited, the Company's joint venture, holds a 99.99 percent stake in Hin Kong Power Company Limited.
- Some of the Company's executives are directors of Hin Kong Power Company Limited.

1.28 The Company and PT Medco Ratch Power Riau are related as:

- The Company holds a 99.99 percent stake

in RH International Corporation Limited.

- RH International Corporation Limited, the Company's subsidiary, holds a 100.00 percent stake in RH International (Mauritius) Corporation Limited.
- RH International (Mauritius) Corporation Limited holds a 100.00 percent stake in RH International (Singapore) Corporation Pte. Ltd.
- RH International (Singapore) Corporation Pte. Ltd holds a 49.00 percent stake in PT Medco Ratch Power Riau.
- Some of the Company's executives are directors of PT Medco Ratch Power Riau.

1.29 The Company and Nexif RATCH Energy Rayong Company Limited are related as:

- The Company holds a 99.99 percent stake in RH International Corporation Limited.
- RH International Corporation Limited, the Company's subsidiary, holds a 100.00 percent stake in RH International (Mauritius) Corporation Limited.
- RH International (Mauritius) Corporation Limited holds a 100.00 percent stake in RH International (Singapore) Corporation Pte. Ltd.
- RH International (Singapore) Corporation Pte. Ltd holds a 49.00 percent stake in NEXIF RATCH ENERGY SINGAPORE PTE. LTD.
- NEXIF RATCH ENERGY SINGAPORE PTE. LTD. holds a 100.00 percent stake in Nexif RATCH Energy Rayong Company Limited.
- Some of the Company's executives are directors of Nexif RATCH Energy Rayong Company Limited.

1.30 The Company and Smart Infranet Company Limited are related as:

- The Company holds a 51.00 percent stake in Smart Infranet Company Limited.
- Some of the Company's executives are directors of Smart Infranet Company Limited.

1.31 The Company and R E N Korat Energy Company Limited are related as:

- The Company holds a 40.00 percent stake in R E N Korat Energy Company Limited.
- Some of the Company's executives are directors of R E N Korat Energy Company Limited.

1.32 The Company and Ecwin Energy Corporation are related as:

- The Company holds a 99.99 percent stake in RH International Corporation Limited.
- RH International Corporation Limited, a subsidiary, holds a 100.00 percent stake in RH International (Mauritius) Corporation Limited.
- RH International (Mauritius) Corporation Limited holds a 100.00 percent stake in RH International (Singapore) Corporation Pte. Ltd.
- RH International (Singapore) Corporation Pte. Ltd. holds a 63.80 percent stake in RATCH & AIDC Wind Energy Pte. Ltd.
- RATCH & AIDC Wind Energy Pte. Ltd. holds an 80.00 percent stake in Ecwin Energy Corporation.
- Some of the Company's executives are directors of Ecwin Energy Corporation.

1.33 The Company and Things on Net Company Limited are related as:

- The Company holds a 35.00 percent stake in Things on Net Company Limited.
- Some of the Company's executives are directors of Things on Net Company Limited.

1.34 The Company and Fareast Renewable Development Pte. Ltd. are related as:

- The Company holds a 99.99 percent stake in RH International Corporation Limited.
- RH International Corporation Limited, a subsidiary, holds a 100.00 percent stake in RH International (Mauritius) Corporation Limited.
- RH International (Mauritius) Corporation Limited holds a 100.00 percent stake in

RH International (Singapore) Corporation Pte. Ltd.

- RH International (Singapore) Corporation Pte. Ltd. holds a 90.00 percent stake in Fareast Renewable Development Pte. Ltd.
- Some of the Company's executives are directors of Fareast Renewable Development Pte. Ltd.

1.35 The Company and Northern Bangkok Monorail Company Limited are related as:

- The Company holds a 10.00 percent stake in Northern Bangkok Monorail Company Limited.
- Some of the Company's executives are directors of Northern Bangkok Monorail Company Limited.

2. Ratchaburi Electricity Generating Company Limited

2.1 Ratchaburi Electricity Generating Company Limited and EGAT are related as:

- EGAT holds a 45.00 percent stake in the Company.
- The Company holds a 99.99 percent stake in Ratchaburi Electricity Generating Company Limited.
- Some of EGAT executives are directors in Ratchaburi Electricity Generating Company Limited.

2.2 Ratchaburi Electricity Generating Company Limited and Ratchaburi Power Company Limited are related as:

- The Company holds a 99.99 percent stake in Ratchaburi Electricity Generating Company Limited.
- Ratchaburi Alliances Company Limited, the Company's subsidiary, holds a 25.00 percent stake in Ratchaburi Power Company Limited.
- Some of the Company's executives are directors of Ratchaburi Power Company Limited.

2.3 Ratchaburi Electricity Generating Company Limited and RATCH Cogeneration Company Limited are related as:

- The Company holds a 99.99 percent stake in Ratchaburi Electricity Generating Company Limited.
- The Company holds a 99.97 percent stake in RATCH Cogeneration Company Limited.
- Some of the Company's executives are directors of Ratchaburi Electricity Generating Company Limited.
- Some of the Company's executives are directors of RATCH Cogeneration Company Limited.

2.4 Ratchaburi Electricity Generating Company Limited and Hin Kong Power Company Limited are related as:

- The Company holds a 99.99 percent stake in Ratchaburi Electricity Generating Company Limited.
- The Company holds a 51.00 percent stake in Hin Kong Power Holding Company Limited.
- Hin Kong Power Holding Company Limited, a subsidiary, holds a 99.99 percent stake in Hin Kong Power Company Limited.
- Some of the Company's executives are directors of Hin Kong Power Company Limited.

3. RATCH Cogeneration Company Limited

3.1 RATCH Cogeneration Company Limited and EGAT are related as:

- EGAT holds a 45.00 percent stake in the Company.
- The Company holds a 99.97 percent stake in RATCH Cogeneration Company Limited.
- Some of the Company's executives are directors of RATCH Cogeneration Company Limited.

4. RH International (Singapore) Corporation Pte. Ltd.

4.1 RH International (Singapore) Corporation Pte. Ltd. and RATCH-Australia Corporation Pty Ltd are related as:

- RH International (Singapore) Corporation Pte. Ltd. holds a 100.00 percent stake in RATCH-Australia Corporation Pty Ltd.
- Some of the Company's executives are directors of RATCH-Australia Corporation Pty Ltd.

5. RATCH-Lao Services Company Limited

5.1 RATCH-Lao Services Company Limited and EGAT are related as:

- EGAT holds a 45.00 percent stake in the Company.
- The Company holds a 99.99 percent stake in RATCH-Lao Services Company Limited.

5.2 RATCH-Lao Services Company Limited and Asia Water Company Limited are related as:

- RATCH-Lao Services Company Limited holds a 40.00 percent stake in Asia Water Company Limited.
- The Company holds a 99.99 percent stake in RATCH-Lao Services Company Limited.

5.3 RATCH-Lao Services Company Limited and SIPHANDONE-RATCH LAO Co., Ltd. are related as:

- RATCH-Lao Services Company Limited holds a 25.00 percent stake of SIPHANDONE-RATCH LAO Co., Ltd.
- The Company holds a 99.99 percent stake in RATCH-Lao Services Company Limited.

6. Sahacogen (Chonburi) Public Company Limited

6.1 Sahacogen (Chonburi) Public Company Limited and EGAT are related as:

- EGAT holds a 45.00 percent stake in the Company.

- The Company holds a 51.00 percent stake in Sahacogen (Chonburi) Public Company Limited.
- Some of the Company executives are directors in Sahacogen (Chonburi) Public Company Limited.)

Approval procedure for related party transactions

The responsible unit conducts a preliminary screening by gathering information and analyzing whether the transactions are reasonable and meet normal business process. The Company may hire independent experts to provide additional comments. The transaction will then be proposed and included in the approval procedure. The Management prepares a summary of the related party transactions and submit the summary to the Audit Committee on a quarterly basis.

Policy or Trend of Future Related Party Transactions

The Company's future related party transactions will be normal business transactions that contain no extraordinary features or transfer of benefits between the Company, subsidiaries, joint ventures or related companies. The pricing of related party transactions will be determined by market prices applicable to unrelated individuals/enterprises.

To ensure that each transaction is not for the transfer of benefits between the Company or the Company's shareholders but is executed for the best interests of all shareholders, the Company discloses related party transactions in notes to the financial statements which are audited by the Company's auditor and included in the Annual Report and in the Company's Form 56-1 Report.

Board of Directors' Report on Its Responsibility to the Financial Reports



As the Board of Directors is obliged by the Public Company Act B.E. 2535, the Accounting Act B.E. 2543, the Securities and Exchange Act B.E. 2535 and the Securities and Exchange Commission's Announcement on the Rules, Conditions and Procedures for Disclosure regarding Financial and Non-financial Information of Security Issuers to prepare financial statements which contain factual, reasonable and transparent financial status, performance and cash flow in the previous year for the benefits of shareholders and general investors.

The consolidated and separate financial statements for the year ended 31 December 2021 were audited by the Company's auditor, KPMG Phoomchai Audit Limited. The Board of Directors provided information and documents, enabling the auditor to examine and express his opinions in conformity with generally accepted auditing standards. The auditor's opinions appear in Independent Auditor's Report which is included in this Form 56-1 One Report.

In this regard, the Board of Directors appointed the Audit Committee to review the accounting policy and

the quality of financial reports, the internal control system, and internal audit. The Audit Committee's opinions appeared in the Audit Committee's Report which is included in this Form 56-1 One Report.

The Board of Directors has provided and maintained an appropriate and effective internal control system to reasonably ensure that the financial reports did not include material misstatements, whether due to fraud or error.

Based on the evaluation of internal control system sufficiency in five components namely organizational structure and environment, risk management, control activities for information and communication, and operation monitoring; the Board of Directors is of the opinion that the Company's overall internal control system was satisfactory and could reasonably ensure that the consolidated and separate financial statements for the year ended 31 December 2021 were reliable and prepared accordingly to financial reporting standards and in compliance with relevant laws and regulations

Independent Auditor's Report

To the Shareholders of RATCH Group Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of RATCH Group Public Company Limited and its subsidiaries (the “Group”) and of RATCH Group Public Company Limited (the “Company”), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2021, the consolidated and separate statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2021 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

Basis for Opinion

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

Key Audit Matters

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

Impairment testing of goodwill, right to power purchase agreements and property, plant and equipment particularly the power plants in Australia in the consolidated financial statements and investment in subsidiary in the separate financial statements

Refer to Notes 3, 10, 12 and 14 to the financial statements.

The key audit matter	How the matter was addressed in the audit
<p>As at 31 December 2021, the Group holds significant amounts of goodwill, right to power purchase agreements and property, plant and equipment on the consolidated statement of financial position which contains a net book value of goodwill of Baht 169 million and net book value of right to power purchase agreements and property, plant and equipment of Baht 25,130 million together representing approximately 16% of total assets. There is a risk that the carrying values of the Group's goodwill, right to power purchase agreements and property, plant and equipment balances might exceed its recoverable amounts.</p> <p>The Company also has an investment in RH International Corporation Limited ("RHIC"), a subsidiary in Thailand, amounting to Baht 27,130 million which holds, via RH International (Singapore) Corporation Pte. Ltd., investments in the power plants in Australia. The recoverability of the investment in RHIC is a key audit matter because the investments in the power plants in Australia might be impaired.</p> <p>I focused on the estimated value in use of the cash generation units "CGUs" of the operation of the power plants in Australia because the determination of future cash flows and the recoverable amounts are highly judgemental and subject to material uncertainty.</p>	<p>My audit procedures in this area included, among others:</p> <ul style="list-style-type: none"> - assessing the Group's process for identifying indicators of impairment; - assessing the Group's response to the identified impairment indicators; - understanding process for estimating the impairment; - involving KPMG in Australia to assist in evaluating the appropriateness of discount rates applied, which included comparing the weight average cost of capital with sector averages for the relevant markets in which the Group operate and evaluating the appropriateness of the assumptions applied to key inputs such as contracted revenue, prices, operating costs, inflation rate and long-term growth rates, which included comparing these inputs with externally derived data. In addition, KPMG in Australia performed sensitivity analysis, which included assessing the effect of reasonably possible reductions in growth rates and forecast cash flows to evaluate the impact on the CGUs; - assessing the appropriateness of discount rates applied; - involving KPMG in Singapore to evaluate the appropriateness of key assumptions applied in determining the recoverable amounts of the investments in the power generation in Australia, including the consistency of the assumptions with business plans and forecasts used for impairment testing as described in my response above; and - evaluating the adequacy of the financial statement disclosures in accordance with Thai Financial Reporting Standards.

Fair value assessment of net assets acquired from business acquisition

Refer to Notes 3, 4 and 9 to the financial statements.

The key audit matter	How the matter was addressed in the audit
<p>On 19 November 2021, the indirect subsidiary acquired the additional 40% of ordinary shares of an indirect joint venture to invest in the total proportion of 90% of issued and paid-up share capital in an operation of the Hydroelectric Power Project in Republic of Indonesia. The Group appointed an independent appraiser to determine the fair value of net assets acquired from an acquisition of investment including the consideration transferred which has been</p>	<p>My audit procedures in this area included, among others:</p> <ul style="list-style-type: none"> - reading the share sale and purchase agreement, evaluating the appropriateness of the identification of the net assets acquired at the date of acquisition; - evaluating significant assumptions underpinning the valuations reference to internal and external information used to determine the fair value of

<p>completed as at the date of these consolidated financial statements. The consideration transferred is lower than the fair value of the identifiable net assets acquired net of the previous equity interests, of Baht 178 million while the Group recognised gain on bargain purchase in the statement of comprehensive income for the year ended 31 December 2021.</p> <p>Due to the materiality of the transactions and the significant judgement and complexities involved in determining the fair value. I considered this as a key audit matter.</p>	<p>the business prepared by an independent appraiser appointed by management;</p> <ul style="list-style-type: none"> - consulting with KPMG valuation specialist to evaluate the appropriateness of financial parameters applied to the discount rate, the valuation methodology and calculation rationale; and - evaluating the adequacy of the financial statement disclosures in accordance with Thai Financial Reporting Standards.
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Emphasis of Matter

I draw attention to Note 4 to the financial statement. The Group acquired a business during the year ended 31 December 2021 and engaged an independent appraiser to determine the fair value of the identifiable assets acquired and liabilities assumed from the business acquisitions. As at the reporting date, the appraisal has not yet been completed therefore the determination of the fair value was determined provisionally and is subject to adjustment. My opinion is not modified in respect of this matter.

Other Information

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

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

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

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the correction be made.

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

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

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

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

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

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

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

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

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

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

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



(Vairoj Jindamaneepitak)
Certified Public Accountant
Registration No. 3565

KPMG Phoomchai Audit Ltd.
Bangkok
22 February 2022

RATCH Group Public Company Limited and its subsidiaries
Statement of financial position

Assets	Note	Consolidated		Separate	
		financial statements		financial statements	
		31 December		31 December	
		2021	2020	2021	2020
(in Baht)					
Current assets					
Cash and cash equivalents	6	6,961,494,467	4,856,588,850	692,550,892	2,231,434,858
Trade receivables from related parties	5, 7	8,934,057,143	4,982,246,143	-	-
Trade receivables from other parties	7	840,139,539	207,697,412	-	-
Other current receivables		596,115,967	165,244,989	42,458,153	33,799,302
Advances to and other current receivables from related parties	5	31,468,309	62,512,207	113,960,562	137,661,035
Short-term loans to related parties	5	-	-	185,617,452	59,667,643
Current portion of lease receivable	5	3,046,399,369	2,575,600,533	-	-
Spare parts and supplies	8	1,901,844,963	1,782,603,745	-	-
Other current financial assets	25	2,899,229,053	3,757,435,640	335,663,961	1,198,043,203
Current portion of derivative assets		834,220	-	-	-
Other current assets		104,189,134	94,762,999	6,685,810	22,578,358
Total current assets		25,315,772,164	18,484,692,518	1,376,936,830	3,683,184,399
Non-current assets					
Other non-current financial assets	25	4,014,147,802	2,076,085,479	2,152,755,593	337,232,136
Investments in associates	9	10,439,216,501	6,228,054,327	6,356,741,625	3,144,604,000
Investments in subsidiaries	10	-	-	55,708,147,476	50,836,609,974
Investments in joint ventures	9	40,627,811,350	34,559,745,405	6,814,073,547	6,346,256,691
Other non-current receivables from related parties	5	74,159,358	44,011,302	92,218,055	47,804,393
Derivative assets	25	-	5,821,259	-	-
Long-term loans to related parties	5, 25	656,164,226	522,661,930	2,804,097,662	1,753,796,258
Long-term loan to other parties	25	2,652,435,074	2,384,774,934	-	-
Investment properties	5	110,827,171	-	-	-
Land for future development projects	11	372,920,314	380,447,869	305,389,850	305,389,850
Property, plant and equipment	12	36,227,573,249	29,479,296,440	507,170,016	520,219,554
Right-of-use assets	13	2,174,445,486	2,029,586,919	29,835,814	41,717,185
Goodwill	14	1,599,717,448	169,654,828	-	-
Intangible assets other than goodwill	14	3,108,262,279	3,283,874,662	458,165	1,757,316
Lease receivable	5	25,202,498,621	10,561,883,101	-	-
Deferred tax assets	21	40,494,519	42,057,427	-	49,295,402
Other non-current assets	15	2,238,860,185	1,879,603,961	4,525,679	4,516,774
Total non-current assets		129,539,533,583	93,647,559,843	74,775,413,482	63,389,199,533
Total assets		154,855,305,747	112,132,252,361	76,152,350,312	67,072,383,932

The accompanying notes form an integral part of the financial statements.

RATCH Group Public Company Limited and its subsidiaries
Statement of financial position

Liabilities and equity	Note	Consolidated		Separate	
		financial statements		financial statements	
		31 December		31 December	
		2021	2020	2021	2020
(in Baht)					
Current liabilities					
Short-term loans from financial institutions	16	5,364,895,500	60,074,200	2,536,000,000	-
Short-term loans from related party	5, 16	-	-	5,140,000,000	3,465,000,000
Trade payables		7,676,876,249	3,643,029,682	-	-
Other current payables	5	1,755,928,419	1,157,970,623	322,094,610	326,574,947
Derivative liabilities	25	346,401,339	225,923,272	-	-
Current portion of long-term loans from financial institutions	16, 25	2,670,533,006	1,486,205,468	-	-
Current portion of debentures	16	1,999,947,476	-	-	-
Current portion of lease liabilities	16	161,512,501	118,091,720	15,419,956	16,290,079
Current tax payable		11,053,877	150,579	-	-
Other current liabilities		282,739,873	185,743,151	20,701,931	20,769,266
Total current liabilities		20,269,888,240	6,877,188,695	8,034,216,497	3,828,634,292
Non-current liabilities					
Long-term loans from financial institutions	16, 25	26,745,189,381	16,768,088,099	5,000,000,000	-
Long-term loans	16	320,000,000	-	-	-
Lease liabilities	16	1,505,423,086	1,362,555,893	15,922,023	26,593,861
Other non-current payables from related party	5	4,235,284	-	4,235,284	-
Derivative liabilities	25	460,668,505	1,051,608,153	-	-
Debentures	16, 25	22,351,744,059	23,338,357,086	7,989,734,041	7,987,986,087
Deferred tax liabilities	21	4,139,423,769	1,831,406,359	3,580,208	-
Non-current provisions for employee benefits	17	266,686,262	225,498,462	179,303,052	178,407,987
Other long-term provisions		979,905,914	153,377,313	-	-
Other non-current liabilities		2,600,000	2,600,000	-	-
Total non-current liabilities		56,775,876,260	44,733,491,365	13,192,774,608	8,192,987,935
Total liabilities		77,045,764,500	51,610,680,060	21,226,991,105	12,021,622,227
Equity					
Share capital:					
Authorised share capital (1,450,000,000 ordinary shares, par value at Baht 10 per share)		14,500,000,000	14,500,000,000	14,500,000,000	14,500,000,000
Issued and paid-up share capital (1,450,000,000 ordinary shares, par value at Baht 10 per share)		14,500,000,000	14,500,000,000	14,500,000,000	14,500,000,000
Share premium on ordinary shares	18	1,531,778,000	1,531,778,000	1,531,778,000	1,531,778,000
Difference arising from common control transaction		-	-	221,308,748	221,308,748
Retained earnings					
Appropriated					
Legal reserve	18	1,450,000,000	1,450,000,000	1,450,000,000	1,450,000,000
Unappropriated		57,877,668,427	53,585,646,723	37,053,961,765	37,393,869,408
Other components of equity		(5,069,737,114)	(10,546,536,831)	168,310,694	(46,194,451)
Equity attributable to owners of the parent		70,289,709,313	60,520,887,892	54,925,359,207	55,050,761,705
Non-controlling interests		7,519,831,934	684,409	-	-
Total equity		77,809,541,247	60,521,572,301	54,925,359,207	55,050,761,705
Total liabilities and equity		154,855,305,747	112,132,252,361	76,152,350,312	67,072,383,932

The accompanying notes form an integral part of the financial statements.

RATCH Group Public Company Limited and its subsidiaries
Statement of comprehensive income

		Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
	Note	2021	2020	2021	2020
		(in Baht)			
Revenue from sales and rendering of services	5, 19	35,231,479,642	31,652,536,013	-	-
Revenue from lease contracts	5	2,095,297,401	2,553,209,226	-	-
Cost of sales and rendering of services	5, 20	(33,116,498,074)	(30,228,688,704)	-	-
Gross profit		4,210,278,969	3,977,056,535	-	-
Management service income	5	224,304,685	276,307,350	429,484,729	439,448,107
Interest income	5	205,354,408	159,412,199	108,542,941	95,978,778
Dividend income	5, 9, 10	58,829,567	61,184,256	3,529,325,201	3,463,629,570
Other income	5	397,952,979	219,002,836	13,829,017	5,009,984
Administrative expenses	5, 20	(1,701,840,868)	(1,601,096,914)	(878,619,267)	(930,216,123)
Net gain on bargain purchase	4	177,666,981	-	-	-
Net foreign exchange gain (loss)		206,290,135	304,452,937	205,176,933	(5,717,374)
Gain (loss) on fair value adjustment of derivatives		143,505,823	(130,239,655)	-	-
Finance costs	5	(1,868,068,721)	(1,551,352,466)	(268,397,872)	(71,953,352)
Share of profit of joint ventures and associates accounted for using equity method	9	5,902,400,599	4,600,342,636	-	-
Profit before income tax expense		7,956,674,557	6,315,069,714	3,139,341,682	2,996,179,590
Tax (expense) income	21	(178,055,391)	(28,357,829)	750,675	2,514,702
Profit for the year		7,778,619,166	6,286,711,885	3,140,092,357	2,998,694,292
Other comprehensive income (expense)					
Items that will be reclassified subsequently to profit or loss					
Exchange differences on translating financial statements		3,355,442,936	318,077,769	-	-
Gain (loss) on cash flow hedges		613,256,077	(141,232,876)	-	-
Share of other comprehensive income (expense) of joint ventures and associates accounted for using equity method	9	1,599,144,613	(1,162,084,981)	-	-
Income tax relating to items that will be reclassified	21	(11,613,932)	-	-	-
Total items that will be reclassified subsequently to profit or loss		5,556,229,694	(985,240,088)	-	-
Items that will not be reclassified to profit or loss					
Gain (loss) on investments in equity instruments designated at fair value through other comprehensive income	25	123,539,796	(665,536,995)	264,813,025	-
Gain (loss) on remeasurements of defined benefit plans	17	6,122,618	(28,912,830)	3,318,405	(23,736,045)
Share of other comprehensive income (expense) of joint ventures and associates accounted for using equity method	9	-	(1,863,880)	-	-
Income tax relating to items that will not be reclassified	21	(54,187,128)	5,782,566	(53,626,285)	4,747,209
Total items that will not be reclassified to profit or loss		75,475,286	(690,531,139)	214,505,145	(18,988,836)
Other comprehensive income (expense) for the year, net of tax		5,631,704,980	(1,675,771,227)	214,505,145	(18,988,836)
Total comprehensive income for the year		13,410,324,146	4,610,940,658	3,354,597,502	2,979,705,456
Profit attributable to:					
Owners of the parent		7,772,021,704	6,286,677,775	3,140,092,357	2,998,694,292
Non-controlling interests		6,597,462	34,110	-	-
Profit for the year		7,778,619,166	6,286,711,885	3,140,092,357	2,998,694,292
Total comprehensive income attributable to:					
Owners of the parent		13,248,821,421	4,610,906,548	3,354,597,502	2,979,705,456
Non-controlling interests		161,502,725	34,110	-	-
Total comprehensive income for the year		13,410,324,146	4,610,940,658	3,354,597,502	2,979,705,456
Basic earnings per share (in Baht)	23	5.36	4.34	2.17	2.07

The accompanying notes form an integral part of the financial statements.

RATCH Group Public Company Limited and its subsidiaries

Statement of changes in equity

	Consolidated financial statements											
	Retained earnings			Other components of equity								
	Issued and paid-up share capital	Share premium	Legal reserve	Unappropriated	Translation reserve	Fair value reserve	Hedging reserve	Losses on re-measurements of defined benefit plans	Total other components of equity	Total equity attributable to owners of the parent	Non-controlling interests	Total equity
(in Baht)												
Year ended 31 December 2020												
Balance at 1 January 2020	14,500,000,000	1,531,778,000	1,450,000,000	50,778,968,948	(5,845,454,565)	(1,365,475,327)	(796,264,466)	(841,054,805)	(8,870,765,604)	59,389,981,344	650,299	59,390,631,643
Transactions with owners, recorded directly in equity												
<i>Distributions to owners of the parent</i>												
Dividends	-	-	-	(3,480,000,000)	-	-	-	-	-	(3,480,000,000)	-	(3,480,000,000)
Total transactions with owners, recorded directly in equity	-	-	-	(3,480,000,000)	-	-	-	-	-	(3,480,000,000)	-	(3,480,000,000)
Comprehensive income for the year												
Profit	-	-	-	6,286,677,775	-	-	-	-	-	6,286,677,775	34,110	6,286,711,885
Other comprehensive income (expense)	-	-	-	-	318,077,769	(665,536,995)	(141,232,876)	(1,163,948,861)	(1,675,771,227)	(1,675,771,227)	-	(1,675,771,227)
Total comprehensive income (expense) for the year	-	-	-	6,286,677,775	318,077,769	(665,536,995)	(141,232,876)	(1,163,948,861)	(1,675,771,227)	4,610,906,548	34,110	4,610,940,658
Balance at 31 December 2020	14,500,000,000	1,531,778,000	1,450,000,000	53,585,646,723	(5,527,376,796)	(2,031,012,322)	(937,497,342)	(2,005,003,666)	(10,546,536,831)	60,570,887,892	684,409	60,571,572,301

The accompanying notes form an integral part of the financial statements.

	Consolidated financial statements											
	Retained earnings		Other components of equity									
	Issued and paid-up share capital	Share premium	Legal reserve	Unappropriated	Translation reserve	Fair value reserve	Hedging reserve	Losses on remeasurements of defined benefit plans	Total other components of equity	Total equity attributable to owners of the parent	Non-controlling interests	Total equity
	(in Baht)											
Year ended 31 December 2021	14,500,000,000	1,531,778,000	1,450,000,000	53,585,646,723	(5,527,376,796)	(2,031,012,322)	(937,497,342)	(45,646,705)	(10,546,536,831)	60,520,887,892	684,409	60,521,572,301
Balance at 1 January 2021	-	-	-	(3,480,000,000)	-	-	-	-	-	(3,480,000,000)	-	(3,480,000,000)
Transactions with owners, recorded directly in equity	-	-	-	(3,480,000,000)	-	-	-	-	-	(3,480,000,000)	-	(3,480,000,000)
Dividends	-	-	-	-	-	-	-	-	-	-	-	-
Total distributions to owners	-	-	-	-	-	-	-	-	-	-	-	-
Changes in ownership interests in subsidiaries	-	-	-	-	-	-	-	-	-	-	-	-
Acquisition of non-controlling interests with a change in control	-	-	-	-	-	-	-	-	-	-	7,357,644,800	7,357,644,800
Total changes in ownership interests in subsidiaries	-	-	-	-	-	-	-	-	-	-	7,357,644,800	7,357,644,800
Total transactions with owners, recorded directly in equity	-	-	-	(3,480,000,000)	-	-	-	-	-	(3,480,000,000)	7,357,644,800	3,877,644,800
Comprehensive income for the year	-	-	-	7,772,021,704	-	-	-	-	-	7,772,021,704	6,597,462	7,778,619,166
Other comprehensive income	-	-	-	-	3,199,773,273	71,341,591	601,642,145	4,898,095	5,476,799,717	5,476,799,717	154,905,263	5,631,704,980
Total comprehensive income for the year	-	-	-	7,772,021,704	3,199,773,273	71,341,591	601,642,145	4,898,095	5,476,799,717	13,248,821,421	161,502,725	13,410,324,146
Balance at 31 December 2021	14,500,000,000	1,531,778,000	1,450,000,000	57,877,668,427	(2,327,603,523)	(1,959,670,731)	(335,855,197)	(40,748,610)	(5,069,737,114)	70,289,709,313	7519,831,934	77,809,541,247

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RATCH Group Public Company Limited and its subsidiaries
Statement of changes in equity

	Separate financial statements					
	Issued and paid-up share capital	Share premium	Difference arising from common control transaction	Retained earnings		Total equity
				Legal reserve	Unappropriated	
				(in Baht)		
Year ended 31 December 2020						
Balance at 1 January 2020	14,500,000,000	1,531,778,000	221,308,748	1,450,000,000	37,875,175,116	55,551,056,249
Transactions with owners, recorded directly in equity						
<i>Distributions to owners of the parent</i>	-	-	-	-	-	(3,480,000,000)
Dividends	-	-	-	-	(3,480,000,000)	(3,480,000,000)
Total transactions with owners, recorded directly in equity						
Comprehensive income for the year						
Profit	-	-	-	-	2,998,694,292	2,998,694,292
Other comprehensive income (expense)	-	-	-	-	-	(18,988,836)
Total comprehensive income (expense) for the year						
	-	-	-	-	2,998,694,292	2,979,705,456
Balance at 31 December 2020	14,500,000,000	1,531,778,000	221,308,748	1,450,000,000	37,393,869,408	55,050,761,705

The accompanying notes form an integral part of the financial statements.

RATCH Group Public Company Limited and its subsidiaries
Statement of changes in equity

		Separate financial statements								
	Note	Issued and paid-up share capital	Share premium	Difference arising from common control transaction	Retained earnings			Other components of equity		
					Legal reserve	Unappropriated	Fair value reserve	Gain (loss) on remeasurements of defined benefit plans	Total other components of equity	Total equity
(in Baht)										
Year ended 31 December 2021		14,500,000,000	1,531,778,000	221,308,748	1,450,000,000	37,393,869,408	-	(46,194,451)	(46,194,451)	55,050,761,705
Balance at 1 January 2021										
Transactions with owners, recorded directly in equity										
Dividends	24	-	-	-	-	(3,480,000,000)	-	-	-	(3,480,000,000)
Total transactions with owners, recorded directly in equity		-	-	-	-	(3,480,000,000)	-	-	-	(3,480,000,000)
Comprehensive income for the year										
Profit		-	-	-	-	3,140,092,357	-	-	-	3,140,092,357
Other comprehensive income		-	-	-	-	-	211,850,421	2,654,724	214,505,145	214,505,145
Total comprehensive income for the year		-	-	-	-	3,140,092,357	211,850,421	2,654,724	214,505,145	3,354,597,502
Balance at 31 December 2021		14,500,000,000	1,531,778,000	221,308,748	1,450,000,000	37,053,961,765	211,850,421	(43,539,727)	168,310,694	54,925,359,207

The accompanying notes form an integral part of the financial statements.

RATCH Group Public Company Limited and its subsidiaries
Statement of cash flows

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2021	2020	2021	2020
(in Baht)					
Cash flows from operating activities					
Profit for the year		7,778,619,166	6,286,711,885	3,140,092,357	2,998,694,292
<i>Adjustments to reconcile profit to cash receipts (payments)</i>					
Tax expense (income)	21	178,055,391	28,357,829	(750,675)	(2,514,702)
Finance costs		1,868,068,721	1,551,352,466	268,397,872	71,953,352
Depreciation	12, 13	1,809,560,839	1,504,306,699	35,435,047	35,754,096
Amortisation	14	334,706,350	328,225,233	1,299,152	2,576,314
(Reverse of) impairment losses recognised in profit or loss	25	(9,783,590)	22,623,034	(35,441)	36,820,421
Impairment losses on assets		82,181,446	-	-	-
Unrealised (gain) loss on foreign exchange		(249,286,070)	(224,520,304)	(170,792,923)	5,854,454
(Gain) loss on fair value adjustment of derivatives		(143,505,823)	130,239,655	-	-
(Gain) loss on fair value adjustment of other financial assets	25	6,189,553	(10,144,144)	3,580,381	262,076
(Gain) loss on disposal of other financial assets		(3,492,979)	(3,669,581)	904,741	(713,962)
Fair value adjustment of lease receivable		16,601,706	(77,678,174)	-	-
Share of profit of joint ventures and associates accounted for using equity method, net of tax	9	(5,902,400,599)	(4,600,342,636)	-	-
Loss on allowance for obsolescence of spare parts and supplies devaluation	8	26,538,833	74,612,903	-	-
(Reversal of) loss on fuel oil devaluation	8	(65,884,276)	65,884,276	-	-
Gain on disposal of spare parts and supplies		-	(250,000)	-	-
Gain on bargain purchase	4	(177,666,981)	-	-	-
Gain on disposal of land for future development projects		-	(1,801,903)	-	-
(Gain) loss on write-off and disposal of plant and equipment		1,465,705	2,765,778	13	(7,346)
Dividend income	5, 9, 10	(58,829,567)	(61,184,256)	(3,529,325,201)	(3,463,629,570)
Interest income		(205,354,408)	(159,412,199)	(108,542,941)	(95,978,778)
Write-off withholding tax deducted at source and others		4,728,289	172	4,727,463	-
		5,290,511,706	4,856,076,733	(355,010,155)	(410,929,353)
<i>Changes in operating assets and liabilities</i>					
Trade receivable from related parties		(3,426,400,345)	295,413,147	-	-
Trade receivable from other parties		(204,079,368)	48,558,675	-	-
Other current receivables		(309,705,548)	40,519,917	(1,079,588)	(3,416,938)
Advances to and other current receivables from related parties		30,653,167	27,518,985	23,900,188	(49,800,653)
Lease receivable		2,575,600,533	3,346,052,037	-	-
Spare parts and supplies		193,591,713	(16,624,094)	-	-
Other current assets and other non-current assets		(65,911,076)	(157,832,781)	15,866,985	(20,791,177)
Trade payable		3,533,555,368	(271,813,667)	-	-
Other current payables and other non-current payable		(197,376,186)	(582,575,392)	(8,168,276)	508,533
Other current liabilities		(84,588,048)	66,106,348	155,132	(415,499)
Non-current provisions for employee benefits		61,256	(7,308,969)	4,213,468	(11,559,908)
Long-term provisions		38,718,499	5,923,747	-	-
Net cash generated from (used in) operating		7,374,631,671	7,650,014,686	(320,122,246)	(496,404,995)
Taxes received (paid)		(221,060,381)	(358,661,699)	(14,410,921)	641,143
Net cash from (used in) operating activities		7,153,571,290	7,291,352,987	(334,533,167)	(495,763,852)

The accompanying notes form an integral part of the financial statements.

RATCH Group Public Company Limited and its subsidiaries
Statement of cash flows

	Note	Consolidated		Separate	
		financial statements		financial statements	
		Year ended 31 December		Year ended 31 December	
		2021	2020	2021	2020
(in Baht)					
Cash flows from investing activities					
Proceeds from disposal of subsidiary	10	-	1,960,000	-	1,960,000
Cash decreased from disposal of subsidiary		-	(3,765,979)	-	-
Payments for investments in joint ventures	9	(971,915,417)	(4,511,633,068)	(467,816,856)	(1,427,713,807)
Payments for investments in associates	9	(3,632,590,346)	(1,484,045,658)	(3,212,137,625)	-
Acquisition of subsidiaries, net of cash acquired	4, 10	(2,577,327,115)	-	(3,412,537,502)	-
Payments for investment in subsidiaries	10	-	-	(1,459,000,000)	(8,280,000,000)
Net cash inflow (outflow) in other current financial assets		860,981,364	728,657,861	864,901,534	(632,539,036)
Net cash outflow in other non-current financial assets		(1,747,705,339)	(698,116,250)	(1,557,705,339)	(245,000,000)
Proceeds from repayment of short-term loans to related parties	5	-	25,000,000	92,000,000	1,239,000,000
Short-term loans to related parties	5	-	(5,000,000)	(217,000,000)	(1,165,000,000)
Proceeds from repayment of long-term loans to related parties	5	-	-	-	132,348,026
Long-term loans to related parties	5	(63,353,000)	-	(878,673,000)	(136,133,542)
Long-term loan to other party	9	-	(2,500,768,000)	-	-
Proceeds from sale of land for future development projects		-	19,844,250	-	-
Proceeds from sale of equipment		367,211	2,184,944	-	7,382
Payment for acquisition of plant and equipment		(1,893,530,865)	(4,628,729,219)	(5,093,295)	(469,159)
Payment for acquisition of intangible assets		392,681	(3,857,513)	-	-
Dividends received		2,208,834,448	2,047,010,551	3,529,325,201	3,464,229,570
Interest received		167,101,100	98,053,132	64,369,246	69,880,488
Net cash used in investing activities		(7,648,745,278)	(10,913,204,949)	(6,659,367,636)	(6,979,430,078)
Cash flows from financing activities					
Proceeds from short-term loans from financial institutions	16	21,161,590,400	11,405,912,200	12,829,000,000	8,335,000,000
Repayment for short-term loans from financial institutions	16	(17,133,534,700)	(11,946,580,000)	(10,293,000,000)	(8,335,000,000)
Proceeds from long-term loans from financial institutions	16	5,767,013,011	2,239,229,895	5,000,000,000	-
Repayment for long-term loans from financial institutions	16	(2,055,422,234)	(1,549,790,061)	-	-
Proceeds from short-term loans from related party	5, 16	-	-	1,750,000,000	3,465,000,000
Repayment for short-term loans from related party		-	-	(75,000,000)	-
Proceeds from early unwinding of derivative		-	227,783,123	-	-
Payment of lease liabilities	13, 16	(159,382,147)	(62,810,603)	(18,791,737)	(18,500,460)
Proceeds from issue of debentures	16	-	8,000,000,000	-	8,000,000,000
Dividend paid to owners of the Company		(3,480,222,463)	(3,480,049,203)	(3,480,222,464)	(3,480,049,203)
Finance costs paid		(1,715,470,073)	(1,408,571,319)	(256,968,962)	(39,925,680)
Net cash from financing activities		2,384,571,794	3,425,124,032	5,455,016,837	7,926,524,657
Net increase (decrease) in cash and cash equivalents, before effect of exchange rates		1,889,397,806	(196,727,930)	(1,538,883,966)	451,330,727
Effect of exchange rate changes on cash and cash equivalents		215,507,811	136,153,649	-	-
Net increase (decrease) in cash and cash equivalents		2,104,905,617	(60,574,281)	(1,538,883,966)	451,330,727
Cash and cash equivalents at 1 January		4,856,588,850	4,917,163,131	2,231,434,858	1,780,104,131
Cash and cash equivalents at 31 December		6,961,494,467	4,856,588,850	692,550,892	2,231,434,858

The accompanying notes form an integral part of the financial statements.

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

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RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements, and were approved and authorised for issue by the Board of Directors on 22 February 2022.

1 General information

RATCH Group Public Company Limited, the “Company”, is incorporated in Thailand and was listed on the Stock Exchange of Thailand in October 2000. The Company’s registered office is at 72 Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi, Thailand.

The Company’s major shareholder during the financial year was Electricity Generating Authority of Thailand (“EGAT”) (45% shareholding), which was incorporated in Thailand.

The principal businesses of the Company are the investing in companies, whose objectives are to generate and sell electricity, develop power energy project and infrastructure project. Details of the Company’s subsidiaries, associates and joint ventures as at 31 December 2021 and 2020 are given in note 9 and 10.

2 Basis of preparation of the financial statements

The financial statements are prepared in accordance with Thai Financial Reporting Standards (“TFRS”), guidelines promulgated by the Federation of Accounting Professions and applicable rules and regulations of the Thai Securities and Exchange Commission. The financial statements are presented in Thai Baht, which is the Company’s functional currency.

3 Significant accounting policies

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

(a) Basis of consolidation

The consolidated financial statements relate to the Company and its subsidiaries (together referred to as the “Group”) and the Group’s interests in associates and joint ventures.

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

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree. In addition, when there is a change in the Group’s interest in a subsidiary that do not result in a loss of control, any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid from the acquisition of the non-controlling interests with no change in control are accounted for as other surpluses/deficits in shareholders’ equity.

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

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

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

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

Business combinations

The Group applies the acquisition method when the Group assess that the acquired set of activities and assets include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. The acquisition date is the date on which control is transferred to the Group other than business combinations with entities under common control. Expenses in connection with a business combination are recognised as incurred.

Goodwill is measured as the fair value of the consideration transferred including the recognised amount of any non-controlling interest in the acquiree, less net fair value of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. Any gain on bargain purchase is recognised in profit or loss immediately.

Consideration transferred includes assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, any contingent consideration and equity interests issued by the Group.

Any contingent consideration is measured at fair value at the date of acquisition and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognised in profit or loss.

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

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to its acquisition-date fair value and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

Business combinations under common control are accounted for using a method similar to the pooling of interest method, by recognising assets and liabilities of the acquired businesses at their carrying amounts in the consolidated financial statements of the ultimate parent company at the moment of the transaction. The difference between the carrying amount of the acquired net assets and the consideration transferred is recognised as surplus or deficit from business combinations under common control in shareholder's equity. The surplus or deficit will be written upon divestment of the businesses acquired. The results from operations of the acquired businesses will be included in the consolidated financial statements of the acquirer from the beginning of the comparative period or the moment the businesses came under common control, whichever date is later, until control ceases.

(b) Investments in subsidiaries, associates and joint ventures

Investments in subsidiaries, associates and joint ventures in the separate financial statements are measured at cost less allowance for impairment losses. Dividend income is recognised in profit or loss on the date on which the Group's right to receive payment is established. If the Company disposes of part of its investment, the deemed cost of the part sold is determined using the weighted average method. Gains and losses on disposal of the investments are recognised in profit or loss.

(c) Foreign currencies

Transactions in foreign currencies including non-monetary assets and liabilities denominated in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate at the reporting date. Non-monetary assets and liabilities measured at fair value in foreign currencies are translated at the exchange rates at the dates that fair value was determined.

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

- an investment in equity securities designated as at FVOCI (except on impairment, in which case foreign currency differences that have been recognised in other comprehensive income are reclassified to profit or loss); and
- qualifying cash flow hedges to the extent the hedge is effective.

Foreign operations

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

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

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

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

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

(d) Financial instruments

(d.1) Classification and measurement

Financial assets and financial liabilities (except trade accounts receivables) are initially recognised when the Group becomes a party to the contractual provisions of the instrument, and measured at fair value, taking into account for transaction costs that are directly attributable to its acquisition or issue of the securities, except for financial assets and financial liabilities measured at FVTPL, which are initially and subsequently measured at fair value, and any transaction costs that are directly attributable to its acquisition or issue of the securities are recognised in profit or loss.

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income (FVOCI); or fair value through profit or loss (FVTPL). Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified prospectively from the reclassification date.

On initial recognition, financial liabilities are classified as measured at amortised cost using the effective interest method or FVTPL. Interest expense, foreign exchange gains and losses and any gain or loss on derecognition are recognised in profit or loss.

Financial assets measured at amortised costs are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by expected credit losses. Interest income, foreign exchange gains and losses, expected credit loss and any gain or loss on derecognition are recognised in profit or loss.

Debt investments measured at FVOCI are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and expected credit loss are recognised in profit or loss. Other net gains and losses are recognised in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

Equity investments measured at FVOCI are subsequently measured at fair value. Dividend income is recognised as income in profit or loss on the date on which the Group's right to receive payment is established, unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and are never reclassified to profit or loss.

(d.2) Derecognition and offset

The Group derecognises a financial asset when the contractual rights to receive the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

The difference between the carrying amount extinguished and the consideration received or paid is recognised in profit or loss.

Financial assets and financial liabilities are offset, and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and the Group intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(d.3) Derivatives

Derivative are recognised at fair value and remeasured at fair value at each reporting date. The gain or loss on remeasurement to fair value is recognised immediately in profit or loss, except where the derivatives qualify for cash flow hedge accounting or hedges of net investment in a foreign operation, in which case recognition of any resultant gain or loss depends on nature of the item being hedged.

(d.4) Hedging

At inception of designated hedging relationships, the Group documents the risk management objective and strategy for undertaking the risk, the economic relationship between the hedged item and the hedging instrument, including consideration of the hedge effectiveness at the inception of the hedging relationship and throughout the remaining period to determine the existence of economic relationship between the hedged item and the hedging instrument.

Cash flow hedges

When a derivative is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognised in OCI and accumulated in the hedging reserve. Any ineffective portion of changes in the fair value of the derivative is recognised immediately in profit or loss.

The Group designates only the change in fair value of the spot element of forward exchange contracts as the hedging instrument in cash flow hedging relationships. The change in fair value of the forward element of forward exchange contracts (forward points) is recognised in a cash flow hedging reserve within equity.

When the hedged forecast transaction subsequently results in the recognition of a non-financial item such as inventory, the amount accumulated in the cash flow hedging reserve is included directly in the initial cost of the non-financial item when it is recognised.

For all other hedged forecast transactions, the amount accumulated in the cash flow hedging reserve is reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss.

If the hedge no longer meets the criteria for hedge accounting or the hedging instrument is sold, expires, is terminated or is exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the cash flow hedging reserve remains in equity until, for a hedge of a transaction resulting in the recognition of a non-financial item, it is included in the non-financial item's cost on its initial recognition or, for other cash flow hedges, it is reclassified to profit or loss in the same period or periods as the hedged expected future cash flows affect profit or loss.

If the hedged future cash flows are no longer expected to occur, then the amounts that have been accumulated in the cash flow hedging reserve are immediately reclassified to profit or loss.

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(d.5) Impairment of financial assets other than trade accounts receivables

The Group recognises allowances for expected credit losses (ECLs) on financial assets measured at amortised cost, debt investments measured at FVOCI, lease receivables, and loan commitments issued which are not measured at FVTPL.

The Group recognises ECLs equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition or credit-impaired financial assets, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

ECLs are a probability-weighted estimate of credit losses based on forward-looking and historical experience. Credit losses are measured as the present value of all cash shortfalls discounted by the effective interest rate of the financial asset.

The Group considers a financial asset to have low credit risk when its credit rating is equivalent to the globally understood definition of 'investment grade'. The Group recognises ECLs for low credit risk financial asset as 12-month ECLs.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due, significant deterioration in credit rating, significant deterioration in the operating results of the debtor and existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

The Group considers a financial asset to be in default when:

- the debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- the financial asset is over the payment specified in the contract

(d.6) Write offs

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering. Subsequent recoveries of an asset that was previously written off, are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(e) Cash and cash equivalents

Cash and cash equivalents in the statements of cash flows comprise cash balances, call deposits and highly liquid short-term investments which has a maturity of three months or less from the date of acquisition.

(f) Trade and other accounts receivable

A receivable is recognised when the Group has an unconditional right to receive consideration. A receivable is measured at transaction price less allowance for expected credit loss. Bad debts are written off when incurred.

The Group estimates lifetime expected credit losses (ECLs), using a provision matrix to find ECLs rate. This method groups the debtors based on shared credit risk characteristics and past due status, taking into account historical credit loss data, adjusted for factors that are specific to the debtors and an assessment of both current economic conditions and forward-looking general economic conditions at the reporting date.

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(g) Spare parts and supplies

Spare parts and supplies are measured at the lower of cost and net realisable value. Spare parts comprise fuel oil and supplies which are used for specific equipment in the power plant. Cost is calculated using the moving average cost principle and comprises all costs of purchase and other costs incurred in bringing the spare parts and supplies to their present location and condition. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs to complete and to make the sale.

The allowance for obsolescence of spare parts is calculated from the balances of spare parts at the end of year on a straight-line basis to write-down the spare parts over the remaining useful lives of power plants.

(h) Property, plant and equipment

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

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

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

Any gains and losses on disposal of item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised in profit or loss.

Subsequent costs

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

Depreciation

Depreciation is calculated on a straight-line basis over the estimated useful lives of each component of an asset and recognised in profit or loss. No depreciation is provided on freehold land and assets under construction.

The estimated useful lives are as follows:

Buildings and other constructions	20 - 40 years
Building improvements	3 - 6 years
Power plants, substation and transmission systems	4 - 45 years
Operating and maintenance equipment	3 - 15 years
Furniture, fixtures and office equipment	3 - 15 years
Vehicles	5 years

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(i) Goodwill

Goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investee, the carrying amount of goodwill is included in the carrying amount of the investment.

(j) Project development expenditure

Project development expenditure is recognised in profit or loss as incurred. Project development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to use or sell the asset. The expenditure capitalised includes borrowing costs. Other development expenditure is recognised in profit or loss as incurred.

Capitalised development expenditure is measured at cost less accumulated impairment losses. Capitalised development expenditure will be amortised when it is available for use in the manner intended.

(k) Other Intangible assets

Other intangible assets are measured at cost less accumulated amortisation and impairment losses. Subsequent expenditure is capitalised only when it will generate the future economic benefits. Amortisation is calculated on a straight-line basis over the estimated useful lives of intangible assets and recognised in profit or loss.

The estimated useful lives are as follows:

Software licences	3 - 10	years
Licenses on project development	25	years
Right to power purchase agreements	9 - 30	years

(l) Leases

At inception of a contract, the Group assesses that a contract is, or contains, a lease when it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

As a lessee

At commencement or on modification of a contract that contains a lease component and the leases of property the Group has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date, except for leases of low-value assets and short-term leases which is recognised as an expense on a straight-line basis over the lease term.

Right-of-use asset is measured at cost, less any accumulated depreciation and impairment loss, and adjusted for any remeasurements of lease liability. The cost of right-of-use asset includes the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of restoration costs, less any lease incentives received. Depreciation is charged to profit or loss on a straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment.

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The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. The lease payments included fixed payments less any lease incentive receivable, variable lease payments that depend on an index or a rate, and amounts expected to be payable under a residual value guarantee. The lease payments also include amount under purchase, extension or termination option if the Group is reasonably certain to exercise option. Variable lease payments that do not depend on index or a rate are recognised as expenses in the accounting period in which they are incurred.

The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in lease term, change in lease payments, change in the estimate of the amount expected to be payable under a residual value guarantee, or a change in the assessment of purchase, extension or termination options. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

As a lessor

At inception or on modification of a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each component on the basis of their relative standalone prices.

When the Group acts as a lessor, it determines at lease inception whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease.

The Group recognises lease payments received under operating leases as rental income on a straight-line basis over the lease term as part of other income. Initial direct costs incurred in arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as rental income in the accounting period in which they are earned.

The Group recognises finance lease receivables at the amount of the Group's net investment in the lease, which comprises the present value of the lease payments and any unguaranteed residual value, discounted using the interest rate implicit in the lease. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

The Group derecognises and determines impairment on the lease receivables as disclosed in note 3(d)

(m) Impairment of non-financial assets

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised in profit or loss if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount, unless it reverses a previous revaluation credited to equity, in which case it is charged to equity.

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The recoverable amount is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Impairment losses of assets recognised in prior periods is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(n) Employee benefits

Defined contribution plan

Obligations for contributions to the Group's provident funds are expensed as the related service is provided.

Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in the current and prior periods. The defined benefit obligations is discounted to the present value, which performed annually by a qualified actuary using the projected unit credit method.

Remeasurements of the net defined benefit liability, actuarial gain or loss are recognised immediately in OCI. The Group determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognised in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Short-term employee benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(o) Provisions

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance cost.

(p) Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

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

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

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

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price - i.e. the fair value of the consideration given or received. If the Group determines that the fair value on initial recognition differs from the transaction price, the financial instrument is initially measured at fair value adjusted for the difference between the fair value on initial recognition and the transaction price and the difference is recognised in profit or loss immediately. However, for the fair value categorised as level 3, such difference is deferred and will be recognised in profit or loss on an appropriate basis over the life of the instrument or until the fair value level is transferred or the transaction is closed out.

(q) Revenue

Revenue is recognised when a customer obtains control of the goods or services in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties, value added tax and is after deduction of any trade discounts.

Revenue from sales of electricity

Revenue from sales of electricity comprises of revenue from energy payment and revenue from availability payment in terms of operating costs.

Revenue from availability payment in terms of operating costs is a revenue that reflects the fixed operation and maintenance expenses ("Fixed O&M"), maintenance parts expenses and administrative expenses. The availability payment rate is fixed at an amount per Kilowatt based on the availability hours of each year throughout the period of the Power Purchase Agreement. Each Power Purchase Agreement of the Group has different terms and conditions for receiving the revenue from availability payment in terms of operating costs.

The Group recognise revenue from availability payment in terms of operating costs by varying the Contracted Available Hours (CAH) in a year and the Base Availability Credit (BAC).

Revenue from rendering of services

Revenue from rendering of services is recognised over time as the services are provided. The related costs are recognised in profit or loss when they are incurred.

Revenue from finance lease contracts

Revenue from finance lease contracts is recognised in profit or loss by using the effective interest rate method over the period of the power purchase agreements.

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(r) Income tax

Income tax expense for the year comprises current and deferred tax, which is recognised in profit or loss except to the extent that they relate to a business combination, or items recognised directly in equity or in other comprehensive income.

Current tax is recognised in respect of the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and joint ventures to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Future taxable profits are determined based on the reversal of relevant taxable temporary differences. If the amount of taxable temporary differences is insufficient to recognise a deferred tax asset in full, then future taxable profits, adjusted for reversals of existing temporary differences, are considered, based on the business plans for individual subsidiaries in the Group. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(s) Basic earnings per share

The Group presents basic earnings per share (EPS) data for its ordinary shares. Basic earnings per share is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the year.

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4 Acquisition of subsidiaries

(a) Share acquisition of Fareast Renewable Development Pte. Ltd. ("FRD")

On 19 November 2021, RH International (Singapore) Corporation Pte. Ltd. ("RHIS"), an indirect subsidiary, acquired an additional 40% of ordinary shares in Fareast Renewable Development Pte. Ltd. ("FRD"), an indirect joint venture, from Hydro Sumatra International Pte. Ltd. ("HSI"), the existing shareholder, totalling 13,544,257 shares. The investment value is approximately US Dollars 54.31 million or equivalent to approximately Baht 1,776.28 million.

FRD is incorporated in Singapore and investing in Asahan-1 Hydroelectric Power Project ("Asahan-1") in the Republic of Indonesia which owns 53.21% shares of PT Bajradaya Sentranusa ("BDSN").

The acquisition of additional shares of FRD on 19 November 2021 ("Acquisition date") through obtaining the transferred shares 40% combined with the Group's interests previously had 50%, as a result, the Group held 90% interests of issued and paid-up share capital in FRD resulting in the change from an indirect joint venture to an indirect subsidiary through step up acquisition. After such transaction was completed, the shareholding structure of FRD comprises of RHIS at 90% and HSI at 10% resulting the increasing in the Group held an indirect stake for participate in the operation of Asahan-1 Hydroelectric Power Project ("Asahan-1") 47.89% (previously 26.61%). The Group required to remeasure the fair value of previously held equity interest in FRD prior to acquisition and recognise the difference between fair value and carrying value profit or loss on the acquisition date as follows:

	<i>(in thousand Baht)</i>
Fair value of equity interests in FRD of RHIS prior to acquisition	2,751,830
Less Carrying value of FRD accounted for equity method in RHIS at the acquisition date	(2,930,148)
Less Amount arising from interests recognised in other comprehensive income	(69,203)
Difference from changes in fair value of investment in a joint venture	(247,521)

Obtaining the control in FRD results the business alliances of the Group strength. This power plant is a renewable infrastructure dramatically helps strengthen North Sumatra's power system stability in Republic of Indonesia. It also reflects in driving renewable energy capacity towards the Group's target, which a Hydroelectric Power Project aside from wind, solar, and biomass power projects. As committed to renewable energy development, the Group intends to reduce greenhouse gas emission in order to lessen effect of climate change. In addition to environmental benefit, Asahan-1 also helps secure the power grid in North Sumatra province, increasing rate of people access to electricity in North Sumatra, as well as enhancing living quality of people and society at large and also support success of business restructure of FRD's shareholders.

According to the above acquisitions, the Group has engaged an independent appraiser to determine the fair values of net assets and liabilities acquired. The determination of the fair values has been completed. The consideration transferred and the assets acquired, and liabilities assumed were recorded accordingly.

	Fair value <i>(in thousand Baht)</i>
Cash and cash equivalents	975,802
Lease receivables	17,313,364
Trade receivables and other assets	574,318
Loans and borrowings	(5,074,851)
Trade and other payables	(276,791)
Derivative liabilities	(211,490)

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	Fair value <i>(in thousand Baht)</i>
Deferred tax liabilities	(2,175,231)
Provisions and other liabilities	(796,129)
Total identifiable net assets	10,328,992
Less Non-controlling interests	(5,375,698)
Total identifiable net assets received	4,953,294
Fair value of equity interests in FRD prior to acquisition	(2,751,830)
Gain on bargain purchase	(425,188)
Purchase consideration transferred	1,776,276
Net cash acquired	(975,802)
Net cash outflows	800,474

As at 31 December 2021, the consideration transferred totalling Baht 1,776.28 million comprise of cash paid of Baht 1,575.76 million and payable to shareholder of Baht 200.52 million which subsequently paid on 11 January 2022. The Group incurred acquisition-related costs of Baht 8.59 million which have been included in administrative expenses in the statement of comprehensive income.

As a result, the Group recognised gain on bargain purchase and the difference from changing in fair value of equity interests prior to acquisition as at the acquisition date in the consolidated statements of income for the year ended 31 December 2021 amounting Baht 177.67 million.

The Group included the assets, liabilities and operating results of such subsidiary in the consolidated financial statements for the year ended 31 December 2021. Revenues and operating results of such subsidiaries from the purchasing date to 31 December 2021 are included in total income statement, amounting to Baht 134.63 million and profit for the period attributable to equity holders amounting to Baht 2.12 million. If the acquisition of FRD had occurred on 1 January 2021, management estimates that revenue from leases and profit for the Group in the consolidated financial statements for the year ended 31 December 2021 would have been Baht 1,484.55 million and Baht 433.00 million, respectively.

(b) Share acquisition of Sahacogen (Chonburi) Public Company Limited (“SCG”)

On 13 December 2021, (“Acquisition date”), the Company completed the purchase of the ordinary shares of Sahacogen (Chonburi) Public Company Limited (“SCG”), which is listed on the Stock Exchange of Thailand, from 34 shareholders in the total amount of 384.79 million shares at Baht 5.75 per share amounting to Baht 2,212.54 million and the purchase of newly issued ordinary shares of SCG which has been issued and allotted to a specific person (Private Placement) in the amount of 208.69 million shares, with a par value of Baht 1.00 per share at the subscription price of Baht 5.75 per share amounting to Baht 1,200 million whereby SCG has registered the change of its paid-up capital with the Ministry of Commerce and after the issuance and allotment of such new ordinary shares to the Company was complete. The Company has therefore acquired a total amount of 593.48 million ordinary shares in SCG, equivalent to 51% of the total issued shares in SCG, which resulted in SCG becoming a subsidiary of the Company.

The investment in SCG will be help business alliances between the Group and Saha Group which applies knowledge and expertise to develop power plant projects. It creates power plant jointly partnership of the Group to encourage its strength and sustainable growth in its full capacity, including promoting the increase of capacity and competence in other projects of Saha Group in the future.

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According to the above acquisition, the Group has engaged independent appraisers to determine the fair values of net assets and liabilities acquired. As at 31 December 2021, the determination of the fair values, especially for intangible assets acquired, has not been completed. Therefore, the Group has been recorded at provisional amounts in consolidated statement of financial position as at 31 December 2021. The fair values of the assets acquired and liabilities assumed and goodwill may be adjusted when the report of the appraiser is completed.

The Group has continuously reviewed fair values of the business acquired within one year from the acquisition date, taking into accounts additional information, facts as well as circumstances that existed at the acquisition date. Consequently, the adjustments on accounting transaction of such acquisition will be made.

Assets acquired and liabilities assumed at the acquisition date:

	Fair value <i>(in thousand Baht)</i>
Cash and cash equivalents	1,435,164
Trade and other receivables	573,154
Inventories	262,070
Property, plant and equipment	5,047,561
Other assets	413,014
Trade and other payables	(351,198)
Loans and borrowings	(2,987,379)
Other liabilities	(428,375)
Total identifiable net assets	3,964,011
Less Non-controlling interests	(1,981,946)
Total identifiable net assets received	1,982,065
Goodwill arising from the acquisition	1,430,473
Purchase consideration transferred	3,412,538
Net cash acquired	(1,435,164)
Net cash outflows	1,977,374

The Group incurred acquisition-related costs of Baht 21 million which have been included in administrative expenses in the statement of comprehensive income.

During the period from acquisition date to 31 December 2021, SCG contributed revenue of Baht 246.61 million and profit of Baht 14.49 million to the Group's results. If the acquisition had occurred on 1 January 2021, management estimates that consolidated revenue would have increased by Baht 4,354.41 million and consolidated profit for the year would have increased by Baht 106.40 million.

In addition, on 22 December 2021, the Group, as the Tender Offeror in the tender offer for all of the remaining securities of SCG in the total amount of 127.60 million shares. On 31 January 2022, which is the end of the tender offer period, there were those who expressed the intentions to sell in the total amount of 7.80 million shares, equivalent to 0.67% of the total issued shares, at Baht 5.75 per share amounting to Baht 44.83 million. After such transaction is completed, the Company hold the total of 601.28 million shares or equivalent to 51.67% of the total issued shares.

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5 Related parties

A related party is a person or entity that has direct or indirect control, or has significant influence over the financial and managerial decision-making of the Group; a person or entity that are under common control or under the same significant influence as the Group; or the Group has direct or indirect control or has significant influence over the financial and managerial decision-making of a person or entity.

Relationships with subsidiaries, associates and joint ventures are described in notes 9 and 10. Other related parties that the Group had significant transactions with during the year were as follows:

Name of entities	Country of incorporation/ nationality	Nature of relationships
Electricity Generating Authority of Thailand	Thailand	Major shareholder, some common directors
EGAT International Co., Ltd.	Thailand	99.99% shareholding by Electricity Generating Authority of Thailand, some common directors
RH International (Mauritius) Corporation Limited	Mauritius	Indirect subsidiary, 100% shareholding by a direct subsidiary
RH International (Singapore) Corporation Pte. Ltd.	Singapore	Indirect subsidiary, 100% shareholding by an indirect subsidiary
Fareast Renewable Development Pte. Ltd.	Singapore	Indirect subsidiary, 90% shareholding by an indirect subsidiary
RATCH-Australia Corporation Pty. Ltd. and its subsidiaries	Australia	Indirect subsidiary, 100% shareholding by an indirect subsidiary, some common directors
RATCH China Power Limited	Hong Kong	Indirect subsidiary, 100% shareholding by an indirect subsidiary
RE Solar 1 Company Limited	Thailand	Indirect subsidiary, 99.99% shareholding by a direct subsidiary
Hin Kong Power Company Limited	Thailand	Subsidiary of a direct joint venture, 99.99% shareholding by a direct joint venture, some common directors
Nexif Ratch Energy Rayong Company Limited	Thailand	Subsidiary of a direct joint venture, 99.99% shareholding by a direct joint venture
Nam Ngum 2 Power Company Limited	Lao PDR	Subsidiary of a direct joint venture, 75% shareholding by a direct joint venture
Ecwin Energy Corporation	Vietnam	Subsidiary of an indirect joint venture, 80% shareholding by an indirect joint venture

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Name of entities	Country of incorporation/ nationality	Nature of relationships
EGAT Diamond service Company Limited	Thai	Other related party, 10% shareholding
Key management personnel	Thai	Persons having authority and responsibility for planning, directing, and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of the Group.

Significant transactions with related parties Year ended 31 December	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	(in thousand Baht)			
Major shareholder				
Revenue from sales of electricity	31,015,433	28,672,488	-	-
Operation and maintenance service income	67,182	60,035	-	-
Revenue from finance lease contracts	1,953,582	2,553,209	-	-
Other income	7,089	-	7,089	-
Purchase of fuel oil	459,845	-	-	-
Purchase of electricity	207,530	142,838	-	-
Operation and maintenance service fee	1,205,295	1,196,613	-	-
Management service of fuel	2,173	2,175	-	-
Other service fees	2,724	4,911	1,399	3,586
Subsidiaries				
Management service income	-	-	206,633	164,197
Interest income	-	-	63,416	50,196
Dividend income	-	-	3,346,272	3,283,271
Interest expense	-	-	40,843	9,872
Associates				
Management service income	2,276	2,276	2,276	2,276
Interest income	154	-	154	-
Dividend income	-	-	17,400	16,200
Joint ventures				
Operation and maintenance service income	2,079	1,990	-	-
Management service income	221,926	273,886	220,473	272,830
Interest income	30,777	26,058	30,777	26,058
Dividend income	-	-	163,146	163,146
Rental income	52,639	12,067	-	-
Other income	24,732	22,679	-	-
Key management personnel				
Key management personnel compensation				
Short-term employee benefits	156,747	144,124	68,968	71,145
Defined contribution plan	7,085	6,966	2,004	2,792
Defined benefit plan	4,254	2,681	2,770	2,053
Total key management personnel compensation	168,086	153,771	73,742	75,990

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<i>Significant transactions with related parties</i> <i>Year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Other related parties				
Dividend income	2,507	1,013	2,507	1,013
Other service fee	10,207	1,449	10,207	1,449

Balances as at 31 December with related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Trade accounts receivable				
Major shareholder	8,933,479	4,982,071	-	-
Associate	398	-	-	-
Joint venture	180	175	-	-
	8,934,057	4,982,246	-	-
Less allowance for expected credit loss	-	-	-	-
Net	8,934,057	4,982,246	-	-
Advances to and other current receivables				
Major shareholder	8,667	2,215	7,585	-
Subsidiaries	-	-	84,566	88,124
Associates	203	202	203	202
Joint ventures	22,598	60,095	21,607	49,335
Total	31,468	62,512	113,961	137,661
Short-term loans to				
Subsidiaries	-	-	186,273	60,000
	-	-	186,273	60,000
Less allowance for expected credit loss	-	-	(656)	(332)
Net	-	-	185,617	59,668
Other non-current receivables				
Subsidiaries	-	-	18,059	3,793
Associates	154	-	154	-
Joint ventures	74,005	44,011	74,005	44,011
Total	74,159	44,011	92,218	47,804
Long-term loans to				
Subsidiaries	-	-	2,192,448	1,266,992
Associates	32,253	-	32,253	-
Joint ventures	631,142	538,896	631,142	538,896
	663,395	538,896	2,855,843	1,805,888
Less allowance for expected credit loss	(7,231)	(16,234)	(51,745)	(52,092)
Net	656,164	522,662	2,804,098	1,753,796

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For the year ended 31 December 2021

<i>Receivable under lease contracts</i>	Consolidated financial statements					
	Portion due within one year		Portion due after one year		Total	
	2021	2020	2021	2020	2021	2020
	<i>(in thousand Baht)</i>					
Major shareholder						
Receivables under lease contracts	4,297,206	4,481,635	10,724,690	15,021,896	15,021,896	19,503,531
Less unearned interest income	(1,488,791)	(1,906,035)	(2,969,382)	(4,458,173)	(4,458,173)	(6,364,208)
	2,808,415	2,575,600	7,755,308	10,563,723	10,563,723	13,139,323
Less allowance for expected credit loss	-	-	(1,644)	(1,840)	(1,644)	(1,840)
Receivable under lease contracts-net	2,808,415	2,575,600	7,753,664	10,561,883	10,562,079	13,137,483

The gross receivable and interest under lease contracts as at 31 December were as follows:

	Consolidated financial statements			
	Receivable and interest under lease contracts	Receivable under lease contracts - net	Receivable and interest under lease contracts	Receivable under lease contracts - net
	2021		2020	
	<i>(in thousand Baht)</i>			
Portion due within one year	4,297,206	2,808,415	4,481,635	2,575,600
Portion due after one year but within five years	9,670,979	6,766,962	12,053,444	7,983,513
Portion due after five years	1,053,711	988,346	2,968,452	2,580,210
	15,021,896	10,563,723	19,503,531	13,139,323
Less unearned interest income	(4,458,173)	-	(6,364,208)	-
Less allowance for expected credit loss	(1,644)	(1,644)	(1,840)	(1,840)
Receivable under lease contracts-net	10,562,079	10,562,079	13,137,483	13,137,483

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
(Reversal of) Expected credit losses for the year ended 31 December				
Short-term loans to	-	-	324	332
Long-term loans to	(9,003)	3,114	(347)	36,485
Receivable under lease contracts	(196)	(461)	-	-

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	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	(in thousand Baht)			
Short term loan from				
Subsidiary	-	-	5,140,000	3,465,000
Other current payable				
Major shareholder	78,175	40,347	-	1,609
Subsidiaries	-	-	12,993	13,215
Joint ventures	16,570	14,151	15,052	12,506
Other related parties	2,042	1,449	2,042	1,449
Total	96,787	55,947	30,087	28,779
Other non-current payables				
Joint venture	4,235	-	4,235	-

Significant agreements with related parties

Loans to related parties

As at 31 December 2021, the Company had loans to RATCH Cogeneration Company Limited, a direct subsidiary, of short-term loans outstanding balance amounting to Baht 186.27 million with interest 3-Month floating rate plus a fixed margin and will be due within one year. The long-term loan of existing agreement outstanding balance amounting to Baht 136.13 million and the long-term Intercompany Loan Agreement for the Project expansion amounting to Baht 815.32 million with interest at the fixed rate of 4.50% and 3.34% per annum, respectively. The principal and interest will be due as stipulated in the agreement. The Company has no intention to recall the loans from the subsidiary within one year. Therefore, the Company classified the balance of the loan as long-term loan.

As at 31 December 2021, the Company had outstanding balance of loans to RATCH-Lao Services Company Limited, a direct subsidiary, under the existing loan agreement, amounting to US Dollars 32.60 million or equivalent to Baht 1,080.80 million with interest at the fixed rate of 3.65% per annum and under the new loan agreement, amounting to Baht 160.20 million with interest at the fixed rate of 4.50% per annum. The principal and interest will be due as stipulated in the agreement. The Company has no intention to recall the loans from the subsidiary within one year. Therefore, the Company classified the balance of the loans as long-term loans.

As at 31 December 2021, the Company had outstanding balance of loans to Xe-Pian Xe-Namnoy Power Company Limited, a direct joint venture, amounting to US Dollars 1.32 million or equivalent to Baht 43.76 million with interest at the rate of 3-Month London Interbank Offered Rate (LIBOR), plus fixed margin per annum. The loan agreement determined the repayment term of principal and interest within 27 years commencing from the joint venture made the first drawdown of loans from financial institutions on 5 February 2014. The Company had outstanding balance of loans for the purpose of covering additional expenditure of the Xe-Pian Xe-Namnoy Hydroelectric Power Project amounting to US Dollars 16.78 million or equivalent to Baht 556.28 million with interest at the rate of 3-Month London Interbank Offered Rate (LIBOR), plus fixed margin per annum. The principal and interest will be due as stipulated in the agreement.

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For the year ended 31 December 2021

As at 31 December 2021, the Company had outstanding balance of loans to Smart Infranet Company Limited, a direct joint venture, amounting to Baht 25.50 million with interest at the fixed rate of 5.30% per annum. The principal and interest will be due as stipulated in the agreement. The Company has no intention to recall the loans from the joint venture within one year. Therefore, the Company classified the balance of the loan as long-term loan.

As at 31 December 2021, the Company had outstanding balance of loans to Things on Net Company Limited, a direct joint venture, amounting to Baht 5.60 million with interest at the fixed rate of 5.30% per annum. The principal and interest will be due as stipulated in the agreement. The Company has no intention to recall the loans from the joint venture within one year. Therefore, the Company classified the balance of the loan as long-term loan.

As at 31 December 2021, the Company had outstanding balance of loans to Northern Bangkok Monorail Company Limited, a direct associate, amounting to Baht 32.25 million with interest at the fixed rate of 5.00% per annum. The principal and interest will be due as stipulated in the agreement. The Company has no intention to recall the loans from the associate within one year. Therefore, the Company classified the balance of the loan as long-term loan.

Short term loans from related parties

As at 31 December 2021, the Company had outstanding balance of loans from Ratchaburi Electricity Generating Company Limited, a direct subsidiary, amounting to Baht 5,140 million which bear interest at the fixed rate of 0.78% and 0.80% per annum and will be due within one year.

Power Purchase Agreements

On 9 October 2000, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into a Power Purchase Agreement with EGAT for a period of 25 years, whereby such subsidiary will deliver net electricity generation from Thermal power plants unit 1 and 2 and Combined Cycle power plants block 1, 2 and 3 to EGAT under the conditions of the Power Purchase Agreement. Such subsidiary will receive revenue from EGAT, which are comprised of energy payment (EP) and availability payment (AP). An energy payment (EP) covers production costs which are comprised of fuel costs and variable costs of operation and maintenance. Such costs will be adjusted in accordance with fuel price, Energy Efficiency Ratio and Consumer Price Index. An availability payment (AP) covers the repayment of principal and interest of loans, return on shareholders' equity, fixed operation and maintenance expenses, maintenance parts expenses and administrative expenses. Such costs will be adjusted to cover the changes of interest rates, Consumer Price Index and exchange rates.

On 3 December 2009, RATCH Cogeneration Company Limited, a direct subsidiary, entered into a Power Purchase Agreement for RATCH Cogeneration Power Project located in Pathum Thani province with EGAT. The agreement is effective from the execution date until the 25-year from the commercial operation date. The project is a combined-cycle power plant project with total contracted capacity of 110 Megawatts which started its commercial operation in 2013.

On 12 July 2019, Hin Kong Power Company Limited, a subsidiary of a direct joint venture, entered into a Power Purchase Agreement for Hin Kong Power Project located in Ratchaburi province with EGAT. The agreement is effective from the execution date until the 25-year from the commercial operation date. The project is a combined-cycle power plant project with total contracted capacity of 1,400 Megawatts which is scheduled for commercial operation in 2024 and 2025.

Sahacogen (Chonburi) Public Company Limited, a direct subsidiary, entered into a Power Purchase Agreement with EGAT to sell electricity in a specified quantity and at a stipulated price as defined in the agreement. The agreement period is 25 years and will expire in April 2024.

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Operation and Maintenance Agreement

On 7 January 2009, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into an Operation and Maintenance Agreement with EGAT. The agreement is effective from 1 January 2009 until the termination dates of the Power Purchase Agreement for Thermal power plants and Combined Cycle power plants. EGAT will operate and provide routine maintenance services including major overhaul to such subsidiary. The initial value of the agreement is approximately Baht 16,608.16 million, which will be adjusted by the annual Consumer Price Index.

On 27 May 2020, RATCH-Lao Services Company Limited, a direct subsidiary, entered into a Personnel Providing Service for Operation and Maintenance Agreement with EGAT, whereby such subsidiary will recruit and provide qualified personnel according to the number and qualifications specified in the agreement for operation and maintenance of Nam Ngiep 1 Hydropower Plant located in Lao PDR, for a period of 58 months. The agreement is effective from May 2020 to February 2025. The total value of the agreement is Baht 36.67 million.

On 28 October 2020, RATCH-Lao Services Company Limited, a direct subsidiary, entered into an Operation and Maintenance Services Agreement for Hongsa Mine Mouth Power Project in Lao PDR with EGAT to operate and maintenance for Hongsa Power Project for a period of 36 months from November 2020 onwards. The total value of the agreement is Baht 168.11 million.

Fuel Management Service Agreement

On 1 July 2012, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into a Fuel Management Service Agreement with EGAT, whereby EGAT will coordinate the supply and delivery of fuel oil, according to the demand of such subsidiary and align with EGAT's power dispatching plan. The agreement is effective from 1 July 2012 until 30 June 2013. The service fee is stipulated in the agreement. The agreement is automatically extended for a period of 1 year unless written notice.

Land Lease Agreement and Common Facility Agreement

On 7 June 2004 and 21 October 2005, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into a Land Lease Agreement for an area of 145 rai with Ratchaburi Power Company Limited, an indirect joint venture. The land is located in the Ratchaburi Power Plant area. The rental period is 25 years and 3 months commencing from the commercial operation date of Ratchaburi Power Company Limited.

On 25 November 2005, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into a Common Facility Agreement with Ratchaburi Power Company Limited, an indirect joint venture, whereby such subsidiary will provide certain facilities, services, right to use and access rights to utilities relating to construction and operation to Ratchaburi Power Company Limited as stipulated in the agreement. This agreement is effective from the signing date in the agreement until the termination date of the Land Lease Agreement dated on 7 June 2004.

On 23 August 2019, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into land lease agreement 175 rai with Hin Kong Power Company Limited, a subsidiary of direct joint venture, for a period of 29 years which effective from 1 January 2021 onwards.

On 30 June 2021, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into land lease agreement 8 rai with Hin Kong Power Company Limited, a subsidiary of direct joint venture, for a period of 28 years and 6 months which effective from 1 July 2021 onwards.

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Management Service Agreement

On 27 February 2004, the Company entered into a Management Service Agreement with Ratchaburi Power Company Limited, an indirect joint venture, whereby the Company will receive management service fee amounting to US Dollars 2.50 million per annum for a period of 25 years and 3 months commencing from the commercial operation date of the Power Plant Unit 1 of Ratchaburi Power Company Limited. The total value of the agreement is US Dollars 63.12 million.

On 24 February 2021, the Company entered into a Management Service Agreement with Hin Kong Power Company Limited, a subsidiary of direct joint venture, whereby the Company will receive management service fee amounting to Baht 36 million per year and will increase annually as stipulated in the agreement. The agreement is automatically extended for a period of 1 year unless written notice.

Agreement in relation to investment in Chubu Ratchaburi Electric Services Company Limited

On 29 September 2005, the Company and Chubu Electric Power (Thailand) Company Limited entered into a Shareholders Agreement to set up Chubu Ratchaburi Electric Services Company Limited, a direct joint venture. Under the terms of the shareholders agreement, if Chubu Ratchaburi Electric Services Company Limited requires additional funding exceeding its authorised share capital, the Company agreed to provide financial support in the form of shareholders' loans or other shareholders' guarantees in proportion of investment of 50%. The agreement does not specify the amount of financial support. As at 31 December 2021, the Company has not provided any loans or guarantees under the agreement.

Sponsor Support Agreement with Northern Bangkok Monorail Company and Eastern Bangkok Monorail Company Limited

On 11 October 2017, the Company entered into a Sponsor Support Agreement with Northern Bangkok Monorail Company Limited and Eastern Bangkok Monorail Company Limited, in direct associates. The Company agreed to provide financial support in the form of shareholders' loans or other shareholders' guarantees in proportion of investment of 10% with credit limit and conditions as specified in the agreement. As at 31 December 2021, the Company has not yet provided any loans or guarantees under the agreement with Eastern Bangkok Monorail Company Limited.

Equity Contribution Agreement with Nexif Ratch Energy Rayong Company Limited

The Company entered into an Equity Contribution Agreement with Nexif Ratch Energy Rayong Company Limited, a subsidiary of a direct joint venture. The Company agreed to provide financial support in the form of shareholders' loans or other shareholders' guarantees. As at 31 December 2021, the Company has provided the guarantee to such company with credit amount of Baht 96.99 million.

Obligations related to Share Purchase Agreement

The Company has obligations under a Share Purchase Agreement related to the purchase of ordinary shares in the two of associates. Under the terms of the agreement, the other shareholder has additional rights to the Company's dividend entitlements from those associates.

Obligations related to Guarantee Service Agreement with Hin Kong Power Holding Company Limited and Hin Kong Power Company Limited

The Company has obligations under a Guarantee Service Agreement to Hin Kong Power Holding Company Limited, a direct joint venture and Hin Kong Power Company Limited, a subsidiary of direct joint venture. Under the terms of the agreement defined the Company as guarantor, in proportion of shareholder of 51%. The facilities and terms are stipulated in the agreement.

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6 Cash and cash equivalents

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Cash on hand	1,632	469	449	30
Cash at banks	6,474,862	2,950,703	542,102	512,404
Highly liquid short-term investments	485,000	1,905,417	150,000	1,719,001
Cash and cash equivalents	6,961,494	4,856,589	692,551	2,231,435

7 Trade accounts receivable

	Consolidated financial statements		Separate financial statements	
<i>At 31 December</i>	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Within credit terms	9,550,322	5,160,948	-	-
Overdue:				
Less than 3 months	223,475	28,104	-	-
3 - 6 months	12	253	-	-
6 - 12 months	88	638	-	-
Over 12 months	300	-	-	-
Total	9,774,197	5,189,943	-	-
Less allowance for expected credit loss	-	-	-	-
Net	9,774,197	5,189,943	-	-

Information of credit risk is disclosed in note 25 (b.1).

8 Spare parts and supplies

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Fuel oil	1,071,193	1,138,791	-	-
Spare parts and supplies	1,776,189	1,569,904	-	-
Spare parts and supplies in transit	10,715	40,548	-	-
Total	2,858,097	2,749,243	-	-
Less allowance for obsolescence of spare parts and supplies	(956,252)	(900,755)	-	-
Less allowance for decline in value of fuel oil	-	(65,884)	-	-
Net	1,901,845	1,782,604	-	-
Spare parts and supplies recognised in 'cost of sales':				
- Cost	2,460,237	112,723	-	-
- Write-down to obsolescence of spare parts and supplies	26,539	74,613	-	-
- (Reversal of) decline in value of fuel oil to net realisable value	(65,884)	65,884	-	-
Net	2,420,892	253,220	-	-

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9 Investments in associates and joint ventures

	<i>Note</i>	Consolidated financial statements		Separate financial statements	
		2021	2020	2021	2020
		<i>(in thousand Baht)</i>			
At 1 January		40,787,800	31,103,146	9,490,861	5,681,107
Share of profits of joint ventures and associates accounted for using equity method		5,902,401	4,600,343	-	-
Share of other comprehensive income (expense) of joint ventures and associates accounted for using equity method		1,599,145	(1,163,949)	-	-
Addition investments		4,657,653	5,995,679	3,679,954	1,427,714
Acquisition through business combination	4	114,622	-	-	-
Transfer from subsidiary due to loss of control		-	2,040	-	2,040
Transfer to investment in subsidiaries	4	(2,930,148)	-	-	-
Dividend income		(2,152,067)	(1,987,288)	-	-
Exchange rate adjustment		3,151,338	(142,171)	-	-
Allowance for investment impairment		(63,716)	-	-	-
Reclassification		-	2,380,000	-	2,380,000
At 31 December		51,067,028	40,787,800	13,170,815	9,490,861

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Investments in associates and joint ventures as at 31 December were as follows:

	Type of business	Country of incorporation	Consolidated financial statements				
			Ownership interest		Cost	At equity method	
			2021	2020		2021	2020
			(%)			(in thousand Baht)	
Direct associates							
First Korat Wind Company Limited	Generating and selling electricity	Thailand	20	20	399,204	439,597	427,889
K.R. TWO Company Limited	Generating and selling electricity	Thailand	20	20	365,400	401,570	386,719
Northern Bangkok Monorail Company Limited	Mass transit system	Thailand	10	10	1,440,000	1,402,193	994,223
Eastern Bangkok Monorail Company Limited	Mass transit system	Thailand	10	10	1,440,000	1,421,480	1,033,558
Bangkok Aviation Fuel Services Public Company Limited	Aviation fuel services	Thailand	15.53	-	2,712,138	2,593,596	-
					6,356,742	6,258,436	2,842,389
Indirect associates							
Solar Power (Korat 3) Company Limited	Generating and selling electricity	Thailand	40	40	75,500	188,230	168,925
Solar Power (Korat 4) Company Limited	Generating and selling electricity	Thailand	40	40	79,700	198,541	179,830
Solar Power (Korat 7) Company Limited	Generating and selling electricity	Thailand	40	40	75,500	186,889	168,812
Impact Solar Company Limited	Generating and providing rooftop solar power systems.	Thailand	10.71	-	118,230	114,330	-
Perth Power Partnership (Kwinana)	Generating and selling electricity	Australia	30	30	618,531	73,247	210,463
Yandin WF Holdings Pty Ltd	Generating and selling electricity	Australia	70	70	3,077,978	3,419,544	2,657,635
					4,045,439	4,180,781	3,385,665
Total					10,402,181	10,439,217	6,228,054
Direct joint ventures							
Chubu Ratchaburi Electric Services Company Limited	Providing operation and maintenance services	Thailand	50	50	10,000	88,656	80,731
SouthEast Asia Energy Limited	Investing in the power energy business	Thailand	33.33	33.33	2,202,250	2,742,819	2,582,723
Smart Infranet Company Limited	Investing in Underground Optic Fiber Network Project	Thailand	51	51	280,500	238,558	264,261
Things on Net Company Limited	Investing in installation and development of telecommunication networks	Thailand	35	35	180,018	142,980	165,782

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Type of business	Country of incorporation	Consolidated financial statements					
		Ownership interest		Cost	At equity method		
		2021	2020 (%)	2021	2020	2020	
(in thousand Baht)							
Direct joint ventures Hin Kong Power Holding Company Limited R E N Korat Energy Company Limited Xe-Pian Xe-Namnoy Power Company Limited Innopower Company Limited NEXIF RATCH ENERGY SINGAPORE PTE. LTD.	Thailand	51	51	467,772	155,652	445,274	
	Thailand	40	40	120,000	10,300	111,913	
	Lao PDR	25	25	2,523,725	2,523,725	2,635,647	
	Thailand	30	-	45,000	-	45,000	
	Singapore	49	49	984,809	983,812	1,043,682	
				6,814,074	6,346,257	7,494,529	
						983,460	
						6,045,310	
	Indirect joint ventures Ratchaburi Power Company Limited Nava Nakorn Electricity Generating Company Limited Ratchaburi World Cogeneration Company Limited Berkprai Cogeneration Company Limited Solartia Company Limited Songkhla Biomass Company Limited Songkhla Biofuel Company Limited Hongsa Power Company Limited Phu Fai Mining Company Limited Asia Water Co., Ltd. SIPHANDONE-RATCH LAO CO., LTD. PT Medco Ratch Power Riau Fareast Renewable Development Pte. Ltd.	Thailand	25	25	1,831,250	1,831,250	2,767,617
		Thailand	40	40	800,000	800,000	1,050,835
Thailand		40	40	1,000,000	1,000,000	1,350,685	
Thailand		35	35	465,850	465,850	626,757	
Thailand		49	49	545,960	545,960	1,619,624	
Thailand		40	40	98,400	98,400	178,700	
Thailand		40	40	400	400	324	
Lao PDR		40	40	12,929,886	12,929,886	20,098,797	
Lao PDR		37.50	37.50	630	630	275,512	
Lao PDR		40	40	179,113	179,113	184,953	
Lao PDR	25	25	25,405	406	22,008		
Republic of Indonesia	49	49	1,083,116	871,102	1,711,806		
Singapore	-	50	-	2,688,569	-	2,551,074	

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	Type of business	Country of incorporation	Consolidated financial statements				
			Ownership interest		Cost	At equity method	
			2021	2020		2021	2020
(in thousand Baht)							
<i>Indirect joint ventures</i>							
RATCH & AIDC Wind Energy Pte. Ltd. An Binh Energy and Infrastructure Fund	Investing in the power energy business internationally	Singapore	63.80	63.80	210,867	214,385	117,224
	Investing in the power energy business and infrastructure	Vietnam	49	49	2,504,686	2,803,749	2,533,271
NEXIF ENERGY BT PTE. LTD.	Investing in the power energy business internationally	Singapore	50	-	227,538	227,530	-
Total					21,903,101	33,133,282	28,514,436
					28,717,175	40,627,811	34,559,746

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	Type of business	Country of incorporation	Separate financial statements							
			Ownership interest (%)		Cost		Impairment		At cost-net	
			2021	2020	2021	2020	2021	2020	2021	2020
(in thousand Baht)										
Direct associates										
First Korat Wind Company Limited	Generating and selling electricity	Thailand	20	20	399,204	399,204	-	-	399,204	399,204
K.R. TWO Company Limited	Generating and selling electricity	Thailand	20	20	365,400	365,400	-	-	365,400	365,400
Northern Bangkok Monorail Company Limited	Mass transit system	Thailand	10	10	1,440,000	1,180,000	-	-	1,440,000	1,180,000
Eastern Bangkok Monorail Company Limited	Mass transit system	Thailand	10	10	1,440,000	1,200,000	-	-	1,440,000	1,200,000
Bangkok Aviation Fuel Services Public Company Limited	Aviation fuel services	Thailand	15.53	-	2,712,138	-	-	-	2,712,138	-
Total					6,356,742	3,144,604	-	-	6,356,742	3,144,604
Direct joint ventures										
Chubu Ratchaburi Electric Services Company Limited	Providing operation and maintenance services	Thailand	50	50	10,000	10,000	-	-	10,000	10,000
SouthEast Asia Energy Limited	Investing in the power energy business	Thailand	33.33	33.33	2,202,250	2,202,250	-	-	2,202,250	2,202,250
Smart Infranet Company Limited	Investing in Underground Optic Fiber Network Project	Thailand	51	51	280,500	280,500	-	-	280,500	280,500
Things on Net Company Limited	Investing in installation and development of telecommunication networks	Thailand	35	35	180,018	180,018	-	-	180,018	180,018
Hin Kong Power Holding Company Limited	Investing in the power energy business	Thailand	51	51	467,772	155,652	-	-	467,772	155,652
RE N Korat Energy Company Limited	Generating and selling electricity and steam	Thailand	40	40	120,000	10,300	-	-	120,000	10,300
Xe-Pian Xe-Namnoy Power Company Limited	Generating and selling electricity	Lao PDR	25	25	2,523,725	2,523,725	-	-	2,523,725	2,523,725
Innopower Company Limited	Investing in innovation and commercial inventions including energy business future	Thailand	30	-	45,000	-	-	-	45,000	-
NEXIF RATCH ENERGY SINGAPORE PTE. LTD.	Investing in the power energy business	Singapore	49	49	984,809	983,812	-	-	984,809	983,812
Total					6,814,074	6,346,257	-	-	6,814,074	6,346,257

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None of the Group and the Company's associates and joint ventures are publicly listed and consequently do not have published price quotations except Bangkok Aviation Fuel Services Public Company Limited which is listed company on the Stock Exchange of Thailand. Based on the closing price of Baht 25.50 per share at 31 December 2021, the fair value of the investment in Bangkok Aviation Fuel Services Public Company Limited was Baht 2,524.07 million.

Paid-up share capital

During 2021, associate and joint ventures called for paid-up share capital. The Group had paid for the share capital in proportion of investments as follows:

Name of entities	Description	Amount (in million Baht)
Direct associates		
Bangkok Aviation Fuel Services Public Company Limited	Paid for share capital	2,712.14
Northern Bangkok Monorail Company Limited	Additional paid-up share capital	260.00
Eastern Bangkok Monorail Company Limited	Additional paid-up share capital	240.00
Indirect associate		
Yandin WF Holdings Pty Ltd	Paid for increase in share capital	420.45
Direct joint ventures		
Hin Kong Power Holding Company Limited	Paid for increase in share capital	312.12
R E N Korat Energy Company Limited	Additional paid-up share capital and paid for increase in share capital	109.70
NEXIF RATCH ENERGY SINGAPORE PTE. LTD.	Paid for increase in share capital	1.00
Innopower Company Limited	Paid for share capital	45.00
Indirect joint ventures		
PT Medco Ratch Power Riau	Additional paid-up share capital	212.02
RATCH & AIDC Wind Energy Pte. Ltd.	Paid for increase in share capital	92.69
NEXIF ENERGY BT PTE. LTD.	Paid for share capital and paid for increase in share capital	227.54
SIPHANDONE-RATCH LAO CO., LTD.	Paid for increase in share capital	25.00

Investment in direct associate - Bangkok Aviation Fuel Services Public Company Limited ("BAFS")

On 19 December 2020, the Company attended the auction and offered the highest purchase price of Bangkok Aviation Fuel Services Public Company Limited ("BAFS") totalling 98.98 million shares (or equivalent to 15.53% of total issued and paid-up shares) from Thai Airways International Public Company Limited ("THAI") at Baht 27.40 per share totalling Baht 2,712.14 million. On 19 January 2021, THAI completely transferred the shares to the Company and the Company paid a total share purchase price to THAI.

An independent appraiser has been appointed by management to determine the fair value of the business. The Company has completely determined the fair value of the purchased business as follows:

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	Carrying value	Fair value adjustments (in thousand Baht)	Fair value
Total net assets before fair value adjustment	5,467,189	-	5,467,189
Intangible assets	-	16,549,000	16,549,000
Investment properties	-	3,000	3,000
Debenture	-	57,931	57,931
Deferred tax liabilities	-	(3,321,995)	(3,321,995)
Non-controlling interest	-	(1,552,760)	(1,552,760)
Total identifiable net assets	5,467,189	11,735,176	17,202,365
Interest acquired (%)			15.53
			2,671,527
Excess of purchase consideration over fair value			40,613
Purchase consideration transferred			2,712,140

Investment in indirect associate - Yandin WF Holding Pty Ltd (“Yandin”)

On 17 May 2021, RH International (Singapore) Corporation Pte. Ltd., an indirect subsidiary, paid for increase in share capital of Yandin WF Holdings Pty Ltd, an associate of the indirect subsidiary, totalling Australian Dollars 17.40 million or equivalent to Baht 420.45 million, in proportion of investment of 70%.

Investment in direct joint venture - Hin Kong Power Holding Company Limited (“HKH”)

At the extraordinary meeting of the shareholders of Hin Kong Power Holding Company Limited, a direct joint venture, held on 9 February 2021, the shareholders approved to increase the authorised share capital from Baht 1,204 million to Baht 2,852 million by issuance of new ordinary shares totalling 164.80 million shares at par value of Baht 10 per share and call for paid-up of 25% of the additional share capital. On 19 February 2021, the Company paid for increase in share capital totalling of Baht 210.12 million, in proportion of investment of 51%.

On 3 August 2021, the shareholders of a direct joint venture approved to increase the additional authorised share capital from Baht 2,852 million to Baht 3,652 million by issuance of new ordinary shares totalling 80 million shares at par value of Baht 10 per share and paid for increase in share capital at Baht 2.50 per share. Subsequently on 11 August 2021, the Company paid for increase in share capital totalling Baht 102 million, in proportion of investment of 51%.

Investments in indirect joint venture - RATCH & AIDC Wind Energy Pte. Ltd. (“RATCH & AIDC”)

On 23 April 2021, RH International (Singapore) Corporation Pte. Ltd. (“RHIS”), an indirect subsidiary, paid for increase in shares capital 1.21 million shares at par value of US Dollar 1 per share totalling US Dollars 1.21 million to RATCH & AIDC totalling US Dollars 1.21 million or equivalent to Baht 37.82 million, in proportion of investment of 63.80%.

On 18 June 2021, RHIS paid for increase in share capital to RATCH & AIDC 0.77 million shares at par value of US Dollar 1 per share totalling US Dollar 0.77 million or equivalent to Baht 24.54 million, in proportion of investment of 63.80%.

On 21 September 2021, RHIS paid for increase in share capital to RATCH & AIDC 0.29 million shares at par value of US Dollar 1 per share totalling US Dollar 0.29 million or equivalent to Baht 9.86 million, in proportion of investment of 63.80%.

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On 16 December 2021, RHIS paid for increase in share capital to RATCH & AIDC 0.61 million shares at par value of US Dollar 1 per share totalling US Dollar 0.61 million or equivalent to Baht 20.47 million, in proportion of investment of 63.80%.

Investment in indirect joint venture - NEXIF ENERGY BT PTE. LTD. (“NEBTP”)

On 5 May 2021, RH International (Singapore) Corporation Pte. Ltd. (“RHIS”), an indirect subsidiary, has entered into Share Purchase and Subscription Agreement to purchase ordinary shares of NEXIF ENERGY BT PTE. LTD. (“NEBTP”) from NEXIF ENERGY PTE. LTD., the existing shareholder. The purpose of investment is to develop Nexif Energy Ben Tre Wind Power Project in the Socialist Republic of Vietnam totalling US Dollars 8.68 million or equivalent to Baht 272.58 million, in proportion of investment of 50%. Subsequently on 7 May 2021, RHIS paid a total share purchase price totalling US Dollars 5.19 million or equivalent to Baht 162.24 million, in proportion of investment of 50%. The Project is a near-shore wind power plant with the capacity of 80 megawatts. The project located in Thanh Hai commune, Thanh Phu district of Ben Tre Province, Socialist Republic of Vietnam. It has a 20-year power purchase agreement with Vietnam Electricity Group (EVN). The project is currently under development. The construction period is expected to take approximately 18 months, with commercial operation scheduled in December 2022 with aim to distribute electricity generation to Vietnam Electricity Group (EVN) under long-term power purchase agreement.

Subsequently on 30 June 2021, RHIS paid for increase in share capital, in proportion of investment of 50% of 1.34 million shares at par value of US Dollar 1 per share to NEBTP totalling US Dollars 1.34 million or equivalent to Baht 43.06 million. On 3 November 2021, RHIS paid for increase in shares capital, in proportion of investment of 50% of 0.66 million shares at par value of US Dollar 1 per share to NEBTP totalling US Dollars 0.66 million or equivalent to Baht 22.24 million.

Investment in direct joint venture - NEXIF RATCH ENERGY SINGAPORE PTE. LTD. (“NRES”)

At the extraordinary meeting of the shareholders of NEXIF RATCH ENERGY SINGAPORE PTE. LTD. (“NRES”), a direct joint venture, held on 24 June 2021, the shareholders approved to increase the authorised share capital from US Dollars 34.61 million to US Dollars 34.67 million by issuance of new ordinary shares totalling 64,000 shares at par value of US Dollars 1 per share. Subsequently on 21 July 2021, the Company paid for increase in share capital totalling US Dollars 31,360 or equivalent to Baht 1 million, in proportion of investment of 49%.

Investment in indirect joint venture - SIPHANDONE-RATCH LAO CO., LTD. (“SPD”)

On 31 August 2021, RATCH-Lao Services Company Limited (“RL”), a direct subsidiary, paid for the increase in share capital to SIPHANDONE-RATCH LAO CO., LTD. (“SPD”), a direct joint venture of the direct subsidiary, totalling Kip 8,186.74 million or equivalent Baht 25 million, in proportion of investment of 25%.

Investment in direct joint venture - Innopower Company Limited (“Innopower”)

On 2 September 2021, the Company has signed the investment agreement with Electricity Generating Authority of Thailand (“EGAT”) and Electricity Generating Public Company Limited (“EGCO”) for establishing Innopower Company Limited to enhance research in innovation and inventions occurring within EGAT Group and invest in Collaboration, Incubation, Acceleration, Corporate Venture Capital (CVC) for start-up business investment in energy industry and R&D spin-off including future energy business. Innopower Company Limited has the registered of authorised share capital Baht 600 million and called for paid-up of 25% of registered capital. Subsequently on 6 September 2021, the Company paid for share capital totalling Baht 45 million, in proportion of investment of 30%.

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Progress of Saddle Dam D collapsed

On 23 July 2018, the Saddle Dam D of Xe-Pian Xe-Namnoy Hydroelectric Power Project, located in Lao PDR, of Xe-Pain Xe-Namnoy Power Company Limited, a direct joint venture, collapsed. The Saddle Dam fractured which caused the water flow to the downstream area. The joint venture evacuated the people residing around the affected area for safety. The project also has a standard insurance package in accordance with the loan agreement, including all risk insurance for construction, third-party liability insurance, and delay start-up insurance. The costs incurred as a result of the collapse are primarily the responsibility by the contractor in charge of engineering, procurement and construction (EPC). From this situation, the Government of Lao PDR appointed the National Investigation Committee to investigate the situation. Subsequently on 28 May 2019, the National Investigation Committee announced the result of investigation is not force majeure as stipulated in the Concession Agreement. Currently, the joint venture is during the process of claiming the compensation and related damages from the EPC contractor. During the year 2020, the joint venture has received the document of claiming on compensation from the Government of Lao PDR and the case is currently under consideration in mutually agreed among the shareholders. However, the project started its commercial operation on 6 December 2019.

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Material joint ventures

The following table summarises the financial information of the material joint ventures as included in their own financial statements, adjusted for fair value adjustments at acquisition and differences in accounting policies. The table also reconciles the summarised financial information to the carrying amount of the Group's interest in these companies.

	Ratchaburi Power Company Limited		Hongsa Power Company Limited	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Revenue	9,307,099	8,578,643	21,338,710	19,833,711
Profit from continuing operations	876,121 ^a	609,180 ^a	8,539,175 ^a	7,589,966 ^a
Other comprehensive income (expense)	-	-	1,931,559	(526,335)
Total comprehensive income (100%)	876,121	609,180	10,470,734	7,063,631
Group's interest (%)	25	25	40	40
Group's share of total comprehensive income	219,030	152,295	4,188,294	2,825,452
Dividend income from joint ventures for the year	412,500	650,000	608,112	361,530
Current assets	3,562,685 ^b	3,636,222 ^b	22,243,968 ^b	19,554,031 ^b
Non-current assets	8,002,288	8,226,753	90,002,942	88,707,982
Current liabilities	(1,577,132) ^c	(1,213,191) ^c	(10,606,333) ^c	(9,581,350) ^c
Non-current liabilities	(57,692) ^d	(53,133) ^d	(51,049,352) ^d	(56,935,598) ^d
Net assets (100%)	9,930,149	10,596,651	50,591,225	41,745,065
Group's share of net assets	2,482,537	2,649,163	20,236,490	16,698,026
Exchange differences on translating in the consolidated financial statements and others	285,080	311,924	(137,693)	(2,217,733)
Carrying amount of interest in joint ventures	2,767,617	2,961,087	20,098,797	14,480,293
Remark:				
a. Includes:				
- depreciation and amortisation	894,755	887,525	330,214	320,467
- finance costs	-	77,641	3,717,591	4,184,290
- tax expense	214,370	133,814	-	-
b. Includes cash and cash equivalents	1,268,464	1,196,774	4,985,035	4,641,313
c. Includes current financial liabilities (excluding trade and other payables and provisions)	-	-	(7,965,712)	(7,260,406)
d. Includes non-current financial liabilities (excluding trade and other payables and provisions)	-	-	(50,171,095)	(56,300,284)

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Immaterial associates and joint ventures

The following is summarised financial information for the Group's interest in immaterial associates and joint ventures based on the amounts reported in the Group's consolidated financial statements:

	Immaterial associates		Immaterial joint ventures	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Carrying amount of interests in immaterial associates and joint ventures	10,439,217	6,228,054	17,761,397	17,118,366
Group's share of:				
- Profit from continuing operations	99,309	211,994	2,168,392	1,200,067
- Other comprehensive income (expense)	564,995	(722,849)	261,526	(230,566)
- Total comprehensive income (expense)	664,304	(510,855)	2,429,918	969,501

10 Investments in subsidiaries

	Separate financial statements	
	2021	2020
<i>For the year ended 31 December</i>	<i>(in thousand Baht)</i>	
At 1 January	50,836,610	42,560,610
Acquisitions / Additions	4,871,537	8,280,000
Disposal	-	(1,960)
Disposal from loss of control in subsidiary	-	(2,040)
At 31 December	55,708,147	50,836,610

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Investments in subsidiaries as at 31 December are as follows:

				Separate financial statements						
	Type of business	Country of operation	Ownership interest (%)		Cost		Impairment (in thousand Baht)		At cost - net	
			2021	2020	2021	2020	2021	2020	2021	2020
Subsidiaries										
Ratchaburi Electricity Generating Company Limited	Generating and selling electricity and investing in the power energy business	Thailand	99.99	99.99	21,900,000	21,900,000	-	-	21,900,000	21,900,000
Ratchaburi Energy Company Limited	Investing in the power energy business	Thailand	99.99	99.99	640,000	640,000	-	-	640,000	640,000
RH International Corporation Limited	Investing in the power energy business	Thailand	99.99	99.99	27,130,000	25,930,000	-	-	27,130,000	25,930,000
RATCH O&M Company Limited	Providing operation and maintenance services	Thailand	99.99	99.99	2,500	2,500	-	-	2,500	2,500
Ratchaburi Alliances Company Limited	Investing in the power energy business	Thailand	99.99	99.99	420,200	420,200	-	-	420,200	420,200
RATCH Cogeneration Company Limited	Generating and selling electricity and steam	Thailand	99.97	99.97	1,866,052	1,866,052	-	-	1,866,052	1,866,052
RATCH-Lao Services Company Limited	Providing operation and Maintenance services and investing in the related business	Lao PDR	99.99	99.99	336,858	77,858	-	-	336,858	77,858
Sahacogen (Chonburi) Public Company Limited	Generating and selling electricity and steam	Thailand	51	-	3,412,537	-	-	-	3,412,537	-
Total					55,708,147	50,836,610	-	-	55,708,147	50,836,610

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Increase in share capital of RH International Corporation Limited (“RHIC”)

Date	Description	Registered share capital (in thousand shares)	Par value per share (Baht)	Registered share capital (in thousand Baht)	Paid-up share capital (in thousand Baht)
1 January 2021	Balance	3,265,000	10	32,650,000	25,930,000
19 January 2021	Paid for increase in share capital	-		-	705,000
11 May 2021	Paid for increase in share capital	-		-	495,000
31 December 2021	Balance	3,265,000	10	32,650,000	27,130,000

Increase in share capital of RATCH-Lao Services Company Limited (“RL”)

At the extraordinary meeting of the shareholders of RATCH-Lao Services Company Limited, a direct subsidiary, held on 20 May 2021, the shareholders approved to increase the authorised share capital from Kip 20,000 million to Kip 144,875 million. The purpose of such capital increase is to invest in overseas projects. The subsidiary called for additional paid-up from existing shareholders 2.50 million shares from par value of Kip 8,000 to par value of Kip 9,500 and issuance of new ordinary shares totalling 12.75 million shares at par value of Kip 9,500 per share. Subsequently on 1 July 2021, the Company paid for increase in share capital in proportion of 67% totalling Baht 259 million.

11 Land for future development projects

At 31 December 2021, the Group has land for future development projects comprise the 317 rai located in Pathum Thani province, the 19 rai located in Nakhorn Sri Thammarat province, the 52 rai located in Petchaburi province, the Group is considering the future development plan but not yet finalised. In addition, the 150 rai is located in Ratchaburi province. The total net book value of those lands are Baht 372.92 million. As at 31 December 2021, the Group has determined the market value resulting the net book value of those lands are not higher than the recoverable amount.

12 Property, plant and equipment

	Consolidated financial statements					
	Land	Buildings, other constructions and building improvements	Power plants, substation & transmission systems and operating & maintenance equipment	Furniture, fixtures and office equipment	Vehicles	Assets under construction and installation
				(in thousand Baht)		Total
Cost						
At 1 January 2020	1,722,185	513,549	33,680,855	590,704	20,006	38,796,382
Additions	-	5,121	230,445	2,156	42	4,765,572
Transfers	-	-	427,618	-	-	170,875
Disposals	-	(4,340)	(321,467)	(21,554)	(1,692)	(349,053)
Disposal from loss of control in subsidiary	-	-	-	(74)	-	(15,838)
Effect of movements in exchange rates	16,958	12,871	2,573,014	454	-	3,196,131
At 31 December 2020						
At 1 January 2021	1,739,143	527,201	36,590,465	571,686	18,356	46,564,069
Additions	10,294	38,636	533,709	8,295	-	2,282,331
Acquisition through business combination (see note 4)	616,328	285,603	9,056,394	77,898	20,573	10,094,543
Transfers	(103,300)	72,407	7,586,186	1,550	-	(103,301)
Disposals	-	-	(2,420)	(9,264)	(2,655)	(14,339)
Effect of movements in exchange rates	10,881	8,746	1,729,258	661	293	2,066,980
At 31 December 2021	2,273,346	932,593	55,493,592	650,826	36,567	60,890,283

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	Consolidated financial statements					
	Land	Buildings, other constructions and building improvements	Power plants, substation & transmission systems and operating & maintenance equipment	Furniture, fixtures and office equipment <i>(in thousand Baht)</i>	Vehicles	Assets under construction and installation
						Total
Depreciation and impairment losses						
At 1 January 2020	-	201,481	13,909,209	557,834	19,970	14,688,494
Depreciation charge for the year	-	23,865	1,398,768	12,646	16	1,435,295
Disposals	-	(1,769)	(269,589)	(21,268)	(1,692)	(294,318)
Disposal from loss of control in subsidiary	-	-	-	(2)	-	(2)
Effect of movements in exchange rates	-	6,892	1,248,004	408	-	1,255,304
At 31 December 2020 and 1 January 2021	-	230,469	16,286,392	549,618	18,294	17,084,773
Depreciation charge for the year	-	26,181	1,670,412	9,933	98	1,706,624
Acquisition through business combination (<i>see note 4</i>)	-	126,085	4,834,189	68,647	16,433	5,045,354
Disposals	-	-	(2,159)	(9,263)	(2,655)	(14,077)
Effect of movements in exchange rates	-	4,955	834,200	606	275	840,036
At 31 December 2021	-	387,690	23,623,034	619,541	32,445	24,662,710
Net book value						
At 31 December 2020	1,739,143	296,732	20,304,073	22,068	62	29,479,296
At 31 December 2021	2,273,346	544,903	31,870,558	31,285	4,122	36,227,573

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	Separate financial statements				
	Land	Buildings, other constructions and building improvements	Furniture, fixtures and office equipment	Vehicles	Total
		<i>(in thousand Baht)</i>			
Cost					
At 1 January 2020	295,993	309,636	455,634	960	1,062,223
Additions	-	-	764	-	764
Disposals	-	-	(10,420)	-	(10,420)
At 31 December 2020 and 1 January 2021	295,993	309,636	445,978	960	1,052,567
Additions	-	-	3,947	-	3,947
Transfer	-	-	1,550	-	1,550
Disposals	-	-	(9,088)	-	(9,088)
At 31 December 2021	295,993	309,636	442,387	960	1,048,976
Depreciation					
At 1 January 2020	-	87,057	435,695	960	523,712
Depreciation charge for the year	-	12,386	6,670	-	19,056
Disposals	-	-	(10,420)	-	(10,420)
At 31 December 2020 and 1 January 2021	-	99,443	431,945	960	532,348
Depreciation charge for the year	-	12,385	6,161	-	18,546
Disposals	-	-	(9,088)	-	(9,088)
At 31 December 2021	-	111,828	429,018	960	541,806
Net book value					
At 31 December 2020	295,993	210,193	14,033	-	520,219
At 31 December 2021	295,993	197,808	13,369	-	507,170

Capitalised borrowing costs relating to the acquisition of the land and the construction of the new factory for the Group are amounted to Baht 79.38 million (2020: Baht 119.02 million).

Security

As at 31 December 2021, RATCH-Australia Corporation Pty. Ltd., an indirect subsidiary, had mortgaged land, buildings and power plants and pledged power plant equipment of 5 power plants with a net book value of Australian Dollars 987.99 million or equivalent to Baht 23,957.85 million as collateral for long-term loans from financial institutions (see note 16).

As at 31 December 2021, RATCH Cogeneration Company Limited, a direct subsidiary, had mortgaged land with all buildings on land and partial machine as collateral for long-term loans from financial institution (see note 16).

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13 Leases

<i>Right-of-use assets At 31 December</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Land	466,767	397,964	-	-
Machines	82,317	-	-	-
Vehicles	27,292	22,762	13,207	16,685
Office equipment	17,049	25,705	16,629	25,032
Transmission systems	1,581,020	1,583,156	-	-
Total	2,174,445	2,029,587	29,836	41,717

In 2021, additions to the right-of-use assets of the Group and the Company were Baht 28.37 million and Baht 5.01 million, respectively (2020: Baht 1,013.09 million and Baht 8.32 million, respectively).

Generator Connection and Access agreement

On 26 October 2016, Mount Emerald Wind Farm Pty. Ltd., an indirect subsidiary, entered into a Generator Connection and Access agreement with a local company in Australia to join construct a switchyard and a transmission line. Thus, the subsidiary can connect and transmit electricity to a substation for a period of 26 years starting from the date specified in the agreement. The total value of the agreement is Australian Dollars 28.18 million.

On 27 October 2020, Collector Wind Farm Pty. Ltd., an indirect subsidiary, entered into a Dedicated Connection Agreement with a local company in Australia. The subsidiary can transmit electricity to substation for a period of 30 years starting from the date specified in the agreement. The total value of the agreement is Australian Dollars 43.49 million.

Land lease agreement

On 29 March 2019, Collector Wind Farm Pty. Ltd., an indirect subsidiary, entered into Land Lease Agreement for a period of 30 years. The agreement can be extended for a period of 10 years after the termination date. The monthly rental expense is stipulated in the agreement.

Extension options

The Group and the Company has extension options on property leases exercisable up to one year before the end of the contract period. The Group and the Company assesses at lease commencement date whether it is reasonably certain to exercise the extension options and will regularly reassess so.

<i>Year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Depreciation of right-of-use assets:				
- Land	20,861	42,572	-	-
- Machines	1,770	-	-	-
- Vehicles	12,935	11,835	8,486	8,295
- Office equipment	8,655	8,655	8,403	8,403
- Transmission systems	60,184	28,571	-	-
Interest on lease liabilities	93,543	41,272	2,242	2,969
Expenses relating to short-term leases and leases of low-value assets	12,491	12,970	3,866	5,218

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In 2021, total cash outflow for leases of the Group and the Company were Baht 159.38 million and Baht 18.79 million, respectively (2020: Baht 62.81 million and Baht 18.50 million, respectively).

14 Goodwill and intangible assets

	Consolidated financial statements				
	Software licences	Licenses on project development	Goodwill from business acquisition	Right to power purchase agreements	Total
	<i>(in thousand Baht)</i>				
Cost					
At 1 January 2020	141,077	603,080	628,827	5,666,579	7,039,563
Additions	3,858	-	-	-	3,858
Transfer	-	-	-	(170,875)	(170,875)
Effect of movements in exchange rates	4,588	(2,338)	(660)	402,084	403,674
At 31 December 2020 and 1 January 2021	149,523	600,742	628,167	5,897,788	7,276,220
Acquisition through business combination (see note 4)	26,186	-	1,430,473	9,211	1,465,870
Additions	845	-	-	342	1,187
Effect of movements in exchange rates	3,059	67,656	19,191	256,617	346,523
At 31 December 2021	179,613	668,398	2,077,831	6,163,958	9,089,800
Amortisation and impairment losses					
At 1 January 2020	104,927	100,978	458,512	2,578,253	3,242,670
Amortisation charge for the year	10,301	25,034	-	292,890	328,225
Effect of movements in exchange rates	4,278	(1,396)	-	248,914	251,796
At 31 December 2020 and at 1 January 2021	119,506	124,616	458,512	3,120,057	3,822,691
Acquisition through business combination (see note 4)	19,776	-	-	182	19,958
Amortisation charge for the year	8,538	25,581	-	300,587	334,706
Impairment losses	-	-	19,602	-	19,602
Effect of movements in exchange rates	2,822	15,188	-	166,854	184,864
At 31 December 2021	150,642	165,385	478,114	3,587,680	4,381,821
Net book value					
At 31 December 2020	30,017	476,126	169,655	2,777,731	3,453,529
At 31 December 2021	28,971	503,013	1,599,717	2,576,278	4,707,979

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	Separate financial statements Software licences (in thousand Baht)
Cost	
At 1 January 2020	32,529
Additions	-
At 31 December 2020 and 1 January 2021	32,529
Additions	-
At 31 December 2021	32,529
Amortisation	
At 1 January 2020	28,195
Amortisation charge for the year	2,577
At 31 December 2020 and 1 January 2021	30,772
Amortisation charge for the year	1,299
At 31 December 2021	32,071
Net book value	
At 31 December 2020	1,757
At 31 December 2021	458

Impairment testing for CGUs containing goodwill

For the purposes of impairment testing, goodwill has been allocated to the Group's CGUs. The balance of goodwill as at 31 December 2021 and 2020 mainly came from Wind Farm in Australia.

The recoverable amounts of goodwill, right to power purchase agreements and property, plant and equipment in Australia (CGU) were based on its value in use, determined by discounting the future cash flows to be generated from the continuing use of the power plants in Australia.

The key assumptions used in the estimation of value in use included the discount rates which was a post-tax measure based on the rate of 10-year historic of average 10-year government bonds from Reserve Bank Australia (RBA) defined as a risk free rate, in line with the principle underlying the Capital Asset Pricing Model (CAPM) theory with debt leveraging of 60% for Thermal power plants and 50% for Renewable Energy power plants and the future cash flows were prepared using the external information, which included sales volumes, prices, operating costs, inflation rate and long-term growth rates based on estimate throughout the remaining period of the power purchase agreements.

The values assigned to the key assumptions represent management's assessment of future trends in the relevant industries and have been based on historical data from both external and internal sources.

	Consolidated financial statements	
	2021	2020
	(%)	
Discount rate - Thermal power plants	6.19	6.25
Discount rate - Renewable energy power plants	5.72	5.78

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The discount rates were a post-tax measure based on the rate of 10-year government bonds issued by the government in the relevant market and in the same currency as the cash flows, adjusted for a risk premium to reflect both the increased risk of investing in general equity securities and the systematic risk of the specific CGU.

Revenue projection

The total revenue projections for the power plant assets have been determined in accordance with the power purchase agreements applying the revenue projections from external information for the post power purchase agreement periods. The assumptions included tariff from Thermal power plants and Renewable Energy power plants, carbon credit prices, nature gas prices, electricity demands, exchange rates, inflation rates and other related factors.

The impairment testing has been prepared by the management of RATCH-Australia Corporation Limited ("RAC") from the information as specified in the power purchase agreements with the counterparties while estimating revenue and expenses from the external source and other related factors and conservative approach are used when preparing the testing. The RAC's management have also conducted many sensitivity tests from the most conservative approach to more aggressive assumptions. There were no impairment loss recognised for any RAC's assets. However, at initial recognition the goodwill in foreign currency is recognised in Thai Baht. As a result of currency fluctuations, the headroom in the impairment test translated to Thai Baht is lower than the carrying value of the goodwill by Baht 19.60 million. Consequently, the Group recognised an impairment loss on goodwill for the same amount including in administrative expense during 2021 (2020: nil).

15 Other non-current assets

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	(in thousand Baht)			
Deferred expenses under contractual service agreements	1,247,235	1,271,924	-	-
Revenue department receivable	459,072	472,912	-	-
Deferred financing fees	258,450	-	-	-
Development costs of power generating projects	128,078	73,605	-	-
Deposits and guarantee	59,574	14,314	4,526	4,517
Deferred expenses for generator connection and access services	44,218	46,849	-	-
Others	42,233	-	-	-
Total	2,238,860	1,879,604	4,526	4,517

Renewable energy projects

The Group is developing projects to generate and sell electricity from renewable energy in Australia.

The Group has capitalised project development costs related to renewable energy projects in Australia as other non-current assets. Such projects have received the development approval from local authorities and the management has determined that these projects are technically and commercially feasible, future economic benefits are probable and total present value of the estimated future cash flows will not be lower than the carrying amount.

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16 Interest-bearing liabilities

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Current				
Short-term loans from financial institutions -unsecured	5,364,896	60,074	2,536,000	-
Short-term loan from related party	-	-	5,140,000	3,465,000
Current portion of long-term loans from financial institutions-secured	2,670,533	1,486,205	-	-
Current portion of lease liabilities	161,512	118,092	15,420	16,290
Current portion of debenture -unsecured	1,999,948	-	-	-
Total current interest-bearing liabilities	10,196,889	1,664,371	7,691,420	3,481,290
Non-current				
Long-term loans from financial institutions -secured	26,745,189	16,768,088	5,000,000	-
Long-term loan	320,000	-	-	-
Lease liabilities	1,505,423	1,362,556	15,922	26,594
Debentures-unsecured	22,351,744	23,338,357	7,989,734	7,987,986
Total non-current interest-bearing liabilities	50,922,356	41,469,001	13,005,656	8,014,580

Balances of interest-bearing liabilities net of deferred financing fees, excluding lease liabilities as at 31 December 2021 were as follows:

	Consolidated financial statements			
	Total facilities	Amount (in million Baht)	Interest rate (% per annum)	Repayment term
Short-term				
Loans from financial institutions				
RATCH Group Public Company Limited	As stipulated in the agreement	2,536	Fixed rate	Within 1 year during January to March 2022 and at call
RH International (Singapore) Corporation Pte. Ltd	As stipulated in the agreement	1,504	Fixed rate	Within January 2022
Sahacogen (Chonburi) Public Company Limited	As stipulated in the agreement	1,325	Fixed rate	At call

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	Consolidated financial statements			
	Total facilities	Amount (in million Baht)	Interest rate (% per annum)	Repayment term
Long-term				
Loans from financial institutions				
RATCH Group Public Company Limited	Baht 5,000 million	5,000	Fixed rate	Within March 2024
RATCH Cogeneration Company Limited	Baht 4,632 million	3,267	3-Month floating rate plus a fixed margin	Within 12 years during November 2020 to November 2032
Sahacogen (Chonburi) Public Company Limited	Baht 2,205 million	958	Fixed rate and floating rate plus a fixed margin	Within 7 years during June 2017 to December 2024
Sahagreen Forest Company Limited	Baht 324 million	130	MLR, minus a fixed margin	Within 8 years during June 2017 to December 2025
RATCH-Australia Corporation Pty. Ltd.	Australian Dollars 312 million	5,388	BBSY, plus a fixed margin	Within 5 years during October 2018 to May 2023
Mount Emerald Wind Farm Pty. Ltd. (subsidiary of RATCH-Australia Corporation Pty. Ltd.)	Australian Dollars 252 million	4,587	BBSY, plus a fixed margin	Within 5 years during December 2018 to October 2023
RATCH-Australia Collinsville Solar PV Pty. Ltd. (subsidiary of RATCH-Australia Corporation Pty. Ltd.)	Australian Dollars 60 million	1,013	BBSY, plus a fixed margin	Within 5 years during March 2020 to April 2024
Collector Wind Farm Pty. Ltd. (subsidiary of RATCH-Australia Corporation Pty. Ltd.)	Australian Dollars 175 million	4,091	BBSY, plus a fixed margin	Within 5 years during June 2021 to May 2024
PT Bajradaya Sentranusa (subsidiary of Fareast Renewable Development Pte. Ltd.)	US Dollars 267 million	5,251	LIBOR, plus a fixed margin	By quarterly within 13-15 years during December 2014 to September 2029
Total		29,685		
Less deferred financing fees		(269)		
Net		29,416		
Less current portion due within one year		(2,671)		
Total non-current - net		26,745		

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	Consolidated financial statements			
	Total facilities	Amount (in million Baht)	Interest rate (% per annum)	Repayment term
Long-term				
Loan from related party				
Sahacogen (Chonburi) Public Company Limited	As stipulated in the agreement	320	Fixed rate	Within 2026 and 2027
Current portion due within one year				
Debenture				
Ratchaburi Electricity Generating Company Limited	Baht 2,000 million	2,000	3.50	Repayment period of 7 years and will be due for redemption in 2022
Long-term Debentures				
RATCH Group Public Company Limited	Baht 8,000 million	8,000	1.32 - 2.94	Repayment period of 3, 5, 10, 15 years and will be due for redemption in 2023, 2025, 2030, 2035, respectively
RH International (Singapore) Corporation Pte. Ltd.	US Dollars 300 million	10,026	4.50	Repayment period of 10 years and will be due for redemption in 2028
RH International (Singapore) Corporation Pte. Ltd.	Japanese Yen 15,000 million	4,356	2.72	Repayment period of 15 years and will be due for redemption in 2026
Total		22,382		
<i>Less deferred financing fees</i>		<i>(30)</i>		
Net		22,352		

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	Separate financial statements			
	Total facilities	Amount (in million Baht)	Interest rate (% per annum)	Repayment term
Short-term				
Loans from financial institutions				
RATCH Group Public Company Limited	As stipulated in the agreement	2,536	Fixed rate	Within March 2022 and at call
Loan from related party				
RATCH Group Public Company Limited	Baht 10,000 million	5,140	0.78 - 0.80	Within 6 months during March 2022 to June 2022
Long-term				
Loan from financial institution				
RATCH Group Public Company Limited	Baht 5,000 million	5,000	Fixed rate	Within March 2024
Debentures				
RATCH Group Public Company Limited	Baht 8,000 million	8,000	1.32 - 2.94	Repayment period of 3,5,10,15 years and will be due for redemption in 2023, 2025, 2030, 2035, respectively
Less deferred financing fees		(10)		
Net		7,990		

As at 31 December 2021, the Group had unutilised credit facilities totalling Baht 50,226.00 million, US Dollars 855.00 million and Australian Dollars 100.00 million. (2020: Baht 30,413.59 million, US Dollars 350.00 million and Australian Dollars 260.31 million).

The Group must comply with certain conditions in those agreements including maintaining certain key financial ratios for all long-term loans agreement from financial institutions and long-term debenture of RH International (Singapore) Corporation Pte. Ltd.

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Changes in liabilities arising from financing activities

	Consolidated financial statements			
	Loans	Debentures	Lease liabilities	Total
	(in thousand Baht)			
2021				
At 1 January	18,314,367	23,338,357	1,480,648	43,133,372
Changes from financing cash flows	7,739,646	-	(159,382)	7,580,264
Changes arising from obtaining control of subsidiaries (see note 4)	8,062,230	-	144,336	8,206,566
The effect of changes in foreign exchange rates	1,229,583	1,475,609	78,113	2,783,305
Increase in lease liabilities	-	-	119,180	119,180
Other changes	(245,208)	(462,274)	4,040	(703,442)
At 31 December	35,100,618	24,351,692	1,666,935	61,119,245
2020				
At 1 January	16,967,525	15,167,591	1,156	32,136,272
Changes from financing cash flows	148,772	8,000,000	(62,811)	8,085,961
The effect of changes in foreign exchange rates	1,166,067	(61,300)	56,026	1,160,793
Increase in lease liabilities	-	-	1,482,072	1,482,072
Other changes	32,003	232,066	4,205	268,274
At 31 December	18,314,367	23,338,357	1,480,648	43,133,372
	Separate financial statements			Total
	Loans	Debentures	Lease liabilities	
	(in thousand Baht)			
2021				
At 1 January	3,465,000	7,987,986	42,884	11,495,870
Changes from financing cash flows	9,211,000	-	(18,792)	9,192,208
Increase in lease liabilities	-	-	5,008	5,008
Other changes	-	1,748	2,242	3,990
At 31 December	12,676,000	7,989,734	31,342	20,697,076
2020				
At 1 January	-	-	-	-
Changes from financing cash flows	3,465,000	8,000,000	(18,500)	11,446,500
Increase in lease liabilities	-	-	65,288	65,288
Other changes	-	(12,014)	(3,904)	(15,918)
At 31 December	3,465,000	7,987,986	42,884	11,495,870

17 Non-current provisions for employee benefits

Defined benefit plan

The Group and the Company operate a defined benefit plan based on the requirement of Thai Labor Protection Act B.E 2541 (1998) to provide retirement benefits to employees based on pensionable remuneration and length of service. The defined benefit plans expose the Group to actuarial risks, such as longevity risk, currency risk, interest rate risk and market (investment) risk.

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<i>Present value of the defined benefit obligations</i>	<i>Note</i>	Consolidated financial statements		Separate financial statements	
		2021	2020	2021	2020
		<i>(in thousand Baht)</i>			
At 1 January		225,498	203,821	178,408	166,232
Recognised in profit or loss:					
Current service cost and interest on obligation		23,371	24,738	17,432	19,034
Acquisition through business combination	4	46,484	-	-	-
Transfer		-	-	1,433	-
Recognised in other comprehensive income:					
Actuarial (gain) loss					
- Demographic assumption		14,552	-	11,791	-
- Financial assumption		(34,403)	28,913	(27,998)	23,736
- Experience assumption		13,729	-	12,889	-
Effect of movements in exchange rates		581	73	-	-
		(5,541)	28,986	(3,318)	23,736
Benefit paid		(23,126)	(32,047)	(14,652)	(30,594)
At 31 December		266,686	225,498	179,303	178,408

<i>Principal actuarial assumptions</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(%)</i>			
Discount rate	0.51 to 8	1.69 to 4.5	2.46	1.69
Future salary growth	4 to 8	4 to 8	6 to 8	6.5 to 8
Employee turnover	0 to 10	0 to 15	0 to 7	0 to 10

Assumptions regarding future mortality have been based on published statistics and mortality tables.

As at 31 December 2021, the weighted-average durations of the defined benefit obligation were 14.50 and 28.70 years (2020: 15.90 and 30.20 years).

Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

<i>Effect to the defined benefit obligation</i>	Consolidated financial statements		Separate financial statements	
	Increase	Decrease	Increase	Decrease
	<i>(in thousand Baht)</i>			
At 31 December 2021				
Discount rate (1% movement)	(22,913)	26,838	(18,459)	21,446
Future salary growth (1% movement)	25,624	(22,333)	20,410	(17,936)
Employee turnover (20% movement)	(5,414)	5,754	(3,968)	4,161
Improving mortality rate (1% movement)	939	(1,069)	725	(817)

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<i>Effect to the defined benefit obligation</i>	Consolidated financial statements		Separate financial statements	
	Increase	Decrease	Increase	Decrease
	<i>(in thousand Baht)</i>			
At 31 December 2020				
Discount rate (1% movement)	(19,975)	23,565	(15,680)	18,333
Future salary growth (1% movement)	26,312	(22,555)	20,522	(17,756)
Employee turnover (20% movement)	(9,395)	10,351	(6,953)	7,503
Improving mortality rate (1% movement)	817	(924)	603	(674)

18 Share premium and legal reserves

Share premium

Section 51 of the Public Companies Act B.E. 2535 requires companies to set aside share subscription monies received in excess of the par value of the shares issued to a reserve account (“share premium”). Share premium is not available for dividend distribution.

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 requires that a public company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward, to a reserve account (“legal reserve”), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

19 Segment information and disaggregation of revenue

Management determined that the Group has 4 reportable segments which are the Group’s strategic divisions for different products and services, and are managed separately. The following summary describes the operations in each of the Group’s reportable segments.

Segment 1	Domestic Electricity Generating
Segment 2	Renewable Energy
Segment 3	International Power Projects
Segment 4	Related business and Infrastructure

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Information about reportable segments

For the year ended 31 December	Consolidated financial statements											
	Domestic Electricity Generating				Renewable Energy		International Power Projects		Related business and Infrastructure		Total	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
(in thousand Baht)												
Revenue from sales and rendering of services	31,451,164	28,905,683	-	-	3,780,316	2,746,853	-	-	-	-	35,231,480	31,652,536
Revenue from lease contracts	1,953,582	2,553,209	-	-	141,715	-	-	-	-	-	2,095,297	2,553,209
Cost of sales and rendering of services	(30,908,059)	(28,389,993)	-	-	(2,208,439)	(1,838,696)	-	-	-	-	(33,116,498)	(30,228,689)
Gross profit	2,496,687	3,068,899	-	-	1,713,592	908,157	-	-	-	-	4,210,279	3,977,056
Management service income	-	-	-	-	1,453	1,057	-	-	-	-	224,305	276,307
Interest income	46,114	52,318	52	545	114,060	60,765	45,128	45,784	205,354	159,412	205,354	159,412
Dividend income	-	-	-	-	56,323	60,172	2,507	1,012	58,830	61,184	58,830	61,184
Net gain on bargain purchase arising from the acquisition	-	-	-	-	177,667	-	-	-	177,667	-	177,667	-
Other income	264,302	167,002	68	176	119,753	46,815	13,829	5,010	397,952	219,003	397,952	219,003
Administrative expenses	(226,470)	(233,011)	(75)	(78)	(605,620)	(455,027)	(869,676)	(912,981)	(1,701,841)	(1,601,097)	(1,701,841)	(1,601,097)
Net foreign exchange gain	6,584	4,218	-	-	105,470	290,475	94,236	9,760	206,290	304,453	206,290	304,453
Gain (loss) on fair value adjustment of derivatives	22,239	9,758	-	-	121,267	(139,997)	-	-	143,506	(130,239)	143,506	(130,239)
Finance costs	(169,747)	(184,854)	-	-	(1,470,767)	(1,304,417)	(227,555)	(62,081)	(1,868,069)	(1,551,352)	(1,868,069)	(1,551,352)
Share of profit (loss) of joint ventures and associates accounted for using equity method	640,139	570,751	337,259	374,847	5,004,872	3,429,291	(79,869)	225,454	5,902,401	4,600,343	5,902,401	4,600,343
Profit (loss) before income tax expense	3,079,848	3,455,081	337,304	375,490	5,338,070	2,897,291	(798,548)	(412,792)	7,956,674	6,315,070	7,956,674	6,315,070
Tax (expense) income	(94,764)	(42,337)	-	(83)	(82,246)	18,288	(1,045)	(4,226)	(178,055)	(28,358)	(178,055)	(28,358)
Profit (loss) for the year	2,985,084	3,412,744	337,304	375,407	5,255,824	2,915,579	(799,593)	(417,018)	7,778,619	6,286,712	7,778,619	6,286,712

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(a) *Geographical segments*

Segment assets are based on the geographical location of the assets.

Geographical information	Assets	
	2021	2020
	<i>(in thousand Baht)</i>	
Thailand	68,461,536	52,772,952
Australia	34,072,151	31,848,820
Republic of Indonesia	19,142,599	-
Other countries	33,179,020	27,510,480
Total	154,855,306	112,132,252

(b) *Major customer*

Revenues from one customer of the Group's segment 1 represent approximately Baht 31,015 million (2020: Baht 28,906 million) of the Group's total revenue.

20 Expenses by nature

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Fuel costs	26,892,610	24,475,388	-	-
Depreciation and amortisation	2,104,479	1,972,586	36,734	38,330
Operation and maintenance service fees	1,675,259	1,665,286	-	-
Repair expenses and spare parts used	1,354,976	1,270,917	-	-
Employee benefit expenses	707,117	705,010	453,565	495,398
General administrative expenses	407,769	508,777	167,964	204,420
Insurance premium for power plants	440,098	377,823	-	-
Consultant fees	297,706	216,299	197,218	169,924
Impairment losses of assets	82,181	-	-	-
Public relation expenses	44,855	38,865	23,138	22,144
Others	811,289	598,835	-	-
Total cost of sales and rendering of services and administrative expenses	34,818,339	31,829,786	878,619	930,216

21 Income tax

Income tax recognised in profit or loss	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
Current tax expense				
Current year	211,328	19,287	-	-
Over provided in prior years	(52)	(1,911)	-	-
	211,276	17,376	-	-
Deferred tax expense				
Movements in temporary differences	(33,221)	10,982	(751)	(2,515)
Total income tax expense (income)	178,055	28,358	(751)	(2,515)

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	Consolidated financial statements					
	Before tax	2021 Tax expense	Net of tax (in thousand Baht)	Before tax	2020 Tax benefit	Net of tax
Income tax						
Recognised in other comprehensive income						
Financial assets measured at fair value through other comprehensive income	123,540	(52,963)	70,577	-	-	-
Derivatives	613,256	(11,614)	601,642	-	-	-
Defined benefit plan actuarial gain (loss)	6,123	(1,224)	4,899	(28,913)	5,783	(23,130)
Total	742,919	(65,801)	677,118	(28,913)	5,783	(23,130)

	Separate financial statements					
	2021			2020		
	Before tax	Tax expense	Net of tax (in thousand Baht)	Before tax	Tax benefit	Net of tax
Income tax						
Recognised in other comprehensive income						
Financial assets measured at fair value through other comprehensive income	264,813	(52,963)	211,850	-	-	-
Defined benefit plan actuarial gain (loss)	3,318	(663)	2,655	(23,736)	4,747	(18,989)
Total	268,131	(53,626)	214,505	(23,736)	4,747	(18,989)

Reconciliation of effective tax rate

	Consolidated financial statements			
	Rate (%)	2021 (in thousand Baht)	Rate (%)	2020 (in thousand Baht)
Profit before income tax expense		7,956,675		6,315,070
Share of profit of joint ventures and associates		(5,902,401)		(4,600,343)
		2,054,274		1,714,727
Income tax using the Thai corporation tax rate	20	410,855	20	342,945
Effect of different tax rates in foreign jurisdictions		200,291		(98,021)
Income not subject to tax		(344,378)		(45,216)
Recognition of previously unrecognised tax losses		(109,313)		(88)
Current year losses for which no deferred tax asset was recognised		85,768		168,038
Expenses deductible at a greater amount		(213,649)		(556,271)
Expenses not deductible for tax purposes		173,710		218,503
Over provided in prior years		(52)		(1,911)
Others		(25,177)		379
Income tax expense	2.24	178,055	0.45	28,358

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	Separate financial statements			
	Rate (%)	2021 (in thousand Baht)	Rate (%)	2020 (in thousand Baht)
Profit before income tax expense		3,139,342		2,996,180
Income tax using the Thai corporation tax rate	20	627,868	20	599,236
Income not subject to tax-dividend income		(705,865)		(692,726)
Effect from expense not deductible for tax purposes and income and expenses recognised in the different periods between accounting and tax		(67)		9,198
Current year losses for which no deferred tax asset was recognised		77,313		81,777
Total	(0.02)	(751)	(0.08)	(2,515)

<i>Deferred tax At 31 December</i>	Consolidated financial statements			
	Assets		Liabilities	
	2021	2020	2021	2020
	(in thousand Baht)			
Total	4,713,869	3,700,531	(8,812,798)	(5,489,880)
Set off of tax	(4,673,374)	(3,658,474)	4,673,374	3,658,474
Net deferred tax assets (liabilities)	40,495	42,057	(4,139,424)	(1,831,406)

<i>Deferred tax At 31 December</i>	Separate financial statements			
	Assets		Liabilities	
	2021	2020	2021	2020
	(in thousand Baht)			
Total	55,350	57,639	(58,930)	-
Set off of tax	(55,350)	(8,344)	55,350	-
Net deferred tax assets (liabilities)	-	49,295	(3,580)	-

	Consolidated financial statements					
	(Charged) / Credited to:					
<i>Deferred tax</i>	At 1 January	Profit or loss	Other comprehensive income	Exchange differences	Acquire through business combination	At 31 December
	(in thousand Baht)					
2021						
Deferred tax assets						
Property, plant and equipment	2,922,668	(406,968)	-	70,182	1,252,667	3,838,549
Lease receivable	-	-	-	689	27,991	28,680
Allowance for expected credit loss for financial assets	3,854	(1,938)	-	-	-	1,916
Allowance of spare parts and supplies	229,926	(7,500)	-	2,036	-	224,462
Leases liabilities	13,847	(2,900)	-	70	2,890	13,907
Derivatives	8,343	-	(11,614)	815	39,857	37,401
Provisions for employee benefits	45,979	58	(1,224)	-	6,101	50,914
Loss carry forward	373,558	(142,266)	-	18,603	-	249,895
Others	102,356	3,116	-	9,265	153,408	268,145
Total	3,700,531	(558,398)	(12,838)	101,660	1,482,914	4,713,869

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Consolidated financial statements						
(Charged) / Credited to:						
<i>Deferred tax</i>	At 1 January	Profit or loss	Other comprehensive income (in thousand Baht)	Exchange differences	Acquire through business combination	At 31 December
<i>Deferred tax liabilities</i>						
Property, plant and equipment	(2,222,546)	27,766	-	(119,028)	-	(2,313,808)
Right-of use assets	(9,119)	2,949	-	165	(2,872)	(8,877)
Intangible assets	(196,221)	11,005	-	-	-	(185,216)
Lease receivable	(2,627,864)	518,772	-	(89,246)	(3,627,614)	(5,825,952)
Derivatives	(1,164)	997	-	-	-	(167)
Financial assets measured at fair value through other comprehensive income	-	-	(52,963)	-	-	(52,963)
Others	(432,966)	30,130	-	(22,979)	-	(425,815)
Total	(5,489,880)	591,619	(52,963)	(231,088)	(3,630,486)	(8,812,798)
Net	(1,789,349)	33,221	(65,801)	(129,428)	(2,147,572)	(4,098,929)

Consolidated financial statements						
(Charged) / Credited to:						
<i>Deferred tax</i>	At 1 January	Retained earnings	Profit or loss (in thousand Baht)	Other comprehen sive income	Exchange differences	At 31 December
2020						
<i>Deferred tax assets</i>						
Property, plant and equipment	3,492,981	-	(623,323)	-	53,010	2,922,668
Allowance for expected credit loss for financial assets	-	3,099	755	-	-	3,854
Allowance for spare parts and supplies	288,294	-	(62,118)	-	3,750	229,926
Leases liabilities	119	4,005	9,723	-	-	13,847
Derivatives	8,343	-	-	-	-	8,343
Provisions for employee benefits	44,975	-	(4,779)	5,783	-	45,979
Loss carry forward	337,409	-	2,905	-	33,244	373,558
Others	98,972	-	(2,857)	-	6,241	102,356
Total	4,271,093	7,104	(679,694)	5,783	96,245	3,700,531
<i>Deferred tax liabilities</i>						
Property, plant and equipment	(2,115,736)	-	50,389	-	(157,199)	(2,222,546)
Right-of use assets	-	-	(9,484)	-	365	(9,119)
Intangible assets	(209,999)	-	13,778	-	-	(196,221)
Lease receivable	(3,281,538)	-	653,674	-	-	(2,627,864)
Derivatives	(2,136)	-	972	-	-	(1,164)
Others	(333,023)	-	(40,617)	-	(59,326)	(432,966)
Total	(5,942,432)	-	668,712	-	(216,160)	(5,489,880)
Net	(1,671,339)	7,104	(10,982)	5,783	(119,915)	(1,789,349)

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	Separate financial statements (Charged) / Credited to:				
<i>Deferred tax</i>	At 1 January	Retained earnings	Profit or loss <i>(in thousand Baht)</i>	Other comprehensive income	At 31 December
2021					
Deferred tax assets					
Allowance for expected credit loss for financial assets	10,501	-	(7)	-	10,494
Lease liabilities	8,577	-	(2,308)	-	6,269
Provisions for employee benefits	38,561	-	689	(663)	38,587
Total	57,639	-	(1,626)	(663)	55,350
Deferred tax liabilities					
Right-of use assets	(8,344)	-	2,377	-	(5,967)
Financial assets measured at fair value through other comprehensive income	-	-	-	(52,963)	(52,963)
Total	(8,344)	-	2,377	(52,963)	(58,930)
Net	49,295	-	751	(53,626)	(3,580)
2020					
Deferred tax assets					
Allowance for expected credit loss for financial assets	-	3,136	7,365	-	10,501
Lease liabilities	-	-	8,577	-	8,577
Provisions for employee benefits	38,897	-	(5,083)	4,747	38,561
Total	38,897	3,136	10,859	4,747	57,639
Deferred tax liabilities					
Right-of use assets	-	-	(8,344)	-	(8,344)
Total	-	-	(8,344)	-	(8,344)
Net	38,897	3,136	2,515	4,747	49,295
<i>Unrecognised deferred tax assets</i>	Consolidated financial statements		Separate financial Statements		
	2021	2020	2021	2020	
<i>(in thousand Baht)</i>					
Losses carry forward	720,793	776,430	443,250	399,492	

As at 31 December 2021, the Group has outstanding balance of deferred tax assets of Baht 249.90 million from cumulative tax losses of an indirect subsidiary in overseas. The Group's management has estimated future taxable profits and they considered it probable that future taxable profits would be available against which such losses can be used. The tax losses in such country has unlimited and no expiration date, therefore, the related deferred tax assets are recognised.

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22 Promotional privileges

The two subsidiaries have been granted promotional certificates by the Office of the Board of Investment for electricity and steam for the several privileges including exemption and/or reduction from payment of income tax on the net profit derived from promoted operations with certain terms and conditions prescribed in the promotional certificates.

As a promoted company, the Company must comply with certain terms and conditions prescribed in the promotional certificates.

23 Basic earnings per share

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht/ thousand shares)</i>			
Profit for the year attributable to ordinary shareholders of the Company (basic)	7,772,022	6,286,678	3,140,092	2,998,694
Number of ordinary shares outstanding	1,450,000	1,450,000	1,450,000	1,450,000
Earnings per share (basic) (in Baht)	5.36	4.34	2.17	2.07

24 Dividends

	Approval date	Payment schedule	Dividend rate per share (Baht)	Amount (in million Baht)
2021				
Annual dividend for the year 2020	5 April 2021	April 2021	2.40	3,480
Interim dividend for the year 2020	24 August 2020	September 2020	(1.15)	(1,667)
Additional dividend			1.25	1,813
Interim dividend for the year 2021	24 August 2021	September 2021	1.15	1,667
Total dividend				3,480
2020				
Interim dividend for the year 2019			2.40	3,480
1 st Interim dividend for the year 2019	23 August 2019	September 2019	(1.15)	(1,667)
2 nd Interim dividend for the year 2019	20 March 2020	April 2020	1.25	1,813
Interim dividend for the year 2020	24 August 2020	September 2020	1.15	1,667
Total dividend				3,480

RATCH Group Public Company Limited and its subsidiaries

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25 Financial instruments

(a) *Carrying amounts and fair values*

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy. It does not include fair value information for financial assets and financial liabilities measured at amortised cost if the carrying amount is a reasonable approximation of fair value.

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	Consolidated financial statement								
	Carrying amount			Fair value					
	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortised cost	Total	Level 1	Level 2	Level 3	Total	
<i>(in thousand Baht)</i>									
<i>At 31 December</i>									
2021									
Financial assets									
Other current financial assets:									
Investment in debt instruments	-	857,234	-	29,995	887,229	-	887,388	-	887,388
Other non-current financial assets:									
Investment in equity instruments	-	-	3,478,209	-	3,478,209	3,023,653	-	454,556	3,478,209
Investment in debt instruments	-	-	-	535,939	535,939	-	554,821	-	554,821
Derivatives assets	-	834	-	-	834	-	834	-	834
Financial liabilities									
Long-term loans from financial institutions	-	-	-	(29,415,722)	(29,415,722)	-	(29,452,622)	-	(29,452,622)
Long-term loans	-	-	-	(320,000)	(320,000)	-	-	(340,784)	(340,784)
Debentures	-	-	-	(24,351,692)	(24,351,692)	-	(26,802,264)	-	(26,802,264)
Interest rate swaps used for hedging	(667,451)	-	-	-	(667,451)	-	(667,451)	-	(667,451)
Foreign currency forward used for hedging	(1,793)	-	-	-	(1,793)	-	(1,793)	-	(1,793)
Other derivatives liabilities	-	(137,826)	-	-	(137,826)	-	(137,826)	-	(137,826)
2020									
Financial assets									
Other current financial assets:									
Investment in debt instruments	-	842,546	-	2,022,385	2,864,931	-	2,865,289	-	2,865,289
Other non-current financial assets:									
Investment in equity instruments	-	-	1,286,190	-	1,286,190	1,286,190	-	-	1,286,190
Investment in debt instruments	-	-	-	542,595	542,595	-	558,282	-	558,282
Derivatives assets	-	5,821	-	-	5,821	-	5,821	-	5,821
Financial liabilities									
Long-term loans from financial institutions	-	-	-	(18,254,294)	(18,254,294)	-	(18,254,294)	-	(18,254,294)
Debentures	-	-	-	(23,338,357)	(23,338,357)	-	(27,738,853)	-	(27,738,853)
Interest rate swaps used for hedging	(1,008,679)	-	-	-	(1,008,679)	-	(1,008,679)	-	(1,008,679)
Other derivatives liabilities	-	(268,852)	-	-	(268,852)	-	(268,852)	-	(268,852)

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	Separate financial statement					
	Carrying amount			Fair value		
	Hedging instruments	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortised cost	Total	
<i>At 31 December</i>						Total
<i>(in thousand Baht)</i>						
2021						
Financial assets						
Other current financial assets:						
Investment in debt instruments	-	305,669	-	29,995	335,664	335,823
Other non-current financial assets						
Investment in equity instruments	-	-	2,069,818	-	2,069,818	2,069,818
Investment in debt instruments	-	-	-	82,937	82,937	86,444
Financial liabilities						
Long-term loan from financial institutions	-	-	-	(5,000,000)	(5,000,000)	(5,029,453)
Debentures	-	-	-	(7,989,734)	(7,989,734)	(7,976,149)
2020						
Financial assets						
Other current financial assets:						
Investment in debt instruments	-	305,056	-	22,987	328,043	328,402
Other non-current financial assets:						
Investment in equity instruments	-	-	247,300	-	247,300	247,300
Investment in debt instruments	-	-	-	89,932	89,932	93,331
Financial liabilities						
Debentures	-	-	-	(7,987,986)	(7,987,986)	(8,162,577)

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Investment in equity instrument - share capital of Principal Capital Public Company Limited

On 25 May 2021, the Company invested in existing and newly issued ordinary shares of Principal Capital Public Company Limited ("PRINC"), which is listed on the Stock Exchange of Thailand, in proportion of 10% of PRINC's issued and paid-up shares, total of 380.86 million shares at Baht 4.09 per share in amounting to Baht 1,557.71 million to invest in a private hospital business. The fair value on initial recognition was Baht 1,713.86 million. The investment is classified as marketable equity securities measured at fair value to other comprehensive income.

As at 31 December 2021, Principal Capital Public Company Limited has published closing price at Baht 4.74 per share, the fair value of investment was Baht 1,805.26 million.

Investment in equity instrument - share capital of Bangkok Chain International (Lao) Co., Ltd. ("BCIL")

On 30 July 2021, RATCH-Lao Services Company Limited ("RL"), a direct subsidiary, has signed a capital increase share purchase agreement of Bangkok Chain International (Lao) Company Limited ("BCIL") at 9.91% totalling Baht 190 million. The purpose of transaction is to invest in Kasemrad International Hospital in Vientiane, Lao PDR. After the purchase of such capital increase shares was completed, BCIL shareholders would comprise Bangkok Chain Hospital Public Company Limited ("BCH") at 68.47%, RATCH-Lao Services Company Limited at 9.91% and minority shareholders in Lao PDR and Thailand at 21.62%. It has started the commercial service on 19 August 2021. Subsequently on 26 August 2021, RL paid for increase in share capital in proportion of 9.91% totalling Baht 190 million.

The following tables present valuation technique of financial instruments measured at fair value in the statements of financial position:

Type	Valuation technique
Corporate debt securities	<i>Market price comparison technique/discounted cash flow:</i> The fair value is estimated considering (i) current or recent quoted prices for identical securities in markets that are not active and (ii) a net present value calculated using discount rates derived from quoted prices of securities with similar maturity and credit rating that are traded in active markets, adjusted by an illiquidity factor.
Investments in marketable unit trusts classified as financial assets measured at FVTPL or FVOCI	The net asset value as of the reporting date.
Forward exchange contracts	<i>Forward pricing:</i> The fair value is determined using quoted forward exchange rates at the reporting date and present value calculations based on high credit quality yield curves in the respective currencies.
Interest rate swap contracts	<i>Swap models:</i> The present value of estimated future cash flows, using an observable yield curve.
Cross currency swap contracts	<i>Black-Scholes model/ discounted cash flows</i>
Debt securities and other financial liabilities	Discounted cash flows

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(b) Financial risk management policies

Risk management framework

The Group's board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The board of directors has established the risk management committee, which is responsible for developing and monitoring the Group's risk management policies. The committee reports regularly to the board of directors on its activities.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to maintain a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group audit committee oversees how management monitors compliance with the Group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group audit committee is assisted in its oversight role by internal audit. Internal audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the audit committee.

(b.1) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Group's receivables from customers and investments in debt securities.

(b.1.1) Trade accounts receivables

The management has established a credit policy to control the credit risk on a regular basis by analysing the financial status of every customers who requested a certain amount of credit. As of the reporting date, there were no significant credit risk exposure. The maximum credit risk is stated in the book value of each financial asset in the statement of financial position. However, as the major customers of the Group are government agencies, state of enterprises and large corporations with low credit risk. Management does not expect any material losses incurred from debt collection.

The Group limits its exposure to credit risk from trade accounts receivables by establishing a maximum payment period of one month. Outstanding trade receivables are regularly monitored by the Group. An impairment analysis is performed by the Group at each reporting date. The provision rates of expected credit loss are based on days past due for individual trade receivables to reflect differences between economic conditions in the past, current conditions and the Group's view of economic conditions over the expected lives of the receivables.

Information relevant to trade accounts receivables is disclosed in note 7

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(b.1.2) Investment in debt securities

The Group limits its exposure to credit risk by investing only in liquid debt securities and only with counterparties that have consider a credit rating by international credit rating institutions.

The Group monitors changes in credit risk by tracking published external credit ratings. To determine whether published ratings remain up to date and to assess whether there has been a significant increase in credit risk at the reporting date that has not been reflected in published ratings.

The following table presents the exposure to credit risk and expected credit losses.

<i>At 31 December</i>	Consolidated financial statements			Total
	12-months ECL	Lifetime ECL - not credit- impaired	Lifetime ECL - credit- impaired	
	<i>(in thousand Baht)</i>			
2021				
Debt instruments measured at amortised cost	563,000	-	-	563,000
Loans to	3,377,179	-	-	3,377,179
Lease receivable	28,170,235	-	-	28,170,235
	32,110,414	-	-	32,110,414
Less allowance for expected credit loss	(160,804)	-	-	(160,804)
Net	31,949,610	-	-	31,949,610
2020				
Debt instruments measured at amortised cost	2,566,004	-	-	2,566,004
Loans to	2,941,864	-	-	2,941,864
Lease receivable	13,139,323	-	-	13,139,323
	18,647,191	-	-	18,647,191
Less allowance for expected credit loss	(37,291)	-	-	(37,291)
Net	18,609,900	-	-	18,609,900

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<i>At 31 December</i>	Separate financial statements			Total
	12-months ECL	Lifetime ECL - not credit-impaired (in thousand Baht)	Lifetime ECL - credit-impaired	
2021				
Debt instruments measured at amortised cost	113,000	-	-	113,000
Loans to	3,042,116	-	-	3,042,116
	3,155,116	-	-	3,155,116
Less allowance for expected credit loss	(52,469)	-	-	(52,469)
Net	3,102,647	-	-	3,102,647
2020				
Debt instruments measured at amortised cost	113,000	-	-	113,000
Loans to	1,865,888	-	-	1,865,888
	1,978,888	-	-	1,978,888
Less allowance for expected credit loss	(52,504)	-	-	(52,504)
Net	1,926,384	-	-	1,926,384
<i>Movement of allowance for expected credit loss</i>	Consolidated financial statements			Total
	12-months ECL	Lifetime ECL - not credit-impaired (in thousand Baht)	Lifetime ECL - credit-impaired	
2021				
At 1 January	37,290	-	-	37,290
Net remeasurement of loss allowance	(6,698)	-	-	(6,698)
Financial assets repaid	(615)	-	-	(615)
New financial assets acquired	463	-	-	463
Acquisition through business combination	130,364	-	-	130,364
At 31 December	160,804	-	-	160,804
2020				
At 1 January	15,498	-	-	15,498
Net remeasurement of loss allowance	2,648	-	-	2,648
Financial assets repaid	(37)	-	-	(37)
New financial assets acquired	19,182	-	-	19,182
At 31 December	37,291	-	-	37,291

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	Separate financial statements			
<i>Movement of allowance for expected credit loss</i>	12-months ECL	Lifetime ECL - not credit-impaired	Lifetime ECL - credit-impaired	Total
	<i>(in thousand Baht)</i>			
2021				
At 1 January	52,504	-	-	52,504
Net remeasurement of loss allowance	(11,553)	-	-	(11,553)
Financial assets repaid	(345)	-	-	(345)
New financial assets acquired	11,862	-	-	11,862
At 31 December	52,468	-	-	52,468
2020				
At 1 January	15,683	-	-	15,683
Net remeasurement of loss allowance	36,442	-	-	36,442
Financial assets repaid	(1,781)	-	-	(1,781)
New financial assets acquired	2,160	-	-	2,160
At 31 December	52,504	-	-	52,504

(b.1.3) Cash and cash equivalent and derivatives

The Group's exposure to credit risk arising from cash and cash equivalents and derivative assets is limited because the counterparties are banks and financial institutions which the Group considers to have low credit risk.

(b.1.4) Guarantees

The Group's policy is to provide the guarantees only for the financial facilities of subsidiaries. At 31 December 2021, the Group has provided a guarantee to certain banks in respect of credit facilities granted to a subsidiary (see note 5, 16).

(b.2) Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

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The following table are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted and include contractual interest payments and exclude the impact of netting agreements.

At 31 December	Consolidated financial statements				
	Contractual cash flows				
	Carrying amount	1 year or less	More than 1 years but less than 5 years (in thousand Baht)	More than 5 years	Total
2021					
Non-derivative financial liabilities					
Trade payables	7,676,876	7,676,876	-	-	7,676,876
Loans from financial institutions	34,780,618	9,047,822	24,222,784	4,265,275	37,535,881
Loans from other related parties	320,000	11,200	44,831	329,574	385,605
Lease liabilities	1,666,936	166,819	504,962	2,719,502	3,391,283
Debentures	24,351,692	2,231,062	3,213,107	24,446,251	29,890,420
	68,796,122	19,133,779	27,985,684	31,760,602	78,880,065
Derivative financial liabilities					
Interest rate swaps	667,451	173,612	294,805	199,034	667,451
Cross currency swap contract	137,764	-	137,764	-	137,764
Forward exchange contracts					
- Cash outflow	(168,697)	(168,697)	-	-	(168,697)
- Cash inflow	170,552	170,552	-	-	170,552
	807,070	175,467	432,569	199,034	870,070
2020					
Non-derivative financial liabilities					
Trade payables	3,643,030	3,643,030	-	-	3,643,030
Loans from financial institutions	18,314,367	1,621,940	15,924,409	2,503,322	20,049,671
Lease liabilities	1,480,648	122,610	430,674	2,557,589	3,110,873
Debentures	23,338,357	261,350	5,268,957	23,831,515	29,361,822
	46,776,402	5,648,930	21,624,040	28,892,426	56,165,396
Derivative financial liabilities					
Interest rate swaps	1,032,284	222,240	299,071	510,973	1,032,284
Cross currency swap contract	241,564	-	-	241,564	241,564
Forward exchange contracts					
- Cash outflow	(50,544)	(50,544)	-	-	(50,544)
- Cash inflow	54,227	54,227	-	-	54,227
	1,277,531	225,923	299,071	752,537	1,277,531

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

At 31 December	Separate financial statements				
	Contractual cash flows				
	Carrying amount	1 year or less	More than 1 years but less than 5 years (in thousand Baht)	More than 5 years	Total
2021					
<i>Non-derivative financial liabilities</i>					
Loans from	12,676,000	7,751,497	5,096,088	-	12,847,585
Lease liabilities	31,342	16,884	16,667	-	33,551
Debentures	7,989,734	196,350	3,213,107	6,690,092	10,099,549
	20,697,076	7,964,731	8,325,862	6,690,092	22,980,685
2020					
<i>Non-derivative financial liabilities</i>					
Loans from	3,465,000	3,483,813	-	-	3,483,813
Lease liabilities	42,884	18,476	28,312	-	46,788
Debentures	7,987,986	196,350	3,252,707	6,846,842	10,295,899
	11,495,870	3,698,639	3,281,019	6,846,842	13,826,500

The cash inflows and cash outflows disclosed in the above table represent the contractual undiscounted cash flows relating to derivative financial liabilities held for risk management purposes and which are not usually closed out before contractual maturity. The disclosure shows net cash flow amounts for derivatives that are net cash-settled and gross cash inflow and outflow amounts for derivatives that have simultaneous gross cash settlement.

(b.3) Market risk

The Group is exposed to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk is as follows:

(b.3.1) Foreign currency risk

The Group is exposed to foreign currency risk relating to purchases which are denominated in foreign currencies. The Group primarily utilises forward exchange contracts with maturities of less than one year to hedge such financial assets and liabilities denominated in foreign currencies. The forward exchange contracts entered into at the reporting date also relate to anticipated purchases, denominated in foreign currencies, for the subsequent period.

At 31 December, the Group and the Company were exposed to foreign currency risk in respect of significant financial assets and liabilities denominated in the foreign currencies as follows:

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	(in thousand Baht)			
United States Dollars				
Other current receivables	3,006	-	65,055	-
Long-term loans to related parties	600,042	538,896	1,680,839	1,509,558
Other current payables	(76,279)	(236,681)	(17,284)	(13,354)

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	(in thousand Baht)			
Lao Kip				
Other non-current financial assets	1,209,441	1,286,190	-	-
Other current payables	(5,133)	(5,296)	-	-
Australian Dollars				
Other current payables	(37,337)	(37,132)	(3,757)	(3,343)
Japanese Yen				
Other current receivables	5,615	-	5,615	-
Other current payables	(367,940)	(41,426)	(1,230)	-
Debentures	(4,351,652)	(4,356,755)	-	-
Others				
Other current payables	(620)	(3,000)	(27)	(190)
Gross balance sheet exposure	(3,020,857)	(2,855,204)	1,729,211	1,492,671
Estimated forecast purchases	(3,664)	(1,813)	-	-
Gross exposure	(3,024,521)	(2,857,017)	1,729,211	1,492,671
Foreign currency forward contracts	168,697	50,544	-	-
Cross currency swap contracts	4,356,284	4,361,387	-	-
Net exposure	1,500,460	1,554,914	1,729,211	1,492,671

Sensitivity analysis

A reasonably possible strengthening (weakening) of Thai Baht against all other foreign currencies at the reporting date would have affected the measurement of financial instruments denominated in a foreign currency. This analysis assumes that all other variables, in particular interest rates, remain constant.

Impact to profit or loss	Movement (%)	Consolidated financial statements		Separate financial statements	
		Strengthening	Weakening	Strengthening	Weakening
		(in thousand Baht)			
At 31 December 2021					
United States Dollars	5	27,725	(27,725)	90,979	(90,979)
Lao Kip	5	63,385	(63,385)	-	-
Australian Dollars	5	(1,965)	1,965	(198)	198
Japanese Yen	5	(248,104)	248,104	231	(231)
At 31 December 2020					
United States Dollars	5	15,906	(15,906)	78,748	(78,748)
Lao Kip	5	67,415	(67,415)	-	-
Australian Dollars	5	(1,954)	1,954	(176)	176
Japanese Yen	5	(231,484)	231,484	-	-

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

(b.3.2) Interest rate risk

Interest rate risk is the risk that future movements in market interest rates will affect the results of the Group's operations and its cash flows because debt securities and loan interest rates financial liabilities are mainly variable. So the Group is primarily exposed to interest rate risk. The Group mitigates this risk by ensuring that the majority of its debt securities and borrowings are at fixed interest rates and uses derivatives, principally interest rate swaps, to manage exposure to fluctuations in interest rates on specific debt securities and borrowings.

<i>Exposure to interest rate risk at 31 December</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in thousand Baht)</i>			
<i>Financial instruments with variable interest rates</i>				
Financial assets	4,102,926	3,749,983	1,084,543	827,718
Financial liabilities	(23,879,172)	(18,254,293)	-	-
Net statement of financial position exposure	(19,776,246)	(14,504,310)	1,084,543	827,718
Interest rate swaps	16,476,327	(1,032,284)	-	-
Net exposure	(3,299,919)	(15,536,594)	1,084,543	827,718

Foreign currency forward contracts

As at 31 December 2021, the Group entered into various foreign currency forward contracts with financial institutions to manage exposure of fluctuations in foreign currency risk relate to purchases. The Group had outstanding foreign currency forward contracts to buy US Dollars 3.14 million with Baht 105.15 million, Swedish Krona 17.07 million with Baht 63.54 million. The contracts will mature in January 2022 (2020: buy US Dollars 1.56 million with Baht 50.54 million).

Interest rate swap and cross currency swap contracts

The Group entered into various interest rate swap and cross currency swap contracts with financial institutions to manage exposure of fluctuations in interest rates and foreign currency risk on borrowings. The notional amounts of the outstanding interest rate swap and cross currency swap contracts as at 31 December 2021 comprises Baht currency totalling Baht 1,421.40 million, Japanese Yen currency totalling Japanese Yen 15,000.00 million, Australian Dollars currency totalling Australian Dollars 445.29 million and USD currency totalling US Dollars 157.12 million. All counterparties agreed to pay the interest and the principal amount in accordance with the terms and conditions specified in the contracts (2020: Baht currency totalling Baht 2,823.45 million, Japanese Yen currency totalling Japanese Yen 15,000 million and Australian Dollars currency totalling Australian Dollars 490.24 million).

Cash flow sensitivity analysis for variable-rate instruments

A reasonable possible change of 1% in interest rates at the reporting date, this analysis assumes that all other variables, in particular foreign currency exchange rates, remain constant.

RATCH Group Public Company Limited and its subsidiaries

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For the year ended 31 December 2021

<i>Impact to profit or loss</i>	Consolidated financial statements		Separate financial statements	
	1% increase in interest rate	1% decrease in interest rate	1% increase in interest rate	1% decrease in interest rate
	<i>(in thousand Baht)</i>			
2021				
Financial instruments with variable interest rate	(197,762)	197,762	10,845	(10,845)
Interest rate swaps	542	(542)	-	-
2020				
Financial instruments with variable interest rate	(145,043)	145,043	8,277	(8,277)
Interest rate swaps	236	(236)	-	-

(c) *Hedge accounting*

(c.1) *Cash flow hedges*

At 31 December 2021, the Group held the following financial instruments to hedge exposures to changes in interest rates.

<i>At 31 December</i>	Consolidated financial statements					
	2021 Maturity After 1 year but within 5 years			2020 Maturity After 1 year but within 5 years		
	Within 1 year	After 5 years	After 5 years	Within 1 year	After 5 years	After 5 years
Interest rate risk						
<i>Interest rate swaps</i>						
Net exposure <i>(in thousand Baht)</i>	173,612	294,805	199,034	198,636	299,071	510,973
Average fixed interest rate (%)	2.70	4.55	2.94	2.70	2.72	2.94

The amounts at the reporting date relating to items designated as hedged items were as follows.

<i>At 31 December</i>	Consolidated financial statements	
	2021	2020
	Cash flow hedge reserve	
	<i>(in thousand Baht)</i>	
Interest rate risk		
Variable-rate instruments	335,855	937,497

The following table provides a reconciliation by risk category of components of equity and analysis of OCI items, net of tax, resulting from cash flow hedge accounting.

<i>Cash flow hedges</i>	Consolidated financial statements	
	2021	2020
	Hedging reserve	
	<i>(in thousand Baht)</i>	
Balance at 1 January	937,497	796,264
Cash flow hedges		
Changes in fair value Interest rate risk	(601,642)	141,233
Balance at 31 December	335,855	937,497

26 Capital management

The Board of Director's Policy is to support the Group's growth and sustain liquidity at an optimal level so such capitals generate maximum value to the shareholders and maintain creditability for lenders and the capital markets. The Board of Directors has regulated the return on investment which includes returns from operating activities on total equity, excluding non-controlling interests and supervising the payment of dividends to the shareholders.

27 Commitments with non-related parties

Operation and Maintenance Agreement

On 9 December 2019, RATCH Cogeneration Company Limited, a direct subsidiary, entered into an Operation and Maintenance Agreement with a service provider for a period of 19 years from the date specified in the agreement. Under the terms of the agreement, such service provider will operate and provide maintenance services to the subsidiary. The operation and maintenance service fee is stipulated in the agreement.

Fuel Purchase Agreements

On 27 October 2000, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into a Gas Sales Agreement with PTT Public Company Limited ("PTT") for a period of 25 years. PTT will distribute natural gas to such subsidiary at the agreed quantity and price.

On 1 June 2004, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into a Diesel Purchase Agreement with PTT for a period of 3 years. PTT will distribute diesel to such subsidiary at the agreed quantity and price. The agreement is automatically extended for a period of 1 year unless written notice at least 6 months before the agreement automatically extended. On 8 March 2018, PTT Public Company Limited and the Company entered into an amendment of the agreement, which modified a party to the contract from PTT Public Company Limited to PTT Oil and Retail Business Public Company Limited ("PTTOR").

On 11 October 2021, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into a Fuel Purchase Agreement with PTT Oil and Retail Business Public Company Limited ("PTTOR") and Esso (Thailand) Public Company Limited to reserve the Fuel oil and generate electric of Combine Cycle power plant.

On 31 March 2011, RATCH Cogeneration Company Limited, a direct subsidiary, entered into a Gas Sales Agreement with PTT for a period of 25 years from the date of commercial gas usage. PTT will distribute natural gas to such subsidiary at the agreed quantity and price.

Sahacogen (Chonburi) Public Company Limited, a direct subsidiary, is committed to purchase natural gas from PTT Public Company Limited ("PTT") in a specified quantity and at a stipulated price as defined in the agreement for a period of 21 years. The agreement expired in March 2020, however it contains an option to renew for an additional period of 4 years. In July 2019, the subsidiary entered into an amendment of the agreement with PTT, which modified term of the agreement. The amendment agreement will expire in March 2024.

Sahacogen (Chonburi) Public Company Limited, a direct subsidiary, is committed to purchase raw water with a private entity in a specified quantity and at a stipulated price as defined in the agreement for a period of 25 years. The agreement will expire in March 2024. In June 2020, the subsidiary entered into an amendment of the agreement with that private entity, which modified the price and terms of the

RATCH Group Public Company Limited and its subsidiaries

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For the year ended 31 December 2021

agreement. This amended the term of the agreement to 10 years, ending in June 2030, with automatic renewal every 5 years throughout the term of the electricity sales agreements with the Electricity Generating Authority of Thailand (EGAT).

Contractual Service Agreement

On 29 December 2005, Ratchaburi Electricity Generating Company Limited, a direct subsidiary, entered into a Contractual Service Agreement for the Combined Cycle power plants with the Consortium of General Electric International Operations Company Inc. and GE Energy Parts, Inc. The agreement is effective from the agreement date until the end of the operation of gas turbine according to the Power Purchase Agreement in 2027 with a total value of the existing agreement in US Dollars 428.60 million. Subsequently on 19 November 2019, all parties agreed to amend the conditions of the agreement effective from November 2019. The total value of the agreement is US Dollars 433.25 million. As at 31 December 2021, the subsidiary had outstanding commitments amounting to US Dollars 75.60 million. *(2020: US Dollars 97.17 million)*

In addition, in accordance with the agreement, the subsidiary is required to open a letter of credit amounting to US Dollars 6 million. As at 31 December 2021, the subsidiary had an outstanding unused letter of credit amounting to US Dollars 6 million. *(2020: US Dollars 6 million)*

On 29 December 2019, RATCH Cogeneration Company Limited, a direct subsidiary, entered into a Contractual Service Agreement with a service provider for a period of 15 years from the date specified in the agreement. The total value of the agreement is US Dollars 28.43 million. As at 31 December 2021, the subsidiary had outstanding commitments amounting to US Dollars 15.43 million. *(2020: US Dollars 18.79 million)*

Electricity and Steam Sales Agreements

Sahacogen Green Company Limited, an indirect subsidiary, entered into an agreement with the Provincial Electricity Authority (PEA) in March 2009 to sell electricity in a specified quantity and at a stipulated price as defined in the agreement. The agreement is for a period of 5 years, and will automatically renew every 5 years until termination. In 2016, the subsidiary joined the program for producers of electricity from renewable energy sources to change from an Adder to a Feed-in Tariff (FiT), and as a result entered into an amendment to the sales and purchase of electricity agreement with PEA in September 2016, whereby it is required to comply with certain conditions and the period for purchase of electricity is reduced, with the agreement expiring in October 2027.

Sahagreen Forest Company Limited, an indirect subsidiary, entered into an agreement with the Provincial Electricity Authority (PEA) in September 2009 to sell electricity in a specified quantity and at a stipulated price as defined in the agreement. The agreement is for a period of 20 years. Since the subsidiary joined the program for producers of electricity from renewable energy sources to change from an Adder to a Feed-in Tariff (FiT) in September 2016, it entered into an amendment to the sales and purchase of electricity agreement with PEA, whereby it is required to comply with conditions regarding the sale and purchase of electricity and connection to the electricity grid and the period for purchase of electricity is reduced, with the agreement expiring in March 2029.

Sahacogen Green Company Limited, an indirect subsidiary, entered into an agreement with Thai President Foods Public Company Limited to sell steam in a specified quantity and at a stipulated price as defined in the agreement. The agreement is for a period of 10 years, starting from April 2011, and will renew every year until termination.

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

Sahacogen (Chonburi) Public Company Limited, a direct subsidiary, entered into agreements with Saha Pathana Inter-Holding Public Company Limited to sell electricity and steam in a specified quantity and at a stipulated price as defined in the agreements. The agreement is for a period of 15 years, starting from April 1999, and renewed for an additional period of 25 years. In May 2019, the subsidiary entered into an amendment of the agreement to sell electricity and steam with Saha Pathana Inter-Holding Public Company Limited, which extended the agreement to sell electricity and steam for an additional period of 37 years after April 2014.

Maintenance and repair gas turbine engines Agreement

Sahacogen (Chonburi) Public Company Limited, a direct subsidiary, entered into a long-term service agreement with an overseas company for the maintenance and repair the gas turbine engines, whereby the service charges are as stipulated in the agreement. The agreement terminates on 31 December 2023.

Service agreement related to delivery of electricity generated from solar power

Sahacogen (Chonburi) Public Company Limited, a direct subsidiary, entered into a service agreement to deliver electricity generated from solar power with Saha Pattana Inter-Holdings Public Company Limited, whereby the subsidiary is to deliver electricity generated from solar energy to the electricity delivery points. The agreement is for a period of 17 years, starting from March 2020, and can be renewed annually until termination.

Biomass Fuel Purchase Agreement

Sahagreen Forest Company Limited, an indirect subsidiary, entered into a biomass fuel purchase agreement with Siam Forestry Company Limited to purchase specified quantities at stipulated prices defined in the agreement. The agreement is effective from 21 August 2010 until termination.

Operation and Maintenance Agreement

Sahacogen (Chonburi) Public Company Limited, a direct subsidiary, entered into an agreement with Operational Energy Group Limited will provide management and assistance services for the operation and maintenance of the power plant, which the subsidiary is committed to pay for at prices as determined in the agreement. The agreement will be expired on 31 December 2023.

Letters of guarantee

As at 31 December 2021, the Group and its subsidiaries had commitments from letters of guarantee issued by financial institutions for the Group and its subsidiaries to comply with certain conditions in agreements in the amount of Baht 1,479.35 million, US Dollars 10.41 million and Australian Dollars 4.72 million. (2020: Baht 1,053.17 million, US Dollars 11.76 million and Australian Dollars 22.25 million)

Standby Letters of Credit / Letter of Credit

As at 31 December 2021, the Group and its subsidiaries had commitments from Standby Letters of Credit issued by financial institutions for Debt Service Reserve Guarantees and equity contributions in joint ventures in the amount of Baht 1,600 million, US Dollars 24.50 million and Japanese Yen 17.85 million. (2020: Baht 1,600 million, US Dollars 24.50 million and Australian Dollars 30.08 million)

RATCH Group Public Company Limited and its subsidiaries

Notes to the financial statements

For the year ended 31 December 2021

Unused of credit facilities

As at 31 December 2021, the Group and its subsidiaries had unused of credit facilities totalling Baht 4,828.05 million and US Dollars 1,302.87 million. (2020: Baht 7,231.90 million, US Dollars 1,066.18 million, Australian Dollars 210.12 million and Euro 182 million)

Capital commitment

As at 31 December 2021, RATCH Cogeneration Company Limited, a direct subsidiary, had outstanding capital commitments under expansion power plant construction agreement (Engineering Procurement & Construction Contracts 31.2 MW) and other construction and service agreements amounting to Baht 464.09 million, US Dollars 3.07 million and Japanese Yen 2,845.30 million.

As at 31 December 2021, RATCH-Australia Corporation Pty. Ltd. and its subsidiaries, an indirect subsidiary, had outstanding capital commitments under Engineering Procurement & Construction Contracts for Wind Farm and other service agreements amounting to Australian Dollars 1.46 million. (2020: Australian Dollars 26.84 million)

As at 31 December 2021, Sahacogen (Chonburi) Public Company Limited, a direct subsidiary, had outstanding capital commitments under the acquisition of equipment and maintenance cogeneration power plant and the acquisition of equipment and construction of building amounting to Baht 764.55 million, US Dollars 27.90 million and Swedish Krona 153.61 million.

Pledge of share certificate agreements

The Company has pledged all share certificates of RATCH Cogeneration Company Limited, a direct subsidiary, as collateral for loans to the lender of the subsidiary.

The Company has pledged all share certificates of First Korat Wind Company Limited and K.R. TWO Company Limited, direct associates, as collateral for loans to the lender of those associates.

The Group has pledged all share certificates of Xe-Pian Xe-Namnoy Power Company Limited, Ratchaburi World Cogeneration Company Limited and Hongsa Power Company Limited, joint ventures, as collateral for loans to the lender of those joint ventures.

Fareast Renewable Development Pte. Ltd., an indirect subsidiary, has pledged partial share certificates of PT Bajradaya Sentranusa, a subsidiary of the subsidiary, as collateral for loans to the lender of PT Bajradaya Sentranusa.

The Company has pledged all share certificates of Northern Bangkok Monorail Company Limited and Eastern Bangkok Monorail Company Limited, direct associates, as collateral for loans to the lender of those companies.

NEXIF RATCH ENERGY SINGAPORE PTE. LTD., a direct joint venture, has pledged all share certificates of Nexif Ratch Energy Rayong Company Limited, a subsidiary of the joint venture, as collateral for loans to the lender of Nexif Ratch Energy Rayong Company Limited.

Signing of Sustainable Loan Agreement

On 30 June 2021, RH International (Singapore) Corporation Pte. Ltd. ("RHIS"), an indirect subsidiary (as the Borrower) and the Company (as the Guarantor) have executed US Dollars 150 million Sustainable Loan Agreement with International Finance Corporation Bank ("IFC") to fund and/or refinance the capital expenditures incurred or to be incurred to support renewable power projects and/or

RATCH Group Public Company Limited and its subsidiaries

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For the year ended 31 December 2021

other green infrastructure projects and/or projects in other infrastructure sectors in Thailand, Socialist Republic of Vietnam, Republic of Indonesia and Lao PDR.

Significant litigation

In 2014, a plaintiff filed a lawsuit against the Company based on the allegations that the Company had breached the joint development agreement for bidding of the Power Plant Project. The plaintiff demanded the Company to pay damage. The management of the Company is confident that all of the Company's action have not been in accordance with the allegations of the plaintiff and has much more confidence in strong defences. Therefore, the Company did not recognise a contingent liability in respect of this case. On 25 October 2018, the Court of First Instance issued a judgement to dismiss the claim made by the plaintiff. Subsequently on 10 June 2020, the Court of Appeals issued a judgement to dismiss the claim made by the Plaintiff upheld the Court of First Instance.

In 2019, the Company was the defendant in a civil case where the plaintiff requested the Company to pay Baht 5,271.10 million for compensation. The plaintiff claimed that the Company infringement of their trade secrets by used and made the profitability from their trade secrets information without their consent. The action reportedly caused damage to the plaintiff and preventing them from receiving lost the right, income or benefits from their trade secrets information. Subsequently on 30 September 2020, the Central Intellectual Property and International Trade Court issued a judgement to dismiss the claim since the trade secrets information claimed by the plaintiff has ceased. Therefore, the Company did not recognise a contingent liability in respect of this case.

28 Other matters

Capital increase and issuing and offering new ordinary shares in proportion to the shareholding of existing shareholders

At the Board of Directors' meeting of the Company held on 22 June 2021, the Board of Directors agreed to propose the shareholders at the Extraordinary Annual General Meeting of the Shareholders to consider and approve the increase of the registered capital of the Company from Baht 14,500.00 million to Baht 22,192.31 million by issuing new ordinary shares in the amount of 769.23 million shares at par value of Baht 10 each, totalling Baht 7,692.31 million for issuing and offering the shares in proportion to the shareholding of existing shareholders, exclude shareholders whose holding would subject the Company to obligations under the law of other jurisdictions and consider to approve the allocation of new ordinary shares. However, the completion of the transaction is subject to the approval of the Extraordinary Annual General Meeting.

Approval of the Purchase of Agreement in respect of Investment in Thermal Power Plant in the Republic of Indonesia

At the Extraordinary Meeting of the Shareholders of the Company held on 21 October 2021, the shareholders approved RH International (Singapore) Corporation Pte. Ltd. ("RHIS"), an indirect subsidiary to enter into transaction of purchase of ordinary shares of PT Paiton Energy and Minejesa Capital B.V. of 45.52% and purchase of ordinary shares of IPM Asia Pte. Ltd. of 65% and approved the Company and/or RHIS to allocate the proportion of investment at the share transferring date in accordance with the condition of the share purchase agreement.

29 Events after the reporting period

Call for paid up increase share capital of RATCH & AIDC Wind Energy Pte. Ltd. ("RATCH & AIDC")

On 14 February 2022, RH International (Singapore) Corporation Pte. Ltd. ("RHIS"), an indirect subsidiary, paid for increase share capital in the amount of 0.61 million shares at par value of US Dollar 1 each, totalling Baht 0.61 million or equivalent to Baht 19.96 million to RATCH & AIDC in proportion of investment of 63.80%

Investment in Hin Kong Power Company Limited

On 14 February 2022, the Company has entered into Share Purchase Agreement to purchase ordinary shares transaction of Hin Kong Power Company Limited ("HKP") from Hin Kong Power Holding Company Limited ("HKH"), an existing shareholder, for jointly operating in Combined-cycle Power Plant Hin Kong Project in Ratchaburi. The Company already paid for share capital totalling Baht 463.59 million, in investment proportion of 51% (*Fully paid 0.20 million shares totalling Baht 2.04 million and paid-up of 25%, in the total amount of 184.62 million shares totalling Baht 461.55 million*) which resulted in HKP becoming a direct joint venture of the Company.

After the transaction was completed, the shareholding structure in HKP will be the Company with 51% and Gulf Energy Development Public Company Limited with 49%.

Combined-cycle Power Plant Hin Kong Project in Ratchaburi are 2 power plants with total contracted capacity of 1,400 Megawatts which is scheduled for commercial operation in 2024 and 2025 respectively.

Attachment

• Attachment 1

Profile of the Board of Directors



• Mr. Boonyanit Wongrukmit

Age 58 years

Chairman

(EGAT's Representative Director and Authorized Director)

Chairman of the Investment Committee

Starting Date of Directorship: 1 May 2018

Date Elected as the Chairman: 19 October 2020

Time in Current Position: 3 years 8 months

Education

- Master of Business Administration (Energy Management), University of Montreal (HEC Montréal), Canada
- Master of Business Administration, Chiang Mai University
- Bachelor of Engineering (Mechanical Engineering), Chiang Mai University

Trainings in Courses Arranged by Thai Institute of Directors Association

- IT Governance and Cyber Resilience Program (ITG 18/2021)
- Boardroom Success through Financing & Investment (BFI 10/2021)
- Risk Management Program for Corporate Leaders (RCL 20/2020)
- Ethical Leadership Program (ELP 20/2020)
- Director Certification Program (DCP 187/2014)

Other Important Trainings/Seminars

- The Executive Program in Energy Literacy for a Sustainable Future, Class 15 (2020), Thailand Energy Academy
- The National Defence Course, Class 61 (2018), National Defence College of Thailand
- Corporate Governance for Directors and Senior Executives of Regulators, State Enterprises and Public Organizations, Class 18 (2018), King Prajadhipok's Institute
- Advanced Master of Management Program (AMM), Class 1 (2018), National Institute of Development Administration
- Advanced Management Program (2016), Harvard Business School, United States of America
- Leadership Succession Program (LSP), Class 4 (2015), Institute of Research and Development for Public Enterprises

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2020 Senior Deputy Governor, EGAT
- 2018 - 2020 Deputy Governor - Power Business, EGAT.
- 2017 - 2018 Deputy Governor - Business Development, EGAT
- 2016 - 2017 Deputy Governor - Corporate Social Affairs, EGAT

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- 2020 – Present – Governor, EGA⁽¹⁾
 - Director and Secretary, EGAT⁽¹⁾
 - Member and Secretary of the Executive Committee, EGAT⁽¹⁾
 - Member of the Human Resources Committee, EGAT⁽¹⁾
 - Member and Secretary of the Deputy Governor and Assistant Governor Nomination Committee, EGAT⁽¹⁾
 - Member of Enterprise Risk Management and Internal Control Committee, EGAT⁽¹⁾
 - Chairman of Board of Directors, EGAT International Company Limited⁽⁴⁾

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

Notes: ⁽¹⁾ Major Shareholder

⁽²⁾ Subsidiary

⁽³⁾ Associated/Joint Venture Company

⁽⁴⁾ Energy Business

EGAT stands for Electricity Generating Authority of Thailand



• **Mr. Ratanachai Namwong**

Age 65 years

Independent Director

Member of the Risk Management Committee

Starting Date of Directorship: 6 April 2021

Time in Current Position: 8 months

Education

- Master of Engineering (Nuclear Technology), Chulalongkorn University
- Bachelor of Engineering (Metallurgical Engineering), Chulalongkorn University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Risk Management Program for Corporate Leaders (RCL 16/2019)
- Director Certification Program (DCP 186/2014)

Other Important Trainings/Seminars

- Advanced Certificate Course in Public Administration and Public Law (2013), King Prajadhipok's Institute
- Advanced Certificate Course in Promotion of Peaceful Society (2011), King Prajadhipok's Institute
- Senior Executive Development Program-2, Foundation for International Human Resource Development
- Masterful Coaching Workshop, Hay Group
- EGAT Newly-Promoted Executive Orientation Program (ENOP)
- EGAT Senior Executive Program (ESEP)
- EGAT Director Development Program (EDDP)
- EGAT Successor Development Program (ESDP)

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2018 - 2020 Independent Director, Investment Committee Member, and Human Resources and Remuneration Committee Member, RATCH Group Public Company Limited
- 2017 - 2019 Public Sector Audit and Evaluation Committee, Ministry of Energy
- 2013 - 2016 Deputy Governor - Power Plant Development, EGAT
- 2010 - 2013 Assistant Governor - Power Plant Engineering, EGAT

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- None

The Company's Securities Holding Proportion (%)

- Direct: 0.0005
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

Notes: EGAT stands for Electricity Generating Authority of Thailand



• **Mr. Chartchai Rojanaratanangkule**

Age 65 years

Independent Director

Chairman of the Audit Committee

Member of the Corporate Governance and Social Responsibility Committee

Starting Date of Directorship: 6 April 2017

Time in Current Position: 4 years 8 months

Education

- Bachelor of Accountancy, Chulalongkorn University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Advanced Audit Committee Program (AAP 31/2018)
- Director Certification Program (DCP 223/2016)

Other Important Trainings/Seminars

- Thailand Insurance Leadership Program (2015), Office of Insurance Commission
- Fiscal Management Program, Fiscal Policy Research Institute Foundation
- Infrastructure Financial Analysis & Tariff Setting: Essential Skills for Financial Analysis, The Institute for Public-Private Partnerships
- Financial Statement Analysis Workshop, Investment Analysts Association
- Advanced Mini MBA, Chulalongkorn University
- Project Feasibility Analysis, Mahidol Management Education Center of College of Management
- Privatizing Power in Emerging Economies: Structuring & Financing Public/Private Partnerships through BOT Schemes and Divestiture, INTRADOS/International Management Group
- Advanced Financial Management, Cooperation between Chulalongkorn University and Thailand Management Association
- Investment Analysis in Capital and Money Market Course, Chulalongkorn University
- EGAT Senior Executive Program (ESEP)

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2018 - 2021 Expert Committee Member, National Science Museum, Thailand
- 2015 - 2016 Board of Directors Member, EGAT International Company Limited
- 2014 - 2016 Deputy Governor - Account and Finance serving as Chief Financial Officer, EGAT
- 2013 - 2014 Assistant Governor - Internal Audit Bureau, EGAT

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- None

The Company's Securities Holding Proportion (%)

- Direct: 0.0003
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

Notes: EGAT stands for Electricity Generating Authority of Thailand



• **Mr. Apichart Chinwanno**

Age 65 years

Independent Director

Chairman of the Human Resources and Remuneration Committee

Chairman of the Corporate Governance and Social Responsibility Committee

Starting Date of Directorship: 13 April 2019

Time in Current Position: 2 years 8 months

Education

- Doctor of Philosophy, International Relations, St. Antony's College, University of Oxford, United Kingdom
- Master of Science, International Relations, London School of Economics and Political Science, University of London, United Kingdom
- Bachelor of Science, Economics and Politics (Upper Second Class Honours), University of Southampton, United Kingdom

Trainings in Courses Arranged by Thai Institute of Directors Association

- Board Matters and Trends (BMT 9/2020)
- Board Nomination and Compensation Program (BNCP 9/2020)
- Strategic Board Master Class (SBM 3/2018)
- Advanced Audit Committee Program (AACP 26/2017)
- Role of the Chairman Program (RCP 41/2017)
- Director Certification Program (DCP 227/2016)
- Financial Statement for Directors (FSD 31/2016)

Other Important Trainings/Seminars

- The National Defence Course, Class 52 (2009), National Defence College of Thailand
- Columbia Senior Executive Program (CSEP), Class 123/2007, Columbia Business School, United States of America
- National Director Conference (NDC 1/2017), Thai Institute of Directors Association

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2016 - 2019 Independent Director, EGAT
- 2015 - 2016 Permanent Secretary, Office of the Permanent Secretary, Ministry of Foreign Affairs

- 2013 - 2015 Ambassador Extraordinary and Plenipotentiary, Republic of France, concurrently to the Principality of Monaco, Ministry of Foreign Affairs
- 2011 - 2013 Ambassador Extraordinary and Plenipotentiary, Kingdom of Belgium, concurrently to the Grand Duchy of Luxembourg and Head of Mission to the European Union, Ministry of Foreign Affairs
- 2009 - 2011 Deputy Permanent Secretary, Office of the Permanent Secretary, Ministry of Foreign Affairs

Current Positions in Other Listed Companies

- 2018 - Present Chairman and Independent Director, Amata VN Public Company Limited

Current Positions in Non-listed Organizations

- 2021 - Present Assistant Secretary General for External Relations, The Thai Red Cross Society
- 2020 - Present Expert Committee Member, Public-Private Partnership Policy Commission
- 2017 - Present Chairman and Independent Director, CHAMINI's EYE Public Company Limited

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

Notes: EGAT stands for Electricity Generating Authority of Thailand



• **Mr. Suthon Boonprasong**

Age 64 years

Director

(EGAT's Representative Director and Authorized Director)

Member of the Investment Committee

Member of the Risk Management Committee

Starting Date of Directorship: 19 October 2020

Time in Current Position: 1 year 2 months

Education

- Master of Business Administration, Chiang Mai University
- Bachelor of Economics, Sukhothai Thammathirat Open University
- Bachelor of Laws, Ramkhamhaeng University
- Bachelor of Engineering (Electrical Engineering), Chulalongkorn University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Financial Statement for Directors (FSD 40/2019)
- Director Certification Program (DCP 164/2012)

Other Important Trainings/Seminars

- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives, Class 19 (2015), King Prajadhipok's Institute
- Advanced Management Program, Harvard Business School, United States of America
- Advanced Certificate Course in Public Economics Management for Executives, Class 9 (2010), King Prajadhipok's Institute
- Certificated, Advanced Police Command Course, Class 27 (2007), Institute of Police Administration Development
- Senior Executive Development Program, Class 2 (2006), Foundation for International Human Resource Development
- Masterful Coaching Workshop, Hay Group
- Financial for Executive Decision Program (2006), Continuing Education Center, Chulalongkorn University

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 26 Feb - 4 Dec 2020 Chairman of the EGAT's Governor Remuneration Subcommittee, EGAT
- 2013 - 2017 Deputy Governor - Transmission System, EGAT
- 2010 - 2013 Assistant Governor - Transmission System, EGAT
- 2010 Assistant Governor - Corporate Social Responsibility, EGAT

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- 2019 - Present
 - Director, EGAT⁽¹⁾
 - Chairman of the Human Resources Committee, EGAT⁽¹⁾
 - Chairman of the Executive Committee, EGAT⁽¹⁾
 - Chairman of the Deputy Governor and Assistant Governor Nomination Committee, EGAT⁽¹⁾

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives:

None

Notes: ⁽¹⁾ Major Shareholder
⁽²⁾ Subsidiary
⁽³⁾ Associated/Joint Venture Company
⁽⁴⁾ Energy Business
 EGAT stands for Electricity Generating Authority of Thailand



• **Mr. Boonsong Kerdklang**

Age 70 years

Independent Director

Member of the Audit Committee

Starting Date of Directorship: 13 April 2019

Time in Current Position: 2 years 8 months

Education

- Master of Public Administration, Chulalongkorn University
- Bachelor of Arts (Economics), Kasetsart University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Financial Statements for Government Executives (1/2007)

Other Important Trainings/Seminars

- The Executive Program in Energy Literacy for a Sustainable Future, Class 5, Thailand Energy Academy, Ministry of Energy
- Inspector General Program, Office of the Civil Service Commission (OCSC)
- The Civil Service Executive Development Program: Visionary and Moral Leadership, Program 1, Class 39, OCSC
- Inspector- General Program (2009), Office of the Permanent Secretary, Office of the Prime Minister in collaboration with OCSC

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2011 - 2014 Commissioner, Energy Regulator Commission, Office of the Energy Regulatory Commission
- 2011 Acting Director General-Energy Policy and Planning Office, Ministry of Energy
- 2005 - 2011 Inspector General, Ministry of Energy

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- None

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Mr. Somboon Nhookeaw**

Age 59 years
Independent Director
Member of the Audit Committee

Starting Date of Directorship: 23 February 2018

Time in Current Position: 3 years 10 months

Education

- Master of Engineering (Structural Engineer and Management), Kasetsart University
- Bachelor of Engineering (Civil Engineering), Chiang Mai University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Financial Statement for Directors (FSD 42/2020)
- Director Certification Program (DCP 281/2019)
- Advanced Audit Committee Program (AACP 34/2019)
- Director Accreditation Program (DAP 154/2018)

Other Important Trainings/Seminars

- The National Defence Course, Class 60 (2017), The National Defence College of Thailand
- The Executive Program in Energy Literacy for a Sustainable Future, Class 14, Thailand Energy Academy
- The Civil Service Executive Development Program: Visionary and Moral Leadership, Program 1, Class 83, Office of the Civil Service Commission (OCSC)
- Advanced Certificate Course in Public Administration and Law for Executives, Class 14, King Prajadhipok's Institute
- Top Executive Program in Commerce and Trade (TEPCoT), Class 7, University of the Thai Chamber of Commerce
- Senior Executive Program, Class 4, Budget Bureau

Work Experiences in the Previous 5 Years (2017–2021) and/or Important Positions

- 2017 – 2019 Deputy Director-General, Department of Energy Business, Ministry of Energy
- 2015 – 2017 Director, Bureau of Oil Business Safety, Department of Energy Business, Ministry of Energy
- 2014 – 2015 Director, Bureau of Natural Gas Business Safety, Department of Energy Business, Ministry of Energy
- 2013 – 2014 Director, Energy Technical Development Institution, Department of Energy Business, Ministry of Energy

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- 2019 – Present Deputy Permanent Secretary, Ministry of Energy⁽⁴⁾

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

- Notes:**
- ⁽¹⁾ Major Shareholder
 - ⁽²⁾ Subsidiary
 - ⁽³⁾ Associated/Joint Venture Company
 - ⁽⁴⁾ Energy Business



• **Mr. Kriengkrai Rukkulchon**

Age 64 years

Independent Director

Member of the Human Resources and Remuneration Committee

Starting Date of Directorship: 11 July 2020

Time in Current Position: 1 year 5 months

Education

- Barrister-at-Law, Class 33, Institute of Legal Education of the Thai Bar
- Bachelor of Law, Ramkamheang University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Role of the Chairman Program (RCP 47/2021)
- Ethical Leadership Program (ELP 23/2021)
- Director Accreditation Program (DAP 66/2007)

Other Important Trainings/Seminars

- Corporate Governance for Directors and Senior Executives of Regulators, State Enterprises and Public Organizations, Class 21, King Prajadhipok's Institute

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2019 - 2021 Director, Executive Director, Chairman of the Nomination and Remuneration Committee, Small and Medium Enterprise Development Bank of Thailand (SME)
- 2018 - 2019 Independent Director and Member of Audit Committee, Premier Enterprise Public Company Limited
- 2017 - 2019 Subcommittee on Legal Affairs, Industrial Estate Authority of Thailand
- 2016 - 2019 Advisory of Law, Small and Medium Enterprise Development Bank of Thailand (SME)

Current Positions in Other Listed Companies

- 2021 - Present Chairman, Pacific Pipe Public Company Limited
- 2007 - Present Independent Director and Chairman of Remuneration Nomination and Corporate Committee, Pacific Pipe Public Company Limited

Current Positions in Non-listed Organizations

- 2021 - Present Advisory of NPLs, Small and Medium Enterprise Development Bank of Thailand (SME)
- 2019 - Present Subcommittee on Legal Affairs, Thai Industrial Standards Institute (TISI)
- 2018 - Present Professional in Industrial Product Standard Council, Thai Industrial Standards Institute (TISI)
- 2001 - Present Managing Director, Pikanate Lawyer Company Limited

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Miss Nantika Thangsuphanich**

Age 56 years

Director

(EGAT's Representative Director))

(EGAT's Representative Director)

Member of the Human Resources and Remuneration Committee

Starting Date of Directorship: 18 February 2019

Time in Current Position: 2 years 10 months

Education

- Master of Arts, Urban Studies, Long Island University, United States of America
- Bachelor of Arts (Political Science), Kasetsart University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Director Certification Program (DCP 248/2017)

Other Important Trainings/Seminars

- The National Defence Course, Class 61 (2018), The National Defence College of Thailand
- The Executive Program in Energy Literacy for a Sustainable Future, Class 7 (2015), Thailand Energy Academy
- Corporate Governance for Directors and Senior Executives of Regulators, State Enterprises and Public Organizations, Class 10 (2012), King Prajadhipok's Institute
- E-Government Executive Program (e-GEP), Class 2 (2010), Digital Government Development Agency (Public Organization)
- Executive Program for Inspector General (2010), Office of the Civil Service Commission and Office of the Permanent Secretary, Prime Minister's Office
- The Civil Service Executive Development Program: Visionary and Moral Leadership, Program 1, Class 66 (2009), Office of the Civil Service Commission

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2017 - 2018 Deputy Permanent Secretary, Ministry of Energy
- 2009 - 2017 Inspector General, Ministry of Energy

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- 2020 - Present - Member of the EGAT Governor's Performance Evaluation and Criteria Subcommittee, EGAT⁽¹⁾
 - Chairman of the Governor Nomination Committee, EGAT⁽¹⁾
- 2019 - Present - Director, EGAT⁽¹⁾
 - Chairman of the Corporate Governance and Social Responsibility Committee, EGAT⁽¹⁾
 - Chairman of the Deputy Governor and Assistant Governor Nomination Committee, EGAT⁽¹⁾
 - Chairman of the Executive Committee, EGAT⁽¹⁾
- 2018 - Present Director-General, Department of Energy Business, Ministry of Energy⁽⁴⁾

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

Notes: ⁽¹⁾ Major Shareholder

⁽²⁾ Subsidiary

⁽³⁾ Associated/Joint Venture Company

⁽⁴⁾ Energy Business

EGAT stands for Electricity Generating Authority of Thailand



• **Mr. Prasertsak Chergchawano**

Age 58 years

Director

(EGAT's Representative Director and Authorized Director)

Member of the Investment Committee

Starting Date of Directorship: 1 October 2021

Time in Current Position: 3 months

Education

- Master of Engineering (Energy Technology), Asian Institute of Technology
- Bachelor of Engineering (Electrical Engineering), Khon Kaen University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Director Certification Program (DCP 308/2021)

Other Important Trainings/Seminars

- Advanced Certificate Course in Public Economics Management for Executives (PEM), Class 19, King Prajadhipok's Institute
- Anti-Nature Development towards Sufficiency Economy Philosophy System, Mab-Ueang Agri-Nature Center
- Leadership for Inspiration for Senior Management, King Prajadhipok's Institute
- Strategy Management Program, Fiscal Policy Research Institute Foundation
- Leadership Development for Successors
- Your Steps To The Top
- EGAT Executive Development

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2018 - 2020 Assistant Governor-Corporate Strategy, EGAT
- 2017 - 2018 Director, Compliance Division, EGAT
- 2015 - 2017 Director, Information Technology Planning Division, EGAT

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- 2020 - Present Deputy Governor-Power Plant Development and Renewable Energy, EGAT⁽¹⁾

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

Notes: ⁽¹⁾ Major Shareholder

⁽²⁾ Subsidiary

⁽³⁾ Associated/Joint Venture Company

⁽⁴⁾ Energy Business

EGAT stands for Electricity Generating Authority of Thailand



• **Miss Niramarn Laisathit**

Age 54 years

Director

(EGAT's Representative Director)

Member of the Investment Committee

Starting Date of Directorship: 18 December 2020

Time in Current Position: 1 year

Education

- Master of Business Administration, Saint Louis University, United States of America
- Bachelor of Engineering (Industrial Engineering), Chulalongkorn University

Trainings in Courses Arranged by Thai Institute of Directors Association

- None

Other Important Trainings/Seminars

- The National Defence Course, Class 62 (2019), National Defence College of Thailand
- Executive Management with Business Development and Investment, Class 4 (2017), Institute of Business and Industrial Development
- The Executive Program in Energy Literacy for a Sustainable Future, Class 7 (2015), Thailand Energy Academy
- Advanced Management Program, Class 182 (2012), Harvard Business School, United States of America

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2007 - 2019 Executive Vice President, Bangkok Bank Public Company Limited

Current Positions in Other Listed Companies

- 2020 - Present Member of the Board of Commissioners, PT Bank Permata Tbk, Republic of Indonesia
- 2019 - Present Senior Executive Vice President, Bangkok Bank Public Company Limited

Current Positions in Non-listed Organizations

- 2019 - Present - Director, EGAT⁽¹⁾
- Member of the Audit Committee, EGAT⁽¹⁾
- 2018 - Present Member of the Board of Directors, Perennial HC Holdings Pte. Ltd.
- 2009 - Present Member of the Board of Directors and Chairman of the Risk Management Committee, Bangkok Bank (China) Company Limited
- 1989 - Present Member of the Board of Directors, Gateaux House Company Limited

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

Notes: ⁽¹⁾ Major Shareholder

⁽²⁾ Subsidiary

⁽³⁾ Associated/Joint Venture Company

⁽⁴⁾ Energy Business

EGAT stands for Electricity Generating Authority of Thailand



• **Miss Choosri Kietkajornkul**

Age 58 years

Director

(EGAT's Representative Director, Authorized Director and Executive Director)

Chief Executive Officer

Secretary to the Board of Directors

Starting Date of Directorship: 20 July 2021

Date Appointed as Chief Executive Officer:

1 October 2021

Time in Current Position: 5 months

Education

- Master of Accountancy (General Accounting), Chulalongkorn University
- Bachelor of Accountancy, Chulalongkorn University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Director Certification Program (DCP 308/2021)

Other Important Trainings/Seminars

- Leadership for Inspiration for Senior Management, King Prajadhipok's Institute
- Financial and Fiscal Management Program for Senior Executive, Public Fiscal and Accounting Personnel Development Institute
- Chief Financial Officer Certification Program, Federation Accounting Professions Under The Royal Patronage of His Majesty The King
- Accounting of Non-Accountants (2015), Faculty of Commerce and Accountancy, Chulalongkorn University
- Postgraduate Certificate in Finance and Management, London School of Business and Finance, United Kingdom
- EGAT Executive Development
- EGAT New Leader Development Program (ENLP)
- EGAT Enhancing Program (EEP)
- EGAT Get Ready Program (EGRP)
- EGAT Leadership Development Program (ELDP)

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 20 Jul - 30 Sep 2021 Member of the Investment Committee, RATCH Group Public Company Limited
- 2020 - 2021
 - Deputy Governor-Finance and Accounting (Chief Financial Officer), EGAT
 - Director and Member of Audit Management Committee, EGAT International Company Limited
 - Director and Investment Committee Member, Electricity Generating Public Company Limited
- 2018 - 2020 Assistant Governor-Finance, EGAT
- 2016 - 2018 Director, Controller Division, EGAT

Current Positions in Other Listed Companies

- 14 Dec 2021 - Present Vice Chairman and Nomination and Remuneration Committee Member, Sahacogen (Chonburi) Public Company Limited
- 11 Nov 2021 - Present Board of Directors Member, Bangkok Aviation Fuel Services Public Company Limited

Current Positions in Non-listed Organizations

- 1 Oct 2021 - Present - Deputy Governor - Governor's Office, EGAT⁽¹⁾ appointed as Chief Executive Officer, RATCH

- Chairman of the Board of Directors, Ratchaburi Electricity Generating Company Limited⁽²⁾
- Chairman of the Board of Directors, Hin Kong Power Holding Company Limited⁽²⁾
- Chairman of the Board of Directors, Hin Kong Power Company Limited⁽²⁾
- Chairman of the Board of Directors, Hongsa Power Company Limited⁽³⁾
- Chairman of the Board of Directors, Phu Fai Mining Company Limited⁽³⁾
- Chairman of the Board of Directors, PT Medco Ratch Power Riau⁽³⁾
- Chairman of the Board of Directors, RATCH-Australia Corporation Pty Ltd.⁽²⁾ and other subsidiaries company of RATCH-Australia Corporation Pty Ltd.⁽²⁾

The Company's Securities Holding Proportion (%)

- Direct: 0.0015
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives:
None

Notes: ⁽¹⁾ Major Shareholder

⁽²⁾ Subsidiary

⁽³⁾ Associated/Joint Venture Company

⁽⁴⁾ Energy Business

EGAT stands for Electricity Generating Authority of Thailand

Profile of Executives



- **Miss Choosri Kietkajornkul**

Age 58 years

Chief Executive Officer

(Her full profile is shown on page 346-347)



• **Mr. Sakarin Tangka-vachiranon**

Age 55 years

Chief Business Development Officer

Starting Date: 1 January 2020

Education

- Master of Public and Private Management Program (Honours), National Institute of Development Administration
- Bachelor of Engineering (Mechanical Engineering), Kasetsart University

Important Trainings/Seminars

- Director Certification Program (DCP 221/2016), Thai Institute of Directors Association
- Executive Energy Management Program (Class 11), Ministry of Energy
- Mini Master of Management, National Institute of Development Administration
- Plant Maintenance Engineering Program, Japan International Corporation Agency (JICA)
- Energy Sustainability and Conservation Program, Department of Alternative Energy Development and Efficiency, Ministry of Energy
- General Information of Railway System Program, Kasetsart University

Work Experiences in the Previous 5 Years (2017-2021)

- 2020 - 2021
 - Board of Directors Member, RATCH-Australia Corporation Pty Ltd
 - Board of Directors Member, NEXIF RATCH Energy Rayong Company Limited
- 2019 - 2021 Board of Directors Member, Nava Nakorn Electricity Generating Company Limited
- 2019
 - Chairman, RATCH Cogeneration Company Limited
 - Executive Vice President - Power Business, RATCH Group Public Company Limited
- 2018 - 2020 Board of Directors Member, Berkprai Cogeneration Company Limited

- 2018 - 2019
 - Executive Vice President - Project Development, RATCH Group Public Company Limited
 - Board of Directors Member and Deputy President Director, PT Medco Ratch Power Riau
- 2017 Senior Vice President - Chief Business Development Officer, RATCH Group Public Company Limited, acting Managing Director, Nava Nakorn Electricity Generating Company Limited
- 2015 - 2017 Managing Director, Nava Nakorn Electricity Generating Company Limited

Current Positions in Other Listed Companies

- 14 Dec 2021 - Present Board of Directors Member, Nomination and Remuneration Committee Member and Co-Chairman of Executive Committee, Sahacogen (Chonburi) Public Company Limited
- 2021 - Present Board of Directors Member, Principal Capital Public Company Limited

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 361

The Company's Securities Holding Proportion (%)

- Direct : None
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Mr. Boonchai Jarunwaraphan**

Age 59 years

Chief Project Development Officer

Starting Date: 1 January 2020

Education

- Bachelor of Engineering (Mechanical Engineering), Institute of Technology and Vocational Education

Important Trainings/Seminars

- Energy Observation Project, The Federation of Thai Industries
- Executive Development Program (EDP), Class 12, Fiscal Policy Research Institute Foundation
- 4th MOGP 2016 - 4th MOG Myanmar Oil for Gas Summit, Riverstone Corporate Training
- General Information of Railway System Course, Kasetsart University
- Electrical Systems and Infrastructure for Electric Vehicles, Electricity Generating Authority of Thailand
- Financial Thinking for Non-Financial Managers, SASIN Graduate Institute of Business Administration of Chulalongkorn University

Work Experiences in the Previous 5 Years (2017-2021)

- 2020 - 2021 Chairman of the Board of Directors, RATCH Cogeneration Company Limited
- 2018 - 2019 Executive Vice President, RATCH Group Public Company Limited and acting Managing Director, Ratchaburi Electricity Generating Company Limited
- 2017 Executive Vice President - Project Development, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 361

The Company's Securities Holding Proportion (%)

- Direct : None
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Mr. Nimit Lekcharoensuk**

Age 60 years

Chief Asset Management Officer

Starting Date: 1 January 2019 – 31 December 2021

Education

- Bachelor of Engineering (Electrical Engineering), King Mongkut's Institute of Technology Ladkrabang

Important Trainings/Seminars

- Director Accreditation Program (DAP 168/2020), Thai Institute of Directors Association
- Risk Management Program for Corporate Leaders (RCL 15/2019), Thai Institute of Directors Association
- Certificate, Senior Executive Program (SEP 21), SASIN Graduate Institute of Business Administration, Chulalongkorn University
- Advance Certificate Course, Management of Public Economics for Executives, Class 13, King Prajadhipok's Institute
- The Executive Program in Energy Literacy for a Sustainable Future, Class 13, Thailand Energy Academy
- Executive Development Program, Class 15 (2018), Fiscal Policy Research Institute Foundation

Work Experiences in the Previous 5 Years (2017-2021)

- 2018 Executive Vice President – Asset Management, RATCH Group Public Company Limited
- 2017 – 2019
 - Board of Directors Member, Solar Power (Korat 3) Company Limited,
 - Board of Directors Member, Solar Power (Korat 4) Company Limited,
 - Board of Directors Member, Solar Power (Korat 7) Company Limited,

- Board of Directors Member, Songkhla Biomass Company Limited

- Board of Directors Member, Songkhla Biofuel Company Limited

- 2016 – 2017 Executive Vice President, RATCH Group Public Company Limited, acting as Managing Director of Ratchaburi Electricity Generating Company Limited

- 2015 – 2017 Board of Directors Member, Ratchaburi World Cogeneration Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 361

The Company's Securities Holding Proportion (%)

- Direct : 0.0007
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives:

None



• **Mr. Thana Boonyasirikul**

Age 53 years

Chief Asset Management Officer

To be appointed on: 1 January 2022

Education

- Doctor of Engineering (Water Resources Development), Asian Institute of Technology
- Master of Engineering (Water Resources Engineering), Asian Institute of Technology
- Bachelor of Engineering (Irrigation Engineering) (1st Class Honours), Kasetsart University

Important Trainings/Seminars

- Thailand's Future Energy Leader Program, LEAD Business Institute
- Merges & Acquisitions, Baker & McKenzie
- Advance Certificate Course, Environmental Governance for Executive, Class 1, King Prajadhipok's Institute
- Financial Thinking for Non-Financial Managers, SASIN Graduate Institute of Business Administration, Chulalongkorn University

Work Experiences in the Previous 5 Years (2017-2021)

- 2020
 - Board of Directors Member, Ratchaburi World Cogeneration Company Limited,
 - Board of Directors Member, Chubu Ratchaburi Electric Services Company Limited
- 2019 - 2021 Board of Directors Member, Berkprai Cogeneration Company Limited
- 2019 Executive Vice President - New and Related Business, RATCH Group Public Company Limited
- 2018 - 2019 Board of Directors Member, PT Bajradaya Sentranusa
- 2018 Executive Vice President - Power Business, RATCH Group Public Company Limited

- 2017 - 2018 Executive Vice President - Power Business, RATCH Group Public Company Limited, acting as Managing Director, RATCH-Australia Corporation Limited
- 2017 Senior Vice President - Head of Foreign Investment Division, RATCH Group Public Company Limited, acting as Managing Director, RATCH-Australia Corporation Limited
- 2017 - 2019
 - Board of Directors Member, Hongsa Power Company Limited,
 - Board of Directors Member, Phu Fai Mining Company Limited,
 - Board of Directors Member, EGAT Diamond Service Company Limited
- 2016 - 2019 Board of Directors Member, Mount Emerald Wind Farm Pty
- 2016 Senior Vice President second to be Managing Director, RATCH-Australia Corporation Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 362

The Company's Securities Holding Proportion (%)

- Direct : 0.0006
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Mrs. Wadeerat Charoencoop**

Age 47 years

Chief Financial Officer

(Top Responsible Person in Accounting and Finance)

Starting Date: 1 January 2019

Education

- Master of Business Administration, The University of Washington, United States of America
- Bachelor of Business Administration (Finance) (2nd Class Honours), Chulalongkorn University

Important Trainings/Seminars

- Director Diploma Examination (Exam 71/2019), Thai Institute of Directors Association
- Director Certification Program (DCP 276/2019), Thai Institute of Directors Association
- Corporate Governance for Executives (CGE SCCC/2015), Thai Institute of Directors Association
- Senior Development Program, Duke C.E.
- STARS Switzerland Symposium
- Chief Financial Officer Certification Program, Federation of Accounting Professions
- TLCA Executive Development Program, Thai Listed Companies Association
- Project Management Program, Davao

Work Experiences in the Previous 5 Years (2017-2021)

- 2019
 - Board of Directors Member, Ratchaburi Power Company Limited
 - Board of Directors Member, SouthEast Asia Energy Limited
 - Board of Directors Member, RH International (Singapore) Corporation Pte. Ltd.
- 2018 Executive Vice President-Financial, RATCH Group Public Company Limited

- 2014 - 2017 Head of Group Finance, Treasury, Tax and IR, Siam City Cement Public Company Limited

Current Positions in Other Listed Companies

- 14Dec2021 - Present Board of Directors Member, Sahacogen (Chonburi) Public Company Limited
- 2021 - Present Board of Directors Member, Bangkok Aviation Fuel Services Public Company Limited

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 361

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Mr. Nawapol Disathien**

Age 51 years

Executive Vice President – Corporate Administration

Starting Date: 1 January 2021

Education

- Master of Law (International Legal Studies) Golden Gate University, California, United State of America
- Bachelor of Laws, Thammasat University

Important Trainings/Seminars

- Director Certificate Program (DCP 201/2015), Thai Institute of Directors Association
- SEP Executive Program Class of 2006, SASIN Graduate Institute of Business Administration, Chulalongkorn University
- Leadership Succession Program (LSP-7), Institute of Research and Development for Public Enterprises
- Certificate in Law, Faculty of Law, Thammasat University

Work Experiences in the Previous 5 Years (2017-2021)

- 2011 – 2020 Senior Vice President – Head of Legal Division, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 361

The Company's Securities Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Miss Suwannee Sirisajjawat**

Age 51 years

Senior Vice President – Head of General Accounting Division
(Directly Responsible Person for Accounting Supervision)

Starting Date: 1 January 2021

Education

- Master of Business Administration, Kasetsart University
- Bachelor of Business Administration (Accounting), Prince of Songkla University

Important Trainings/Seminars

- Chief Financial Certification Program, Federation of Accounting Professions
- Mini MBA, Kasetsart University

Work Experiences in the Previous 5 Years (2017-2021)

- 2019 - 2020 Vice President - Head of General Accounting Division, RATCH Group Public Company Limited
- 2018 Vice President - Head of Accounting Control and Analysis Division, RATCH Group Public Company Limited
- 2017 Board of Directors Member, RATCH-Lao Services Company Limited Acting Vice President - Head of Accounting Control and Analysis Division, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 361

The Company's Securities Holding Proportion (%)

- Direct : None
- Indirect : 0.00001

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

Note: On 1 January 2022, begin to hold the position of Assistant Chief Financial Officer



• **Miss Phavika Smanratana**

Age 45 years

Vice President – Head of Financial Planning and Management Division

Starting Date: 1 January 2020

Education

- Master of Business Administration, The University of Liverpool, United Kingdom
- Bachelor of Engineering Program (Electrical Engineering), Kasetsart University

Important Trainings/Seminars

- Financial Model, Phatra Capital Public Company Limited

Work Experiences in the Previous 5 Years (2017-2021)

- 2019 Manager – Head of Project Finance Department, Financial Planning and Management Division, RATCH Group Public Company Limited
- 2018 Manager – Financial Planning and Management Division, RATCH Group Public Company Limited
- 2015 – 2018 Business Analysis Division Manager, Siam City Cement Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 361

The Company's Securities Holding Proportion (%)

- Direct : None
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Miss Titiporn Komsartra**

Age 45 years

Vice President – Head of Accounting Control and Analysis Division

Starting Date: 1 January 2020

Education

- Master of Science (Financial Management), University of Exeter, United Kingdom
- Bachelor of Business Administration (Finance and Banking), Assumption University

Important Trainings/Seminars

- Strategic Financial Leadership Program (SFLP), Thai Listed Companies Association
- Management Preparation Program: M-PREP, Fiscal Policy Research Institute Foundation

Work Experiences in the Previous 5 Years (2017-2021)

- 2019 Acting Vice President – Head of Accounting Control and Analysis Division, RATCH Group Public Company Limited
- 2017 – 2018 Manager – Head of Financial Planning Department, RATCH Group Public Company Limited
- 2012 – 2017 Manager – Head of Project Finance Department, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- Director and executive positions in the Company's Group as shown on page 361

The Company's Securities Holding Proportion (%)

- Direct : None
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Miss Puthachard Smitamegha**

Age 47 years

Vice President – Head of Tax Management and General Ledger Division

Starting Date: 1 October 2020

Education

- Master of Business Administration (Accounting), The University of the Thai Chamber of Commerce
- Bachelor of Accountancy (Financial Accounting), The University of the Thai Chamber of Commerce

Important Trainings/Seminars

- Graduate Diploma in Taxation, The University of the Thai Chamber of Commerce
- Mini MBA, Thammasat University
- Thai Accounting Standards for Public Company, Federation of Accounting Professions
- Economic value added, Faculty of Commerce and Accountancy, Chulalongkorn University
- International Trade Tax, Federation of Accounting Professions
- Awareness on Energy Conservation, The Federation of Thai Industries

Work Experiences in the Previous 5 Years (2017-2021)

- 2020 Senior Manager – Head of Tax Management Department, Acting – Vice President – Head of Tax Management and General Ledger Division, RATCH Group Public Company Limited
- 2016 – 2020 Senior Manager – Head of Tax Management Department, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- None

The Company's Securities Holding Proportion (%)

- Direct : 0.0001
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Miss Wanphen Chamkham**

Age 53 years

Vice President-Head of Company Secretary Office and Company Secretary

Starting Date: 1 January 2020

Education

- Master of Business Administration, Kasetsart University
- Graduate Diploma Program in English for Careers, Thammasat University
- Bachelor of Business Administration (Management), Sukhothai Thammathirat Open University

Important Trainings/Seminars

- Online Seminar: Guideline for Preparation of Stakeholder Report and Knowledge about Insider Information Policy (2021), Thai Listed Companies Association
- Refreshment Training Program (RFP 4/2021), Thai Institute of Directors Association
- COSO ERM 2017 (2020), Thai Listed Companies Association
- Risk Management on COVID-19 Situation Program (2020), Thai Listed Companies Association
- Advances for Corporate Secretaries (Class 1/2017), Thai Listed Companies Association
- Effective Minute Taking (EMT 43/2019), Thai Institute of Directors Association
- Company Secretary Program (CSP 67/2015), Thai Institute of Directors Association
- Company Reporting Program (CRP 13/2015), Thai Institute of Directors Association

Work Experiences in the Previous 5 Years (2017-2021)

- 2020 Vice President - Head of Company Secretary Office, Acting Senior Manager - Head of Compliance and acting as Company Secretary, RATCH Group Public Company Limited

- 2019 Acting Vice President - Head of Company Secretary Office, and Company Secretary, RATCH Group Public Company Limited
- 2018 Senior Manager - Head of Compliance Department, Company Secretary Office, RATCH Group Public Company Limited
- 2013 - 2018 Manager - Head of Compliance Department, Company Secretary Office, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- None

The Company's Securities Holding Proportion (%)

- Direct : None
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None



• **Miss Kamolkarn Hinviman**

Age 50 years

Vice President-Head of Internal Audit Division
(Head of Internal Audit)

Starting Date: 1 January 2020

Education

- Master of Accountancy, Chulalongkorn University
- Bachelor of Accountancy, Chulalongkorn University

Important Trainings/Seminars

- Analytical Thinking in the Internal Audit Process Course, Federation of Accounting Professions
- Anti Corruption: The Practical Guide, Thai Institute of Directors Association
- Risk Based Audit, The Institute of Internal Auditors of Thailand
- Fraud Audit, The Institute of Internal Auditors of Thailand
- COSO, the Newest Internal Audit Framework, Federation of Accounting Professions

Work Experiences in the Previous 5 Years (2017-2021)

- 2018 - 2019 Senior Assistance Vice President, Internal Audit Division, RATCH Group Public Company Limited
- 2012 - 2018 Assistant Vice President, Internal Audit Division, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- None

The Company's Securities Holding Proportion (%)

- Direct : None
- Indirect : None

Prohibited Qualifications/Committed an Offence: None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives:
None

Current positions of directors^{/1}, executives and controlling persons in the Company Group's business units as at 31 December 2021

[illegible]

Note: None of RATCH Group's directors hold a director or executive position in subsidiaries, affiliates and joint ventures, except Miss Choosri Kietkajornkul.

² Executives #1-5 and #7-10 are the Company's executives as defined by the SEC's Notification on securities issuance.

³ Shown here are only the names of companies in the Company Group in which RATCH's directors, executives and controlling persons hold director or executive positions.

CFO = Chief Financial Officer, EVP = Executive Vice President, SVP = Senior Vice President, VP = Vice President, MD = Managing Director
CEO = Chief Executive Officer, CBD = Chief Business Development Officer, CPD = Chief Project Development Officer, CAM = Chief Asset Management Officer,
C = Chairman, D = Director

Newly-appointed executives as of 1 January 2022

Item	Company name	Directors/Executives/ Controlling Persons	Subsidiaries		Joint Ventures	
1.	Mr. Thana Boonyasirikul	CAM	RATCH	D	Ratchaburi Electricity Generating Company Limited	
			Ratchaburi Alliances Company Limited		An Binh Investment Group Joint Stock Company	
			RATCH Cogeneration Company Limited		Hongsa Power Company Limited	
			Sahacogen (Chonburi) Public Company Limited		South East Asia Energy Company Limited	
			Hin Kong Power Holding Company Limited		Nam Ngum 2 Company Limited	
			Hin Kong Power Company Limited		Xe-pian Xe-Namnoy Power Company Limited	
			RH International (Singapore) Corporation Pte. Ltd.	D	Phutai Mining Company Limited	D
			RATCH-Australia Corporation Pty Ltd.		Things on Net Company Limited	
			Mount Emerald Wind Farm Pty Ltd.		Innopower Company Limited	
			RATCH China Power Limited		Bangkok Aviation Fuel Services Public Company Limited	
			FarEast Renewable Development Pte. Ltd.	D	Principal Capital Public Company Limited	
			RATCH O&M Company Limited			
			RATCH-Lao Services Company Limited			
			Smart Intranet Company Limited			
			Nava Nakorn Electricity Generating Company Limited	C		
			Ratchaburi World Cogeneration Company Limited			
			Nexif RATCH Energy Singapore Pte. Ltd.			
			Ratchaburi Power Company Limited			
			PT Medco Ratch Power Riau			
			PT Bajradaya Sentranusa	D		
			An Binh Energy and Infrastructure Fund			

Note: Mr. Thana Boonyasirikul was appointed Chief Asset Management Office, replacing Mr. Nimit Lekcharoensuk after the latter's retirement. The appointment took effect on 1 January 2022.

• Attachment 2

Profile of the Board of Directors, Ratchaburi Electricity Generating Company Limited



• Miss Choosri Kietkajornkul

Age 58 years
Chairman
 (Authorized Director)

Starting Date of Directorship: 1 October 2021

Time in Current Position: 3 months

Education

- Master of Accountancy (General Accounting), Chulalongkorn University
- Bachelor of Accountancy, Chulalongkorn University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Director Certification Program (DCP 308/2021)

Other Important Trainings/Seminars

- Leadership for Inspiration for Senior Management, King Prajadhipok's Institute
- Financial and Fiscal Management Program for Senior Executive, Public Fiscal and Accounting Personnel Development Institute
- Chief Financial Officer Certification Program, Federation Accounting Professions Under The Royal Patronage of His Majesty The King
- Accounting of Non-Accountants (2015), Faculty of Commerce and Accountancy, Chulalongkorn University
- Postgraduate Certificate in Finance and Management, London School of Business and Finance, United Kingdom
- EGAT Executive Development
- EGAT New Leader Development Program (ENLP)
- EGAT Enhancing Program (EEP)
- EGAT Get Ready Program (EGRP)
- EGAT Leadership Development Program (ELDP)

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 20 Jul-30 Sep 2021 Member of the Investment Committee, RATCH Group Public Company Limited
- 2020 - 2021
 - Deputy Governor-Finance and Accounting (Chief Financial Officer), EGAT
 - Director and Member of Audit Management Committee, EGAT International Company Limited
 - Director and Investment Committee Member, Electricity Generating Public Company Limited
- 2018 - 2020 Assistant Governor-Finance, EGAT
- 2016 - 2018 Director, Controller Division, EGAT

Current Positions in RATCH Group Public Company Limited and Other Listed Companies

- 14 Dec 2021 - Present Vice Chairman and Nomination and Remuneration Committee Member, Sahacogen (Chonburi) Public Company Limited
- 11 Nov 2021 - Present Board of Directors Member, Bangkok Aviation Fuel Services Public Company Limited
- 20 July 2021 - Present Director, RATCH Group Public Company Limited
- 1 Oct 2021 - Present Chief Executive Officer, Director and Secretary to the Board of Directors, RATCH Group Public Company Limited

Current Positions in Non-listed Organizations

- 1 Oct 2021 – Present – Deputy Governor – Governor’s Office, EGAT, appointed as Chief Executive Officer, RATCH
- Chairman of the Board of Directors, Hin Kong Power Holding Company Limited
- Chairman of the Board of Directors, Hin Kong Power Company Limited
- Chairman of the Board of Directors, Hongsa Power Company Limited
- Chairman of the Board of Directors, Phu Fai Mining Company Limited
- Chairman of the Board of Directors, PT Medco Ratch Power Riau
- Chairman of the Board of Directors, RATCH-Australia Corporation Pty Ltd. and other subsidiaries company of RATCH-Australia Corporation Pty Ltd.

RATCH’s Security Holding Proportion (%)

- Direct: 0.0015
- Indirect: None

Prohibited Qualifications for being a Director of Ratchaburi Electricity Generating Company Limited /Committed an Offence: None

Any Transaction which may cause conflict of interest against Ratchaburi Electricity Generating Company Limited during the previous year: None

Family Relationship with Directors and Executives: None

Notes: EGAT stands for Electricity Generating Authority of Thailand



• **Miss Jiraporn Sirikum**

Age 56 years
Director

Starting Date of Directorship: 1 October 2021

Time in Current Position: 3 Months

Education

- Doctor of Engineering (Industrial Engineering and Management), Asian Institute of Technology
- Master of Engineering (Energy Planning and Policy), Asian Institute of Technology
- Bachelor of Engineering (Industrial Engineering), Khon Kaen University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Director Certification Program (DCP 305/2021)
- Successful Formulation and Execution of Strategy (SFE36/2021)

Other Important Trainings/Seminars

- Advanced Master of Management Program (AMM), National Institute of Development Administration
- Chief of Digital Agro Business, Digital Economy Promotion Agency
- The Leadership for Digital Transformation Thailand (Digital CEO), Digital Economy Promotion Agency
- innOOpdc, Office of the Public Sector Development Commission
- The Executive Program for Young Professionals (EYP), Fiscal Policy Research Institute Foundation
- EGAT Executive Development
- EGAT Director Development Program (EDDP)
- EGAT New Leader Development Program (ENLP)
- EGAT Assistant Director Development Program (EADP)
- EGAT Enhancing Program (EEP)
- EGAT Leadership Development Program (ELDP)
- EGAT Leadership Calibration Exercise (ELCE)

Work Experiences in the Previous 5 Years (2017–2021) and/or Important Positions

- 2018 Assistant Governor – Research, Innovation and Business Development, EGAT

Current Positions in RATCH Group Public Company Limited and Other Listed Companies : None

Current Positions in Non-listed Organizations

- 2020 – Present Deputy Governor – Strategy and acting EGAT Spokesperson, EGAT

RATCH's Security Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications for being a Director of Ratchaburi Electricity Generating Company Limited /Committed an Offence: None

Any Transaction which may cause conflict of interest against Ratchaburi Electricity Generating Company Limited during the previous year: None

Family Relationship with Directors and Executives: None

Notes: EGAT stands for Electricity Generating Authority of Thailand



• **Mrs. Rane Kositvanich**

Age 59 years
Director

Starting Date of Directorship: 1 October 2021

Time in Current Position: 3 months

Education

- Master of Economics (Development Economics), National Institute of Development Administration
- Bachelor of Science (Economics), Kasetsart University

Trainings in Courses Arranged by Thai Institute of Directors Association

- Director Certification Program (DCP 308/2021)

Other Important Trainings/Seminars

- Advanced Master of Management Program (AMM), National Institute of Development Administration
- Leadership Development for Successors
- Agri-Nature Development towards Sufficiency-Economy Philosophy System, Mab-Ueang Agri-Nature Center
- Leadership for Inspiration for Senior Management, King Prajadhipok's Institute
- Environment Governance for Policy Makers, Ministry of Natural Resources and Environment
- Intermediate Certificate Course Basic Concepts of Conflict Management in Public Policy by Peaceful Means, King Prajadhipok's Institute
- EGAT Executive Development
- EGAT Director Development Program (EDDP)
- EGAT Enhancing Program (EEP)
- EGAT Assistant Director Development Program (EADP)
- EGAT Leadership Development Program (ELDP)

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2018 Assistant Governor - Fuel Management, EGAT
- 2017 Director, Natural Gas and Oil Management Division, EGAT
- 2016 Director, Fuel Sourcing and Contract Management Division, EGAT
- 2012 Assistant Director, Fuel Sourcing and Contract Management Division - Technical, EGAT

Current Positions in RATCH Group Public Company Limited and Other Listed Companies: None

Current Positions in Non-listed Organizations

- 2020 - Present Deputy Governor - Fuel, EGAT

RATCH's Security Holding Proportion (%)

- Direct: 0.000003
- Indirect: None

Prohibited Qualifications for being a Director of Ratchaburi Electricity Generating Company Limited /Committed an Offence: None

Any Transaction which may cause conflict of interest against Ratchaburi Electricity Generating Company Limited during the previous year: None

Family Relationship with Directors and Executives: None

Notes: EGAT stands for Electricity Generating Authority of Thailand



• **Mr. Nimit Lekcharoensuk**

Age 60 years
Director

Starting Date of Directorship:

27 March 2020 – 31 December 2021

Time in Current Position: 1 Years 9 Months

Education

- Bachelor of Engineering (Electrical Engineering), King Mongkut's Institute of Technology Ladkrabang

Trainings in Courses Arranged by Thai Institute of Directors Association

- Director Accreditation Program (DAP 168/2020)
- Risk Management Program for Corporate Leaders (RCL 15/2019)

Other Important Trainings/Seminars:

- Certificate, Senior Executive Program (SEP 21), SASIN Graduate Institute of Business Administration, Chulalongkorn University
- Advance Certificate Course, Management of Public Economics for Executives, Class 13, King Prajadhipok's Institute
- The Executive Program in Energy Literacy for a Sustainable Future, Class 13, Thailand Energy Academy
- Executive Development Program, Class 15 (2018), Fiscal Policy Research Institute Foundation

Work Experiences in the Previous 5 Years

(2017–2021) and/or Important Positions

- 2018 Executive Vice President - Asset Management, RATCH Group Public Company Limited
- 2017 - 2019
 - Board of Directors Member Solar Power (Korat 3) Company Limited,
 - Board of Directors Member Solar Power (Korat 4) Company Limited,
 - Board of Directors Member Solar Power (Korat 7) Company Limited,
 - Board of Directors Member Songkhla Biomass Company Limited and
 - Board of Directors Member Songkhla Biofuel Company Limited

- 2016 - 2017 Executive Vice President, RATCH Group Public Company Limited, acting as Managing Director of Ratchaburi Electricity Generating Company Limited
- 2015 - 2017 Board of Directors Member, Ratchaburi World Cogeneration Company Limited

Current Positions in RATCH Group Public Company Limited and Other Listed Companies

- 1 Jan 2019–31 Dec 2021 - Chief Asset Management Officer, RATCH Group Public Company Limited

Current Positions in Non-listed Organizations

- 2019 - Present
 - Chairman of the Board of Directors, Ratchaburi World Cogeneration Company Limited
 - Board of Directors Member, RATCH-Australia Corporation Pty Ltd
 - Board of Directors Member, Mount Emerald Wind Farm Pty
- 2018 - Present
 - Board of Directors Member, Hongsa Power Company Limited
 - Board of Directors Member, Phu Fai Mining Company Limited
 - Board of Directors Member, SouthEast Asia Energy Limited
 - Board of Directors Member, Nam Ngum 2 Power Company Limited

RATCH's Securities Holding Proportion (%)

- Direct: 0.0007
- Indirect: None

Prohibited Qualifications for being a Director of Ratchaburi Electricity Generating Company Limited /Committed an Offence: None

Any Transaction which may cause conflict of interest against Ratchaburi Electricity Generating Company Limited during the previous year: None

Family Relationship with Directors and Executives: None



• Mr. Thana Boonyasirikul

Age 53 years

Director

Managing Director

Secretary to Board of Directors (Authorized Director)

Starting Date of Directorship: 9 January 2020

Time in Current Position: 2 Years

Education

- Doctor of Engineering (Water Resources Development), Asian Institute of Technology
- Master of Engineering (Water Resources Engineering), Asian Institute of Technology
- Bachelor of Engineering (Irrigation Engineering) (1st Class Honours), Kasetsart University

Trainings in Courses Arranged by Thai Institute of Directors Association: None

Other Important Trainings/Seminars:

- Thailand's Future Energy Leader Program, LEAD Business Institute
- Mergers & Acquisitions, Baker & McKenzie Ltd.
- Advance Certificate Course, Environmental Governance for Executive, Class 1, King Prajadhipok's Institute
- Financial Thinking for Non-Financial Managers, Sasin Graduate Institute of Business Administration, Chulalongkorn University

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2020
 - Board of Directors Member, Ratchaburi World Cogeneration Company Limited,
 - Board of Directors Member, Chubu Ratchaburi Electric Services Company Limited
- 2019 - 2021 Board of Directors Member, Berkprai Cogeneration Company Limited
- 2019 Executive Vice President - New and Related Business, RATCH Group Public Company Limited
- 2018 - 2019 Board of Directors Member, PT Bajradaya Sentranusa
- 2018 Executive Vice President - Power Business, RATCH Group Public Company Limited
- 2017 - 2018 Executive Vice President - Power Business, RATCH Group Public Company Limited, acting as Managing Director, RATCH-Australia Corporation Limited

- 2017 Senior Vice President - Head of Foreign Investment Division, RATCH Group Public Company Limited, acting as Managing Director, RATCH-Australia Corporation Limited
- 2017 - 2019
 - Board of Directors Member, Hongsa Power Company Limited,
 - Board of Directors Member, Phu Fai Mining Company Limited,
 - Board of Directors Member, EGAT Diamond Service Company Limited
- 2016 - 2019 Board of Directors Member, Mount Emerald Wind Farm Pty
- 2016 Senior Vice President second to be Managing Director, RATCH-Australia Corporation Limited

Current Positions in RATCH Group Public Company Limited and Other Listed Companies:

- 2020 - Present Executive Vice President, RATCH Group Public Company Limited, acting as Managing Director, Ratchaburi Electricity Generating Company Limited

Current Positions in Non-listed Organizations

- 2021 - Present
 - Board of Directors Member, Fareast Renewable Development Pte. Ltd.
 - Board of Directors Member, PT Bajradaya Sentranusa
 - Board of Directors Member, Xe-Pian Xe-Namnoy Power Company Limited

RATCH's Security Holding Proportion (%)

- Direct: 0.0006
- Indirect: None

Prohibited Qualifications for being a Director of Ratchaburi Electricity Generating Company Limited /Committed an Offence: None

Any Transaction which may cause conflict of interest against Ratchaburi Electricity Generating Company Limited during the previous year: None

Family Relationship with Directors and Executives: None



• **Mr. Jatuporn Soparaksa**

Age 52 years

Director

Managing Director

Secretary to Board of Directors

Starting Date of Directorship: 1 January 2022

Time in Current Position: -

Education

- Bachelor of Industrial Technology (Industrial Electrical Technology), King Mongkut's University of Technology North Bangkok

Trainings in Courses Arranged by Thai Institute of Directors Association: None

Other Important Trainings/Seminars

- Mini MBA, Kasetsart University
- Executive Development Program (EDP), Class 14, Fiscal Policy Research Institute Foundation
- Advanced Certificate Course in Public Economics Management for Executives, Class 17, King Prajadhipok's Institute
- New Paradigm of ESI in Thailand, TESIA
- Leadership Succession Program (LSP), Class 7, Institute of Research and Development for Public Enterprises (IRPD)
- Finance for Non-finance Executive, Thammasat University
- Clean Coal Technologies for Power Generation, The Institute of Industrial Energy
- Thailand and ASEAN Community in Global Political Economy, Class 3, King Prajadhipok's Institute
- Financial Thinking for Non-Financial Managers, SASIN Graduate Institute of Business Administration, Chulalongkorn University

Work Experiences in the Previous 5 Years (2017-2021) and/or Important Positions

- 2020 Executive Vice President - New and Related Business, Seconded to be Chief Executive Officer, An Binh Investment Group Joint Stock Company
- 2020 - 2021 Executive Vice President - New and Related Business, Seconded to be Board of Directors Member and Deputy Chief Executive Officer, Thang Long Power Plant Joint Stock Company
- 2020
 - Chairman of the Board of Directors, Smart Infranet Co., Ltd.
 - Board of Directors Member, Things on Net Co., Ltd.

- 2018 - 2020 Board of Directors Member and Managing Director, RE Solar 1 Co., Ltd.
- 2018 - 2019
 - Board of Directors Member and Managing Director, RATCH O&M Co., Ltd.
 - Board of Directors Member, Nam Ngum 3 Power Co., Ltd.
- 2017 - 2019
 - Chairman of the Board of Directors, Solarta Co., Ltd.
 - Board of Directors Member, K.R. Two Co., Ltd.
- 2017 - 2018 Board of Directors Member, Ratchaburi Energy Co., Ltd.
- 2017 Board of Directors Member and Managing Director, RATCH-Lao Services Co., Ltd.
- 2013 Vice President - Head of Laos Investment Division, Seconded to be Deputy Chief Operating Officer, Xe-Pian Xe-Namnoy Power Co., Ltd.
- 2009 - 2012 Managing Director, RATCH-Lao Services Co., Ltd.

Current Positions in RATCH Group Public Company Limited and Other Listed Companies

- 2021 - Present Executive Vice President, RATCH Group Public Company Limited, acting as Managing Director, Ratchaburi Electricity Generating Company Limited

Current Positions in Non-listed Organizations

- 2021 - Present Board of Directors Member, Berkprai Cogeneration Company Limited

RATCH's Security Holding Proportion (%)

- Direct: None
- Indirect: None

Prohibited Qualifications for being a Director of Ratchaburi Electricity Generating Company Limited /Committed an Offence: None

Any Transaction which may cause conflict of interest against Ratchaburi Electricity Generating Company Limited during the previous year: None

Family Relationship with Directors and Executives: None

Executive's Profile Ratchaburi Electricity Generating Company Limited

• Mr. Thana Boonyasirikul

Age 53 years

Managing Director (Chief Executive)

Starting Date: 1 January 2022

The Company's Securities Holding Proportion (%) :
0.0006

Education

- Doctor of Engineering (Water Resources Development), Asian Institute of Technology
- Master of Engineering (Water Resources Engineering), Asian Institute of Technology
- Bachelor of Engineering (Irrigation Engineering) (1st Class Honours), Kasetsart University

Important Trainings/Seminars:

- Thailand's Future Energy Leader Program, LEAD Business Institute
- Mergers & Acquisitions, Baker & McKenzie Ltd.
- Advance Certificate Course, Environmental Governance for Executive, Class 1, King Prajadhipok's Institute
- Financial Thinking for Non-Financial Managers, Sasin Graduate Institute of Business Administration, Chulalongkorn University

Work Experiences

- 2020 - 2021 Assistant Managing Director RATCH Group Public Company Limited. Acting as Managing Director, Ratchaburi Electricity Generating Company Limited
- 2020 - Board of Directors Member, Ratchaburi World Cogeneration Company Limited, - Board of Directors Member, Chubu Ratchaburi Electric Services Company Limited
- 2019 - 2021 Board of Directors Member, Berkprai Cogeneration Company Limited
- 2019 Executive Vice President - New and Related Business, RATCH Group Public Company Limited

- 2018 - 2019 Board of Directors Member, PT Bajradaya Sentranusa
- 2018 Executive Vice President - Power Business, RATCH Group Public Company Limited
- 2017 - 2018 Executive Vice President - Power Business, RATCH Group Public Company Limited, acting as Managing Director, RATCH-Australia Corporation Limited
- 2017 Senior Vice President - Head of Foreign Investment Division, RATCH Group Public Company Limited, acting as Managing Director, RATCH-Australia Corporation Limited
- 2017 - 2019 Board of Directors Member, Hongsa Power Company Limited, Board of Directors Member, Phu Fai Mining Company Limited, Board of Directors Member, EGAT Diamond Service Company Limited
- 2016 - 2019 Board of Directors Member, Mount Emerald Wind Farm Pty
- 2016 Senior Vice President second to be Managing Director, RATCH-Australia Corporation Limited

Current Positions in Other Listed Companies: None

Prohibited Qualifications/Committed an Offence: None

Family Relationship with Directors and Executives: None

Participation in Managing Business Relationship/ Providing Professional Service to the Company's Group in the Previous Year: None

Being an Employee/Partner of External Audit Company in the Previous 2 Years: None

Issues that May Cause Conflict of Interest in the Previous Year: None

• **Mr. Payat Chinvili**

Age 53 Years

Senior Vice President, Report to Chief Asset Management Officer,

Seconded to be the Deputy Managing Director, Ratchaburi Electricity Generating Co., Ltd.

1 April 2013

Director – Head of Operating Division

15 May 2012

- Senior Manager – Head of Planning and Maintenance
- Department, acting Director
- Head of Operation Division

Starting Date: 1 October 2000

Current Positions in Other Listed Companies: None

The Company's Securities Holding Proportion (%) :
None

Prohibited Qualifications/Committed an Offence:
None

Education

- Master of Business Administration (Finance and Banking) Ramkhamhaeng University Graduated in 2011
- Bachelor of Industrial (Industrial Instrumentation Technology) King Mongkut's Institute of Technology Ladkrabang Graduated in 1992

Family Relationship with Directors and Executives:
None

Participation in Managing Business Relationship/ Providing Professional Service to the Company's Group in the Previous Year: None

Important Trainings/Seminars:

- Advanced Certificate in Management of Public Economics for Executives, Thailand National Defense College
- Policy guidelines and practices for PPA offering between Independent Power Producer and Thailand's electricity 3 main state-owned utilities, TESIA Thailand
- EGAT Get Ready Program III, Electricity Authority of Thailand (EGAT)
- ISO55000 Awareness, Lloyds Register LRQA

Being an Employee/Partner of External Audit Company in the Previous 2 Years: None

Issues that May Cause Conflict of Interest in the Previous Year: None

Work Experiences

1 March 2018 - Present	Senior Vice President, Report to Chief Asset Management Officer Seconded to be the Deputy Managing Director, Ratchaburi Electricity Generating Co., Ltd.
1 September 2017	Vice President, Report to Chief Asset Management Officer Seconded to be the Deputy Managing Director, Ratchaburi Electricity Generating Co., Ltd.

• Tatsawan Na-Bangchang

Age 44 years

Director – Operating Division

Starting Date: 1 July 2020

The Company's Securities Holding Proportion (%) :
0.0001

Education

- Master of Engineering Management, Silpakorn University
- Bachelor of Electrical Engineering (Power), King Mongkut's Institute of Technology Ladkrabang

Important Trainings/Seminars:

- Maintenance Analytics
- Roles of managers and human resource management
- Enhancing Leadership Presence : ELP
- Performance Coaching Program
- Negotiate Like Pro
- Executive Development Workshop
- Coaching and Feedback for People Development Workshop

Work Experiences

- 2019 Director, Power Plant Management Division (Tri Energy Power plant), Ratchaburi Electricity Generating Company Limited
- 2018 Acting, Director, Power Plant Management Division (Tri Energy Power plant), Ratchaburi Electricity Generating Company Limited
- 2018 Manager, Planning and Maintenance Department, Ratchaburi Electricity Generating Company Limited
- 2013 Manager, Contract Management Department, Ratchaburi Electricity Generating Company Limited
- 2012 Acting, Manager, Contract Management Department, Ratchaburi Electricity Generating Company Limited

- 2007 Planing and Maintenance Officer, Ratchaburi Electricity Generating Company Limited
- 2000 Contract Management Officer, Ratchaburi Electricity Generating Company Limited
- 1998 Electrical Engineer Level 4 , Electricity Generating Authority of Thailand

Current Positions in Other Listed Companies: None

Prohibited Qualifications/Committed an Offence:
None

Family Relationship with Directors and Executives:
None

Participation in Managing Business Relationship/ Providing Professional Service to the Company's Group in the Previous Year: None

Being an Employee/Partner of External Audit Company in the Previous 2 Years: None

Issues that May Cause Conflict of Interest in the Previous Year: None

• **Mr. Khemachart Sathittantiwech**

Age 51 years

Senior Director – Corporate Relations Division

- 2001 Public Relations Officer.
- 2000 Legal and Public Relations Officers.

Starting Date: 1 March 2021

Current Positions in Other Listed Companies: None

The Company’s Securities Holding Proportion (%) :
None

Prohibited Qualifications/Committed an Offence:
None

Education

- Master of Arts, Wailai Alongkorn Rajabhat University
- Master of Arts, Thammasat University
- Bachelor of Arts, Phra Nakhon Si Ayutthaya Teachers College

Family Relationship with Directors and Executives:
None

Important Trainings/Seminars:

- Social Return On Investment (SROI) Practitioner Workshop
- Executive Communication Program (EXCOMM - PR Thailand 6)
- Performance Coaching Program
- Negotiate Like Pro 1
- Executive Development Workshop 1
- Coaching and Feedback for People Development Workshop

Participation in Managing Business Relationship/ Providing Professional Service to the Company’s Group in the Previous Year: None

Being an Employee/Partner of External Audit Company in the Previous 2 Years: None

Issues that May Cause Conflict of Interest in the Previous Year: None

Work Experiences

- 2018 - February 2021 Director of Corporate Relations Division, Ratchaburi Electricity Generating Company Limited
- 2014 - 2017 Senior Manager of Community Relations Department, Ratchaburi Electricity Generating Company Limited
- 2010 Community Relations Manager Ratchaburi Electricity Generating Company Limited
- 2004 External Communications Manager Ratchaburi Electricity Generating Company Limited
- 2003 Employees communicated to the organization, Ratchaburi Electricity Generating Company Limited

• **Mrs. Patcharaporn Maleevan**

Age 53 years

Senior Director – Administration & Finance Division

- 2000 Accounting Officer, Ratchaburi Electricity Generating Company Limited

Starting Date: 1 March 2021

Current Positions in Other Listed Companies: None

The Company's Securities Holding Proportion (%) :
None

Prohibited Qualifications/Committed an Offence:
None

Education

- Master of Business Administration Program (M.B.A.), Mahidol University
- Bachelor of Science, Accounting, Kasetsart University

Family Relationship with Directors and Executives:
None

Important Trainings/Seminars:

- IDP Individual Development Plan Personnel Management Association of Thailand
- THAILAND HR DAY 2019 Personnel Management Association of Thailand
- Individual Development Plan IDP Workshop Hay Group Company Limited
- Business Continuity Management System BCM Coaching and Feedback for People Development Workshop Coach for Goal
- Executive Development Workshop Hay Group Company Limited
- Leadership Communication
- 3S Manager Lego Learning Game
- Mergers & Acquisitions & Joint Venture

Participation in Managing Business Relationship/ Providing Professional Service to the Company's Group in the Previous Year: None

Being an Employee/Partner of External Audit Company in the Previous 2 Years: None

Issues that May Cause Conflict of Interest in the Previous Year: None

Work Experiences

- 2017 Director, Acting-Head of Accounting Department, Ratchaburi Electricity Generating Company Limited
- 2014 Senior Manager-Head of Accounting Department, Ratchaburi Electricity Generating Company Limited
- 2009 Manager-Head of Accounting Department, Ratchaburi Electricity Generating Company Limited
- 2009 Manager-Head of Treasury Department, Ratchaburi Electricity Generating Company Limited

• **Mr. Thanabodee Pratumrat**

Age 46 years

Vice President, – Director, seconded to be the Managing Director RATCH Cogeneration Co.Ltd.

Starting Date: 1 July 2018

The Company's Securities Holding Proportion (%) :
None

Education

- Master of Engineering Program in Engineering Management, Southeast Asia University
- Bachelor of Engineering Program in Mechanical Engineering, Kasetsart University

Important Trainings/Seminars

- Roles of managers and human resource management
- Certificate, Safety Officer at Management level
- Enhancing Leadership Presence : ELP
- Performance Coaching Program
- Negotiate Like Pro
- Executive Development Workshop
- Coaching and Feedback for People Development Workshop

Work Experiences

- 2018 Director - Operating Division, Ratchaburi Electricity Generating Company Limited
- 2017 - Director- Power Plant (TE) Management Division, Ratchaburi Electricity Generating Company Limited
- Acting Director- Power Plant (TE) Management Division, Ratchaburi Electricity Generating Company Limited
- 2015 Manager- Planning & Maintenance Department, Ratchaburi Electricity Generating Company Limited
- 2010 Manager- Engineering & Efficiency Control Department, Ratchaburi Electricity Generating Company Limited
- 2002 Planning and Maintenance Officer, Ratchaburi Electricity Generating Company Limited

- 2000 Contract Management Department Officer, Ratchaburi Electricity Generating Company Limited

Current Positions in Other Listed Companies: None

Prohibited Qualifications/Committed an Offence:
None

Family Relationship with Directors and Executives:
None

Participation in Managing Business Relationship/ Providing Professional Service to the Company's Group in the Previous Year : None

Being an Employee/Partner of External Audit Company in the Previous 2 Years: None

Issues that May Cause Conflict of Interest in the Previous Year: None

• Attachment 3

Details about Head of Internal Audit Division and Head of Company Secretary Office and Company Secretary

• Miss Wanphen Chamkham

Age 53 years

Vice President–Head of Company Secretary Office and Company Secretary

Starting Date: 1 January 2020

Education

- Master of Business Administration, Kasetsart University
- Graduate Diploma Program in English for Careers, Thammasat University
- Bachelor of Business Administration (Management), Sukhothai Thammathirat Open University

Important Trainings/Seminars

- Online Seminar: Guideline for Preparation of Stakeholder Report and Knowledge about Insider Information Policy (2021), Thai Listed Companies Association
- Refreshment Training Program (RFP 4/2021), Thai Institute of Directors Association
- COSO ERM 2017 (2020), Thai Listed Companies Association
- Risk Management on COVID-19 Situation Program (2020), Thai Listed Companies Association
- Advances for Corporate Secretaries (Class 1/2017), Thai Listed Companies Association
- Effective Minute Taking (EMT 43/2019), Thai Institute of Directors Association
- Company Secretary Program (CSP 67/2015), Thai Institute of Directors Association
- Company Reporting Program (CRP 13/2015), Thai Institute of Directors Association

Work Experiences in the Previous 5 Years (2017–2021)

- 2020 Vice President – Head of Company Secretary Office, Acting Senior Manager – Head of Compliance and acting as Company Secretary, RATCH Group Public Company Limited
- 2019 Acting Vice President – Head of Company Secretary Office, and Company Secretary, RATCH Group Public Company Limited
- 2018 Senior Manager – Head of Compliance Department, Company Secretary Office, RATCH Group Public Company Limited
- 2013 – 2018 Manager – Head of Compliance Department, Company Secretary Office, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- None

The Company's Securities Holding Proportion (%)

- Direct : None
- Indirect : None

Prohibited Qualifications/Committed an Offence:

None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

• **Miss Kamolkarn Hinviman**

Age 50 years

Vice President–Head of Internal Audit Division
(Head of Internal Audit)

Starting Date: 1 January 2020

Education

- Master of Accountancy, Chulalongkorn University
- Bachelor of Accountancy, Chulalongkorn University

Important Trainings/Seminars

- Analytical Thinking in the Internal Audit Process Course, Federation of Accounting Professions
- Anti Corruption: The Practical Guide, Thai Institute of Directors
- Risk Based Audit, The Institute of Internal Auditors of Thailand
- Fraud Audit, The Institute of Internal Auditors of Thailand
- COSO, the Newest Internal Audit Framework, Federation of Accounting Professions

Work Experiences in the Previous 5 Years (2017–2021)

- 2018 – 2019 Senior Assistance Vice President, Internal Audit Division, RATCH Group Public Company Limited
- 2012 – 2018 Assistant Vice President, Internal Audit Division, RATCH Group Public Company Limited

Current Positions in Other Listed Companies

- None

Current Positions in Non-listed Organizations

- None

The Company’s Securities Holding Proportion (%)

- Direct : None
- Indirect : None

Prohibited Qualifications/Committed an Offence:

None

Any Transaction which may cause conflict of interest against the company during the previous year: None

Family Relationship with Directors and Executives: None

- **Attachment 4**

Detail of assets for business operations and asset valuation.

Detail of assets for business operations and asset valuation appeared in Form 56-1 One Report: Assets for Business Operations Section.

• Attachment 5

Corporate Governance Policy and Code of Conduct of Company

1. Nomination and remuneration of directors and executives,

Board of Directors' independence from the Management, individual director development, individual director assessment and supervision of subsidiaries and affiliates appeared in Form 56-1 One Report: Corporate Governance

2. Treatment of shareholders,

Equitable treatment of shareholders, encouragement of shareholders to exercise their rights, prevention of the abuse of inside information, prevention of conflict of interest, treatment of stakeholders, compensation for infringement of rights, anti-fraud and corruption, and measures for those violate the policy and guideline.

2.1 Treatment of Shareholders:

For the subparagraph according to Ratchaburi Electricity Generating Holding Public Company Limited's resolution of the 2019 Annual General Meeting of Shareholders held on April 12, 2019, the meeting resolved to rename the Company to Ratch Group Public Company Limited and to be compliance with the good corporate governance principles proposed by the Stock Exchange of Thailand for listed companies to follow or apply for each company's situation, Ratchaburi Electricity Generating Holding Public Company Limited's Board of Directors reached a resolution in its Meeting No. 3/2019 held on 15 March 2019 to set the following policies for acknowledgment and as the obligation to comply with.

1. Shareholders will receive their basic rights with equitable and fair treatment.
2. Shareholders will receive significant information in an accurate, sufficient, timely and equal manner.

3. Encourage shareholders to attend annual meetings to fully exercise their basic rights, raise opinions, give recommendations, vote on the Company's significant issues, and monitor the Board of Directors and Management's actions.
4. Set preventive measures against exploitation of inside information for personal gain in order to keep shareholders' benefits.
5. Do not proceed with any actions that infringe or lessen shareholders' rights.

2.2 Anti-fraud and corruption:

For the subparagraph according to Ratchaburi Electricity Generating Holding Public Company Limited's resolution of the 2019 Annual General Meeting of Shareholders held on 12 April 2019, the meeting resolved to rename the Company to RATCH Group Public Company Limited and to ensure that RATCH Group Public Company Limited's practices are on par with international standards, uphold transparency, fairness and responsibility to the society and all stakeholders following good corporate governance, the Code of Conduct and the Company's policy on declaration of intent to fight all kinds of corruption by joining Thai Private Sector Collective Action Coalition against Corruption (CAC), Ratchaburi Electricity Generating Holding Public Company Limited's Board of Directors reached a resolution in its Meeting No. 3/2019 held on 15 March 2019 to set the following policies for acknowledgment and as the obligation to comply with.

1. Philosophy

"The Company will not participate in any form of fraud and corruption whether direct or indirect for its business operations with either government or private entities.

The Company prohibits all employees – from the Board of Directors and Management to employee levels – from requesting, operating or accepting any fraud or corruption for their own benefit or for the benefit of others (including family, friends and acquaintances).”

2. Policy

1. To promote a culture of anti-fraud and corruption in order to foster awareness and collective responsibilities for not becoming involved with fraud, whether directly or indirectly, which could occur through various forms, such as through the provision or acceptance of gifts, sponsorships, charitable contributions, political contributions, hospitality and other relevant expense types.
2. To establish a formal framework, process, as well as operating guidelines, to prevent fraud and corruption risks with the objectives for all employees to have an understanding of anti-fraud under the same policy, as well as to communicate to all employees, external parties and business partners about the relevant policies and protocols.
3. To establish an internal control system while taking fraud and corruption risks into consideration.
4. To establish guidelines and criteria for monitoring and review to ensure appropriate compliance with this policy.
5. To establish formal regulations for the Management and employees to abide by, to manage fraud and corruption risks.

2.3 The Corporate Governance Policy

The Company’s Group sets practice guideline at the international standard to promote transparent and effective management and operations that lead to reinforcement of trust among shareholders, investors and all stakeholders; and to pursue the principles of

Good Corporate Governance of listed companies.

The Corporate Governance Policy was stipulated by the Board as follows:

1. Be conscious in the Board of Directors’ responsibility as the leader in creating sustainable enterprise values, through the defining of vision, missions and business goals for the 3 main pillars of sustainability – economic, social and environmental.
2. Adhere to good governance practices, the anti-corruption policy, and compliance to relevant laws, rules and regulations.
3. Build up an effective board of directors with concerns in the structure, component, qualification, and the selection and nomination process.
4. Ensure an effective and merit-based process in the selection and development of high-level executives and human resource management, for the benefits of the organization, the country and global society.
5. Promote innovations, responsible business operations, and lawful treatment/protection for all stakeholders.
6. Establish an efficient and thorough risk management system, anti-corruption practices and the internal control system that covers finance, operation, supervision, execution and proper inspection.
7. Maintain financial credit worthiness and ensure accurate, sufficient, transparent and timely information disclosure.
8. Support and promote equitable engagement, treatment and communications with stakeholders.

3. Code of Conduct

• Business Aspiration

The Company shall operate its business with integrity, ethics, and morality while taking into

account the duties and responsibilities towards the nation, religion, monarchy, including the laws and good morals of the country and treat all stakeholders equally and fairly. The Company shall also support economic, social and environmental development to create added value to the organization in a long term which leads to stable and sustainable growth

• Definition

Code of Conduct means a compilation of desirable behaviors and actions that are defined as guidelines for all employees of the Company to follow in order to maintain and promote virtue, pride and prestige of the organization.

The Company means RATCH Group Public Company Limited and the subsidiaries under the Company's control whether they have already existed or will be established in the future.

Executives mean directors and executives who are in Executive Vice-President level and above of RATCH Group Public Company Limited and subsidiaries under the Company's control whether they have already existed or will be established in the future.

Employees mean employees and workers who operate to receive wages from RATCH Group Public Company Limited and subsidiaries under the Company's control whether they have already existed or will be established in the future.

Compliance with the Code of Conduct

The Company aims for executives and employees at all levels of the organization to have the duty to comply with this Code of Conduct. Executives are also responsible for creating norms and cultures to respect and comply with the Code of Conduct within the organization by giving encouragement and support to employees so that they willingly comply with the Code of Conduct and well react to matters related to the implementation of the Code of Conduct.

Persons Obligated to Comply with the Code of Conduct

1. Executives and employees of the Company.
2. Subsidiaries that the Company is controlling or having the right to control whether they have already existed or will be established in the future must accept and have practices that are in line with the Company's Code of Conduct.
3. Subsidiaries that are not under the Company's control should apply the practices that are in line with the Company's Code of Conduct.
4. Third parties that are representing the Company such as consultants, agents, and independent contractors must
 - Agree to comply with the Company's Code of Conduct.
 - Be educated and informed about this Code of Conduct.
 - Be carried out in any way which may include termination of the contract if it is known that any of them violates the Company's Code of Conduct.

Obligation

Persons obligated to comply with this Code of Conduct must study the details and gain thorough understanding of this Code of Conduct.

Recommendations regarding the code of conduct

1. Study and gain understanding of the contents of this Code of Conduct, especially regarding matters relating to one's duties and responsibilities.
2. Regularly review the knowledge and understanding of the contents of this Code of Conduct.
3. Provide knowledge and understanding to others who have to perform duties that are related to or may affect the Company.
4. When in doubt, ask one's supervisor or the person designated by the Company to be responsible for monitoring the implementation of the Code of Conduct through assigned channels.

5. Report to the supervisor or the responsible persons upon finding or suspecting that there may be a violation of or non-compliance with the Code of Conduct.
6. Cooperate with investigations performed by the agency or person assigned by the Company.
7. Executives at all levels must be leaders to practice with compliance to Code of Conduct, as well as promoting an understanding to employees and related parties that it is the right thing to uphold to the Code of Conduct and it is the obligation to comply with the Code of Conduct.
8. Executives at all levels must regularly monitor the implementation of the Code of Conduct by employees under their supervision.

Actions that may be Unethical

All employees are obliged to follow and encourage others to comply with the Code of Conduct. The following actions are considered unethical and may result in disciplinary action:

1. Not following the Code of Conduct.
2. Suggesting, encouraging or assisting others to not follow the Code of Conduct.
3. Ignoring and overlooking upon witnessing violations or non-compliance with the Code of Conduct in the case that one is aware or should be aware due to work related to their responsibilities.
4. Not cooperating or obstructing the investigation of claims regarding violation or non-compliance with the Code of Conduct.
5. Retaliating against employees who report clues about non-compliance with the Code of Conduct.
6. Any unfair actions against others due to their reporting of non-compliance with the Code of Conduct.

In this regard, the violator of the Code of Conduct must receive disciplinary consideration in accordance with the regulations set by the Company and may also receive punishment according to the laws if the act is illegal.

Measures for Complaints and Report of Irregularity Clues

The Company has provided channels to file complaints, report of irregularity clues, comments or suggestions relating to illegal acts or non-compliance with the Code of Conduct, including behavior that may indicate fraud from stakeholders who are affected or are at risk of being affected by the Company's business operations or by the performance of duties of the executive and employees of the Company.

Complaints and Irregularity Clues

Upon witnessing an incident that violates or does not comply with the Code of Conduct, including actions that may indicate fraud or violation of laws, the person can inquire or send complaints to authorized persons as follows:

1. Chairman or Director
2. Independent Director or Audit Committee
3. Chief Executive Officer
4. Vice President – Head of Internal Audit Division
5. Supervisors

Procedures Upon Receiving Complaints

The Company has a guideline for procedure upon receiving complaints as follows:

1. Complaint receiver, either by him/herself or by assigning appropriated person for the task, gathers all facts related to the violation of or non-compliance with the Code of Conduct.
2. Presenting to the Chief Executive Officer to consider and appoint an investigation committee comprising experts with appropriate knowledge and fairness to investigate the fact gathered from the complaint.
3. The investigation committee gathers information related to the complaint received by interviewing or examining documents.
4. The investigation committee processes the result and determines the fact in order to consider appropriate procedure and method.
5. The investigation committee sets measures to correct and mitigate damage to the affected parties by considering overall damages and

report the results to the Chief Executive Officer to report respectively to the Board of Directors.

6. The investigation committee reports the results to the complainant in case that the complainant discloses himself/herself.

- **Measures to Prevent Retaliation and Mitigate Damages to Reporters, Complainants or Those Cooperating in Reporting of Violation or Non-Compliance of the Code of Conduct**

Reporters, complainants or those cooperating in the fact examination will receive protection and justice from reporting useful information or clues to the Company regarding fraud, non-compliance with laws or regulations issued by government agencies, including violations or non-compliance with the rules and regulations or Codes of Conduct of the Company as defined below:

1. Reporters, complainants or cooperators can choose not to reveal their name if such disclosure will cause any harms or damages. However, if their identities are revealed, it will enable the Company to report the findings or conveniently and quickly alleviate the damages.
2. The Company considers relevant information confidential and will only disclose such information when necessary to those responsible for resolving the issue while taking into account the safety and damage of the reporters or related persons.
3. In the case that the complainant considers that he/she may be harmed or received damages, the complainant may request the Company to set appropriate protection measures or the Company may prescribe protection measures to the complainant without being requested if it is a matter that is likely to cause damages or harm.
4. Those who have suffered damage will receive relief through an appropriate and fair process.

- **Business Operations Guidelines**

Sustainable Development

1. The Company adheres to sustainable development as a guideline for business operations based on responsibilities to economy, society, and environment.
2. The Company decides to conduct business based on economic, health, safety, environmental and social issues.
3. All activities of the Company must be carried out under sustainability principles and aim for sustainable results in order to maintain the acceptance and trust from all stakeholders.
4. All executives and employees have the duty to regularly create good interactions with stakeholders who are related to their operations.
5. All executives and employees are obliged to strictly comply with the Company's regulations regarding occupational health, safety, security, and environmental and social responsibilities.
6. The Company shall operate business that creates sustainable benefits to the society by taking care of occupational health and safety of employees, partners, and communities while minimizing impacts on the community, keeping greenhouse gases from production to the minimum, best protecting the ecosystem and biodiversity, and using energy, water and other resources with maximum efficiency.

- **Anti-Corruption and Bribery¹**

1. The Company will not be involved in giving or accepting bribe or corruption in all forms, whether it is while conducting business with the private sector or the government sector.
2. Executives and employees or persons acting on behalf of the Company must not offer, persuade, promise, give or accept bribes, bribe money or other inappropriate payments, including making payment for convenience.
3. All executives and employees must abide by the laws and regulations which prohibit giving and receiving bribes and corruption, and also enforce on the Company's partners, contractors, and joint venture partners.

¹ More details can be found in

- 1) RATCH Group Public Company Limited's Regulation on Anti-Fraud and Corruption B.E. 2562
- 2) RATCH Group Public Company Limited's Order No. Kor 31/2562 Re: Charitable Donation and Subsidy

• Transaction with Government Sector

1. Any information to be reported to government officials or regulators must be reviewed so that it is true, accurate and complete. All submissions must be approved by the authorized person.
2. The Company will cooperate with government officials or regulators in providing information, inquiries or reviews.
3. Employees are obliged to notify and request advice from supervisors and authorized persons before accepting requests for information and other requests from government agencies or regulators.

• Prevention of Conflict of Interest

1. All business decisions must consider the best interests for the Company rather than personal ones.
2. All executives and employees must perform their duties to the best of their ability and decide to take any actions related to the business based on the best interests of the Company that are in line with the law and ethics.
3. The practice of all executives and employees must be transparent, not affecting or deteriorating the reputation and credibility of the Company.
4. Do not misuse the resources or names of the Company or cause damage to the reputation and corporate image, either it is intentional or unintentional but with awareness of potential negative impact.
5. Executives and employees do not conduct business that is competitive or has the same nature as the Company.
6. Executives and employees do not accept positions in external agencies or non-profit organizations, unless they notify or are permitted in accordance with relevant regulations. They

are also required to disclose their interests in companies or businesses that are related to and conducting business with the Company.

7. Do not use resources, intellectual property, time or location of the Company for personal gain.
8. Avoid activities that may have an impact on work in any aspect or could cause conflict between personal interests and benefits of the Company. In the case that the employees are involved in any business or incidents that may cause conflict of interests, they must immediately inform their supervisor.
9. Executives and employees do not seek benefits from the information or anything they learn due to their position, duties, and responsibilities.
10. Executives must consider the conflict of interest regarding connected transactions between the Company and its subsidiaries, associates or controllers with discretion, honesty, reasonability and independence based on good ethics and with arm's length principle while also taking into account the best interests of the Company.
11. In any meeting where a meeting attendee has conflict of interest in the matter under consideration, such attendee must temporarily leave the meeting so that other attendees have the chance to consider, analyze, and make comments without the influence of him/her.
12. All executives must prepare a report to disclose their own and related persons' interests in the prescribed form to the organization within the specified time and revise the report when there is a change of interest items.
13. The recruitment of new personnel who are related to the executives and employees of the Company must be treated on transparent and fair manner as those with the same qualifications.

• Compliance with Laws

1. All businesses of the Company must comply with their domestic laws and relevant international laws.

2. All executives and employees must adhere to and seriously respect and comply with relevant laws and regulations.
3. All executives and employees must acknowledge and comply with the requirements of laws and enforceable or applicable regulations to their work responsibilities.
4. All executives and employees must cooperate and treat the regulatory officers professionally with integrity.
5. Executives must include the requirements and regulations that affect the business operations of the Company in the strategic plan and business process.
6. There must be a team with knowledge and expertise in relevant regulations or those who are involved in government work as well as management of compliance risks.
7. All executives and employees are obliged to monitor changes in laws and regulations at all times.

• **Appropriate Giving / Receiving Gift, Receptions and Other Benefits²**

1. The Company deems accepting or giving property or items as a gift/souvenir in line with local customs acceptable. However, the Company does not intend the executives and the employees to accept gift/souvenir that has higher value than normality from related business parties.
2. Appropriate gift and reception giving and receiving for business purposes must not have any significant impact on the decision-making of executives, employees or third parties.

• **Political Neutrality²**

1. The Company will be politically neutral by not taking any actions that take sides or support any political parties or any persons with political power, including not participating in activities of any political parties or groups or politicians whether directly or indirectly, and not allowing political parties to use the

resources and location of the Company for political activities.

2. The Company respects the right and freedom of employees to exercise their political rights such as voting in an election or being a member of a political party, as well as the personal rights of employees to participate in the political activities outside of working hours as appropriate under the conditions that such actions do not represent of the Company and use the employees' own resources.

² More details can be found in

- 1) RATCH Group Public Company Limited's regulation on Anti-Fraud and Corruption B.E. 2562
- 2) RATCH Group Public Company Limited's order No. Kor. 32/2562 Re: Giving and Receiving Gifts and Souvenir
- 3) RATCH Group Public Company Limited's order No. Kor. 28/2562 Re: Reception Fee

• **Prevention of Money Laundering**

Money laundering is a process of concealing illegal money or property, or changing or transferring money or property to be legal, which includes concealing the source of illegal money or property and the use of legal money to support offenses or terrorism.

1. The Company will strictly comply with laws and regulations regarding money laundering prevention.
2. Avoid accepting or engaging in transactions involving money with indication to illegality or avoiding laws.
3. Regularly review the partners and evaluating their integrity as appropriate.
4. Employees are obliged to immediately notify their supervisors if any irregularities in the payment methods or behaviors that indicate dishonesty are found such as paying in currencies other than those specified in the invoice or contract, payment to or from other countries by not specifying clear sources, payment in cash or cash equivalents, payment to people who are not direct partners of the transaction, payment to or from accounts that do not belong to the partners, using many cheques or drafts, etc.

• Fair Trade Competition

1. All executives and employees must study and gain understanding about competition and antitrust laws before any action is taken.
2. All executives and employees must study and examine the laws relating to monopoly before proceeding to acquire and merge business or other related transactions that may reduce or significantly limit free competition in the market.
3. All executives and employees must comply with laws relating to trade competition in the countries in which the Company operates its business and do not show anti-competitive behavior.
4. Do not form an agreement with characteristics that may reduce or limit trade competition or cause unfair competition with competitors or any person. Such characteristic includes pricing, fraudulent bidding, marketing allocation, and agreement to restrict procurement.
5. Be careful about meeting or contacting competitors or do not participate in any agreements that may be deemed a conspiracy on anti-competitive trade.
6. Do not exchange important information that affects trade competition with third parties, especially competitors.
7. Do not accept direct and indirect information from competitors and do not exchange or receive illegal information.
8. Carefully participate in business and trade association activities to avoid exchanging information with competitors.
9. Approval from senior executives must be granted before any information about the Company's trade secret can be given or exchanged with business partners or joint ventures.

• Use of Insider Information³

Insider information means information that has yet to be disclosed to the general public and is deemed as important information that may affect price of the Company's securities. Such information comprises operating results, profit forecast,

dividend payment, new securities issuance, lending, significant changes, liquidity problems, business acquisition, investment, merger, substantial lawsuit, and the board resolution, etc.

Confidential information is not public information but it is information that, if disclosed to the public or falls into the hands of competitors, will cause serious impact to the Company or reduce the Company's competitiveness.

1. All executives and employees have the duty to protect confidential business information of the Company and are prohibited to use the Company's insider information for personal gain, especially to purchase or sell the Company's securities or to advise other to do so.
2. Do not disclose insider information to outsiders or unrelated persons. Prohibited insider information comprises operating results, profit forecast, dividend payment, new securities issuance, lending, significant changes, liquidity problems, business acquisition, investment, merger, substantial lawsuit, and the board resolution, etc.
3. Executives, employees or persons involved with insider information and Company's confidential matters are prohibited to forward such information in all forms to outsiders, including family members, friends, and relatives. They are also forbidden to use insider information to seek illegal benefit or reduced the benefits of the Company.]
4. Confidential insider information can only be provided or shared to insider of the Company as necessary or as relevant to the work of that person.

³ More details can be found in

- 1) RATCH Group Public Company Limited's order No. Kor. 33/2562 Re: Use of Insider Information for Personal Gains
- 2) RATCH Group Public Company Limited's Announcement No. 1/2562 Re: Report on Securities Holding of RATCH Group Public Company Limited

- **Business Operations in Foreign Countries**

1. The Company will comply with laws and regulations in each country in which the Company operates business, while taking into account society, environment, customs, traditions, culture and way of life in each locality.
2. Before traveling abroad, all executives and employees must study the customs, traditions, culture and relevant laws of the destination country.
3. All executives and employees must comply with the law and behave as a good citizen in each locality without contradiction to the Code of Conduct of the Company.
4. Employment of local workers must comply with the local labor laws and must treat local workers with equality and fairness.
5. Employees must regularly report their performance to supervisors.

- **Treatment of Stakeholders⁴**

Treatment of Shareholders

1. The Company is committed to conducting business in order to continuously generate growth and profits for shareholders to receive good returns as well as creating added value to the business which will have a positive impact on the returns to shareholders in a long term.
2. The Company conducts business with care, prudence, honesty, fairness and equality to all shareholders for the maximum benefit of overall shareholders.
3. The Company respects the shareholders' rights to receive necessary information to use in assessing the management of the Company and equally and thoroughly discloses information to shareholders regarding the operating results, financial position and other relevant reports whether they are monetary and non-monetary, as well as future prospects of the organization. Such reports are based on possibility, have sufficient supportive information and are reasonable, regular, complete and accurate, based on fact and in line with internationally accepted standards of domestic and foreign capital markets.

4. The Company has the policy to correctly and completely record accounting transactions in accordance with accounting standards and related laws. The records are reviewed by internal auditors, the Audit Committee and endorsed the Company's independent auditor.
5. Executives and employees at all levels dedicate their knowledge and abilities and apply knowledge and skills in management and operate with their full abilities.

⁴ More details can be found in

- 1) Announcement of the Board of Directors of RATCH Group Public Company Limited No. 1/2562 Re: Corporate Governance Policy of RATCH Group Company Limited's Group
- 2) Announcement of the Board of Directors of RATCH Group Public Company Limited No. 5/2562 Re: Employees Policy
- 3) Announcement of the Board of Directors of RATCH Group Public Company Limited No. 4/2562 Re: Shareholders Policy
- 4) Announcement of the Board of Directors of RATCH Group Public Company Limited No. 6/2562 Re: Social and Environmental Policy

- **Treatment of Employees⁵**

1. The Company prioritizes thorough and regular personnel management and development so that they have knowledge and ability.
2. The Company provides fair remuneration and welfare that is comparable to other leading companies.
3. The Company strictly complies with laws and regulations related to employees.
4. The Company provides a safe and supportive working environment in accordance with the occupational health standards.
5. The Company appoints and transfers, including awards and punishes, employees with equality, honesty, and justice based on each employee's knowledge, ability, and suitability.
6. The Company accepts comments and suggestions that are based on employees' professional knowledge.
7. The Company treats employees with respect to individuality and human dignity.
8. The Company avoids any unfair actions which may affect the stability of the employee's work,

threaten or create pressure on the mental state of the employee.

9. Employees may file a complaint in the event that they do not receive justice from the specified system and process.

• Treatment of Customers

1. The Company is committed to producing and delivering quality products and services, and responsible to customers by striving to continually and seriously raise standards.
2. The Company discloses accurate and complete information about products and services without distorting facts.
3. The Company guarantees products and services under appropriate time condition.
4. The Company arranges systems and procedures so that customers can file complaints about products and services and operating at its best so that customers receive a quick response.
5. All executives and employees must maintain the confidentiality of the customers and do not use the customer's secrets for the benefit of themselves or those involved.
6. All executives and employees do not ask for, accept or pay any illegal benefits while dealing with customers.
7. All executives and employees strictly comply with the conditions with customers. If the conditions cannot be fulfilled, customers must be immediately notified in order to find mutual solution.

⁵ More details can be found in RATCH Group Public Company Limited's Regulation on Human Resources Management B.E. 2562 (1st Revision)

• Treatment of Creditors

1. The Company strictly complies with the conditions with the creditors of the Company.
2. All executives and employees do not ask for, accept or pay any illegal benefits while dealing with the Company's creditors.
3. The Company seriously cooperates in solving the problems of asking for, accepting or

paying any illegal benefits while dealing with creditors.

4. Accurately, completely, punctually and regularly report relevant financial information to the creditors of the Company.
5. In the event that the Company cannot fulfill the conditions, the Company will immediately notify the Company's creditors in advance in order to find mutual solution.

• Treatment of Partners/Suppliers

1. All executives and employees adhere to the principle of maximum benefit to the Company without regard to personal or dissenter's benefits.
2. The Company provides opportunities for partners/suppliers to compete whether they are small businesses or businesses of the underprivileged, minorities, women and disabled veterans.
3. There are competitions from bidders and the selection is fair and appropriate.
4. There are criteria for evaluating and selecting business partners. Contract is prepared in an appropriate and internationally accepted form.
5. Contract management and monitoring system is arranged to ensure complete compliance with the contract's conditions in order to prevent fraud and illegal behaviors at all stages of the procurement process.
6. Develop and maintain sustainable relationships with partners who have clear objectives in terms of technical quality, product and service values that are worth the monetary value and have mutual trust.
7. All executives and employees strictly comply with the conditions that the Company has with the Company's partners under the rules of fair competition.
8. All executives and employees do not ask for, accept or pay any illegal benefits while dealing with the Company's partners.
9. In the event that the Company cannot fulfill the conditions, the Company will immediately notify the partners in advance in order to find mutual solution.

- **Treatment of Trade Competitors**

1. The Company treats trade competitors under the international framework and principles of good competition.
2. All executives and employees do not seek confidential information of trade competitors in a dishonest or inappropriate way.
3. All executives and employees do not accuse against the trade competitors without any ground for the accusation.
4. All executives and employees do not ask for, accept or pay any illegal benefits in trading with the Company's competitors.
5. All executives and employees strictly comply with the conditions with trade competitors.

- **Treatment of Business Partners**

1. All executives and employees are determined to strictly comply with the agreements and commitments that have been made with business partners.
2. Provide business assistance in a manner that facilitates mutual benefits for overall business results while taking into account the best interests of the Company and based on the fair returns to both parties.
3. All executives and employees provide true information and accurate report. Negotiation and solution findings are based on business relationships.

- **Treatment of Government Sector**

1. Support the operation of the government sector and comply with the policies and principles of the relevant regulatory agencies.
2. Promote and encourage cooperation in the activities of government agencies in order to create stability and growth for community and society.

- **Treatment of Communities, Society, and Environment**

1. The Company is committed to conducting business based on responsibility to the communities, society and the environment

and includes them in the Company's mission in order to create and maintain good image and reputation as well as credibility of the organization to gain recognition and trust from the community and overall society. This will lead to business success as well as sustainable development and growth.

2. The Company supports the preparation of projects and activities of the Company and ones that are arranged together with partners that are appropriate and beneficial to the community and society by integrating the organization's strategy and responding to the expectations of the stakeholders.
3. Participate in activities to show responsibility for the community and society in order to enhance the quality of life for stakeholders.
4. Support and assist society and community both at the local and national levels as appropriate.
5. Respect local customs, traditions, culture, and way of life.
6. Cooperate in various activities with the communities in which the Company operates.
7. Utilize natural resources by considering the option that has the least impact on the community and society.
8. Encourage executives and employees of the Company to have good conscience and responsibility to society and the environment.
9. Promote efficient use and conservation of energy for the benefit of future generations.
10. Provide opportunities, support and arrange appropriate systems and processes for communities and stakeholders to participate in projects which may impact on the community, including proposing comments or complaints resulting from the operations of the Company.
11. Cooperate with agencies involved in implementing international standard or agreements on matters that are created to help prevent or mitigate social and environmental impacts.

12. Cooperate with relevant agencies to reduce trash or waste, both from the production process and general usage, including providing trash or waste disposal with proper methods.
13. Assess risks and impacts on matters related to environment, society, health, and safety before investing or joint venturing in any business.

environment, and correctly practice without causing harm to health, property and the environment.

4. If any work is found unsafe or may not comply with safety, occupational health and working environment requirements and standards or found to have an impact on safety, occupational health, and working environment; such work will be temporarily terminated in order to notify coworker, supervisors and the responsible agencies to correct or make correction plan.

Operational Excellence

• Safety, Occupational Health and Working Environment

1. Encourage safety as an important agenda by defining safety, occupational health and working environment requirements and standards with measures that are not less lenient than that prescribed by international standards. Employees must study and strictly comply with the laws, policies, regulations, and standards related to safety, occupational health and working environment.
2. The Company will take actions to control and prevent losses in various forms due to accidents, fire, work-related injuries or illnesses, lost or damages of assets, breaches of security system, improper operations and any mistakes including maintaining a safe working environment for the employees of the Company, providing adequate and appropriate safety equipment, as well as regularly rehearsing safety drills. Executives and employees have the responsibility to report incidents and accidents according to the specified procedure.
3. The Company must provide public relations and communication in order to create knowledge and understanding and disseminate information to employees of the Company, employees of contractors as well as related stakeholders so that they acknowledge and understand the policy, regulations, procedures and precautions about safety, occupational health, and working

• Prevention and Correction of Drug Problem in the Office

1. The Company prioritizes the prevention and solution of drug problems in the office by providing relevant requirements and measures.
2. Employees must participate and be responsible for preventing and solving drug problems in the office.
3. Every supervisor of the Company must act as a good role model and is responsible for monitoring and overseeing drug-related offenses.
4. Cooperate with the government in reporting information, news, and behavior of persons involved with drugs.

• Security

1. The Company prioritizes security in order to prevent damages to life and property of employees and the Company. Regulations, procedures and equipment regarding security are adequately and appropriately provided.
2. Build and maintain a safe working environment including specifying and reporting warning signs of violence in the workplace.
3. The Company will check backgrounds of the employees and the new contractors as permitted by laws to monitor any related terrorism.
4. If any irregularities that may affect the security of the office are found, reports should be made to supervisors or responsible persons.

- **Crisis Management**

1. Establish a crisis management and communication plan to solve an event that has serious consequences to reduce the damage and loss of the Company including reducing risks that may affect the stakeholders of the Company.
2. Regularly review and improve the crisis management and communication plan in order to be timely and suitable for the Company's situation in each period.
3. Integrate with the crisis management and emergency plan of the affiliated Company.
4. Provide knowledge to create understanding for the relevant teams and employees of the Company in order to effectively manage and communicate in crisis situations.

Data Protection and Asset and Financial Supervision of the Company

- **Recording, Reporting and Data Storage**

1. Recording and reporting of Company's information both financial and non-financial must be done honestly, accurately, completely, timely and reasonably.
2. Information that is created or received during work is the property of the Company and must be managed, stored, protected and destroyed in accordance with the requirements.
3. Appropriately store documents and records regarding disputes, conflicts and lawsuits that are being considered for the Company's review, monitor or investigation.
4. Completely store documents, make records including maintaining records, accounting information and evidence documents.
5. Comply with the Company's requirements or regulations related to the storage and destruction of information in the form of documents and electronics.
6. Counterfeiting or creating misleading information is a violation of the Company's integrity and may have a disciplinary offense.

- **Accurate and Credible Accounting Controllorship According to International Standards⁶**

1. Accounting records and the Company's performance reports must be carried out on the basis of accurate, complete information in line with accounting principles and internationally accepted standards and regulations for accounting and financial reporting.
2. Prepare and control financial reports to display all of the Company's assets, capital, and transactions in honest, accurate, complete, timely, reasonable and reviewable manners.
3. Punctually prepare financial information and reports in accordance with the timeline for presentation or reporting to executives, regulators, shareholders and related parties.
4. Monitor the properties of the Company whether they were permanent properties, finance or information to be accurate, complete and that they are completely and accurately recorded.
5. Comply with the Company's policy or regulations related to the length of time to keep and destroy accounting documents and related information.
6. Any accounting control, disbursement, and decision makings must be made on the basis of honesty, transparency, accuracy and can be reviewed.
7. Fully cooperate with the Company's internal audit unit and independent auditor to provide relevant, accurate and complete information.

⁶ More details can be found in RATCH Group Company Limited's regulation on Accounting, Finance and Budgeting B.E. 2562

- **The Company's Assets Utilization and Protection**

1. The Company's assets must be used with care and kept away from being damaged, lost, misused or wasted without any benefits.
2. When the property is damaged or lost, the unit that monitors the property must be immediately notified.

3. Use the Company's properties for the utmost benefit of work and avoid using the Company's properties for personal activities.
4. Protect and do not disclose the Company's confidential information to third parties without permission.

- **Intellectual Property Utilization and Protection**

1. Employees are encouraged to write and publish their writing, books and textbooks in various publications, create computer programs and presentations to disseminate information and use in education. The compensations and copyrights from those works will belong to the employee. However, if the work is assigned by the Company or uses information and resources of the Company or learned from the Company, the Company will own the copyrights and compensation of such work.
2. All employees have the duty to protect the intellectual property of the Company. In the case that the Company's intellectual property is found to be used for personal gain without proper permission, employees must report to the supervisor or the responsible person.
3. The Company only allows employees to use the Company's intellectual property for the benefit of the Company and not for personal use.
4. Access to or use of the right to access to the Company's confidential information or the Company's intellectual property will be terminated immediately after the termination of the employee status.
5. Employees must respect intellectual property rights and avoid using the intellectual property of others. Do not use or copy documents, materials, images, software that are copyrighted by third parties for use in the work without proper permission.

- **Usage and Treatment of Computer Systems, Emails, Internet and Information and Technology Systems of the Company** ⁷

1. Employees are encouraged to use the internet for the benefits of their work. Employees must not act as a disturbance to the Company's computer and internet systems and do not use the Company's computer system to disseminate information that is inappropriate in morality and customs or violates the laws such as damage to reputation and property, pornography, forwarding emails that cause disturbance, annoyance or advertise for business and services other than the Company's business and services and sending spam mail, etc.

⁷ More details can be found in RATCH Group Public Company Limited's announcement No. 2/2562 Re: Policy on Network and Computer Use

2. Use email, internet services, and computer equipment that are authorized by the Company and comply with the requirements and safe usage instructions and for the Company's business purposes only. Upon encountering an incident related to the security, damages or losses of the information technology system, the unit overseeing information technology system must be immediately notified.
3. Employees must work by using computer programs with proper license. Licenses must be checked before performing work on outside computers. Do not install and use computer software without having correct license in the office or on the Company's equipment.
4. Employees must keep their passwords confidential in order to prevent other people from accessing their passwords. They should not use the internet to access unfamiliar websites which may harm the Company's computer systems.
5. In the event that an employee requests permission for other person, such as an employee of the contractor, to use the

Company's information and technology system, that employee must control the person's usage and must be responsible for any damage that may occur to the Company such use of the information system.

6. The Company will inspect, search, track, investigate and control the use of employee information systems to protect the security of the Company's information system as necessary and appropriate.

- **Usage of Insider Information for Securities Trading and/or Providing Securities Trading Advice³**

Insider information means information that has yet to be disclosed to the general public and is deemed as important information that may affect price of the Company's securities. Such information comprises operating results, profit forecast, dividend payment, new securities issuance, lending, significant changes, liquidity problems, business acquisition, investment, merger, substantial lawsuit, and the board resolution, etc.

1. All executives and employees, including their spouses and minor children, are prohibited from using undisclosed information to buy, sell, transfer or accept the transfer of the Company's securities before that information is publicly disclosed.
2. All executives and employees are prohibited from recommending or suggesting any person to buy or sell the Company's stock when they acknowledge or have insider information of the Company.
3. Information that has yet to be disclosed to public can only be given and shared with inside individuals as necessary or relevant to that person.

³ More details can be found in

- 1) RATCH Group Public Company Limited's order No. Kor. 33/2562 Re: Use of Insider Information for Personal Gains
- 2) RATCH Group Public Company Limited's Announcement No. 1/2562 Re: Report on Securities Holding of RATCH Group Public Company Limited

Human Rights

- **The Intention of the Company**

1. Business operations and activities of the Company must strictly consider the international human rights principles. Knowledge and understanding of human rights principles must be provided to employees to implement as part of the operations. Activities that violate international human rights principles are not supported.
2. The Company strictly respects and complies with laws, rules, and regulations enforced in the business in order to ensure that the operations of the Company are safe and responsible to all stakeholders.
3. The Company will treat all stakeholders equitably and fairly without discrimination of race, religion, gender, skin color or social and economic status.
4. The Company will treat employees with respect and respect human dignity, including promoting gender equality within the workplace.
5. The Company will regularly participate in the care and development of the quality of life of the communities surrounding the Company's business areas.
6. The Company will persuade the partners to treat their employees and communities according to international human rights principles.

- **Treatment of Others under the Rights, Freedom and Equality**

1. Protect personal information of the employees that the Company has kept without disclosing, forwarding or transferring to other unrelated persons without the permission of the information's owner. Personal information of employees that is protected includes biographies, health history, work history, and other personal information.
2. Employees must treat each other with respect and honor, including accepting and respecting different opinions.

3. Employees should not express opinions about race, religion, gender, economic, social and education status or any other matters which may lead to conflict.
4. Employees are prohibited from taking any actions to oppress others, either physically or mentally, or use violence or assault or any unfair actions towards other people in the workplace.
5. Employees have the right and freedom to exercise their political rights such as supporting or being political party members, voting in elections, and other political rights.

- **Protection of Privacy and Confidentiality of Information**

1. Sort personal information that is confidential. Limit the access to only those who are properly authorized and have necessity to access that information for business purposes.
2. Fairly and honestly use personal information that one is authorized to access only for specified purpose.
3. Store personal information as necessary according to legal and regulations objectives or business requirements.
4. Recognize the privacy laws in Thailand, especially when transferring personal information out of the original country. Consult with personal right advisors or information protection coordinator to identify legal requirements that must be followed.
5. Personal information and Company's confidential documents are not allowed be disclosed without permission from the Chief Executive Officer or the person assigned by the Chief Executive Officer.
6. Use electronic media with caution and keep the information that is recorded in the computer or other electronic devices safe and private. The Company may track and review the information at any time without prior notice.
7. Storing and destroying personal information and Company's confidential information for an

appropriate period of time in accordance with the terms and conditions of the Company or other related regulations.

Information Disclosure

- **Use of Insider Information for External Communication**

1. The Company complies with the laws, rules, and regulations of relevant regulatory agencies regarding the disclosure of information and the generally accepted international information disclosure standards.
2. The Company will disclose accurate and complete information to stakeholders in a thorough, equal and timely manner.
3. The Company will communicate internal information either financial or non-financial after the information was considered and approved by the Chief Executive Office or the person assigned by the Chief Executive Officer.
4. The Company will not communicate the confidential information of the Company or information that is misrepresented or communicate in the manner of expressing opinions, predictions, and claims beyond the truth.
5. The Company will communicate information to external recipients only through those who are responsible or assigned.

- **Communication with Investors, Analysts and Media**

1. Carefully communicate with investors, analysts and the media. Study and understand about the media and issues related to relevant laws and regulations.
2. Only the Chief Executive Officer and/or the person assigned by the Chief Executive Officer can use information to answer questions from investors, analysts, and the media.
3. The Corporate Relations Division and the Investor Relations Department are required to consider and prepare information or issues

to communicate with reporters, investors or analysts according to their responsibilities.

4. An approval must be granted from Chief Executive Officer before participating in a formal seminar or presentation of financial and non-financial information of the Company.
5. Be careful and do not refer to the Company when giving personal opinions either verbally or on social media to protect and maintain the Company's reputation.
6. Do not provide information or forecast the Company's financial performance unless permitted by the Chief Executive Officer.
7. The Corporate Relations Division and the Investor Relations Department must provide information and communicate with outsiders in accordance with their responsibilities and in the similar direction.
8. For communication of affiliated companies or subsidiaries, if there is any related, linked or mentioned issue to RATCH Group Public Company Limited, such issue must be informed to the Company's Corporate Relations Division for consideration before the communication is made.

• Investor Relations Guidelines

1. Fully perform duties with honesty and professionalism.
2. Disclosing necessary information to all related parties in complete, fair and equal manners.
3. Provide opportunities for all related parties to access and inquire about the information.
4. Perform duties by upholding the benefits of shareholders and stakeholders.
5. Maintain the Company's confidentiality and do not use internal information for personal benefits.
6. Pursue knowledge to improve work efficiency.
7. Do not accept investors or analysts' appointment 10 business days prior to the announcement of operating results.
8. Do not use insider information which has not been disclosed to buy, sell, transfer or accept the transfer of the Company's securities before the information is disclosed to the general public

Environmental Care

• Conservation of Natural Resources

1. Efficiently and effectively use natural resources, materials or equipment.
2. Those involved in the production process and machinery are responsible to oversee, improve and maintain the production process or machinery to meet the prescribed standards to reduce the use of natural resources and pollution emissions.
3. Define relevant and appropriate measures to conserve natural resources and biodiversity and preserve natural resources for sustainable benefits.
4. Respond to the impacts of the Company's operations on natural resources and biodiversity in a timely manner and ensure that the measures taken can actually correct and prevent impacts in terms of environment, economic and society.

• Handling Global Climate Change

1. Recognize the problems and impacts of climate change caused by the operations of the Company.
2. Reduce greenhouse gas emissions by controlling electricity generating that preserves the highest efficiency as well as promoting energy conservation measures or activities inside and outside the Company.
3. Increase greenhouse gas storage by activities to support forest area conservation, increase green areas or other measures.
4. Create knowledge and understanding with related parties to jointly and efficiently manage greenhouse gas.
5. Prepare to handle and respond to climate change that may occur in the future, such as water management and flood support, etc.

- **Attachment 6**

Audit Committee Report

RATCH disclosed the information on the Audit Committee in Form 56-1 One Report, Page 17

Information of Companies RATCH Invests In

As of 31 December 2021

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
23 subsidiaries						
1. Ratchaburi Electricity Generating Company Limited 128 Moo 6, Phikunthong Subdistrict, Muaeng District, Ratchaburi 70000 Tel: 0 2978 5111, 0 3271 9185 ext. 3762 Fax: 0 2978 5110, 0 3271 9185 ext. 3204 2nd Branch Office 39 Moo 5, RatchaburiHuayphai Road, Hin Kong Subdistrict, Muang Ratchaburi, Ratchaburi 70000 Tel: 0 3271 9000 Fax: 0 3271 9090	99.99	Generating and distributing electric power and investing in electricity-related businesses	BHT 21,900 million	2,190 million	BHT 10	BHT 21,900 million
2. Ratchaburi Alliances Company Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 0 2794 9999 Fax: 0 2794 9998	99.99	Investing in electricity-related businesses	BHT 420.20 million baht	42.02 million	BHT 10 baht	BHT 420.20 million baht
3. Ratchaburi Energy Company Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 0 2794 9999 Fax: 0 2794 9998	99.99	Investing in electricity-related businesses	BHT 640 million baht	64 million	BHT 10 baht	BHT 640 million baht
4. RH International Corporation Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 0 2794 9999 Fax: 0 2794 9998	99.99	Investing in electricity-related businesses	BHT 32,650 million	3,265 million	BHT 10 baht	BHT 27,130 million
5. RATCH O&M Company Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 0 2794 9999 Fax: 0 2794 9998	99.99	Providing power plant operation and maintenance service	BHT 10 million	1 million	BHT 10 baht	BHT 2.5 million

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
6. RATCH-Lao Services Company Limited 187 Unit 12 Phonsa-art Village; Xaysettha District; Vientiane, Lao PDR Tel: +856 21 454 074 Fax: +856 21 454 075	99.99	Operating power plant operation and maintenance services as well as investing in electricity and infrastructure businesses	144,875 million kip	15.25 million	9,500 kip	104,273.42 million kip
7. RATCH Cogeneration Company Limited 8/22 Moo 18, Klongnueng, Klongluang, Pathumthani 12120 Tel: 0 2529 1711	99.97	Generating and distributing electric power and steam	Common shares: BHT 479.34 million Preferred shares: BHT 1,170.66 million	4.793 million common shares 11.706 million preferred shares	BHT 100	Common shares: BHT 479.34 million Preferred shares: BHT 1,170.66 million
8. RE Solar 1 Company Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 0 2794 9999 Fax: 0 2794 9998	99.99 (Held by Ratchaburi Energy Company Limited)	Generating and distributing electric power	BHT 100 million	10 million	BHT 10	BHT 25 million
9. Smart Infranet Company Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 0 2794 9999 Fax: 0 2794 9998	51	Investing in domestic fiber optic installation and commercial fiber optic services	BHT 550 million	55 million	BHT 10	BHT 550 million
10. Hin Kong Power Holding Company Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 0 2794 9999 Fax: 0 2794 9998	51	Investing in electricity-related businesses	BHT 3,652 million	365.20 million	BHT 10	BHT 917.20 million
11. Hin Kong Power Company Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 0 2794 9999 Fax: 0 2794 9998	51 (Held by Hin Kong Power Holding Company Limited)	Generating and distributing electric power	3,624 million	362.40 million	BHT 10	909 million

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
12. SAHACOGEN (Chonburi) Public Company Limited 636 Moo 11 Sukhaphiban 8 Road, Nongkham Subdistrict, Sri Racha, Chonburi 20230 Tel: (038) 481 555	51	Generating and distributing electric power and steam	BHT 1,163.70 million	1,163.70 million	BHT 1	BHT 1,163.70 million
13. RH International (Mauritius) Corporation Limited 4 th Floor, Ebene Skies, Rue de L'Institut, Ebene, the Republic of Mauritius	100 (Held by RH International Corporation Limited)	Investing in overseas electricity-related businesses	USD 833.33 million	833.33 million	USD 1	USD 833.33 million
14. RH International (Singapore) Corporation Pte. Ltd. 8 Marina Boulevard #05-02 Marina Bay Financial Centre Tower 1, Singapore 018981	100 (Held by RH International (Mauritius) Corporation Limited)	Investing in overseas electricity-related businesses	USD 832.83 million	832.83 million	USD 1 million	USD 832.83 million
15. RATCH China Power Company Limited 14 th Floor, One Taikoo Place 979 King's Road, Quany Bay, Hong Kong	100 (Held by RH International (Singapore) Corporation Pte. Ltd.)	Investing in overseas electricity-related businesses	USD 12,000	0.012 million	USD 1	USD 12,000
16. RATCH-Australia Corporation Pty Ltd Level 7, 111 Pacific Highway, North Sydney, NSW 2060, Australia Tel: +61 2 8913 9400 Fax: +61 2 8913 9423	100 (Held by RH International (Singapore) Corporation Pte. Ltd.)	Developing and operating power plants and invest in electricity-related business	839.81 million Australian dollar	1,498.11 million	-	839.81 million Australian dollar
17. RATCH & AIDC Wind Energy Pte. Ltd. 11 Collyer Quay #06-03 the arcade Singapore 049317	63.80 (Held by RH International (Singapore) Corporation Pte. Ltd.)	Investing in overseas electricity businesses	USD 10.63 million	10.63 million	USD 1	USD 10.63 million
18. Ecowin Energy Corporation Land lot No. 137, Map No. 02, Thanh Thoi B Hamlet, Thanh Hai Commune, Thanh Phu District, Ben Tre Province, Vietnam.	51.04 (Held by RATCH & AIDC Wind Energy Pte. Ltd.)	Generating and distributing electric power	0.289 trillion Vietnamese dong	2.89 million	100,000 dong	0.289 trillion Vietnamese dong
19. Fareast Renewable Development Pte. Ltd. 16 Raffles Quay Hong Leong Building # 40-02 Singapore 048581	90 (Held by RH International (Singapore) Corporation Pte. Ltd.)	Investing in overseas electricity-related businesses	USD 87.80 million	33.86 million	USD 1 for 19.80 million and USD 4.84 for 14.06 million	USD 87.80 million

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
20. PT Bajradaya Sentranusa Dharmawangsa Raya No. 23, Jakarta, Indonesia	47.89 (Held by Fareast Renewable Development Pte. Ltd.)	Generating and distributing electric power	USD 135.74 million	1.06 million	USD 130.16	USD 135.74 million
21. Yandin WF Holdings Pty Limited Level 13, 225 George Street, Sydney, NSW 2000, Australia	70 (Held by RATCH-Australia Corporation Pty Ltd)	Generating and distributing electric power	120.62 million Australian dollars	121.22 million units and 100 shares	0.995 Australian dollars per unit	120.62 million Australian dollars
22. Sahacogen Green Company Limited 88 Village No. 5, Pasak, Mueang Lamphun, Lamphun 51000 Tel: (053) 537 444	99.99 (Held by Sahacogen (Chonburi) Public Company Limited)	Invest in business produce and distributing electric power and steam	BHT 1,520.00 million	152.00 million	BHT 10	BHT 1,520.00 million
23. Saha Green Forest Co., Ltd. 88 Moo 6, Kui Ban Ong, Phran Kratai, Kamphaeng Phet 62110 Tel: (055) 858 033	75 (Held by Sahacogen (Chonburi) Public Company Limited)	Invest in business produce and distributing electric power	BHT 190.00 million	19.00 million	BHT 10	BHT 190.00 million
42 affiliates, with direct and indirect investment						
1. Chubu Ratchaburi Electric Service Company Limited 128 Moo 6 Pikunthong, Muang Ratchaburi, Ratchaburi 70000 Tel: 0 3271 9300 Fax: 0 3271 9309	50	Providing power plant operation & maintenance service	BHT 20 million	0.40 million	BHT 50	BHT 20 million
2. SouthEast Asia Energy Limited 587 Viriyathavorn Building, 20 th Floor, Suthisarn Vinijchai Road, Din Daeng, Bangkok 10400 Tel: 0 2691 9720-34 Fax: 0 2691 8307	33.33	Investing in energy-related businesses	BHT 6,606.75 million	660.675 million	BHT 10	BHT 6,606.75
3. Xe-Pian Xe-Namnoy Power Company Limited 6 th Floor, Capital Tower, 23 Singha Road, Nongbone Village, Xaysettha District, Vientiane, Lao PDR Tel: +856 21 455 025 Fax: +856 21 455 025	25	Generating and distributing electric power	USD 306 million	3.06 million	USD 100	USD 306 million

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
4. Things on Net Company Limited 170/63, 20 th Floor, Ocean Tower 1, Sukhumvit Soi 16 (Sammit), Ratchadapisek Road, Klongtoey, Bangkok 10110 Tel: 0 2661 9922	35	telecom networks to serve domestic businesses relating to Internet of Things(IoT)	BHT 133 million	13.3 million	BHT 10	BHT 133 million
5. NEXIF RATCH ENERGY SINGAPORE PTE. LTD. Singapore Office (Headquarters) 1 Raffles Quay, #36-02 North Tower, Singapore 048583 Tel: +65 6302 912	49	Investing in energy-related businesses	USD 34.67 million	34.67 million	USD 1	USD 34.67 million
6. R E N Korat Energy Company Limited 72, Ngamwongwan Road, Bangkhen, Muang Nonthaburi, Nonthaburi 11000 Tel: 027949999	40	Generating and distributing electric power and steam	BHT 300 million	30 million	BHT 10	BHT 300 million
7. INNOPOWER Company Limited 53 Moo 2 Charansanitvongse Road, Bang Kruai Subdistrict, Bang Kruai, Nonthaburi 11130 Tel: 0 2436 4100	30	Investing in commercial innovation and invention as well as future energy	BHT 600 million	6 million	BHT 100	BHT 150 million
8. Ratchaburi World Cogeneration Company Limited 155/115 Ratchaburi Industrial Estate, Moo 4, Tambon Chetsamian, Photharam District, Ratchaburi 70120 Tel: 0 3291 9990 Fax: 0 3291 9998 Branch Office (1) 155/116 Ratchaburi Industrial Estate, Moo 4, Tambon Chetsamian, Photharam District, Ratchaburi 70120 Branch Office (2) 155/117 Ratchaburi Industrial Estate, Moo 4, Tambon Chetsamian, Photharam District, Ratchaburi 70120	40 (Held by Ratchaburi Electricity Generating Company Limited)	Generating and distributing electric power and steam	BHT 2,500 million	250 million	BHT 10	BHT 2,500 million
9. Nava Nakorn Electricity Generating Company Limited 111 Moo 20 Phaholyothin Road, Tambon Khlon Nueng, Khlong Luang District, Pathum Thani 12120	40 (Held by Ratchaburi Electricity Generating Company Limited)	Generating and distributing electric power and steam	BHT 2,000 million	200 million	BHT 10	BHT 2,000 million

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
10. Berkprai Cogeneration Company Limited 302 S&A Building 2 nd Floor, Silom Road, Suriyawong, Bangkok Tel.: 0 2978 5380 Fax: 0 2978 5080 ต่อ 5380	35 (Held by Ratchaburi Electricity Generating Company Limited)	Generating and distributing electric power and steam	BHT 1,331 million	133.10 million	BHT 10	BHT 1,331 million
11. Solarta Company Limited 72, Ngamwongwan Road, Bangkok, Muang Nonthaburi, Nonthaburi 11000 Tel.: 0 2978 5200 Fax: 0 2978 5080 ต่อ 5200	49 (Held by Ratchaburi Energy Company Limited)	Generating and distributing electric power	BHT 1,320 million	13.20 million	BHT 10	BHT 1,100 million
12. Songkhla Biomass Company Limited 56 Moo 3 Tambon Khuntadwai, Chana District, Songkhla Tel.: 0 7489 0754-5 Fax: 0 7489 0757	40 (Held by Ratchaburi Energy Company Limited)	(Held by Ratchaburi Energy Company Limited)	BHT 246 million	2.46 million	BHT 100	BHT 246 million
13. Songkhla Biofuel Company Limited 1842 Bangkok-Nonthaburi Road, Wongsawang, Bang Sue District, Bangkok 10800 Tel.: 0 2910 9700 Fax: 0 2910 9713	40 (Held by Ratchaburi Energy Company Limited)	Biomass fuel supply	BHT 1 million	0.01 million	BHT 100	BHT 1 million
14. Ratchaburi Power Company Limited 1828 Sukhumvit Road, Phra Khanong Tai, Phra Khanong District, Bangkok 10260 Tel.: 0 2311 5111 Fax: 0 2332 3882	25 (Held by Ratchaburi Alliances Company Limited)	Generating and distributing electric power	BHT 7,325 million	73.25 million	BHT 100	BHT 7,325 million
15. PT Medco Ratch Power Riau The Energy Building, 7th Floor, SCBD Lot 11A, Jl. Jenderal Sudirman Kav. 52-53, South Jakarta 12190, Indonesia	49 (Held by RH International (Singapore) Corporation Pte.)	Generating and distributing electric power	12,000 Million Indonesian rupiah	12 million	1,000 Indonesian rupiah	3,000 Million Indonesian rupiah
16. . Hongsa Power Company Limited Sisattanak District, Vientiane Capital City, Lao PDR Tel.: +856 21 223 911 Fax: +856 21 222 089	40 (Held by RH International (Singapore) Corporation Pte. Ltd.)	Generating and distributing electric power	USD 927 million	92.70 million	USD 10	USD 927 million
17. Phu Fai Mining Company Limited Sisattanak District, Vientiane Capital City, Lao PDR Tel.: +856 21 223 911 Fax: +856 21 222 089	37.50 (Held by RH International (Singapore) Corporation Pte. Ltd.)	Coal mining	USD 0.05 million	0.005 million	USD 10	USD 0.05 million

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
18. An Binh Energy and Infrastructure Fund Floor 12, Geleximco Building, No.36 Hoang Cau Street, O Cho Dua Ward, Dong Da District, Hanoi City, Vietnam	49 (Held by RH International (Singapore) Corporation Pte. Ltd.)	Investing in energy and infrastructure businesses	3.63 trillion Vietnamese dong	363.09 million	10,000 Vietnamese dong	3.63 trillion Vietnamese dong
19. Nexif Energy Bt Pte. Ltd. 1 Raffles Quay, #36-02, North Tower, Singapore	50 (Held by RH International (Singapore) Corporation Pte. Ltd.)	Investing in energy and infrastructure businesses	USD 14.39 million	14.39 million	USD 1	USD 14.39 million
20. Asia Water Co., Ltd. NNN Building 5 th Floor Buri Chan Road, Ban Phonsinuan, Sisattanak District, Vientiane, Lao PDR	40 (Held by RATCH-Lao Services Company Limited)	Tap water supply	100,800 million kip	12 million	8,400 kip	100,800 million kip
21. SIPHANDONE-RATCH LAO Co., Ltd. 187 Unit 12, Ban Phonsaarth, Avenue Kaysone Phomvihane, Xaysettha District, Vientiane Capital, Lao PDR Tel.: +856 21 454 696 Fax: +856 21 454 075	25 (Held by RATCH-Lao Services Company Limited)	Manufacturing wood pellets	75,818 million kip	7.582 million	10,000 kip	33,246.96 million kip
22. First Korat Wind Company Limited 87 /1 Capital Tower, All Seasons Place 25 th Floor, Wireless Road, Lumpini, Pathumwan, Bangkok 10330 Tel.: 0 2106 8000 Fax: 0 2106 8008	20	Generating and distributing electric power	BHT 1,996.02 million	199.602 million	BHT 10	BHT 1,996.02 million
23. K.R.Two Company Limited 87 /1 Capital Tower, All Seasons Place 25 th Floor, Wireless Road, Lumpini, Pathumwan, Bangkok 10330 Tel: 0 2106 8000 Fax: 0 2106 8008	20	Generating and distributing electric power	BHT 1,827 million	182.70 million	BHT 10	BHT 1,827 million
24. Northern Bangkok Monorail Company Limited 21 Soi Chueyphuang, Vibhavadi-Rangsit Road, Jomphol, Chatuchak district, Bangkok Tel: 0 2273 8511-5 Fax: 0 2273 8516	10	Mass transit business	BHT 14,400 million	144 million	BHT 100	BHT 14,400 million

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
25. Eastern Bangkok Monorail Company Limited 21 Soi Chueyphuang, Vibhavadi-Rangsit Road, Jomphol, Chatuchak district, Bangkok Tel: 0 2273 8511-5 Fax: 0 22730 8516	10	Providing transport, shipment, electric train, transport-related and other supporting services	BHT 14,400 million	144 million	BHT 100	BHT 14,400 million
26. Bangkok Aviation Fuel Services Public Company Limited 171/2 Kamphaeng Phet 6 Road, Don Mueang, Don Mueang, Bangkok 10210 Tel: 0 2834 8900	15.53	Providing aircraft fueling service	BHT 637.50 million	637.50 million	BHT 1	BHT 637.50 million
27. Solar Power (Korat 3) Company Limited 1 Capital Work Place 4 th floor, Soi Jamchan, Khlong Ton Nua, Wattana District, Bangkok 10110 Tel: 0 2011 8111 Fax: 0 2011 8112	40 (Held by Ratchaburi Energy Company Limited)	Generating and distributing electric power	BHT 188.75 million	18.87 million	BHT 10	BHT 188.75 million
28. Solar Power (Korat 4) Company Limited 1 Capital Work Place 4 th floor, Soi Jamchan, Khlong Ton Nua, Wattana District, Bangkok 10110 Tel: 0 2011 8111 Fax: 0 2011 8112	40 (Held by Ratchaburi Energy Company Limited)	Aviation fuel service	BHT 199.25 million	19.925 million	BHT 10	BHT 199.25 million
29. Solar Power (Korat 7) Company Limited 1 Capital Work Place 4 th floor, Soi Jamchan, Khlong Ton Nua, Wattana District, Bangkok 10110 Tel: 0 2011 8111 Fax: 0 2011 8112	40 (Held by Ratchaburi Energy Company Limited)	Generating and distributing electric power	BHT 188.75 million	18.875 million	BHT 10	BHT 188.75 million
30. Perth Power Partnership Level 33, Rialto South Tower, 525 Collins Street, Melbourne, Victoria, 3000, Australia	30 (Held by RATCH-Australia Corporation Pty Ltd)	Generating and distributing electric power	70.83 million Australian dollars	-	-	70.83 million Australian dollars
31. An Binh Investment Group Joint Stock Company Floor 6, Geleximco Building, No. 36 Hoang Cau Street, O Cho Dua Ward, Dong Da District, Hanoi City, Vietnam	49 (Held by An Binh Energy and Infrastructure Fund)	Investing in energy-related and infrastructure businesses	1.716 trillion Vietnamese dong	171.60 million	10,000 dong	1.716 trillion Vietnamese dong

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
32. Thang Long Power Plant Joint Stock Company Le Loi Commune, Ha Long City, Quang Ninh Province, Vietnam	22.05 (Held by An Binh Investment Group Joint Stock Company)	Generating and distributing electric power	3.80 trillion Vietnamese dong	3,800 million	10,000 dong	3.80 trillion Vietnamese dong
33. Nam Ngum 2 Power Company Limited 215 Lan Chang Road, Ban Chiang Yuen, Chantaburi Province, Vientiane, Lao PDR Tel: +856 21 251 718 Fax: +856 21 252 060	25 (Held by SouthEast Asia Energy Limited)	Generating and distributing electric power	BHT 8,809 million	880.90 million	BHT 10	BHT 8,809 million
34. Nexif RATCH Energy Rayong Company Limited 142 Two Pacific Place Floor 23 # 2301, Sukhumvit Road, Khlong Toey District, Bangkok 10110	49 (Held by NEXIF RATCH ENERGY SINGAPORE PTE. LTD.)	Generating and distributing electric power	BHT 1,181.05 million	118.11 million	BHT 10	BHT 1,109.50 million
35. Nexif Energy Ben Tre One Member Company Limited Unit D34, Hung Phu Urban Area, Nguyen Thi Dinh Street, Phu Tan District, Ben Tre City, Ben Tre Province, Vietnam	50 (Held by Nexif Energy Bt Pte. Ltd.)	Generating and distributing electric power	276,000 million Vietnamese dong	-	-	276,000 million Vietnamese dong
36. IMPACT Solar Co., Ltd. 999/9 The Office Building at Central World, Floor 45, Rama 1 Road Pathum Wan, Pathum Wan, Bangkok 10330 Tel: 02 825 9292	10.71 (Held by Sahacogen (Chonburi) Public Company Limited)	Motor manufacturing electric and machine generator	BHT 563.00 million	56.30 million	BHT 10	BHT 563.00 million
37. EGAT Diamond Service Company Limited 56/25 Moo 20 Klong Neung, Klong Luang, Pathumthani 12120 Tel: 0 2529 0800 Fax: 0 2529 0900	10	Providing power plant's gas turbine maintenance service	BHT 623 million	6.23 million	BHT 100	BHT 623 million

Company/Location	Shareholding (%)	Type of business	Registered capital	Common shares	Par value	Paid-up capital
38. EDL-Generation Public Company Lao-Thai Friendship Road, P.O. Box 2392, Thongkang Village, Sisattanak District, Vientiane, Lao PDR Tel: +856 21 316 142 Fax: +856 21 316 141 Website: www.edlgen.com.la	10.11 (5.65% held by RATCH-Lao Services Company Limited and 4.46% by RH International (Singapore) Corporation Pte. Ltd.)	Generating and distributing electric power	6,717,214.79 million kip	1,679.304 million	4,000 kip	6,717,214.79 million kip
39. BGSR 6 Company Limited 21 Soi Chueyphuang, Vibhavadi Rangsit, Chom Pon, Chatuchak, Bangkok 10900 Tel: 0 2273 8511-5 Fax: 0 2273 8516	10	Bidding for government contracts on the designing, construction, civil works maintenance and installation of toll-collection system for intercity highways	BHT 1,000 million	100 million	BHT 10	BHT 1,000 million
40. BGSR 81 Company Limited 21 Soi Chueyphuang, Vibhavadi Rangsit, Chom Pon, Chatuchak, Bangkok 10900 Tel: 0 2273 8511-5 Fax: 0 22730 8516	10	Bidding for government contracts on the designing, construction, civil works maintenance and installation of toll-collection system for intercity highways	BHT 850 million	85 million	BHT 10	BHT 850 million
41. Principal Capital Public Company Limited 23 rd Floor Bangkok Business Center Building, 29 Sukhumvit 63, Klongton Nua, Wattana, Bangkok Tel: 0 2714 2171-3 Fax: 0 2714 2185	10	Investing in hospital business	BHT 3,808.57 million	3,808.57 million	BHT 1	BHT 3,808.57 million
42. Bangkok Chain International (Lao) Company Limited 999, 450 years Road, Donnokkhoum Village, Sissatanak District, Vientiane, the Lao PDR	9.91 (Held by RATCH-Lao Services Company Limited)	Investing in hospital business	133,200 million kip	66.60 million	2000 kip	133,200 million kip







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