

# STABILITY THRU DYNAMIC CHALLENGE

ELECTRICITY GENERATING PUBLIC COMPANY LIMITED



ANNUAL REPORT  
**2020**

  
**EGCO**  
GROUP

# VISION

To be a major

**sustainable  
Thai energy**

company

with full commitment to environment  
protection and social development support

# MISSION

1

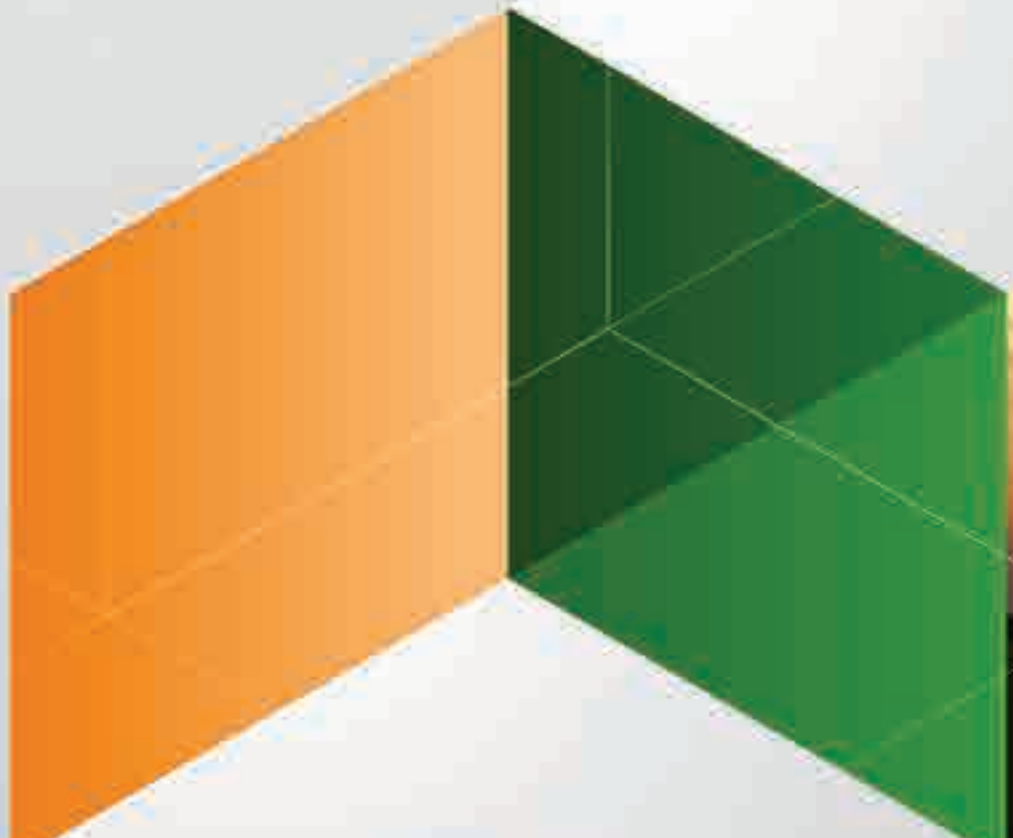
To secure continuous  
growth in order to maximize  
shareholder's value

2

To offer reliable energy  
supply & services

3

To be a good corporate citizen  
and be considerate to society  
and environment





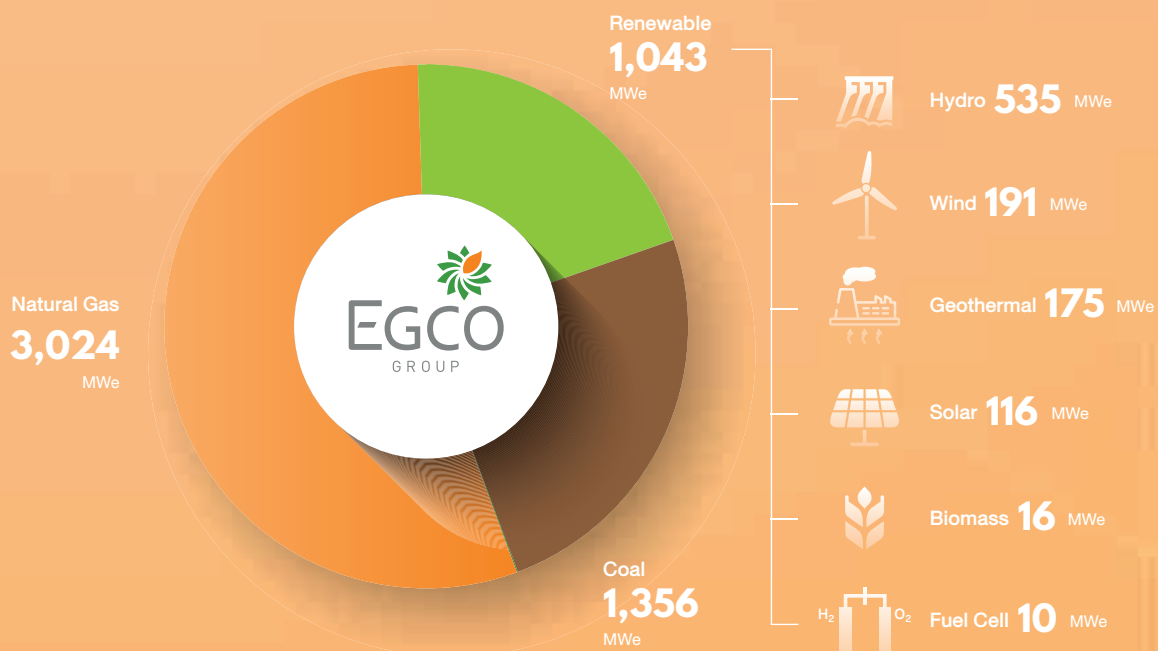


# EXPERTISE IN FUEL DIVERSIFICATION

We optimize our power business portfolio by diversifying to various kinds of fuels and energy sources. The balance we have achieved enables us to generate a maximum of 5,423 megawatts.

Maximum Generation Capacity

**5,423**  
megawatts









# VALUE CREATION AND REVENUE GROWTH

We leverage our strength and potential to increase our investment in power generation and energy-related businesses. We also seek opportunities to expand into fuel and infrastructure businesses, including smart energy solutions, to foster steady growth and enhance our competitiveness amid the challenges of the electric power industry.

## INVESTMENT DIRECTION

### FUEL AND OTHER INFRASTRUCTURE



#### Focus Area:

- LNG Value Chain
- Smart Industrial Estate
- Gas Processing & Liquefaction
- Regasification
- Fuel Pipeline & Transportation
- Other Infrastructure

### POWER GENERATION



#### CONVENTIONAL



#### RENEWABLE

### SMART ENERGY SOLUTION



#### Focus Area:

- Solar Solution Provider
- Energy Storage System
- Microgrid Components
- Energy Management System
- Data Center

VALUE INTEGRATION



# ENVIRONMENTAL, SOCIAL, AND GOVERNANCE MANAGEMENT



We operate our business sustainably with regard to the environment, society, and governance. We believe that good end results only come from good sources.



We improve the quality of life of communities around our power plants.



We promote youth's energy and environmental conservation education.



We protect and restore biodiversities, ecosystems, and watershed forest.





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# Message from the Chairman of the Board of Directors and the President

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The year 2020 posed unprecedented challenges not only for Thailand but the entire world. Global COVID-19 outbreaks forced every country, business, and household to adapt to atypical routines, examine and learn from their mistakes, and overcome unparalleled obstacles to embrace change.

EGCO Group was able to adapt quickly to the new normal and continue operating. The pandemic had a minimal impact on our activities. For instance, we had to lower our power plants' dispatch because there was less demand for electricity in various countries. Meanwhile, some of our power plants had to postpone their scheduled maintenance due to restrictions on people's movements and the subsequent logistical issues. Nonetheless, our overall business remained largely uninterrupted, and our value chain maintained its efficiency, which we owed to the always-up-to-date business continuity plans (BCP) for our head office and power plants. At present, all EGCO Group power plants in Thailand and overseas continue to operate commercially and feed a constant supply of electricity smoothly to the grid.

As for the progress of projects under construction, there were some delays; however, we still expect most of these projects to be completed on time, thanks to their excellent risk management measures. In terms of new investment opportunities, we redefined EGCO Group's scope of business in light of the current trends. Although we are still focused on energy products and services, including our power generation core business, we intend to seek new investment opportunities in downstream energy businesses to create value-added and support our overall operations. We are also open to new spheres of investment outside of Thailand and Asia-Pacific.

Despite the many tests and trials, we regard 2020 as another fruitful year for EGCO Group's investments. We kicked off commercial operations of our 9.7-megawatts Gangdong fuel-cell power plant in South Korea; acquired a 25% stake in Taiwan's 640-megawatt Yunlin offshore wind farm; secured credit to develop an oil pipeline extension in Northeastern Thailand; and struck a deal with our EGAT Group associates to develop the Quang Tri 1 Thermal Power Plant in Vietnam.

Firmly believing that sustainability is the foundation of growth and advancement, EGCO Group has always operated sustainably. We have supported the United Nations' Sustainable Development Goals (SDGs) directly and indirectly and incorporated as many as five SDGs in our action plan—namely, SDG 3. Good Health and Well-Being; SDG 7. Affordable and Clean Energy; SDG 8. Decent Work and Economic Growth; SDG 9. Industry, Innovation, and Infrastructure; and SDG 13. Climate Action. In 2020 EGCO was finally recognized on a global stage: We became Thailand's first power company to be named a member of the Dow Jones Sustainability Emerging Markets Index (DJSI Emerging Markets index, Electric Utilities industry group). This was our first year as a member.

EGCO Group's sustainable operations are focused on building growth on a foundation of good corporate governance, transparency, and accountability. Moreover, we are committed

to our role in society as a good corporate citizen. Our symbiosis relationship with the environment, communities, and society creates value-added to all stakeholders. Our efforts to this end extend internally and externally. Within our organization, honesty and responsibility are integral parts of our corporate culture. We teach our employees to value every stakeholder through a series of awareness campaigns and practical guidance. With these efforts prevailing throughout every business process, we aim to minimize any adverse impact and increase our positive footprint on the environment, communities, and society. Outside of our premises, we encourage our employees to volunteer themselves in projects for environmental, community, and social betterment at local and national levels. We also urge them to abide by governance principles when interacting with external parties.

### Employees

For employees' health and safety and in contribution to the fight to slow the spread of COVID-19, EGCO Group announced that employees at the headquarters would work from home. We provided all the necessary hardware and software to facilitate their full-time online schedule to ensure optimum efficiency. We even obtained COVID-19 group health insurance coverage for all of our employees.

### Communities

We carried out 86 projects aimed at improving the quality of life around our power plants. This past year our Khanom Power Plant initiated the **Khanom Model** to mitigate the adverse social and economic impacts of COVID-19 on surrounding communities. The model generated local jobs and income, as well as contributed to better health and environments, through organic farming.

### Society

To create an uninterrupted learning experience under the concept "**Stop the Disease, Never Stop Learning**," we created a **virtual tour of the Khanom Power Plant Learning Center**. This online platform allows youth and the general public, regardless of the time and place, to access the center's knowledge about electricity and our mutually beneficial coexistence with communities, society, and the environment.

### The Environment

We continued to protect and restore biodiversity, ecosystems, and forested watersheds. For instance, we launched a **project to survey the biodiversity around Khanom Power Plant**. Moreover, the Thai Rak Pa Foundation, a charitable organization founded and supported by EGCO Group, handed off the restored **Kew Mae Pan Nature Trail** to the Department of National Parks, Wildlife, and Plant Conservation to serve as Thailand's most notable source of knowledge about forested watershed ecosystems. EGCO Group had pioneered and developed this trekking route with Doi Inthanon National Park for more than 20 years.

Furthermore, to help Thai medical professionals and Thai people fight against COVID-19 outbreaks, EGCO Group donated 30 million baht in funding and medical equipment to regional medical centers, local health clinics, and communities around its power plants nationwide through the Ministry of Public Health.

In spite of the global health crisis and its wide-ranging implications, EGCO Group proved its sustainability performance excellence in 2020, which many prominent agencies recognized. The Stock Exchange of Thailand included us on its **Thailand**

Sustainability Investment (THSI) List for the sixth consecutive year. We garnered a Sustainability Disclosure Award from Thaipat Institute, earned a score of 96 or “Excellent” in the Corporate Governance Report of Thai Listed Companies (CGR) of the Thai Institute of Directors, and received 97.50 points on the **ASEAN CG Scorecard** in the ASEAN Asset Class PLCs category. In addition, our Khanom Power Plant was presented with two of the Prime Minister’s Industry Awards from the Ministry of Industry: one for environmental quality conservation and another for safety management.

Our successes throughout 2020 can be attributed to the advocacy and policy support from the Board of Directors, the drive from our senior management, the cooperation of all employees, and the collaboration of all stakeholders. Together we continue to work toward the common goal of developing EGCO into a sustainable organization of international renown, leading to economic, social, and environmental growth. Under good corporate governance, we will generate good long-term returns on investment for our shareholders and strike a sustainability balance despite the challenges of today and tomorrow.

On behalf of the Board of Directors, management, and employees, we would like to express our heartfelt gratitude to our shareholders, investors, suppliers, customers, communities, and stakeholders for their continued support throughout these difficult times. We believe that EGCO Group will continue to withstand the storm and grow even stronger than ever before.



**MR. KULIT SOMBATSIRI**

Chairman of the Board of Directors



**MR. THEPPARAT THEPPITAK**

President





## SECTION 1

# BUSINESS OPERATION AND PERFORMANCE

# About This Report



GRI

102-45, 102-50, 102-51,  
102-52, 102-53, 102-54

In 2020, the Electricity Generating Public Company Limited (EGCO Group) firstly published our annual report in the form of 'One Report', an integration of Annual Registration Statement (form 56-1), Annual Report (form 56-2), and Sustainability Report, which reports EGCO Group's operation in the aspect of sustainable business development in accordance with all stakeholders. This report includes the Company's performance from January 1 to December 31, 2020, in compliance with the report requirements of the Securities and Exchange Commission, as well as other guidelines, such as Thai Institute of Directors' Corporate Governance, and ASEAN Corporate Governance Scorecard (ASEAN CG Scorecard) etc.

This 'One Report' was written in accordance with the Integrated Report Framework of the International Integrated Reporting Council (IIRC), Global Reporting Initiative Standards' (GRI Standards)-Core Options, and GRI's G4 Electric Utilities sector-specific disclosure criteria. Additionally, the objective and performance data were also set to be fully in line with the United Nations' Sustainable Development Goals (SDGs). The performance data, relating to economy, social, and environment, covers the companies under EGCO Group's operational control both in Thailand and overseas, equal to 88% of the total revenue. The data collected has been audited by a third-party organization to ensure it is accurate, reliable, and transparent reporting.

EGCO Group welcomes feedback and suggestions for the improvement of our operations, maximizing the efficiency, and growing sustainably in tandem with our stakeholders. Feedback and suggestions are accepted through the following channels

## Communication Channels:


[www.egco.com](http://www.egco.com)

[Sustainability@egco.com](mailto:Sustainability@egco.com)


Corporate Planning Division  
Electricity Generating Public Company Limited (EGCO)  
EGCO Tower, 14<sup>th</sup>, 15<sup>th</sup> Floor,  
222 Vibhavadi-Rangsit Rd., Tungsonghong, Laksi,  
Bangkok 10210

## QR CODE FOR SUGGESTIONS/FEEDBACK



# Policy and Business Overview

## Business Overview

Electricity Generating Public Company Limited or EGCO is a holding company. Its main source of revenues is from the dividend income from subsidiaries and share of profits from joint ventures which operates their business in accordance with EGCO's business plan. EGCO aims to develop power projects with either long-term or short-term power purchase agreement ("PPA") both in Thailand and abroad or conduct other related business.

The main responsibilities of EGCO as a holding company are business development, strategic and policy planning, human resources management, accounting and budgeting, and public relations of EGCO Group's companies. Besides, EGCO has also rendered internal audit and legal services to its subsidiaries which mainly take responsibilities on the power generation and sale, service provision, and operation and maintenance.

### BUSINESS TARGET

EGCO focuses to continue building upon its portfolio of power generation assets within both the domestic and Asia Pacific markets by development of new power projects or acquisition of existing power plant projects under the company investment plan which concerns shareholders' return maximization with the acceptable level of risk. In 2019, the Board of Directors considered revising the corporate vision, mission, goals and return on equity as follows:

**To be a sustainable Thai energy company with full commitment to all stakeholders**

In this regard, EGCO has identified its key target as follows:



01

#### Return

Achieve competitive return on equity (ROE)



02

#### Growth

Maintain continuous net profit growth



03

#### Organizational Excellence

Be considerate to society and environment, be considerate to stakeholders, and be active in good corporate governance.

Based on the Company's vision, EGCO targets to enhance its sustainable growth with emphasis on investment in power business in which EGCO has expertise and experiences, as well as operating its business on corporate governance principles with the commitment to social, environment and stakeholders' responsibility. The Company also concerns benefits of shareholders by maintaining the return of equity at least 10%.

To achieve the targets, EGCO drives its business under the three main strategies covering business aspect, social and environment aspect and governance aspect. In term of business, EGCO focuses on well managing existing assets to ensure maximum efficiency, monitoring performance of joint venture assets to make sure their highest performance and return as

planned, managing projects under construction to be complete as scheduled and within the planned budget; and seeking new investment opportunities for long-term income generation. Apart from this, EGCO aims to increase its renewable portion in national and international markets up to 30% of its total portfolio in 2026. Social and environment strategy will align EGCO business with environment care, decreasing negative impacts and promoting positive impacts on environment throughout business process. EGCO targets to enhance its environmental management and coexistence in harmony with local community. With respect to corporate governance strategy, EGCO conducts its management with good corporate governance representing well management with efficiency, fairness, transparency under the anti-corruption concept, with responsibility towards environment, society and every stakeholder.

## BACKGROUND AND MAJOR DEVELOPMENT

EGCO is the first independent power producer in Thailand registered on May 12, 1992 by the Electricity Generating Authority of Thailand ("EGAT"). Such incorporation marked the commencement of the Thai government's privatization initiatives to allow broader private sector investment in the electricity generating sector. On March 23, 1994, EGCO was transformed into a public company and then listed on the Stock Exchange of Thailand ("SET") on January 16, 1995.

In order to support the private sector's role in energy business, EGAT reduced its shareholding in EGCO by divesting part of shares to strategic shareholders. On June 30, 1998, CLP Power International Limited ("CLP") engaging in energy business in the Asia region and being a subsidiary of CLP Holdings Limited which is listed on Hong Kong Stock Exchange, purchased EGCO's 78 million shares or 14.92% from EGAT. On July 23, 2008, EGAT transferred the shares to CLP Power Projects (Thailand) Limited ("CLPT") which engaged in energy business in Thailand and a subsidiary of CLP Power International Limited so that shareholding of EGAT and CLPT in EGCO accounted for 25.41% and 22.42% respectively.

In 2006, CLP, the major shareholder of CLPT changed its shareholding structure by transferring all of its shares in CLPT to OneEnergy Limited ("OneEnergy"). On March 23, 2006, Mitsubishi Corporation ("MC") engaged in OneEnergy so that it became a joint venture owned by CLP and MC on a 50:50 basis and EGCO informed SET regarding change of CLPT's major shareholder on March 27, 2006.

On February 23, 2011, EGCO informed SET that it was notified by OneEnergy, a major shareholder of OneEnergy holding 23.49 percent of the total issued share capital of the Company, that CLP Holdings Limited would divest its approximately 50% effective interest in OneEnergy while Tokyo Electric Power Company ("TEPCO") would be joining Mitsubishi Corporation ("MC") as its 50:50 partner.

On May 10, 2019, Kyuden International Europe B.V. ("Kyuden International"), a wholly owned subsidiary of Kyushu Electric Power Co., Ltd. acquired 25% of EGCO's shares from MC. Thus, Kyuden International indirectly holds 5.985% of voting right of EGCO's outstanding shares via TEPDIA Generating B.V..

## SHAREHOLDER STRUCTURE

EGCO is a listed company on the Stock Exchange of Thailand (SET). Details of its registered capital as of December 31, 2020 were shown below.

### 1. Registered Capital:

5,300 million baht comprising 530,000,000 ordinary shares with the par value at 10 baht per share.

### 2. Paid Up Capital:

5,264.65 million baht comprising 526,465,000 ordinary shares with the par value at 10 baht per share.



The top 10 shareholders as of September 3, 2020, the closing date of shareholders' roster for the right to receive the interim dividend payment, were as follows.

NO.	SHAREHOLDERS	SHARES	% OF TOTAL
1	Electricity Generating Authority of Thailand	133,773,662	25.41
2	TEPDIA Generating B.V.	126,054,178	23.94
3	Social Security Office	17,703,300	3.36
4	EGAT Saving and Credit Cooperative Limited	12,037,800	2.29
5	SOUTH EAST ASIA UK (TYPE C) NOMINEES LIMITED	10,798,043	2.05
6	Bualuang LTF	10,336,400	1.96
7	STATE STREET EUROPE LIMITED	9,129,715	1.73
8	Bualuang LTF 75/25	5,409,400	1.03
9	Mr. Suwan Aisuriyakornthep	4,127,500	0.78
10	Vayupak Fund 1 by MFC Asset Management Public Company Limited	3,504,350	0.67

\* Excluding 47,148,633 shares under Thai NVDR Company Limited which accounted for 11.77% of the total outstanding shares. Such NVDR holders do not have the right to vote at the shareholders' meeting. Information of investors under Thai NVDR Co., Ltd. is shown on the website: [www.set.or.th](http://www.set.or.th).

The ultimate shareholders of EGCO's major controlling shareholders are as follows:

#### 1. Electricity Generating Authority of Thailand ("EGAT")

EGAT is a state utility which has the mission in generating, acquiring and sales of bulk electric energy through its transmission network. EGAT also provides the operation and maintenance services and invests in electricity related business. EGAT holds 25.41% of EGCO's outstanding shares and has 4 representative directors out of 15 directors in EGCO.

#### 2. TEPDIA Generating B.V. ("TEPDIA")

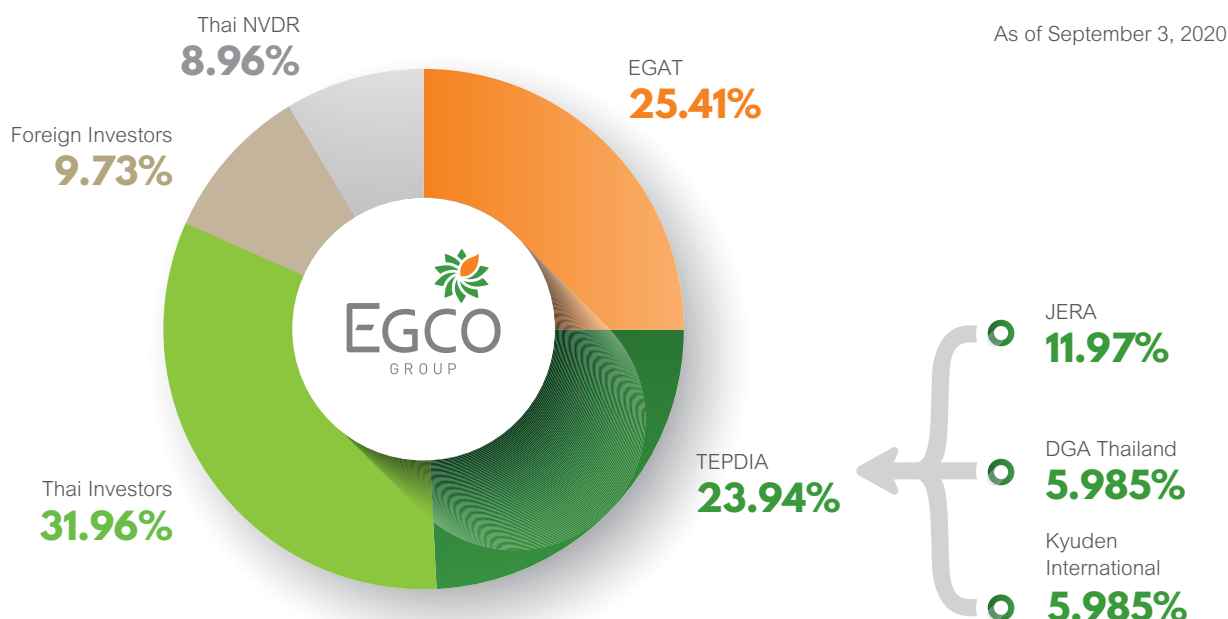
TEPDIA is established in order to invest in EGCO comprising 3 shareholders as follows:

**2.1 JERA Power Management Asia B.V. ("JERA")**, a wholly owned subsidiary of JERA Co., Inc., jointly established by Tokyo Electric Power Group and Chubu Electric Power Group. JERA Co., Inc., invests strategically and integrating in fuel procurement, fuel trading and thermal power plants by expanding business in Japan and overseas. JERA

indirectly holds 11.97% of voting right of EGCO's outstanding via TEPDIA Generating B.V. JERA has 2 representative directors out of EGCO's 15 directors.

**2.2 DGA Thailand B.V. ("DGA Thailand")**, a wholly owned subsidiary of Mitsubishi Corporation (MC), a global integrated business enterprise that develops and operates businesses areas virtually every industry, indirectly holds 5.985% of voting right of EGCO's outstanding shares via TEPDIA Generating B.V.. DGA Thailand has 1 representative director out of EGCO's 15 directors.

**2.3 Kyuden International Europe B.V. ("Kyuden International")**, a wholly owned subsidiary of Kyushu Electric Power Co., Ltd. Kyuden International focuses on the growing Asian Market with an aim to expand its business from IPP business to overseas energy business. Kyuden International indirectly holds 5.985% of voting right of EGCO's outstanding shares via TEPDIA Generating B.V.. Kyuden International has 1 representative director out of EGCO's 15 directors.



## DIVIDEND PAYMENT

The dividend payment policy of EGCO Group specifies that shareholders receive dividend twice a year at the rate of 40% of the net profits of the total financial statements after income tax is deducted or at the amount that gradually and consequently increase without necessary caused such as the future business expansion of the Company in other projects, or dividend payment substantially affecting the normal operations of the Company whereby dividend paid shall not exceed the accrued profits of separate financial statements.

The Comparison of the Dividend Payment between 2015 and 2019 is as follows:

YEAR	2015	2016	2017	2018	2019
Earnings per share (baht)	8.20	15.81	22.45	40.03	24.81
Dividend per share (baht)	6.25	6.50	7.00	9.50	6.50
Dividend payout Ratio (%)	76.00	41.00	31.00	24.00	26.00

## DIVIDEND PAYMENT OF THE SUBSIDIARIES

Since year 2007, the Board of Directors set the dividend payment policy for EGCO subsidiaries to dividend out 4 times a year at the rate of 100% of their net profits after income tax and legal reserve. The dividend payment should take into account their year-ended performance, normal operation and provision stated in the loan agreement.

## 2020 Highlights

### AWARD AND RECOGNITION

# 01

EGCO



- 2020 AGM, full score of 100, evaluated by Thai Investors Association
- Being rated “Excellent” in 2020 Corporate Governance Rating (CGR) with the score of 96 out of 100 by the Thai Institute of Directors (IOD)
- Being qualified in the ASEAN Asset Class PLCs category of 2019 ASEAN CG Scorecard Assessment as the Company with assessment score higher than 97.5 points
- Receive the 2020 Thailand Sustainability Investment Award (THSI) or sustainable stock for the year 2020 for the 6<sup>th</sup> consecutive as EGCO is a listed company with a market capitalization over THB 100,000 million that operates sustainably with regard to the Environmental, Social and Governance (ESG)
- Receive the Sustainability Disclosure Award 2020 “Recognition” hosted by Thai Listed Companies Association in cooperation with the Securities and Exchange Commission as well as Thaipat Institute
- Receive the 2020 BSA Building Safety Award with Platinum level as the outstanding building safety assessed by the Building Inspectors Association and Securetech Thailand 2020
- Being selected as member of the 2020 Dow Jones Sustainability Indices of which EGCO is considered the first Thailand’s electric utilities company



# 02

Khanom Electricity Generating Company Limited (KEGCO)



- The Prime Minister’s Industry Award 2020 for an Outstanding Achievement In Safety Management organized by Ministry of Industry on 14<sup>th</sup> December 2020
- The Prime Minister’s Industry Award 2020 for an Outstanding Achievement In Environmental Quality Preservation organized by Ministry of Industry on 14<sup>th</sup> December 2020
- The Excellent Establishment on Occupational Safety and Health 2020 National Level Award of year 2020 organized by Provincial Labor Protection and Welfare on 15th December 2020
- CSR DIW CONTINUOUS AWARD 2020
- Certificate of Green Industry Level 3 organized by Ministry of Industry on 29<sup>th</sup> July 2020
- Announcement of honor to Low Emission Support Scheme 2020 organized by Thailand Greenhouse Gas Management Organization (Public Organization) on 18<sup>th</sup> September 2020

## ACTIVITIES FOR SHAREHOLDERS AND INVESTORS

### 01

#### Shareholders' Meeting

- 23 April 2020**  
2019 Final Dividend Payment at 3.25 baht per share
- 30 June 2020**  
2020 Annual General Shareholders' Meeting
- 17 September 2020**  
2020 Interim Dividend Payment at 3.00 baht per share

### 03

#### Investor Meeting

- 26 - 28 August 2020**  
Thailand Focus 2020 in Bangkok by SET
- 4 November 2020**  
Meeting with Investors' Watchdog by Thai Investors Association

### 02

#### Analyst Meeting

- 6 March 2020**  
Analyst Meeting No. 1/2020 to announce 2019 annual performance
- 25 May 2020**  
Analyst Meeting No. 2/2020 to announce 2020's first quarter performance
- 26 August 2020**  
Analyst Meeting No. 3/2020 to announce 2020's second quarter performance
- 20 November 2020**  
Analyst Meeting No. 4/2020 to announce 2020's third quarter performance

### 04

#### Knowledge Sharing and Site Visit

- 26 March 2020**  
Newsletter to Shareholders & Investors
- 23 June 2020**  
Newsletter to Shareholders & Investors
- 30 September 2020**  
Newsletter to Shareholders & Investors
- 14 December 2020**  
Newsletter to Shareholders & Investors



## ACTIVITIES FOR COMMUNITY AND SOCIETY

### 01

#### Collaboration to help the nation fight against COVID-19

January - December      Donation and support to help the nation fight against COVID-19

### 02

#### Promotion and development of “quality of life of communities” surrounding power plants

January - December	Community development projects of Quezon and San Bua Ventura power plant, Philippines
	- Mauban community occupational skills development
	- Quezon power plant medical clinic for community
	- “Food for Thought” promotion of healthy nutrition for youth
January - December	Khanom Power Plant Sustainable Agricultural Demonstration Farm
March - June	2020 releasing aquatic animals project by Khanom power plant
May - October	Presentation of Primary, High School, and Vocational Education Scholarship by Khanom, and Roi-Et Green power plant
May - December	Employee voluntary community development projects by all power plants
June - October	Mobile Medical Unit and Health Care Services for community by all power plants
July - September	Workshops on utilization of rice husks for biofertilizer by Roi-Et Green power plant
September	Collaborative activities to support community learning center by Baan Pong power plant
September - November	Occupational skills development for community activities by EGCO Cogen power plant
16 - 19 November	EGCO Thairakpa Youth Camp #55 at Khao Luang National Park

### 03

#### Promotion of learning about energy and environmental conservation among the “Youth”

January - December	Khanom Learning Center Project, Nakhon Si Thammarat Province
May	Official launch of Khanom learning center virtual exhibition
November - December	Special activity during science week “Journey to the stars”
January - December	Youth Development Project (2017-2021)
4 February	“Preparation for the transition towards “Low Carbon Society” coaching workshop for schools
May - June	The Vocational Scholarships Presentation Ceremony and Orientation Study Trip to power plants for 4 <sup>th</sup> Batch Students.

### 04

#### Conservation of “watershed forest” natural resources by The Thai Conservation Forest Foundation

January - December	Restoration of 1,300 Rais of Watershed Forests Projects within 5 Years (2017-2021)
12 February	Delivered completed Kew Mae Pan Nature Trail
12 - 13 September	Forest Watershed Exploring Activity #5 and #6 at Doi Inthanon National Park
16 - 26 November	Thairakpa Youth Camp #9 and #10 at Doi Suthep-Pui National Park
27 December	Official Ceremony to mark the establishment of Thairapa- Chiangmai Youth Network

## ACTIVITIES FOR EMPLOYEE

01

**21 January**  
Communication Day #1

02

**19 March**  
Annual Health Check-up for  
Employees

03

**6 April**  
Let's Snap and Share  
(COVID-19)

04

**12 May**  
EGCO Group's 28<sup>th</sup>  
Anniversary Celebration

05

**4 June**  
Communication Day #2

06

**June - 8 December**  
EGCO Group InnoPower  
2020

07

**23 July**  
Energy Conservation with  
New Normal (COVID-19)  
Course

08

**4 August**  
Communication Day  
Special

09

**3 September - 10 December**  
Happy Talk and  
Synergy Hour

10

**10 - 12 September**  
Company Outing "EGCO  
Grow Together"

11

**22 - 23 September**  
ISO 45001: 2018 Internal  
Auditor Course

12

**1 October**  
Annual Ceremony for Paying  
Respect at Shrine of Lord  
Brahma (Phra Phrom)

13

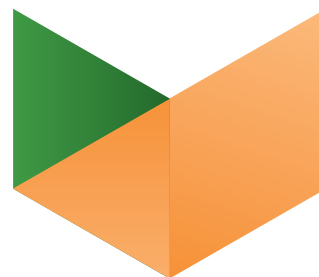
**21 October**  
Safety Day

14

**6 - 7 November**  
EGCO Group's Annual Merit  
Making for Robe Offering  
(Pha Pa) Ceremony

15

**24 December**  
New Year Merit Making  
Ceremony



# Group Structure and Shareholders





# Organizational Structure

Electricity Generating Public Company Limited





# Business Characteristics

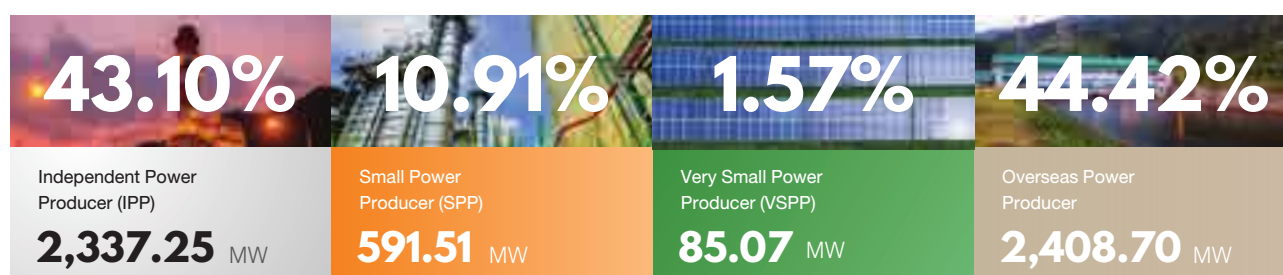


**GRI**  
102-1, 102-2, 102-3, 102-4,  
102-5, 102-6, 102-7

The Electricity Generating Public Company Limited (EGCO) is the first independent power producer in Thailand registered on May 12, 1992 by the Electricity Generating Authority of Thailand (EGAT). Such incorporation marked the commencement of the Thai government's privatization initiatives to allow broader private sector investment in the power sector. On March 23, 1994, EGCO was transformed into a public company and then listed on the Stock Exchange of Thailand (SET) on January 16, 1995.

Since EGCO is a holding company, its main source of revenue is from the dividend income from subsidiaries and joint ventures which are located in both Thailand and the Asia Pacific region. EGCO Group companies either operate in the power sector with Power Purchase Agreement (PPA) or conduct energy and related business.

## BUSINESS LINES



EGCO operating businesses can be categorized into 5 groups as follows:

### 1. Independent Power Producer (IPP)

This Group comprises Khanom Electricity Generating Co., Ltd. (KEGCO), BLCP Power Ltd., (BLCP) and Gulf Power Generation Co., Ltd. (GPG). The combined capacity is 2,337.25 Megawatt (MW) equity, representing 43.10% of EGCO's total asset capacity.

### 2. Small Power Producer (SPP)

This Group comprises EGCO Cogeneration Co., Ltd. (EGCO Cogen), Roi-Et Green Co., Ltd. (RG), Nong Khae Cogeneration Co., Ltd. (NKCC), Gulf Yala Green Co., Ltd. (GYG), Chaiyaphum Wind Farm Company Limited (CWF), Klongluang Utilities Company Limited (KLU) Banpong Utilities Company Limited (BPU) and Lopburi Solar Project (LSP) of Natural Energy Development Co., Ltd. (NED). The combined capacity is 591.51 MW equity, representing 10.91% of EGCO's total asset capacity.

### 3. Very Small Power Producer (VSPP)

This Group comprises SPP Two Co., Ltd. (SPP 2), SPP Three Co., Ltd. (SPP 3), SPP Four Co., Ltd. (SPP 4), SPP Five Co., Ltd. (SPP 5), G-Power Source (GPS), Theppana Wind Farm Co., Ltd. (TWF), Solarco Co. Ltd. (Solarco), and Wang Ploeng Solar Project (WSP) of NED. The combined capacity is 85.07 MW equity, representing 1.57% of EGCO's total asset capacity.

### 4. Overseas Power Producer

This Group comprises Quezon Power (Philippines) Ltd., Co. (Quezon) and San Buenaventura Power Limited Company (SBPL) in the Philippines, Nam Theun 2 Power Co., Ltd. (NTPC) and Xayaburi Power Company Limited (XPCL) in Lao PDR (mainly sells electricity to Thailand), Star Energy Geothermal Pte. Ltd. (SEG) and Star Energy Geothermal (Salak – Darajat) B.V. (SEGSD) in Indonesia Boco Rock Wind Farm Pty Limited (BRWF) in Australia and Paju Energy Services company limited (PAJU) in Republic of Korea. The combined capacity is 2,408.70 MW equity, representing 44.42% of EGCO's total asset capacity.

Remarks: Samutprakarn Cogeneration Co., Ltd. (SCC) was expired on 23 August 2020.

## 5. Other Businesses

This Group comprises three operation and maintenance companies being EGCO Engineering & Service Co., Ltd. (ESCO), E&E Engineering & Service Company Limited (E&E) and Pearl Energy Philippines Operating, Inc. (PEPOI). There is a management service company to Quezon power plant being Quezon Management Services Inc. (QMS). Also, there is a coal mining company being PT Manabung Maura Enim Co., Ltd. (MME).



3

Operation and  
maintenance  
companies

1

Management  
service  
companies

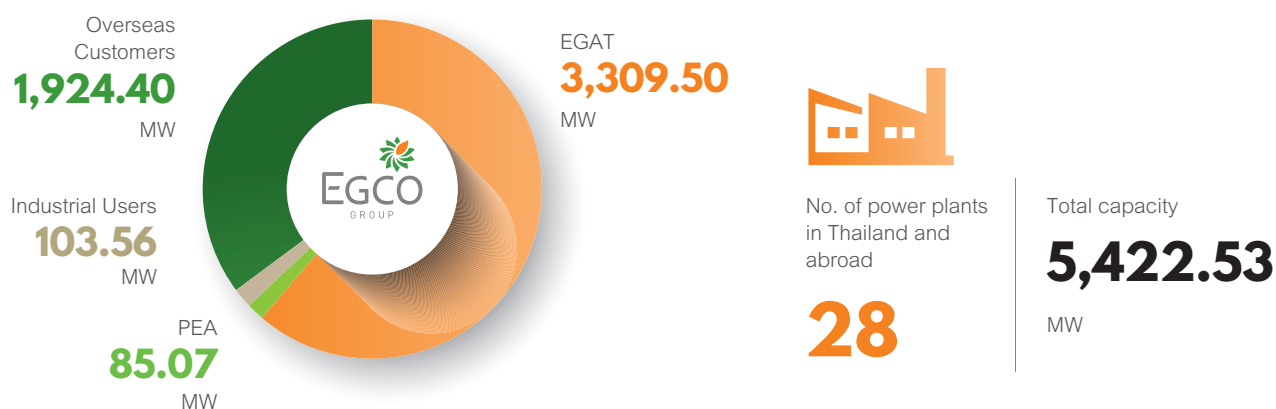
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Coal mining  
company

Details of each project are shown in the table at the end of this part.

## SIGNIFICANT EVENTS IN 2020

In 2020, EGCO Group operated 28 power plants in both Thailand and abroad with total contracted capacity of 5,422.53 MW equity. EGCO mainly sold 3,309.50 MW of power to EGAT, 85.07 MW to PEA, 103.56 MW to Industrial Users (IUs) and the rest 1,924.40 MW to overseas customers. Highlights in 2020 were as follows:



- On September 16, 2020, EGCO entered into a joint development agreement of Quang Tri 1 thermal power plant project in the Socialist Republic of Vietnam with the shareholding proportion of 30%. Quang Tri 1 project is the coal-fired power plant with the installed capacity of 1,320 MW located in Quang Tr Economic Zones, which the generated electricity will be sold to Vietnam Electricity under the long-term Power Purchase Agreement. The project is currently under Green-Field development phase and under advanced negotiation process with the expected Commercial Operating Date in 2025.
- On September 21, 2020, Thai Pipeline Network Company Limited (TPN), in which EGCO holds 44.60% of stakes, entered into the financial agreement with Bangkok Bank Public Company Limited and China Development Bank in the aggregate amount THB 7,800 million with 14-year tenure to fund the development and the construction of the extension of petroleum pipeline system to northeastern region project.
- On October 1, 2020, Gangdong Fuel Cell Power Plant, managed by Paju Energy Service Co.Ltd.(PAJU), in which EGCO holds 49 of stakes, commenced its Commercial Operation to sell electricity to Korea Electric Power Corporation, the sole off-taker of wholesale power generation in South Korea, through the Korea Power Exchange. The fuel cell power plant has an installed capacity of 19.8 MW. A fuel cell is an electrochemical device that combines hydrogen from natural gas and oxygen to produce electricity and heat. Fuel cells operate without combustion.

# Investment Map

# 28

Operating  
Power Plants

# 5,422.53

MWe

# 5

Other Related  
Power Businesses

# 2

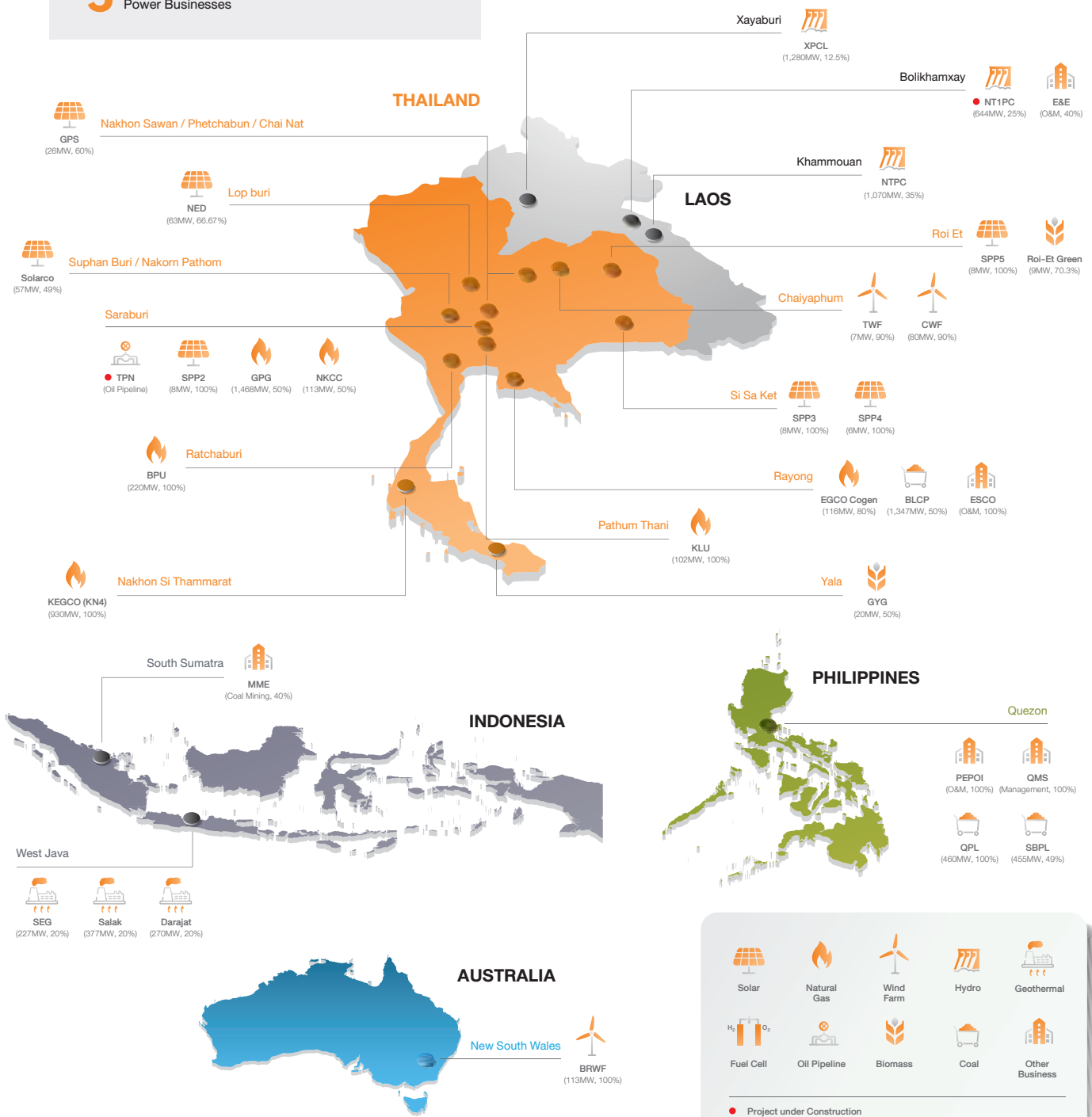
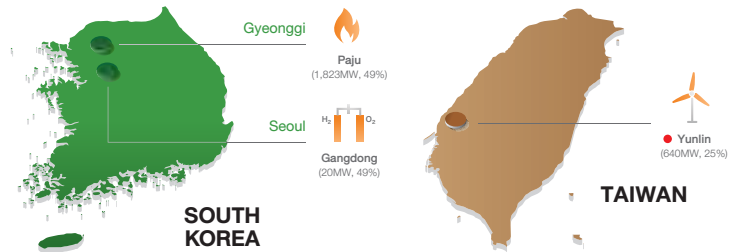
Power Plants  
under Construction

# 321.08

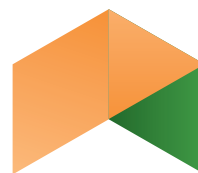
MWe

# 1

Other Business  
under Construction



## Products and Services



### BUSINESS

EGCO invests in 2 business types, being power generation business and other business. EGCO's power business are divided into 4 groups namely (1) Independent Power Producer ("IPP") Group, (2) Small Power Producer ("SPP") Group, (3) Very Small Power Producer ("VSPP"), (4) Oversea Power Generation Group. EGCO's other business comprises 3 types of business which are (1) operation and maintenance business, (2) management services business for power plant, and (3) coal mine business. EGCO Business is detailed as follows:

#### Power Generation Business

##### Electrical Power

Electrical Power is a clean processing power that is easy to use and to transform into other types of energy. Electrical power is vital to all business operations, in industry, agriculture, communication or tourism. To generate sufficient electrical energy to satisfy demand is therefore important. At present, the electricity generation in Thailand is divided into two categories:

1. Non-fuel Electricity such as hydro power plants, and natural energy power plants using sources of natural energy like solar power, wind power and geothermal power.
2. Fuel-based Electricity such as thermal power plants, gas turbine power plants and combined cycle power plants.

##### A. Types of Power Plant

The types of power plant operated by the EGCO Group are as follows:

1. A Hydro Power Plant: generates electricity by the use of force and water compression to rotate water turbines.  
*Power plants under this category are NTPC and XPCL.*
2. A Thermal Power Plant: generates electricity by burning fuel, such as natural gas, coal, or fuel oil, to boil water creating high-pressure steam. The pressure of the steam shall rotate the steam turbine, which attached to the shafts of power generator, generating electricity. This type of plant requires several hours for each start up, from ignition to boiling process and generating electricity, therefore it is suitable as base-load power plant.  
*Power plants under this category are BLCP unit 1 and unit 2, Quezon, and SBPL.*

3. A Combined Cycle Power Plant: generates electricity by combining the use of both gas turbine and steam turbine. When the gas turbine generates electricity, exhausted heat from the gas turbine shall be transferred to boil water, creating high-pressure steam. The pressure of the steam shall rotate the steam turbine, which attached to the shafts of power generator, generating electricity concurrently.  
*Power plants under this category are KEGCO unit 4, GPG unit 1 and unit 2, Paju.*
4. A Cogeneration Power Plant: is a power plant that produce both electrical power and thermal energy at the same time. The process of production is as same as the process of combined cycle power plant. However, the different point is that cogeneration power plant sale steam from its production process while combined cycle power plant does not.  
*Power plants of this type are EGCO Cogen, NKCC, SCC, KLU, and BPU.*
5. A Renewable Energy Power Plant: generates electricity from non-conventional power source such as wind energy, solar power, mini hydro, geothermal energy, biomass and other alternative sources. Biomass and other alternative sources, such as wastes and exhausted gas from industrial process, can be used in the same way as fuel in thermal power plant to generate electricity.  
*Power plants under this type are RG using rice husk as fuel, GYG using parawood as fuel, NED, GPS, Solarco, SPP 2, SPP 3, SPP 4, and SPP 5 using solar power, TWF, CWF and BRWF using wind power, SEG and SEGSD using geothermal power, and Gangdon using an electrochemical between hydrogen and oxygen.*

##### B. Renewable Energy Power Plant

EGCO group prioritizes the investment in renewable energy sources in order to advocate clean energy for environmental conservation, reduce fossil fuel consumption causing greenhouse gases emission and enhance the reliability of electricity supply. Currently, EGCO has 5 types of renewable energy power plants which are;

1. Solar Power Plant: EGCO group has invested in various types of solar power technology, which identified as follows.

- Thin film solar technology is adopted in NED. The cumulative irradiation is around 1,900 - 2,000 kWh/m<sup>2</sup> per year.
- Polycrystalline with single axis solar tracking system technology i.e. SPP 2, SPP 3, SPP 4, and SPP 5. The cumulative irradiation is around 2,000 - 2,200 kWh/m<sup>2</sup> per year, respectively.
- Polycrystalline solar technology is adopted in GPS and Solarco. The cumulative irradiation is around 1,900 - 2,000 kWh/m<sup>2</sup> per year, respectively.

All solar power plants of EGCO group have warranties for main equipment and performance ratio under long-term maintenance service agreement in order to ensure maximum efficiency.

2. Wind Farm: EGCO group invests in wind farms both Domestic and International.
  - Domestic: Power plants of this type are TWF and CWF. Direct Drive wind turbine technology (Gearless) is adopted in both power plants. The hub height are 100 and 120 meters respectively. These turbines operate at maximum performance of 10.3 meters/sec wind speed.
  - International: Power plant of this type is BRWF located in New South Wales, Australia. This wind farm selected the gear system technology of GE with 80 meters of Hub height. The average wind speed is 7.1 meters/sec.
3. Biomass Power Plant: Power plants of this type are RG and GYG which use rice husk and parawood as primary fuel, respectively. The main sources of fuel from the local community and nearby area are sufficient to generate electricity. However, both power plants have fuel reserves for using in unforeseen circumstances.
4. Hydro Power Plant: There are two hydro power plants under EGCO's portfolio, NTPC and XPCL, which use force and compression of water due to the height of water head to generate electricity. NTPC is the reservoir hydro power plant. The reservoir storage are 3,530 million cubic meters with average water inflow from the rain of 7,521 million cubic meters per year. The main factor of generation is water supply to reservoir each year. NTPC has 25 years power purchase agreement with EGAT and Electricité du Laos (EDL). On the other hands, XPCL is a run-of-river hydro power plant. The characteristic of this run-of-river is that the total outflow of water must equal to the natural inflow, meaning that there is no water stored or channels away from the river. The main factor of generation is the flow of

water. XPCL has 29 years power purchase agreement with EGAT and Electricité du Laos (EDL).

5. Geothermal Power Plant: Power plant of this type is SEG and SEGSD which use geothermal power to generate electricity. The plant use flash steam technology, with the steam generating electricity by driving the turbine directly. The steam is produced at more than 260°C. Furthermore, the SEG plant was the world's largest single cylinder machine. There are two phase fluid pipelines with central separators, and integrated pressure control.
6. Fuel Cell Power Plant: Power plant of this type is Gangdong which is a fuel cell power plant with an installed capacity of 19.8 MW. A fuel cell is an electrochemical device that combines hydrogen from natural gas and oxygen to produce electricity and heat. Fuel cells operate without combustion and it is considered as an option for a reliable source of power.

### C. Tariff Rate

EGCO group has power purchase agreements in both Thailand and Asia Pacific region. In Thailand, IPP and SPP mainly sell power to EGAT, while VSPP mainly sells to PEA. Moreover, EGCO group sells power in the republic of Philippines, Laos PDR, Indonesia, Australia and Republic of Korea. The detail is demonstrated as follows:

In case of EGAT PPA, the IPP and the SPP tariff has a common principal calculation as follows.

IPP Group – the rate is divided into the following 2 parts:

1. Availability payment is a payment, which EGAT makes the payment to the power plants on a monthly basis for maintaining the availability of the power plants, regardless of whether the electric power will be supplied to EGAT or not. The availability payment covers financial cost of investment in the power plants, principal repayments and interest, fixed operating and maintenance expenses, administrative expenses, major maintenance cost and return on EGCO's equity.
2. Energy payment is the payment for the actual net electrical output. It covers the variable operating (i.e. fuel cost and fuel management cost) and maintenance expenses.

SPP Group – the rate is divided into the following 2 parts:

1. Capacity payment is charged based on the monthly contracted capacity for EGAT and charged on each customer regardless of whether such customer actually purchase electricity or not. However, the capacity payment

applicable to EGAT is different from that applicable to customers in general (industrial users). The capacity payment in case of EGAT is calculated from its long run avoided capacity cost due to its purchase of power from SPPs while the capacity payment applicable to industrial users is calculated from contracted capacity that varies to the tariff structure of PEA.

2. Energy payment is the payment for the actual net electrical energy output. The energy payment charged on EGAT covers the variable operating cost, such as fuel cost, while the energy payment charged on industrial users charged in accordance with the tariff structure of PEA. Besides, the discount rate under power purchase agreement between the power plant and each industrial user is also included in the type of payment.

VSP Group – the rate is divided into the following 2 parts:

1. Energy payment is the payment for the actual net electrical output. The purchase of power from VSPPs varies to the tariff structure of PEA.
2. The adder from power purchasing price of fuel and technology due to production cost of renewable energy varies to technology, fuel type, production capacity and investment details affecting variety of adder level.

Overseas Group

#### 1. *The Philippines*

Power tariff from Meralco consists of 4 main components as below:

- Capacity Payment is the remuneration paid by Meralco on a monthly basis. It covers financial cost of investment in the power plant.
- Fixed Operating Payment is the remuneration paid by Meralco on a monthly basis. It covers fixed operating and maintenance expenses of the power plant.
- Variable Operating Payment is the remuneration paid by Meralco on a monthly basis. It covers variable and maintenance expenses.
- Energy payment is the remuneration paid for the electricity actually delivered. The tariff of energy payment is charged under specified formula.

The formula is partially on USD and partially on Peso.

#### 2. *Laos PDR*

Hydro power plant in Laos mainly has long-term electricity sales agreements with EGAT. In the case of NTPC, the tariff is divided into components as below:

- Primary Energy Payment is the remuneration paid by EGAT. It is calculated from the quantity of electricity declared to dispatch during on peak demand.
- Secondary Energy Payment is the remuneration paid by EGAT. It is calculated from the quantity of electricity declared to dispatch during off-peak demand.

For XPCL, its long-term electricity sales agreements for EGAT is similar to NTPC, but there is one additional component as below:

- Excess Energy is excess electricity generated when the amount of water is more than expected. Therefore, in that month, the electricity production can be more than the amount of Primary Energy (PE) and Secondary Energy (SE) which the XPCL power plant has informed in advance to EGAT of each month. The excess energy will be counted as excess electricity.

#### 3. *Indonesia*

Power tariff is paid by PT PLN (Persero) to SEG and SEGSD in the term of Energy Payment which is the actual measured quantity of electricity delivered. However, Energy payment will change according to factors in the tariff structure.

#### 4. *Australia*

For BRWF in Australia, EnergyAustralia pays the Power tariff to BRWF which consisted of 2 components as below:

- Energy Payment is the payment for the actual net electrical output.
- Renewable Green Certificate is the additional payment for the actual net electrical output, which is equivalent to adder.

#### 5. *Republic of Korea*

In the case of Paju, the power plant generates and sells the electricity to Korea Power Exchange or KPX which is the power pool in Republic of Korea. The tariff consisted of 4 components as below:

- Capacity Payment (CP) is the payment that power plant received from its available capacity. This tariff is a fixed rate and annually declared by KPX. It covers construction cost, operation cost and grid connection cost.
- Schedule Energy Payment (SEP) is the payment that power plant received from its energy output that generate as dispatch scheduled by KPX. The tariff rate is real-time and change due to demand of power in the market. This payment covers the fuel cost of power plant.

- Constrained – On (CON) is the payment for the additional generation arising from factors including under-estimation of demand by KPX.
- Constrained – Off (COFF) is the payment for the generation initially assigned but not actually dispatch due to factors including over-estimation of demand by KPX.

The power pool in Republic of Korea is specified as Cost-based pool. For this type of power pool, the merit order will be dispatched based on the cost of generation of each power plant. Power plants will be dispatched in order of lower to higher cost.

#### D. Rights and Privileges

In addition to the PPA with EGAT and PEA, the Thai Board of Investment (BOI) also granted the tax privileges to all IPPs and SPPs in the Group under the Promotion Certificate Issuance no. 7.36 (Independent Power Producer) and 7.1 (Public utilities and infrastructure), respectively. The significant information is as follows:

#### Privileges

1. Exemption of corporate income tax (CIT) for net profit from promoted business for 8 years from the first date of income earnings.
2. Reduction of corporate income tax for net profit from investment by 50% of the normal rate for 5 years from the date following the end of the corporate income tax holiday.
3. Exemption of calculating dividend from the promoted business as taxable income throughout the period of corporate income tax holiday.

#### Conditions

- Having shareholders who are Thai national holding shares in an aggregate amount of at least 51% of the registered capital.
- Having registered capital of at least as indicated.
- Power plant locating in the indicated areas for 15 years from the first date of operation. Relocation to other areas shall not be made unless with the BOI's prior approval.



Tax privileges to all IPPs are detailed as follows:

POWER PLANT	PROMOTION CERTIFICATE	DATE OF PROMOTION GRANTED	PRIVILEGES (8 YEARS)	REGISTERED CAPITAL OF AT LEAST	LOCATION
KEGCO	No. 2509(2)/2013 dated October 29, 2013	May 17, 2013	January 14, 2016 - January 13, 2024 <sup>1</sup>	6,000 million baht	Nakorn Si Thammarat Province
BLCP	No. 1499/2000 dated August 21, 2000	October 1, 1998	October 1, 2006 - September 30, 2014	12,000 million baht	Rayong Province
GPG	No. 1660(2)/2005 dated July 25, 2005	June 3, 2005	November 3, 2006 - November 2, 2014	1,850 million baht and shall increase the registered capital of at least 9,030 million baht and fully paid before commencing the operation	Saraburi Province

Tax privileges to all SPPs are detailed as follows:

POWER PLANT	PROMOTION CERTIFICATE	DATE OF PROMOTION GRANTED	PRIVILEGES (8 YEARS)	REGISTERED CAPITAL OF AT LEAST	LOCATION
EGCO Cogen	No. 1230/1999 dated June 7, 1999 and the revised version No. 5106/2000 (2-1230/2000, 6379/2002), (3-1230/1999), 6753/2002 (4/1230/2002) and 4063/2017 (5-1230/1999) dated May 31, 2000, October 3, 2002, November 8, 2002 and June 16, 2007, respectively	June 7, 1999	January 10, 2003 - January 9, 2011	Not less than 1 million baht and shall pay up the full amount of register capital of not less than 1,200 million baht before commercial operation date	Rayong Province
RG	No. 1660 (1) 2001 dated October 19, 2001 and revised version No. 6871/2003 (2-1660(1)/2001) dated November 7, 2003	October 19, 2001	October 19, 2001 - October 18, 2009	Not less than 180 million baht and shall pay up the full amount of registered capital before commercial operation date	Roi-Et Province

Remark: <sup>1</sup> KEGCO has no authorization for the reduction of corporate income tax by 50% of the normal rate for 5 years from the date following the end of the corporate income tax holiday.

POWER PLANT	PROMOTION CERTIFICATE	DATE OF PROMOTION GRANTED	PRIVILEGES (8 YEARS)	REGISTERED CAPITAL OF AT LEAST	LOCATION
NKCC	No. 1594/1998 dated December 28, 1998 and a revised version, No. 4735/2001 (2-1594/1998) dated March 7, 2001	July 9, 1997	June 1, 2000 - May 31, 2008	N/A	Saraburi Province
SCC	No. 1761/1997 dated December 15, 1997 and a revised version, No. 4100/2000 (2-1761/1998) dated January 17, 2000	July 9, 1997	April 1, 1999 - March 31, 2007	N/A	Samut Prakan Province
GYG	No. 1549(2)/2004 dated July 9, 2004	November 19, 2003	November 7, 2006 - November 6, 2014	Not less than 200 million baht and shall increase the registered capital of at least 200 million baht and fully paid before commencing the operation	Yala Province
NED (LSP)	No. 1443(1)/2010 dated April 12, 2010	March 10, 2010	December 22, 2011 - December 21, 2019	Not less than 1,990 million baht	Lopburi Province
CWF	No. 2433(1)/2014 dated July 18, 2014	November 21, 2014	December 16, 2016 - December 15, 2024	Not less than 1,514 million baht	Chaiyaphum Province
KLU	No. 58-2443-0-00-1-0 dated November 9, 2015	May 29, 2015	July 6, 2017 - July 5, 2025	Not less than 1,000 million baht	Pathum Thani Province
BPU	No. 59-0294-0-00-1-0 dated February 24, 2016 and No. 59-0295-0-00-1-0 dated February 24, 2016	May 29, 2015 and May 29, 2015	September 4, 2017 - September 3, 2025 and August 28, 2017 - August 27, 2025	Not less than 2,000 million baht	Ratchaburi Province

Tax privileges to all VSPPs are detailed as follows:

POWER PLANT	PROMOTION CERTIFICATE	DATE OF PROMOTION GRANTED	PRIVILEGES (8 YEARS)	REGISTERED CAPITAL OF AT LEAST	LOCATION
SPP2	No. 1502(1)/2011 dated April 26, 2011	May 7, 2010	May 2, 2012 - May 3, 2020	Not less than 196.7 million baht	Saraburi Province

POWER PLANT	PROMOTION CERTIFICATE	DATE OF PROMOTION GRANTED	PRIVILEGES (8 YEARS)	REGISTERED CAPITAL OF AT LEAST	LOCATION
SPP3	No. 1503(1)/2011 dated April 26, 2011	May 7, 2010	February 21, 2012 - February 22, 2020	Not less than 197.5 million baht	Srisaket Province
SPP4	No. 1504(1)/2011 dated April 26, 2011	April 27, 2010	January 24, 2012 - January 25, 2020	Not less than 148.7 million baht	Srisaket Province and Ubon Ratchathani Province
SPP5	No. 1505(1)/2011 dated April 26, 2011	May 7, 2010	June 22, 2012 - June 23, 2020	Not less than 198.4 million baht	Roi Et Province
GPS (Ta Khit)	No. 1884(1)/2011 dated June 28, 2011	March 22, 2011	March 1, 2012 - February 28, 2020	Not less than 750 million baht	Nakhon Sawan Province
GPS (Ta Sang)	No. 1883(1)/2011 dated June 28, 2011	March 22, 2011	March 2, 2012 - March 1, 2020	Not less than 750 million baht	Nakhon Sawan Province
GPS (Dong Khon)	No. 1882(1)/2011 dated June 28, 2011	March 22, 2011	March 5, 2012 - March 4, 2020	Not less than 750 million baht	Chai Nat Province
GPS (Bueng Sam Phan)	No. 1881(1)/2011 dated June 28, 2011	March 22, 2011	February 1, 2013 - January 31, 2021	Not less than 750 million baht	Petchabun Province
NED (WSP)	No. 1142(1)/2011 dated February 3, 2011	July 9, 2010	May 2, 2013 - May 1, 2021	Not less than 2,281 million baht	Lopburi Province
TWF	No. 2499(1)/2012 dated October 10, 2012	June 26, 2012	July 18, 2013 - July 17, 2021	Not less than 114 million baht	Chaiyaphum Province
Solarco (Sai Yai 1)	No. 1181(1)/2013 dated February 5, 2013	December 26, 2012	November 18, 2013 - November 17, 2021	Not less than 825 million baht	Nakhon Pathom Province
Solarco (Sai Yai 2)	No. 1182(1)/2013 dated February 5, 2013	December 26, 2012	November 18, 2013 - November 17, 2021	Not less than 825 million baht	Nakhon Pathom Province
Solarco (Sai Kyo)	No. 1183(1)/2013 dated February 5, 2013	December 26, 2012	December 16, 2013 - December 15, 2021	Not less than 825 million baht	Suphan Buri Province
Solarco (Sai Phet 1)	No. 1184(1)/2013 dated February 5, 2013	December 26, 2012	December 16, 2013 - December 15, 2021	Not less than 1,650 million baht	Nakhon Pathom Province
Solarco (Sai Phet 2)	No. 1186(1)/2013 dated February 5, 2013	December 26, 2012	December 16, 2013 - December 15, 2021	Not less than 1,650 million baht	Nakhon Pathom Province
Solarco (Sai Phet 3)	No. 1185(1)/2013 dated February 5, 2013	December 26, 2012	November 18, 2013 - November 17, 2021	Not less than 1,650 million baht	Nakhon Pathom Province

## Products and Services

### Electricity

The company has the policy to supply electricity or to provide related services with high quality. The Company will honor its promise to the customers and will continue to operate its business safely with environmental friendliness. In this regard, the description of the service of IPPs in EGCO Group, the major power plants in EGCO Group, is provided as an example:

#### 1. Capacity, Net Generation and Capacity Factor

The capacity, net generation and capacity factor of IPPs during 2018-2020 is as shown below:

	UNITS	2020	2019	2018
<b>KEGCO</b>				
Contracted Capacity <sup>1</sup>	MW	930	930	930
Net Generation <sup>2</sup>	Million kWh	6,515	6,518	6,080
Capacity Factor <sup>3</sup>	%	79.76	80.01	76.64
Increasing Rate of Net Generation <sup>4</sup>	%	(0.05)	7.20	(2.00)
<b>BLCP</b>				
Contracted Capacity <sup>1</sup>	MW	1,346.50	1,346.50	1,346.50
Net Generation <sup>2</sup>	Million kWh	11,284	10,912	10,384
Capacity Factor <sup>3</sup>	%	95.40	92.51	88.03
Increasing Rate of Net Generation <sup>4</sup>	%	3.13	5.08	2.89
<b>GPG</b>				
Contracted Capacity <sup>1</sup>	MW	1,468	1,468	1,468
Net Generation <sup>2</sup>	Million kWh	66	684	135
Capacity Factor <sup>3</sup>	%	0.51	5.32	1.05
Increasing Rate of Net Generation <sup>4</sup>	%	(90.38)	406.74	(90.09)

Remark: <sup>1</sup> Contracted Capacity is the capacity of generation that EGAT agrees to purchase from each power plant.

<sup>2</sup> Net Generation is the total amount of electricity that each power plant generates and sells to EGAT in each year.

<sup>3</sup> Capacity Factor is computed by Net generation over in that year over the maximum available energy

<sup>4</sup> Increasing Rate of Generation is the rate of variation in generation of each power plant compared to the previous year.

#### 2. Raw Material

In case of fuel-based electricity, major raw material for power generation is fuel, which comprises natural gas and coal which are primary fuels and diesel oil, the secondary fuel, other raw materials required for the generating process are water and chemicals, water treatment agent and fuel additive. Major raw materials for power generating can be summarized as follows:

### 1. Natural Gas

Natural gas is a primary fuel used for both thermal and combined cycle plants. Both KEGCO and GPG are supplied fuel by PTT under the contracted amount and price as indicated in the Fuel Supply Agreement between PTT and the power plant. The fuel cost will be passed through in the Energy Payment based on the contracted heat rate as stated in the PPA with EGAT

### 2. Coal

Bituminous coal is the primary fuel for BLCP power plant. This high quality coal is shipped to the deep sea port of BLCP from overseas contracted suppliers. Its price varies from shipment to shipment depending on its calorific value. According to PPA with EGAT, BLCP is obliged to stock the coal for 30 days continuous operation.

### 3. Diesel Oil

Diesel oil is reserved to cope with primary oil shortage and for use in case of machinery test-run and for operation after repair and maintenance. According to the PPAs, KEGCO and GPG have to make available diesel oil reserve to serve 3 days of full generation. They will operate the facility with the use of diesel oil only upon the instruction of EGAT. Moreover, diesel oil is used in BLCP for a start-up or lower-than 25% operation load, so the diesel oil is only reserved as necessary each year.

### 4. Water

Each power plant procures the water for consumption as detailed below:

KEGCO's primary source of water used in the thermal plant comes from Ban Klang canal and the secondary source comes from Tha Tok canal. A reservoir had been built to accommodate water reserve of 0.4 million cubic meters upon area of 79 rai along the Ban Klang canal, situated about 10 kilometers away from the power plant. It can well cope with shortage of water during dry season. Moreover, an additional reservoir, Ban Bang Koo, situated 6 kilometers from the power plant with the capacity of 0.4 million cubic meters upon area of 114 rai.

BLCP purchases the water from the Industrial Estate Authority of Thailand ("IEAT") with the reserve of 3-day service. Moreover, BLCP has the desalination plant as the

backup source to be used in case of IEAT's incapability to provide its service, to meet the need of water use.

GPG's primary source of water used in the power plant comes from Pasak River. A reservoir has also been built to accommodate water reserve of 1.3 million cubic meters upon area of 120 rai. Within this reserved capacity, the power plant is able to sustain its normal operation for 30 days. Moreover, GPG has water treatment plant to produce tap water with the capacity of 54,413 cubic meters per day.

### 5. Chemicals

Most chemicals used in power plants are for improving water quality, such as, Ammonia and Sodium triphosphate for boilers, and Hydrochloric acid (HCL), Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) and Sodium hydroxide (NaOH) for use in water purification system, as well as Aluminum Chlorohydrate (ACH) and Sodium hypochlorite (NaOCl) for tap water system.

### Other Businesses

There are 3 types of other business comprise 1) operation and maintenance business, being EGCO Engineering & Service Co., Ltd. ("ESCO") Engineering & Service Company Limited (E&E) and Pearl Energy Philippines Operating, Inc. ("PEPOI"); 2) management services business for power plant, being Quezon Management Services Inc. ("QMS"); and 3) coal mine business, being PT Manabung Maura Enim Co., Ltd. ("MME").

### 1. Operation and Maintenance Business - ESCO, E&E, and PEPOI

#### 1.1 ESCO

ESCO is EGCO's wholly owned subsidiary which provides operation, maintenance, engineering and construction services to power plants, petrochemical plants, oil refineries and other industries.

#### Service

#### *Power Plant Operation and Maintenance Services (O&M)*

ESCO aims to provide comprehensive operation and maintenance services with high efficiency, i.e., high equivalent availability factor and low heat rate with reasonable O&M cost. ESCO has extensive experiences to provide a full scope services to both thermal and combined cycle plants

### Maintenance Services

ESCO has extensive expertise in mechanical maintenance, electrical maintenance, and control and instruments maintenance services and can be on called on 24-hour basis. With the strong and competent workforce, ESCO can provide a variety of professional maintenance services for power, petrochemical and oil & gas industries which covers the following areas:

- Planned Outage maintenance
- Contract maintenance services
- Individual equipment maintenance
- Field service and emergency troubleshooting

### Engineering & Construction Services

ESCO has a qualified team of engineer to provide services on civil, mechanical, electrical and control and the testing and installation. The particular strength lies in installation and conducting test on power plant main system such as gas turbine, steam turbine, generator, HRSG, boiler and balance of plant. ESCO services also cover turnkey of small to medium projects such as pumping stations and power distribution substations.

In addition, ESCO also provides other services such as on demand side management, technical and field testing and technical training, etc.

### 1.2 E&E

EGCO indirectly holds 40% stake in E&E Engineering and Service Company Limited, which provides operation and maintenance services to NT1PC power plant through a long-term operation and maintenance agreement and provides the various service to other power plants and industries in the Laos PDR.

### 1.3 PEPOI

EGCO holds 100% stake in PEPOI, which provides operation and maintenance services for Quezon and SBPL power plant through a long-term operation and maintenance agreement.

### 2. Management Services Business for Power Plant - QMS

EGCO holds 100% stake in QMS, which provides management services for Quezon and SBPL power plant through a long-term management service agreement.

### 3. Coal mining company - MME

EGCO indirectly holds 40% stake in MME, which owns and operates a coal mining project (an open-pit mine), located in Muara Enim, South Sumatra, Indonesia. It is awarded a concession agreement from Indonesian government for 28 years since March 2010 to March 2038. It has mineable coal reserves of 134 million tons.

### Undelivered Works

There are 3 projects under developing as follows:

POWER PLANT PROJECT	PROVINCE/COUNTRY	FUEL TYPE	EGCO SHARES (%)	EQUITY CONTRACTED CAPACITY (MWE)	SCOD
1. NT1PC	Laos PDR	Hydro	25.00	161.08	2022
2. Yunneng	Taiwan	Wind	25.00	160	2021
3. TPN	Thailand	-	44.60	-	2021

## EGCO's Investment Information

### 1. IPP GROUP

#### 1.1 Khanom Electricity Generating Company Limited (KEGCO)

EGCO holds 100% stake in KEGCO, which owns and operates KEGCO unit 4 (KN4) power plant which is the largest private power plant in the southern Thailand, located in Nakhon Si Thammarat province. KN4 is a 970 MW combined cycle power plant using natural gas as primary fuel to generate and sell electricity to EGAT under the 25 years PPA.

In 2020, KN4 generated and sold 6,515.55 GWh electricity output to EGAT. Its annual average EAF was 99.17%.

#### 1.2 BLCP Power Limited (BLCP)

EGCO holds 50% stake in BLCP, which owns and operates an IPP coal-fired power plant located in Rayong province. It is a 1,434 MW power plant comprising two identical 717 MW pulverized coal-fired power units using high quality bituminous coal imported from Australia as the primary fuel to generate and sell all electricity output to EGAT under the 25 years PPA.

In 2020, BLCP power plant generated and sold 11,284.05 GWh electricity output to EGAT. Its annual average EAF for unit 1 and unit 2 was 96.48% and 96.99%, respectively.

#### 1.3 Gulf Power Generation Company Limited (GPG)

EGCO indirectly holds 50% stake in GPG, which owns and operates an IPP gas-fired power plant, located in Saraburi province. It is a 1,510 MW power plant composed of two 755 MW combined cycle power blocks using natural gas as the primary fuel to generate and sell all electricity output to EGAT under the 25 years PPA.

In 2020, GPG power plant generated and sold 65.83 GWh electricity output to EGAT. Its annual average EAF for block 1 and block 2 was 95.79% and 89.98%, respectively.

### 2. SPP GROUP

#### 2.1 EGCO Cogeneration Company Limited (EGCO Cogen)

EGCO indirectly holds 80% stake in EGCO Cogen, which owns and operates a SPP cogeneration power plant located in Rayong province. It is a 117 MW cogeneration power plant with steam supply of 30 tons per hour using natural gas as the primary fuel. Under the SPP firm cogeneration program, it generates and sells 60 MW electricity output to EGAT under the 21 years PPA, and remaining electricity along with steam output to Industrial Users (IUs) in Rayong Industrial Park under the long-term PPAs.

In 2020, EGCO Cogen power plant generated and sold 630.94 GWh electricity output to EGAT and IUs. Its annual average EAF was 95.49% and the steam output to IUs was 26,521 tons.

## 2.2 Roi-Et Green Company Limited (RG)

EGCO indirectly holds 70.30% stake in RG, which owns and operates a SPP renewable power plant located in Roi-Et province. It is a 9.9 MW biomass-fired power plant using rice husk as the primary fuel. Under the SPP firm renewable program, it generates and sells electricity output to EGAT under the 21 years PPA.

In 2020, RG power plant generated and sold 58.58 GWh electricity output to EGAT. Its annual average EAF was 86.31%

## 2.3 Nong Khae Cogeneration Company Limited (NKCC)

EGCO indirectly holds 50% stake in NKCC, which owns and operates a SPP cogeneration power plant located in Saraburi province. It is a 126 MW cogeneration power plant with steam of 24 tons per hour using natural gas as the primary fuel. Under the SPP firm cogeneration program, it generates and sells 90 MW electricity output to EGAT under the 21 years PPA, and remaining electricity along with steam output to IUs under the long-term PPAs.

In 2020, NKCC power plant generated and sold 765.59 GWh electricity output to EGAT and IUs. Its annual average EAF was 93.97% and the steam output to IUs was 98,596.57 tons.

## 2.4 Samutprakarn Cogeneration Company Limited (SCC)

EGCO indirectly holds 50% stake in SCC, which owns and operates a SPP cogeneration power plant located in Samutprakarn province. It is a 126 MW cogeneration power plant with steam of 24 tons per hour using natural gas as the primary fuel. Under the SPP firm cogeneration program, it generates and sells 90 MW electricity output to EGAT under the 21 years PPA, and remaining electricity along with steam output to IUs under the long-term PPAs.

In 2020, SCC power plant generated and sold 511.17 GWh electricity output to EGAT and IUs. Its annual average EAF was 99.76% and the steam output to IUs was 60,682.70 tons.

Remarks: SCC was expired on 23 August 2020.

## 2.5 Gulf Yala Green Company Limited (GYG)

EGCO indirectly holds 50% stake in GYG, which owns and operates a SPP renewable power plant located in Yala province. It is a 23 MW biomass-fired power plant using para-wood residue as the primary fuel. Under the SPP firm renewable program, it generates and sells electricity output to EGAT under the 25 years PPA.

In 2020, GYG power plant generated and sold 165.03 GWh electricity output to EGAT. Its annual average EAF was 92.45%.

## 2.6 Chaiphaphum Wind Farm Company Limited (CWF)

EGCO holds 90% stake in CWF, which owns and operates an 80 MW wind power plant located in Subyai district, Chaiphaphum province. CWF signed a non-firm PPA with EGAT under Small Power Plant scheme for 5-year term which can be renewed every 5 years.

In 2020, CWF power plant generated and sold 125.08 GWh electricity output to EGAT. Its annual average EAF was 98.37%.

## 2.7 Natural Energy Development Company Limited (NED) (Lopburi Solar)

EGCO holds 66.67% stake in NED, which owns and operates 55 MW thin film solar power plant Lopburi Solar Project (LSP) located in Lopburi province. NED signed a non-firm PPA for LSP with EGAT for the sale of electricity output generated. PPA is automatically renewed every 5 years. In addition to the wholesale tariff referred to EGAT, the projects receive an adder 8 baht per kWh, applicable for 10 years from the COD.

In 2020, Lopburi Solar generated and sold 107.14 GWh electricity output to EGAT. Its annual average availability was 99.99%.

## 2.8 Klongluang Utilities Company Limited (KLU)

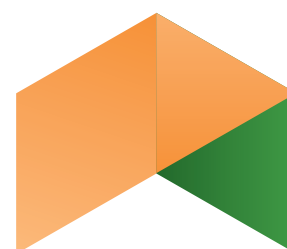
EGCO holds 100% stake in KLU, which owns and operates a SPP cogeneration power plant located in Pathum Thani province. It is a 122 MW cogeneration power plant with steam of 13 tons per hour using natural gas as the primary fuel. Under the SPP firm cogeneration program, it generates and sells 90 MW electricity output to EGAT under the 25 years PPA, and remaining electricity along with steam output to IUs under the long-term PPAs.

In 2020, KLU generated and sold 717.88 GWh electricity output to EGAT and IU. Its annual average availability was 95.95% and the steam output to IUs was 130,236 tons.

## 2.9 Banpong Utilities Company Limited (BPU)

EGCO holds 100% stake in BPU, which owns and operates a SPP cogeneration power plant located in Pathum Thani province. It is a 256 MW cogeneration power plant with steam of 100 tons per hour comprising two identical 128 MW using natural gas as the primary fuel. Under the SPP firm cogeneration program, it generates and sells 180 MW electricity output to EGAT under the 25 years PPA, and remaining electricity along with steam output to IUs under the long-term PPAs.

In 2020, BPU generated and sold 1,400.64 GWh electricity output to EGAT and IU. Its annual average availability was 94.38% and the steam output to IUs was 603,293 tons.



### 3. VSPP GROUP

#### 3.1 Natural Energy Development Company Limited (NED) (Wang Ploeng Solar)

EGCO holds 66.67% stake in NED, which owns and operates 8 MW thin film solar power plant Wang Ploeng Solar Project (WSP) located in Lopburi province. NED signed a non-firm PPA for WSP with PEA for the sale of electricity output generated. PPA is automatically renewed every 5 years with the same as LSP pricing structure.

In 2020, Wang Ploeng Solar generated and sold 15.91 GWh electricity output to PEA. Its annual average availability was 99.30%.

#### 3.2 SPP Two Company Limited (SPP2)

EGCO holds 100% stake in SPP2, which owns and operates the 8 MW solar power plant located in Saraburi province. SPP2 has entered into a non-firm PPA with PEA under VSPP program. The PPA is automatically renewed every 5 years with the same as NED's pricing structure. SPP2 is equipped with solar tracking system.

In 2020, SPP2 power plant generated and sold 15.05 GWh electricity output to PEA. Its annual average availability was 99.27%.

#### 3.3 SPP Three Company Limited (SPP3)

EGCO holds 100% stake in SPP3, which owns and operates the 8 MW solar power plant located in Srisaket province. SPP3 has entered into a non-firm PPA with PEA under VSPP program. The PPA is automatically renewed every 5 years with the same as NED's pricing structure. SPP3 is equipped with solar tracking system.

In 2020, SPP3 power plant generated and sold 15.53 GWh electricity output to PEA. Its annual average availability was 99.70%.

#### 3.4 SPP Four Company Limited (SPP4)

EGCO holds 100% stake in SPP 4, which owns and operates the 6 MW solar power plant located in Srisaket province. SPP4 has entered into a non-firm PPA with PEA under VSPP program. The PPA is automatically renewed every 5 years with the same as NED's pricing structure. SPP4 is equipped with solar tracking system.

In 2020, SPP4 power plant generated and sold 10.89 GWh electricity output to PEA. Its annual average availability was 99.34%.

#### 3.5 SPP Five Company Limited (SPP5)

EGCO holds 100% stake in SPP 5, which owns and operates the 8 MW solar power plant located in Roi-Et province. SPP5 has entered into a non-firm PPA with PEA under VSPP program. The PPA is automatically renewed every 5 years with the same as NED's pricing structure. SPP5 is equipped with solar tracking system.

In 2020, SPP5 power plant generated and sold 15.52 GWh electricity output to PEA. Its annual average availability was 99.42%.

### 3.6 G-Power Source Company Limited (GPS)

EGCO holds 60% stake in GPS, which owns and operates 4 solar power plants under 4 non-firm PPAs with the PEA under VSPP program with installed capacity of 6.5 MW each, total capacity of 26 MW. The PPAs are automatically renewed every 5 years with the same as NED's pricing structure. GPS has 4 sites comprising 1) Ta Khit Solar Project, Nakhon Sawan province 2) Ta Sang Solar Project, Nakhon Sawan province 3) Dong Khon Solar Project, Chai Nat province, and 4) Bueng Sam Phan Solar Project, Phetchabun province.

In 2020, all GPS's solar power plants generated and sold 44.26 GWh electricity output to PEA. Its annual average availability was 99.48%.

### 3.7 Solarco Company Limited (Solarco)

EGCO indirectly holds 49% stake in Solarco, which owns and operates 6 solar power plants located in Nakhorn Pathom and Suphanburi provinces. Solarco has entered into 6 non-firm PPAs with PEA under VSPP program with the installed capacity of 9.5 MW each, total capacity 57 MW. The PPAs are automatically renewed every 5 years with the same as NED's pricing structure. Solarco has 6 power plants, namely 1) Sai Kiew Solar Project, 2) Sai Yai1 Solar Project, 3) Sai Yai2 Solar Project, 4) Sai Phet1 Solar Project, 5) Sai Phet2 Solar Project and 6) Sai Phet3 Solar Project.

In 2020, all Solarco's power plants generated and sold 114.11 GWh electricity output to PEA. Its annual average EAF was 99.91%.

### 3.8 Theppana Wind Farm Company Limited (TWF)

EGCO holds 90% stake in TWF, which owns and operates the 7.5 MW wind power plant located in Chaiyaphum province. TWF has entered into a non-firm PPA with PEA under VSPP program. The PPA is automatically renewed every 5 years. In addition to the wholesale tariff referred to EGAT, the project receives adder 3.5 baht per kWh, applicable for 10 years from the COD.

In 2020, TWF power plant generated and sold 11.79 GWh electricity output to PEA. Its annual average EAF was 98.32%.

## 4. OVERSEAS GROUP

### 4.1 Quezon Power (Philippines) Limited Company (Quezon)

EGCO indirectly holds 100% stake in Quezon, which owns and operates a 502.50 MW pulverized coal-fired power plant using the high-quality coal imported from Indonesia as the primary fuel. Under the 25 years PPA, it generates and sells electricity output to Manila Electric Company (MERALCO), the country's largest power distribution company.

In 2020, Quezon power plant generated and sold 2,135.44 GWh electricity output to MERALCO. Its annual average EAF was 88.10%.

#### 4.2 Nam Theun 2 Power Company Limited (NTPC)

EGCO holds 35% stake in NTPC, which owns and operates a 1,086.80 MW hydroelectric power plant located in Lao PDR. It generates and sells electricity output to EGAT, as well as Electricité du Laos (EDL) under the 25 years PPAs starting from its COD.

In 2020, NTPC power plant generated and sold 4,668.20 GWh electricity output to EGAT and 393.21 GWh electricity output to EDL. Its annual average EAF was 85.77% for EGAT and 98.61% for EDL.

#### 4.3 Star Energy Geothermal Pte Ltd. (SEG)

EGCO indirectly holds 20% stake in SEG, which owns and operates a 227 MW geothermal power plant located in Indonesia. It comprises 2 units of 110 MW and 117 MW. Under the long-term PPA, it generates and sells electricity output to PT PLN (Persero), an Indonesian government-owned electricity corporation.

In 2020, SEG power plant generated and sold 1,887.64 GWh electricity output to its customers. Its annual average AF was 99.79%.

#### 4.4 Boco Rock Wind Farm Pty Limited (BRWF)

EGCO indirectly holds 100% stake in BRWF, which owns and operates a 113 MW wind power plant located in Australia under long-term PPA with EnergyAustralia Pty Ltd.

In 2020, BRWF power plant generated and sold 380.09 GWh electricity output to the Australian Energy Market Operator (AEMO) and EnergyAustralia Pty Ltd. Its annual average EAF was 97.91%.

#### 4.5 Star Energy Geothermal (Salak – Darajat) B.V. (SEGSD)

EGCO indirectly holds 20.07% stake in SEGSD, which owns and operates a 647.27 MW two geothermal power plant projects located in Indonesia. It comprises of Salak project 6 units of 376.80 MW and Darajat project 3 units 270.46 MW. Under the long-term PPA, it generates and sells steam and electricity output to PT PLN (Persero), an Indonesian government-owned electricity corporation.

In 2020, Salak power plant generated and sold 2,929.00 GWh electricity output to its customers. Its annual average AF was 95.77% and Darajat power plant generated and sold 2,165.51 GWh electricity output to its customers. Its annual average AF was 99.28%.

#### 4.6 Paju Energy Services company limited (Paju)

EGCO indirectly holds 49% stake in Paju which owns and operates the Paju gas fire power and Gangdong fuel cell power plant, located in Republic of Korea. The Paju gas fired power plant has an install capacity of 1,823 MW. The main source of fuel is the imported natural gas. Gangdong fuel cell power plant has an install capacity of 19.8 MW. A fuel cell is an electrochemical device that combines hydrogen from natural gas and oxygen to produce electricity. The electricity output is generated and sold to Korea Electric Power Corporation (KEPCO), which is the sole off-taker of the wholesale power generation, through the Korea Power Exchange (KPX) which served as the market operator in Republic of Korea.

In 2020, Paju gas fire power generated and sold 11,243.61 GWh electricity output to KEPCO. Its annual average EAF was 87.15%. Gangdong fuel cell power plant generated and sold 56.20 GWh electricity output to KEPCO.

#### 4.7 San Buenaventura Power Limited Company (SBPL)

EGCO indirectly holds 49% stake in SBPL, which owns and operates a 500 MW pulverized coal-fired power plant using the high-quality coal imported from Indonesia as the primary fuel. Under the 25 years PPA, it generates and sells electricity output to Manila Electric Company (MERALCO), the country's largest power distribution company.

In 2020, the power plant generated and sold 3,070.26 GWh electricity output to MERALCO. Its annual average EAF was 82.06%.

#### 4.8 Xayaburi Power Company Limited (XPCL)

EGCO holds 12.50% stake in XPCL, which owns and operates a 1,285 MW run-of-river hydroelectric power plant located in Lao PDR. It generates and sells electricity output to EGAT, as well as Electricité du Laos (EDL) under the 29 years PPAs starting from its COD.

In 2020, XPCL power plant generated and sold 6,115.68 GWh electricity output to EGAT and 170.32 GWh electricity output to EDL.

### 5. OTHER BUSINESSES

#### 5.1 EGCO Engineering & Service Company Limited (ESCO)

EGCO holds 100% stake in ESCO, which provides operation, maintenance, engineering and construction services to power plants, petrochemical plants, oil refineries and other industries.

#### 5.2 E&E Engineering & Service Company Limited (E&E)

EGCO indirectly holds 40% stake in E&E, which provides operation and maintenance service to NT1PC, other power plants and industries in the Laos PDR.

#### 5.3 Pearl Energy Philippines Operating, Inc. (PEPOI)

EGCO indirectly holds 100% stake in PEPOI, which provides operation and maintenance services to Quezon and SBPL power plant through a long-term operation and maintenance agreement.

#### 5.4 Quezon Management Services Inc. (QMS)

EGCO indirectly holds 100% stake in QMS, which provides management services to Quezon and SBPL power plant through a long-term management service agreement.

#### 5.5 PT Manambang Muara Enim (MME)

EGCO indirectly holds 40% stake in MME, which owns and operates a coal mining project (an open-pit mine), located in Muara Enim, South Sumatra, Indonesia. It has the concession agreement from Indonesian government for 28 years since March 2010 to March 2038. It has mineable coal reserves of 134 million tons. The sales volume of MME in 2020 was at 1.58 million tons.



## Operational Assets



### FIXED ASSETS

The fixed assets of the company and subsidiaries as at December 31, 2020 comprise the following items.

ITEMS	VALUE <sup>/1</sup> (MILLION BAHT)
1. Land and Building	6,913.36
<u>Less</u> Accumulated Depreciation	(1,647.03)
Impairment	(73.41)
Total	<b>5,192.92</b>
2. Power Plant and Transmission System	68,489.49
<u>Less</u> Accumulated Depreciation	(22,667.13)
Impairment	(1,419.19)
Total	<b>44,403.17</b>
3. Office Equipment and Cars	600.28
<u>Less</u> Accumulated Depreciation	(493.30)
Total	<b>106.98</b>
4. Work under Construction	47.05

Remark : <sup>/1</sup> The number was shown in EGCO Group's consolidated financial statement. EGCO Group has recorded interest in equity method from joint ventures in the financial statement. Therefore, the values of land, buildings and pledged of joint ventures were not shown in the financial statement.

### Subsidiaries

Khanom Electricity Generating Co., Ltd. has mortgaged land, buildings, and pledged power plant equipment to secure its loan from financial institutions worth 311 million USD and 11,616 million Baht.

SPP 2 Co., Ltd. has mortgaged land, buildings, and pledged power plant equipment to secure its long-term loan worth 868 million Baht.

SPP 3 Co., Ltd. has mortgaged land, buildings, and pledged power plant equipment to secure its long-term loan worth 904 million Baht.

SPP 4 Co., Ltd. has mortgaged land, buildings, and pledged power plant equipment to secure its long-term loan worth 684 million Baht.

SPP 5 Co., Ltd. has mortgaged land, buildings, and pledged power plant equipment to secure its long-term loan worth 830 million Baht.

Banpong Utilities Co., Ltd. (BPU) has mortgaged buildings, and pledged power plant equipment to secure its long-term loan worth 103 million USD and 6,646 million Baht.

Klongluang Utilities Co., Ltd. (KLU) has mortgaged buildings, and pledged power plant equipment to secure its long-term loan worth 5,324 million Baht.

Theppana Wind Farm Co., Ltd. (TWF) has mortgaged buildings, and pledged power plant equipment to secure its long-term loan worth 4 million USD and 275 million Baht.

Chaiyaphum Wind Farm Co., Ltd. (CWF) has mortgaged buildings, and pledged power plant equipment to secure its long-term loan worth 30 million USD and 4,010 million Baht.

Solarco Co., Ltd. (SLC) has mortgaged buildings, and pledged power plant equipment to secure its long-term loan worth 35 million USD and 3,960 million Baht.

Quezon Power (Philippines) Limited Co. has mortgaged company's assets to secure its long-term loans worth 365 million USD.

Boco Rock Wind Farm Pty Limited has mortgaged company's assets to secure its long-term loan worth 210 million AUD.

## INTANGIBLE ASSETS

Right in long-term power purchase agreements, Right to use transmission facilities and Licenses for operating power plants  
Right in long-term power purchase agreements, right to use transmission facilities and licenses for operating power plants from the acquisitions of subsidiaries, associate and joint ventures at the date of acquisition which EGCO Group expected to receive benefits and bonus in return. Hence, those intangible assets are amortized using the straight-line method over their estimated useful life. Management determines the estimated useful life within 15-25 years.

The net value of right in long-term power purchase agreements, right to use transmission facilities and licenses for operating power plants arising from the acquisitions of subsidiaries are presented in EGCO's consolidated statement of financial position as at 31 December 2020 in the amount of 2,992 million Baht. The amounts arising from the acquisitions of joint ventures and associate are included in investments in joint ventures and associate in the consolidated statement of financial position.

## LAND FOR RENT

As at 31 December 2020, EGCO and its subsidiaries have operating leases for operational assets as follows:

LESSEE	LESSOR	TYPES OF LEASE	PERIOD	BEGINNING DATE	ENDING DATE
BPU	Siam Craft Co., Ltd.	Land Rental for Power Plant	28 Years 8 Months	1 Feb 2016	15 Oct 2044
KLU	EGCO	Land Rental for Power Plant	29 Years	25 May 2015	24 May 2044
SLC	Yanhee Power Holding Co., Ltd.	Land Rental for Power Plant	25 Years	18 Nov 2013	17 Nov 2038

LESSEE	LESSOR	TYPES OF LEASE	PERIOD	BEGINNING DATE	ENDING DATE
TWF	Agricultural Land Reform Office	Land Rental	27 Years	18 Oct 2010	17 Oct 2037
	Individual	Land Rental for Placing Electrical Wire and Gateway of Power Plant	27 Years	22 Jun 2011	21 Jun 2038
	Individual	Land Rental for Wind Turbine and Corridor between Wind Turbine and Agricultural Land Reform Office	27 Years	1 Jun 2010	31 May 2037
CWF	Agricultural Land Reform Office	Land Rental for Operating Power Plant	27 Years	18 Jan 2012	17 Jan 2039
	Agricultural Land Reform Office	Land Rental for Operating Power Plant	26 Years	29 Aug 2016	28 Aug 2042
	Individual	Land Rental for Operating Power Plant	27 Years	18 Jan 2012	17 Jan 2039
	Individual	Land Rental for Storage	5 Years	1 Jan 2018	31 Dec 2023

## INVESTMENT POLICY IN SUBSIDIARIES, ASSOCIATE AND JOINT VENTURES

EGCO aims to secure continuous growth and achieve a corporate vision: “To be a major sustainable Thai energy company with full commitment to environment protection and social development support”. New projects consideration is based on return on investment, EGCO’s experience and expertise to create value added, optimizing financing cost and being within acceptable project risks. Also, EGCO places a great emphasis on effective asset management to ensure maximum efficiency of existing power plants in order to

achieve its highest performance and manage projects under construction to be completed as scheduled and within the planned budget. Moreover, EGCO has a strong intention to enhance corporate sustainability standard of EGCO Group, by integration of sustainability practices. In overall, the corporate strategies would be implemented to ultimately deliver sustainable long-term value towards stakeholders.

# Revenue Structure

EGCO Group business comprise holding company, electricity generation and sale companies, operating, maintenance, engineering and construction companies. The revenue structure of EGCO Group is summarized in the below table.

Unit : Million Baht

PRODUCT SERVICE	TRANSACTION	% SHARE HOLDING	2020		2019	
			REVENUE	%	REVENUE	%
Electricity	Quezon	100.00%				
	Energy Charge		8,855.59	21.69%	10,191.84	21.48%
	BPU	99.99%				
	Capacity Charge		819.74	2.01%	853.08	1.80%
	Energy Charge		3,521.37	8.62%	4,042.42	8.52%
	KLU	99.99%				
	Capacity Charge		423.94	1.04%	431.45	0.91%
	Energy Charge		1,814.82	4.44%	2,095.91	4.42%
	EGCO COGEN	80.00%				
	Capacity Charge		244.80	0.60%	242.59	0.51%
	Energy Charge		1,636.64	4.01%	1,921.82	4.05%
	BRWF	100.00%				
	Energy Charge		872.51	2.14%	876.75	1.85%
	CWF	90.00%				
	Energy Charge		328.24	0.80%	420.02	0.89%
	Solarco	49.00%				
	Energy Charge		369.58	0.91%	387.82	0.82%
	SPP 2	99.99%				
	Energy Charge		47.80	0.12%	51.00	0.11%
	SPP 3	99.99%				
	Energy Charge		48.86	0.12%	51.28	0.11%
	SPP 4	99.99%				
	Energy Charge		33.77	0.08%	36.91	0.08%
	SPP 5	99.99%				
	Energy Charge		48.87	0.12%	52.12	0.11%
	TWF	90.00%				
	Energy Charge		31.59	0.08%	38.08	0.08%

PRODUCT SERVICE	TRANSACTION	% SHARE HOLDING	2020		2019	
			REVENUE	%	REVENUE	%
Finance Lease Income Under Power Purchase Agreements	KEGCO	99.99%	2,874.68	7.04%	3,000.33	6.32%
	RG	70.30%	2.39	0.01%	3.39	0.01%
Lease Service Income Under Power Purchase Agreements	KEGCO	99.99%	10,696.62	26.20%	11,875.83	25.02%
	RG	70.30%	233.35	0.57%	241.75	0.51%
Service	ESCO	99.99%	433.19	1.06%	559.06	1.18%
	Quezon, PEPOI and QMS	100.00%	239.32	0.59%	137.51	0.29%
Interest Income	EGCO		117.68	0.29%	142.82	0.30%
	EGCO Plus		81.25	0.20%	341.93	0.72%
	KEGCO		17.73	0.04%	28.94	0.06%
	Quezon		8.00	0.02%	13.41	0.03%
	BRWF		6.40	0.02%	12.98	0.03%
	BPU, CWF, Solarco, KLU, EGCO COGEN, ESCO, RG, SPP 2, SPP 3, SPP 4, SPP 5, TWF, PEPOI and QMS		29.32	0.07%	44.27	0.09%
Others	Solaco <sup>/A</sup>		909.34	2.23%	932.41	1.96%
	CWF <sup>/A</sup>		437.79	1.07%	541.05	1.14%
	EGCO		273.71	0.67%	69.79	0.15%
	SPP 2 <sup>/A</sup>		119.41	0.29%	124.80	0.26%
	SPP 3 <sup>/A</sup>		123.53	0.30%	126.29	0.27%
	SPP 4 <sup>/A</sup>		85.70	0.21%	90.81	0.19%
	SPP 5 <sup>/A</sup>		124.86	0.31%	129.38	0.27%
	TWF <sup>/A</sup>		41.10	0.10%	47.56	0.10%
	KEGCO		11.59	0.03%	49.36	0.10%
	EGCO PLUS		8.97	0.02%	172.22	0.36%
	ESCO, KLU, PEPOI, RG, Quezon BPU, EGCO COGEN, BRWF, QMS and Quezon		16.31	0.04%	26.93	0.06%

PRODUCT SERVICE	TRANSACTION	% SHARE HOLDING	2020		2019	
			REVENUE	%	REVENUE	%
Share of Profit (Loss)	NTPC	35.00%	1,217.19	2.98%	1,443.32	3.04%
	GEC <sup>/B</sup>	50.00%	1,365.91	3.35%	1,305.45	2.75%
	PAJU ES <sup>/C</sup>	49.00%	798.42	1.96%	1,228.46	2.59%
	SBPL <sup>/D</sup>	49.00%	604.50	1.48%	214.03	0.45%
	SEG	20.00%	408.78	1.00%	419.10	0.88%
	BLCP	50.00%	372.89	0.91%	654.17	1.38%
	SEGSD	11.89%	265.08	0.65%	310.04	0.65%
	XPCL	12.50%	103.78	0.25%	143.92	0.30%
	NED <sup>/E</sup>	66.67%	4.44	0.01%	629.72	1.33%
	TPN	49.00%	1.48	0.00%	0.04	0.00%
	Yunlin <sup>/F</sup>	25.00%	(206.43)	(0.51%)	-	0.00%
	NT1PC	25.00%	(64.16)	(0.16%)	(42.86)	(0.09%)
	GPS <sup>/E</sup>	60.00%	(28.05)	(0.07%)	143.04	0.30%
	MME	40.00%	(5.73)	(0.01%)	(42.86)	(0.09%)
	E&E	40.00%	(0.06)	(0.00%)	(0.58)	(0.00%)
Dissolution	Net gain on dissolutions of North Pole <sup>/G</sup>		-	0.00%	649.11	1.37%
Total Revenues (Revenues Item in Consolidated)			40,828.40	100%	47,460.01	100%

## Notes

<sup>/A</sup> Adder is an income, which is supported by the government.

<sup>/B</sup> Samutprakarn Cogeneration Co., Ltd. (SCC) is a power plant of Gulf Electric Public Co., Ltd. (GEC), which is EGCO holds a 50% stakes, stopped its operation and electricity sales to EGAT due to the expiration of PPA on August 23, 2020.

<sup>/C</sup> EGCO approved the investment in Gangdong Fuel Cell Project (Gangdong), a project of Paju Energy Services Co., Ltd. (Paju ES), which is EGCO holds a 49.00% stakes on June 21, 2019. Construction works of the project was complete and its operation started on October 1, 2020.

<sup>/D</sup> San Buenaventura Power Ltd., Co. (SBPL), which is EGCO holds a 49% stakes. The commercial operation date was on September 26, 2019.

<sup>/E</sup> Natural Energy Development Co., Ltd. (NED) and G-Power Source Co., Ltd. (GPS) recognised allowance for impairment in 2020.

<sup>/F</sup> EGCO entered into the share purchase agreement to acquire a 25% stakes in Yunlin Holding GmbH (Yunlin) on December 19, 2019.

<sup>/G</sup> North Pole Investment Co., Ltd. (North Pole), which is EGCO holds a 100% stakes, registered for dissolution and liquidation on December 27, 2018 and October 1, 2019, respectively.

# Risk Factors and Risk Management



## RISK GOVERNANCE STRUCTURE

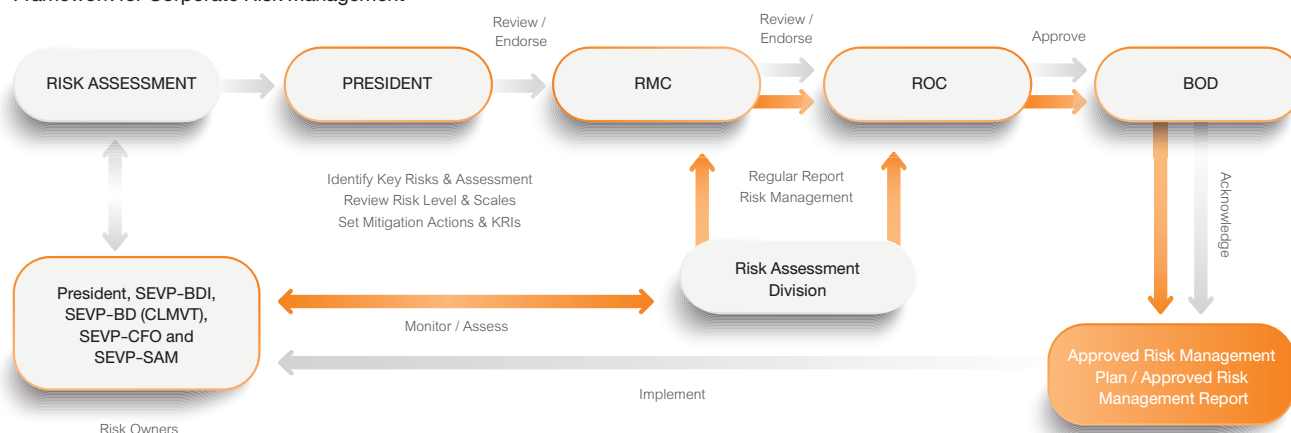
Electricity Generating Public Company Limited (EGCO) operates its core business, focusing on power generation and the continued expansion of investments in up-and down-stream related energy businesses (e.g., those related to fuel and other infrastructure and smart energy solutions). EGCO is fully committed and determined to enhance its sustainable growth while operating its business using effective Enterprise-Wide Risk Management, which ultimately optimizes stakeholder value.

Our Risk Oversight Committee (ROC) operates at the level of the board of directors and is comprised of five experienced directors from the fields of risk management, law, finance and banking, engineering, and energy business. The senior vice president of risk assessment is the secretary. The Risk Oversight Committee's main duties and responsibilities are to consider, review, and provide recommendations on enterprise risk management (ERM) policy and framework; to set corporate risk appetite and risk tolerance level; to confirm the key risks, their impacts, and possibilities; ERM plan and process; to provide recommendations and support to EGCO Group's Board of Directors and management; and to appropriately and efficiently supervise the managing of various risks relating to business operations. Additionally, they are to regularly report to the board on the results of their risk assessments and implemented risk mitigations.

At the management level, our Risk Management Committee (RMC) is comprised of top executives with the president serving as the chairman of the committee; all senior executive vice presidents are members, the executive vice president of corporate strategy is the consultant and the senior vice president of risk assessment is the secretary. The Risk Management Committee's main duties and responsibilities are to manage EGCO Group's risk management in order to comply with risk management policies and guidelines, promote and support ERM policies, and to regularly report to the ROC and the board of directors. In the case of potential significant risk factors, the Risk Management Committee shall promptly report to the ROC and the board.

Additionally, EGCO Group has a Risk Assessment Division which functions as the secretary of the RMC and the ROC. This division is responsible for monitoring and reporting the company's risk management practice, cooperating with the risk owners on risk identification, risk assessment, risk response, and reporting matters about risk management practice to the Risk Management Committee. In 2020, there were 8 meetings with the RMC and 13 meetings with the ROC to make sure that the risk management processes are implemented throughout the organization, all divisions and EGCO Group are fully aware of risk management's importance. The corporate risk management framework is as follows:

### Framework for Corporate Risk Management



RMC : Risk Management Committee ROC : Risk Oversight Committee BOD : Board of Directors

## RISK MANAGEMENT PHILOSOPHY AND POLICY

EGCO Group announced its risk management philosophy, which states:

EGCO Group strives to manage risk efficiently, despite the risks implicit in doing business, balancing risk and return for the benefit of all stakeholders. Our risk management shall increase our opportunities to achieve corporate goals and create sustainable corporate values.

Our philosophy will be applied throughout our organization to support enterprise risk management (ERM), which follows the risk management framework set by the board of directors.

EGCO strives to manage risk efficiently with consideration of balancing risk and return in order to create value optimization. The Risk Oversight Committee (ROC) is responsible to the management overview of this Risk Management Policy, in which the assignment has been made to Risk Management Committee (RMC) for execution. The effectiveness of this Risk Management Policy shall cover all companies under EGCO management and control. Moreover, EGCO will inform all of its subsidiaries and affiliated companies, including relevant, about this policy, helping them to enact the risk management goals listed below.

1. To create risk awareness and foster a mutual understanding that risk management is everyone's duty and responsibility.
2. To establish risk governance structure and resources that comply with the COSO-Enterprise Risk Management framework (COSO-ERM) using risk management knowledge and expertise.
3. To ensure that management encourages the awareness of

organization risk management as a culture throughout the organization.

4. To set risk appetite and the range of acceptable risk tolerance, complying with business context and strategy.
5. To regularly provide capacity building and knowledge sharing regarding enterprise risk management, covering guidelines for implementation, law, and regulation.
6. To conduct project risk assessment that aligns with the company's risk management perspective and that must be approved by the Board of Directors for all investment projects.
7. To prepare a risk management report, risk management manual, and business continuity plan for its subsidiaries. Reviews and updates of these documents shall be made regularly.
8. To regularly set an internal audit policy that focuses on risk management activities as well as internal control systems for risk management processes.

EGCO management will ensure the enforcement and continuous support of the risk management policy to ultimately achieve a risk management goal.

EGCO Group also applied the Committee of Sponsoring Organizations of the Treadway Commission Enterprise Risk Management (COSO ERM) framework which was classified as strategic risk management, operating risk management, financial risk management, and compliance risk management. We recently updated our "Risk Management Manual" to be in line with the 2017 COSO ERM. Moreover, EGCO Group established its key risk indicators (KRIs) which comprised the leading and lagging indicators in risk management and also encouraged the employees to appropriately utilize these KRIs with their operations.

## ENCOURAGE RISK MANAGEMENT CULTURE THROUGHOUT ORGANIZATION

EGCO Group realizes that risk management culture in an organization is a key factor to achieve ERM, therefore it has been promoting the importance of ERM by using various channels such as annual risk seminars, the Risk Management Manual, journals and news, risk management activities, EGCO radio, EGCO billboards, and EGCO Group Net. Additionally, the

company's board of directors and high-level executives play significant roles in promoting risk management throughout the organization in accordance with the "Tone at the Top" model. The company is now in the process of developing E-Learning applications to instruct employees about the advantages of applying COSO ERM in their future business operations.

Employees are encouraged to report any risky events that may lead to negative impacts on business operations or the organization. This can be done through a system-service



#### Electronic Mail

By sending an electronic mail to the whistleblower at any faculty, including:

- Audit Committee (auditcommittee@egco.com)
- Good Corporate Governance Working Group (goodgovernance@egco.com)
- Board of Directors (directors@egco.com)



#### Physical Mail

By sending physical mail to the whistleblower or one of the committees at the following address:

- Electricity Generating Public Company Limited  
EGCO Tower, 222 Vibhavadi Rangsit Road,  
Thungsonghong, Laksi, Bangkok 10210

## ASSESSING CORPORATE KEY RISKS, EMERGING RISKS AND RISK MITIGATION

The following is a summary of EGCO Group's key risk factors and relevant mitigation measures.

### 1. Investment Expansion Risk

EGCO Group invests in the energy business and its related businesses in both domestic and overseas markets. The primary source of income is dividends from the subsidiaries and joint ventures. To maintain and increase shareholder value, our strategic plan includes the continuous investment in new projects. Such acquisition and development projects may entail the following risks that may affect the company's investment target.

#### 1.1 Risk from Project Selection

EGCO Group plans to expand its investments to maintain continuous growth. Potential domestic and overseas projects are listed in the yearly investment plan — including the expansion of electricity generation of fossil fuels and renewable energy. Since the project selection process is of great importance, we have assigned this task to the Business Development Unit. This unit analyzes the related factors including economic policies, political and social policies of the targeted countries, economic situations, industry, financial costs, equipment and construction costs, environmental, social and governance (ESG) issues, and governmental laws and regulations. Moreover, the analysis of the changing environmental factors (sensitivity analysis) and also EGCO's internal factors including internal audit factor that affect the projects is taken into consideration, so that the risk

prevention and compensation are accounted for in the return of the investment analysis.

Furthermore, EGCO Group has identified new investment opportunities that must be reviewed and scrutinized by the EGCO's Executive Management Committee and the Investment Committee in order to ensure that all material risks are identified and well-managed before the new investment opportunities are proposed to the board of directors.

#### 1.2 Risk from Overseas Asset Management

Overseas investments create opportunities for the long-term growth of EGCO Group. Nevertheless, various factors may impact the performance of such assets such as economic circumstance, political factors, business environment, and local community. These factors are still present in EGCO Group's earnings forecast and can be possibly affected by those factors. In order to mitigate these risks, EGCO Group engages competent personnel who have experience in such specific markets to work on these overseas assets so that they are efficiently managed and the targeted profits are met.

EGCO Group has assigned an executive to work at the power plants such as NT1PC, NTPC in Laos, QPL and SBPL in the Philippines, and NGP in the Netherlands. Additionally, we have hired external specialists who are familiar with Australia's economy to work at BRWF in Australia.

Along with delegating the right people to work in overseas power plants, EGCO Group has also appointed competent representative directors from the management levels of senior vice president and above from the related fields including business development, financial accounting, and asset management. They will be directors in power plants where EGCO Group holds an ownership interest under the shareholder agreement and the Articles of Association. These representative directors are responsible for policy administration, operational performance, and supervising these companies to effectively carry out its business operation following Regulation on Arm Length Relation with EGCO Group the management principles that are in line with the company's policies.

## 2. Construction Project Management Risk

EGCO Group is well aware of the risk from project construction delays which can be caused by contractors' irresponsibility, local community conflicts, natural disasters, and COVID-19 epidemic. The measures that can be taken to lower the likelihood and impacts of such risks include the selection of reputable engineering, procurement, and construction (EPC) contractors with binding contracts; proactive community relations activities; and the securing of insurance policies which cover the impacts from natural disasters. EGCO Group assigns a project management team to closely monitor a project's progress to guarantee that it is completed as scheduled.

In 2020, there were 4 projects under construction. The construction of Gangdong Fuel Cell Power Plant in South Korea was completed and achieved their commercial operating dates (CODs) in 2020 as scheduled. The remaining 3 projects are still under construction, specifically Nam Thuen 1 Hydropower Plant in Laos, extension of the petroleum pipeline system to the northeastern region of Thailand, and Yunlin Offshore Wind Farm in Taiwan. These ongoing projects have a well-managed construction risk and are expected to be completed and achieve their COD as scheduled.



# 4

Projects in  
2020

Achieved Commercial  
Operating Dates

# 1

Project

Under  
Construction

# 3

Projects

## 3. Operating Risks

### 3.1 The Risk of Obtaining Lower-forecasted Earnings

EGCO Group has focused on the risks related to its operating assets to verify that the actual performance of these invested assets meets their expected performance. Therefore, the Asset Management Unit has been assigned to monitor the performance of each asset. These financial objectives are comprised of an analysis and comparison of the actual and planned performance targets. The measures imposed to manage the relevant risks are as follows:

- Asset management policies will be established and, whenever possible, management representatives and personnel will be selected to be directors or managers of subsidiaries and operating projects. The role of performance monitoring and root-cause analysis will be investigated and plans to improve lagging performance will be created.
- Joint venture performance analyses will be prepared and subsequently reported to senior management and the board of directors so that they can promptly take appropriate actions.
- The coordination with partners for collaborative auditing activities in invested companies to ensure the adequacy and the effectiveness of their internal control systems.

In 2020, EGCO Group had the ability to manage the risks and achieve their target's return on investment (ROI).

### 3.2 Plant Performance Risks

EGCO Group's power plants have managed plant performance risks to be fully compliant with the power purchase agreements (PPAs). The significant performance risks are summarized below.

#### 3.2.1 Risk from Power Plant Efficiency

PPAs stipulate various power plant efficiency indicators such as heat rate and failure to meet their performance requirements. Unmaintainable efficiency indicators will result in a higher cost of electricity generation than those specified within the contract. The cause of such risks can be maintenance malpractice in power plants. Therefore, EGCO Group sets the plant management policy and systems so that preventive maintenance is carried out continuously in a professional manner. Working procedures implemented by plant management also confirms that all relevant risks are under control. These procedures are as follows:

- Regular inspections and maintenance by skillful employees.
- Installation of monitoring systems for critical equipment in power generation systems. These monitors will provide advance notification if a problem occurs with the equipment such as the vibration monitoring system of the gas turbine and the monitoring system for pressure and temperature of the steam entering the steam turbine.
- Provide the necessary inventory reserves which include machinery spare parts, chemicals, lubricants, and various supplies used in maintenance. These items should be sufficient for use and maintenance under proper inventory management.
- The implementation of the Quality Management System (ISO 9001:2015) in 12 power plants to ensure their quality operation as well as to comply with PPAs such as Khanom, GPG, NKCC, GYG, SPP Two, SPP Three, SPP Four, SPP Five, GPS, Solarco, SEG and PAJU.
- The continuous development of employee competency.

Last year, the execution of such mitigation measures resulted in the satisfactory performance of our power plants.

### 3.2.2 Risk from Raw Water Shortage

Raw water shortage can be caused by climate change or the delay of the rainy season and can result in power plant shutdowns. Using water in operations may affect the public and the environment. Consequently, the EGCO Group's power plants have to assess and plan their yearly water usage, analyze their water situation, and have their own reservoir to reserve sufficient water quantities. Moreover, the "3Rs" principle (Reduce, Reuse, and Recycle) has been utilized by the EGCO Group to maximize their water usage efficiency and reduce any environmental or public effects. In previous years, there was a drought crisis in Thailand, where EGCO Cogen is located. However, the problem was foreseen and a contingency plan, i.e., purchasing raw water from other sources, was executed. This allowed the power plant to continue operating without any interruption due to a lack of raw water.

### 3.2.3 Risk from Fuel Shortage

A fuel shortage can result in plant shutdowns, revenue shortfalls, or levied fines. A shortage of coal and biomass fuel, in particular, could be caused by the increasing demand or the impact from a disaster which then may result in price fluctuation.

The following measures have been implemented to prevent and reduce these risks:

- EGCO Group's coal-fired power plants — SBPL, BLCP, and Quezon — have a long-term coal supply agreement which is adequate for power generation. The suppliers are obliged to supply their coal with the quantity and quality specified in the agreement. Plus, each power plant has reserved the coal to sufficiently operate for a 30-day, 30-day, and a 45-day continuous operation, respectively.
- EGCO Group's biomass power plants that use rice husks and rubberwood scraps as fuel for electricity generation may face a fuel risk from inadequate supply and pricing volatility due to the uncertain nature of agricultural products. To mitigate such a risk, the power plants expanded their fuel-sourcing areas and procured large amounts of the materials in the high season at lower prices. The Roi-Et Green Power Project, which uses rice husks, and the Gulf Yala Green power plant, which consumes rubberwood scraps, also reserve fuel sufficient enough for 20-day and 14-day continuous operations, respectively. Furthermore, Roi-Et Green has added alternative fuels such as sawdust and cassava rhizome to mix with the rice husk; similarly, Gulf Yala has included chopped rubberwood roots to mix with the rubberwood scraps for fuel cost reduction and the diversification of fuel supply risk in electricity generation.

### 3.2.4 Safety, Health, Environmental, and Social Risk that Must Comply with International Standards

EGCO Group realizes that the electricity generation process could incur certain risks in the safety, health, staff environment, and surrounding communities. Notably, management has taken the following actions to alleviate any potential negative impacts and reduce the likelihood of the following risks:

- Follow EGCO Group's Corporate Social Responsibility policy.
- Conform to the requirements of safety, health, and environment management manuals in which the guidelines have specified for implementation, monitoring, and auditing.
- Strictly comply with work manuals and emergency plans, administer training and plan testing, equipment and warning systems.
- Implement Environment Management System (ISO 14001:2015) in the following 9 power plants: Khanom, GPG, BLCP, NKCC, GYG, TWF, NTPC, SEG, and PAJU. This will help to continuously develop environmental management systems.

- Implement Occupational Health and Safety Assessment Series (OHSAS 18001:2015) in five power plants, specifically Khanom, BLCP, NED, Nam Thuen 2 and SEG. This will be done to decrease and control health and safety risks associated with employees and stakeholders and to improve company reputations.
- Implement Environmental Standards of UA (EMSCOP) to the Quezon power plant in the Philippines.

Through the constant administration of such measures, such risks are properly managed.

### 3.2.5 Risks from Accidents, Resistance, Sabotage, and Natural Disasters

In conducting its business, EGCO Group may cope with natural disaster risks and accidents which occur from human error or low machine efficiency. Possibly, the community resistance may occur when the production negatively affects the community. Furthermore, there is a sabotage risk which will cause severe loss to power plants.

Management has put forth the following measures to investigate and reduce the likelihood of these risks listed here:

- Communicate with personnel to avoid carelessness.
- Regularly maintain all equipment.
- Strengthen relationships with the surrounding communities.
- Collaborate with government agencies as well as local authorities.
- Deploy a security plan that includes regular drills and security equipment such as closed-circuit TV and various monitoring devices that should always be in use.
- Prepare yearly fire drills and fire evacuations to respond to an emergency in the company's power plants and its head office building.
- Arrange and practice business continuity planning (BCP) for crisis management with EGCO Group headquarters to ensure that the business operation is continuously operating with sustainability. Additionally, EGCO Group has sufficient insurance to cover all risks, property damage, machinery breakdowns, business interruptions, third party liabilities, and political violence. For example, enough insurance for the effects of loss from terrorism, sabotage, riots, political conflicts, revolution, and for disaster events such as floods, storms, earthquakes, and landslides. This will assure that loss from damages in unexpected cases would be properly

and adequately protected, covering majority-owned power plants and EGCO Group headquarters.

- Apply weather forecast tool and report to cope with drought crisis management and electricity generation planning for NTPC and XPCL.

## 4. Financial Risks

EGCO Group's investments are capital-intensive. Since partial-funding sources primarily consist of loans from domestic and international financial institutions, fluctuations in foreign exchange rates and interest rates constitute a source of significant risk. Therefore, mitigation measures regarding these investments are listed below.

### 4.1 Foreign Exchange Rate Fluctuations

EGCO Group has a policy to lessen currency mismatches for each invested project to prudent levels by matching currencies from the funding sources and revenue structures. During the construction phase, EGCO Group applies an appropriated financial instrument and cross currency swap in order to manage the loan currency that matches with the development and construction costs.

### 4.2 Interest Rate Fluctuations

EGCO Group has an interest rate fluctuation management policy which sets the guidelines of interest rate exposure mitigation by swapping floating interest rates to fixed interest rates at appropriate levels when the swap market is favorable.

### 4.3 Cash Management from Overseas Investments

Most of our revenue is in US dollars and is a result of excess cash from offshore accounts, which may, in turn, affect US dollar cash management. Nevertheless, the EGCO Group will attempt to expand many of its overseas investment projects to maximize the firm value that invests primarily in US currency. The EGCO group will make it necessary to hold US currency cash. Moreover, our cash flow status is forecast monthly to monitor the balance of cash inflow and outflow and to maintain cash in overseas accounts for any potential new investments. EGCO conducts financial projections every month. Cash is managed by depositing it with foreign commercial banks that have an investment-grade credit rating and a suitable deposit time. In this way, the cash has liquidity and EGCO can be consistent with its use of funds for new potential project investments.

## 5. Corporate Tax Legislation Risk

EGCO Group prioritizes its compliance with corporate tax legislation and tax planning to ensure that its tax management has due regard for relevant regulations. Currently, EGCO Group invests in both domestic and international businesses, and each country has different tax criteria, legislation, regulation, tax tariffs, etc. Accordingly, without well-prepared risk analysis and intensive study, we may have to endure risk and extensive damage to our reputation and operations. Therefore, it is vital for EGCO Group to thoroughly plan its tax strategies and provide accurate tax payments in compliance with invested countries corporate tax legislation. For any new investment, EGCO Group must carry out an equivalent analysis and carefully calculate the potential tax liability for that investment before proceeding.

EGCO Group has also presented its tax policy and practices on its website. This is meant to inform its stakeholders and to serve as a guideline for its tax management system.

## 6. Compliance Risk

With both domestic and overseas business operations, EGCO Group is regulated under related local laws and regulations as well as international laws. Because a legal dispute can affect our operation and its corporate image, we have been strictly complying with all relevant laws and regulations as well as environmental laws and the safety, health and environmental (SHE) regulations. Moreover, the organization will closely monitor any new governing laws and regulations.

In 2020, EGCO Group had no record of failures to comply with related laws and regulations that involved its business. Additionally, EGCO Group followed up with the new related laws and regulations to be disclosed to all concerned units in order to comply with newly issued conditions and to monitor through the legal database for their further compliance.

## 7. Human Resources Risk

EGCO Group believes that its employees are its most valuable asset and the success factor of the company. Losing valuable employees will lead to impairment, inefficient business continuity, and additional costs for recruiting and training new ones. Employee knowledge and expertise in the power business is crucial, and so losing competent employees is one of EGCO Group's major concerns. In order to alleviate such

a risk, EGCO Group has accomplished these following risk mitigation measures.

- The creation of the effective Succession Plan Program for leadership and management development for the key-position successor's preparation along with deploying the individual development plan and job rotation program.
- Implement knowledge sharing by keeping the lecture document, presentation and video in the Knowledge Center to publish through the internal-use EGCO GroupNet. Examples of items to be accessed are various power plant typical characteristics, insurance, innovation success, financial model and investment project valuation, and the application of the principles of ERM for integrated risk management with strategic plans.
- Granting of the appropriate remuneration in return for employees' industrious dedication from their participation in the success of the organization. The employees' remuneration will be received in the form of a monthly salary in accordance with the company's salary structure which has employees' compensation and benefits at a competitive level with the labor market of the same type of business.
- Support company activities between the management and employees to build strong relationships which then leads to a happy workplace.

These risk mitigations ensure that the company's employees are competent and have the required knowledge and abilities which will enable it to be a sustainable growth organization.

## 8. Products and Services Procurement Procedure Risk

EGCO Group is determined to create sustainable operations. Thus, procurement procedures will be directed toward "supplier" risk management and will cover three factors: Environmental, Social, and Governance (ESG). The associated mitigation measures are as follows:

### EGCO Group developed the Supplier Code of Conduct

according to the Ten Principles of the UN Global Compact in combination with other internal standards, including industry material topics such as guidelines that all of our suppliers will be expected to follow. As expected, the EGCO Group's suppliers shall operate their businesses with integrity and in alignment with ESG objectives, as stated in the Code of Conduct. In 2020, 100% of new suppliers signed the Supplier Code of Conduct.

### EGCO Group intends to regularly hold a "Supplier Day,"

not only to promote a positive relationship with suppliers but also to provide them with sustainability-related information. Last year, EGCO implemented an assessment tool to review supplier current risk (weakness) on sustainability compared to EGCO's expectation (as outlined in the Supplier Code of Conduct). The assessment showed that there is still a need to further decrease current risk in environmental management. Thus, during Supplier Day 2020, the EGCO Group invited critical and risk suppliers to participate in a workshop seminar. We selected energy management as the topic for the first supplier development program.

### EGCO Group has a Supplier Audit Program

the ESG risk assessment program to evaluate all suppliers. In 2020-2021, the EGCO Group considered selecting 37 targeted suppliers from 59 critical and risk suppliers for on-site visits that would include site observations, interviews, and the review of relevant documents and records. The results of the ESG performance of suppliers would be used to decrease their associated risk.

Evaluated

**37**

Suppliers

**59**

Critical and risk suppliers

## EMERGING RISKS

### 1. Coronavirus Disease 2019 (COVID-19) Impact Risk

#### Impact and Senario Analysis

The COVID-19 crisis affects EGCO's short-term operations, such as fewer electricity generation dispatch orders (which decrease with the decrease in electricity demand) and the postponement of maintenance plans for some power plants due to travel and transportation restrictions. However, the EGCO Group is still generally able to operate its business continuously and efficiently throughout the business chain according to the Business Continuity Plan (BCP), which has been prepared for both headquarters and power plants in the EGCO Group. The BCP plan is reviewed for each situation. Presently, the EGCO Group's 28 power plants in both domestic and overseas operations continue to smoothly operate and distribute electricity to the power system. Additionally, there is a slight delay in the progress of construction projects and new investment projects, but the construction and project development risk has been well-managed, and the projects are expected to be completed as scheduled.

#### Mitigation and Opportunities

The EGCO Group mitigated risk by preparing and following strict COVID-19 preventive measures for office working processes and power plant operations, as stipulated in the BCP plan for office worker mitigations. For office workers, these measures include working from home, measuring body temperature, wearing a face mask, and holding meetings online. For power plant operators, mitigation measures include area restrictions, full lockdown measures, limitations on the number of operators in a control room per shift, and isolated shift operations.

### 2. Government Policy, Legislative Change and Compliance Risk Due to Climate Change

#### Impact and Senario Analysis

Due to the ongoing extreme global weather conditions, the 23<sup>rd</sup> United Nations Framework Convention on Climate Change, which was held from November 6 through November 17 in 2018, approved a new resolution aimed to fight climate change by reducing GHG emissions. Thailand not only participated

and signed the agreement, which aimed to reduce GHG emissions from 20% to 25% by 2030 — compared to the based year 2015 — in this conference, but also committed to review and participate in climate change solutions every five years. Because of this regular five-year revision, Thailand's government can consider additional relevant laws and regulations that are related to GHG emissions within three to five years. Also, the Thailand Power Development Plan (PDP) could be revised so it can be aligned with the agreement.

### Mitigation and Opportunities

To mitigate such a risk, EGCO Group not only closely monitors and analyzes the impacts, but also set long-term investment target to decrease its coal energy portfolio to 20-21% and increase its renewable energy and smart energy portfolio to achieve 25% by 2030 from both domestic and overseas operations. In 2020, our renewable energy portfolio was 19.21% of our total electricity generating capacity which could reduce approximately 603,000 tons of carbon dioxide equivalents to the per-year emission rate (14 EGCO subsidiaries) in alignment with the government's policy. Furthermore, EGCO Group will invest in environment-friendly technology for future investments, promote energy conservation within our organization, and reduce GHG emissions indirectly by conducting business with eco-friendly partners.

Decrease its coal energy portfolio to

Increase renewable energy and smart energy portfolio to

**20-21%** **25%**

In 2020, reduce approximately

**6.03**

thousand tonCO<sub>2</sub>e per year



### 3. Emerging / Disruptive Technology Risk

#### Impact and Senario Analysis

In accordance with the rapid technological advancements from micro grid systems, renewable energy systems, energy storage systems, and big data systems, the government aims to develop and launch its Commercial Smart Grid by 2021.

Regarding the Thailand Smart Grid Development Master Plan 2016-2021, the Ministry of Energy has been assigned to take primary accountability through these three pillars: (1) Demand Response and Energy Management System, (2) Renewable Energy Forecast, and (3) Micro Grid and Energy Storage System. This Government policy will gradually change user behaviors from consumer to “prosumer” and peer to peer. Furthermore, the smart grid could reasonably be expected to influence the industries due to its production cost and energy trading scheme that may impact not only government authorities that includes the Electricity Generating Authority of Thailand, Metropolitan Electricity Authority, and Provincial Electricity Authority, but also the independent power plants.

### Mitigation and Opportunities

On the other hand, this transformation may provide an opportunity to create value to the organization. To alleviate such a risk, EGCO Group closely monitors technological changes while developing new businesses by running the “Innovation Team Challenge” contest. This event aims to improve teamwork, employee creativity, and employee competency which will then provide sustainable business growth to the organization.

### 4. Cybersecurity and Data Privacy Protection Risk

#### Impact and Senario Analysis

Information technology (IT) systems are the crucial fundamental infrastructure that increases a business operation's efficiency, its efficient control of electricity generation, and its operating cost management. IT allows for a business to successfully compete in both domestic and overseas markets where EGCO Group invests and plans to invest; IT plays its role more importantly in business operations respectively.

In 2019, the Royal Thai Government Gazette announced the Cyber Security Act B.E. 2562 (2019), which came into effect on May 28, 2019, and the Personal Data Protection Act B.E. 2562 (2019), which is going to take effect on June 1, 2021.

According to the Cyber Security Act B.E. 2562 (2019), a system administrator that provides computer-related services must build confidence and strengthen computer cyber security, computer data, computer systems, or other information related to computer systems in order to prevent, confront, and reduce

the risk of cyber threats in a timely manner. EGCO Group has to establish an IT security policy, which includes a policy for creating an IT emergency plan as well as an IT risk management policy.

According to the Personal Data Protection Act B.E. 2562 (2019), which stipulates that in regard to the control of personal and business partner information, to collect, use or disclose any data has to comply with such law. EGCO Group established a policy and measures to prevent the leakage of confidential information along with the development of information security and stability systems and the protection of personal information by collecting, storing, using, or disseminating the personal data of employees, partners, or contacts in the form of electronic data in order to prevent the violation of personal data.

#### **Mitigation and Opportunities**

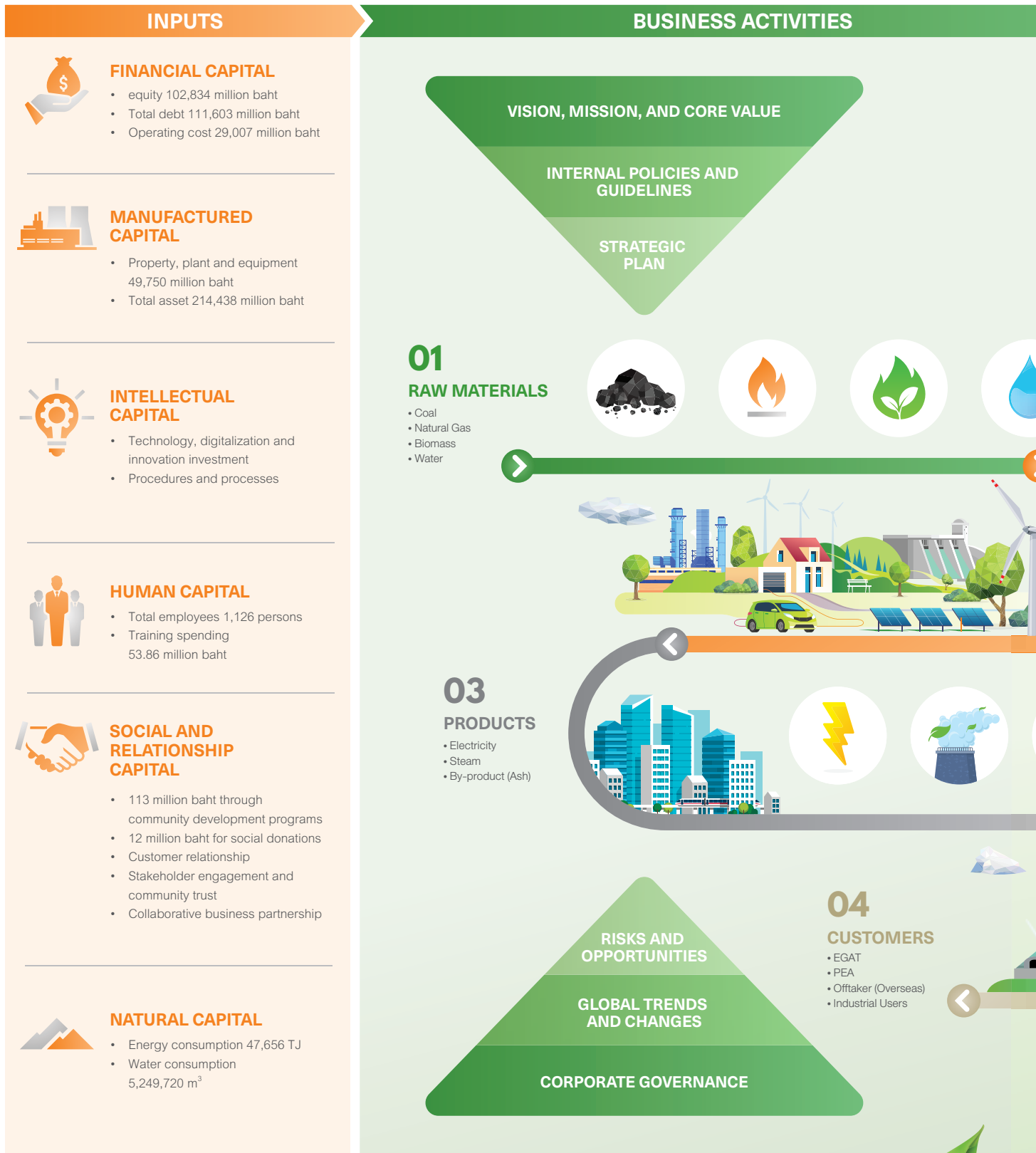
In this regard, EGCO Group has organized staff training to raise awareness and spread knowledge and understanding to employees regarding the Cyber Security Act B.E. 2562 (2019) and the Personal Data Protection Act B.E. 2562 (2019). Furthermore, EGCO has improved distributed denial-of-service (DDoS) to ensure the functionality and enhance the security of the corporate network infrastructure, while also preventing DDoS application-level, web-based, and DNS attacks from botnets or scripts.

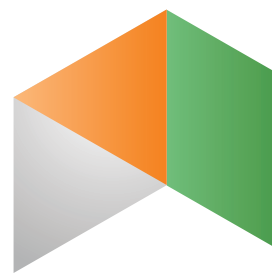
The Information Technology Department is currently developing a data security certification system according to the international standard of ISO/IEC 27001 for data center rooms. To date, the company has not had any incidents or negative impacts from cyber threats or misuse of personal information.



# Driving Business towards Sustainability

## Value Creation





## PERFORMANCE



### PRODUCTS

- Electricity 12,719 GWh
- Steam 759,940 tons



### OTHER BY-PRODUCTS

- Ash 52,163 tons



### EMISSIONS

- Total waste 4,006 tons
- NOx 7,010 tons
- SOx 6,379 tons
- GHG (Scope 1 and 2) 6,539,891 tonsCO<sub>2</sub>e
- Water released 1,224 million m<sup>3</sup>

## 02

### POWER GENERATION

- Thermal Power Plant
- Combined Cycle Power Plant
- Renewable Power Plant

### SERVICES



Engineering & Construction Service



O&M Service

## VALUES

### TO THE COMPANY



#### FINANCIAL CAPITAL

- Sale and service income 40,828 million baht
- EBITDA 17,134 million baht
- Net profit 8,733 million baht

### TO OUR STAKEHOLDERS

- Earning per share 16.59 baht
- Dividend per share 6.25 baht
- ROE 8.45%



#### MANUFACTURED CAPITAL

- 28 operating power plants and 5 other businesses
- 3 under-construction power plants
- 1 other business under construction
- Total production capacity based on PPA and shareholding proportion 5,422.53 MWe

- Plant availability 93.8%
- Long-term ROI from green field projects, brown field projects and effective property asset management.



#### INTELLECTUAL CAPITAL

- Cost reduction from implementing innovative ideas 41 million baht.
- Total internal innovative idea 25 projects.

- Power plant efficiency
- Knowledge sharing among employees, community, and suppliers.



#### HUMAN CAPITAL

- Employee turnover rate 4.35%
- 0 Fatality rate
- LTIFR 0.48 times per million working hours

- Employee development training 26,291 hours/year
- Total remuneration paid by EGCO Group 2,170 million baht/year



#### SOCIAL AND RELATIONSHIP CAPITAL

- Customer satisfaction 93.43%
- Social and Community satisfaction 94.51%
- Zero complain on Human Right issues
- Zero complain from community

- Tax paid to government 1,212 million baht
- 86 community development projects
- Local employment more than 80%.
- Approximately 28,266 person with better understanding on electricity after visiting Khanom learning center



#### NATURAL CAPITAL

- All EGCO Group's power plant comply with environmental laws
- 135,010 m<sup>3</sup> of water has been reused and recycled
- 876 tons of recycled waste

- Reduce greenhouse gas emission from production process approximately 603,119 tonsCO<sub>2</sub>e as to be aligned with the NDC target and COP21

## EGCO Group's Management for Business Sustainability

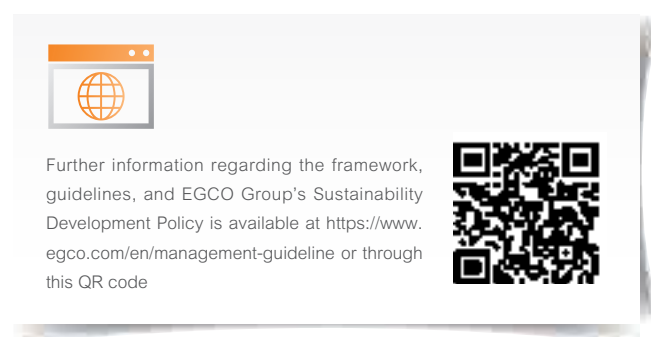


**GRI**  
102-19, 102-20

EGCO Group stipulated framework and guidelines for sustainable development by incorporating it into the company's strategies. The management structure for business sustainability has been developed to ensure that business operations effectively comply with EGCO Group's guidelines and policies.

EGCO Group has developed a management structure for business sustainability. The Corporate Governance and Social Responsibility Committee was appointed to monitor sustainability operations. The Corporate Sustainability Steering Committee was established at the executive level to report performances to the Corporate Governance and Social Responsibility Committee. Furthermore, EGCO Group has established several sub-committees to drive EGCO Group's operations based on sustainable development principles in the economic, social, and environmental aspects. For instance,

Corporate Governance Working Group, Anti-Corruption Working Group, Promoting Participation in Developing Quality of Life of the Community Working Group, Energy Management Working Group, Occupational Safety, Health, and Environment Working Group, Environmental Management Working Group, etc.



### EGCO GROUP'S SUSTAINABILITY REPORT DEVELOPMENT PLAN



### Stakeholders Engagement




EGCO Group pays close attention to conducting business, and its impacts on different groups of stakeholders as each of them affects our business both directly and indirectly. For instance, on business expansions, profits, and the company's reputation, EGCO Group is consistently accepting opinions and expectations from our stakeholders to incorporate the current material issues into the decision-making process and business strategy. In 2020, EGCO Group has revised internal and external stakeholders and decided to maintain the 12 groups as follow:






## Approach to Stakeholder Engagement

STAKEHOLDER	STAKEHOLDER'S EXPECTATION	EGCO GROUP'S RESPONSE	STAKEHOLDER ENGAGEMENT APPROACH
<b>01</b>  <b>Customer</b>	<ul style="list-style-type: none"> <li>Power generation and distribution as specified in the Power Purchase Agreements (PPAs) at a reasonable price</li> <li>Providing accurate information and satisfactory, reliable power supply</li> <li>Operations will not affect the community, society, and the environment</li> </ul>	<ul style="list-style-type: none"> <li>Operate effectively, delivers power supply as specified in the PPAs</li> <li>Disclosure of a comprehensive and sufficient information to the public</li> <li>Operate with responsibility to the community, society, and the environment</li> </ul>	<ul style="list-style-type: none"> <li>Information and opinions exchanging meetings with the Transmission Control Unit from the Electricity Generating Authority of Thailand (EGAT)</li> <li>Relationship building activities with the EGAT Group</li> <li>Meetings with the customers in the industrial estates for the production planning that will meet the customers' demand.</li> </ul>
<b>02</b>  <b>Shareholders</b>	<ul style="list-style-type: none"> <li>Continuous and sustainable growth of the company's stock value with professional and honest executives</li> <li>Established risk management model</li> <li>Respect and preserve shareholder's rights with equitable treatment</li> <li>Disclosure of a comprehensive and sufficient information to the public and complies with relevant laws and regulations</li> </ul>	<ul style="list-style-type: none"> <li>Effective operational performance</li> <li>Good corporate governance and risk management plan</li> <li>Equitable treatment of all stakeholders</li> <li>Disclosure of a comprehensive and sufficient information to the public</li> </ul>	<ul style="list-style-type: none"> <li>Attend shareholder meetings</li> <li>Informed through annual reports</li> <li>Power plants visit</li> <li>Private information session</li> <li>Roadshows</li> <li>LIFE quarterly magazine</li> <li>Provide suggestions and complaints through designated communication channels</li> <li>Inform through company's website</li> </ul>
<b>03</b>  <b>Government Agencies</b>	<ul style="list-style-type: none"> <li>Compliance with relevant laws, rules, and regulations</li> <li>Establish environmental management plans and support community's activities</li> <li>Establish preventive measures against corruption and conduct business with ethics</li> <li>Disclosure of a comprehensive and sufficient information</li> </ul>	<ul style="list-style-type: none"> <li>Strictly adhere to relevant laws and regulations</li> <li>Responsible to community, society, and the environment</li> <li>Established and committed to Anti-Corruption Policy</li> <li>Disclosure of a comprehensive and sufficient information to the public</li> </ul>	<ul style="list-style-type: none"> <li>Organize meetings</li> <li>Company visits</li> <li>Open channels for complaints, opinions, and suggestions</li> </ul>

STAKEHOLDER	STAKEHOLDER'S EXPECTATION	EGCO GROUP'S RESPONSE	STAKEHOLDER ENGAGEMENT APPROACH
<b>04</b>  <b>Employees</b>	<ul style="list-style-type: none"> <li>• Appropriate compensation and benefits benchmarked against peers in the same industry</li> <li>• Continuous human capital development and support on career advancements in related fields</li> <li>• Positive and safe working environment</li> <li>• Job security</li> </ul>	<ul style="list-style-type: none"> <li>• Fair compensation and benefits</li> <li>• Emphasize human capital development and precise promotion criteria</li> <li>• Appropriate working environment</li> <li>• Established policy and activities to maintain good relationship with employees</li> </ul>	<ul style="list-style-type: none"> <li>• Attend business update meetings and learn from the executives</li> <li>• Communication Day</li> <li>• Attend team building activities</li> <li>• Internal communication system</li> </ul>
<b>05</b>  <b>Community</b>	<ul style="list-style-type: none"> <li>• No disruption to and participate in improving life quality in the community</li> <li>• Disclosure of truthful information</li> </ul>	<ul style="list-style-type: none"> <li>• Organize various community development projects, such as encourage local employment, promote learning in children and youth, occupational skills development, promote healthy lifestyle, and infrastructure improvement</li> <li>• Disclosure of a comprehensive and sufficient information to the public</li> </ul>	<ul style="list-style-type: none"> <li>• Power Development Fund meetings</li> <li>• Power plant visits</li> <li>• Quality of life and community development project from a tri-party cooperation between power plants, government agencies, and local communities</li> <li>• SUKJAI quarterly magazine</li> <li>• Open channels for complaints</li> </ul>
<b>06</b>  <b>Creditors</b>	<ul style="list-style-type: none"> <li>• Strict compliance to loan agreements</li> <li>• Repayment capacity in a complete, accurate, and punctual manner and no concealment of actual financial status</li> <li>• Fair and equal treatments to all creditors with no illegitimate solicitations, acceptances, or payments of any kind</li> </ul>	<ul style="list-style-type: none"> <li>• Strict compliance to loan agreements</li> <li>• Disclosure of true financial status</li> <li>• Fair and equal treatments to all creditors and other stakeholders with no illegitimate solicitations, acceptances, or payments of any kind</li> </ul>	<ul style="list-style-type: none"> <li>• Meetings for exchange of opinions</li> <li>• Power plant visits</li> <li>• Prior notice given in case the company is not able to fulfill the conditions of the loan agreement in order to find solutions together</li> </ul>

STAKEHOLDER	STAKEHOLDER'S EXPECTATION	EGCO GROUP'S RESPONSE	STAKEHOLDER ENGAGEMENT APPROACH
<b>07</b>  <b>Suppliers and Business Partners</b>	<ul style="list-style-type: none"> <li>The company is financially secured, strictly complies with the contract. has personnel with knowledge and expertise.</li> <li>Fair and transparent business operation</li> <li>Combination of strengths from each company</li> </ul>	<ul style="list-style-type: none"> <li>Strictly adhere to the contract, has personnel with knowledge and expertise</li> <li>No illegitimate exploitation of partnerships</li> <li>Build good relationship with suppliers and business partners</li> </ul>	<ul style="list-style-type: none"> <li>Organize meetings and Supplier Day</li> <li>Company visits</li> <li>Open channels for complaints, opinions, and suggestions</li> </ul>
<b>08</b>  <b>Investors</b>	<ul style="list-style-type: none"> <li>Sustainable returns</li> <li>Good corporate governance principles and compliance with relevant laws</li> <li>Established risk management guidelines</li> <li>Respect and preserve stakeholder's rights with equitable treatment</li> <li>Disclosure of a comprehensive and sufficient information to the public</li> </ul>	<ul style="list-style-type: none"> <li>Effective operational performance</li> <li>Good corporate governance</li> <li>Established risk management policy and guidelines, regular risk assessment and reevaluation</li> <li>Equitable treatment to all stakeholders</li> <li>Disclosure of essential information to the public</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly analyst meetings</li> <li>Annual Reports</li> <li>Company's Website</li> <li>Suggestions and complaints through designated communication channels</li> </ul>
<b>09</b>  <b>Society</b>	<ul style="list-style-type: none"> <li>No impact and continuously contributing to the society</li> <li>Disclosure of essential information to the public</li> </ul>	<ul style="list-style-type: none"> <li>Continuously contributing to the society</li> <li>Disclosure of essential information to the public</li> </ul>	<ul style="list-style-type: none"> <li>Press conference</li> <li>Communication through company's website</li> </ul>



STAKEHOLDER	STAKEHOLDER'S EXPECTATION	EGCO GROUP'S RESPONSE	STAKEHOLDER ENGAGEMENT APPROACH
<b>10</b>  <b>Contractors and Subcontractors</b>	<ul style="list-style-type: none"> <li>• Operate as a good business alliance and maintains good relationship</li> <li>• Equitable treatment in consideration of mutual benefits</li> <li>• Appropriate payout period</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain good business partnership</li> <li>• Fair and just</li> <li>• Strictly following terms of payment</li> </ul>	<ul style="list-style-type: none"> <li>• Meetings</li> <li>• Company visits</li> <li>• Joint activities</li> <li>• Open channels for complaints, opinions, and suggestions</li> </ul>
<b>11</b>  <b>Media</b>	<ul style="list-style-type: none"> <li>• Disclosure of factual information</li> </ul>	<ul style="list-style-type: none"> <li>• Press releases</li> </ul>	<ul style="list-style-type: none"> <li>• Press conference</li> <li>• Exclusive interviews with executives</li> <li>• Company visits</li> </ul>
<b>12</b>  <b>Non-Governmental Organization (NGO)</b>	<ul style="list-style-type: none"> <li>• Have least possible impacts on the environment and community</li> <li>• Participate in the caring of the environment and development of the community Timely disclosure of truthful, complete, and sufficient information</li> </ul>	<ul style="list-style-type: none"> <li>• Responsible for the community, society, and environment</li> <li>• Continuously contributing to the society</li> <li>• Disclosure of factual information</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental conservation projects through the Thai Conservation of Forest Foundation</li> <li>• Company visits</li> <li>• Open channels for complaints, opinions, and suggestions</li> </ul>

## THE PROCESS TO IDENTIFY MATERIALITY TOPICS

EGCO Group has identified the materiality topics in consideration of internal and external business operations, including relevant topics regarding stakeholders' expectations, as well as national and international situations or trends relevant to the power generation industry and in a general context. These identified issues will be determining EGCO Group's direction towards a sustainable future. This One Report complies with the report requirements of the Securities and Exchange Commission and other guidelines, such as the Institute of Directors' Corporate Governance ASEAN CG Scorecard, etc. This report was prepared in accordance with an Integrated Report Framework of the

International Integrated Reporting Council (IIRC), Global Reporting Initiative Standards' (GRI Standards) Core Options, and GRI's G4 Electric Utilities sector-specific disclosure criteria, fully in compliance with the United Nations' Sustainable Development Goals (SDGs).

The steps to identify the materiality topics are as follow:

## 01 Identification of Material Issues and Definition of the Reporting Scope



Revising all material issues in 2020 and identifying the material issues in economic, social, and environmental aspects may positively or negatively impact the company's business operations and activities with consideration to all stakeholder groups. The ranking is estimated according to global sustainability issues and benchmarked against other peer companies. Stakeholders' opinions remain in consideration.

## 02 Prioritization of Material Issues



Material issues are prioritized and ranked by two factors; the importance of the issue towards stakeholder groups and their significance on business operations regarding the environment and society. The topics are then distributed along with a Materiality Matrix based on their importance.

## 03 Validation of Material Issues



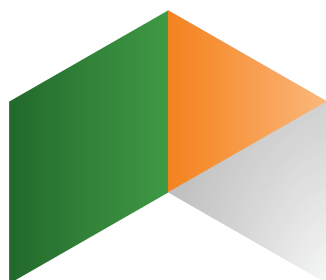
External stakeholder groups are selected to help validate the material and prioritized issues after they are ranked. The validated material issues are then reported to the Management, who will review the issues and have to approve public disclosure of the issues in different dimensions.

Afterward, the material issue is organized with respect to their contexts aligned with GRI criteria and the UN's SDGs. The scope of the report on each topic is then defined.

## 04 Development of Sustainability Report



EGCO Group has prepared and reviewed the content integrity of the report, which internal committees will double-check. Moreover, the reporting process, stakeholders' engagement, and the quality of the information are reviewed at the end by an independent organization to ensure disclosure of factual, transparent, and sufficient information.



Further information on the Sustainable Development, Management Guidelines, and policy are available on our website: <https://www.egco.com/en/management-guideline> or through this QR code



## EGCO GROUP'S 2020 MATERIALITY MATRIX

The identified materiality topics have been prioritized by stakeholders' input and validated by EGCO Group's executives. These issues have been ranked and distributed across a matrix indicating importance across the economic, environmental, and social sustainability dimensions.

In 2020, 7 ranked high importance to us and our stakeholders, namely Market Opportunity, Generating Capability, Human Capital Development, Talent Attraction and Retention, Climate Change, Occupational Health and Safety, and Corporate Governance.

### EGCO GROUP'S 2020 MATERIALITY MATRIX



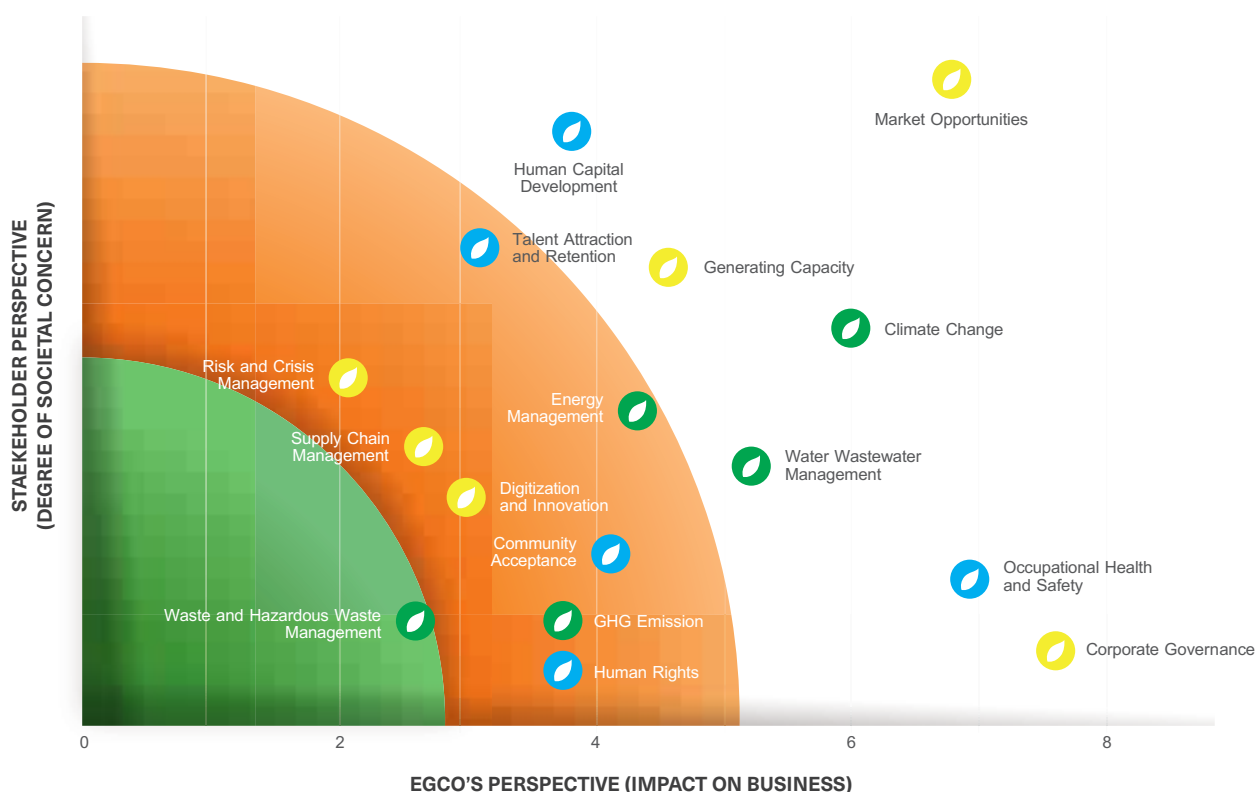
ECONOMIC



ENVIRONMENTAL



SOCIAL



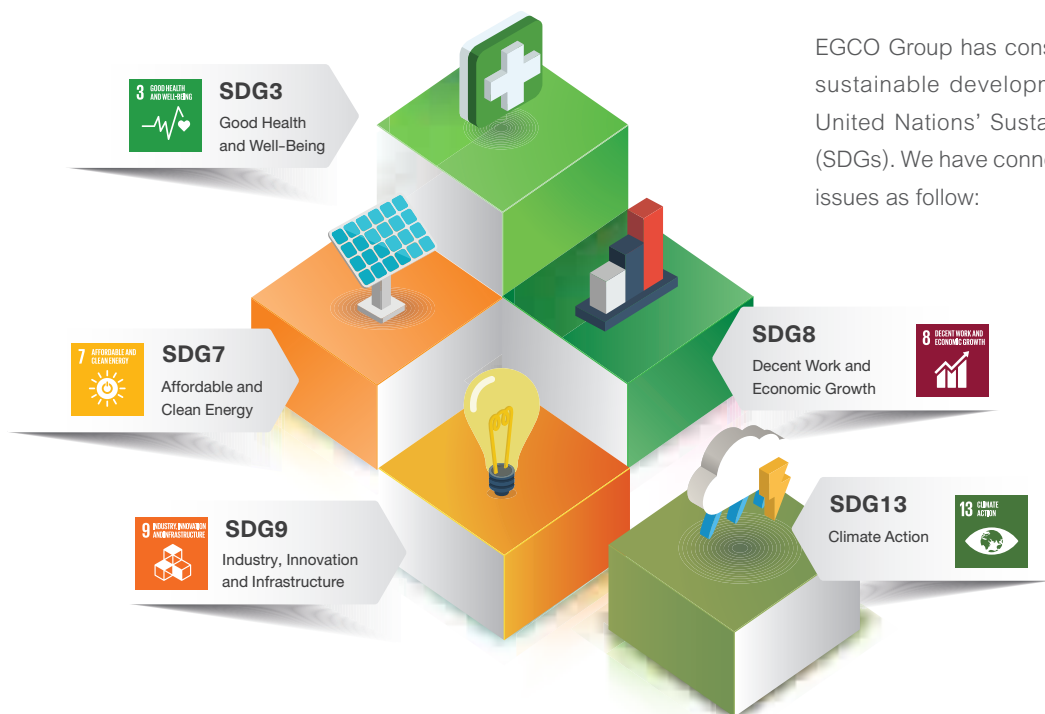
### Changes in Materiality Matrix (GRI 102-10)

In 2020, EGCO Group revisited the topics identified in the Sustainability Report 2019, from 16 to 14 topics. We have combined similar topics and added three newly identified topics: Corporate Governance, Risk & Crisis Management, and Community Acceptance.

Furthermore, in 2020, listed companies in Thailand have accepted the policy regarding the modification in report making,

combining Annual Report and Annual Registration Statement (form 56-1) into one. "One Report" is an integrated business report that includes sustainability development which shows value-added business conduct, benefitting the company and all stakeholders in three dimensions (Economic, Social, and Environmental Dimension).

## SUSTAINABILITY DEVELOPMENT GOALS (SDGs) AND EGCO GROUP'S PERFORMANCE



EGCO Group has consistently been thriving towards sustainable development in accordance with the United Nations' Sustainability Development Goals (SDGs). We have connected five SDGs to our material issues as follow:

However, the company endorses the rest of the SDGs besides the 5 goals EGCO Group chose to focus on in 2020. This puts an emphasis on our commitment to sustainable development as well as creates a balance between economic, environmental, and social dimensions and identified material issues as follow:

## EGCO GROUP'S RESPONSE TO THE SDGs

### Economic

MATERIAL ISSUE	BUSINESS APPROACH	PERFORMANCE
<b>Market Opportunity</b>  	<p>EGCO Group plans to expand outside of our core business investments in non-renewable and renewable energy businesses to fuel supply and 'Smart Energy Solution', both in Thailand and overseas, to increase market opportunities and to generate long-term revenue for the company.</p>	<p>2017 Investment in geothermal power plant, SEGSD, in Indonesia and expanded investment to LAO PDR, hydro power plant NT1PC</p> <p>2018 Business expansion in South Korea – Paju Power Plant</p> <p>2019 Investment in Guangdong Power Plant, South Korea and expanded to fuel supply business: oil pipeline system expansion to Northeastern region project</p> <p>2020 Signed a Joint Development Agreement (JDA) for the development of Quang Tri 1 Thermal Power Plant in Vietnam</p>

MATERIAL ISSUE	BUSINESS APPROACH	PERFORMANCE										
<div>Generating Capacity</div> <div><div>12</div><div>RESPONSIBLE CONSUMPTION AND PRODUCTION</div><div></div></div>	<p>Generating capability is a Key Performance Indicator (KPI) of EGCO Group's power plants to ensure sufficient supply. The company continues to expand, catering to the growing consumers' demand.</p>	<div>Electricity Generation (GWh)</div> <div><table><tr><th>Year</th><th>Electricity Generation (GWh)</th></tr><tr><td>2017</td><td>11.00</td></tr><tr><td>2018</td><td>13.22</td></tr><tr><td>2019</td><td>14.23</td></tr><tr><td>2020</td><td>13.31</td></tr></table></div>	Year	Electricity Generation (GWh)	2017	11.00	2018	13.22	2019	14.23	2020	13.31
Year	Electricity Generation (GWh)											
2017	11.00											
2018	13.22											
2019	14.23											
2020	13.31											

Corporate Governance

8

DECENT WORK AND ECONOMIC GROWTH

EGCO Group believes that good corporate governance will strengthen the company's foundation in sustainability development as well as increase the market opportunities. Thus, we established a concrete corporate governance and sustainability development management structure. Their tasks includes, stipulate policies and govern, revise and improve operational guidelines in accordance with the Good Corporate Governance Principles.

Corporate Governance Report of Thai-Listed Companies (CGR) Scorecard

96%

95%

96%

96%





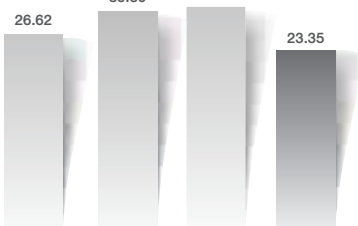
2017

2018

2019

2020

## Social

MATERIAL ISSUE	BUSINESS APPROACH	PERFORMANCE										
<p>Human Capital Development</p> <div><div><p>4 QUALITY EDUCATION</p></div><div><p>5 GENDER EQUALITY</p></div><div><p>8 DECENT WORK AND ECONOMIC GROWTH</p></div><div><p>10 REDUCED INEQUALITIES</p></div></div>	<p>EGCO Group has developed and implemented an integrated human resource management policy, which includes all human capital development topics, as well as organized regular internal trainings.</p>	<p>Average Number of Training Hours (hrs./person)</p>  <table><thead><tr><th>Year</th><th>Average Number of Training Hours (hrs./person)</th></tr></thead><tbody><tr><td>2017</td><td>26.62</td></tr><tr><td>2018</td><td>30.39</td></tr><tr><td>2019</td><td>30.83</td></tr><tr><td>2020</td><td>23.35</td></tr></tbody></table>	Year	Average Number of Training Hours (hrs./person)	2017	26.62	2018	30.39	2019	30.83	2020	23.35
Year	Average Number of Training Hours (hrs./person)											
2017	26.62											
2018	30.39											
2019	30.83											
2020	23.35											

## MATERIAL ISSUE

## BUSINESS APPROACH

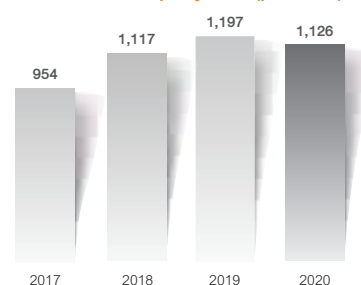
## PERFORMANCE

## Talent Attraction and Retention

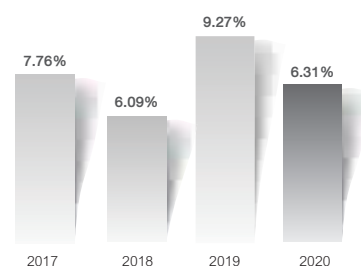


EGCO Group values employee care greatly. Starting with recruiting personnel equipped with knowledge and attitudes that correspond to the company's values and culture, providing appropriate benefits and compensation for financial stability and security. EGCO also value improvement in employees' quality of life, fair assessment of their performance and relevant skill to nurture and retain quality employees to grow along with the company.

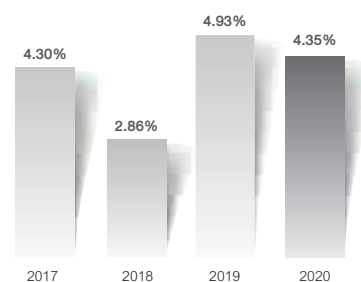
## Total Employees (person)



## Employment Rate of New Joiners (%)



## Permanent Employee Turnover Rate (%)



## Occupational Health and Safety



EGCO Group focuses on effective operations and having good quality of life. Therefore, the company has established operational safety standards and occupational health and safety guidelines which covers pre-operational and post-operational processes. This is to ensure that EGCO Group's employees and contractors can work safely in suitable working environment.

Zero Fatality Rate  
in 2017 – 2020

0

## Environment

MATERIAL ISSUE	BUSINESS APPROACH	PERFORMANCE										
<p>Climate Change</p> <div><div><p>7 AFFORDABLE AND CLEAN ENERGY</p></div><div><p>13 CLIMATE ACTION</p></div></div>	<p>EGCO Group is aware of the significance of climate change. Hence, the company is determined to operate with responsibility to the environment through reduction of GHG emission. We have stipulated measures, such as to optimize the power generation performance and reduce fuel consumption, to use renewable energy, to mitigate environmental impacts from our operations, and raise awareness regarding the importance of environmental issues among employees, suppliers, and other relevant parties.</p>	<p>Greenhouse Gas Emission Rate per Unit of Production (tonCO<sub>2</sub>e/MWh)</p> <table><tr><th>Year</th><th>Greenhouse Gas Emission Rate per Unit of Production (tonCO<sub>2</sub>e/MWh)</th></tr><tr><td>2017</td><td>0.53</td></tr><tr><td>2018</td><td>0.50</td></tr><tr><td>2019</td><td>0.49</td></tr><tr><td>2020</td><td>0.49</td></tr></table>	Year	Greenhouse Gas Emission Rate per Unit of Production (tonCO <sub>2</sub> e/MWh)	2017	0.53	2018	0.50	2019	0.49	2020	0.49
Year	Greenhouse Gas Emission Rate per Unit of Production (tonCO <sub>2</sub> e/MWh)											
2017	0.53											
2018	0.50											
2019	0.49											
2020	0.49											

## 2020 Highlight Performance



# Dynamic Challenge



GRI  
103-1, 103-2,  
103-3

## Power Industry and Competition

### 1. Economic and Electricity Industry Situation in Thailand

The COVID-19 pandemic has delivered a global economic shock of enormous magnitude, leading to steep recessions in many countries. According to the World Bank, the baseline forecast envisions a 4.3 percent contraction in global GDP in 2020—the deepest global recession in eight decades. As a developing economy, the Thai economy in 2020 is expected to contract -6.0 percent, mainly due to the sharp decline in numbers and revenues from foreign tourist, the severe recession of global economy and merchandised trade, the impact of the outbreak, and the drought condition. In all, it is expected that export values of goods, private consumption expenditure, and total investment will decline. For 2021, the Thai economy will gradually recover. The recovery will be supported by the success in the COVID-19 containment together with additional supports from government economic management resulting in improving domestic demand, the recovery of the world economy and global trade, and the disbursement under the budget and the government stimulus package. However, the economic recovery would remain highly uncertain because of vaccination coverage and the new waves of COVID-19 pandemic in Thailand, which would adversely impact level of business confident and economic activities.

The COVID-19 has impacted the electricity industry in various aspects such as drop in electricity demand, revision in Power Development Plan (PDP), change in demand structure

with more coming from households, delay in project development and temporary slowdown in investments. The degree of COVID-19 impact to electricity demand depends on industrial power demand share, degree of tourism and export orientation economy, duration and strictness of lockdown. For Thailand's electricity industry situation in 2020, the peak demand in 3 power authorities system (Electricity Generating Authority of Thailand (EGAT), Metropolitan Electricity Authority (MEA) and, Provincial Electricity Authority (PEA)) was 30,342 megawatts, occurred on March 13, 2020 at 14.14 pm, lower than the peak demand of 32,273 megawatts in 2019 by 6.0 percent. Meanwhile, electricity consumption of the country as of November 2020 stood at 172,497 gigawatt-hours, which were 6,109 gigawatt-hours or 3.4 percent decrease, compared to the same period of 2019. These are resulted from the impact of COVID-19 outbreak, led to lower electricity consumption in all sectors, especially export and tourism sector. However, the electricity consumption in residential sector surged, as a result of work from home policy and high temperature. Peak demand for electricity consumption is shown in Figure 1.

In 2020, the peak demand was

**30,342**  
megawatts

Decreased from 2019 by

**6.0%**

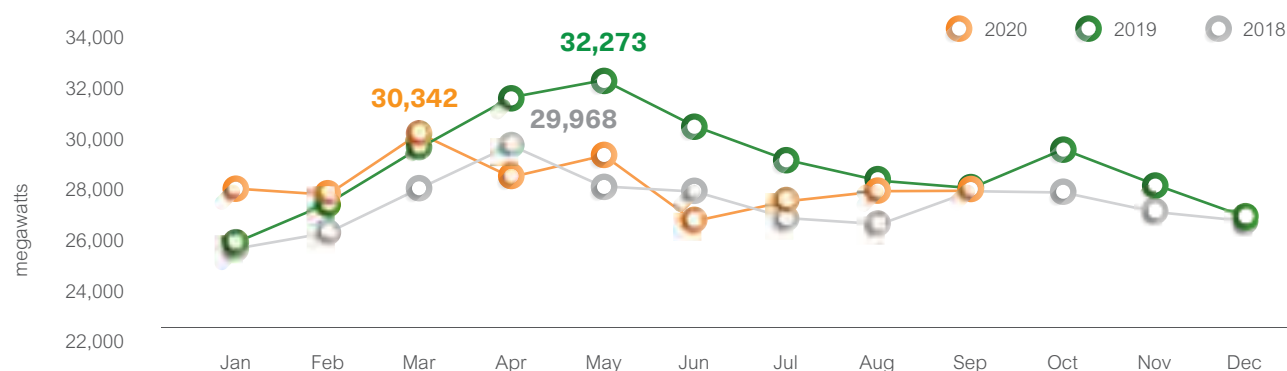


Figure 1 Peak demand for electricity consumption during 2018-2020 (source: Energy Policy and Planning Office (EPPO))

As of December 31, 2020, the country's contracted capacity in 3 power authorities system was 49,608 megawatts, 16,037 megawatts or 32.3 percent of which were generated by EGAT power plants, and the remaining from other producers as follows;

Independent Power Producers (IPPs)	Small Power Producers (SPPs)	Import from neighboring countries	Very Small Power Producers (VSPPs)
<b>14,249</b> megawatts	<b>9,474</b> megawatts	<b>5,721</b> megawatts	<b>4,127</b> megawatts
or <b>28.8%</b>	or <b>19.1%</b>	or <b>11.5%</b>	or <b>8.3%</b>

EGCO's contracted capacity of electricity sold to EGAT and PEA was 3,395 megawatts, representing 6.8 percent of the country's contracted capacity in three power authority's system, as presented in Figure 2

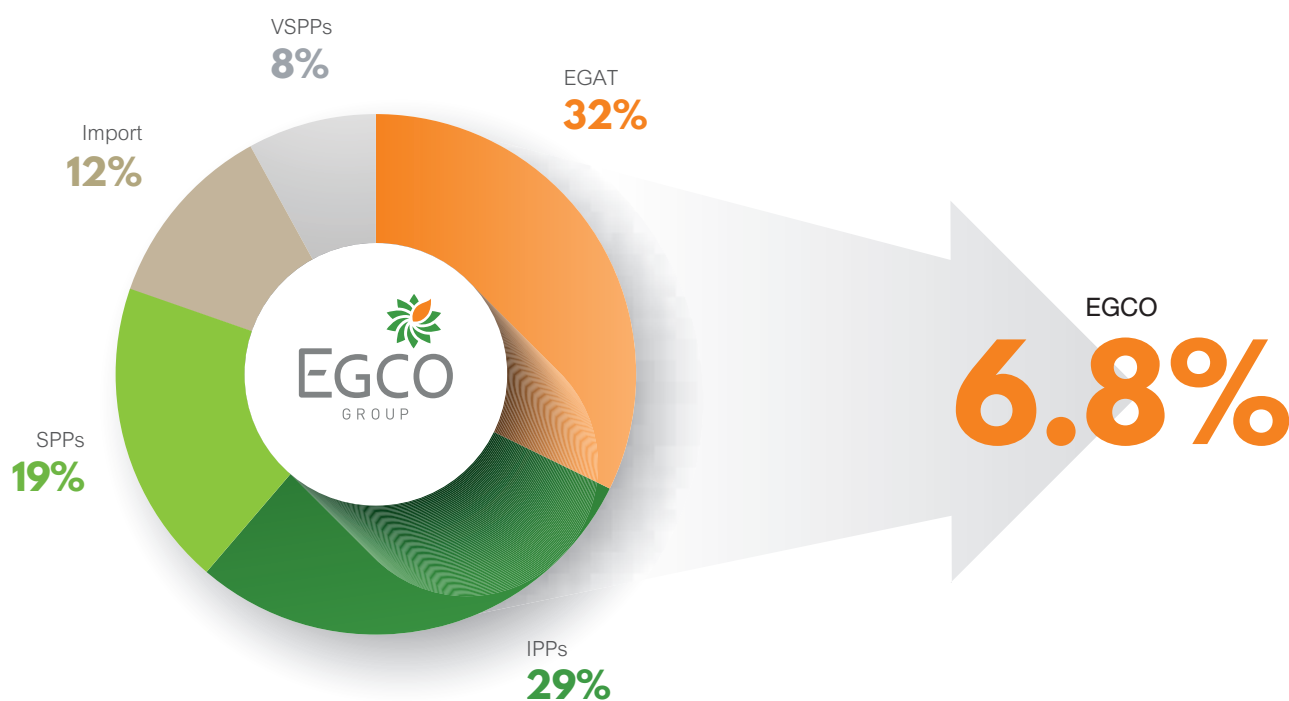


Figure 2 The country's contracted capacity of electricity in 2020 classified by producers (source: EGAT, EPPO and Department of Alternative Energy Development and Efficiency (DEDE))

In 2020, Thailand's power development plan for 2018 to 2037 revision 1 (PDP 2018 rev.1) was approved by the National Energy Policy Council (NEPC) on 19 March 2020 and by the cabinet on 20 October 2020. The PDP 2018 rev.1 focuses on the use of natural gas as primary fuel for power generation as well as the increase proportion in renewable energy. Ministry of Energy promoted Community Power Plants for Local Economy, which aims to enable private companies to form joint ventures with local communities to operate renewable power projects in remote areas. Additionally, PDP 2018 rev.1 sets the target for solar power generated by households of 9,290 megawatts by 2037.

Regarding the Alternative Energy Development Plan for 2018 (AEDP 2018), the electricity generation from renewable energy sources will contribute a total of 28,004 megawatts by 2037. According to the Department of Alternative Energy Development and Efficiency (DEDE), the current status of renewable energy power plants as of October 2020, which achieved COD was 11,971 megawatts, increased from which of 2019 by 119 megawatts or 1.0 percent.

By 2037

The target for  
Solar PV Rooftop

**9,290**

megawatts

Targets for electricity  
generation from renewable  
energy sources

**28,004**

megawatts

## 2. Electricity Industry in Target Countries

Due to limited growth prospect for domestic electricity industry, EGCO has expanded the investment in Asia-Pacific countries such as Philippines, Lao PDR, Indonesia, Australia, South Korea and Taiwan where the Company has established business bases. Investment of EGCO in each country is shown in Figure 3. In addition, EGCO has also been seeking for further investment opportunities in other countries such as Vietnam, Myanmar, and Cambodia. EGCO consistently monitors and analyzes electricity industry situation to explore investment opportunities in those targeted countries. However, the COVID-19 impact is not incorporated in Power Development Plan in these countries, which might be revised after the COVID-19 pandemic ends. The overall industry situations of which are as briefed below;

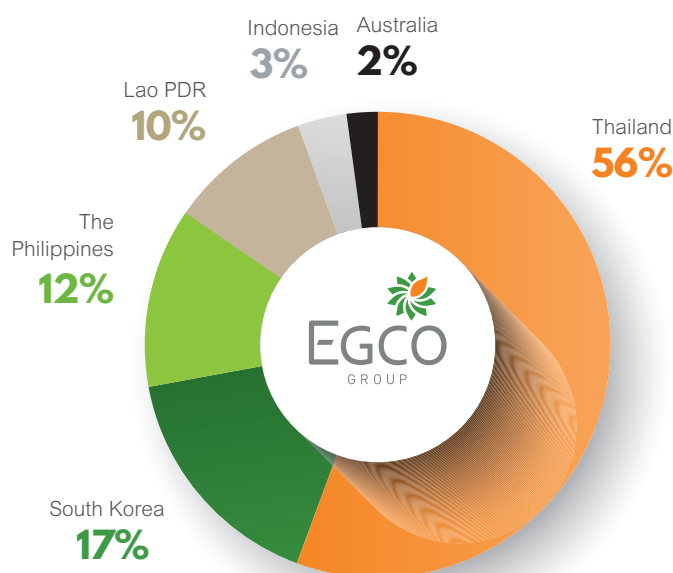


Figure 3 EGCO's equity contracted capacity of electricity in 2020 classified by country

### 2.1 The Philippines

The Philippines's peak demand declined by 1.9 percent from previous year. The Philippines currently has installed capacity of 25,000 megawatts, which are primarily from coal-fired power. Peak demand in the Philippines is expected to increase 5.4 percent annually. The Philippines plan to expand its capacity by 50,000 megawatts in next 10 years, which focus on power generation from coal-fired power plant. Additionally, the Philippines plan to increase renewable energy generation of 24,000 megawatts by 2029, which promotes the power generation from solar, hydro and wind power.

## 2.2 Lao People's Democratic Republic (Lao PDR)

Lao PDR's peak demand dropped by 7.5 percent from prior year. Lao PDR's installed capacity is approximately 9,200 megawatts. Because of its abundant water resource and mountainous geography, the electricity generation is mainly from hydropower plants. With an aim to be the Battery of Asia, the electricity generation for export to neighboring countries such as Thailand and Vietnam are approximately 65 percent of total capacity. The peak demand of whole country is forecasted to grow 13.2 percent annually. Furthermore, Lao PDR's promotes the investment in power generation from hydropower and alternative renewable energies, such as solar and wind from private sectors, both domestic and overseas.

Presently, Thailand imported 5,420 MW of electricity from Laos under Memorandum of Understanding (MOU) to purchase electricity of 9,000 megawatts.

## 2.3 Indonesia

Peak Demand of Indonesia declined by 7.0 percent compared to previous year. Indonesia's installed capacity is approximately 63,000 megawatts. Coal-fired and natural gas power plants play a significant role as base load generation. Peak demand is forecasted to increase 6.5 percent annually. According to 2019 - 2028 Power Supply Business Plan (RUPTL), the government plans to expand its electricity generating capacity by 56,000 megawatts. The new RUPTL prioritizes the use of renewable energy sources, as well as domestic use of gas. In overall, the additional electricity generating capacity is mainly from coal, gas, geothermal and hydropower, which are the abundant resources.

## 2.4 Australia

Australia's peak demand remained stable compared to last year. Australia's installed capacity is approximately 62,000 megawatts, mainly supplied by aging coal-fired power plants and renewable energy. In recent years, solar, wind and gas generation increased drastically, while coal-fired generation declined because of the reduction in its average availability and displacement by solar during the day. Due to energy efficiency and a continuous increase in rooftop PV capacity, peak demand in Australia is estimated to be flat at 0.3 percent over the 20-year outlook period. Recently, Australia has achieved renewable energy generation target of 33,000 gigawatt-hours by 2020, which was the main challenge for the government to set out a clear policy for the energy sector to enable new investments. Power generation from wind power and rooftop PV are forecasted

to be more than double from present by 2030. Additionally, the government has a strong support to deploy Energy Storage System (ESS) with Variable Renewable Energy (VRE).

## 2.5 South Korea

South Korea's peak demand dropped by 8.9 percent from previous year. South Korea's installed capacity is approximately 120,600 megawatts, which are significantly from natural gas and coal-fired power. Peak demand is estimated to increase 1.3 percent annually. South Korea electricity market is cost based pool. The Korea Power Exchange (KPX) functions as the independent electricity market operator in Korea. In this role, KPX also does the billing settlement for power sales and purchases. It controls real time dispatch of all generators which is set daily on a merit order. South Korea's electricity generating capacity is estimated to increase to 174,000 megawatts. The government plans to shift away from coal-fired and nuclear power towards LNG and renewables. Moreover, South Korea promotes the development of renewable energy to achieve 20 percent of total capacity by 2030, with target of 37,000 megawatts and 17,000 megawatts from solar power and wind power respectively.

Currently, South Korea is drafting the 9th Basic Plan, which plans to reduce the share of electricity supplied by nuclear power plants and coal fired power plants. The government aims to increase share of renewable energy to 40% of the nation's power by 2034 and close some coal-fired power plants, which would be converted to natural gas power plants.

## 2.6 Taiwan

Taiwan's peak demand dropped by 8.9 percent from previous year. Taiwan's installed capacity is approximately 45,000 megawatts, which are mostly generated from natural gas and coal-fired power. Peak demand is forecasted to increase 1.5 percent annually. The government of Taiwan plans to expand 26,000 megawatts of electricity generating capacity with emphasis on development of natural gas power plant while reducing the dependence on coal-fired power plants. Presently, the government has set the goal of achieving a nuclear-free homeland and increasing the ratio of renewable energy generation to 20 percent by 2025. Power generation from renewable energy focusing on solar and wind in Taiwan is expected to increase by 18,000 megawatts and 6,000 megawatts by 2025, respectively.

## 2.7 Vietnam

The installed capacity of Vietnam is approximately 48,000 megawatts, which are primarily from coal-fired power and hydropower. Peak demand is estimated to increase 8.4 percent annually. According to revision of power master plan VII, Vietnam's electricity generating capacity is forecasted to increase to 130,000 megawatts by 2030. Additionally, the government of Vietnam aims to develop power generation from renewable energy to achieve target of 48,000 megawatts by 2030, which promotes investment from solar power, hydropower and wind power.

Currently, Vietnam is drafting on its power master plan VIII, which expected to replace some coal-focused power plants with schemes favoring cleaner sources, including renewables and LNG.

## 2.8 Myanmar

Myanmar's installed capacity is approximately 5,700 megawatts, which are mainly generated by hydropower plants. However, the current supply is not sufficient to meet country's demand, which is forecasted to increase 9.6 percent annually. Additionally, as 60 percent of households are not connected to the national grid, relying on local solutions such as diesel generators and solar rooftop, the government puts an effort to achieve 100 percent electrification by 2030 by increasing energy access in rural areas and securing reliable supply in urban areas and Special Economic Zones (SEZs) through joint investment with foreign investors. With this regard, Myanmar plans to expand its electricity generating capacity to 14,000 megawatts in 2030, which focuses on the development of hydropower plants and coal-fired plants.

Thailand has signed Memorandum of Understanding (MoU) for the purchase of electricity from Myanmar, with no specific capacity.

## 2.9 Cambodia

The installed capacity of Cambodia is approximately 2,200 megawatts. Hydro and coal are primary source of fuel supply in Cambodia. Peak demand in Cambodia is forecasted to increase 9.5 percent annually. The government has a policy to connect all villages to the national grid by 2030 and import more energy from neighboring countries to fulfil its growing demand. Cambodia plans to increase 2,200 megawatts of electricity generating capacity, which promote power generation

from hydropower and coal-fired power. Thailand has signed Memorandum of Understanding (MoU) for the purchase of electricity from Cambodia, with no specific capacity.

## 3. Competition

In 2020, power industry has faced many challenges not only the impact of COVID-19 pandemic but also disruptive technology, which created the new normal and new business opportunities. For the competition, the competitors explore opportunities and focus the investment in overseas because of the limited growth prospect for domestic electricity industry. Furthermore, as disruptive technologies have influenced the power industry over the last few years, competitors expanded the investment to energy related business as well as new business for business diversification. These led to high competition in the industry. Despite the high competition and challenges in power industry, EGCO had stability through dynamic situation and successfully expanded its investment as follows;

- EGCO Group completed acquisition of 25% ownership interest in Yunlin Holding GmbH. The project company is constructing a 640 MW offshore wind farm, which will be situated in the Taiwan Strait in Taiwan. The acquisition is completed on April 17, 2020.
- Gangdong Fuel Cell Project with an installed capacity of 19.8 MW, in which EGCO holds 49% of stakes in South Korea, had commenced its operation on October 1, 2020. This achievement not only strengthens the existing foothold of EGCO but also increases the renewable energy portion in portfolio, which aligned with global context.

These investments would not only enhance business growth but also provide economic value added to EGCO. EGCO is satisfactorily competitive in power business which was resulted by several key success factors including, but not limited to :

### • Human resources

Competence and expertise of EGCO's personnel, experiences of employees and Board members are the key success factor. EGCO personnel have dependable capabilities and experiences in power industry. Board members are competent persons from diverse business areas, many of whom are knowledgeable and long-time experienced in energy and electricity areas. Moreover, EGCO is committed to building competency of employees, aligned with investment directions as well as implementing the "Knowledge Management System" to apply

employee knowledge and experiences to benefit the business operations and the company's sustainable development. These ensure that employee will have the competence and expertise to support EGCO Group's continuous business expansion.

- **EGCO's trustworthy**

To ensure sustainable growth and maximize shareholders' value, EGCO continuously expands its investments with comprehensive project selection criteria to ensure quality investment, that generates good returns at an acceptable risk level. This led to satisfactory financial status, liquidity, and profit growth, which helped the company earn creditability and trustworthy from banks and financial institutions in financially supporting its ongoing investments

- **Good relationship with communities surrounding power plants**

EGCO Group has always given priority to a harmonious between business, communities, society and the environment. As power generation may cause impact to nearby communities, EGCO always operates its business with regard to participation in the community and society development starting from the communities in the vicinity of power plants, covering openly disclosure of factual information and promotion of appropriate participation of the society before construction, under construction, and after completion of construction of power plants. EGCO is committed to reduce negative impacts and increase positive impacts, through participation within

communities in areas of operations and build good, long-term relations through community activities, and participating in developing the quality of life for communities for sustainably growth.

- **Innovation**

Innovation for sustainability at EGCO Group is one of the most important elements that drives forward the company's business operations not only for distinctive competitive advantage but also towards a sustainable future. EGCO aims to promote internal innovation and encourage creativity and innovative mindsets for EGCO's employees, which can be applied to work process, increase work efficiency and obtain the competitive advantages over competitors.



## MARKET OPPORTUNITY AND BUSINESS DIVERSIFICATION

Besides disruptive technology, businesses today face many challenges such as the economy, market, public policy, adaptive business direction with consideration to local contexts, consumers' values, attitudes, and demands. These challenges lead to the changes in competitor's investment directions, cross-sector investments, modifications of rules, regulations, government policy as well as climate change or greenhouse gas (GHG) emission reduction policy. The COVID-19 pandemic also creates magnitude effect on the world's economy, as well as birthing the New Normal era.

EGCO Group sees the factors mentioned earlier as opportunities and challenges to continue developing our capability to be stably adaptive in these changes, which contributes to the company's credibility along with our values. Therefore, EGCO Group seeks opportunity to invest in the energy-related business, alternative energy business, as well as other high potential businesses that will strengthen revenue generation. We establish short-term, intermediate, and long-term goals to distribute risks and ensure investment opportunities in related businesses, namely fuel supply, infrastructure, and smart energy solution.

### Long-term Goal for 2030



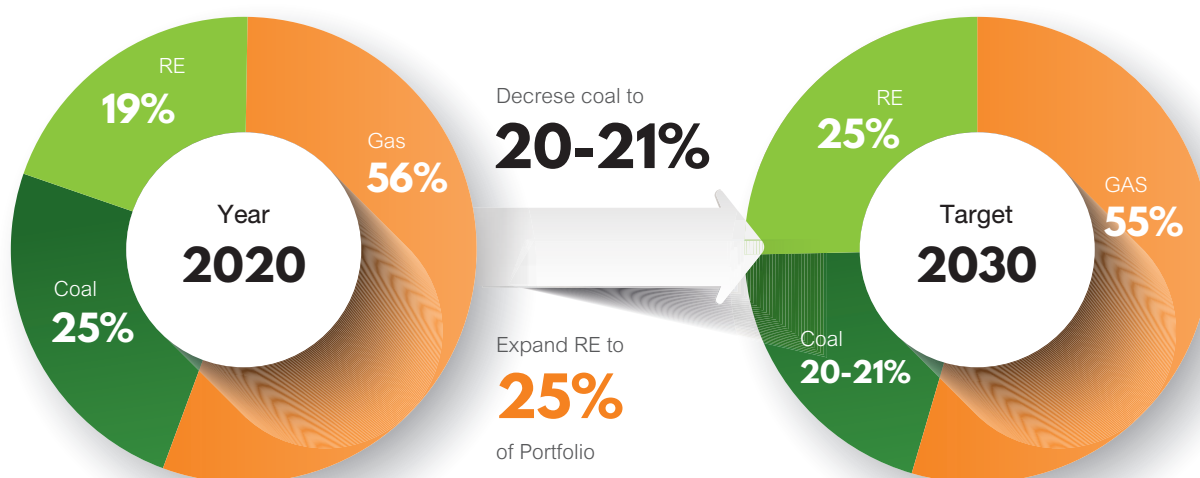
EGCO aims to decrease the coal-powered electricity generation to 20-21% and increase the portion of renewable energy and smart energy solution to 25% of the total generating capacity by 2030.

### Achievement in 2020



Guangdong fuel cell power plant in Seoul, South Korea, started operating commercially in October 2020. This project strengthens EGCO Group's investment base in an existing foothold and increases our renewable energy portfolio in alignment with the global direction of energy generation.

Goals in decreasing coal capacity while increasing renewable energy capacity and smart energy solution



EGCO Group develops business cautiously and manages current assets virtually in accordance with good corporate governance principles. The company published corporate strategy as a guideline for business expansion and diversification as follows:

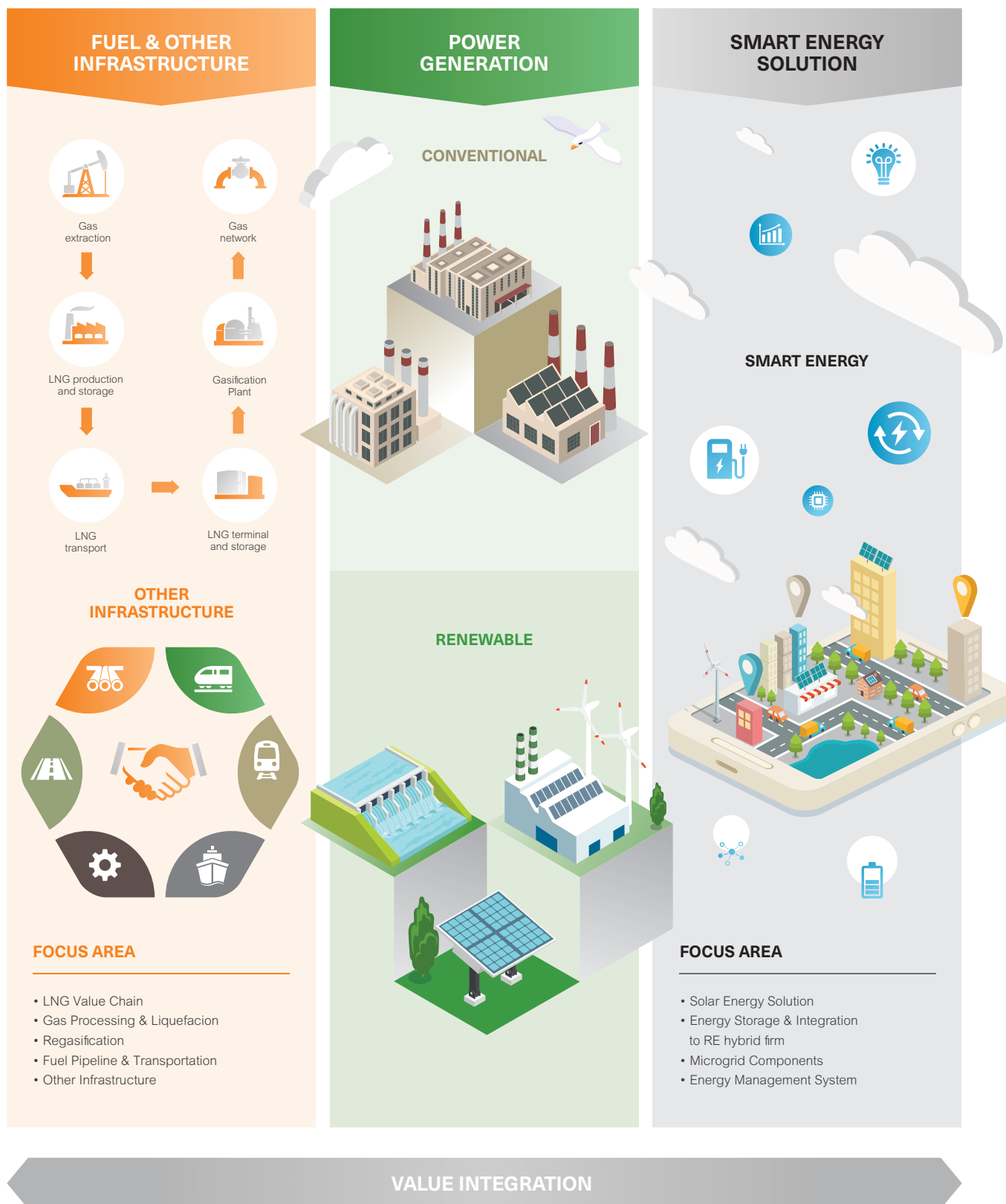
#### 1. Financial Perspective

To enhance corporate competitiveness, EGCO places an importance on cost of fund by securing funding sources and exploring alternative source of funds, which provide competitive cost. In addition, EGCO has a policy to adopt hedging instruments to manage financial exposure to the acceptable level in case of currency and interest mismatch.

#### 2. Investment Perspective

In order to maximize shareholders' wealth, EGCO continuously seek new investment opportunities in power generation business as well as expanding the investment to fuel and other infrastructure, which provides value-added to EGCO. Furthermore, under disruptive environment, EGCO further explores new business opportunity in smart energy solution to continuous and sustainable growth.

## EGCO Group's Investment Direction



### Strengthen Core Business in Power Generation with Portfolio Balance View

- Strengthen networking and focus on existing foothold to pursue new opportunities
- Selective investment with country atmosphere both in the arising of investment opportunities, country's installed capacity and demand growth as well as the aspect of social and environmental concern
- Utilize experiences of existing assets portfolio with diversified fuel sources both in conventional and renewables such as hydro, solar, wind and geothermal
- Balance portfolio with diversified source of fuel in order to secure revenue stability and pursue sustainable growth

### Extend to Value-Added in Fuel Supply and Other Infrastructure

- Focus on investment in fuel and other infrastructure, to generate long-term income and predictable cashflow to secure continuous growth
- Seek role and opportunities with focus in domestic market and existing foothold
- Pursue co-development with shareholder and strategic partner
- Entry with minority investment to be familiar with business and market

### Explore and Sculpt into Smart Energy Solution

- Define future growth and boost-up with opportunity arising from disruptive trend and new s-curve
- Explore opportunity with caution step and get ready to invest at the right timing
- seek suitable approach and financing scheme by market viability and maturity level in order to manage risk exposure at acceptable level

### 3. Internal Business Process Perspective

To ensure that assets are efficiently managed, and earnings are met as targeted, EGCO puts a priority on portfolio management and asset improvement. Meanwhile, EGCO also focuses on managing project under construction to ensure project completion as scheduled and within the budget.

### 4. Learning and Growth Perspective

EGCO aims to build high performance organization, which based on human capital foundation, integration of Information Technology and innovation to work processes as well as corporate sustainability practices of EGCO Group. These perspectives are significant elements for the organization to be the leading organization that develops good, talented, efficient and high performance organization. We establish EGCO Group's guidelines to facilitate sustainable development and improve corporate sustainability and good corporate governance.

#### The 4 perspectives of corporate strategy



## Innovation & Digitalization



**GRI**  
103-1, 103-2, 103-3

EGCO Group is aware of the transition into the digital era, where technology becomes essential to business operations. Businesses must adapt their processes in accordance with the current situation and context in order for them to grow. EGCO Group believes that consistent and continuous

innovation development is one of the most important factors in driving businesses towards sustainable growth. However, there cannot be innovations without knowledgeable personnel behind the brilliant ideas, to create business advantages together with consideration for the society and the environment.

### Goal in 2020:

More than

# 20

project submissions  
to EGCO Group  
Innovation Contest

### Long-term Sustainability Goal for 2020 – 2024:

EGCO Group Innovation Contest

At least

# 3

practical innovations  
submitted

and

# 1

from subsidiaries  
per year

### Performance in 2020:

- Total of 25 projects submitted to EGCO Group Innovation Contest
- Technology implementation to enhance operations' efficacy

EGCO Group has conducted business strategy reviews, a crucial starting point of innovation. The company is focused on improving employees' understanding of company goals, ensuring effective communications to achieve said goals, and building a creative and innovative corporate culture to spark the drive to improve within the organization. Knowledge Management system is implemented with an aim to distribute the collected employees' knowledge and experiences within the company to benefit the business operations and the company's sustainable development.

### EGCO Group Innovation Contest and Activities

In 2020, the company organized projects and activities in innovation for the third consecutive year to encourage our employees to present their creative ideas and innovations that could benefit the organization, such as higher performance efficacy and cost reduction. The selected innovations will be developed further and implemented in the company's business operations.

The competition was separated into two main categories, namely "Creative Idea", practical innovative ideas that can be implemented in any operational process, and "Innovation Project", which are the innovative projects that has already been implemented in the business operations. In 2020, 25 teams participated in the following categories:

### 01

Creative Idea  
in Process  
Improvement

# 14

Teams

### 02

Innovation Project  
in Power Plant  
Operation and  
Maintenance

# 6

Teams

### 03

Innovation  
Project in  
Others

# 5

Teams

### The winning projects in 2020 are the following:

#### 1<sup>st</sup> Prize in Category - Innovation Project in Power Plant Operation and Maintenance from “Heat Recovery Steam Generator (HRSG) Efficiency Optimization by Loss Improving with HRSG Blowdown Leakage Control”

Affiliation: KEGCO's power plant experienced heat loss problem at the Heat Recovery Steam Generator (HRSG) caused by a damaged Blowdown Control Valve, despite regular maintenance, so vast amount of water has leaked higher than designed level per day from Drum through Blowdown pipe. Two generating units (Train 1 & Train 2) lost water from the leakage led to heat loss approximately 280 MMBTU per day. Hence, the team at KEGCO came up with a permanent improvement plan for the Blow Down Valve system in addition to regular maintenance. The processes were as follows:

- Install 1 additional set of Air Block Valve (ABV) and modify control system to maximum open/close to work parallel with the existing Blowdown Control Valve. This helps control water level inside the Drum for both releasing water continuously (Continuous Blowdown) by using Control Valve and for releasing water intermittently (Un-continuous Blowdown) by using Air Block Valve together with Control Valve;
- Improve the Blow Down Control Valve with more durable material

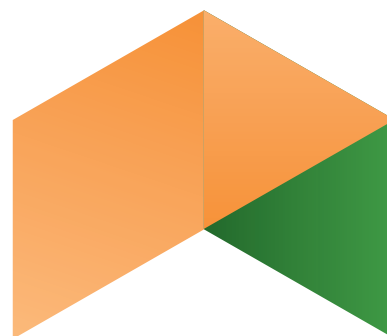
The cost for installation and modification for two generating units was approximately 1.2 million THB.

Results: Water consumption was reduced to the level suitable for power plant's operation. This project reduced heat loss from two generating units amounts to approximately 20 million THB/year.

#### 1<sup>st</sup> Prize in Category - Innovation Project in Others from “Automated Accounting”

Affiliation: Accounting has excessive amount of routine processes which does not nurture employees' further learning. For examples, bookkeeping, exchange rates tracking, etc. Hence, the Accounting and Budgeting Division has implemented Robotic Process Automation (RPA) on to the system. Robot or Bot's software will be configured to imitate human's work. When given order, it will start working according to the pre-configured processes. With such technology, large amount of routine work can be completed swiftly, precisely, continuously without mistakes.

Results: Automated Accounting technology helps save finance officers and accountants time, shifting them from “doer” to “supervisor” instead. This gives employees more time for more important tasks and skills development, such as improving analysis skills and versatility, as well as deterring future new recruitments. This level of precision may lead to further changes in Business Process. The Automated Accounting will be the model project which can be adapted to other type of operations or implementations in our subsidiaries.



### 1<sup>st</sup> Prize in Category - Creative Idea in Process Improvement from "Khanom Model for Organic Farming"

**Affiliation:** The concept is to support organic farming families in Khanom region sustainably with KEGCO, as the driving core of the organic community, as well as a market network through online social media, such as online marketplace platform for agricultural products. The focus is to solve unbalanced dietary system which impacts health, the environment, society, and the economy in Khanom region. This project also creates local jobs, relieving the impacts of unemployment due to COVID-19 in the local community without relocations far away from their families.

The predicted cost of this project is approximately 175,800 THB per year. The cost includes trainings organization, equipment/tools, raw materials, wages, and the network's traveling cost for organic farm inspections.

**Results:** This project will contribute to the company's positive image as a pioneer power plant in improving local community's life quality, as well as helping the community to become self-sufficient amidst crisis such as the COVID-19 pandemic. Moreover, the project helps conserve the environment, decrease chemical pollution in the soil, water, and the air, as well as create jobs for local farmers and increase household income to an average of 200 – 400 THB per day. Besides improving local community's well-being through consumption of contaminant-free food, it can help reduce the state expenses on healthcare in the long-term as well.



EGCO Group aims to implement the knowledge management system to create a corporate culture of learning and integrate it into business operations. Starting with encouragement from executives, allowing employees to work hands-on within the acceptable boundaries of trials and errors, encouraging knowledge exchange through team culture, as well as organizing training to instill values of learning in our employees.



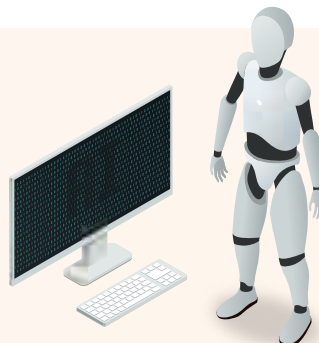
### Easy Application Development Project

EGCO Group has organized an "Easy Application Development Project" to support information technology development, helping employees or business units to develop the application Microsoft Power Platform under Microsoft Office 365 by themselves. The goal is to make work more convenient, faster or improve the work process's efficiency. This can also be implemented further to develop prototype for the work process improvement projects or operation innovations. The company has organized Power Apps and Power Automate trainings in beginner and intermediate levels with provided consultancy on projects that will be further developed for practical implementations.



#### Microsoft Office 365 on Cloud Platform to Support the Work from Anywhere (WFA) Concept

EGCO Group has started implementing Microsoft Office 365 Cloud Platform in our operations, such as Exchange Online (Email), SharePoint Online for EGCO Group intranet communication called EGCO GroupNet, Microsoft Office, Microsoft OneDrive, Microsoft Planner, Microsoft Teams, or Microsoft Steam to make cooperation and communications within EGCO Group more effective and flexible. It is also to support EGCO Group's Work from Anywhere policy. The IT Department has provided employees the devices to access the aforementioned applications in compliance with information security policy.



#### Robotic Process Automation (RPA)

EGCO Group has adopted the use of RPA system, which is an automation technology that utilize "Bot" or "Robot" in the process. The Robot's software is configured to imitate human's working behaviors. The Robot will standby for being guided by external control devices or programs instructing it to carry out series of actions automatically. With such technology, large amount of routine work can be completed swiftly, in high quantity, while also minimizing errors and reducing workloads for employees to avoid repeatedly working on the same tasks. The system shifts the employees' role from being the "doer" (i.e. ones completing the work tasks) to becoming the "supervisor" (i.e. ones auditing and monitoring the processes) instead. This also allows employees the time to do other significant tasks that are more important to the operation or focusing on high-value jobs that are more beneficial to EGCO Group.



#### HR Data Warehouse System

In 2020, EGCO Group implemented HR Data Warehouse System to report writing and HR data analysis to increase efficiency in processes, such as employees database storage, payroll, etc.



In 2020, EGCO Group spent a budget of approximately

# 111,013,600

THB to promote digitization and create an innovative corporate culture.

## Cybersecurity & Privacy Protection



**GRI**  
103-1, 103-2, 103-3

The company's internal information is an asset that must be protected effectively. EGCO Group established security levels for internal information access to ensure correct usage. It is one of the preventive measures implemented against cybercrimes, attacks, sabotage, espionage and mistakes. The components of IT security used as a foundation for our cybersecurity system are the three aspects of the CIA: Confidentiality, Integrity, and Availability.



### Goals in 2020:

- Improve information breach monitoring and prevention system
- Implement cyber security and personal information protection policy that is up to date and aligned with international standards

### Long-term Sustainability Goals for 2020 – 2024:

- Improve the company's information security system to meet ISO 27001 standard
- Receive zero grievances related to personal data violation from customers or external party
- Train 80% of employees to improve their understanding regarding information security and data privacy of relevant high-risk parties and stakeholders

Using internal information for personal or individual gainful activities outside the scope of given consent is a violation of privacy, which can damage and impact the company's credibility

Besides cybersecurity management, EGCO Group takes privacy protection and data accessibility into account as well. We aim to create a balance between information safeguarding, privacy protection, and appropriate accessibility to sensitive information. Therefore, the company stipulated strict guidelines for internal information use as we place great importance in data protection, facilitating information, and data privacy of our employees, customers, and all stakeholders. The company has appointed a committee with an executive in the role of Chief Technology Officer under the supervision of the Risk Management Committee.

The committee oversees all aspects related to cybersecurity. They are responsible for monitoring the information technology development and the working groups, as well as prevention of personal and internal information misuse in accordance with our Code of Conduct and Good Corporate Governance Principles. The company has established an internal information control system to prevent any leaks prior to public disclosure or an official release. Any case of non-compliance will be considered as Code of Conduct violation in which the individual in question will be penalized and hold responsible per established rules.



## Performance in 2020

### Information Security System Improvement in

#### Accordance with ISO 27001

EGCO Group has stipulated information and cybersecurity policy and management approach to monitor information security. Similarly, we conduct vulnerability assessments, organize cybersecurity training to raise awareness about cyber threats, conduct Management Review, as well as internal audits prior to an assessment by a certified body.

The company has developed an information security management system in accordance with the ISO/IEC 27001 standard, which covers processes, such as incident management, change management, document control, capacity management, etc. The framework encompasses Data Center facilities management, server management on the hardware level, operation system management, network equipment management, as well as network client management in various operation supports.

The aforementioned development was facilitated by many internal departments, namely Information Technology Department, Procurement and Administration, Legal Department, and Human Resources Department. EGCO Group has published a gap analysis report on our cybersecurity system compliance with the ISO/IEC 27001 standard for information security management systems. The aim is to improve the system's structure to align with the requirements of the ISO/IEC 27001

standard. Similarly, the Information Security Committee's roles and responsibilities have been restructured to facilitate and push the information security management system to achieve its targeted goals.

Furthermore, EGCO Group has determined a framework for Operating ISMS Program to be used as internal operation guidelines for the development of information security risk management process, information security risk management and assessment training, as well as risk assessment and treatment plan report to monitor the risk management approach.

### Improve Information Breach Monitor and Distributed

#### Denial-of-Service (DDoS) Prevention System

The company has improved the information breach monitor and Distributed Denial-of-Service (DDoS) prevention system to strengthen our network's security. Simultaneously, this improvement will protect Distributed Denial-of-Service (DDoS) attacks through application uses, web-based attacks, botnet attacks on DNS, or other scripts.

### IT Security Awareness Training

As information technology is evolving fast, many public and private organizations have widely implemented the technology in their operations. However, EGCO Group recognizes the risks that follow. We have thus organized training for our employees to raise awareness and understanding of cyber

threats to protect themselves and the company from cybercriminals effectively. In 2020, the company organized IT Security awareness training for employees and executives and a seminar on Personal Data Protection Act (PDPA) B.E. 2562.

### Summary of IT System and Privacy Violation Related Fines and Number of Grievances Received:

	2017	2018	2019	2020
Total number of complaints received from outside parties	0	0	0	0
Total number of complaints from regulatory body	0	0	0	0
Total number of information security breaches or other cybersecurity incidents	0	0	0	0
Total number of information security breaches involving customers' personally identifiable information	0	0	0	0
Total number of customer affected by company's data breach	0	0	0	0
Total amount of fines/penalties paid in relation to information security breaches or other cybersecurity incident	0	0	0	0

# Sustainability Energy Development



**GRI**  
305-1, 305-2, 305-3,  
305-4, 305-5

## Climate Change

Presently, climate change is one of the most significant global challenges all sectors inevitably face. The primary cause being anthropogenic activities. The climate change crisis induces and exacerbates natural disasters. Therefore, it is everyone's responsibility to jointly manage for reduction of greenhouse gas emissions, for environmental conservation, and long-term

preservation of natural resources, for our future generations. As an electricity generator, EGCO Group is determined to mitigate climate change impacts from our activities. We are committed to reassuring all stakeholder groups that EGCO Group's activities do not negatively impact the environment and natural resources.

### 2020 – 2030 Long-Term Sustainability Targets

Electricity generation from renewable  
sources by 2030

**25%**

Electricity generation from coal  
by 2030

**20 - 21%**

### 2020 Performance

Greenhouse gas emission intensity  
(scope 1 and 2)

**0.49**  
tCO<sub>2</sub>e per MWh

Reduce greenhouse gas emission by

**603,119**  
tCO<sub>2</sub>e per year

Proportion of electricity  
generated from renewable  
sources

**19%**

In cognizant of the importance of climate change management, EGCO Group has stipulated Climate Change Management Guideline. The issue falls under the responsibility of the Corporate Sustainability Steering Committee. There is Environmental Management Working Group comprises executives from every power plant, tasked with monitoring and reporting management progress to the Corporate Sustainability Steering Committee. Targets have also been set for executives and relevant personnel as part of the annual key performance indicators (KPIs).

Furthermore, EGCO Group has also continued to develop Climate Change Strategy from 2019. The aim is to strengthen climate change management, readiness, and responsiveness to imminent risks and potential opportunities. In 2020, we identified the Group's Strategic Positioning Options; conducted Scenario Analysis to identify and assess potential business impacts from climate change risks. We have also laid out a corporate strategy in climate change management.



### Identifying Strategic Positioning Options

EGCO Group has identified our strategic positioning options for the next five years. This is to serve as part of the corporate direction and strategy. Climate change is a driver of innovation and an issue impacting long-term business growth. Our strategy focuses on reducing coal-fired power plants, increasing renewable energy, and developing new businesses to facilitate Smart Technology. Energy trading with a small-scale generator, increased investment in new businesses, as well as emphasizing innovation development for funding opportunities.

### Conducting Scenario Analysis to Identify and Assess Climate Change Impacts on Business

In 2020, EGCO Group conducted Scenario Analysis to identify and assess potential business impacts induced by climate change risks. This includes physical risks, such as floods and drought, in each operation site, due to climate change; transition risk, such as carbon taxes (including Cap & Trade measures), which shall be implemented in 2030.

### Development Corporate Climate Change Strategy

EGCO Group completed strategic positioning options in climate change and scenario analysis in order to identify and assess potential business impacts from climate change risks. The Company has established corporate climate change targets and climate change strategy. The efforts ensure EGCO Group is able to achieve our targets and expand our business opportunity.



For additional information on EGCO Group's business opportunity expansion, see "Market Opportunity and Business Diversification" in this report, page 86



## Performance

### Replacing Traditional Lightbulbs with LED

Quezon Power Plant has switched from traditional lightbulbs to Light-Emitting Diode (LED) to save electricity consumption and avoid hazardous waste from mercury contamination. Since 2011, the Group has changed 72.53% of our lightbulbs. In 2020, we were able to reduce greenhouse gas emissions by 22.67 metric tons of carbon dioxide equivalent.



Reduce greenhouse gas emission by

**22.67**

mtCO<sub>2</sub>e

### Refrigerant Reclamation

In 2020, Quezon Power Plant reuse 25 kg of R-22 refrigerant from air conditioning system, decreasing GHG emission by 45.25 metric tons of carbon dioxide equivalent.



Reduce greenhouse gas emission by

**45.25**

mtCO<sub>2</sub>e

### Solar and Wind Energy to Light Up Remote Areas

Since the electricity cannot access the remote area, solar and wind energy is typically used to generate light. It is clean energy that does not emit greenhouse gas emissions to the world's atmosphere. In 2020, the Quezon power plant generated electricity from solar and wind energy approximately 19,984 kWh energy or equivalent to greenhouse gas emission reduction of 14.05 metric tons of carbon dioxide equivalent.



Saving energy

**19,984**

kWh

Reduce greenhouse gas emission by

**14.05**

mtCO<sub>2</sub>e

### Reforestation for Carbon Dioxide Offset

Quezon power plants and SPBL power plants started plantation project in 2015 to offset the construction sites of the SBPL project. The project took over four years, and the plantation comprises both forest trees and mangrove forest trees. As of 2020, 35,017 trees are absorbing almost 0.73 tons of carbon dioxide equivalent\*.



**35,017**

Trees

Absorbing almost

**0.73**

tCO<sub>2</sub>e

\*Calculated according to the trees' age and the diameter of each type.

## Carbon Credit

EGCO Group's power plants continue to demonstrate determination in continuously reducing greenhouse gas emissions, which is one of the key factors behind climate change and global warming. Power plants in EGCO Group with carbon credits in place, comprise.

**Boco Rock Wind Farm (BRWF)** which generated electricity from wind powers, conducted carbon credits with The Large-Scale Generation Certificates (LGCs) since 2014.

Revenue from Boco Rock Wind Farm's Carbon Credit

YEAR	2016	2017	2018	2019	2020
Revenue (AUD)	18,299,146	17,945,299	19,704,642	19,526,826	20,270,060

**Solarco Power Plant**, which produces electricity from solar cells, made a carbon credit contract according to International Renewable Energy Certificates (I-REC). In 2020, Solarco power plant earned 2,103,261 Baht in revenue from selling carbon credits.



## Direct and Indirect Greenhouse Gas Emission

### Direct Greenhouse Gas Emission (Scope 1)

2017	2018	2019	2020
5,828,891	6,664,845	7,034,130	6,529,416

Ton CO<sub>2</sub> equivalent

Direct greenhouse gas emission covers greenhouse gas emissions from sources under EGCO Group's control. This comprises.



Greenhouse gas emission from electricity generation (fuel-powered)



Greenhouse gas emission from combustion sources related to road transport



Greenhouse gas emission from NO<sub>x</sub>, SO<sub>x</sub>, CO, and CO<sub>2</sub>



Greenhouse gas emission from SF<sub>6</sub>



Greenhouse gas emission from refrigerants

EGCO Group used Global Warming Potential (GWP) from IPPC for the conversion rate.

### Indirect Greenhouse Gas Emission (Scope 2)

Indirect greenhouse gas emissions are from electricity purchased or received from each power plant, multiplied by conversion factors. In Thailand, the practice is to use conversion factors from [www.tgo.or.th](http://www.tgo.or.th).

2017	2018	2019	2020
6,762	8,670	7,127	10,474

Ton CO<sub>2</sub> equivalent

### Indirect Greenhouse Gas Emission (Scope 3)

Aside from direct (scope 1) and indirect (scope 2) greenhouse gas emission, EGCO Group, also collected indirect (scope 3) greenhouse gas emission from logistics and power distribution via a transmission line, purchase of natural gas for electricity generation, and employees' transportation. This endeavor leads to greenhouse gas emission management throughout the entire supply chain. In 2020, the Group organized communal vehicles for employees' traveling, as opposed to the use of personal cars. The vehicles are for both traveling to the Company's headquarter and meetings at a distance.



## Generating Capacity



**GRI**  
G4-EU1, G4-EU30

EGCO Group is determined to improve our capability and stability in power generation in the concept of “Eco-Economy”, thriving towards power industry excellence. We commit to facilitating a transition towards adopting cleaner energy or more renewable sources in power generation to minimize environmental impacts while balancing economic and social

development. The generation capability to accommodate demands in energy consumption is one of the key factors in establishing EGCO Group's reliability towards our stakeholders. Another important challenge EGCO Group faces includes searching for methods to optimize power plant's efficiency while reducing fuel consumption.

### Goals In 2020

Plant Availability

**92.15%**

Unplanned outage: less than

**1.93%**

### Long-term Sustainability Goals in 2020 – 2024

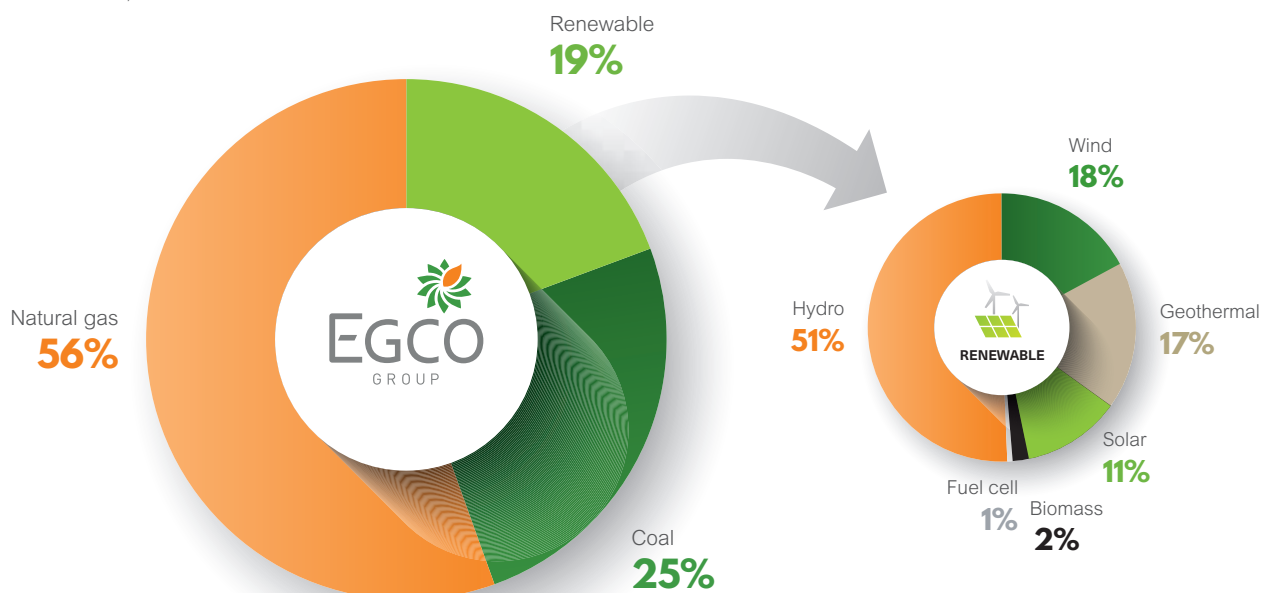
- Plant Availability is higher than the amount indicated in the Power Purchase Agreements (PPAs).

## EXCELLENCE GENERATION

EGCO Group focuses on improving the power production capability excellence through innovations to enhance production efficiency with environmental friendly technologies, such as technologies that can help reduce fuel consumption in order to decrease direct social and environmental impacts and regular performance inspection to maintain machinery's efficiency. Additionally, the operation performance is part of EGCO Group's power plant performance assessments.

### Gross Energy Generation by Type of Fuel in 2020 (G4-EU1)

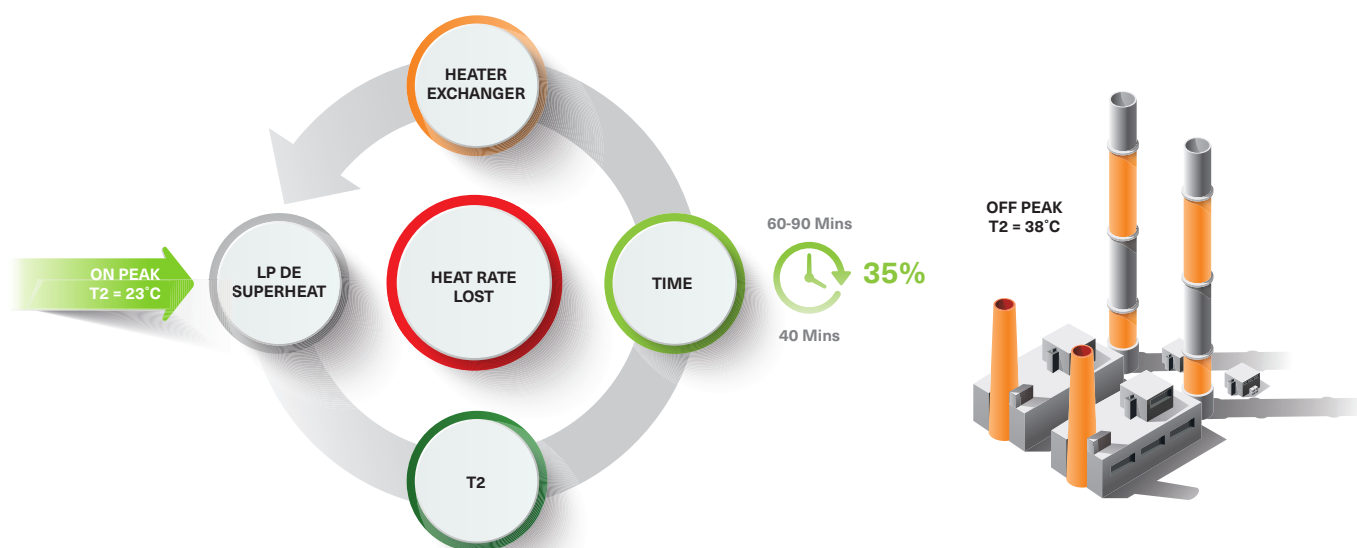
As of 31<sup>st</sup> October, 2020



## Performance

### KLU Power Plant Load Adjustment Optimization

KLU power plant has solved the issue encountered during load adjustment from ON Peak to OFF peak. The T2 temperature adjustment period was too long, resulting in a Heater Trip and another temperature adjustment. The power plant has improved the temperature adjustment efficiency and reduced the time spent by 35%, from 1-1.5 hours to approximately 40 minutes. This performance improvement can help save fuel consumption costs of approximately 700,000 THB/year and reduce the heat rate.



## POWER PLANT'S RELIABILITY AND AVAILABILITY

EGCO Group understands the great importance of reliability and stability in the power supply as a power producer. Therefore, we set the target for availability higher than the amount indicated in our Power Purchase Agreements (PPAs) to ensure adequate power supply to both industrial and household sectors. The availability factor is one of the power plants' Key Performance Indicators (KPI) used in performance evaluation for those who work at power plants. In 2020, EGCO Group has set the average availability target at 83.44 for coal power plants and 96.92 for natural gas power plants.

Availability target in 2020

Coal power plant

**83.44%**

Natural gas power plant

**96.92%**

### Availability Factor

AVAILABILITY FACTOR (%)	2017	2018	2019	2020	GOAL IN 2020
Coal Power Plant	82.54	80.00	89.96	88.10	83.44
Natural Gas Power Plant	95.94	92.32	97.05	97.88	96.92

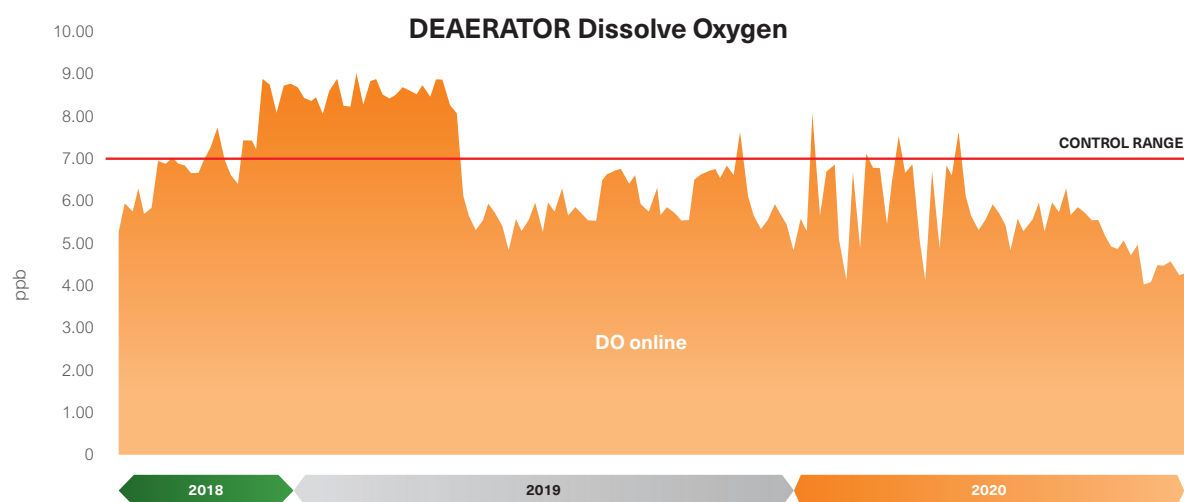
### Average Plant Efficiency

POWER PLANT	UNIT	INSTALLED CAPACITY (MW)	AVERAGE PLANT EFFICIENCY (%)	FUEL
KEGCO	2	970	51.07	Natural gas
EGCO Cogen	1	117	43.11	Natural gas
KLU	2	122	42.21	Natural gas
BPU	1	256	43.75	Natural gas
Quezon	1	502.5	36.02	Coal
RG	1	9.9	16.08	Biomass

### Performance

#### Reduction of Dissolve Oxygen in the Steamer

Due to the increased demand in steam consumption of the KLU power plant's customers, the power plant could not control the amount of dissolved oxygen (DO) below 7 ppb. A Higher DO rate can cause damages to the boiler tubes, resulting in higher maintenance cost and opportunity cost during a maintenance outage. Therefore, the power plant has come up with an action plan to reduce DO by increasing the amount of steam released through the Deaerator. This method helps control the DO concentration, decreasing chemical use by approximately 17,500 THB/year, minimizing steamer degradation, and increasing the power plant's availability.

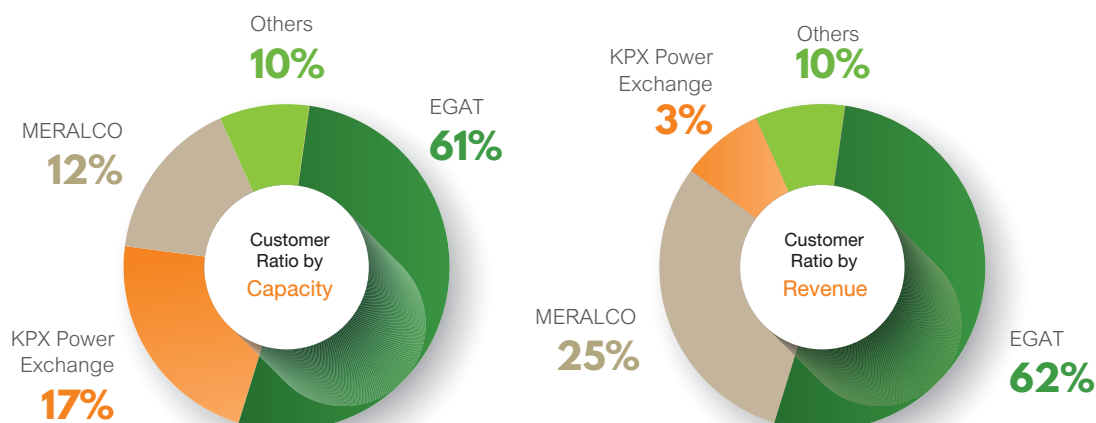


Note: Data from Aug 2018 - Oct 2020 (Weekly)

## CREDIBILITY MANAGEMENT AND CUSTOMER'S SATISFACTION

EGCO Group is committed to building trust and maintaining relationships with our customers as they are among the most important stakeholders in business operations. EGCO Group continues to deliver reliable power supply specified in our PPAs, establishing credibility to accommodate every aspect of our customers' power demand. Furthermore, EGCO Group's customer service policy covers a standard of conduct and customer handling. We take pride in providing credible services, our fair treatment of all customers, our anti-corruption policy, punctual delivery of quality goods and services, and client confidentiality.

As of 2020, EGCO Group has 28 commercially operating power plants in Thailand and overseas with a total equity contracted capacity of 5,422.53 MW. The highest generated capacity is distributed to EGAT with 61%, following by 17% to KPX Power Exchange (KPX), and 12% to Manila Electric Company (MERALCO). The remaining is distributed to PLN, Energy Australia Pty Ltd., industrial customers, and Provincial Electricity Authority (PEA), respectively. Customers' classification based on revenue shows that 62% of EGCO Group's revenue came from EGAT. It is clear that EGAT is our key customer regardless of the classification criteria.



EGCO therefore strives to generate and distribute generated electricity in accordance to the electrical system standards, ensuring sufficient power supply for our customers. EGCO Group conducts customer satisfaction survey annually. In 2020, EGCO Group achieved 93.43%, surpassing the target of 3.43%.

Customer satisfaction

**93.43%**

Surpassing the target of

**3.43%**

#### Customer Satisfaction Survey in 2017 – 2020

	2017	2018	2019	2020
Target (%)	90			
KEGCO (%)	91.20	92.60	95.10	95.10
RG (%)	90.50	96.00	94.30	91.70
EGCO Cogen (%)	93.10	95.45	95.16	99.46
KLU (%)	-	91.04	89.30	90.43
BPU (%)	-	88.57	92.75	87.16
ESCO (%)	94.02	96.15	96.80	96.71
Average (%)	92.21	93.30	92.42	93.43

## Energy Management



**GRI**  
GRI 302-1, GRI 302-4

In order to improve the efficiency of the company's overall energy management, the energy conservation policy has been developed as a framework for energy management which is part of the solution to decrease our GHG emissions. Additionally, EGCO Group has appointed an energy committee to review, develop, and monitor the company's performance on energy management.

“Khanom power plant has been certified for ISO 50001 on energy management, emphasizing how EGCO gives importance to continuously improve on energy management efficiency to create positive impact to the community, society, and the environment.”

### Goal in 2020:

Energy consumption per generated unite

**3.60** GJ/MWh

### Performance in 2020:

Energy consumption per generated unit

**3.58** GJ/MWh

In 2020, EGCO Group's power plants consumed a total of 47,655,981 GJ energy to generate 13,312,704 MWh, which equals to 3.58 GJ/MWh or 0.02 GJ/MWh more than 2019.

### Performance

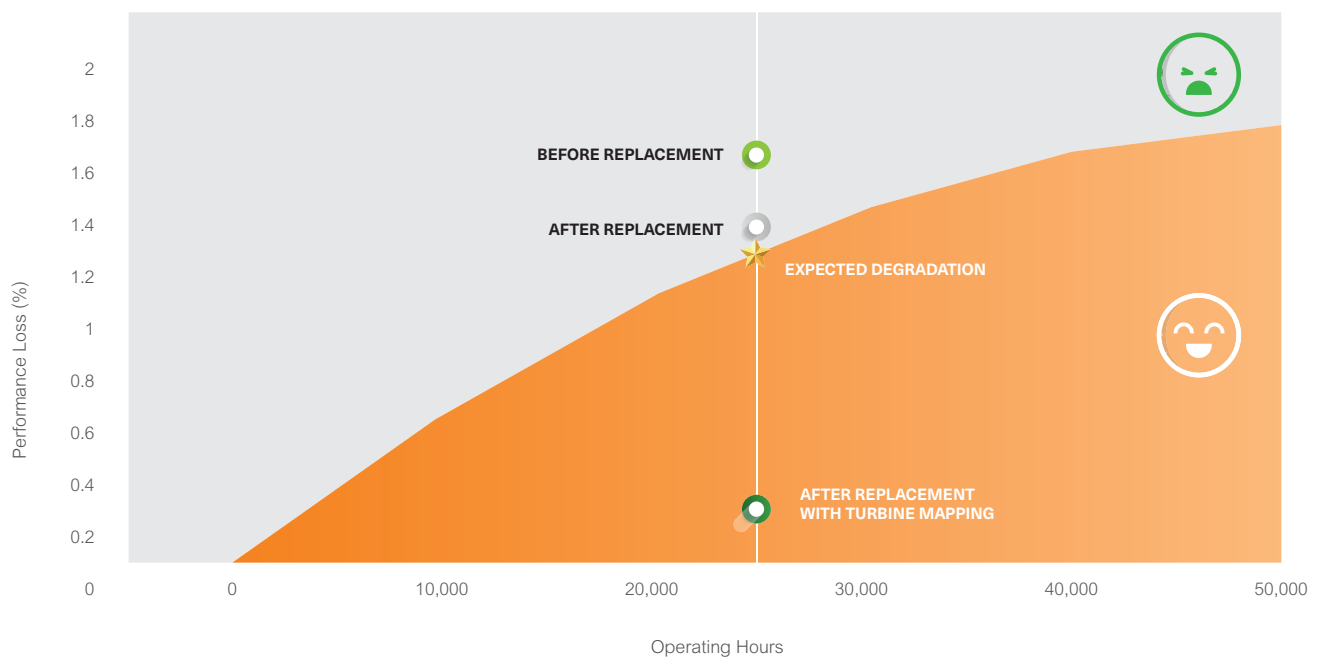
		2017	2018	2019	2020
Gross Energy Generation	MWh	11,004,699	13,223,341	14,237,198	13,312,704
Non-renewable Energy Consumption	GJ	80,348,846	93,704,051	99,664,665	92,163,764
Coal	GJ	29,769,911	25,215,135	28,548,751	21,642,335
Gas	GJ	50,362,998	68,266,718	70,936,554	70,380,899
Others: Diesel, Gasoline	GJ	215,937	222,198	179,360	140,531
Renewable Fuel: Biomass	GJ	1,236,642	1,118,660	1,226,128	1,311,891
Purchased Electricity, Heating, Cooling, and Steam	GJ	41,873	47,407	38,962	68,441
Sold Electricity, Heating, Cooling, and Steam	GJ	38,874,641	46,716,204	50,283,910	45,888,116
Electricity	GJ	38,722,752	44,552,249	48,059,288	43,753,368
Steam	GJ	151,889	2,163,955	2,224,622	2,134,748
Total Energy Consumption	GJ	42,752,718	48,153,912	50,645,845	47,655,981
Energy Consumption per Generated Unit	GJ / MWh	3.88	3.64	3.56	3.58

### Gas Turbine Efficiency Assessment

We have encountered excessive fuel usage cases from Gas Turbine in a Co-generation power plant. The efficiency team has analyzed the Gas Turbine efficiency in two parts: Compressor Efficiency and Turbine Efficiency. This method was able to identify the cause of the Gas Turbine's performance and suggest solutions for improvements.

In 2020, KLU Gas Turbine efficiency analysis after a Major Overhaul found to have improved in relation to before replacement and shown better values than predicted by the manufacturer as seen in the graphic below:

### KLU GTG Degradation Curve



## Environmental Management



GRI

303-3, 303-4, 303-5,  
305-7, 306-2, 307-1

EGCO Group has guidelines for integrated environmental management. In order to effectively manage environmental aspects in multiple dimensions, including the management of air quality, water, and waste, the company is committed to conducting business with environmental responsibility. These responsibilities include strict compliance with the law and various regulations relating to the environment locally and internationally in each country the company operates in to reduce negative impact to the environment throughout the company's value chain.

For efficient organizational management of the environment, EGCO Group has announced the adoption of environmental policies to be part of an operating framework that also extends to our affiliating companies. These affiliating companies include associated companies, suppliers, and company stakeholders. These policies are placed in conjunction with encouragement for associated companies to abide by international environmental management standards, such as ISO 14001, United States

EMSCOP environmental standards, and Best Practices from leading power plants. The affiliated power plants that have received international environmental management system certification include the Khanom power plant, Quezon power plant, TWF power plant, and CWF power plant. In 2021, the company plans to proceed with certification evaluation for the BPU power plant and KLU power plant. As for other power plants, we have arranged for an environmental working group to annually audit their performance.



Further information on the Environmental Policy and environmental management guidelines are available on our website: <https://www.egco.com/en/environmental-management> or through this QR code



The company has proceeded with Environmental Impact Assessment: EIA evaluations in various project areas to study and layout management guidelines or measures throughout our operations. This assessment also prevents negative environmental impact comprehensively and efficiently. Upon commencing power plant project operations, EGCO Group will continuously report monitoring measures every 6 months.



More information on the Environmental Impact Assessment Report of EGCO Group's power plants is available at: <https://www.egco.com/en/business-group/all-countries/operating> or through this QR code



EGCO Group did not receive any complaints from the community or stakeholders. Additionally, there has been no violation of law or environmental requirements. Thus, this factor shows the company's commitment to the efficient management of all environmental issues and the goal not to affect the community or stakeholders.

	2017	2018	2019	2020
Number of Violations of Legal Obligations / Environmental Requirements (Cases)	0	0	0	0
Amount of Penalty Paid Related to Above Violations (THB)	0	0	0	0
Environmental Liability Accrued at Year End (THB)	0	0	0	0

## AIR EMISSION MANAGEMENT

EGCO Group has managed the air quality in both the power plant operation area and the surrounding vicinity to meet air quality control standards, which may be affected by its operation. The company's initiatives to identify measures for more effective air quality control have led to reviews and modifications to the entire operating process, including inspections, maintenance of machinery and equipment, and the selection of modern environmentally-friendly equipment and technology for electricity generation. Furthermore, EGCO Group has set a benchmark for emissions from ventilation chimneys, listed as one of the power plant's KPIs. These measures have been taken to ensure that the power plants within the group control air quality at levels higher than the law and the EIA specified standards. Therefore, it does not have a negative impact on the environment. The air emission-quality is inspected every six months by a registered, certified external audit.

### Performance

#### Electrostatic Precipitator: ESP System Improvement

Roi-Et Green (RG) biomass power plant encountered a problem where the electrostatic precipitator (ESP) had decreased inefficiency. The power plant was not able to achieve the full generating capacity. During the ESP issues, the generating capacity had to be reduced to prevent excessive dust emissions. The controlled amount of dust emission is defined as 50-80 mg/m<sup>3</sup>. Prior to resolving the technical issue, the dust emission was detected at over 100 mg/m<sup>3</sup> while operating at full capacity, an amount visually observable at the chimney. Therefore, the Roi-Et Green power plant has improved the ESP system as follows:

- Installed a new Digital control unit, which replaces the previous Analog unit, to allow automatic control over various values
- Modified the distance between the Discharge electrode: DE and Correction Electrodes to allow for optimal operation
- Improved the alignment of Rappers for greatest efficiency during discharge terminal and collector cleaning

After efficiency improvement, the amount of dust decreased as follows:

	2019	2020
Dust Emission Load	80 – 120	50 – 80
8.8 MW	mg/m <sup>3</sup>	mg/m <sup>3</sup>





## WASTE AND HAZARDOUS WASTE MANAGEMENT

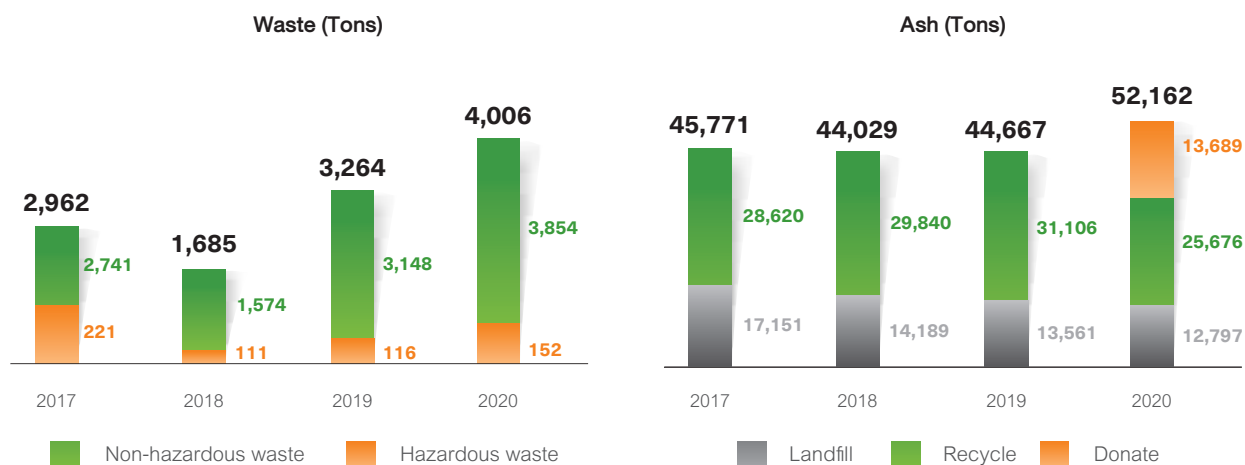
In terms of waste management, EGCO Group implements the 3Rs: Reduce, Reuse and Recycle. This measure includes reducing waste, reusing waste and processing, or reforming waste into usable products to reduce the root cause of additional waste and minimize hazardous and non-hazardous waste from the company's activities. Furthermore, the systematic waste management procedures include waste sorting, collection, transportation, and efficient waste disposal to reduce environmental impact.

### Performance

#### Ash Management at Roi-Et Green Power Plant

Roi-Et Green power plant is a biomass power plant that uses rice husk as a fuel source. The ash from the combustion has been certified by the Department of Industrial Works as not containing harmful toxic substances. Fly and bottom ashes are collected and transported by conveyor belts to the ash storage facility before being transferred onto modified trucks with cover extensions on all sides. Prior to dispatch, trucks are sprayed with water to reduce the amount of dust and ash dispersal. The ash is then sold or distributed to farmers from the communities nearby to be used as fertilizer and soil conditioner.

In 2020, the amount of ash from Roi-Et Green power plant's operations is equivalent to 13,689 tons. 38% of all ashes have been sold while the rest have been donated.



## WATER AND WASTEWATER MANAGEMENT

EGCO Group has determined water management practices to optimize water management and reduce water consumption within the organization by implementing the 3Rs: Reduce, Reuse and Recycle. This measure pertains to reducing water consumption, the reuse of water, and wastewater treatment before reuse. The quality of wastewater is checked regularly to ensure the quality standards are met and the treated wastewater is safe to be released.

Additionally, EGCO Group conducts water-related risk assessments in order to prepare measures to prevent and mitigate potential risks. These measures enable the power plant's activities to continue uninterrupted while the organization mitigates conflicts with the communities due to water scarcity resulting from concurrent demand from the agricultural, industrial sectors and the households in the surrounding communities. The company has continuously utilized the AQUEDUCT Water Risk Atlas tool to evaluate water scarcity risk areas in the short term and long term. As of 2020, none of the areas where EGCO Group's power plants operate are at risk or designated as a Water-stress Area. There have been no Operation Interruption incident or company income loss resulting from water issues in the past four years.

EGCO Group focuses not only on water management within the organization but also on joint activities with various communities surrounding the power plant and associated companies. This measure allows reporting of issues and discussion for community water resource problems to find a resolution. The company holds meetings with the community every six months to report the power plant's environmental performance as well as take suggestions from stakeholders to improve our measures. Representatives from the power plants, government agencies, local community representatives, and associated companies are invited to the meeting. Furthermore, the company has continuously encouraged communities to conserve and restore watershed forests through the Thai Rak Pa Foundation Project.



More information about the Natural Resource Conservation Project "Watershed Forest" and "Thai Love Forest Foundation" is available at: <https://www.egco.com/en/thai-rak-pa>, Facebook Fan page: [thairakpaofficial](#) or at this QR code



### Performance

#### Heat Recovery Steam Generator: HRSG Efficiency Improvement by Reducing Loss

Khanom power plant encountered heat loss from Drum leakage caused by a damaged Blow-Down Control Valve. During regular maintenance, it was estimated that the system could be further used for approximately three months before the trouble reoccurs. The improvement plan for the Blow-Down Valve system is as follow:

- Install an extra set of Air Block Valve (ABV) or Motor Operate Valve (MOV) to work in parallel with the existing Blow Down Control Valve
- Improve the Blow Down Control Valve with more durable material

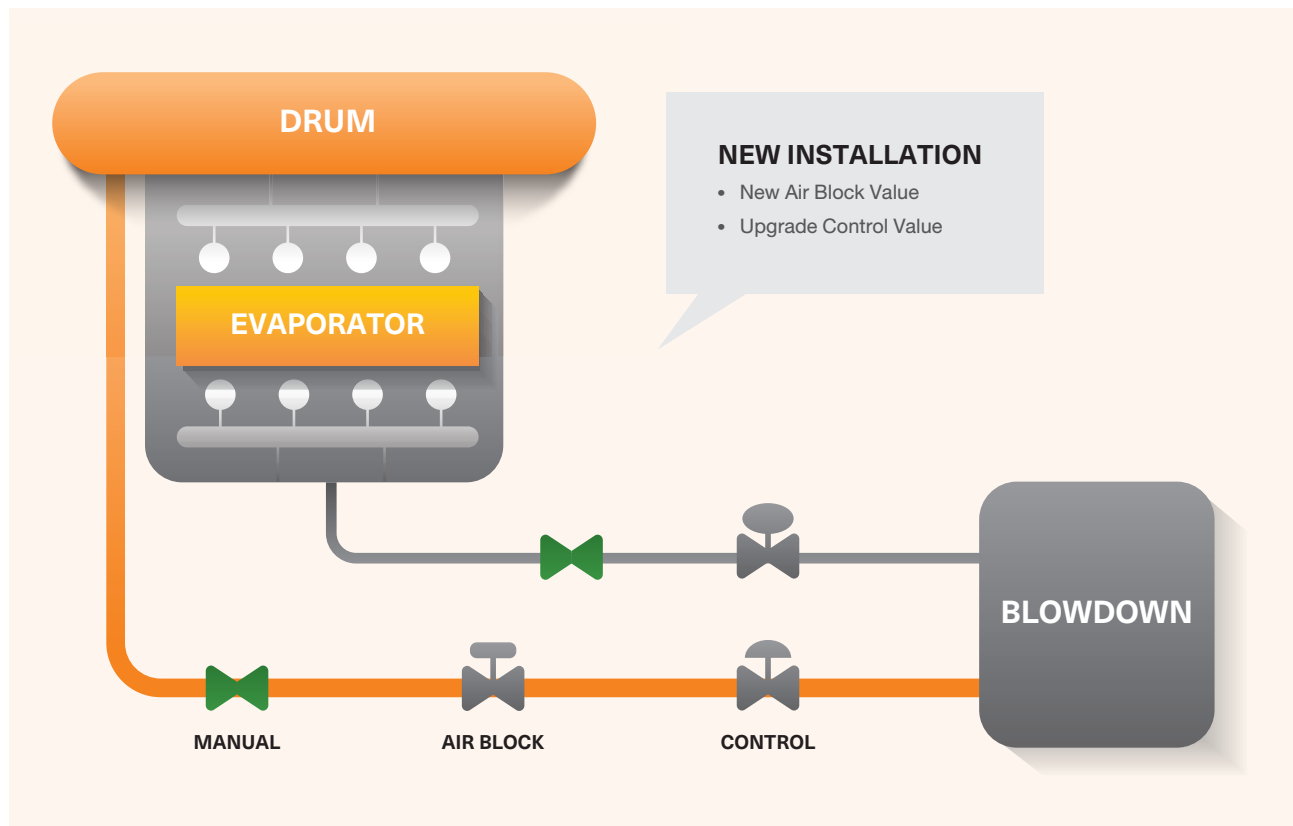
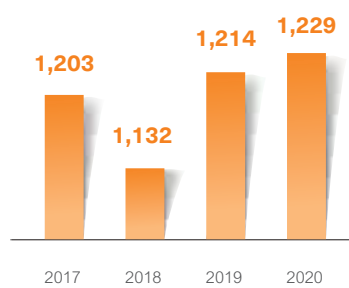
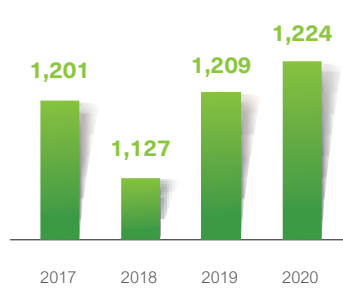
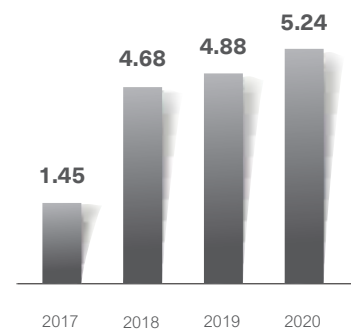
Through the aforementioned improvements, the amount of water blow down leakage was reduced by 90 tons/day. This project reduced heat loss from two generating units amounts to approximately 20 million baht/year.

The amount of water blow down leakage was reduced

**90**  
tons/day

The amount of heat loss was reduced to approximately

**20**  
million Baht

Water Withdrawal (million m<sup>3</sup>)Water Discharge (million m<sup>3</sup>)Water Consumption (million m<sup>3</sup>)

## Conservation and Restoration of Ecosystems and Biodiversity



**GRI**  
304-1, 304-2, 304-3, 304-4

EGCO Group is determined and committed to operating business fully cognizant of the ecosystem's values and importance. We aim to protect the environment, as well as biodiversity in all operational areas of EGCO Group's power plants to the utmost of our ability. EGCO Group utilizes the Mitigation Hierarchy, public hearing, and feedback mechanisms from key stakeholders. This is particularly the case for communities in the vicinity and governing agencies. The hierarchy is used in business operations to control, reduce, and mitigate impacts. This includes drafting of restoration or remediation plans to the ecosystem and biodiversity. Suppose there is a risk of significant effects. In that case, EGCO Group will operate according to good practice per international standard, with references to area type and other requirements of the International Union for Conservation of Nature (IUCN). Additionally, we also consider areas listed as world heritage per UNESCO's announcement, as well as environmental

standards and management requirements. This comprises International Organization for Standardization (ISO) 140001 Environmental Management System, ISO 45001 Occupational Health and Safety, and World Bank International Financial Corporation (IFC) Performance Standards. Notably, management efforts of risks towards ecosystem and biodiversity encompasses policy stipulation, management, operation, and performance disclosure. This endeavor ensures EGCO Group's commitment, as announced in environmental management policy, is realized.



For additional information regarding environmental policy and environmental management guideline, please see <https://www.egco.com/en/environmental-management> or scan the QR Code

### Goals in 2020:



No grievance concerning environmental issues



**100%**

All power plants in EGCO Group (100%) operates according to environmental impact prevention/mitigation measures or plans.



Commenced the survey project for life forms indicating biodiversity at Khanom Power Plant, in order to monitor changes throughout the project period.

### Long-Term Sustainability Goals 2020 – 2025:



No grievance concerning environmental issues



**ISO 14001**

EGCO Group's power plants (IPPs SPPs) continues to operate according to ISO 14001 Environmental Management System.



No net loss from operations according to impact prevention/mitigation measures and plans at commercially viable and active power plants.



**100%**

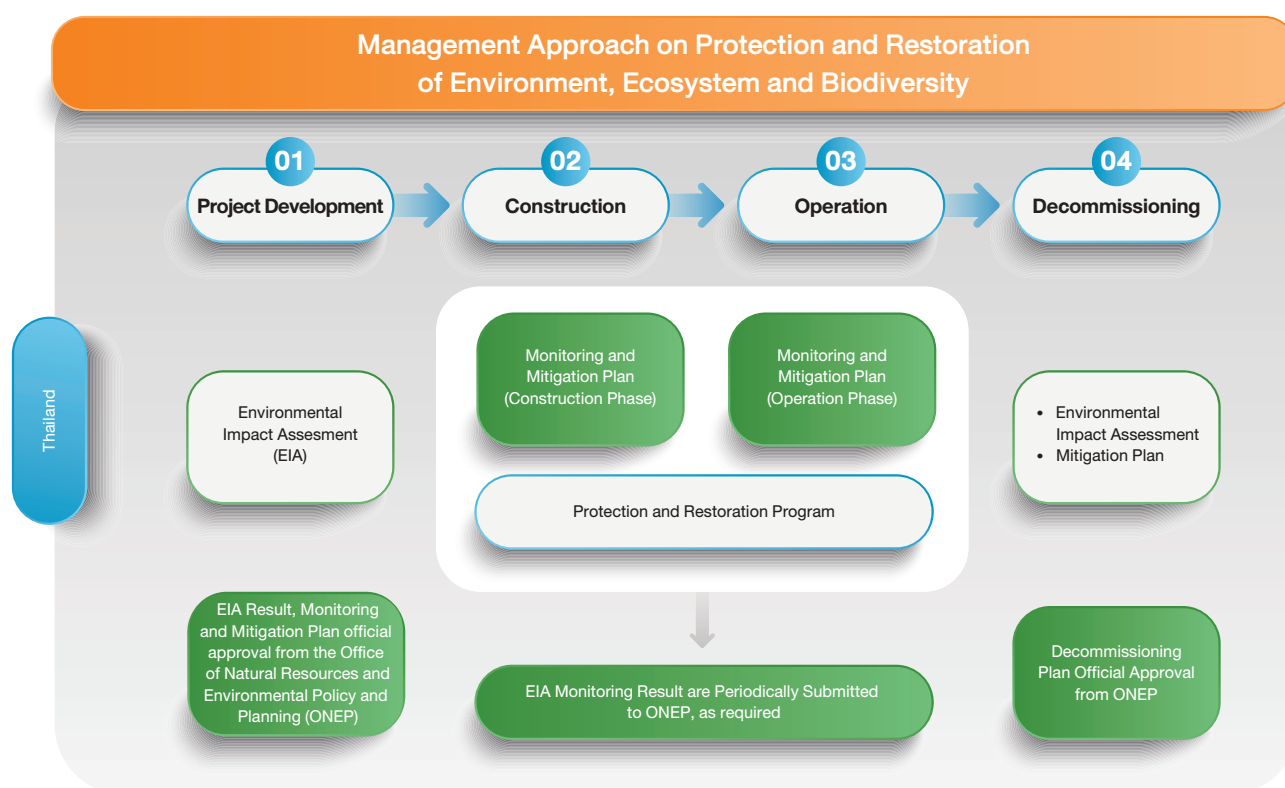
100% of EGCO Group's power plants have set Net Gain targets from ecosystem and biodiversity protection and restoration project.



Power plants with restoration or remediation plans of impacts incurred during the project's construction period can restore or remediate 100% at designated proportion or within set timeline.

EGCO Group organizes for survey and risk assessment of impacts to natural ecosystem and biodiversity of all power plants under the Group. This encompasses project development, construction, operation, to the stipulation of prevention plans, monitoring, and impact mitigation at each of the project phase. It is a long-term working plan. The operational period covers the entire contract period the Group is awarded a concession for. The aforementioned operation plan

has received approval from different authorities, local, national and international. This varies depending on the legal requirements of each operational area. Furthermore, EGCO Group has also informed the said operational plan to all relevant personnel across all functions. This ensures their acknowledgment and understanding, enabling stringent compliance to the guideline.



Long-term operation from 2017 – 2020 highlights EGCO Group's commitment and determination to manage as well as protect and restore the environment, ecosystem, and biodiversity. Throughout the entire period, the Group did not receive grievances concerning any environmental issues. Furthermore, all power plants under EGCO Group operate according to environmental impact prevention/mitigation plans or measures regularly. The Group has appointed an expert advisory panel to review the project's progress to ensure that the ecosystem and biodiversity across the power plants' vicinity are being protected and cared for. Furthermore, the Group has established that such monitoring is part of the monitoring and environmental impact mitigation plans for annual performance assessment. Additionally, EGCO Group has set up projects to protect and restore wildlife, terrestrial and marine ecosystems in the 3-5 kilometers vicinity around the power plants. This allows for tracking should any incident affecting the ecosystem and biodiversity may ever occur.

	2017	2018	2019	2020
Number of environmental grievances	0	0	0	0
Number of EGCO Group's power plants operating according to environmental protection / impact mitigation plans and measures	100	100	100	100

In 2020, EGCO Group started developing EGCO Group Environment and Social Management System Manual (ESMS). This was done in tandem with commencing projects to scale up effort according to the aforementioned manuals, in the next phase, as follows.

- Commenced research project serves as baseline data in furthering Khanom power plant's efforts to protect and restore biodiversity inclusively. This enables tracking of changes in ecosystems and biodiversity during Khanom power plant – Unit 4's commercial operation stage. The collaboration was with department of biology, faculty of science, Chulalongkorn University. The fauna population survey was conducted from December 2020 – May 2021 for a period of 6 month. The goal was to disseminate key information from the studies of learning benefits and sustainable biodiversity conservation endeavors for youths and communities afterwards.
- To consolidate and manage biodiversity protection and restoration guidelines, community development of EGCO Group's power plants continuously. In 2020, the Group collected and organized information on hydropower-based power plants, as well as a guideline for the assessment and management of risks to ecosystems and biodiversity. There was a case study

on hydropower-based power plant development, Xayaburi's Electricity, Lao PDR, which is friendly to the aquatic ecosystems. This was achieved through engineering innovation.

Furthermore, EGCO Group became a member of Thailand Bio-Diversity Network Alliance (B-DNA), whose objectives are to promote and reinforce the private sector's roles in conserving Thailand's nature, raise awareness, and boost capacity through network building in efforts to conduct conservation projects across Thailand. The emphasis is on developing biodiversity and being part of the efforts to achieve sustainable development goals and Aichi Biodiversity Targets. As of 2020, EGCO Group collaborated with networks as follows.

- Continuously promote the dissemination of knowledge and understanding to build awareness of the importance of biodiversity conservation. This was achieved through communication channels and distributed media from EGCO Group.
- In 2021, the power plants have plans to provide data support in order to contribute to the development of a biodiversity map, identifying and locating a list of fauna in highly endangered status or at risk of becoming extinct according to IUCN Red List Species (in cases found).

## Key Performance in 2020

### Khanom Power Plant (Nakhon Sri Thammarat, Thailand)

#### Protect animal population in the power plants' operational areas

Khanom power plant has enacted rules and put up signs to prevent employees, families, and those relevant from hunting. Simultaneously, employees also receive support in joining the efforts to conserve local biodiversity through a sight-recording project. Records of findings are also sent to relevant departments for continuous efforts throughout the year. EGCO Group regularly monitored areas with signage against hunting and have not found animal abuse incidents or hunting in power plant areas and the vicinity. At the same time, in order to monitor the changes in animal population during Khanom power plant – unit 4's operation stage. The power plant has operated commercially since 201 and has conducted animal population surveys to assess risks of impacts to the project during the construction stage.

In 2020, EGCO Group commenced the project 'Khanom power plant's biodiversity survey' in collaboration with department of biology, faculty of science, Chulalongkorn University, for the duration of 6 months between December 2020 to November 2021. Scope of the survey is as follows.

- Conducted animal population survey using baseline data from Environmental Impact Report of the new Khanom power plant's construction project, replacing the older one in 2013. This serves as the baseline data for monitoring changes. Notably, for the power plant's commercial operation stage, the study was conducted in the form of a Rapid Survey in limited areas around the power plants and areas of immediate contact. The areas serve as alternative areas for monitoring change indicators of natural abundance.
- To conduct training for employees and relevant personnel in the areas, serving as the base for further scale-up of developmental plans – in the form of a project promoting participation in long-term conservation efforts.



#### Protection and restoration of green spaces

- **Development of baseline vegetation data in Khanom power plant's green space**

Over 10% of Khanom power plant's areas have been designated green spaces, covering the office zone, residential zone, guest zone, and power plant zone. The coverage addresses the preservation of natural areas, from Khao Chai Son to Khanom marine coastal areas. The usage is divided according to appropriate uses for each area, such as guest areas and beach areas. Both are open for the public to enjoy. There are measures to ensure the security and maintenance of various green areas to continuously ensure their richness and aesthetic. Simultaneously, there are measures against chemical fertilizer usage for green space maintenance, considering safeguarding the overall ecosystem. In 2020, Khanom power plant joined and certified from Low Emission Support Scheme (LESS) for carbon capture category, as organized by Thailand Greenhouse Gas Management Organization (governmental organization). Chemical and environment function, in collaboration with volunteer employees and Khanom power plant's learning center personnel, acting as representative of youths in Khanom district, conducted the survey. The group took records and measured plants' size in employee residential areas, totals to 204 trees across 20 Rais. This is equivalence to 276 Ton CO<sub>2</sub> eq stored.



- **Installation of 'Garbage Can, Saves the Earth' to segregate wet waste for good environment**

Khanom power plant allocated areas into different zones, comprising offices, employee residences, power plants, guest houses, and Khanom Learning Center. There are installations of garbage cans for the separation of wet or organic waste from general waste. The Group uses a natural treatment process to convert the waste into organic fertilizer for the power plant's green space. This helps preserve a good environment and reduce the amount of waste going to municipality landfills

### Projects to protect and restore aquatic and coastal ecosystems

#### • Monitoring biodiversity and richness of planktons and marine benthos

Khanom power plant conducted a survey and monitored the biodiversity and richness of planktons and marine benthos in Khanom coasts and Khanom canals. The number of planktons and organisms present are crucial indicators for the well-being and richness of the fauna. The assessment shows good biodiversity benefiting the surrounding ecosystems, as planktons are fundamental to the entire marine food chain. Khanom power plant has plans and measures to monitor the number of planktons and marine benthos twice a year. There would be 7 survey spots around the power plant areas with water from the cooling system. In 2020, from both surveys across 7 survey spots, no significant changes had been identified. Water circulation and other factors depending on the season, the overall changes found are due to the weather. Furthermore, there are also smaller aquatic lives of economic value, found as juvenile fish. this totals to 2 species.

### Quezon power plant and San Buenaventura power plant, the Philippines

#### Protection and restoration of green spaces

- Monitor the growth of and plant hard-wood trees and mangrove trees, to offset mangrove forest areas disrupted during construction stage of San Buenaventura power plant.

#### Operational goal

reforest trees to offset green space lost at the ratio of

# 1:100

Quezon power plants and San Buenaventura power plant commenced reforestation in the areas, as well as mangrove forests, in order to restore the richness of green space areas. This was an ongoing effort from 2015 until now. In the past year, as of the end of December 2020, the accumulated number of trees planted is 29,445 trees, with mangrove trees total to 58,772 trees. This totals to carbon storage of 11.95 Ton CO<sub>2</sub>eq.

#### Average carbon volume for trees and mangrove forest

	NUMBERS OF TREES PLANTED	AVERAGE AGE (YEAR)	AMOUNT OF CARBON STORED
Mangroves	58,772	1 - 3	1.11 tons CO <sub>2</sub> -eq
Forest Trees	29,445	1 - 6	10.84 tons CO <sub>2</sub> -eq
Total	88,217		11.95 tons CO <sub>2</sub> -eq

\*Calculate volume of carbon stored from the trees' average diameter

#### Monitor the number of animal population, aiding and protecting biodiversity of wildlife according to IUCN and CITES

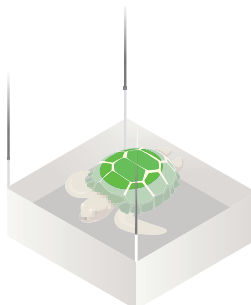
- **Monitoring and surveying animal population in the ecosystem** (since 2017 to present): the Group has commenced recording, aiding, and releasing wildlife back to their natural habitat, for a total of 171 cases. This ranged from January to November 2020. Quezon power plant recorded cases of aiding and identifying 22 wildlife, encompassing wildlife indicating the area's biodiversity level. This includes 9 cases of birds, 9 cases of reptiles. From this, 17 cases of the animals found are listed in the Least Concern status, and 5 with unidentified status, according to IUCN Red List Species.
- **Sea turtle conservation project**  
Sea turtles may go extinct from captivity or through human consumption. This can horrendously affect the overall marine ecosystem. Therefore, the Quezon power plant joined in the seawater conservation project operated by the local authority. The aim is to ameliorate the level of sea turtles' extinction risks. Endeavors include dissemination of knowledge and provide training for local communities. The emphasis is on fishers who photographed and recorded the identified sea turtle's sizes and breeds for information. The turtles would then be released back to the sea. Notably, measures and guidelines are established as follows.

Once sea turtles are identified near the power plant's seawater entry point, the management process is as follows.



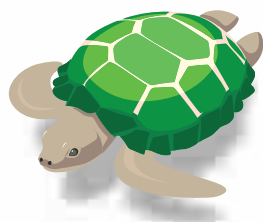
01

Momentarily stop the chlorine injection into the receiving sea water



02

Plan a detailed rescue approach with considerations to the safety of the turtles and rescue officers. The actions required to rescue sea turtle may vary depending on circumstances, places, and sizes of sea turtles found.



03

Upon rescuing the sea turtle, it will be assessed and tag (there are properties for tags. The tags used by power plant must be according to the standard, which is stainless tag certified by environmental agency in local areas, only to those completing the training). The turtle would then be immediately released to Lamon bay.



04

Develop a and submit a report to Biodiversity Management Bureau, Department of Environment and Natural Resource (DENR- BMB)

The project commenced in 2013 and remains active until the present. The accumulated number of sea turtles found is 63. In 2020, the project managed to complete 100% success rate for its search and rescues, equivalent to 5 turtles. All were found at the Quezon power plant's seawater entry point. Following the efforts to identify the breeding, tagging according to the local certification authority, as well as assessing the status of every turtle benchmarked against IUCN Red List Species, it appears all are in the near-extinction status.

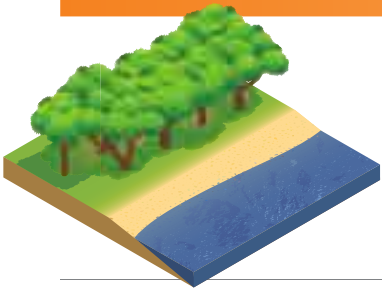



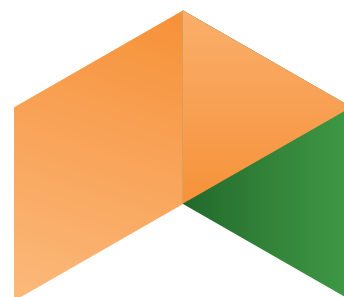
### Boco Rock Wind Farm Power Plant (Australia)

#### Monitoring survey of bird and bat population, according to 5-year monitoring plan

Boco Rock Wind Farm power plant monitored and surveyed impacts to avian and bat population once every quarter. In tandem, the power plant also makes monthly records according to the Birds and Bat Monitoring Plan in the 5<sup>th</sup> consecutive year. In 2020, the result of surveys for bird and bat carcasses did not show significant animal population changes than the result in the first year.

Biodiversity Banking (Bio-banking) Project in 2 areas, comprises Lochla areas (approximately 443.86 Hectares) and Weerona areas (Approximately 656 Hectares) are continuous efforts to restore and preserve the places according to the monitoring plan. This covers primary operations according to the Bio-Banking agreement in 2 key aspects. The aspects are grazing for conservation and weed control. In total, as of 2020, both areas' performance according to designated indicators, are as follows.

KPI	MEASUREMENT CRITERIA
 <p>No significant erosion incidents on rehabilitated land as per incident register</p>	<p>Incident register</p>
<p>Vegetation ground cover &gt;90% and weeds &lt;20%</p> 	<p>Inspections and Audit Reports</p>



# Creating Value to the Society

## Our People

Employees are great importance in EGCO Group's operations, including social responsibility and environmental activities. The company is driven forward by capable employees who have knowledge, ability, understanding, attitudes, and ideas aligned with our corporate culture. Therefore, EGCO Group emphasizes employee care and development, quality of life and well-being, diversity support, and equitable treatment. We also encourage and support our employees career advancement. We aim to establish strong bonds and trust along with our sustainable growth.



### Goals in 2020

- Effectively implement the human capital management system reformation: Performance Management System, Talent Management, Compensation Structure, and Redesigning of Competency Model
- Fill 100% of vacancy management positions

### Long-term sustainability goals in 2020-2024

- Monitoring the completion of the planned human capital management system reformation to ensure effectiveness.
- 100% of employees who have attended the Succession planning & Development Program are considered as successor for management positions.
- Achieve Employee Engagement result more than 60%

### Performance in 2020

- Completion of human capital management system reformation as planned
  - Implementation of performance assessment system in 2020, focusing on establishing KPI Calibration, Performance Rating, and Performance Calibration
  - Development of competency model, namely Core Competency, Leadership Competency, and Functional Competency. Assessments conducted for further human capital development system planning
  - Remuneration Structure analysis and improvement, benchmarking against peers in the same industry
- Talent Management System Implementation
- Achieved 100% replacement of vacancy management positions in time

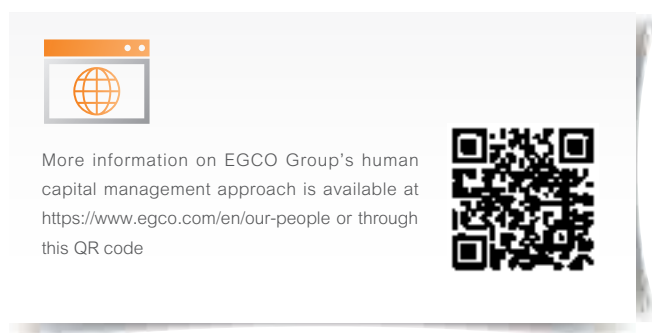


More information on EGCO Group's human capital management system reformation is available at <https://www.egco.com/en/our-people> (Section: Human Capital Management System Reformation) or by scanning this QR code



## PEOPLE MANAGEMENT

EGCO Group has implemented Integrated Human Resource Management Policy organization-wide. This policy covers every context of human resource management, including organization structure established in accordance to the business policies, Recruitment and Employment Policy, Fair and Appropriate Remuneration and Welfare Policy, performance assessment standards, human capital development, and employee relations.



- In 2020, EGCO Group continued to reform human capital management system. We have established a short-term plan to address issues alongside the 3-year development plan for a sustainable human capital management system or a paradigm shift. This includes developing a competency model, remuneration structure analysis and improvement benchmarked against peers in the same industry, performance appraisal system improvement, Knowledge Management System implementation, and E-Payroll implementation for higher efficiency in human capital management.

“EGCO Group is determined to build a foundation and raise awareness among employees, as well as pushing the Human Capital Management System Reformation towards sustainability in the new paradigm of human capital management.”

### New Employee Hires and Employee Turnover (GRI 401-1)

EGCO Group's personnel recruitment process is conducted in accordance with our 'Recruitment and Employment Policy'. In 2020, EGCO Group has 6.31% of new hires.



New Hire Employees

**6.31**

### New Hire Employees

GENDER	HIRE RATE	AGE GROUP	NUMBER OF EMPLOYEES
Male	Male 6.05%	Under 30 Years Old	33
		30-50 Years Old	16
		Over 50 Years Old	3
Female	Female 7.12%	Under 30 Years Old	17
		30-50 Years Old	2
		Over 50 Years Old	0

## Employee Turnover Rate

	2017	2018	2019	2020
Turnover Rate	4.30 %	2.86 %	4.93 %	4.35 %
Voluntary Turnover Rate	3.25 %	2.86 %	2.01 %	3.02 %

### Turnover Rate in 2020

Voluntary Turnover of Permanent Employee

**49**

### Age Group (Number of Employees)

Under 30 Years Old

**16**

30-50 Years Old

**14**

Over 50 Years Old

**19**

### Gender (Number of Employees)

Male

**36**

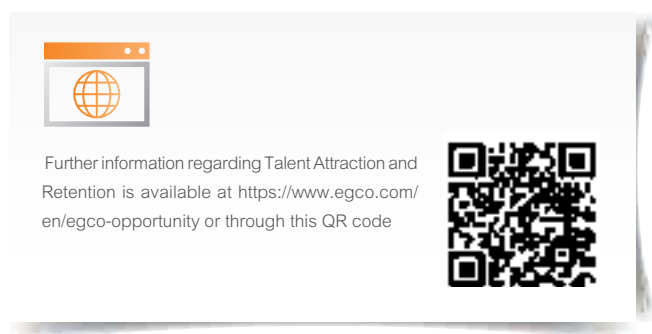
Female

**13**

EGCO Group has established an online communication channel for those interested in working with us, catering to the digital era audiences. The prospective applicants can browse the position vacancy according to their interests and qualities on our website. Furthermore, EGCO Group is also providing a chance for youth and students to have a peek into the industry as well as to exchange knowledge through collaboration projects with many educational institutions, such as EGCO Group's power plants for a learning project, EGCO Internship Project, and EGCO Group Career Connect @ Campus Project. However, due to the COVID-19 pandemic in 2020, EGCO Group has been closely monitoring the situation and only started to consider accepting interns in the second half of the year as the pandemic subsided for health safety reasons.

### Performance Appraisal

EGCO Group conducts fair and transparent performance appraisals, evaluating the efficiency and operational abilities with performance results as the top priority. Every EGCO Group's employee will be assessed individually through Management by Objectives, an assessment according to a criteria agreed upon by the employee and their respective supervisor, and performance calibration. In 2020, EGCO Group's employees can provide their perspectives at work to their supervisors, establishing a two-way communication that increases understanding between 2 parties and alignment in the work processes contributing to the company's higher effectiveness. Moreover, we have organized training on "Smart KPI" for all employees' levels to write down suitable operational goals that can be assessed. The training led to an improvement for more precise and more accurate KPIs as well as more challenging operations.



## HUMAN CAPITAL DEVELOPMENT (GRI 404-1)

Employees are one of the essential parts of our journey towards sustainability. They are the driving force behind our accomplishments. Thus, EGCO Group places great emphasis on our employees' knowledge and skill development in alignment

with our business strategies. Our personnel is prepared to be flexible and adaptive to change as well as encouraged to nurture their capabilities to their highest potential.

### Average Training Hours by Topics in 2020

Environment, Occupational Health and Safety	4.08 Hours/Employee/Year
Others	14.13 Hours/Employee/Year

In 2020, EGCO Group has developed curriculums and organized training to enhance knowledge and develop employees' skills at every level. On average, one employee has received more than 26,291 hours of training in the following programs:

### Developing Innovative Skills Curriculum

<b>PROJECT:</b>	<b>INNOVATIVE IDEA SUPPORT AND STEP-BY-STEP INNOVATION PROGRAM</b>
Participants:	278
Objective:	To support the creation and development of ideas and innovations to be implemented in actual operations, improving and increasing work efficacy. The program focused on knowledge creation, the foundation of creating an innovation, and step-by-step innovations. The lessons can be applied to everyday-work as well. The training was held online, making participation accessible to all employees from everywhere.
Result:	Employees have knowledge and skills to improve work processes efficiently, contributing to learning and innovative corporate culture. An increasing amount of project submissions to EGCO Innopower in its 3 <sup>rd</sup> consecutive year compared to 2019 indicates employees' determination in developing innovations. In 2020, 25 projects participated in the contest, amounts to more than 41 million baht worth of innovation.

## Work Concept Development Curriculum

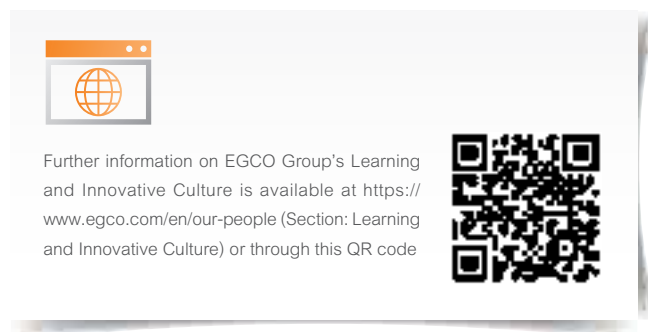
<b>PROJECT:</b>	<b>KNOWLEDGE MANAGEMENT ENTREPRENEURSHIP PROGRAM (KMEP)</b>
Participants:	33
Objective:	Thriving towards becoming an organization of learning and managing knowledge efficiently throughout the company, EGCO Group has established Knowledge Management Entrepreneurship Program, aiming to raise awareness and instill values of Knowledge Management (KM) in our employees. A model team (KM Guru) was created to be a role model in knowledge management organization-wide. This program focused on experience sharing and knowledge development, as well as knowledge transfer in the form of Story Telling according to the SECI model. This includes identifying objectives, methods, learning tools, and identifying the characteristics of the KM Guru. Similarly, the process in team culture building towards sustainable Knowledge Management was established.
Result:	Participants gained knowledge, understanding, and awareness of the benefit of KM. They have collectively created the KM culture, sharing experiences, leading to organizational knowledge sharing. The knowledge shared can be applied in the participants' respective operations, establishing KM Guru to benefit the company and make way for future cooperation internally.

## Skills Development for Change Curriculum

<b>PROJECT:</b>	<b>GLOBAL MINDSET</b>
Participant:	41
Objective:	This project aims to develop middle management personnel's management and leadership skills through knowledge and experience exchange sessions by internationally accomplished leaders. Participants will learn about how to prepare for change, its impacts, how to handle various challenges, and develop an understanding of their roles, duty, responsibilities, and decision-making that affects the company. The program focuses on 3 aspects: intelligence, psychology, and sociology, such as business knowledge, cultural differences, critical thinking skills, assessments, comprehension, bonding, communication, confidence, individuality, etc.
Result:	Management level personnel has a better understanding of their roles, improving their working methods and management strategy. Participants can communicate more effectively with their subordinates, contributing to a better understanding of the objective and higher efficacy within the team as well as between groups.

Furthermore, EGCO Group has been developing personnel's capabilities in accordance with our business directions and corporate values. In 2020, the company supported and developed personnel's capabilities through various projects, such as Personal Data Protection Act training – to inform about principles and requirements per law, Data Analytics for Business Decision, and training sessions to groom successors to executive positions.

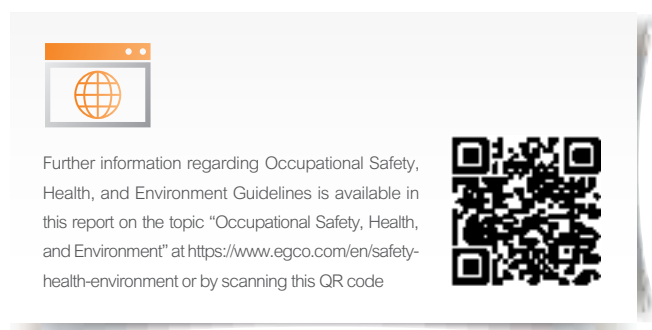
In 2020, EGCO Group used the “Kirkpatrick Model” Level 3 and Level 4 to assess in-house training for the second consecutive year. We can determine the decrease in operational cost post-training as well.



## EMPLOYEE WELL-BEING (GRI 401-2)

EGCO Group values personnel's well-being physically and psychologically. We believe that talented personnel can work to their highest potential when they have the work-life balance in addition to their knowledge and skills. These are the factors that builds employees bond and grow together with the organization.

EGCO Group has stipulated policies and guidelines to promote employees' safety at work. Occupational Safety, Health, and Environment Committee and Working Group were appointed to establish guidelines, requirements, monitor, and improve and develop safety and emergency measures along with promoting personnel's good quality of life and well-being.



EGCO Group has a fair and appropriate remuneration for our employees. In 2020, the company established an improvement plan for Compensation Structure Implementation, which is part of the Human Capital Management System Reformation from the previous year. This is to ensure fairness and transparency in alignment with the company's performance.

Additionally, EGCO Group is providing our employees with appropriate benefits as follow:

- Flexibility from the Work from Home Policy which is later changed to the Work from Anywhere policy, allowing employees to manage their own time to create a work-life balance
- Working environment modification and development for more convenience by implementing Microsoft Teams
- Provident Fund - In 2020, portions of investment were modified for risk diversification in accordance with current situations to maximize the returns for our employees
- Health and life insurance
- Dental and eyewear benefits
- EGAT Saving and Credit Cooperative Fund
- Two routes of employee transport, namely BTS Mo Chit Station - EGCO Building and The Government Complex, Nonthaburi - EGCO Building
- Various types of leave of absence

EGCO Group has appointed a Welfare Committee consisting of 10 employee representatives and a Labor Union with 163 employee representatives. In 2020, the Welfare Committee organized the meeting to discuss various topics, such as improvement of dental and eyewear benefits, vending machines, increasing leave of absence to 11 days per year, etc.

## DIVERSITY AND INCLUSION (GRI 405-1)

EGCO Group values diversity and equality. In our corporate culture, it is not to discriminate against and treat our personnel equally, respecting the human rights of our employees and suppliers. The company believes that diversity and equality will give the employees chances to express their opinions as well as creativity with no discrimination against sexual preferences, age, education, nationality, ethnicity, religion, skin color, gender, citizenship, etc. We are supportive of

personnel with disabilities as well. Moreover, the company places great emphasis on equal pay based on personnel's performance regardless of their gender—for example, experiences, responsibilities, educational qualifications, etc.

In 2020, EGCO group has a female to male employee ratio of 76:24

### Diversity Indicators

Female Share of Total Workforce (%)	24%
Females in All Management Positions, Including Junior, Middle, and Senior Management (As % of Total Management Workforce)	38%
Females in Junior Management Positions (As % of Total Junior Management Positions)	42%
Females in Top Management Positions (As % of Total Top Management Positions)	24%
Females in Management Positions in Revenue-generating Functions (As % of All Such Managers)	-

Moreover, the company established a framework for Human Rights Policy improvement by integrating laws and principles, such as UN Guiding Principles on Business and Human Rights, International Labor Organization (ILO), and the Principles of the United Nations Global Compact (UNGC). The same policy applies to EGCO Group's business partners and suppliers.



Further information regarding EGCO Group's Human Rights is available in this report "Human Rights" at <https://www.egco.com/en/human-rights> or through this QR code



## EMPLOYEE ENGAGEMENT SURVEY

Employee Engagement Survey provides us a better understanding of employees' attitudes and feelings towards the company. It also serves as another communication channel between EGCO Group and our employees. Although EGCO Group did not take an employee engagement survey in 2020, we have organized other activities to communicate instead. For instance, Communication Day twice a year, communication

of Human Resource Management Policy changes, and the continuation of the 5-year Human Capital Management System Reformation plan (2020-2024). The reformation plan includes management topics, such as remuneration and welfare, career advancement, and human capital development for a change. EGCO Group's employee engagement survey will resume in 2021.



### Employee Engagement

# 44%

#### Top scoring topics are as follow:

- Supportive supervisor
- Technological support from the company enhances work efficacy
- Sufficient communication channels for employees
- Accurate performance assessment
- Earnest support of employee's learning and development

## Performance

“Engaging Leader Workshop” for middle management level and above to better understand and raise awareness regarding the importance of managerial roles in establishing bonds between employees and the company. The executives took part in guideline developments to elevate employee engagement.

**Two Way Communication via Microsoft Teams** — This event aims to communicate executives' policies and business directions to employees on Communication Day. The employees can ask questions and express their opinions through Microsoft Teams which the executives will answer.

## Respect for Human Rights

“EGCO Group places importance in respecting human rights and preventing any non-compliance to ensure stable, sustainable future of our stakeholders and our businesses”

Human rights are one of the fundamental rights everyone equally deserves. EGCO Group has always been conducting businesses with considerations to all stakeholders' human rights. We believe that human rights are one of the key principles within Good Corporate Governance, essential to business operations. EGCO Group has thus continuously promoted understanding of human rights, as well as stipulating Human Rights Policy and guidelines. This demonstrates the determination and commitment to respect human rights. EGCO Group conducts thorough Human Rights Due Diligence as well as Human Rights Risk Assessment throughout the supply

chain, including employees, business activities, products, suppliers, partners, and other stakeholders. These are executed in accordance with the UN Guiding Principles on Business and Human Rights (UNGP) to identify human rights; ensuring our business operations are in compliance with EGCO Group's Human Rights Policy, assuring all stakeholders of our commitment in respecting human rights.



Further information on EGCO Group's Human Rights Policy is available on the website at [https://www.egco.com/uploads/finder/files/HumanRightsPolicyAndGuidlineENG\\_Revise3Dec.pdf](https://www.egco.com/uploads/finder/files/HumanRightsPolicyAndGuidlineENG_Revise3Dec.pdf) or through this QR Code



## EGCO GROUP'S HUMAN RIGHTS DUE DILIGENCE



Information on EGCO Group's Human Rights Due Diligence, Monitoring, Communication, Grievances, Corrective Actions, and Remediation is available on our website below or through this QR Code: [https://www.egco.com/uploads/finder/files/EGCO%20HumanRightsRiskAssessment\\_20\\_05\\_2020.pdf](https://www.egco.com/uploads/finder/files/EGCO%20HumanRightsRiskAssessment_20_05_2020.pdf)



### Human Rights Related Communication and Grievance Channels

[www.egco.com](http://www.egco.com)  
Human Resource Department  
Electricity Generating Public Company Limited (EGCO)  
EGCO Tower, 14<sup>th</sup>, 15<sup>th</sup> Floor, 222 Vibhavadi-Rangsit Rd.,  
Tungsonghong, Laksi, Bangkok 10210

## REINFORCING HUMAN RIGHTS INTO CORPORATE CULTURE

EGCO Group promotes corporate culture on human rights via human rights trainings and risk assessment throughout EGCO's value chain. The aim is to increase understanding and awareness among employees. In 2020, 100% of EGCO Group's employees received human rights trainings. The company plans

to organize training to identify and assess human rights risks which will cover 100% of our business operations by 2021. By identifying potential human rights issues, we can assess the severity of the consequences and plan appropriate risk mitigation measures.

## MAN RIGHTS DIALOGUES WITH SUPPLIERS

EGCO Group revise and improve our procurement policy and Supplier's Code of Conduct regularly. Human rights topics are included in the Code of Conduct which is then communicated to suppliers. The Code of Conduct serves as a guideline for working with the company.

EGCO Group plans to conduct comprehensive human rights due diligence every three years, as well as review human rights risks related to our business activities throughout the supply chain annually. This effort ensures human rights working plans and risk prevention measures are always up to date.



Further information on EGCO Group's Supplier's Code of Conduct is available in this Report in the chapter "Supply Chain Management" and on our website <https://www.egco.com/en/supplychainmanagement> accessible through this QR code

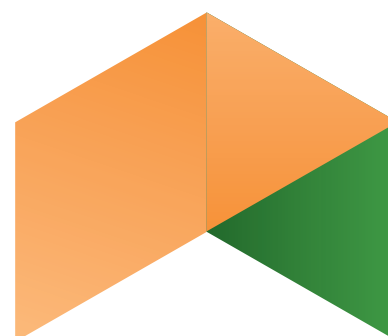


## REMEDATION

As of 2020, EGCO Group received no complaints or reports concerning human rights violations, from our business operations and throughout the supply chain. Therefore, no remediation was required. However, EGCO Group is aware of plausibility and risks that may occur. We have therefore prepared remediation measures for any affected parties to mitigate impacts and restore their rights to the original situation prior to the violations



Further information on remediation and human rights risks management is available on our website at <https://www.egco.com/en/human-rights> or through this QR code



## Occupational Health and Safety



GRI

403-1, 403-2, 403-3,  
403-7, 403-8, 403-9

Employees' wellbeing and safe working environment contribute significantly to the efficiency of personnel, suppliers, contractors, and other parties involved in EGCO Group's business operations. Safe management and power generation process will strengthen the company's credibility and external stakeholders' confidence—for example, local communities, customers, shareholders, etc. Thus, EGCO Group prioritizes occupational health and safety management guidelines establishment.

### Goals in 2020:

#### Safety – safe operations

- Zero Fatality
- No Lost Time Injury

#### Promote Healthy Lifestyle

- Organize at least two activities to promote good health per year

#### Work Environment – ensure safe work environment

- Assess work environment to ensure higher safety standards than legal requirements

### Long-term Sustainability Goals for 2020 – 2024:

- Review policies and occupational health management and work safety guidelines in accordance with the ISO 45001 standards
- Zero Fatality
- Zero Lost Time Injury Frequency (LTIF) for Both Short-term and Long-term
- Monitor Operations and Work Environment in Accordance to Local Laws and Regulations

### Performance in 2020:

#### Safety

- Zero Fatality
- 3 Lost Time Injury\*

#### Promote Healthy Lifestyle

- Achieved healthy lifestyle promotion goals

#### Work Environment

- Result of working environment safety inspection met the expectations

In 2020, EGCO Group's Occupational Health and Safety Policy and guidelines were revised for effective governance and management. The company appointed the Occupational Safety, Health, and Environment Committee and Working Group for headquarter and power plants, consisting of executives, operational officers, and security personnel. Their duty is to stipulate guidelines and framework for Occupational Safety, Health, and Environment Management System Manual and supervise operations and safety standards of EGCO Group and our subsidiaries.



More information regarding the Occupational Health and Safety Policy is available at <https://www.egco.com/en/safety-health-environment> or through this QR code



Besides implementing Occupational Health and Safety Policy in the company, EGCO Group is determined to improve our standards beyond legal requirements to comply with the International Organization for Standardization (ISO) system. Thus, EGCO Group has continuously received national and international management system standards certification until the present. Examples include the quality management system (ISO 9001:2015), the Occupational Health and Safety Assessment Series (OHSAS 18001:2007), and Thai Industrial Standard (TIS) 18001:2011, the energy management system (ISO 50001:2011), and environmental management system (ISO 14001:2015) standards. With a strong determination to elevate our safety standards, EGCO Group encourages our subsidiary power plants to assess occupational health and safety risks and opportunities regularly. As of 2020, KEGCO has upgraded its certification to achieve the international occupational health and safety standard (ISO 45001:2018).

The company has identified suppliers' occupational health and safety as one of our material topics. Its importance is to be communicated to suppliers through the Group's business partner Code of Conduct. Furthermore, occupational health and safety is a factor that is evaluated through both the supplier sustainability self-assessment and onsite audit, where the results are incorporated into the selection of new suppliers and monitoring of the performance of existing suppliers.



Further information regarding EGCO Group's business partner Code of Conduct is available in the topic "Supply Chain Management" on our website <https://www.egco.com/th/supplychainmanagement> or at this QR code



## WORK-RELATED INJURIES AND FATALITIES OF EGCO GROUP'S EMPLOYEES AND CONTRACTORS (GRI 403-2, 403-9)

		2017	2018	2019	2020
Work-Related Fatality					
Employees	Persons	0	0	0	0
Contractors		0	0	0	0
Lost Time Injury Frequency Rate (LTIFR)					
Employees	Cases / Million	0.00	0.00	0.00	0.00
Contractors	Hours Worked	0.00	0.25	0.00	0.75
Injury Frequency Rate (I.F.R.)					
Employees	Cases / Million	0.00	0.00	0.45	0.44
Contractors	Hours Worked	0.00	0.25	0.26	1.26
Injury Severity Rate (I.S.R)					
Employees	Days / Million	0.00	0.00	0.00	0.00
Contractors	Hours Worked	0.00	8.14	0.00	26.14

In 2020, EGCO Group's occupational safety, health, and environmental performance of our power plants in Thailand and overseas is as follow: Injury Frequency Rate (I.F.R.) is approximately 0.96 cases per million hours worked with an Injury Severity Rate (I.S.R.) of approximately 16.57 cases per million hours worked. This resulted from accidents that led to 3 contractors' lost-time injuries at EGCO COGEN, BRWF and RG power plants.

The company has provided full support to the injured contractors regarding the accidents. Related organizations were notified, and the causes were investigated. The root

cause will be taken as a case study to help improve operations and prevent reoccurrences in any of our power plants.

EGCO Group sees great importance in safety measures. Contractors receive a strict review of guidelines and safety measures for power plant operations, revision safety training, personal protective gear training, and area preparation revision training. The overall performance of power plants is closely monitored to mitigate risks and prevent recurring accidents.

## SAFETY TRAININGS AND ACTIVITIES (GRI 403-5)

EGCO Group is determined to create knowledge, elevate understanding, and raise awareness regarding pre-and post-operation safety, encouraging it to become part of the corporate culture. Similarly, the safety topic includes the personal safety of employees and contractors. We have established safety standards to be implemented as response plans to emergencies. These measures are aligned with EGCO Group's Occupational Safety, Health, and Environment Policy.

### 01

In 2020, EGCO Group power plants held an annual emergency drill, including fire extinguishing and fire evacuation drills, chemical spillage, disaster control, oil spill, oil stain removal, and emergency response plans in case of a flood.



## 02

“ISO 45001:2018 Internal Audit Training” took place on 22<sup>nd</sup>-23<sup>rd</sup> September 2020, with 32 participants, namely the Occupational Safety, Health, and Environment Committee and power plants’ personnel. The training content includes a summary of the ISO 45001 standard’s requirements, assessment framework and its structure, report writing, action plan auditing, monitoring, etc.



## 03

The 2020 annual internal audit on occupational safety, health, and the environment were conducted in EGCO Group's power plants. In case non-compliance is found, there will be a determination of an action plan to correct the issues identified.



## 04 2020 Occupational Safety Week Exhibition

EGCO Group organized the 2020 Occupational Safety Week exhibition to ensure that workers, contractors, and hires are aware of the importance of occupational health, safety, and the working environment. The exhibition aimed to inform the employees of safe working practices to reduce the number of accidents inside and outside the workplace.

The exhibition consisted of various activities, such as the occupational workplace exhibition, Safety Awareness seminar,

Safety and Dharma talk show by Phra Maha Sompong Talaputto, Revision First Aid Training, CPR Training, Occupational Safety Training, a workshop on work-related illnesses, and a safety suggestion contest. EGCO Group believes that this event will promote safety awareness among employees and effectively prevent recurring accidents.

Solarco Power Plant



RG Power Plant



KEGCO



Further information about other EGCO Group's safety trainings and activities in 2020 is available at <https://www.egco.com/en/safety-health-environment> or through this QR code



## PROMOTING HEALTHY LIFESTYLE (GRI 403-6)

EGCO Group recognizes the importance of the employees' quality of life, health, and well-being. We are committed to promoting a Healthy Lifestyle among our personnel for their health and workplace interpersonal relationships.

In 2020, EGCO Group power plants organized activities to promote health and well-being, consisting of exercise and various sports events such as soccer, petanque, and bowling. The activities and campaigns continuously support health matters, including providing information regarding the prevention of COVID-19 and dengue fever in addition to other health-related concerns.

Amidst the COVID-19 pandemic, EGCO Group is still on high alert and closely monitors the situation. The company complied with the government's measures and implemented Social Distancing to prevent the spread of COVID-19. EGCO

Group and our subsidiaries have employed preventive measures both in offices and power plants that include Schedule Outage for employees, contractors, and visitors. The preventive measures are standard guidelines for every power plant under EGCO Group, which can be adapted accordingly to accommodate different local situational requirements.



Further information on EGCO Group's management approach during COVID-19 pandemic is available in the chapter "EGCO's Group: Together we fight against COVID-19"

### Examples of employee health and well-being supporting activities

01



02



03



01

In 2020, KEGCO power plant organized activities and campaigns to promote and provide information regarding COVID-19 prevention. Additionally, publicity relations notification for the National Safety Day were displayed in working areas at the power plants.

03

In 2020, RG power plant organized health supporting activities for employees and their close contacts, such as notification regarding the prevention of COVID-19, heat stroke, and dengue fever.

02

EGCO Cogen power plant has organized the '5 Fun Sports' activities.

01



Solarco power plant joined the opening ceremony of Anti-drug Sports Competition by Hin Mun Subdistrict Administrative Organization. Employees participated in the Sepak Takraw and Petanque competitions with the community.

02



KEGCO held the 2020 healthy life style promotion project in Krabi to encourage healthy behaviors.



KEGCO organized KEGCO Sport Day which includes short race, volleyballs, and Petanque competitions.



Further information about activities supporting employees' health and well-being in 2020 is available at <https://www.egco.com/en/safety-health-environment> or at this QR code



## 2020 Occupational Health and Safety Awards and Achievements

Khanom Electricity Generating Co., Ltd.



Outstanding Role Model Establishment Award for Occupational Safety, Health, and Environment at the National Level (Gold level for 4 consecutive years) from the Ministry of Labor



Outstanding Industry Award for Security Management from the Ministry of Industry



Outstanding Industry Award for Environmental Quality Protection from the Ministry of Industry



Green Industry Level 3 Award from the Ministry of Industry

#### Roi-Et Green Co., Ltd.

Outstanding Role Model Establishment Award for Occupational Safety, Health, and Environment at National Level (Platinum level for 11 consecutive years) from the Ministry of Labor



## Supply Chain Management



GRI

102-9, 102-10, 204-1,  
308-1, 308-2, 414-1, 414-2

EGCO Group has its management approach for suppliers in the Group's supply chain. This helps mitigate potential risks affecting electricity generation capacity. We are determined to develop suppliers by supporting their capacity in parallel with EGCO Group's sustainable business operations. The Group prioritizes reviewing the supply chain management approach. We assess and identify critical suppliers, as well as identifying risks relevant to sustainable development. The Group has also stipulated a Procurement Policy and Supplier Code of Conduct. Both give considerations to sustainable material issues. The endeavor demonstrates EGCO Group's commitment to developing our business operations in tandem with suppliers' development. There are activities for the Group and supplier engagement annually.



For additional information regarding our Procurement Policy, please see [https://www.egco.com/uploads/finder/files/ProcurementPolicyGuidelineAndStrategy\\_en.pdf](https://www.egco.com/uploads/finder/files/ProcurementPolicyGuidelineAndStrategy_en.pdf), or scan this QR code



EGCO Group's supply chain management approach is according to the UN Global Compact working framework, comprises of 6 parts, as follows.

1. **Commit:** demonstrate a commitment to sustainable supply chain management
2. **Assess:** assess risks and impacts in environmental, social, and governance (ESG) issues throughout the supply chain
3. **Define:** identify goals, targets, and policies for sustainable supply chain management
4. **Implement:** implement strategies, policies, and work plans
5. **Measure:** assess and monitor performance
6. **Communicate:** communicates strategies and working process with suppliers in order to facilitate development and work improvement sustainably



For additional information regarding EGCO Group's Supply Chain Management Guideline, Suppliers Code of Conduct, Suppliers' Sustainability Risk Assessment, please see <https://www.egco.com/en/supplychainmanagement>, or scan this QR code



EGCO Group developed a critical supplier identification process by considering (1) suppliers for goods and (2) suppliers for services. In 2020, we are able to identify 51 Critical Suppliers and 21 Critical Non-tier 1 Suppliers. The value is equivalent to 23,054,870,026.45 Baht. Criteria comprise.

1. High-volume suppliers or similar
2. Critical component suppliers or similar

3. Non-substitutable suppliers or similar
4. Suppliers who supply products and services in relevant to EGCO Group's operation
5. Suppliers who are not a one-time supplier
6. Long lead time

TYPE OF SUPPLIERS	NUMBER OF SUPPLIERS	PROCUREMENT SPENDING (%)
Total Tier 1 Suppliers	1,204	100
Critical Tier 1 Suppliers	51	80
Critical Non-tier 1 Suppliers	21	-

## EGCO GROUP'S ESG RISK IDENTIFICATION AND ASSESSMENT IN THE SUPPLY CHAINS

### EGCO Group's ESG Risk Identification and Assessment in the Supply Chains



Critical Supplier Identification



ESG Risk Assessment for All EGCO Group's Suppliers



Risk Management & Monitoring



Reporting & Disclosure

EGCO Group has included environmental, social, and governance (ESG) issues as part of supplier selection and identifying environmental, social, and governance (ESG) risks relevant to sustainable supply chain management. We have also assessed suppliers' risks to identify ESG risks that may potentially affect EGCO Group's business operations. Our 2020 assessment shows that EGCO Group's suppliers scored the highest in governance, as high as 83.69%; coming second is the social aspect, at 77.40%, and environmental aspect, at 51.55%. Notably, based on questions listed in the assessment's environmental risk dimension, it was clear that

most suppliers did not keep an accounting of carbon dioxide gases and energy consumption from business operations. EGCO Group thus considers the said issue for communication and knowledge-sharing with suppliers in EGCO Group Supplier Day 2020. This ensures EGCO Group's suppliers are aware of the importance of energy management and energy consumption reduction. Our endeavor ensures suppliers have knowledge and understanding and promotes suppliers to collect energy consumption performance data, encompassing carbon accounting.

### EGCO Group Supplier Day 2020

Organized on the 4<sup>th</sup> December 2020 at Rajpruek Club

In 2020, EGCO Group organized our annual supplier relation activities for the 3<sup>rd</sup> consecutive year, according to our commitment and determination to support the supplier's sustainable capacity growth. This is in accordance with the Company's resolution. There were activities to build awareness regarding efficient energy management and recommendations for corporate energy management guidelines. This helps ensure EGCO Group's suppliers have a greater understanding and are able to apply corporate energy management plan on their own sustainably. Following this, suppliers should reduce greenhouse gas emissions from their own business operations, thus addressing another factor behind climate change.



Furthermore, EGCO Group has also identified 30 suppliers at risk to visit our establishment and receive in-depth risk assessment in environmental, social, and governance (ESG) issues. We have also drafted corrective action plans for case issues or risks at work are identified to inform suppliers and allow them to address the problems and improve the system. This also serves as the guideline for sustainability management.

EGCO Group stipulated KPIs for supplier management to serve as operational guideline, as follows.

KPIS	GOALS
1. Organize Meetings with Suppliers	Once a Year
2. Communicate Supplier Code of Conduct to All Critical Suppliers	100% of Critical Suppliers
3. All Critical Suppliers Must Complete a Self-assessment Covering Environmental, Social, and Governance (ESG) Topics.	100% of Critical Suppliers
4. All New Suppliers Must Provide a Signed Acknowledgment of EGCO Group's Supplier Code of Conduct and Complete a Self-assessment Covering Environmental, Social, and Governance (ESG) Topics.	100% of New Suppliers
5. No Corruption Cases in Supply Chain	0
6. No Suppliers' Fatality	0
7. No Grievance from Suppliers Regarding Violation Against Environmental Laws	0

EGCO Group's performance in the past 4 years, with reference to the aforementioned KPIs. We were able to achieve all targets set.

	2017	2018	2019	2020	2021 GOALS
1. Meetings with Suppliers (Number of Meetings)	1	1	1	1	1
2. Critical Suppliers Acknowledge and Consent to Follow EGCO Group's Supplier Code of Conduct (%)	100	100	100	100	100
3. Critical Suppliers Completed Self-assessment (%)	100	100	100	100	100
4. Grievance from Suppliers Regarding Corruption (%)	0	0	0	0	0
5. Suppliers' Fatality Rate (%)	0	0	0	0	0
6. Grievance from Suppliers Regarding Violation Against Environmental Laws (Number of Cases)	0	0	0	0	0



## Participation in Sustainable Development of Community and Society



**GRI**  
413-1, 419-1

EGCO Group operates in the power industry and other power-related businesses, which is one of the fundamental infrastructures essential to life. Guided by our vision as a leading company that operates sustainably with consideration to preserving nature and social development, our corporate belief “a good start will lead to a successful outcome”, and the concept of sustainably developing community and the society. EGCO Group is determined to adhere to our mission to be a good corporate citizen, coexisting with society in harmony. This is to generate added value to all stakeholders, external and internal.

Internally, EGCO Group incorporates stakeholder importance as part of our corporate values. The company encourages employees to use their capabilities and volunteer in relevant activities. Additionally, we are committed to mitigating the negative impacts while increasing the positive impacts to stakeholders, the environment, the community, and society throughout our value chain. EGCO Group's principles continue to carry out projects for communities and society, both locally and nationally.

### EGCO GROUP'S COMMITMENT AND APPROACH

To ensure consistency and effectiveness, EGCO Group supervises, monitors, and assesses community and social development participation. The company stipulated policies, frameworks, management structures, guidelines, strategy

reviews, as well as added topic-specific KPIs in 2020 to be implemented as EGCO Group's operational guidelines as follow:



# ENERGY FOR LIFE

**MISSION** A Good Corporate Citizenship Power Company

**CORPORATE BELIEF** “A good start will lead to a successful outcome”

**VALUE CREATION OF STAKEHOLDERS** Prevent and mitigate negative impacts and increase positive impacts

**GOAL** Coexistence of power plants, community, society, and the environment

INTERNAL AND  
EXTERNAL  
STAKEHOLDERS

**Employee** Core Value (No.5) : Be considerate to stakeholders

**Community** Create participations and promote good quality of life in the community sustainably

**Society** Support social sustainability

OPERATIONAL  
FRAMEWORK



Community's Quality of Life Improvement Project

**50%**

Coexisting with community

Encourage participation, cooperation, and build sustainable relationships



Energy and Environmental Education Project

**30%**

Promote EGCO Group's competencies on Energy and Environmental Conservation

Promote knowledge exchange and understanding on energy and environment with EGCO Group's competency, creating awareness and a better understanding of energy and utilities, as well as environmental conservation



Preservation and Restoration of Biodiversity, Ecosystem, and Watershed Forest Project

**20%**



Commitment to operate business which go beyond compliance

Promote increasing of higher positive impacts on the environment than required by law and conservation of biodiversity.



SDGs




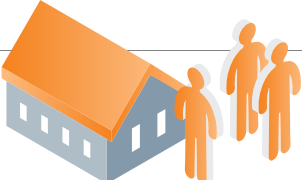
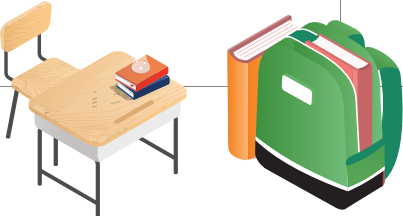
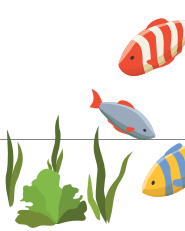
## Key Initiatives

 <b>COMMUNITY</b>	 <b>SOCIAL</b>	 <b>ENVIRONMENT</b>
<p>EGCO Group's local community around power plant's quality of life improvement project</p> <p>Covers <b>6</b> Main aspects;</p> <ul style="list-style-type: none"> <li>- local employment</li> <li>- occupational skills development</li> <li>- education and learning support</li> <li>- health and safety promotion</li> <li>- infrastructure development, encourage the preservation of religion, culture, and other community relation activities</li> <li>- natural resources conservation</li> </ul> 	 <ul style="list-style-type: none"> <li>- Rong Fai Pha Phee, Rong Rien Nong Project</li> <li>- Khanom Learning Center</li> <li>- GreeNEducation Learning Center (solar)</li> <li>- Special activities and dissemination of knowledge materials promoting energy and environmental conservation.</li> <li>- Power plants open house project</li> </ul>	<ul style="list-style-type: none"> <li>- Protect animal population and increase green space project</li> <li>- Preservation and restoration of biodiversity project to enhance marine ecosystem</li> <li>- Sea turtle conservation project by Quezon Power Plant</li> <li>- Bird and bat population monitoring project by Boco Rock Wind Farm, Australia (BRWF)</li> <li>- Raise awareness and create involvement in decreasing trash at sea project</li> <li>- Conservation and restoration of watershed forests by Thai Rak Pa Foundation</li> </ul>

## Business KPIs

 <b>COMMUNITY</b>	 <b>SOCIAL</b>	 <b>ENVIRONMENT</b>
<ul style="list-style-type: none"> <li>- Participation hours</li> <li>- Number of grievances</li> <li>- Satisfaction rate/acceptance</li> <li>- Number of community development projects</li> <li>- Frequency of community relation activities</li> <li>- Positive publicity value to EGCO Group/awards/standard certifications</li> </ul> 	<ul style="list-style-type: none"> <li>- Participation hours</li> <li>- Percentage of skill enhanced/employee's loyalty</li> <li>- Satisfaction rate</li> <li>- Number of community development projects</li> <li>- Percentage of participant's knowledge gained</li> <li>- Positive publicity value to EGCO Group/awards/certifications</li> </ul> 	<ul style="list-style-type: none"> <li>- <b>%</b> of power plants that has prevention and impact mitigation measures on biodiversity</li> <li>- Zero environmental grievances</li> <li>- Percentage of projects that underwent biodiversity assessment</li> <li>- Positive publicity value to EGCO Group/awards/certifications</li> </ul>

## Social and Environmental KPIs

 <b>COMMUNITY</b>	 <b>SOCIAL</b>	 <b>ENVIRONMENT</b>
<ul style="list-style-type: none"> <li>- % of local employment</li> <li>- Number of beneficiaries</li> <li>- Support quality of life improvement projects</li> <li>- Monetary support for community development</li> <li>- At least <b>2</b> months continuation of participation in community relation activities</li> </ul> 	<ul style="list-style-type: none"> <li>- Number of beneficiaries (students, schools)</li> <li>- % of knowledge gained</li> <li>- % of students awarded scholarships in vocational education</li> <li>- Number of visitors at Khanom Learning Center</li> </ul> 	<ul style="list-style-type: none"> <li>- % of aquatic animals released back to nature/rescued</li> <li>- Number of survived mangroves and other trees</li> <li>- Population of birds and bats (BRWF, Australia)</li> <li>- Restored forest area (by Thai Rak Pa Foundation)</li> </ul> 

## MANAGEMENT APPROACH

To prevent and mitigate impact risks on the community and environment while creating a mutual benefit for the coexistence of power plants and the community, EGCO Group has published “EGCO Group Corporate Citizenship Guidelines”, a manual for social development and participation in the community development. The guidelines cover 3 phases of operations, namely project development, project construction, and operation (commercial operation until the end of the contract). The company has established a management structure and appointed 2 Working Groups to monitor the implementation of the aforementioned policies at the organization level and at the operational unit level, namely Community Development Working Group and Operational Community Development Working Group. The action plan was stipulated to monitor the operation continuously. For example, quarterly follow-up meetings, report to the executives and Board of Director (BoD)

through Corporate Governance and Social Responsibility Committee twice per year, auditing, performance assessment, and information disclosure to stakeholders annually in accordance with the requirements of national and international regulating organizations. Additionally, we communicate our performance and provide chances for our stakeholders at the community level through quarterly “SukJai Magazine”.



Further information regarding Community Engagement and Development Policy, Participation in Society Development Policy, and guidelines is available at <https://www.egco.com/en/corporate-social-responsibility> or through this QR Code



Furthermore, the company consistently collaborates with external organizations to support sustainability networks, such as community organizations, community organizations, local and national government agencies, etc. The organization EGCO Group supports or is a member of includes;



กรมป่าไม้



Issues or concerns regarding the community and society, please contact us at:

Electricity Generating Public Company Limited (EGCO)

EGCO Tower, 222 Vibhavadi-Rangsit Rd., Tungsonghong, Laksi, Bangkok 10210

Community Relations Division Tel. 0 2998 5670-4 or e-mail: CR@egco.com

Corporate Affairs Section, Corporate Communications Division Tel. 0 2998 5132-33, or e-mail: Corp\_Com@egco.com

## PERFORMANCE IN 2020

EGCO Group promotes the instilment of core values and cares for stakeholders throughout our business operations. Beyond delivering value to stakeholders according to set responsibilities, the company encourages management at all levels to provide an opportunity for employees and contractors to participate in community and development activities. In 2020, employee participation amounted to 9,682 hours.

employee participation  
amounted to

**9,682**  
hours

	2018*	2019	2020**
Hours of participation in company level activities for society	513	6,379	3,094
Hours of participation in local community development activities around the power plant areas	7,217	9,561	6,588

\* Not all activities were collected in the year 2018

\*\*

In 2020, EGCO Group developed and continued operations that support behaviors aligned with our core values and corporate culture.

- The addition of material topic and/or value to the society and environment is one of the criteria of "EGCO Group InnoPower 2020". Project reflecting the concept was awarded 1st prize in the category "The Brave Dreamer & The Best Innovator", namely "Khanom Model (Organic Farming)" by KEGCO.



More information regarding "EGCO Group InnoPower 2020" is available in this report, chapter "Digitalization & Innovation Management" on page 91

- Launching of "EGCO ECOSYSTEM" project to encourage community service mind according to our corporate values. Encourage participation in being responsible to the society in daily life, such as separate trash, reduce amount of contaminated waste being sent to the landfill, as well as increase recycling rate of paper and plastics through the project "Trash-Free Vibhavadi", organized by the business for sustainability network.

Additionally, the aforementioned project's performance was submitted to Low Emission Support Scheme (LESS), organized by Thailand Greenhouse Gas Management Organization (Public Organization). EGCO Group's contribution in reducing GHG emissions through EGCO ECOSYSTEM project in 2020 was certified at 861 kgCo<sub>2</sub>e.



EGCO GROUP | ECOSYSTEM

### Operation Improvements in accordance with National and International Guidelines

- Develop 3 Performance KPIs in accordance with the company's CSR strategy
- 100% of EGCO and our power plants operate in compliance with the established policies, guidelines, and frameworks
- EGCO and subsidiaries have at least 2 projects per year in which employees participated in.

### Trainings and Knowledge Exchange between EGCO Group's Power Plants

EGCO Group surpassed the target frequency of one knowledge exchange event per year. Performance in 2020 is as follow:



- Online knowledge exchange event through Microsoft Team in the topic "Communicate to Create Understanding" emphasizes the importance and continuously develops operational skills. Communication skill is one of the key elements to understanding information disclosure, as well as bonding. This leads to credibility and a sustainable relationship between the company and stakeholders, including local communities.





- EGCO Group CSR Sharing Workshop was organized for the 6<sup>th</sup> consecutive year under the concept “Thought Initiating Drawings”, enhancing visual communication skills in alignment with current communication behaviors and social media usage. BPU’s community development project was taken as a case study for participants to practice mind-mapping skills. 100% of the participants are delighted with the training, while more than 90% deemed the training highly-highest applicable in their respective job.



“

“Mind-map helps us see the whole picture. It helps us see the changes clearer.”



“

“It’s more fun than writing. I’m not good at drawing but this helps me recall past work with no stress and better understanding of the big picture.”



“

“I’ve learned new things and received suggestions from peers. The concept is clearer in pictures, making further development of ideas easier.”

- Collect CSR guidelines from power plants or businesses EGCO Group invested in. In 2020, information regarding the development of “Xayaburi hydro power plant: case study on an environmental-friendly hydro power plant” was gathered to be published on EGCO GroupNet, an intranet platform.

## Community Level Performance (GRI 419-1)

### Participation in the Community

EGCO Group aims to maintain 100% of zero grievances from the communities around the power plants.

YEAR	2017	2018	2019	2020
Number of grievances from the local communities around power plants	0	0	0	0

#### EGCO Group's performance goals in the community:

- 100% of EGCO Group's power plants revised and improved stakeholder's identification data base and sorting once a year in accordance with the EGCO Group CSR Guideline
- 100% of EGCO Group's power plants conducted satisfaction survey
- 100% of EGCO Group power plants organized tri-party meeting and participate in community activities
- 100% of EGCO Group's power plants organized open house activity successfully according to plan\*

\*not including the period of local spreading of COVID-19

#### EGCO Group's goals in improving the community's quality of life:

- The Portion of local employment and procurement not less than 80% of the target
- 100% of community and social development projects operates continuously

EGCO Group's performance regarding publication and community's quality of life development in 2020 is as follow:

### Publications and Social Communication

"SukJai Magazine" has been published through an online edition by QR Code scanning to read and give suggestions. Additionally, we have published a special edition focusing on healthcare and occupational demands during the COVID-19 pandemic. We plan to modify and increase communication channels to the community appropriately according to the situation.



Special edition of SukJai magazine is available for download at [https://www.egco.com/uploads/magazine/files/sukjai\\_28.pdf](https://www.egco.com/uploads/magazine/files/sukjai_28.pdf) or through this QR code



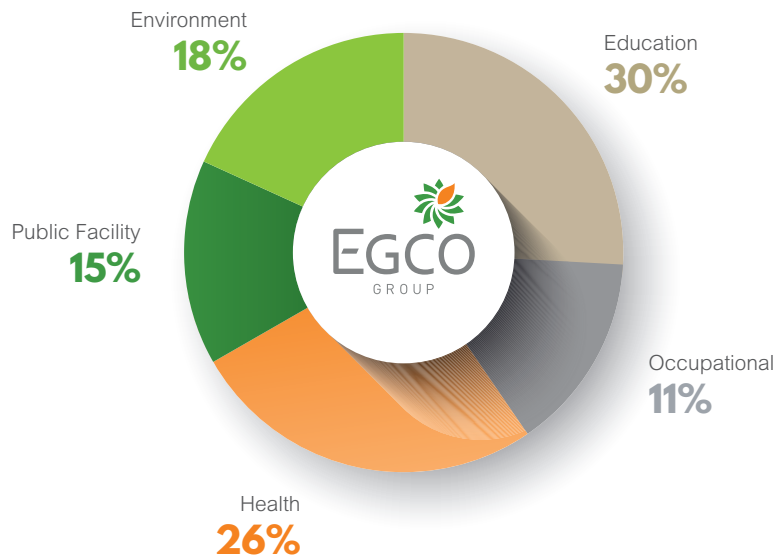
Community's Quality of Life Improvement Project in accordance with EGCO Group's 6 Principles Operational Framework Total of 86 projects in 2020

6

Aspects

86

Projects



### Performance in the Society

#### PROMOTE ENERGY AND ENVIRONMENTAL CONSERVATION LEARNING IN YOUTH

##### Khanom Learning Center (KEGCO 25th Anniversary Project)

The Khanom Learning Center is a learning resource outside the classroom on electric power, power generation, environmental management, and harmonious coexistence of power plants, communities, and the environment. Khanom Learning Center was first opened to the public in June 2019.



More information regarding Khanom Learning Center is available at <https://www.egco.com/en/khanom-learningcenter> or through this QR code



Renovated from KEGCO Unit 1, a special power plant was built on a large ship or the first "floating power plant" of Thailand. Its commercial operation contract expired in 2011.

Due to the COVID-19 pandemic, Khanom Learning Center decided to temporarily close its door from March to June 2020 for the health safety of visitors and the society. Disease prevention measures and the New Normal service were implemented from July 2020 onwards. (More information: <https://www.egco.com/th/khanom-learningcenter>) The quality and standard of services were maintained overall, achieving the goals set for 2020 within the boundaries of consistent COVID-19 monitoring. The key performances are as follow:



Disinfecting Cleaning



New Norm of Exhibition Guide



Temperature Screening



Distancing

Accumulated number of visitors

June 2019 - December 2020:

# 28,266

Visitors

Total number of visitors

in 2020:

# 11,694

Visitors

in following categories:



Satisfaction Rate:



# 95%

total visitors has

## Highest

satisfaction

Average satisfaction rate is

# 4.5

out of 5



Understanding:

more than

# 85%

of total visitors

Understood energy knowledge, production, and other key knowledge in the learning center



Virtual Exhibition was visited

# 10,740

times



Facebook followers increased by

# 246%

Engagement rate per month was increased by

# 12.6%



- Virtual Exhibition in the concept “#stopthespreadnot thelearning” was published to support continuous learning through the COVID-19 pandemic. The exhibition can be fully accessed online with an addition of 7 interactive quizzes on the key knowledge of each exhibition zone. The virtual exhibition was open to the public in May 2020, supporting access via browsers and mobile phones (both Android and iOS).



- Science Week 2020 activity in the theme of “Journey to the Stars...Shine Lights, Sky Gaze”. This activity aims to encourage imagination in learning and enhance problem-solving skills through astronomy, the relationship of the stars and way of life, as well as astronomical technology in relation to societal development. To promote accessibility to different manners of science, a planetarium model was exhibited throughout the activity period, supported by the National Astronomical Research Institute of Thailand (Public Organization). Science Week gathered a total of 1,751 participants in 2020.

### Rong Fai Fha Phee, Rong Rien Nong Project (4<sup>th</sup> year) (KEGCO 25<sup>th</sup> Anniversary Project)

The company is committed to developing the potential of youth in EGCO Group power plants' surrounding areas. The project focuses on applying the company's core competencies in generating electricity, location, and volunteer employees' expertise to collaborate with the local communities in youth development. The project has received a budget of 74.54 million THB for the 5-year operational period (2017-2021). The key performance in 2020 is as follow:

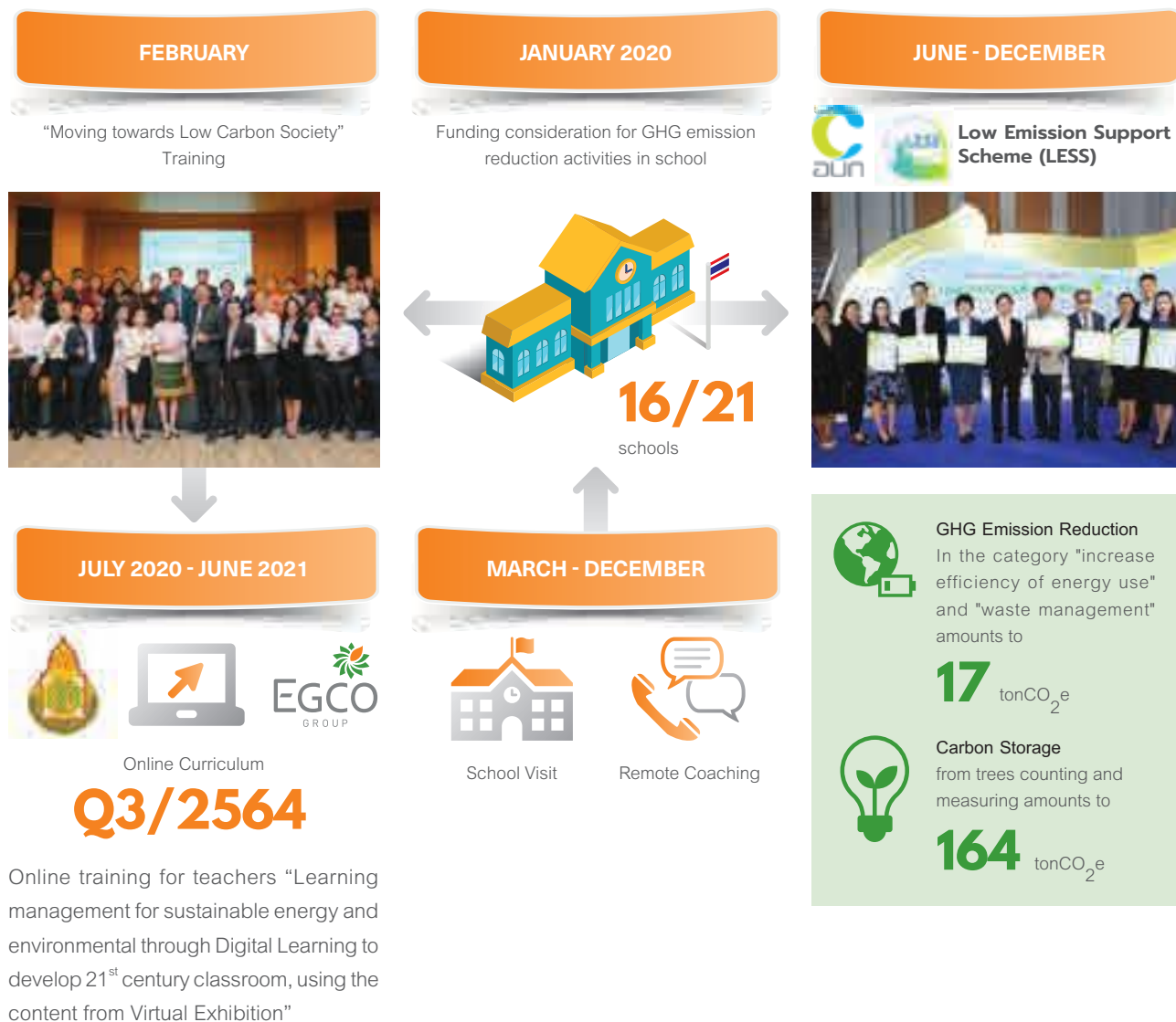
- Vocational scholarship (4th batch) to develop personnel in the power industry. The scholarship is a continuing scholarship in the vocational certificate and higher vocational certificate level. As of 2020, the accumulated number of awarded scholarships from batch 1-4 is 88 students.
- Raise awareness in energy and environmental conservation in school. Youth camp batches 1 and 2 were held in 2018-2019. In 2020, we developed the project further by inviting secondary schools to participate in a concrete project of raising awareness on the school level, as shown below:



received a budget of

# 74.54

million THB for the 5-year operational period



## PRESERVATION AND RESTORATION OF BIODIVERSITY, ECOSYSTEM, AND WATERSHED FOREST

### Preservation and Restoration of Biodiversity and Ecosystem by EGCO Group's Power Plants

- Instilling Environmental Awareness Values through "EGCO Thai Rak Pa You Camp" Batch 55 at Krung Ching Waterfalls, Khao Luang National Park, Noppitam, Nakhon Sri Thammarat KEGCO and Thai Rak Pa Foundation, in cooperation with Khao Luang National Park, Inthanon National Park, Khanom Beach and Southern Islands National Park, and EGCO Group, organized an activity to raise awareness regarding the importance of natural resources and environmental conservation among children and youth. A total of 120 teachers, students, and volunteers participated in the project.

**120**  
participated in the project

- Instilling awareness and minimizing marine debris  
KEGCO supported and encouraged volunteered employees to participate in environmental conservation activities with the government agencies and communities in the Khanom area continuously in 2020.

• **Preservation and restoration of biodiversity to strengthen aquatic ecosystem project**

- Blue crab breeding and releasing the project to increase aquatic animal population and promote sustainable coastal fishery

Biodiversity is one of the indicators of a healthy environment. KEGCO collaborated with Nakhon Si Thammarat Aquatic Genetics Research and Development Center to breed and release blue crabs as well as other aquatic animals that will benefit the community economically, approximately 1,800,000 animals in 2020. This is to help enrich coastal ecosystems and promote local coastal fishery.

Bred  
and  
released

**1,800,000**

blue crabs  
and aquatic  
animals

- “Increasing freshwater animal population and water source development 2020” Project in Khlong Baan Klang Water Reservoir, M.4 Kuanthong, Khanom, Nakhon Sri Thammarat KEGCO, surrounding local organizations, and communities worked cooperatively in preserving and developing “บ่อน้ำผุด” fresh water area, an important freshwater source in Khanom district. In 2020, KEGCO, the local community, and organizations collectively released 250,000 aquatic animals to increase the population, contributing to the sustainability of the water resources. The project had more than 200 participants.

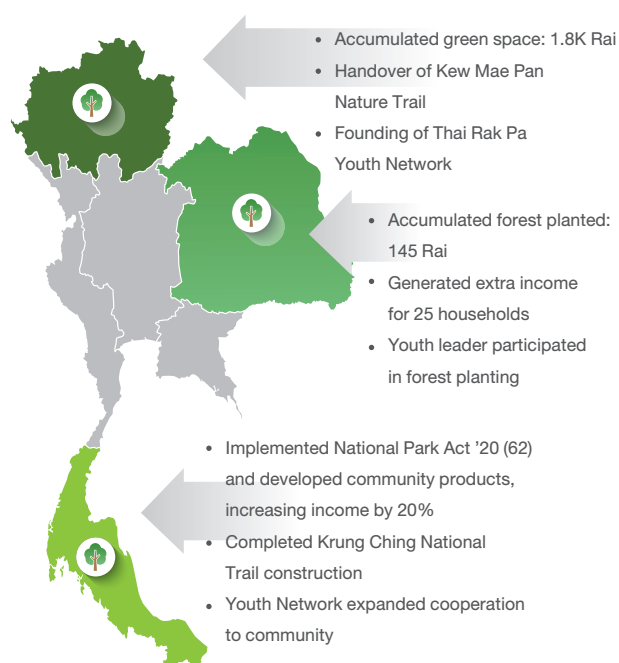
Released

**250,000**

aquatic  
animals

**“Watershed Forest” Conservation Project by the Thai Rak Pa Foundation (Thai Forest Conservation)**

“Watershed Forest” Conservation Project is carried out by the Thai Rak Pa Foundation. EGCO Group established the foundation in 2002 to promote conservation of the environment and watershed forests important to Thailand, following the 5-year strategic plan (2017-2021) to conserve watershed forests in three provinces, namely Chiang Mai, Nakhon Sri Thammarat, and Chaiyaphum. Performance in 2020 categorized according to main objectives are as follow:



**Community Network**

- Sang Pa Sang Rai Dai Project, Chiang Mai
- Forest Restoration Project, Chaiyaphum



**General Public**

- Ang Ga Nature Trail Development Project, Chiang Mai
- Krung Ching Nature Trail Development Project, Nakhon Sri Thammarat



**Youth**

- Youth Network Chiang Mai
- Youth Network Nakhon Sri Thammarat

### Key performance of “Watershed Forest” Conservation Project in 2020

The 5-year restoration plan (2017-2021) targets 1,300 Rai, 1000 Rai in Mae Jam, Chiang Mai, and 300 Rai in Phu Khiao, Chaiyaphum. Details of the project's performance in 2020 are as follow:

#### Mae Jam district, Chiang Mai

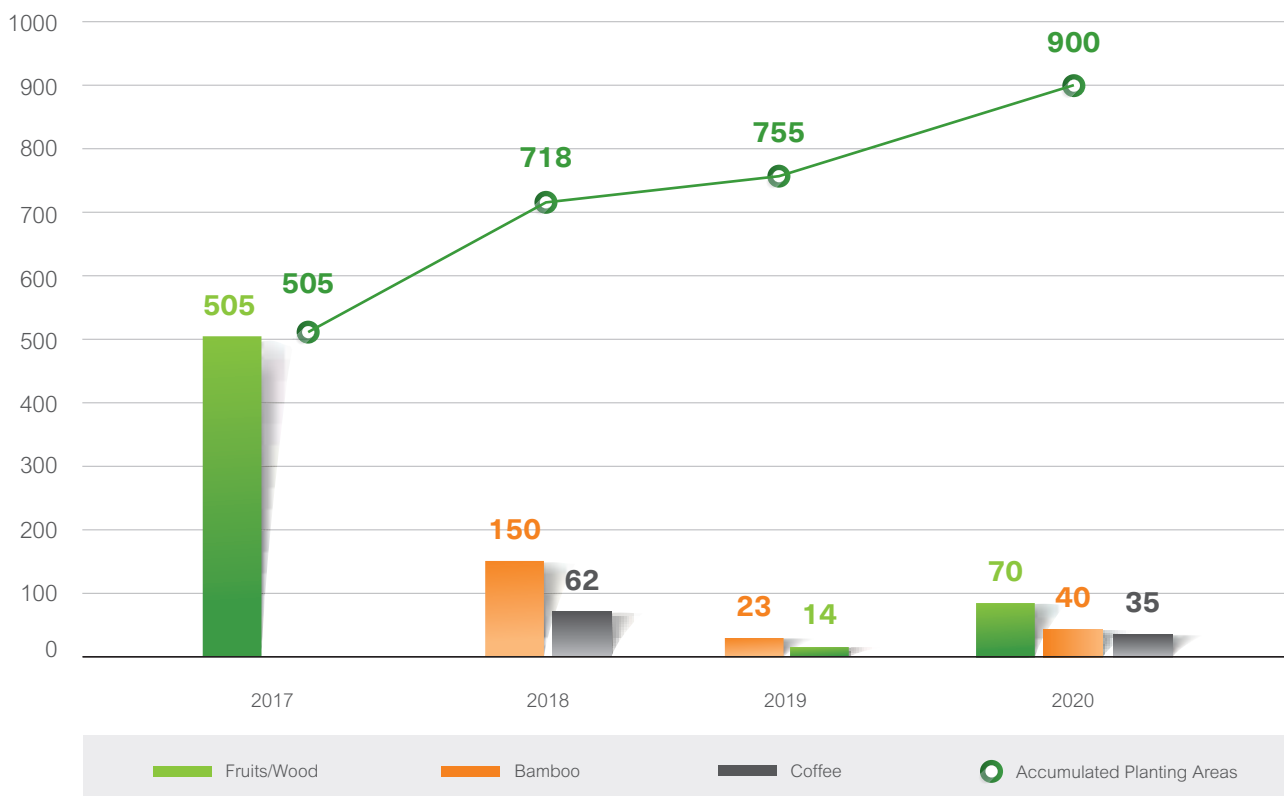
Help the community increase green space to reduce monoculture farming Mae Jam district, Chiang Mai “Sang Pa Sang Rai Dai (สร้างป่า สร้างรายได้)” Project in the concept of “Sustainable Forest, Sustainable Life (คนอยู่ได้ ป่าอยู่ได้)”

	TARGET	PERFORMANCE
Participated area	900 Rai	841 + 70 Rai
Organic Farming Learning Center	50%	50%
Participant Data Base	2 communities	6 communities
Seedling distributing	100,000 seedlings	83,325 seedlings

Registering parts of the farm area with government agencies for occupational stability of the community



### Accumulated Increased Planting Areas





Phu Luang district/ Phu Lhong Phu Khiao district, Chaiyaphum

GOAL		PERFORMANCE
Forested	80 Rai	145 Rai
Seedling nursery and income generation	40 Types	36 types, 25 household with extra income

- Plant forest mimicking the original forest structure together with community forest committee, Wat Pa Mahawan, the Royal Forest Department, and local communities
- Big forest fire broke out on 13th February in Phu Lhong area, affecting most of the restored land during 2017-2019. Response plan and forest fire long-term prevention measures were established afterwards in cooperation with the community and relevant parties.
- Overall performance met 2020 restoration target



130 Rai of Afforestation Area and  
15 Rai of Forest Fire Barricade



Communities participated in seedlings nursery



Forest fire barricade route survey with the community and alliances



Foundation office in Chaiyaphum serves as a learning center for youth and the community

Development of the Kew Mae Pan Nature Trail in Doi Inthanon National Park, Chiang Mai and Krung Ching Waterfall, Khao Luang National Park, Nakhon Sri Thammarat as Nature Classroom to Instill Watershed Forest Sustainable Conservation Values



The official handover ceremony of the Kew Mae Pan nature trail at Doi Inthanon National Park, Chiang Mai was held on 12<sup>th</sup> February 2020. Trail renovation in collaboration with Doi Inthanon National Park was completed and opened to the public in November 2019.

Watershed forest area expedition in Doi Inthanon National Park, Chiang Mai batch 5-6 between 12<sup>th</sup> - 13<sup>th</sup> September 2020, had 285 participated youth.

had  
**285**  
participated youth



Thai Youth loves the Forest Camp batch 9-10

in Doi Suthep National Reserve, Chiang Mai, with a total of 135 participants.

a total of  
**135**  
participants



Thai Rak Pa Youth Network Chiang Mai, under the supervision of the Thai Rak Pa Foundation, was awarded a certificate by the Low Emission Support Scheme 2020 (LESS) from a growth survey of 1,358 trees, amounting to 3,854.696 tCO<sub>2</sub>e of carbon storage.



More information on "Watershed Forest" Conservation Project and "Thai Rak Pa" Foundation is available at <https://www.egco.com/en/thai-rak-pa> or Facebook: [thairakpaofficial](#)



Founding ceremony of Thai Rak Pa Youth Network Chiang Mai on 27<sup>th</sup> December 2020.

## ECONOMIC VALUE GENERATED AND DISTRIBUTED TO THE COMMUNITY AND SOCIETY BY EGCO GROUP IN 2020

TYPE OF EXPENSE	AMOUNT (THB)
Cash Contributions	9,392,058
Time: employee volunteering during paid working hours	2,353,552
In-kind giving: product or services donations, projects/partnerships or similar	3,088,507
Management Overheads	23,059,330
<b>Total</b>	<b>37,893,446</b>

TYPE OF PHILANTHROPIC CONTRIBUTION	PERCENTAGE
Charitable Donations	6
Community Investments	57
Commercial Initiatives	37

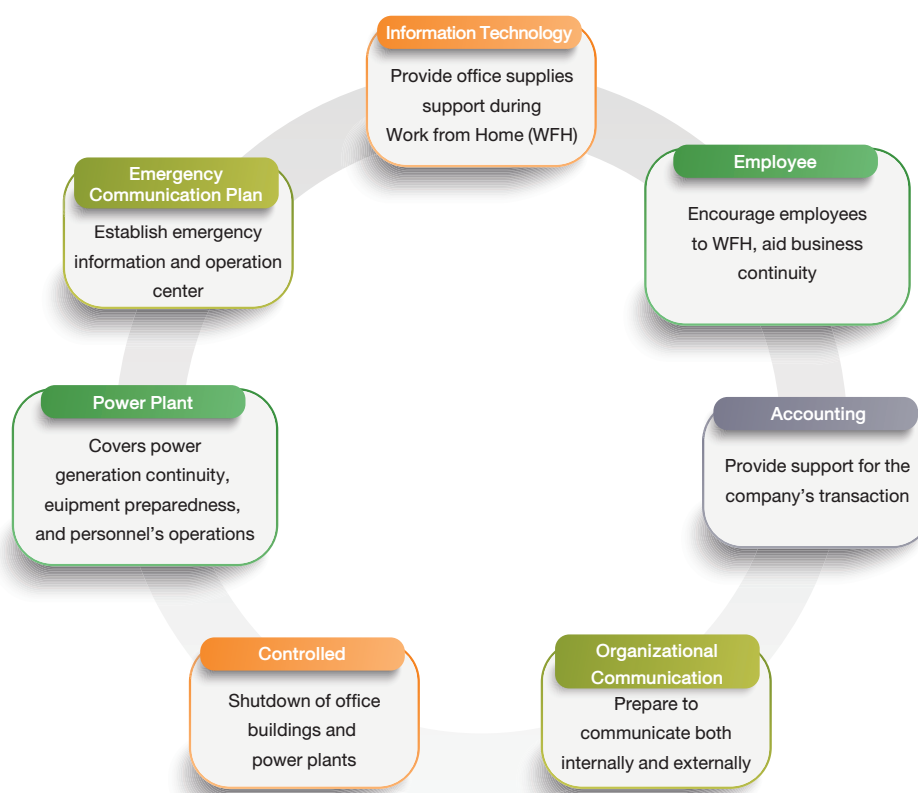
## EGCO Group: Together We Fight against COVID-19

COVID-19 pandemic is affecting every business sector all around the globe, and Thailand is no exception. The power business is impacted by a significant decrease in power demand in the industrial sector, which results from the Thai government's Lockdown Policy to stop the spread of the virus. On the contrary, household energy demand has increased

significantly. EGCO Group is determined to establish stability in power generation to ensure an uninterrupted power supply for industrial and household uses. We have laid strict measures to ensure business continuity as well as the safety of our personnel and operation sites.

### BUSINESS CONTINUITY

The company has established a Business Continuity Plan (BCP) that covers every process of our operations to ensure uninterrupted operations at the headquarter as well as EGCO Group's power plants in Thailand. This includes a response plan in case of identified infections in the operational areas.



Moreover, EGCO Group monitors situations that may affect our business operations regularly. We have conducted risk assessments and their potential impacts on the company's growth and operations. In 2020, the company had identified the COVID-19 pandemic as one of our sustainability material topics and analyzed appropriate corresponding operation guidelines for the short-term and long-term.

## SAFETY OF EGCO GROUP'S EMPLOYEES AND OPERATING SITES

The COVID-19 pandemic resulted in the New Normal of many aspects of EGCO Group's operations, including the economy and investment risk management, such as technology management in response to respective operations, employee preparation, and allocation be able to work from home (WFH), etc.

EGCO Group has published measures regarding monitoring and prevention of COVID-19 as guidelines for employees, suppliers, and other related parties to acknowledge and strictly follow. This includes every level of our operations from the office, power plants to Scheduled Outage. EGCO Group's COVID-19 guidelines were developed solely in compliance with the Thai government's Social Distancing and Lockdown Policy to ensure effective risk mitigation and disease prevention.

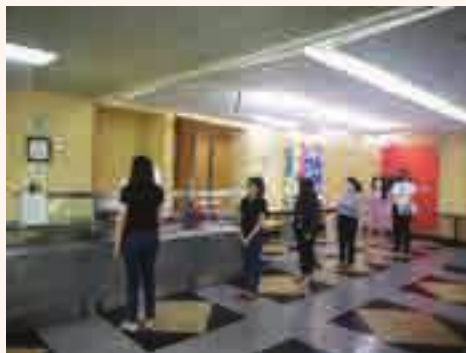
### Business Operation in the Offices and on Operational Sites

The company monitors and screenings employees and visitors through travel records inspection, connection to risk groups, and body temperature measurement upon entering EGCO Group's premises. Hand sanitizers are available in many locations around the operating areas. Surfaces and contact areas are cleaned more frequently, such as elevators, entrances, restrooms, etc. EGCO Group communicates regularly through Group net regarding cautions and practices to prevent the spread of COVID-19. Furthermore, operation guidelines for power plants are established, covering pre-operation, operation, post-operation stages, and procedures during an emergency in case of identified infection on the premises.





EGCO Building



## Further Preventive Measures for Executives or Employees who Traveled Overseas

EGCO Group has announced executives' and employees' measures to refrain from or avoid traveling abroad, especially to higher-risk countries. Further preventive measures and guidelines for executives or employees who traveled overseas and meeting receptions have also been announced, namely the monitoring and observing COVID-19 symptoms.



## TOGETHER WE FIGHT AGAINST COVID-19

EGCO Group recognizes the importance of taking part in stopping the spread of COVID-19. The company has great concerns regarding our people's health and safety, especially frontline medical personnel who are in direct contact with the patients. We have shown our support in monetary form as well as donations of medical supplies to help maintain the efficacy of our healthcare system. Additionally, EGCO Group is supportive of all parties trying to mitigate the impacts of COVID-19 on people. In 2020, we supported approximately 36 million THB with details as follow:

- Donated a total of 15 million THB to 24 major hospitals nationwide which are the main COVID-19 treatment centers to help with necessary medical supplies
- Supported the construction of negative pressure rooms with 3,000,000 THB budget under the supervision of the Thailand Institute of Scientific and Technological Research (TIST). The rooms are later donated to hospitals in the Bangkok area that have a high number of COVID-19 patients or a need for negative pressure rooms.
- Built 30 negative pressure mobile beds in collaboration with Electricity Generating Authority of Thailand (EGAT) under 2,000,000 THB budget
- Donated 1,000 UVC tubes worth approximately 700,000 THB through the Ministry of Public Health to the SOS to Medical Staff in COVID-19 Fight group for the production of 250 UVC face mask sanitizer boxes that will later be donated to hospitals nationwide

- Supported a budget of 15,000,000 THB in cooperation with EGAT, a state enterprise under the supervision of the Ministry of Energy, for distribution of 70% alcohol to 9,800 local health centers around Thailand under the project "Energy Together Against COVID-19". The purpose is to aid disease prevention in the communities.

Supported a budget

**15,000,000**

baht for distribution of 70% alcohol

to

**9,800**

local health centers



- Donated 1,000,000 THB to the Chulalongkorn University's Engineering Innovation Fund for the "CU-RoboCOVID" Project, which develops and builds robots and medical support devices to aid frontline medical personnel

Donated

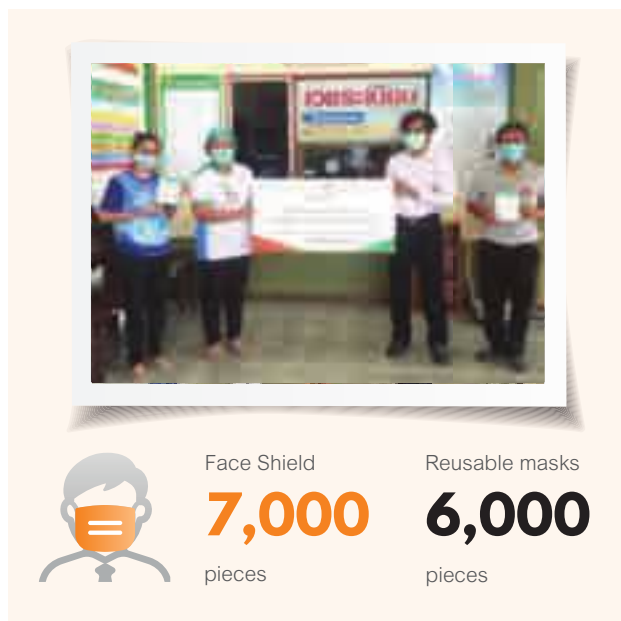
**1,000,000**

baht



Similarly, EGCO Group's power plants operating in different regions of Thailand have allocated help to the regional medical centers, community public health organizations, and local communities around EGCO Group's power plants in various forms, namely:

- Money and medical supplies (900 pieces of N95 mask) donated to regional medical centers where EGCO Group operates and in the regions with a higher number of infected cases. The medical supply donation was supported by SK E&S Co., Ltd., an alliance of EGCO Group and Paju Power Plant shareholders in South Korea.
- 7,000 pieces of the face shield and 6,000 pieces of reusable masks donated to local public health support hospitals, local public health volunteers, and the local communities around EGCO Group's power plants.





## SECTION 2

# CORPORATE GOVERNANCE

# Governance Structure

EGCO's organization structure comprises the Board of Directors, standing committees, President and the top management as follows:

The Board and their share ownership in EGCO as of January 31, 2021 are as listed below:

NAME	NO. OF SHARES		
	DIRECTOR	SPOUSE/ MINOR CHILD	INCREASE/ DECREASE (JAN 1, 2020 – JAN 31, 2021)
1. Mr. Kulit Sombatsiri • Chairman • Chairman of Investment Committee	-	-	-
2. Ms. Jaruwan Ruangswadipong • Independent Director • Lead Independent Director • Chairman of Audit Committee	-	-	-
3. Dr. Pasu Loharjun • Independent Director • Chairman of Corporate Governance and Social Responsibility Committee • Member of Nomination and Remuneration Committee	800	-	-
4. Assoc. Prof. Dr. Nualnoi Treerat • Independent Director • Member of Nomination and Remuneration Committee • Member of Corporate Governance and Social Responsibility Committee	-	-	-
5. Prof. Dr. Anya Khanthavit • Independent Director • Chairman of Risk Oversight Committee • Member of Audit Committee	-	9,000	-
6. Mr. Paisan Mahapunnarn • Independent Director • Member of Risk Oversight Committee • Member of Audit Committee	-	-	-
7. Assoc. Prof. Dr. Bordin Rassameethes • Independent Director • Member of Nomination and Remuneration Committee • Member of Corporate Governance and Social Responsibility Committee	-	-	-
8. Mr. Roengchai Khongthong <sup>1</sup> • Director • Member of Risk Oversight Committee • Member of Nomination and Remuneration Committee	-	-	-

NAME	NO. OF SHARES		
	DIRECTOR	SPOUSE/ MINOR CHILD	INCREASE/ DECREASE (JAN 1, 2020 – JAN 31, 2021)
9. Ms. Choosri Kietkajornkul <sup>2</sup> • Director • Member of Investment Committee	2,000	-	-
10. Prof. Dr. Pisut Painmanakul <sup>3</sup> • Director • Member of Corporate Governance and Social Responsibility Committee	-	-	-
11. Mr. Toshiro Kudama • Director • Chairman of Nomination and Remuneration Committee	-	-	-
12. Mr. Naoki Tsusumi • Director • Member of Investment Committee	-	-	-
13. Mr. Shunichi Tanaka • Director • Member of Investment Committee	-	-	-
14. Mr. Tomoyuki Ochiai • Director • Member of Risk Oversight Committee	-	-	-
15. Mr. Thepparat Theppitak • Director • Member of Investment Committee • Member of Risk Oversight Committee • Member of Corporate Governance and Social Responsibility Committee	-	-	-

Remarks <sup>1</sup> Mr. Roengchai Khongthong was appointed as a director to substitute Mr. Gumpanart Bumroonggit with effect on July 1, 2020  
<sup>2</sup> Ms. Choosri Kietkajornkul was appointed as a director to substitute Mr. Patana Saengsriroujana with effect on October 1, 2020  
<sup>3</sup> Prof. Dr. Pisut Painmanakul was appointed as a director to substitute Mr. Wisak Watanasap with effect on October 21, 2020

The list of directors who resigned in 2020 and their share ownership in EGCO are as shown below:

NAME	TENURE	NO. OF SHARES		
		DIRECTOR	SPOUSE/ MINOR CHILD	INCREASE/ DECREASE (JAN 1, 2020 – JAN 31, 2021)
1. Mr. Jakgrich Pibulpairoj • Director • President	Oct 1, 2017 - Feb 23, 2020	-	-	-
2. Dr. Gumpanart Bumroonggit <sup>*</sup> • Director • Acting President	Feb 24, 2020 - July 1, 2020	-	-	-

NAME	TENURE	NO. OF SHARES		
		DIRECTOR	SPOUSE/ MINOR CHILD	INCREASE/ DECREASE (JAN 1, 2020 – JAN 31, 2021)
3. Mr. Patana Saengsiroujana • Director	Oct 1, 2018 - Oct 1, 2020	-	-	-
4. Mr. Wisak Watanasap • Director	Jan 1, 2018 - Oct 1, 2020	-	-	-

Remarks: \* Dr. Gumpanart Bumroongit was appointed as a director and acting President with effect on February 24, 2020 to substitute Mr. Jakgrich Pibulpairoj who passed away. At present, Dr. Gumpanart Bumroongit is appointed to be Senior Executive Vice President - Operation

## STRUCTURE OF THE BOARD OF DIRECTORS

### 1. Board of Directors

The Board of Directors ("Board") has main responsibility to conduct business in a way that will benefit EGCO, shareholders and stakeholders including employees and communities where EGCO operates its business. Additionally, the Board works with the Management in formulating EGCO's vision and policy and approving corporate budget. The Board also monitors the Management's performance and suggests sound resolutions to problems.

EGCO's Board comprises not less than 5 and not exceeding 15 members as stipulated in the Company's Articles of Association. The appropriate number of the directors will be periodically reviewed to align with their responsibilities. The change in the number of directors needs the approval of the shareholders with the votes of not less than four-fifth of the shareholders present and entitled to vote.

The composition is based on the diversity of gender, individual's skills and experiences that would contribute to the balance of board composition and benefit to Company's business as follows:

- 14 non-executive directors, 93.33% of total directors, comprising:
  - 6 independent directors, 40.00% of total directors,
  - 8 representative directors, 53.33% of total directors, and
- President, the only executive member, 6.67% of total directors.

### Diversity of gender

GENDER	NUMBER	PERCENTAGE
Male	12	80.00
Female	3	20.00
Total	15	100.00





#### Diversity of expertise and experiences

NAME	INDUSTRY KNOWLEDGE; POWER BUSINESS / ENERGY BUSINESS / ENGINEERING	INTERNATIONAL BUSINESS	STRATEGY / BUSINESS PLANNING	HR	ACCOUNTING / FINANCE / ECONOMICS	AUDIT	INTERNAL CONTROL / ENTERPRISE RISK MANAGEMENT	SMART TECHNOLOGY	LAW	CORPORATE GOVERNANCE
1. Mr. Kulit Sombatsiri	✓	-	✓	✓	✓	-	-	-	-	✓
2. Mrs. Jaruwan Ruangswadipong	-	-	✓	✓	✓	✓	✓	-	-	✓
3. Dr. Pasu Loharjun	✓	-	✓	✓	-	-	-	-	-	✓
4. Assoc. Prof. Dr. Nualnoi Treerat	-	-	-	✓	✓	-	-	-	-	✓
5. Prof. Dr. Anya Khanthavit	-	-	✓	-	✓	✓	✓	-	-	✓
6. Mr. Paisan Mahapunnaporn	✓	-	✓	✓	-	✓	✓	-	✓	✓
7. Assoc. Prof. Dr. Bordin Rassameethes	✓	-	-	-	-	-	-	✓	-	✓
8. Mr. Roengchai Khongthong	✓	-	✓	✓	-	-	✓	-	-	✓
9. Ms. Choosri Kietkajornkul	✓	-	✓	-	✓	-	-	-	-	✓
10. Prof. Dr. Pisut Painmanakul	✓	-	✓	-	-	-	-	✓	-	✓
11. Mr. Toshiro Kudama	✓	✓	✓	✓	-	-	-	-	-	✓
12. Mr. Naoki Tsutsumi	✓	✓	✓	✓	-	-	-	-	-	✓
13. Mr. Shunichi Tanaka	✓	✓	✓	✓	-	-	-	-	-	✓
14. Mr. Tomoyuki Ochiai	✓	✓	✓	✓	✓	-	-	-	✓	✓
15. Mr. Thepparat Theppitak	✓	-	✓	✓	-	-	-	-	-	✓
<b>Total</b>	<b>12</b>	<b>4</b>	<b>13</b>	<b>11</b>	<b>6</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>15</b>

Average tenure is 2.47 years; the tenure of each director is detailed below:

DIRECTOR	APPOINTMENT DATE	TERM OF OFFICE	IN OFFICE (ENDING JANUARY 31, 2021)
1. Mr. Kulit Sombatsiri	January 17, 2020	1 <sup>st</sup>	1 year 14 days
2. Mrs. Jaruwan Ruangswadipong	April 20, 2016	1 <sup>st</sup>	4 years 9 months 11 days
	April 18, 2019	2 <sup>nd</sup>	
3. Dr. Pasu Loharjun	April 19, 2018	1 <sup>st</sup>	2 years 9 months 12 days
4. Assoc. Prof. Dr. Nualnoi Treerat	September 1, 2017	1 <sup>st</sup>	3 years 5 months
	April 19, 2018	2 <sup>nd</sup>	
5. Prof. Dr. Anya Khanthavit	April 19, 2017	1 <sup>st</sup>	3 years 9 months 12 days
	July 20, 2020	2 <sup>nd</sup>	
6. Mr. Paisan Mahapunnarn	April 19, 2017	1 <sup>st</sup>	3 years 9 months 12 days
	July 20, 2020	2 <sup>nd</sup>	
7. Assoc. Prof. Dr. Bordin Rassameethes	October 27, 2017	1 <sup>st</sup>	3 years 4 months 4 days
	April 19, 2018	2 <sup>nd</sup>	
8. Mr. Roengchai Khonthong	July 1, 2020	1 <sup>st</sup>	7 months
9. Ms. Choosri Kietkajornkul	October 1, 2020	1 <sup>st</sup>	4 months
10. Prof. Dr. Pisut Painmanakul	October 21, 2020	1 <sup>st</sup>	3 months 10 days
11. Mr. Shunichi Tanaka	May 1, 2014	1 <sup>st</sup>	6 years 9 months
	April 20, 2016	2 <sup>nd</sup>	
	April 18, 2019	3 <sup>rd</sup>	
12. Mr. Tomoyuki Ochiai	June 1, 2019	1 <sup>st</sup>	1 year 8 months
	July 20, 2020	2 <sup>nd</sup>	
13. Mr. Toshiro Kudama	June 1, 2019	1 <sup>st</sup>	1 year 8 months
	July 20, 2020	2 <sup>nd</sup>	
14. Mr. Naoki Tsutsumi	June 1, 2019	1 <sup>st</sup>	1 year 8 months
	July 20, 2020	2 <sup>nd</sup>	
15. Mr. Thepparat Theppitak	November 12, 2019	1 <sup>st</sup>	1 year 2 months 19 days

## 2. Independent Director

EGCO's Corporate Governance Principle determines the number of independent directors at least one-third of all directors in compliance to the laws. Presently, EGCO's board of directors comprises 6 independent directors which are more than one-third of total directors. The independent director could serve the company not more than 2 terms or 6 years, starting from the 2015 annual general meeting. None of independent director stays in the office more than the term limit. Also, they can schedule their own meeting as necessary.

Moreover, the independent directors are competent, independent and do not possess the prohibited qualifications as regulated by the law. They fulfill all qualifications of independent directors as defined by the Company as follows:

1. Holding shares not more than 0.5% of the paid-up capital with the voting right of EGCO, parent company, subsidiary company, associated company or any legal entity that may have the conflict of interest (including the connected persons as stipulated in section 258 of securities laws),
2. Not being or having been a director who takes part in the management (executive director, director who has the same responsibility as management and authorized director, except the case of joint signing with other directors for transactions approved by the Board), an employee, or an advisor who receives regular salary, or a controlling person of EGCO, parent company, subsidiary, associate or fellow subsidiary (two or more subsidiaries of the same holding company) or any entity that may have a conflict of interest during the period of two years before his/her appointment,
3. No relationship by family or by law with the management, major shareholders, controlling persons of EGCO or its subsidiaries, or those being nominated,
4. No business relationship with EGCO, parent company, subsidiary, associate company and not being a major shareholder, non-independent director or management of any entity that may have a conflict of interest in a way that would affect the giving of independent opinions for at least two years before the filing date,
5. Not being an auditor or a major shareholder, director, management or partner of the audit firm that provides auditing services to EGCO, parent company, subsidiary company, associate company or any entity that may have the conflict of interest for at least two years before the filing date,
6. Not being a professional service provider, including legal and financial consultant to EGCO, parent company, subsidiary company, associate company or any entity that may have the conflict of interest, with the fee higher than 2 million baht per year, or being a major shareholder, non-independent director, management or partner of such company for at least two years before the filing date,
7. Not being EGCO's representative director of its director, majority shareholders or shareholders who are related to EGCO's majority shareholders, and
8. Not having any constraint that would affect the performance of giving independent judgment on EGCO.

Meanwhile, independent director can hold EGCO shares not more than 0.5%, which is stricter than the regulation of the Capital Market Supervisory Board which allows 1% shareholding.

During the year, the independent directors provided the independent judgement and recommendations when considering and making decision on significant issues such as business strategy, investment projects, succession plan, organization structure, and other issues related to the corporate governance, for the best interest of the Company. They also were concerned about all stakeholders and prevented any actions which caused conflicts of interest among the Company, executives, directors and major shareholders.

## 3. Chairman

On January 17, 2020, the Board of Directors in the meeting no. 1/2020 appointed Mr. Kulit Sombatsiri, a representative director of EGAT to be the Chairman. Mr. Kulit is the current EGAT Chairman. Moreover, they possess leadership to lead EGCO towards the corporate vision, mission and strategic plan to benefit all shareholders. Although the Chairman is not an independent director, the Board performs its duties with fairness and transparency and makes independent decisions with due care and responsibility to all shareholders equally through the following mechanisms:

1. The Chairman is a non-executive director, not the same person as the President and has no relations with the management. There is a clear distinction between oversight and day-to-day business administrative roles. The Chairman takes the lead role in conducting board meetings to be effective and efficient by encouraging involvement by all directors and providing recommendations and supports to

the Management via the President. The Board does not intervene in any routine activities under the President's responsibilities.

2. The Board members appointed the lead independent director as the representative of independent directors to consider meeting agendas and coordinate with the shareholders, the Board members, and the Management.
3. Most of the Board members are non-executive directors and the Board's seats are allocated to major shareholders who have expertise in Company's business comprising 4 EGAT representative directors, 4 TEPDIA representative directors, and 6 independent directors. This indicates a proper balance of power.
4. The Board has assigned the sub-committees to oversee tasks where there may be a potential for transactions with conflict of interest and to balance the need of each stakeholder. With respect to this, the Audit Committee is entrusted for the oversight and review of the accuracy of financial and non-financial reports as well as related matters. The Nomination and Remuneration Committee is assigned to take care of selection of the Board members and key executives and their remuneration on a transparent basis.

The result of the Board's performance appraisal in 2020 indicated that the Chairman was excellent in leading the meeting and encouraging directors to participate in the discussion around the Board table.

#### 4. Lead of Independent Director

The Board in the Meeting No. 1/2018 held on January 19, 2018, with the recommendation of independent directors to appoint Ms. Jaruwan Ruangswadipong as the Lead of Independent Director with effect on January 19, 2018. The Lead of Independent Director shall support the activities of the Board in compliance to the corporate governance principles and take care the interests of every party with fairness.

The Lead Independent Director's term of office is 3 years starting from the appointment date. When the Lead Independent Director retires, resigns or vacate the office before the end of the term, the new Lead Independent Director shall be appointed by the Board within 3 months after the vacancy.

The responsibilities of Lead Independent Director when acting as such are as follows:

1. Chair the independent directors' meetings and represent the independent directors in discussions with the Chairman and the Management on corporate governance issues and other significant matters as deemed appropriate by independent directors,
2. Arrange the independent directors' meeting at least once a year with participation from the executives or related persons to provide information and clarification,
3. Serve as the principal liaison between the Chairman, the independent directors and President on board-wide issues,
4. Preside and act as Chairman at all meetings of the Board at which the Chairman or the Vice Chairman is not present,
5. Collaborate with the Chairman and the President to develop Board meeting agendas to ensure that the significant issues are included to be proposed in the Board meeting and Non-Executive Directors' meetings, for consideration or acknowledgment,
6. In collaboration with the Chairman and the President, serve as a contact person for shareholders who wish to discuss, negotiate and seek consultation from the Board wishing to communicate with the Board other than through the Chairman.

#### 5. Authorized Directors

EGCO determines that the authorized directors comprise the Chairman or the President to sign and affix the company's seal independently, or any two directors to sign jointly and affix the company's seal. Such authorized directors shall exclude (1) independent directors to maintain their independence under the good corporate governance principle, (2) directors who are senior government officers, and (3) directors who are also directors of the financial institutions to avoid the limitation that such financial institutions cannot provide future financial service to EGCO.

#### 6. Board of Directors' Duties and Responsibilities

The duties and responsibilities of the Board of Directors are prescribed below:

##### Duties to EGCO

1. Understand its leadership role and assume its responsibilities in overseeing the Company, towards the sustainable value
2. Oversee the Company to create sustainable value and to pursue the following outcomes: competitiveness, performance with long-term perspective, ethical and

responsible business, good corporate citizenship and corporate resilience

3. Establish and drive the core value which upholds ethics and be a role model
4. Define policies for directors, executives and employees in writing which represent principles and practices for operating the Company, and put in place the governance mechanism to ensure the compliance with the established policies, monitoring the performance and regularly review of policies and practices,
5. Ensure performance of all directors, executives and employees in compliance with their fiduciary duties, and company's operation in compliance with applicable law and standards as well as the shareholders' resolutions,
6. Define core objectives and targets and monitor the performance of the Company to achieve the defined objectives, targets and strategies,
7. Determine and review the board structure to support the achievement of objectives and targets
8. Select and develop directors and President and determine their remuneration as well assessing their performance
9. Determine the employees' remuneration structure as motivation for employees to drive the Company to achieve the objectives and targets
10. Develop a succession planning for key executives and monitor the performance to ensure that the Company has competent executives to fill in the vacant positions
11. Ensure that a good internal control is established by setting up the Company's regulations including a clear and appropriate working processes, accounting system, standard and reliable financial reports, substantial risk management, efficient compliance system and regular monitor

#### **Duties to Shareholders**

1. Ensure that EGCO is financially viable, properly managed and constantly improved so as to protect and enhance the interests of the shareholders
2. Ensure that the information disclosure is materially correct, complete, transparent and timely
3. Ensure the equitable treatment of all shareholders
4. Not report of fault information or avoid disclosure of the mandatory required information on the Company's operating results and financial position

#### **Duties to Creditors**

1. Ensure EGCO's full compliance with loan provisions and disclosure of EGCO's financial status
2. Promptly seek professional advice when in uncertain circumstance which might impact lenders such as unstable financial position or pending insolvency

#### **Duties to other Stakeholders**

1. Ensure EGCO's compliance with the governing laws and regulations while taking into account the impact on employees, other stakeholders, community, society and environment

#### **Due Diligence**

1. Attend all Board meetings, or give apology in advance when meeting attendance is not possible
2. Acquire a knowledge of the corporate objectives, mission and core business
3. Acquire a knowledge of EGCO business including statutory laws and regulations affecting the discharge of duties as director, and well aware of the business environment
4. Be provided substantial information in advance to allow adequate time to analyze; then make thorough judgment
5. Consider and make independent judgment; In case of dissent from Board's resolution, directors can request the record of objection in the Minutes of Meeting.
6. Ensure that the communication system is established for directors to be provided regular and timely information to enable the thorough and careful judgment.
7. Ensure that the communication and information disclosure among stakeholders are executed correctly, appropriately and timely.
8. Encourage the open communication between the Board of Directors and auditors and that the auditors can work independently and efficiently with the full co-operation from the management and internal auditors.
9. Ensure that EGCO complies with the governing laws, rules, regulations and business standard and ethics.

#### **Board of Directors' Authority**

The Board has the authority to approve the following matters:

#### **The Board's Matters**

1. Elect and appoint directors in the Board of Directors to replace resigning directors during the year, and to nominate

directors to the shareholders to replace the directors who retire by rotation

2. Conduct the self-assessment annually and explain the Board of Directors' responsibilities and governance in the annual report
3. Establish and amend the sub-committees' charters
4. Appoint, remove and change members in the sub-committees.
5. Establish a new sub-committee during the year and determine its remuneration when considered as appropriate

#### Corporate Policy and Management

1. Approve and revise the Company's vision, goal, mission and policies
2. Approve both short-term and long-term strategic plans; including action plans, annual budget and manpower to be in line with the strategic plans
3. Make a decision for the interest of the Company, shareholders, stakeholders; and to monitor the Management's performance and provide suggestions to solve the problems appropriately
4. Establish and amend the Company's regulations
5. Determine, establish and revise the Company's Table of Authority
6. Establish and revise the organization structure of EGCO and EGCO Group's companies in which EGCO has management control
7. Consider risks related to corporate management in all aspects

#### Business Activities

1. Establish, amend or change the binding agreements of investment/joint venture/bids under EGCO's commitment including any divestment
2. Endorse the following matters before proposing for the shareholders' approval:
  - Acquisition or sale of important assets or any related transaction as outlined by the laws and the Capital Market Supervisory Board
  - Sale or transfer of EGCO enterprises or its components to other entities
  - Purchase or acquisition of enterprises on behalf of EGCO
  - Making addendums or changes to EGCO's Memorandum or Articles of Association
  - Increase or decrease of the registered capital
  - Issuance of securities for sales to the public, except for

common shares

- Dissolution of EGCO or merging it with another company
  - Announcing annual dividends
  - Sundry other activities as mandated by laws or the Company's Articles of Association to seek approval from shareholders' meeting
3. Approve the interim dividend payment for the shareholders
  4. Approve the change in significant accounting policy and compliance with new accounting standards
  5. Approve the issuance of debt securities (excluding debentures), borrowing, refinancing and rescheduling
  6. Approve the guarantee, loan to group companies and other financial supports
  7. Approve the revision of annual budget
  8. Approve the disposal of materials

#### Human Resources

1. Approve hiring, employment, appointment, termination and compensation required by law for the President, top executives and Corporate Secretary
2. Evaluate the President's performance and approve the salary increase for the President
3. Consider the disciplinary action for the President
4. Approve the Company's salary structure, wages, compensation and benefits
5. Approve the succession plan for the position of Executive Vice President upwards

#### Other Business

1. Approve the court actions
2. Appoint specialists to provide in-depth information or take any related actions for the Company in case of the issues affecting significantly the Company's business, financial positions or reputation of Group Company
3. Authorize the President appropriately to manage the Company in accordance with the corporate strategy, directions, goal and policy by ensuring that the Company has a proper corporate governance and efficient monitoring and evaluation
4. Take other responsibilities in relation to the Company's business as assigned by the shareholders
5. Consider donation apart from what has been approved in the annual budget

## STANDING COMMITTEES

In order to prudently consider and monitor the significant issues, the Board appoints the proficient and qualified directors to be members in the standing committees to enhance the governance efficiency. Presently, Currently, EGCO has 5 standing committees namely, (1) Audit Committee, (2) Risk Oversight Committee (3) Investment Committee (4) Nomination and Remuneration Committee, and (5) Corporate Governance and Social Responsibility Committee.

Each Board committee has its own charter which prescribes functions, composition, term of office, responsibilities and meeting conduct. The committee's charter, which is approved by the Board, would be reviewed as deemed appropriate. Each committee can retain outside counsels, experts and professional advisors, as deemed appropriate at EGCO's expense. All committees shall report their activities (if any) to the Board.

In 2020, the Board and all sub-committee had reviewed their charters and no revision was made to the charters of Investment Committee, Nomination and Remuneration Committee, and Corporate Governance and Corporate Social Responsibilities Committee. Except for Audit Committee, is considering the revision of the charter regarding risk management by transferring such matters to be under the Risk Oversight Committee.

### Audit Committee

comprises 3 independent directors. Its mission covers the review of the financial statements, legal compliance, risk management policy, internal control and internal audit systems and appointment and removal of external auditors. The Audit Committee also reviews the connected transactions or transactions with conflicts of interest to ensure that such transaction is in compliance with the SET's requirement, well-grounded and for the best interest of EGCO. The responsibilities of the Audit Committee were described below:

1. Review the accuracy and adequacy of Company's financial reporting,
2. Review the appropriateness and effectiveness of the Company and its subsidiaries internal control systems, and internal audit functions and determine the Internal Audit Division's independence,
3. Approve the appointment, rotation and removal of the Chief Internal Audit,
4. Monitor Company's compliance with Securities and Exchange Acts and Regulations of the SET and any other laws relevant to Company's business,
5. Recommend to the Board of Directors an independent person to be Company's auditor, removal of the auditor and audit fees,
6. Consider non-audit services performed by the auditors which may lead to the auditors' non independence,
7. Consider and endorse the significant change in accounting policy of the Company prior to proposing to the Board of Directors for approval,
8. Meet with the auditor exclusively at least once a year,
9. Consider the connected transactions or any transactions that may cause conflict of interest complying with rules and regulations of SET to ensure that such transactions are reasonable and create highest benefit to the Company,
10. Review EGCO's Regulation on Internal Audit prior to proposing to the Board of Directors for approval,
11. Approve the internal audit plan as well as budget and personnel,
12. Review the internal audit report of internal audit division,
13. Meet with the Chief Internal Audit exclusively at least once a year,
14. Review with the Management the preparation of the Management's Discussion and Analysis or MD&A and the disclosure in Annual Report,
15. Prepare a report that describes the Audit Committee's activities and responsibilities. This report shall be signed by the Chairman of the Audit Committee and published in the annual report to the shareholders. The Audit Committee's Report shall consist of at least the following information:
  - (a) an opinion on the accuracy, completeness and creditability of the Company's financial report,
  - (b) an opinion on the adequacy of the Company and its subsidiaries internal control system,
  - (c) an opinion on the compliance with the law on securities and exchange, the Exchange's regulations, or the laws relating to the Company's business,
  - (d) an opinion on the suitability of an auditor,
  - (e) an opinion on the transactions that may lead to conflicts of interests,

- (f) the number of the Audit Committee meetings, and the attendance of such meetings by each committee member,
  - (g) an opinion or overview comment received by the Audit Committee from its performance of duties in accordance with the charter, and
  - (h) other transactions which, according to the Audit Committee's opinion, should be known to the shareholders and general investors, subject to the scope of duties and responsibilities assigned by the Board of Directors.
16. Inspect any suspiciousness reported by the Company's auditor, that the President, the Management or any person responsible for the company's operation commits an offence under the Securities and Exchange Act (No. 4) B.E. 2551 and report the result of preliminary inspection to the Office of the Securities and Exchange Commission and the auditor within thirty days after being informed by the auditor,
  17. Monitor compliance with Anti-Corruption Policy and review related measures and internal control of the Company,
  18. Review reported concerns about fraud or corruption of the Company and its subsidiaries,
  19. Review the Audit Committee Charter and perform the self-assessment at least once a year,
  20. Perform any other act as assigned by the Board of Directors with approval of the Audit Committee.
- and risk tolerance for constant effectiveness to be proposed to the Board of Directors for approval,
  3. Oversee the Company to ensure the key risks and their impacts and possibilities are identified including considering the enterprise risk management plan and process,
  4. Monitor and assess the Company's risk management to comply with the risk management framework and plans,
  5. Regularly report to the Board of Directors on the result of risk assessment and implemented measures. In case of any significant issues materially impacting to the Company, the Board of Directors should be informed promptly for further actions,
  6. Provide recommendations on the risk management to directors, management and EGCO Management Committee, with continuous encouragement and support for the improvement and development of risk management system within the company,
  7. Monitor and encourage the review of the enterprise risk management policy and framework at least once a year to ensure the company's risk management policy and framework suited to EGCO's business process and risk mitigation activities
  8. Regularly review and update its own charter to ensure its appropriateness to be proposed to the Board for approval
  9. Perform other duties relating to the risk management as may be assigned by the Board

Reference to the above responsibilities, the Committee is accountable to the Company's Board of Directors whereas the Board of Directors remains responsible to third persons for the operation of the Company.

### Risk Oversight Committee

comprises 5 members having 2 independent directors, 2 non-executive directors and the President. ROC appointed Mr. Anya Khanthavit, independent director, to be the Chairman of the Committee for his expertise and experiences in risk management. Risk Oversight Committee takes duties to consider the policy, recommend, oversee and monitor corporate risk management framework. The responsibilities of the Risk Oversight Committee are detailed below:

1. Consider and provide recommendations on enterprise risk management policy and framework to be proposed to the Board of Directors for approval,
2. Consider and provide recommendations on risk appetite

### Nomination and Remuneration Committee

comprises 5 non-executive directors, 3 of whom are independent directors. NRC appointed Mr. Toshiro Kudama, representative from TEPDIA, the major shareholder, as the Chairman of the Committee for his knowledge and experiences in strategy and human resources management as well as international corporate governance. His expertise supports the Company's strategy to develop and manage human resources to prepare for the investment and management of international assets. Although the NRC Chairman is not an independent director, the Board ensures that NRC has its due process of directors and senior management's selection which is in line with the best practices, taking recommendations from all shareholders. Directors and senior management's remuneration is considered under transparent and clear guidelines, comparable to those of peer companies and aligned with the long term benefit of EGCO and the shareholders. The responsibilities of the Nomination and Remuneration Committee are detailed below:

1. Establishment, review, and revision of the Company's regulation on human resource management
2. Establishment, review, and revision of the Nomination and Remuneration Committee Charter
3. Organization restructure of EGCO and EGCO Group's companies in which EGCO has management control (Senior Vice Presidents (SVP) upward)
4. Company's annual manpower planning
5. Structure and composition of the Board of Directors and committees together with the qualifications of their members
6. Recommendation of the list of nominees for the Board of Directors in case of vacancies by rotation and/or in case of casual vacancies
7. Remuneration structure, including meeting allowance, annual bonus, welfare, and other benefits in cash and in kind of EGCO Board of Directors and Board of Directors of EGCO Group's companies in which EGCO has management control
8. Board of Directors assessment form
9. Appointment of EGCO representative directors in EGCO Group's companies and joint venture companies based on the equity proportion or shareholders' agreements
10. Providing the policy on employees' remuneration structure and other benefits in cash and in kind to the representative directors of EGCO Group's companies in which EGCO has management control
11. Scrutiny of the list of nominees for EGCO President in case of vacancy
12. Appointment, promotion, rotation and removal of the Senior Executive Vice Presidents ("SEVP"), Executive Vice Presidents ("EVP") of EGCO and Corporate Secretary
13. Performance evaluation of EGCO President and SEVPs who are contract employees to renew or terminate the contract, and increase salary and determine bonus
14. Performance evaluation of SEVPs who are permanent employees, EVPs and Corporate Secretary to determine remuneration
15. Employees' remuneration structure and other benefits in cash and in kind
16. Corporate bonus criteria
17. Determination of bonus-linked KPI to decide bonus for EGCO and EGCO Group's companies in which EGCO has management control
18. Determination of annual bonus and special bonus
19. Budget for annual salary increase rate of the employees

20. Succession plans of EGCO's EVP upward
21. Early retirement program for the employees of EGCO and EGCO Group's companies in which EGCO has management control
22. Risks associated with human resource management, including preventive measures and mitigations of relevant risks
23. Other issues as assigned by the Board of Directors

### Investment Committee

comprises 5 directors and has the responsibility to screen and consider the Management's proposals, especially on the investments, funding and relating activities for the Board's approval. However, medium and small sized transactions can be approved by the Investment Committee itself after the Board's acknowledgement since this Committee is empowered to approve business decisions within its delegated authority. The Chairman of the Board is also appointed the Chairman of the Investment Committee. He has been proven to be an efficient chairman and conducted the meetings efficiently and has been attentive to other members' recommendations both at the Board's and the committee's meeting. The Investment Committee's responsibilities are described below:

1. Establishment, review, and revision of the Company's regulations and principles regarding investment, asset management and financial management
2. Establishment, review, and revision of the Investment Committee Charter
3. Company's strategic plan, business plan, action plan and annual budget
4. Determination of the Corporate KPI, monitoring progress, and assessment of the Corporate KPI
5. Increase or reduction of the registered capital
6. Acquisition, investment, and divestment of Company's assets
7. Operation of the Company's project and asset management pursuant to Regulation on Principle of Arm-Length Relation with Subsidiary, Affiliate, and Joint-Venture companies
8. Funding of EGCO
9. Financial management, profit allocation and significant financial transactions
10. Financial investment outside the Treasury Management Guidelines
11. Procurement and Disposal Material Management
12. Risks associated with investment and finance, including preventive measures and mitigations of relevant risks

13. Other issues as assigned by the Board of Directors and as stipulated in the Company's regulations and principles

### Corporate Governance and Social Responsibility Committee

comprises 5 members having 3 independent directors, 1 non-executive director and the President. The Chairman of the Committee shall be an independent director. The Corporate Governance and Social Responsibility Committee is responsible for the corporate governance principles and the frameworks, policies relating to corporate social responsibility and environmental matters that affect shareholders and other key stakeholders, for the Company's sustainable growth. The CC Committee is entrusted to the following responsibilities.

1. Endorse policy and practice for the Board's approval
2. Endorse objectives and annual plans, to be in line with the strategic plan, for the Board's approval
3. Encourage and support the compliance of directors, executives and employees with the policy, practices, objectives and plans of CG, CSR and Anti-Corruption
4. Oversee, monitor and appraise the performance to comply with the policy, practices, objectives and approved plans
5. Regularly review and revise policy and practices by comparing to the international standard, and endorse for the Board's approval in order to promote continuous improvement and development
6. Oversee the assessment of Anti-Corruption risks and risk mitigation



Table of Meeting Attendance of the Board of Directors

NAME	MEETING ATTENDANCE IN 2020 (NUMBER OF TIMES)						
	BOARD MEETING (17 TIMES/ PERCENTAGE)	NON-EXECUTIVE DIRECTOR MEETING (1 TIME/ PERCENTAGE)	AUDIT COMMITTEE (14 TIMES/ PERCENTAGE)	RISK OVERSIGHT COMMITTEE (13 TIMES/ PERCENTAGE)	INVESTMENT COMMITTEE (12 TIMES/ PERCENTAGE)	NOMINATION AND REMUNERATION COMMITTEE (10 TIMES/ PERCENTAGE)	CORPORATE GOVERNANCE AND SOCIAL RESPONSIBILITIES COMMITTEE (4 TIMES/ PERCENTAGE)
1. Mr. Kulit Sombatsiri	17/17 (100%)	1/1 (100%)	-	-	12/12 (100%)	-	-
2. Mrs. Jaruwan Ruangswadipong	17/17 (100%)	1/1 (100%)	14/14 (100%)	-	-	-	-
3. Dr. Pasu Loharjun	17/17 (100%)	1/1 (100%)	-	-	-	10/10 (100%)	4/4 (100%)
4. Assoc. Prof. Dr. Nualnoi Treerat	17/17 (100%)	1/1 (100%)	-	-	-	10/10 (100%)	4/4 (100%)
5. Prof. Dr. Anya Khanthavit	17/17 (100%)	1/1 (100%)	14/14 (100%)	13/13 (100%)	-	-	-
6. Mr. Paisan Mahapunnarnorn	17/17 (100%)	1/1 (100%)	14/14 (100%)	13/13 (100%)	-	-	-
7. Assoc. Prof. Dr. Bordin Rassameethes	16/17 (94.15%)	1/1 (100%)	-	-	-	10/10 (100%)	4/4 (100%)
8. Mr. Roengchai Khongthong was appointed on Jul 1, 2020	9/9 (100%)	1/1 (100%)	-	4/4 (100%)	3/3 (100%)	3/3 (100%)	-
9. Ms. Choosri Kietkajornkul was appointed on Oct 1, 2020	4/4 (100%)	-	-	-	4/4 (100%)	-	-
10. Prof. Dr. Pisut Painmanakul was appointed on Oct 21, 2020	4/4 (100%)	-	-	-	-	-	1/1 (100%)
11. Mr. Toshiro Kudama	15/17 (88.24%)	1/1 (100%)	-	-	-	8/10 (100%)	-
12. Mr. Naoki Tsusumi	16/17 (94.12%)	1/1 (100%)	-	-	13/13 (100%)	-	-
13. Mr. Shunichi Tanaka	15/17 (88.24%)	1/1 (100%)	-	-	12/13 (92.30%)	-	-
14. Mr. Tomoyuki Ochiai	16/17 (94.12%)	1/1 (100%)	-	13/13 (100%)	-	-	-
15. Mr. Thepparat Theppitak	17/17 (100%)	-	-	7/7 (100%)	13/13 (100%)	-	2/2 (100%)
16. Mr. Jakgrich Pibulpairoj passed away on Feb 23, 2020	2/2 (100%)	-	-	2/2 (100%)	2/2 (100%)	-	1/1 (100%)

NAME	MEETING ATTENDANCE IN 2020 (NUMBER OF TIMES)						
	BOARD MEETING (17 TIMES/ PERCENTAGE)	NON-EXECUTIVE DIRECTOR MEETING (1 TIME/ PERCENTAGE)	AUDIT COMMITTEE (14 TIMES/ PERCENTAGE)	RISK OVERSIGHT COMMITTEE (13 TIMES/ PERCENTAGE)	INVESTMENT COMMITTEE (12 TIMES/ PERCENTAGE)	NOMINATION AND REMUNERATION COMMITTEE (10 TIMES/ PERCENTAGE)	CORPORATE GOVERNANCE AND SOCIAL RESPONSIBILITIES COMMITTEE (4 TIMES/ PERCENTAGE)
17. Dr. Gumpant Bumroonggit was appointed on Feb 24, 2020 - Jul 1, 2020	5/5 (100%)	-	-	4/4 (100%)	4/4 (100%)	-	1/1 (100%)
18. Mr. Patana Sangsrirojana resigned on Oct 1, 2020	12/13 (97.67%)	1/1 (100%)	-	9/9 (100%)	-	7/7 (100%)	-
19. Mr. Wisak Watanasap resigned on Oct 1, 2020	13/13 (100%)	1/1 (100%)	-	-	-	-	3/3 (100%)

In 2020, the Board held 17 meetings, with 96.49% of the Board of Directors attending. Individually, each director attended more than 97.26% of the total number of meeting.

## MANAGEMENT STRUCTURE

The Board appoints the President as the head of management team to respond business management and to deploy the policies to practice by authorizing management duties to the President. The President will delegate his authority to the management team as prescribed in the Table of Authority.

### Roles and Responsibilities of Management

President as the head of top Management team was appointed among the directors as stated in the Company's Articles of Association. The Management led by the President has the following duties and responsibilities.

1. Manage EGCO's day-to-day business to be in line with the corporate policies, plans, and objectives, Articles of Association and obligatory rules and regulations,
2. Operate the business in according to corporate strategy, business plan and budget as approved by the Board,
3. Monthly Report to the Board the Company's performance and the implemented actions following the Board's resolution to ensure the Board that all actions have been taken as planned or remedied if there are some mismatches between actions and plans.
4. Develop and support the employee's career path advancement.

EGCO's 2021 organization structure was approved by the Board in the meeting no. 11/2020 with effect on January 1, 2021, comprises 5 groups as shown below:

1. **Business Development – International:** this group is headed by a Senior Executive Vice President – Business Development – International (SEVP-BDI). Under the SEVP-BDI, there is one Executive Vice President (EVP) supervising the international business development.
2. **Business Development – Domestic:** this group is headed by a Senior Executive Vice President – Business Development – Domestic (SEVP-BDD). Under the SEVP-BDD, there are two Executive Vice Presidents (EVPs) as follows:
  - 1) Executive Vice President – Business Development (Power Generation)
  - 2) Executive Vice President – Business Development (New Business)
3. **Accounting and Finance Group:** this group is headed by a Chief Financial Officer (CFO) with 3 EVPs as follows:
  - 1) Executive Vice President – Accounting
  - 2) Executive Vice President – Finance
  - 3) Executive Vice President – Subsidiaries Accounting and Finance

4. **Operating Group:** this group is headed by a Senior Executive Vice President – Operating (SEVP-OM) with 5 EVPs as follows:
- 1) Executive Vice President – Asset Management
  - 2) Executive Vice President – Project Management
  - 3) Executive Vice President – Power Plant Management
  - 4) Executive Vice President – Managing Director of KEGCO
  - 5) Executive Vice President – Operation and Management Business, also assigned as the Managing Director of ESCO
5. **President's Direct Report Groups:** There are 2 EVPs under this group:
- 1) EVP-Corporate Management supervises Legal Division, Human Resources Division, Information Technology Division, and Procurement and Administration Division, and
  - 2) EVP-Corporate Strategy supervises Planning Division, Risk Assessment Division, and Corporate Communications Division

Additionally, there are 2 divisions under the President's supervision, namely Internal Audit and Corporate Secretary. The Internal Audit reports directly to the Audit Committee, but functionally to the President. The Corporate Secretary Division reports directly to the President.

### Management

The list of the Management team and their share ownership in EGCO in accordance with SEC notification as at January 31, 2021 is as follows:

NAME	TITLE	NO. OF SHARES		
		MANAGEMENT	SPOUSE/ MINOR CHILD	INCREASE/ DECREASE (JAN 1, 2020 – JAN 31, 2021)
1. Mr. Thepparat Theppitak	President	-	-	-
2. Mr. John Palumbo	Senior Executive Vice President - Business Development - International	-	-	-
3. Mr. Prach Chongkittisakul	Senior Executive Vice President - Business Development - Domestic	-	-	-
4. Mr. Somkiat Suttiwanich	Chief Financial Officer	-	-	-
5. Dr. Gumpanart Bumroonggit	Senior Executive Vice President - Strategy & Asset Management	-	-	-
6. Mr. Amornrat Debhasdin Na Ayudhya	Executive Vice President - Accounting	330	-	-
7. Ms. Somsiri Yoosuk	Executive Vice President - Finance	-	-	-
8. Ms. Sudruedee Lertkasem	Executive Vice President - Subsidiaries Accounting and Finance	100	-	-
9. Ms. Amornrat Jittavisuthikul	Senior Vice President - Accounting and Budget	-	-	-

NAME	TITLE	NO. OF SHARES		
		MANAGEMENT	SPOUSE/ MINOR CHILD	INCREASE/ DECREASE (JAN 1, 2020 – JAN 31, 2021)
10. Mrs. Ploy Suksrisomboon	Senior Vice President - International General Affairs Management	-	-	-
11. Ms. Pornnara Kookarinrat	Senior Vice President - Domestic General Affairs Management	-	-	-
12. Mr. Surasak Ganjanakit	Senior Vice President - IPP Accounting	-	-	-

The list of Management and their share ownership in accordance with SEC notification who retired with effective on December 31, 2020.

NAME	TITLE	NO. OF SHARES		
		MANAGEMENT	SPOUSE/ MINOR CHILD	INCREASE/ DECREASE (JAN 1, 2020 – DEC 31, 2020)
1. Mr. Danuja Simasathien	Senior Executive Vice President - Business Development - Domestic	-	-	-
2. Mr. Suvapan Chomchalerm	Chief Financial Officer	-	-	-

## CORPORATE SECRETARY

The Board appointed Ms. Kulkanok Leongsoithong as the Corporate Secretary with the duties and responsibility as prescribed in the Securities and Exchange Act (No. 4) B.E. 2551, Section 89/5 and Section 89/16. She was also appointed as Board's secretary to support Board activities such as Board Meetings, Board Orientation, including provide important information, rules, regulations to the Board as well as to coordinate subsequent actions under the Board's resolution. The Corporate Secretary directly reports to the Board while the Nomination and

Remuneration Committee is delegated to appraise the performance of the Corporate Secretary.

In 2020, the Corporate Secretary has attended training seminars and discussions in various topics, arranged by regulators which oversee listed companies and the Thai Institute of Directors Association (IOD), in order to improve and increase efficiency of the Corporate Secretary's performance and corporate governance.

## DIRECTOR AND MANAGEMENT REMUNERATION

EGCO sets the policy to reward directors and management with appropriate remuneration. In this regards, the Nomination and Remuneration Committee is entrusted to review the appropriate rate that takes into account the responsibility and the company's financial status while being in line with the peer practices.

### 1. Director Remuneration

Director remuneration is appropriately set at a rate comparable to that of peer companies. The remuneration comprises 3 parts: (1) monthly retainer fee to reflect directors' responsibilities, (2) meeting allowance to reflect time devotion and meeting attendance, and (3) bonus which is paid in accordance with

the shareholder value creation. The Nomination and Remuneration Committee will endorse the director remuneration for the Board's endorsement before seeking the shareholders' approval on an annual basis. The guidelines are as follows:

- Retainer and meeting allowance will be set in accordance with peer practices, EGCO operating performance, business size, and responsibility, knowledge, competencies of the directors as required by the company.
- Bonus will be considered from the Company's profit or dividend paid to shareholders.

In 2020, the shareholders' Meeting resolved the directors' remuneration as shown below.

1. Monthly retainer fee of 30,000 baht and meeting allowance of 10,000 baht each. Members who do not attend the

meeting will not receive the meeting allowance. The Chairman and the Vice Chairman of the Board received 25% and 10% additional remuneration respectively for both the retainer fee and the meeting allowance.

2. 2019 bonus of 25 million baht approved by the shareholders in the 2020's annual general meeting, taking into account the Company's growth, the recognition in terms of good corporate governance, the increasing share price, peer's director bonus, and dividend payout ratio.
3. Remuneration for Board's Committee being Investment Committee, Audit Committee, Risk Oversight Committee, Nomination and Remuneration Committee, and Corporate Governance and Corporate Social Responsibility Committee as follows:

COMMITTEE	RETAINER FEE (BAHT)	MEETING ALLOWANCE (BAHT)
Investment Committee	20,000	20,000
Audit Committee	20,000	20,000
Nomination and Remuneration Committee	20,000	20,000
Risk Oversight Committee	-	24,000
Corporate Governance and Corporate Social Responsibility Committee	-	24,000

\* The chairman of each Board Committee would receive 25% additional remuneration both in retainer fee and meeting allowance.

Beside the remuneration mentioned above, EGCO does not provide other remuneration to the Board.

The overall directors' remuneration for 2020 is summarized below:

NAME	BOARD OF DIRECTORS	STANDING COMMITTEES					BONUS	TOTAL REMUNERATION
		AC	IC	NRC	ROC	CC		
1. Mr. Kulit Sombatsiri	643,145.16	-	581,229.14	-	-	-	-	1,224,374.30
2. Mrs. Jaruwan Ruangswadipong	530,000	650,000	-	-	-	-	1,754,385.96	2,934,385.96
3. Dr. Pasu Loharjun	530,000	-	-	440,000	-	120,000	1,754,385.96	2,844,385.96
4. Assoc. Prof. Dr. Nualnoi Treerat	530,000	-	-	440,000	-	96,000	1,754,385.96	2,820,385.96

NAME	BOARD OF DIRECTORS	STANDING COMMITTEES					BONUS	TOTAL REMUNERATION
		AC	IC	NRC	ROC	CC		
5. Prof. Dr. Anya Khantavit	530,000	520,000	-	-	390,000	-	1,754,385.96	3,194,385.96
6. Mr. Paisan Mahapunnaporn	530,000	520,000	-	-	312,000	-	1,754,385.96	3,116,385.96
7. Assoc. Prof. Dr. Bordin Rassameethes	520,000	-	-	440,000	-	96,000	1,754,385.96	2,810,385.96
8. Mr. Roengchai Khongthong	270,000	-	120,000	120,000	96,000	-	-	606,000.00
9. Ms. Choosri Kietkajornkul	130,000	-	140,000	-	-	-	-	270,000.00
10. Prof. Dr. Pisut Painmanakul	130,000	-	-	-	-	24,000	-	154,000.00
11. Mr. Toshiro Kudama	500,000	-	-	500,000	-	-	1,028,598.89	2,028,598.89
12. Mr. Naoki Tsusumi	510,000	-	480,000	-	-	-	1,028,598.89	2,018,598.89
13. Mr. Shunichi Tanaka	500,000	-	460,000	-	-	-	1,754,385.96	2,714,385.96
14. Mr. Tomoyuki Ochiai	504,000	-	-	-	288,000	-	1,028,598.89	1,820,598.89
15. Mr. Thepparat Theppitak	-	-	-	-	-	-	-	-

The summary of remuneration of retired and resigned directors during 2019-2020 is as follow:

NAME	RETIREMENT/ RESIGNING DATE	NUMBER OF MONTHS IN SERVICE		MEETING ATTENDANCE (17 TIMES/ YEAR)	TOTAL REMUNERATION			TOTAL REMUNERATION
		2019	2020		MONTHLY RETAINER AND MEETING ALLOWANCE		BONUS¹	
					DIRECTOR	STANDING COMMITTEE		
1. Mr. Yoichiro Matsumoto	Jun 1, 2019	5	-	-	-	-	725,787.07	725,787.07
2. Mr. Hiromi Sakakibara	Jun 1, 2019	5	-	-	-	-	725,787.07	725,787.07
3. Mr. Takao Onuki	Jun 1, 2019	5	-	-	-	-	725,787.07	725,787.07
4. Mr. Nikul Silasuwan	Oct 16, 2019	9	-	-	-	-	1,384,282.62	1,384,282.62
5. Mr. Witoon Kulcharoenwirat	Nov 1, 2019	10	-	-	-	-	1,826,484.02	1,826,484.02
6. Mr. Thepparat Theppitak	Jul 1, 2020	2	6	8	260,000	240,000	240,326.84	740,326.84
7. Mr. Wisak Wattanasap	Oct 1, 2020	12	9	13	400,000	72,000	1,754,385.96	2,226,385.96
8. Mr. Patana Saengsriroujana	Oct 1, 2020	12	9	12	390,000	536,000	1,754,385.96	2,226,385.96

Remarks <sup>1</sup> Bonus of Board of Directors in 2019 was paid in May 2020 as resolved by the Shareholders in the Annual General Meeting for year 2020

## 2. Directors' Remuneration of Subsidiaries

EGCO assigned the Management to be directors of subsidiaries as one of their duties so that the Management will not receive the remuneration as the directors.

## EGCO AND SUBSIDIARIES' MANAGEMENT REMUNERATION

### 1. EGCO's Management Remuneration

The Management's remuneration as approved by the Board which comprises both salary and bonus is designed to reflect the corporate and individual achievement based on the remuneration structure approved by the Board and the Key Performance Indicators (KPIs). The Board with the recommendations from the Nomination and Remuneration Committee approves the President's remuneration while the Nomination and Remuneration Committee appraises the performance of executives at Senior Executive Vice President and Executive Vice President levels with the proposal by the President.

Also, the Nomination and Remuneration Committee recommends and determines both short-term and long-term remuneration for President and top executives, taking into account their performance linked to both financial and non-financial KPIs as approved by the Board. Another factor taken into consideration for the management remuneration is the survey of the executive remuneration to ensure that the rate is comparable to their work and those of the peer companies.

The summary of the Management's remuneration defined by SEC for 2020 is shown below:

REMUNERATION	2020
	MANAGEMENT (5 PERSONS) <sup>1</sup>
Total Salary	34,061,080.00
Bonus <sup>2</sup>	13,382,682.91
Provident Fund	3,140,061.20
<b>Total</b>	<b>50,583,824.11</b>

Remark <sup>1</sup> 5 executives as defined by SEC are (1) President (2) SEVP - BDI (3) SEVP - BDD (4) CFO (5) SEVP - SAM

<sup>2</sup> The 2019 bonus was paid in January 2020

### 2. Total Remuneration of Core Subsidiaries' Management

In 2020, EGCO's core subsidiaries which generate electricity for sale and the revenues accounted to more than 10% of the consolidated revenue consists of KEGCO, BPU, and QPL. However, QPL had no permanent employees but have engaged QMS for the project management while the operation and maintenance works had been engaged to Pearl Energy Philippines Operating Inc. from the commercial operation date (COD).

## EGCO AND CORE SUBSIDIARIES' EMPLOYEES

In 2020, EGCO Group had 357 headcounts, 259 of which were EGCO employees while 551 people worked for subsidiaries namely KEGCO, ESCO, KLU, BPU, EGCO Plus, EGCO Green, and RG.

As of December 31, 2020, EGCO has 259 headcounts which include the President, 4 Senior Executive Vice Presidents. The number of employees in each reporting line of EGCO and numbers of subsidiaries' employees are as shown below:

BUSINESS GROUP	NO. OF EMPLOYEES (PERSON)
1. President	18
2. Corporate Management	60
3. Business Development - International	9
4. Business Development - Domestic	15
5. Strategy and Asset Management	82
6. Accounting and Finance	75
<b>Total of EGCO</b>	<b>259</b>
Subsidiaries' Employees	551
<b>Total</b>	<b>810</b>

There has been no significant turnover and no labor dispute during the past three years.

## EGCO AND SUBSIDIARIES' EMPLOYEE REMUNERATION

EGCO has the policy that the employees in the Group have fair remuneration which is comparable to the peer companies. The remuneration of EGCO and subsidiaries' employees in year 2020 is as shown below.

(Unit: Baht)

REMUNERATION	AMOUNT	
	EGCO	SUBSIDIARIES
Total Salary	281,387,357.99	97,117,452.00
Bonus <sup>1</sup>	130,407,333.27	49,496,444.69
Provident Fund	27,788,054.44	10,023,382.36
<b>Total</b>	<b>439,582,745.70</b>	<b>156,637,279.05</b>

Remark <sup>1</sup> The 2019 bonus was paid in January 2020.

Human resource development policy is disclosed in Sustainable Business Operation.

# Board of Directors

As of January 31, 2021



## 01 MR. KULIT SOMBATSIRI

- Chairman
- Chairman of Investment Committee (Authorized Director)

## 04 PROF. DR. ANYA KHANTHAVIT

- Independent Director
  - Chairman of Risk Oversight Committee
  - Member of Audit Committee
- (Appointed with effect on July 20, 2020)

## 02 MRS. JARUWAN RUANGSWADIPONG

- Lead Independent Director
- Chairman of Audit Committee

## 05 MR. PAISAN MAHAPUNNAPORN

- Independent Director
  - Member of Audit Committee
  - Member of Risk Oversight Committee
- (Appointed with effect on July 20, 2020)

## 03 ASSOC. PROF. DR. NUALNOI TREERAT

- Independent Director
- Member of Nomination and Remuneration Committee
- Member of Corporate Governance and Social Responsibility Committee



**06 DR. PASU LOHARJUN**

- Independent Director
- Chairman of Corporate Governance and Social Responsibility Committee
- Member of Nomination and Remuneration Committee

**07 ASSOC. PROF. DR. BORDIN RASSAMEETHES**

- Independent Director
- Member of Nomination and Remuneration Committee
- Member of Corporate Governance and Social Responsibility Committee

**08 MR. ROENGCHAI KONGTHONG**

- Director
- Member of Nomination and Remuneration Committee
- Member of Risk Oversight Committee (Authorized Director)  
(Appointed with effect on July 1, 2020)

**09 MS. CHOOSRI KIETKAJORNKUL**

- Director
- Member of Investment Committee (Authorized Director)  
(Appointed with effect on October 1, 2020)

**10 PROF. DR. PISUT PAINMANAKUL**

- Director
- Member of Corporate Governance and Social Responsibility Committee (Authorized Director)  
(Appointed with effect on October 21, 2020)



11



13



12



14



15

#### 11 MR. TOSHIRO KUDAMA

- Director
  - Chairman of Nomination and Remuneration Committee (Authorized Director)
- (Appointed with effect on July 20, 2020)

#### 12 MR. NAOKI TSUTSUMI

- Director
  - Member of Investment Committee (Authorized Director)
- (Appointed with effect on July 20, 2020)

#### 13 MR. SHUNICHI TANAKA

- Director
- Member of Investment Committee (Authorized Director)

#### 14 MR. TOMOYUKI OCHIAI

- Director
  - Member of Risk Oversight Committee (Authorized Director)
- (Appointed with effect on July 20, 2020)

#### 15 MR. THEPPARAT THEPPITAK

- President
- Member of Investment Committee
- Member of Corporate Governance and Social Responsibility Committee
- Member of Risk Oversight Committee
- Chairman of Risk Management Committee

- Chairman of Good Corporate Governance Committee
  - Chairman of EGCO Management Committee (Authorized Director)
- (Appointed with effect on July 1, 2020)

# Board of Directors

Who Vacated the Office During the Year 2020 Until January 31, 2021



## 01 MR. PATANA SANGSRIROUJANA

- Director
  - Member of Nomination and Remuneration Committee
  - Member of Risk Oversight Committee (Authorized Director)
- (Resigned with effect on October 1, 2020)

## 02 MR. WISAK WATANASAP

- Director
  - Member of Corporate Governance and Social Responsibility Committee
- (Resigned with effect on October 1, 2020)

## 03 MR. JAKGRICH PIBULPAIROJ

- President
- Member of Investment Committee
- Member of Corporate Governance and Social Responsibility Committee
- Member of Risk Oversight Committee
- Chairman of Risk Management Committee
- Chairman of Good Corporate Governance Committee
- Chairman of EGCO Management Committee (Authorized Director)

# Board of Directors

As of January 31, 2021

## 01

**MR. KULIT  
SOMBATSIRI**

Age 57



- Chairman
  - Chairman of Investment Committee
- (Authorized Director)

### EDUCATION

- Master of Public Administration in Public Finance, San Diego State University, USA
- Master of Business Administration, University of Southern California, USA
- Bachelor of Public Administration, Ramkhamheang University
- Executive Program in Energy Literacy for a Sustainable Future, Thailand Energy Academy
- Certificate of Director Certification Program, Thai Institute of Directors Association
- Certificate of Financial Statement for Directors, Thai Institute of Directors Association
- Certificate of Senior Executive Program 1, The Civil Service Development Institute
- Certificate of Capital Market Academy Leadership Program, Capital Market Academy

### DISPUTE

None

### FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT

None

### AMOUNT OF SHARES (%)

None

### WORKING EXPERIENCE DURING THE RECENT 5 YEARS

2019 - Present	Chairman, Electricity Generating Authority of Thailand
2018 - Present	Permanent Secretary, Ministry of Energy
2015 - 2018	Director General of the Customs Department, Ministry of Finance

## 02

**MRS. JARUWAN  
RUANGSWADIPONG**

Age 65



- Lead Independent Director
- Chairman of Audit Committee

### EDUCATION

- Master of Business Administration (Financial Studies), University of Nottingham, UK
- Master of Accountancy, Thammasat University
- Bachelor of Accountancy, Thammasat University
- Diploma in Adult Training Specialist, INTOSAI Development Initiative
- Canadian Comprehensive Auditing Foundation CCAF's International Program and Performance Audit Internship at the Office of the Auditor General of Canada
- Certificate of Director Certification Program, Thai Institute of Directors Association
- Certificate of IT Governance for Directors Program, Thai Institute of Directors Association
- Certificate of Risk Management: Issues for Boards Program, Thai Institute of Directors Association
- CG Code Update Program, PricewaterhouseCoopers ABAS Ltd.
- Project Acquisition Program, PricewaterhouseCoopers ABAS Ltd.
- Disruptive Technology Program (Knowledge Sharing among Directors and Management, by Mr. Patana Sangsrirojana, Director)
- Cryptocurrency Technology Program (Knowledge Sharing among Directors and Management, by Mrs. Tipsuda Tawaramorn, Ex-Deputy Secretary-General of SEC Thailand)
- COSO ERM Program (Knowledge Sharing among Directors and Management, by Prof. Dr. Anya Khanthavit, Independent Director)
- Forensic Accounting Certificate, Federation of Accounting Professions
- Certificate of Leading Your Business through Uncertainties Program, Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2020 – Present	Member of Accounting Profession Development Subcommittee, Federation of Accounting Professions
2020 – Present	Chairman of Financing, Budget and Treasury Management Subcommittee and Member of Corporate Governance Subcommittee, Nakhon Phanom University
2018 – Present	Member of the Committee to Establish Promotion Criteria for SAO's Officers to Advisory, Expert and Senior Professional Level, State Audit Office of the Kingdom of Thailand
2017 – Present	Council Representative Member from Federation of Accounting Professions, ASEAN Federation of Accountants (AFA)
2017 – 2020	Director and Secretary General, Federation of Accounting Professions
2017 – 2019	Senior Capacity Development Consultant and Senior Auditing Expert, German Society for International Cooperation (GIZ)

**03****ASSOC. PROF. DR. NUALNOI TREERAT**

Age 60



- Independent Director
- Member of Nomination and Remuneration Committee
- Member of Corporate Governance and Social Responsibility Committee

**EDUCATION**

- Ph.D. in Economics, Australian National University, Australia
- Master of Economics of Development, Australian National University, Australia
- Bachelor of Arts (Economics) (Hons.), Thammasat University
- Certificate of Director Certification Program, Thai Institute of Directors Association
- Cryptocurrency Technology Program (Knowledge Sharing among Directors and Management, by Mrs. Tipsuda Tawaramorn, Ex-Deputy Secretary-General of SEC Thailand)

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2014 – Present	Director of Institute of Asian Studies, Chulalongkorn University
1985 – Present	Associate Professor, Faculty of Economics, Chulalongkorn University

## 04

**PROF. DR. ANYA  
KHANTHAVIT**

Age 58



- Independent Director
- Chairman of Risk Oversight Committee
- Member of Audit Committee

(Appointed with effect on July 20, 2020)

**EDUCATION**

- Ph.D. in International Business and Finance, Stern School of Business New York University, USA
- Master of Philosophy (Hons.) in International Business and Finance, Stern School of Business New York University, USA
- Master of Science (Hons.) in Transportation Management, State University of New York, Maritime College, USA
- Bachelor of Business Administration (Accounting), Thammasat University
- Certificate of Director Certification Program, Thai Institute of Directors Association
- Certificate of Advanced Audit Committee Program, Thai Institute of Directors Association
- Certificate of Risk Management: Issues for Boards Program, Thai Institute of Directors Association
- Certificate of Senior Executive Program, Capital Market Academy
- CG Code Update Program, PricewaterhouseCoopers ABAS Ltd.
- Certificate of Strategic Board Master Class Program, Thai Institute of Directors Association
- Certificate of Cyber Resilience Seminar, Bank of Thailand
- Certificate of Audit Committee Forum: "Strategic Audit Committee: Beyond Figure and Compliance", Thai Institute of Directors Association
- Certificate of Bangkok Sustainable Banking Forum 2019: An Industry Wake-up Call, Bank of Thailand
- Disruptive Technology Program (Knowledge Sharing among Directors and Management, by Mr. Patana Sangsrirojana, Director)
- Cryptocurrency Technology Program (Knowledge Sharing among Directors and Management, by Mrs. Tipsuda Tawaramorn, Ex-Deputy Secretary-General of SEC Thailand)
- Certificate of Leading Your Business through Uncertainties Program, Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

0.001710

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS****Listed Companies in SET**

- |                |   |
|----------------|---|
| 2017 – Present | Director, Kiatnakin Phatra Bank PCL.                            |
| 2012 – Present | Member of Risk Management Committee, Kiatnakin Phatra Bank PCL. |

**Other Organizations**

- |                |  |
|----------------|--|
| 2020 – Present | Director and Chairman of Risk Management Committee, Thailand Science Research and Innovation   |
| 2018 – Present | Director, Chairman of Audit Committee and Chairman of Risk Oversight Committee, Tobacco Authority of Thailand                          |
| 2017 – Present | Member of Appeal Committee, Thailand Futures Exchange PCL.   |
| 2015 – Present | Member of Thailand Quality Award Committee, Thailand Quality Award   |
| 2012 – Present | Member of Public Services Subsidy Board, Ministry of Finance   |
| 2008 – Present | Member of the Risk Management Subcommittee, The Stock Exchange of Thailand   |
| 2005 – Present | Professor of Banking and Finance and Distinguished Professor, Thammasat University   |
| 2002 – Present | Member of the Performance Assessment Committee for State Enterprises, Ministry of Finance  |
| 2001 – Present | Founding Director, Sangvien Foundation   |
| 2016 – 2017    | Member of the Subcommittee on the Monitoring of Co-operative Financial Problems, Office of the National and Anti-Corruption Commission |
| 2014 – 2018    | Director, Thailand Tobacco Monopoly, Ministry of Finance   |
| 2014 – 2017    | Director, Member of Audit Committee and Chairman of Risk Management Committee, Government Pharmaceutical Organization                  |
| 2012 – 2018    | Member of Policy and Public Debt Management Committee, Ministry of Finance   |

## 05

**MR. PAISAN  
MAHAPUNNAPORN**

Age 57



- Independent Director
- Member of Audit Committee
- Member of Risk Oversight Committee

(Appointed with effect on July 20, 2020)

**EDUCATION**

- Master of Laws in Business Laws,  
Chulalongkorn University
- Bachelor of Laws, Chulalongkorn University
- Certificate of Director Certification Program,  
Thai Institute of Directors Association
- Certificate of Risk Management: Issues for  
Boards Program, Thai Institute of Directors Association
- Certificate of ASEAN Business and  
Investment Law Program
- CG Code Update Program,  
PricewaterhouseCoopers ABAS Ltd.
- Certificate of ID Forum Program  
(Tough boardroom situations-ID share lessons learned),  
Thai Institute of Directors Association
- Corporate Responsibilities and Practices in  
Anti-Corruption Program, Faculty of Law,  
Chulalongkorn University
- Project Acquisition Program,  
PricewaterhouseCoopers ABAS Ltd.
- Disruptive Technology Program  
(Knowledge Sharing among Directors and Management,  
by Mr. Patana Sangsrirojana, Director)
- Cryptocurrency Technology Program  
(Knowledge Sharing among Directors and Management,  
by Mrs. Tipsuda Tawaramorn,  
Ex-Deputy Secretary-General of SEC Thailand)
- COSO ERM Program  
(Knowledge Sharing among Directors and Management,  
by Prof. Dr. Anya Khanthavit, Independent Director)
- Certificate of Leading Your Business  
through Uncertainties Program,  
Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS****Listed Companies in SET**

2011 – 2016      Consultant, EMC PCL.

**Other Organizations**2016 – Present      Director and Member of Audit Committee,  
Masstec Link Co., Ltd.

2015 – Present      Consultant, V Food Group

2012 – Present      Consultant, Piyasombat Group

2011 – 2016      Consultant, Green Road Co., Ltd.

2011 – 2016      Consultant, Metro Group

2011 – 2016      Consultant,  
Best Care International Co., Ltd.

2011 – 2016      Specialist, The Senate

2011 – 2016      Specialist, The Parliament

2011 – 2016      Specialist,  
The National Legislative Assembly

## 06

**DR. PASU  
LOHARJUN**

Age 61



- Independent Director
- Chairman of Corporate Governance and Social Responsibility Committee
- Member of Nomination and Remuneration Committee

#### EDUCATION

- Ph.D. in Industrial Engineering and Operations Research, Virginia Polytechnic Institute and State University, USA
- Master of Science in Industrial Engineering, Polytechnic Institute of New York, USA (NYU Poly)
- Bachelor of Engineering in Electrical Engineering, Chulalongkorn University
- Certificate of Top Executive Program, Capital Market Academy
- CG Code Update Program, PricewaterhouseCoopers ABAS Ltd.
- COSO ERM Program (Knowledge Sharing among Directors and Management, by Prof. Dr. Anya Khanthavit, Independent Director)

#### DISPUTE

None

#### FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT

None

#### AMOUNT OF SHARES (%)

0.000152

#### WORKING EXPERIENCE DURING THE RECENT 5 YEARS

##### Listed Companies in SET

2021 – Present	Independent Director, Saha-Union PCL
2021 – Present	Independent Director, Thai Beverage PLC
2020 – Present	Independent Director, Allianz Ayudhya Capital PCL
2017 – 2019	Chairman, General Environmental Conservation PCL

##### Other Organizations

2020 – Present	Director, Thailand Convention and Exhibition Bureau (Public Organization)
2020 – Present	Board Member of Thai-Nichi Institute of Technology Council, Thai-Nichi Institute of Technology
2019 – Present	Member, Council of State
2019 – Present	Chairman, Thailand Institute of Scientific and Technological Research (TISTR)
2019 – Present	Chairman, Thailand National Metal and Materials Technology Center (MTEC)
2019 – Present	Director, Thai-German Institute
2018 – 2019	Director, Foundation for Industrial Development
2017 – 2019	Permanent Secretary, Ministry of Industry
2017 – 2019	Chairman, Thai Sugar and Cane Co., Ltd.
2016 – 2017	Director General, Department Of Industrial Promotion
2014 – 2016	Director General, Department of Industrial Works

07

**ASSOC. PROF. DR. BORDIN  
RASSAMEETHES**

Age 54



- Independent Director
- Member of Nomination and Remuneration Committee
- Member of Corporate Governance and Social Responsibility Committee

**EDUCATION**

- Ph.D. in Management of Technology, Vanderbilt University, USA
- Master of Science in Management, North Carolina State University, USA
- Bachelor of Computer Science, University of Miami, USA
- CG Code Update Program, PricewaterhouseCoopers ABAS Ltd.
- Certificate of Leading Your Business through Uncertainties Program, Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

- |                |  |
|----------------|--|
| 2019 – Present | Deputy Secretary General,<br>Southern Border Provinces<br>Administrative Center  |
| 1993 – Present | Lecturer and Associate Professor,<br>Department of Operations Management,<br>Faculty of Business Administration,<br>Kasetsart University |
| 1993 – Present | Team Leader and Consultant for<br>Research Projects,<br>Governance Official Units  |

08

**MR. ROENGCHAI  
KONGTHONG**

Age 60



- Director
- Member of Nomination and Remuneration Committee
- Member of Risk Oversight Committee  
(Authorized Director)  
(Appointed with effect on July 1, 2020)

**EDUCATION**

- Master of Business Administration, Thammasat University
- Bachelor of Engineering in Electrical Engineering, Prince of Songkla University
- Advanced Master of Management Program (AMM), National Institute of Development Administration (NIDA)
- Certificate of Royal Thai Army War College Course, The Royal Thai Army Institute of Advanced Military Studies
- Certificate of RTAF & CEO Relationship Program, Royal Thai Armed Forces Headquarters, Institute of Security Psychology
- Certificate of Public Economics Management for Executives, King Prajadhipok's Institute
- Certificate of Corporate Governance for Directors and Senior Executives of Regulator Program, State Enterprises and Public Organizations, King Prajadhipok's Institute
- Certificate of Director Certification Program, Thai Institute of Directors Association
- Certificate of Leading Your Business through Uncertainties Program, Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

- |                |   |
|----------------|---|
| 2018 – Present | Deputy Governor-Transmission System,<br>Electricity Generating Authority of Thailand                      |
| 2017 – 2018    | Assistant Governor-Transmission System,<br>Electricity Generating Authority of Thailand                   |
| 2014 – 2017    | Director,<br>Power System Control and Operation Division,<br>Electricity Generating Authority of Thailand |

09

**MS. CHOOSRI  
KIETKAJORNKUL**

Age 57



- Director
  - Member of Investment Committee
- (Authorized Director)  
(Appointed with effect on October 1, 2020)

**EDUCATION**

- Master of Accountancy, Chulalongkorn University
- Bachelor of Accountancy, Chulalongkorn University
- Postgraduate Certificate in Finance and Management, London School of Business and Finance, UK
- Certificate of Strategy Management Program, Faculty of Commerce and Accountancy, Chulalongkorn University
- Certificate of Chief Financial Officer Certification Program, Federation of Accounting Profession
- Certificate of Financial and Fiscal Management Program for Senior Executive, Institute of Human Resource Development on Fiscal and Financial for Public Enterprises
- Certificate of Leading Your Business through Uncertainties Program, Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

0.000380

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2020 – Present	Deputy Governor-Finance and Accounting (CFO), Electricity Generating Authority of Thailand
2018 – 2020	Assistant Governor-Finance, Electricity Generating Authority of Thailand
2016 – 2017	Director, Controller Division, Electricity Generating Authority of Thailand

10

**PROF. DR. PISUT  
PAINMANAKUL**

Age 43



- Director
  - Member of Corporate Governance and Social Responsibility Committee
- (Authorized Director)  
(Appointed with effect on October 21, 2020)

**EDUCATION**

- Ph.D. in Industrial Processes Engineering, Laboratoire d'Ingenierie des Procédés de l'Environnement, INSA-Toulouse, Republic of France
- Master of Advanced Studies (Diplôme d'Etude Approfondie, DEA), INSA-Toulouse, Republic of France
- Master of Science (Diplôme d'ingénieur) in Environmental Engineering, INSA-Toulouse, Republic of France
- Bachelor of Engineering in Environmental Engineering, Chulalongkorn University
- Certificate of Institute of Security Psychology Course, National Defense Studies Institute
- Certificate of Director Certification Program, Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2019 – Present	Director, Electricity Generating Authority of Thailand
2019 – Present	Director, National Housing Authority of Thailand
2016 – Present	Associate Dean-Innovation Strategy, Faculty of Engineering, Chulalongkorn University
2008 – 2016	Assistant Dean, Faculty of Engineering, Chulalongkorn University

11

**MR. TOSHIRO  
KUDAMA**

Age 62



- Director
- Chairman of Nomination and Remuneration Committee  
(Authorized Director)  
(Appointed with effect on July 20, 2020)

**EDUCATION**

- Master of Engineering in Mechanical Engineering,  
Tokyo Institute of Technology, Japan
- Bachelor of Engineering in Mechanical Engineering,  
Tokyo Institute of Technology, Japan
- Certificate of Leading Your Business  
through Uncertainties Program,  
Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2019 – Present	Chief Executive Officer, JERA Asia Pte. Ltd.
2019 – Present	Managing Executive Officer, JERA Co., Inc.
2018 – 2019	Director and Chief Executive Officer, JERA Americas Inc.
2016 – 2019	Chief Power Development Officer, Senior Executive Vice President, JERA Co., Inc.
2016	Managing Director Head of Overseas and Domestic Operations, TEPCO Fuel & Power, Incorporated
2015 – 2016	Corporate Executive Officer, Vice President, Fuel & Power Company, Tokyo Electric Power Company (TEPCO)

12

**MR. NAOKI  
TSUTSUMI**

Age 49



- Director
- Member of Investment Committee  
(Authorized Director)  
(Appointed with effect on July 20, 2020)

**EDUCATION**

- Master of Engineering in Civil Engineering,  
University of Kyoto, Japan
- Bachelor of Engineering in Civil Engineering,  
University of Kyoto, Japan

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2019 – Present	Executive Officer, Overseas Power and Energy Infrastructure Development Group, Business Development Department, JERA Co., Inc.
2018 – 2019	General Manager, Overseas Power Business Unit 3 (Americas), Energy Infrastructure Group, JERA Co., Inc.
2016 – 2018	Deputy General Manager, Comprehensive Alliance Promotion Office, TEPCO Fuel & Power, Incorporated

13

**MR. SHUNICHI  
TANAKA**

Age 55



- Director
  - Member of Investment Committee
- (Authorized Director)

**EDUCATION**

- Master of Engineering in Agricultural Civil Engineering, Kyushu University Graduate School, Japan

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2014 – Present	Chief Executive Officer, Diamond Generating Asia, Limited
2014 – 2019	Managing Director, TEPDIA Generating B.V.

14

**MR. TOMOYUKI  
OCHIAI**

Age 55



- Director
  - Member of Risk Oversight Committee
- (Authorized Director)  
(Appointed with effect on July 20, 2020)

**EDUCATION**

- Master of System Design and Management, Keio University, Japan
- Bachelor of Laws, Keio University, Japan
- University of Guadalajara, Mexico  
(One-year student dispatched from the Government of Japan)
- Cryptocurrency Technology Program  
(Knowledge Sharing among Directors and Management, by Mrs. Tipsuda Tawaramorn, Ex-Deputy Secretary-General of SEC Thailand)
- Certificate of Leading Your Business through Uncertainties Program, Thai Institute of Directors Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2020 – Present	Chief Group Manager, Asset Management Group, International Business Office, Kyushu Electric Power Co., Inc.
2018 – 2020	Chief of Division, Project Development Division, Kyuden International Corporation (KIC)
2017 – 2018	General Manager, Project Development Department 2, Kyuden International Corporation (KIC)
2016 – 2017	Assistant Senior Manager, Business Planning Group, International Business Division, Kyushu Electric Power Co., Inc.
2014 – 2017	Advisor, Policy and Strategy Office, Japan Bank for International Cooperation (JBIC)

15

**MR. THEPPARAT  
THEPPITAK**

Age 55



- President
- Member of Investment Committee
- Member of Corporate Governance and Social Responsibility Committee
- Member of Risk Oversight Committee
- Chairman of Risk Management Committee
- Chairman of Good Corporate Governance Committee
- Chairman of EGCO Management Committee

(Authorized Director)

(Appointed with effect on July 1, 2020)

**EDUCATION**

- Master of Science in Electricity Industry Management and Technology, University of Strathclyde, UK
- Bachelor of Engineering in Mechanical Engineering, Chiang Mai University
- Certificate of Executive Program in Energy Literacy for a Sustainable Future, Thailand Energy Academy
- Certificate of Advanced Management Program, Harvard Business School, USA
- Certificate of Senior Executive Program, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Certificate of Leading Your Business through Uncertainties Program, Thai Institute of Directors Association
- Certificate of Corporate Governance for Directors and Senior Executives of Regulator Program, State Enterprises and Public Organizations, King Prajadhipok's Institute

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

- |                |  |
|----------------|--|
| 2020 – Present | Chairman,<br>Khanom Electricity Generating Co., Ltd.   |
| 2020 – Present | Chairman,<br>EGCO Engineering and Service Co., Ltd.  |
| 2020 – Present | Director, Gulf Electric PCL.   |
| 2020 – Present | Director, Xayaburi Power Co., Ltd.   |
| 2020 – Present | Director, BLCP Power Co., Ltd.   |
| 2018 – Present | Deputy Governor-Power Plant Development and Renewable Energy,<br>Electricity Generating Authority of Thailand                        |
| 2017 – 2018    | Assistant Governor-Renewable and New Energy,<br>Electricity Generating Authority of Thailand   |
| 2016 – 2017    | Director, Mechanical Maintenance Division,<br>Electricity Generating Authority of Thailand   |
| 2015 – 2016    | Engineer Level 12 to<br>the Deputy Governor-Business Development,<br>Appointed as General Manager,<br>EGAT Diamond Service Co., Ltd. |

# Board of Directors

Who Vacated the Office During the Year 2020 Until January 31, 2021

## 01

**MR. PATANA  
SANGSRIROUJANA**

Age 60



- Director
- Member of Nomination and Remuneration Committee
- Member of Risk Oversight Committee

(Authorized Director)

(Resigned with effect on October 1, 2020)

### EDUCATION

- Master of Public and Private Management Program, National Institute of Development Administration
- Bachelor of Engineering (Hons.) in Electrical Engineering, King Mongkut's Institute of Technology Thonburi
- Certificate of Director Certification Program, Thai Institute of Directors Association
- Certificate of Advanced Oral Communication Course (AOCC) Batch 13, Devawongse Varopakarn Institute of Foreign Affairs
- Certificate of Politics and Governance in Democratic Systems for Executives Program, King Prajadhipok's Institute
- Certificate of Executive Energy Management Program, Ministry of Energy
- Certificate of Smart Marketing for Digital Economy Program, Institute of Research and Development for Public Enterprises
- Certificate of National Security Management for Senior Executive Program, National Intelligence Agency
- Certificate of PURC, Advanced Program, Public Utility Research Center, USA

### DISPUTE

None

### FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT

None

### AMOUNT OF SHARES (%)

None

### WORKING EXPERIENCE DURING THE RECENT 5 YEARS

2018 – 2020	Deputy Governor-Strategy, Electricity Generating Authority of Thailand
2018 – 2020	Director, District Cooling System and Power Plant Co., Ltd. (DCAP)
2017 – 2018	Deputy Governor-Policy and Planning, Electricity Generating Authority of Thailand
2016	Assistant Governor-Transmission System Maintenance, Electricity Generating Authority of Thailand

## 02

**MR. WISAK  
WATANASAP**

Age 61



- Director
  - Member of Corporate Governance and Social Responsibility Committee
- (Resigned with effect on October 1, 2020)

**EDUCATION**

- Master of Public Administration Program (MPA), Graduate School of Public Administration, National Institute of Development Administration
- Bachelor of Business Administration, Sukhothai Thammathirat Open University
- Bachelor of Engineering Program in Civil Engineering, Khon Kaen University
- Certificate of Executive Program in Energy Literacy for a Sustainable Future, Thailand Energy Academy
- Certificate of National Defense Course Class, National Defense College
- Certificate of ICT Management for Non-ICT Executive NIT Program, NECTEC Academy
- Certificate of Director Certification Program, Thai Institute of Directors Association
- Disruptive Technology Program (Knowledge Sharing among Directors and Management, by Mr. Patana Sangsrioujana, Director)
- Cryptocurrency Technology Program (Knowledge Sharing among Directors and Management, by Mrs. Tipsuda Tawaramorn, Ex-Deputy Secretary-General of SEC Thailand)

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2017 – 2020	Inspector General, Ministry of Energy
2014 – 2017	Deputy Directors General, Department of Energy Business, Ministry of Energy

## 03

**MR. JAKGRICH  
PIBULPAIROJ**

Age 58 (Deceased on Feb 23, 2020)



- President
  - Member of Investment Committee
  - Member of Corporate Governance and Social Responsibility Committee
  - Member of Risk Oversight Committee
  - Chairman of Risk Management Committee
  - Chairman of Good Corporate Governance Committee
  - Chairman of EGCO Management Committee
- (Authorized Director)

**EDUCATION**

- Bachelor of Engineering in Mechanical Engineering, Chulalongkorn University
  - Certificate of Director Certification Program, Thai Institute of Directors Association
  - Certificate of Director Accreditation Program, Thai Institute of Directors Association
  - Certificate of Advanced Management Program, Harvard Business School, USA
  - Certificate of Leadership Succession Program, Institute of Research and Development for Public Enterprises
  - Certificate of Foreign Affairs Executive Program, Devawongse Varopakarn Institute of Foreign Affairs
  - CG Code Update Program, PricewaterhouseCoopers ABAS Ltd.
  - Project Acquisition Program, PricewaterhouseCoopers ABAS Ltd.
  - COSO ERM Program
- (Knowledge Sharing among Directors and Management, by Prof. Dr. Anya Khanthavit, Independent Director)

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2019 – 2020	Director, Gulf Electric PCL.
2017 – 2019	Chairman, Gulf Electric PCL.
2017 – 2020	Chairman, Khanom Electricity Generating Co., Ltd.
2017 – 2020	Director, Xayaburi Power Co., Ltd.
2017 – 2020	Chairman, EGCO Engineering and Service Co., Ltd.
2017 – 2020	Director, BLCP Power Co., Ltd.
2016 – 2017	Deputy Governor-Business Development, Electricity Generating Authority of Thailand
2016 – 2017	Director, EGAT Diamond Service Co., Ltd.
2015 – 2016	Assistant Governor-Operation and Maintenance Business, Electricity Generating Authority of Thailand

# The Positions of the Management and the Control Persons

As of January 31, 2021



01

03



02



04



05



06



## 01 MR. JOHN MATTHEW PALUMBO

- Senior Executive Vice President - Business Development International
- Risk Management Committee Member
- Good Corporate Governance Committee Member
- EGCO Management Committee

## 02 MR. PRACH CHONGKITTISAKUL

- Senior Executive Vice President - Business Development Domestic (Appointed with effect on January 1, 2021)
- Risk Management Committee Member
- Group Business Committee Member
- EGCO Management Committee Member

## 03 MR. SOMKIAT SUTTIWANICH

- Chief Financial Officer (Appointed with effect on January 1, 2021)
- Risk Management Committee Member
- Good Corporate Governance Committee Member
- EGCO Management Committee

## 04 DR. GUMPANART BUMROONGGIT

- Senior Executive Vice President - Operation Management
- Risk Management Committee Member
- Good Corporate Governance Committee Member
- EGCO Management Committee

## 05 MR. DANUJA SIMASATHIEN

- Senior Executive Vice President - Business Development Domestic (Retired on December 31, 2020)
- Risk Management Committee Member
- Group Business Committee Member
- EGCO Management Committee Member

## 06 MR. SUVAPAN CHOMCHALERM

- Chief Financial Officer (Retired on December 31, 2020)
- Risk Management Committee Member
- Good Corporate Governance Committee Member
- EGCO Management Committee



07



08



09



11



12



10

**07 MR. AMORNRAT  
DEBHASDIN NA AYUDHYA**

- Executive Vice President  
- Accounting

**08 MS. SOMSIRI  
YOOSOOK**

- Executive Vice President - Finance

**09 MS. SUDRUEDEE  
LERTKASEM**

- Executive Vice President  
- Subsidiaries Accounting and  
Finance

**10 MS. AMORNRAT  
JITTAVISUTHIKUL**

- Senior Vice President  
- Accounting and Budget

**11 MS. PLOY  
SUKSRI SOMBOON**

- Senior Vice President  
- International General Affairs  
Management

**12 MS. PORNNARA  
KOOKARINRAT**

- Senior Vice President  
- Domestic General Affairs



13



14



15



16



17



18

### 13 MR. SURASAK GANJANAKIT

- Senior Vice President  
- IPP Accounting

### 14 MRS. WIMOLWAN SASANAWIN

- Executive Vice President  
- Business Development (International)

### 15 MR. VICHAN SRIPAIOJ

- Executive Vice President  
- Business Development  
(Power Generation)

### 16 MR. CHINNAVUTH LIURUNGRUANG

- Executive Vice President  
- Business Development  
(New Business)

### 17 MS. SALIL TIRAWAT

- Executive Vice President  
- Corporate Management

### 18 MS. PIYANON WATTANACHANYA

- Executive Vice President  
- Corporate Strategy

19



21



20



22



23



**19 MR. THAWAT  
HIRANCHARUKORN**

- Executive Vice President  
- Asset Management

**20 MR. PRASIT  
LAOHAWIRAPAP**

- Executive Vice President  
- Project Management

**21 MR. SATHIT  
TANOMKUL**

- Executive Vice President  
- Operation and Management  
Business

**22 MR. PASAGORN  
SASANAWIN**

- Executive Vice President  
- Power Plant Management

**23 MR. KOSOL  
SIRIWAL**

- Executive Vice President

# The Positions of the Management and the Control Persons

As of January 31, 2021

## 01

**MR. JOHN MATTHEW PALUMBO**

Age 57



- Senior Executive Vice President  
- Business Development International
- Risk Management Committee Member
- Good Corporate Governance Committee Member
- EGCO Management Committee

### EDUCATION

- Bachelor of Science in Mechanical Engineering (Honors), Columbia University, School of Engineering and Applied Science, New York, USA

### DISPUTE

None

### FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT

None

### AMOUNT OF SHARES (%)

None

### WORKING EXPERIENCE DURING THE RECENT 5 YEARS

2020 – Present	Investment Committee, Yunlin Holding GmbH
2019 – Present	Director, Paju Energy Services Company Limited
2018 – Present	Director, EGCO Pearl Company Limited
2017 – Present	Director, EGCO Plus Company Limited
2016 – 2018	Director, AES Normandy Holding B.V.
2014 – 2018	Director, Masin-AES Pte. Ltd.
2012 – Present	Director, Kalilayan Power Holdings Inc., Mauban Holdings Company Inc.
2012 – 2016	Director, Pearl Energy Philippines Operating, Inc., Quezon Power, Inc.

## 02

**MR. PRACH CHONGKITTISAKUL**

Age 50



- Senior Executive Vice President  
- Business Development Domestic  
(Appointed with effect on January 1, 2021)
- Risk Management Committee Member
- Group Business Committee Member
- EGCO Management Committee Member

### EDUCATION

- Master of Business Administration (Finance), Sasin Graduate Institute of Business Administration, Chulalongkorn University
- Bachelor of Civil Engineering, Chulalongkorn University

### DISPUTE

None

### FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT

None

### AMOUNT OF SHARES (%)

None

### WORKING EXPERIENCE DURING THE RECENT 5 YEARS

2021 – Present	Commissioner, PT Manambang Muara Enim Company Limited
2021 – Present	Director, BLCP Power Limited, Dawei Electricity Generating Company Management Pte., Ltd., Khanom Electricity Generating Company Limited, EGCO Engineering and Service Company Limited
2018 – 2020	Managing Director, GAIA One Company Limited
2018	Senior Vice President - Strategy & Business Development - Mobility Energy Solutions, BANPU Public Company Limited
2005 – 2017	Vice President - New Energy, BANPU Public Company Limited

## 03

**MR. SOMKIAT  
SUTTIWANICH**

Age 52



- Chief Financial Officer  
(Appointed with effect on January 1, 2021)
- Risk Management Committee Member
- Good Corporate Governance Committee Member
- EGCO Management Committee

**EDUCATION**

- Master of Business Administration,  
Chulalongkorn University
- Bachelor of Accountancy,  
Chulalongkorn University
- Certificate of Director Certification Program (DCP),  
Thai Institute of Directors Association (IOD)
- Certificate of Strategic CFO in Capital Markets,  
Thailand Securities Institution (TSI),  
Stock Exchange of Thailand

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2021 – Present	Director, Khanom Electricity Generating Company Limited, EGCO Engineering and Service Company Limited, BLCP Power Limited, Gulf Electric Public Company Limited, Thai Pipeline Network Company Limited, PT Manambang Muara Enim Company Limited, Dawei Electricity Generating Company Management Pte., Ltd.
2019 – Present	Director, Nam Theun 2 Power Company Limited, Nam Theun 1 Power Company Limited
2019 – 2020	Director, Natural Energy Development Company Limited
2019	Director, Sub Yai Wind Farm Company Limited
2018 – 2019	Director, Klongluang Utilities Company Limited, Banpong Utilities Company Limited
2018 – 2019	Executive Vice President - Subsidiaries Accounting & Finance, Electricity Generating Public Company Limited
2017 – 2018	Senior Vice President - Finance, Electricity Generating Public Company Limited
2013 – 2017	Chief Financial Officer, Nam Theun 2 Power Company Limited

## 04

**DR. GUMPANART  
BUMROONGGIT**

Age 55



- Senior Executive Vice President - Operation Management
- Risk Management Committee Member
- Good Corporate Governance Committee Member
- EGCO Management Committee

**EDUCATION**

- Ph.D. in Engineering Science (Electrical Engineering), Southern Illinois University at Carbondale, USA
- Master of Science (Electrical Engineering), Southern Illinois University at Carbondale, USA
- Bachelor of Engineering (Electrical Engineering), Chulalongkorn University

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2020 – Present	Investment Committee, Yunlin Holding GmbH
2020 – Present	Director, Nam Theun 1 Power Company Limited
2019 – Present	Director, Paju Energy Services Company Limited
2018 – Present	Director, Nam Theun 2 Power Company Limited
2017 – Present	Director, Khanom Electricity Generating Company Limited, EGCO Engineering and Service Company Limited, EGCO Plus Company Limited
2015 – 2018	Director, Boco Rock Wind Farm Pty Limited
2013 – Present	Director, BLCP Power Limited
2013 – 2018	Director, GIDEC Company Limited
2012 – Present	Director, Gulf Electric Public Company Limited
2012 – 2018	Director, Natural Energy Development Company Limited, Quezon Power, Inc., Quezon Management Service Inc., Pearl Energy Philippines Operating, Inc.
2018 – Present	Commissioner, PT Manambang Muara Enim Company Limited
2012 – 2017	Director, PT Manambang Muara Enim Company Limited
2012 – 2016	Director, Quezon Generating Company Limited
2012 – 2017	Executive Vice President - Asset Management Electricity Generating Public Company Limited

## 05

**MR. DANUJA  
SIMASATHIEN**

Age 60 (Retired on December 31, 2020)



- Senior Executive Vice President  
- Business Development Domestic
- Risk Management Committee Member
- Group Business Committee Member
- EGCO Management Committee Member

**EDUCATION**

- MBA (Operations Management),  
University of Wisconsin - Madison
- Master of Engineering (Chemical Engineering),  
Illinois Institute of Technology
- Bachelor of Engineering (Chemical Engineering),  
Chulalongkorn University
- Advanced Certificate Course in Management of  
Public Economics for Executives,  
King Prajadhipok's Institute
- Certificate of Director Certification Program (DCP),  
Thai Institute of Directors Association (IOD)

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2019 – 2020	Director, Thai Pipeline Network Co., Ltd., Star Phoenix Geothermal JV B.V., Star Energy Geothermal Holdings (Salak - Darajat) B.V., Star Energy Geothermal (Salak - Darajat) B.V., Star Energy Geothermal Pte. Ltd., Phoenix Power B.V., Nam Theun 1 Power Company Limited
2018 – 2020	Commissioner, PT Manambang Muara Enim Company Limited
2018 – 2020	Director, BLCP Power Limited, Dawei Electricity Generating Company Management Pte., Ltd.
2017 – Jan 2021	Director, Khanom Electricity Generating Company Limited
2017 – 2020	Director, EGCO Engineering and Service Company Limited
2018	Director, EGCO International (B.V.I.) Limited
2017 – 2018	Director, Nam Theun 1 Power Company Limited

## 06

**MR. SUVAPAN  
CHOMCHALERM****Age 60** (Retired on December 31, 2020)

- Chief Financial Officer
- Risk Management Committee Member
- Good Corporate Governance Committee Member
- EGCO Management Committee

**EDUCATION**

- M.Sc. (Accounting), Thammasat University
- B.Sc. (Accounting), Chulalongkorn University
- Certificate of TLCA Executive Development Program, Thai Listed Companies Association
- Certificate of Director Certification Program (DCP), Thai Institute of Directors Association (IOD)
- Certificate of Strategic CFO in Capital Markets Program, Thailand Securities Institute, The Stock Exchange of Thailand
- Certificate of Strategic Financial Leadership Program (SFLP) 2019 Professional Development Program, Thai Listed Companies Association

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

- |                 |   |
|-----------------|---|
| 2019 – Jan 2021 | Director,<br>Khanom Electricity Generating<br>Company Limited   |
| 2019 – 2020     | Director,<br>EGCO Engineering and Service<br>Company Limited,<br>Thai Pipeline Network Company Limited,<br>Dawei Electricity Generating Company<br>Management Pte., Ltd.,<br>BLCP Power Limited |
| 2017 – 2020     | Director,<br>Nam Theun 1 Power Company Limited  |
| 2017 – 2019     | Director,<br>Sub Yai Wind Farm Company Limited  |
| 2015 – 2020     | Director,<br>Gulf Electric Public Company Limited   |
| 2014 – 2019     | Director,<br>Natural Energy Development Company Limited   |
| 2014 – 2017     | Director,<br>Solarco Company Limited,<br>Yanhee EGCO Holding Company Limited  |
| 2013 – 2017     | Director,<br>G - Power Source Company Limited   |
| 2012 – 2020     | Director,<br>PT Manambang Muara Enim<br>Company Limited   |

07

**MR. AMORNRAT  
DEBHASDIN NA AYUDHYA**

Age 55



- Executive Vice President - Accounting

#### EDUCATION

- M.Sc. (Information Technology in Business: Accounting Information System), Chulalongkorn University
- B.B.A. (Accounting), Ramkhamhaeng University
- Certificate of Director Certification Program (DCP), The Institute of Directors Association (IOD)

#### DISPUTE

None

#### FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT

None

#### AMOUNT OF SHARES (%)

0.000062

#### WORKING EXPERIENCE DURING THE RECENT 5 YEARS

2021 – Present	Director, Nam Theun 1 Power Company Limited
2019 – Present	Director, G - Power Source Company Limited, Yanhee EGCO Holding Company Limited, Solarco Company Limited
2019 – 2020	Senior Vice President - Accounting and Budget, Electricity Generating Public Company Limited
Nov – Dec 2018	Senior Vice President - Domestic General Affair, Electricity Generating Public Company Limited
2017 – Oct 2018	Finance and Administration Manager, Natural Energy Development Company Limited
2013 – 2016	Vice President - Disbursement, Electricity Generating Public Company Limited

08

**MS. SOMSIRI  
YOOSOOK**

Age 56



- Executive Vice President - Finance

#### EDUCATION

- Master of Business Administration (Finance), Youngstown State University, USA
- Bachelor of Science (Accounting) (2<sup>nd</sup> Class Honors), Kasetsart University

#### DISPUTE

None

#### FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT

None

#### AMOUNT OF SHARES (%)

None

#### WORKING EXPERIENCE DURING THE RECENT 5 YEARS

2020 – Present	Director, New Growth Plus B.V., Greenwing Energy B.V., Gen Plus B.V.
2017 – Present	Director, EGCO Plus Company Limited
2014 – Present	Director, Nam Theun 2 Power Company Limited
2014 – 2018	Director, North Pole Investment Company Limited
2014 – 2016	Director, Ogden Power Development Cayman, Inc., Quezon Generating Company Limited, Quezon Management Service Inc., Pearl Energy Philippines Operating, Inc., Quezon Power, Inc.

09

**MS. SUDRUEDEE  
LERTKASEM**

Age 49



- Executive Vice President  
- Subsidiaries Accounting and Finance

**EDUCATION**

- Master of Business Administration,  
Thammasat University
- Bachelor of Accounting (Honors),  
Thammasat University
- Certificate of Director Certification Program (DCP),  
Thai Institute of Directors Association (IOD)

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

0.000019

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2020 – Present	Director, Klongluang Utilities Company Limited, Banpong Utilities Company Limited, EGCO Cogeneration Company Limited
2018 – 2019	Senior Vice President - Internal Audit, Electricity Generating Public Company Limited
2017 – 2018	Director, Chaiyaphum Wind Farm Company Limited
2016 – 2018	Director, SPP Two Company Limited, SPP Three Company Limited, SPP Four Company Limited, SPP Five Company Limited, EGCO Cogeneration Company Limited, Roi-Et Green Company Limited, EGCO Green Energy Company Limited, Theppana Wind Farm Company Limited
2016 – 2018	Senior Vice President - Domestic General Affairs Management, Electricity Generating Public Company Limited

10

**MS. AMORNRAT  
JITTAVISUTHIKUL**

Age 38



- Senior Vice President - Accounting and Budget

**EDUCATION**

- Master of Business Administration,  
Thammasat University
- Bachelor of Accounting,  
Kasetsart University

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2017 – 2020	Vice President - Accounting, Electricity Generating Public Company Limited
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## 11

**MS. PLOY  
SUKSRI SOMBOON**

Age 53



- Senior Vice President  
- International General Affairs Management

**EDUCATION**

- Master of Science (Management Information System),  
Assumption University
- Bachelor of Business Administration (Accounting),  
Assumption University
- Certificate of Director Certification Program (DCP),  
Thai Institute of Directors Association (IOD)

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2018 – Present	Director, EGCO Pearl Co., Ltd.
2017 – Present	Director, EGCO Plus Company Limited
2015 – Present	Director, Evergreen Power Venture B.V.
2014 – Present	Commissioner, PT Manambang Muara Enim Company Limited
2014 – Present	Director, Boco Rock Wind Farm Pty Limited, South Pacific Power Pty Limited, Kalilayan Power Holdings Inc., Mauban Holdings Company Inc., Quezon Management Service Inc., Pearl Energy Philippines Operating, Inc., Quezon Power, Inc., Phoenix Power B.V., Millennium Energy B.V., New Growth B.V.
2019 – April 2020	Director, Greenwing Energy B.V.
2017 – April 2020	Director, New Growth Plus B.V.
2014 – April 2020	Director, Gen Plus B.V.
2014 – 2018	Director, North Pole Investment Company Limited, Masin - AES Pte. Ltd., EGCO International (B.V.I.) Limited
2014 – 2017	Director, New Growth Cooperatief U.A., Quezon Generating Company Limited, GPI-I, LTD., GPI-II, LTD., GPI Quezon Limited Company, Ogden Power Development Cayman, Inc., Quezon Management Company Limited.
2014 – 2015	Senior Vice President - Subsidiaries Accounting & Finance, Electricity Generating Public Company Limited

12

**MS. PORNNARA  
KOOKARINRAT**

Age 46



- Senior Vice President - Domestic General Affairs

**EDUCATION**

- B.B.A. (Accounting), Rajamangala Institute of Technology, Nakornratchasima

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

2021 – Present	Senior Vice President - Domestic General Affairs, Electricity Generating Public Company Limited
2016 – 2020	Vice President - Accounting Power Plant Business 3, Electricity Generating Public Company Limited
2013 – 2016	Vice President - Accounting, Electricity Generating Public Company Limited

13

**MR. SURASAK  
GANJANAKIT**

Age 56



- Senior Vice President - IPP Accounting

**EDUCATION**

- Master of Business Administration, Kasetsart University
- Bachelor of Accounting, Thammasat University
- Certificate of Director Certification Program (DCP), Thai Institute of Directors Association (IOD)

**DISPUTE**

None

**FAMILY RELATIONSHIP BETWEEN THE MANAGEMENT**

None

**AMOUNT OF SHARES (%)**

None

**WORKING EXPERIENCE DURING THE RECENT 5 YEARS**

Apr 2019 – Present	Director, SPP Two Company Limited, SPP Three Company Limited, SPP Four Company Limited, SPP Five Company Limited, EGCO Green Energy Company Limited, Roi-Et Green Company Limited, Theppana Wind Farm Company Limited, Chaiyaphum Wind Farm Company Limited
Apr 2019 – Apr 2020	Director, Klongluang Utilities Company Limited, Banpong Utilities Company Limited, EGCO Cogeneration Company Limited
2019 – 2020	Senior Vice President - Domestic General Affairs Management, Electricity Generating Public Company Limited
2011 – 2018	Senior Vice President - Finance & Administration Management, EGCO Engineering & Service Company Limited

## The Position of Management and the Control Persons in the Subsidiaries and Other Related Companies

as of January 31, 2021

	NAME	EGCO	MAJOR SUBSIDIARIES		SUBSIDIARIES													
			1	2	3	4	5	6	7	8	9	10	11	12	13	14		
1	Mr. Kulit Sombatsiri	Δ, XX																
2	Ms. Jaruwan Ruangswadipong	I, AA, LID																
3	Assoc. Prof. Dr. Nualnoi Treerat	I, N, C																
4	Mr. Paisan Mahapunnarn	I, A, R																
5	Dr. Pasu Loharjun	I, N, CC																
6	Prof. Dr. Anya Khanthavit	I, A, RR																
7	Assoc. Prof. Dr. Bordin Rassameethes	I, N, C																
8	Mr. Roengchai Khongthong	O, N, R	Deputy Governor															
9	Ms. Choosri Kietkajornkul	O, X	Deputy Governor															
10	Prof. Dr. Pisut Painmanakul	O, C																
11	Mr. Shunichi Tanaka	O, X																
12	Mr. Tomoyuki Ochiai	O, X, R																
13	Mr. Toshiro Kudama	O, NN																
14	Mr. Naoki Tsutsumi	O, X																
15	Mr. Thepparat Theppitak	President, X, C, GG, R	Engineer Level 14		Δ		Δ											
16	Mr. John Matthew Palumbo	SEVP - Business Development - International																
17	Mr. Prach Chongkittisakul	SEVP - Business Development - Domestic			O		O											
18	Dr. Gumpant Bumroonggit	SEVP - Operation Management			O		O											
19	Mr. Somkiat Suttiwanich	SEVP - Chief Financial Officer			O		O											
20	Ms. Somsiri Yoosook	EVP - Finance																
21	Mr. Amomrat Debhasdin Na Ayudhya	EVP - Accounting								O								
22	Ms. Sudrudee Lertkasem	EVP-Subsidiaries Accounting & Finance				O										O		
23	Mr. Thawat Hirancharukorn	EVP - Asset Management								O								
24	Mr. Prasit Laohawirapap	EVP - Project Management																
25	Mr. Pasagorn Sasanawin	EVP - Power Plant Management				Δ		Δ	Δ							O	O	
26	Ms. Piyanon Wattanachanya	EVP-Corporate Strategy						O										
27	Mr. Sathit Tanomkul	Managing Director					O											
28	Mr. Kosol Siriwal	Managing Director			O													
29	Mr. Norrachai Suppasarakarn	SVP - Legal						O		O							O	
30	Ms. Ploy Suksrisomboon	SVP - International General Affairs Management																
31	Mr. Surasak Ganjanakit	SVP - IPP Accounting						O	O		O	O	O	O			O	
32	Mr. Rattagam Vallapa	SVP-Asset Management				O												
33	Mr. Chaiwut Saengpredekor	Senior Specialist																
34	Mr. Suthisak Kaewmeesaeng	SVP - Operation Business Division Manager																
35	Ms. Kulkanok Leongsoithong	Corporate Secretary, SVP - Corporate Secretary																

## Remarks:

- A. Δ = Chairman O = Director XX = Chairman of Investment Committee X = Investment Committee Member AA = Chairman of Audit Committee A = Audit Committee Member  
 NN = Chairman of Nomination and Remuneration Committee N = Nomination and Remuneration Committee Member RR = Chairman of Risk Oversight Committee  
 R = Risk Oversight Committee Member CC = Chairman of Corporate Governance and Social Responsibility Committee C = Corporate Governance and Social Responsibility Committee Member  
 GG = Chairman of Good Corporate Governance Committee G = Good Corporate Governance Committee Member LID = Lead Independent Director

- B. 1 = Electricity Generating Authority of Thailand 11 = SPP Four Co., Ltd. 21 = Nong Khae Cogeneration Co., Ltd.  
 2 = TEPCO Generating B.V. 12 = SPP Five Co., Ltd. 22 = Samutprakarn Cogeneration Co., Ltd.  
 3 = Khanom Electricity Generating Co., Ltd.\* 13 = Klongluang Utilities Co., Ltd. 23 = Gulf Energy Co., Ltd.  
 4 = EGCO Cogeneration Co., Ltd. 14 = Theppana Wind Farm Co., Ltd. 24 = Gulf IPP Co., Ltd.  
 5 = EGCO Engineering and Service Co., Ltd. 15 = Chaiyaphum Wind Farm Co., Ltd. 25 = Quezon Power, Inc.  
 6 = EGCO Green Energy Co., Ltd. 16 = G-Power Source Co., Ltd. 26 = Pearl Energy Philippines Operating, Inc.  
 7 = Roi-Et Green Co., Ltd. 17 = Banpong Utilities Co., Ltd.\* 27 = BLCP Power Limited  
 8 = Natural Energy Development Co., Ltd. 18 = Nam Theun 2 Power Co., Ltd. 28 = Yanhee EGCO Holding Co., Ltd.  
 9 = SPP Two Co., Ltd. 19 = Gulf Electric Pcl. 29 = Solarco Co., Ltd.  
 10 = SPP Three Co., Ltd. 20 = Gulf Power Generation Co., Ltd. 30 = PT Manambang Muara Enim Co., Ltd. (Board of Directors)

\* = Subsidiaries (Core Business) which generate electricity for sale and the revenues accounted to more than 10% of the consolidated revenue

[illegible]

31= PT Manambang Muara Enim Co., Ltd. (Board of Commissioner)  
32 = Xayaburi Power Co., Ltd.  
33 = Gulf Yala Green Co., Ltd.  
34 = New Growth B.V.  
35 = Millenium Energy B.V.  
36 = Quezon Management Service Inc.  
37 = Mauban Holdings Company Inc.  
38 = Kalilayan Power Holding Inc.  
39 = South Pacific Power Pty Ltd.  
40 = Boco Rock Wind Farm Pty Ltd.

41 = Gen Plus B.V.  
42 = Phoenix Power B.V.  
43 = Star Energy Geothermal Pte. Ltd.  
44 = Evergreen Power Venture B.V.  
45 = Dawei Electricity Generating Company Management Pte., Ltd.  
46 = Star Phoenix Geothermal JV B.V.  
47 = Star Energy Geothermal Holdings (Salak-Darajat) B.V.  
48 = Star Energy Geothermal (Salak-Darajat) B.V.  
49 = Nam Theun 1 Power Co., Ltd.  
50 = New Growth Plus B.V.

51 = EGCO Plus Co., Ltd.  
52 = EGCO Pearl Co., Ltd.  
53 = Thai Pipeline Network Co., Ltd.  
54 = E&E Engineering & Service Co., Ltd.  
55 = Paju Energy Services Co., Ltd.  
56 = Greenwing Energy B.V.  
57 = Yunlin Holding GmbH (Investment Committee)  
58 = Gulf Cogeneration Co., Ltd.

# Corporate Governance

EGCO recognizes the importance of good corporate governance. It is one of the crucial foundations of a sustainable business. Throughout the years, EGCO has committedly upheld good corporate governance through compliance with relevant laws, rules, and regulations, as well as best practices for directors of listed companies and criteria for companies with good corporate governance prescribed by the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET). To promote and foster good corporate governance in business operations and provide guidelines for

all directors, executives, and employees, the Board of Directors ("Board") has established the Good Corporate Governance Principles and Code of Conduct in writing, which have been made available on the Company's website and the website for internal communications (EGCO Groupnet).

The Good Corporate Governance Principles prescribed by the Board are based on the following 6-pillar framework, named P-R-E-A-C-T, for overseeing and managing EGCO Group's operations:



## Promotion of Best Practice

Promote compliance with the Good Corporate Governance Principles and Code of Conduct



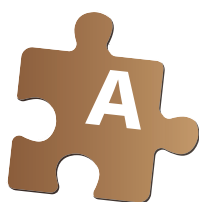
## Responsibility

Operate the business with responsibility towards the community and society and caring for the environment



## Equitable Treatment

Treat all shareholders and stakeholders equally



## Accountability

Perform duties with honesty and integrity



## Creation of Long-Term Value

Create long-term value for the shareholders and increase competitiveness to create sustainable growth



## Transparency

Ensure fairness, transparency, accountability and no direct or indirect involvement in any form of fraud and corruption

The Board has also focused on ensuring that the Company's good corporate governance standards comply with domestic and international ones. The Good Corporate Governance Principles are annually reviewed and continuously improved based on the criteria and recommendations of the SEC, the SET, the Corporate Governance Report of Thai Listed Companies (CGR) of the Thai Institute of Directors (IOD),

the ASEAN Corporate Governance Scorecard (ASEAN CG Scorecard) and the Dow Jones Sustainability Indices (DJSI).

The performance of the Board and the Company pursuant to the 8 principles of Corporate Governance Code for Listed Companies 2017 (CG Code 2017) can be summarized as follows:

## PRINCIPLE 1

## ESTABLISH CLEAR LEADERSHIP ROLES AND RESPONSIBILITIES OF THE BOARD

The Board performs duties, roles, and responsibilities are outlined in the director's manual given to all new directors. It ensures that the directors understand the Company's nature of business and perform their significant roles effectively and according to the established duties and responsibilities—namely, the formulation of corporate policy, vision, mission, and operational direction through working closely with management to make plans, set both short- and long-term strategies, and monitor their implementation under the stipulated policy and direction.

Moreover, the Board, as a representative of shareholders, dedicates its time to **perform fiduciary duties** and execute shareholder resolutions with honesty, prudence, and care for the utmost benefit of the Company and fairness to all stakeholders, including shareholders, investors, employees, customers, suppliers, creditors, government agencies, communities, and the environment. Each director on the Board also comments independently and in compliance with the Company's Good Corporate Governance Principles.

**The Board has developed Board and Subcommittee Charters**, the duties and responsibilities under which comply with laws, rules, regulations, and Good Corporate Governance Principles to ensure the directors' understanding of their roles, duties, and responsibilities towards shareholders and stakeholders, and to allow the directors to perform the said duties effectively.

**The Board oversees compliance with the Code of Conduct of directors, executives, and employees** as they take part in initiating, promoting, and taking responsibility for the Company's mission. The Board has considered both national and international best practices that are in line with the Company's Good Corporate Governance Principles and reviewed the Code of Conduct every year. The Code of Conduct has been continuously revised since 2003. The Code of Conduct for Directors comprises Business Principles, Adherence to the Code of Conduct, the Board's Ideals, the Board's Duties and Responsibilities, Conflicts of Interest, and Use of Information.

The Code of Conduct for Employees comprises 8 topics:

1. Responsibilities to Stakeholders; 2. Responsibilities to the Company; 3. Procurement and Transactions; 4. Prevention of Conflicts of Interest; 5. Employees; 6. Safety, Health, and the Environment; 7. Anti-corruption Measures; and 8. Whistleblowing.

The Board performs duties responsibly with prudence and honesty and oversees the Company's operational compliance with the laws, regulations, and shareholder resolutions. In 2020 the Board worked on improving and implementing good corporate governance in the following activities:

1. Revision of the Conflicts of Interest Policy and preventive measures
2. Approval of the amendment to Article 3 of the Memorandum of Association No. 3 (Company's Objectives) to expand investment opportunities in new businesses and develop and invest in industrial estates.
3. Improvement to the Board appraisal process and the 2020 Board Appraisal Form by adding cross-appraisal
4. Revision of regulations, guidelines, and policies—namely, the EGCO Investment Guidelines and the Regulations of the Electricity Generating Public Company Limited on the Governance of Subsidiaries, Group Companies, and Joint Ventures.
5. Review of the internal control of EGCO and its subsidiaries in 2019
6. Review of the Charter of the Audit Committee and the Internal Audit Regulations



## PRINCIPLE 2

## DEFINE OBJECTIVES THAT PROMOTE SUSTAINABLE VALUE CREATION

The Board regularly monitors the implementation of the Company's strategies through opinions expressed to and discussions with management in Board and Subcommittee meetings. To ensure that the Company can achieve its goals according to strategic plans, the Board has played its roles and performed duties as follows:

- Formulate a risk management policy, a business plan, and an annual budget, and monitor the Company's performance as well as approve major investments, acquisition, and disposal of assets
- Recruit, determine remuneration, monitor, and (if necessary) change key management personnel, as well as inspect management succession plans
- Review the remuneration rate of directors and senior executives and ensure that Board nomination is conducted formally and transparently
- Regularly monitor and resolve conflicts of interest, which may occur among the management, directors, and shareholders, as well as ensure an independent audit, appropriate internal controls, risk monitoring, financial controls, and legal compliance
- Regularly monitor the effectiveness of the current implementation of corporate governance and make changes if necessary
- Monitor information disclosure and communication processes
- Conduct self-appraisal annually and declare its duties and responsibilities in the Annual Report

### From Leadership to Strategic Plans

The Board is involved in establishing corporate vision, mission, strategies, goals, and short- and long-term business plans. These are revised annually to ensure suitability for the present-day context. The Board and management participate in corporate strategy seminars. In 2020 these were held on July 17 and August 21. Based on the Board's opinions and recommendations, management formulates short- and long-term strategic plans that best address the current and future business challenges and allow operations to comply with the established vision, mission, and goals. These strategic plans are also based on the Balanced Scorecard's 4 perspectives: financial perspective, customer perspective, internal business process perspective, and learning and growth perspective. This process

facilitates strategic implementation by means of measurement and appraisal, which will ensure consistency within the Company and highlight its critical success factors. The action plan is also consistent with key performance indicators.

According to the 2021 strategic plan, EGCO will invest in 3 business groups—namely, the power business, which is still the core of its operations, the fuel and utilities business, and the smart energy solution business. EGCO has set a target to reduce its coal-generated electricity to about 20-21 percent and increase electricity generated by renewable energy sources and smart energy solutions to 25 percent of its overall generation capacity by 2030. Moreover, EGCO will focus on competitive funding sources and financial risk mitigation to increase competitiveness, which is one of its key success factors. Furthermore, EGCO has emphasized the maximum efficiency of commercially operated power plants, completion of power plants under construction within the specified timeframe and budget, and integration of information technology and innovation into its operations to improve efficiency. In terms of human resources, the Company has focused on strengthening its people by continuously improving its human resource management system to enhance its personnel's competence to achieve a high-performance organization status. Overall, EGCO is committed to improving sustainability by integrating sustainability practices in its operations as part of a corporate strategy to create long-term value for its stakeholders.

Reduce  
coal-generated  
electricity to about

**20-21%**

Increase electricity by  
renewable energy and  
smart energy solutions to

**25%**

Once the Board approves a strategic plan, an action plan, and key performance indicators, management prepares a budget and headcount according to these strategic and action plans, which will then be submitted to the Board for approval. It is the Board's duty to allocate the necessary resources to management to ensure the achievement of the action plan and its goals. Management also reports the progress of the implementation of the annual action plan, as well as corporate KPIs, to the Board regularly.

The President communicates the Company's strategic plan and goals to all employees on the "Communication Day" to inform them of the plans and what each division's responsibilities will be. They will have to implement these plans to achieve the established goals. In 2020, the Communication Day was held

electronically through Microsoft Teams Live, allowing employees who were not present at the headquarters to participate and maintain an appropriate social distance according to the New Normal guidelines.



### PRINCIPLE 3 STRENGTHEN BOARD EFFECTIVENESS

The Board determines the suitable number of directors for the size of the organization and effective corporate governance. At present, the Board comprises 15 directors. More details on this subject can be found under Board of Directors' and Management's profile in the Annual Report. The Board annually reviews its structure and composition to ensure that they are appropriate and necessary for achieving goals. It has given due consideration to the criteria and recommendations of the SEC, SET, CGR, ASEAN CG Scorecard, and DJSI but found that

the Company is still unable to comply with some of the criteria prescribed by the CGR, ASEAN CG Scorecard, and DJSI. The Board is of the opinion that, for the utmost benefit of all stakeholders, adherence to the existing practices is appropriate for the Company's current situation. Nonetheless, the Board has established conditions and practice guidelines for the management and oversight to garner stakeholders' confidence in fair, transparent, and effective operations. The details are as follows:

UNIMPLEMENTED ITEMS	CONDITIONS AND PRACTICES
<p>The Board shall consider the appropriate number of directors who can efficiently perform duties. The Board shall comprise at least 5 directors and not more than 12 directors, depending on the size, type, and complexity of the business.</p>	<p>The Board comprises 2 directors representing major shareholders and independent directors who are suitable for the nature of the business, especially the overseas energy business, which requires the knowledge and expertise in the energy sector of these representative directors to allow EGCO to achieve its objectives and strategic plan. The number and ratio of representative directors to independent directors reflect appropriate checks and balances.</p>

UNIMPLEMENTED ITEMS	CONDITIONS AND PRACTICES
<p>A Chairman of the Board shall be an independent director.</p>	<p>The Board selects an appropriate person as Chairman of the Board. Although EGCO's Chairman is not an independent director, he has performed his duties fairly and transparently, taken the Company's interests into account, and not subverted private interests. The Chairman has also encouraged representative directors and independent directors to discuss and express their opinions freely. There has never been a case of decisive votes exercised by the Chairman to pass any resolution.</p> <p>Moreover, the Board has appointed Mrs. Jaruwan Ruangswadipong, Independent Director, as Lead Independent Director, to chair Independent Directors' meetings and represent them in discussions held between the Chairman and management on corporate governance matters and other significant issues that Independent Directors have deemed appropriate. The minutes of these meetings are reported to the Board. Furthermore, the Lead Independent Director takes part in deciding which topics are to be included in the agenda of every board meeting.</p> <p>More details about the Chairman and the Lead Independent Director can be found in the Annual Report under Governance Structure.</p>
<p>A Chairman of the Nomination and Remuneration Committee shall be an independent director.</p>	<p>Although the Chairman of the Nomination and Remuneration Committee is not an independent director, his experience and expertise in international organization management have been beneficial for the formulation of policies for personnel recruitment and development, remuneration, and directors' and employees' benefits, thereby ensuring competitiveness and supporting the Company's investment expansion in the energy sector and downstream businesses overseas, which is in alignment with its strategic plan.</p>
<p>Consideration of the suitability of remuneration proportion in terms of salary, short-term operating results such as bonus, and long-term operating results such as Employee Stock Ownership Plan ("ESOP")</p>	<p>The Nomination and Remuneration Committee has endorsed the remuneration structure of the Board, executives, and employees by linking bonuses to the Company's performance according to the KPIs, one of which is long-term growth. However, no ESOP has been given to employees.</p>

### Qualifications of EGCO's Directors

The Board has determined the qualifications of EGCO's directors, as well as director nomination criteria and procedures, to ensure that the Board composition is appropriate and good corporate governance is implemented efficiently and effectively as follows:

GENERAL QUALIFICATIONS	SPECIFIC QUALIFICATIONS
<ul style="list-style-type: none"> <li>A director must not be over 72 years of age on the date of appointment. (If a director turns 72 while in office, he or she may remain in office until the end of term)</li> </ul>	Possess relevant skills, knowledge, competence, and experience in the following fields: <ul style="list-style-type: none"> <li>Industrial Business / Energy Business / Engineering</li> <li>International Business</li> <li>Strategic / Business Planning</li> <li>Human Resources</li> <li>Accounting / Finance / Economics</li> <li>Audit</li> <li>Internal Control / Risk Management</li> <li>Smart Technology</li> <li>Law</li> <li>Corporate Governance</li> </ul>
<ul style="list-style-type: none"> <li>A director may hold a maximum of 3 directorships in SET-listed companies</li> </ul>	
<ul style="list-style-type: none"> <li>A director must have qualifications required by laws, relevant regulations, and the Company's Articles of Association</li> </ul>	
<ul style="list-style-type: none"> <li>A director must exhibit integrity, responsibility, and maturity</li> </ul>	
<ul style="list-style-type: none"> <li>A director must be able to make comments and suggestions freely without influence and interference from others</li> </ul>	
<ul style="list-style-type: none"> <li>A director must be able to dedicate his or her full attention to overseeing the Company</li> </ul>	

### Nomination, Appointment, and Removal of Directors

EGCO's director nomination process and procedures are clearly defined and transparent. They are as follows:

- Director candidates shall come from nomination by shareholders, which is a right the Company has guaranteed; the current directors; and a list of candidates selected by external consultants and from the Director Pool of reliable institutes, such as the Thai Institute of Directors (IOD) and the Ministry of Finance. At present, most of EGCO's directors appear in the Director Pool of the Ministry of Finance. In 2020, EGCO's directors listed in the Director Pool of the Ministry of Finance were Mr. Kulit Sombatsiri, Mr. Roengchai Khongthong, and Mr. Pisut Painmanakul.
- The Nomination and Remuneration Committee is responsible for screening all director nominees by considering qualifications and the skills matrix, which outlines the abilities the Company needs and still lacks, to facilitate the achievement of strategies and objectives, as well as create

- challenges that culminate in the Company's success. The Committee shall also take into account the diversity of the Board in terms of sex, age, race, nationality, knowledge, competence, experience, and expertise in vital areas.
- The Board shall consider the re-election of directors retiring by rotation based on the directors' past performance and appraisal results.
- The Nomination and Remuneration Committee shall propose a list of all qualified director candidates, including both representative directors and independent directors, to the Board for appointment in the event of a vacancy from any other reasons than retirement by rotation and to a shareholder meeting for appointment in the event of a vacancy due to the completion of term of office.

The Board, appointed at an Annual General Meeting (AGM), shall comprise no less than 5 directors and no more than 15 directors. No fewer than half of the directors must have

residency in the Kingdom of Thailand. In case of a vacancy due to any other reasons than the end of term, the Board shall select a qualified candidate in the next meeting with majority votes of three-fourths of all directors remaining in office.

EGCO abides by the Public Limited Companies Act B.E. 2535 (1992). At each AGM, one-third of the directors shall retire by rotation. If the total number of directors is not evenly divisible by 3, the number shall be closest to one-third. In case any director intends to resign from the post, he or she must submit a resignation letter. The resignation shall be effective on the date the Company receives the letter. There shall be no less than four-fifths of the votes of eligible shareholders in attendance to vote for any director's early retirement before the end of term.

### Tenure of Independent Directors

EGCO also specifies the time in office of independent directors to be no more than 2 terms or 6 years to maintain their independence from the management and shareholders, which is in line with best practices. This policy has been effective from the 2016 AGM date onwards. As of 2020, none of the independent directors has been in office for more than 2 terms or 6 years.

### Separation of Powers

The Board has separated the formulation of governance policies, which is the Board's duty, from the daily management, which is the duty of management. The Table of Authority, as approved by the Board, has therefore been established as guidelines. The Board will not intervene in any daily operation or business carried out by management, which falls under the President's responsibilities. More details can be found in the Annual Report under Governance Structure.

### Directorship Limits

The Board places importance on its directors' performance efficiency. To allow directors to dedicate their full capacity to the governance of the Company, the Board has therefore established a policy to limit the number of their directorships at other listed companies. A non-executive director can serve on the board of no more than 3 other listed companies; meanwhile, an executive director can serve on the board of no more than 2 other listed companies. Currently, none of the directors have exceeded this limit.

### Establishment of Subcommittees

The Board has established 5 subcommittees—namely, 1. Audit Committee; 2. Investment Committee; 3. Nomination and Remuneration Committee; 4. Corporate Governance and Social Responsibility Committee; and 5. Risk Oversight Committee. These subcommittees lessen the burden on the Board and allow each director to focus on their areas of expertise and be more thorough with their missions. All subcommittees directly report to the Board. Further details on each subcommittee's structure, roles, and duties can be found in the Annual Report under Governance Structure and on the Company's website ([www.egco.com](http://www.egco.com)).

### Board and Subcommittees Meetings

The Board determines meeting dates and agenda for the entire year in advance. A board meeting is held every month. An ad hoc meeting can be arranged if there is a justifiable urgent need. The Board can authorize a subcommittee to review or approve management's activities within its scope of powers. Board meeting notice and meeting documents, with sufficient information, are delivered to directors at least 7 days in advance to allow them adequate time to study the information and optimize meeting time, except when a meeting is held urgently to protect the rights or benefit of the Company. To facilitate and enhance the safety in the delivery of meeting documents for the Board and in compliance with the Go Paperless campaign, EGCO sends these documents in their electronic form via email, which can be read on directors' iPads or personal computers. More details about meeting arrangements and attendance records of each director can be found in the Annual Report under Governance Structure.

Moreover, due to the COVID-19 pandemic, EGCO has allowed directors to attend meetings electronically (e-meetings) throughout 2020 in compliance with announcements of the Department of Disease Control, Ministry of Public Health. These e-meetings also adhered to the Emergency Decree on Electronic Meetings B.E. 2563 (2020) and e-meeting safety measures announced by the Ministry of Digital Economy and Society in the Royal Thai Government Gazette.

### Quorum of the Meeting

The quorum required to pass a Board resolution is no less than two-thirds of all directors. A director with a potential conflict of interest shall not receive any document related to the topic in question and shall not participate in any Board discussion on

that topic or vote on it. After each meeting, the secretary to the Board shall prepare a written record of it—namely, the Board's resolutions—and submit it to the Board within 3 days for confirmation. The secretary shall also submit a draft of the meeting minutes for the Board to review within 14 days after the meeting. These minutes require the Board's approval at its next meeting. The approved minutes and agenda documents shall be kept systematically as confidential documents at the Corporate Secretary Division in both the hard copy and electronic forms for ease of access and reference.

### Access to Additional Crucial Information

The Board is entitled to additional crucial information from the President, Corporate Secretary, or other executives delegated under the specified policy. The Corporate Secretary will support the Board's action and facilitate their access to additional crucial information. To this end, the Corporate Secretary possesses the knowledge and experience that ensure performance efficiency, as further detailed in the Annual Report under Governance Structure. Moreover, to ensure compliance with good corporate governance principles, the Board has stipulated that non-executive directors shall hold a meeting to jointly discuss and voice their opinions on the guidelines for the Company's management and business operations. Independent directors shall also hold their own meetings to exchange ideas and consider other dimensions of independent directors' performance. The Board and the Independent Directors have these meetings at least once a year. In 2020 the non-executive directors held one meeting on Thursday, September 17, 2020, to discuss and initiate further developments of competitive business strategies, succession planning, and investor confidence in EGCO's operations. The Chairman of the Board has communicated these matters to the President for acknowledgement and further formulation of strategic and operational plans. Meanwhile, Independent Directors held 2 meetings: one on March 13, 2020, and another on June 17, 2020, to consider the qualifications of the President, guidelines of the 2020 Annual General Meeting under the threat of COVID-19, issues and suggestions for the performance of the first half of the year, and strategic actions to seek, enter into, and create new businesses.

### Board's Self-Appraisal

The Board appraises itself every year, allowing all directors to review their previous year's performance and problems to improving its performance efficiency. The Board typically uses

self-appraisal forms endorsed by the Nomination and Remuneration Committee; however, in 2020, the Board approved the use of Board and Subcommittee self-appraisal forms adapted by EY Corporate Services Co., Ltd. These forms encompass all aspects of the Board's responsibilities and fit the Company's business nature and conditions, including its Code of Conduct and business ethics. There are 4 self-appraisal forms: 1. Collective Self-Appraisal Form; 2. Subcommittee Self-Appraisal Form; 3. Individual Self-Appraisal Form; and 4. Cross-Appraisal Form, which has been implemented for the first time. Each item is calculated as a percentage. The Board self-appraisal forms are sent to the Corporate Secretary to tally the final total score and compute an overall performance result. The performance is graded on the following scale:

Level	Moderate	Good	Very Good	Excellent
Percentage	0-69	70-79	80-89	90-100

The score and the Board's recommendations for each category will be used for further performance improvements each year.

**1) Collective Self-Appraisal:** The collective self-appraisal form comprises 3 categories: 1. structure, composition, qualifications, and self-development; 2. responsibilities and teamwork; and 3. dedication and meeting attendance. All 15 members conducted the self-appraisal.

*Result of the Collective Self-Appraisal:* an average score of 97.98% or "Excellent."

**2) Subcommittees' Self-Appraisal:** The Audit Committee, Investment Committee, Nomination and Remuneration Committee, the Risk Oversight Committee, and Corporate Governance and Social Responsibility Committee participated in this self-appraisal. The self-appraisal form used has been prepared according to the Good Corporate Governance Principles and each subcommittee's specific duties and responsibilities.

- **Audit Committee's Self-Appraisal:** The Audit Committee conducted a collective self-appraisal. This appraisal form has been adapted from the SEC's Audit Committee Handbook. It is divided into 2 parts: 1. overall performance and 2. performance of specific duties. Based on the self-appraisal result in 2020, it can be concluded that the

composition, qualifications, and performance of the Audit Committee are in accordance with the SET's guidelines, international best practices, and missions assigned by the Board as stipulated in the Audit Committee Charter. The Audit Committee reported its 2020 self-appraisal result to the Board for acknowledgement in board meeting no. 16/2020/ held on December 22, 2020.

- **Investment Committee's Self-Appraisal:** 3 topics were covered: 1. structure, composition, qualifications, and self-development; 2. responsibilities and teamwork; and 3. dedication and meeting attendance. All 5 members of the Investment Committee participated in the self-appraisal.  
*Result of the Investment Committee's Self-Appraisal:* an average score of 89.80% or "Very Good."
- **Nomination and Remuneration Committee's Self-Appraisal:** 3 topics were covered: 1. structure, composition, qualifications, and self-development; 2. responsibilities and teamwork; and 3. dedication and meeting attendance. 4 out of 5 members of the Nomination and Remuneration Committee participated in the self-appraisal.  
*Result of the Nomination and Remuneration Committee's Self-Appraisal:* an average score of 97.75% or "Excellent."
- **Corporate Governance and Social Responsibility Committee's Self-Appraisal:** 3 topics were covered: 1. structure, composition, qualifications, and self-development; 2. responsibilities and teamwork; and 3. dedication and meeting attendance. All 5 members of the Corporate Governance and Social Responsibility Committee participated in the self-appraisal.  
*Result of the Governance and Social Responsibility Committee's Self-Appraisal:* an average score of 97.1% or "Excellent."
- **Risk Oversight Committee's Self-Appraisal:** 3 topics were covered: 1. structure and qualifications; 2. committee meetings; and 3. roles, duties, and responsibilities. All 5 members of the Risk Oversight Committee participated in the self-appraisal.  
*Result of the Risk Oversight Committee's Self-Appraisal:* an average score of 96.27% or "Excellent."

**3) Individual Self-Appraisal:** 3 topics were covered: 1. structure, composition, qualifications, and self-development; 2. responsibilities and teamwork; and 3. dedication and meeting attendance. All 15 members of the Board participated in the self-appraisal.

*Result of the Individual Self-Appraisal:* an average score of 99.08% or "Excellent."

**4) Cross-Appraisal:** Cross-appraisal has been conducted for the first time this past year, using the matching/grouping approach. A director appraised 4 other directors. This appraiser was selected at random, using the established criteria. The cross-appraisal covers 3 topics: 1. structure, composition, qualifications, and self-development; 2. responsibilities and teamwork; and 3. dedication and meeting attendance. All 15 members of the Board participated in the cross-appraisal.  
*Result of the Cross-Appraisal:* an average score of 95.21% or "Excellent."

### Use of Appraisal Results for Director Development

The Board considers corporate governance to be crucial to efficient operations, stakeholders' confidence, and sustainable creation of value to the business. In 2020, after reviewing reports on its performance and its subcommittees', the Board developed improvement guidelines by refining the desired director qualifications for each subcommittee, establishing a director development plan, and drafting a more clearly defined set of written criteria for director nomination.

### Directors' Remuneration

EGCO's director remuneration criteria are based on its financial performance, each director's assigned responsibilities, and comparability to other organizations of the same size and in the same business sector. A director's remuneration comprises 3 parts: fixed remuneration, meeting allowance, and a bonus to be given once a year, subject to the value created for shareholders. The Nomination and Remuneration Committee is responsible for determining the preliminary remuneration scheme, which requires the Board's endorsement before being proposed to shareholders at the AGM for their final approval. It is EGCO's policy to disclose each director's remuneration for transparency. Directors who serve on subcommittees are entitled to additional compensation for their increased duties and responsibilities. More details can be found in the Annual Report under Governance Structure.

### Development of Directors and Executives

The Board pays close attention to the continuous development of directors and executives to foster efficiency and effectiveness. Orientation for new directors is arranged and led by the President, as well as other relevant executives, focusing on good corporate governance, anti-corruption policy, code of conduct for directors, electric power industry, business nature, EGCO Group's businesses, structure and composition of the Board and Subcommittees, organizational chart, and management team. A director manual given to all new directors serves as guidelines to provide them with a good understanding of the Company's business and related regulations. A meeting with executives is arranged to allow new directors to obtain in-depth information about the Company's business. The Company also encourages new directors to attend related training programs held by the IOD and other beneficial training programs related to corporate governance.

In addition, it is the Board's policy to improve the knowledge and capabilities of directors and executives continuously. In 2020 the Company's directors and executives attended the following training programs and seminars held by credible institutes:

- 33 directors and executives attended the Leading Your Business through Uncertainties training program organized by the Thai Institute of Directors
- 1 director attended the Advanced Audit Committee Program (AACP) organized by the Thai Institute of Directors
- 1 director attended the Director Certification Program (DCP) organized by the Thai Institute of Directors

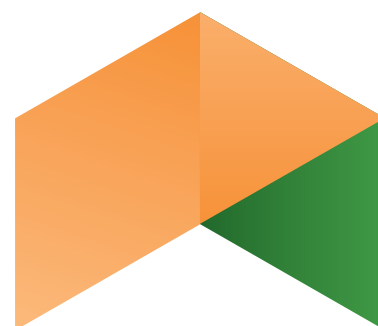
### Operational Oversight of Subsidiaries and Associate Companies

To ensure that the operations of EGCO Group, which functions as a holding company, meet policy requirements and goals and produce the appropriate return on investment for shareholders, the Board has established the following rules in writing for overseeing subsidiaries and associate companies as guidelines:

1. The operations of EGCO Group companies shall be monitored through appointed representatives who serve as directors or shareholders of these subsidiaries and associate companies. The Nomination and Remuneration Committee shall approve the appointment of a representative.

2. The duties of an EGCO representative shall be as follows:

- 2.1 A representative shall ensure the preparation of guidelines for the management of subsidiaries or associate companies for scrupulous and efficient operations
- 2.2 A representative shall seek the EGCO Board's approval for any major decision; however, urgent matters only require the Board's acknowledgment as soon as possible.
- 2.3 A representative shall propose the following matters to the EGCO Board for approval before execution:
  - Nomination and removal of the President and Senior Executive Vice President
  - President's remuneration
  - Formulation, amendment, or change of important rules
  - Capital increase or decrease
  - Business operations of new investments
  - Business operations affecting or competing with EGCO or EGCO Group companies
  - Expansion of business operations other than the core business
- 2.4 Management shall report on EGCO Group companies' business performance and major events, which are included as an agenda item for acknowledgment in a board meeting.



## PRINCIPLE 4 ENSURE EFFECTIVE CEO AND PEOPLE MANAGEMENT

### Executive Development and Succession Plan

The Board encourages the President to invite senior executives, such as Senior Executive Vice Presidents, to attend all board meetings. Other executives are also asked to join these meetings occasionally to provide additional information on related agenda items. This practice enables the Board to know about the role of each executive better and can subsequently use their knowledge for the formulation of a succession plan. In addition, the Board ensures that EGCO has executive development programs in place to enhance the competencies of executives expected to be placed in higher offices, honing the knowledge and skills suitable for these positions and challenging assignments. The Board determines the policy and criteria for electing the President and the succession plan of this office in an unexpected event or the retirement of the President. The selection process is fair and transparent. The candidates' knowledge, competency, experience, ethical values, and leadership will be assessed. The Nomination and Remuneration Committee is responsible for nominating qualified candidates to be elected President.

The Board has authorized the President to place knowledgeable, competent, and experienced individuals in executive offices according to the qualifications identified by the Nomination and Remuneration Committee. The appointment of executives shall comply with the Company's Regulations on Work Rules 2010 and Board resolutions.

Unfortunately, former EGCO President Jakgrich Pibulpairroj passed away in 2020, leaving his office vacant. At board meeting no. 3/2020 held on February 24, 2020, the Board appointed Gumpanart Bumroonggit, Senior Executive Vice President of Strategy and Asset Management, as Director and Acting President, based on the recommendation of the Nomination and Remuneration Committee, effective on February 24, 2020, onwards until the Board could elect a qualified individual to the office of the President. Later, at board meeting no. 8/2020, held on June 17, 2020, the Board of Directors voted to appoint Thepparat Theppitak as President, effective from July 1, 2020, based on the recommendation of the Nomination and Remuneration Committee.

Furthermore, the Company has executed succession plans in various areas—namely, Executive Vice President to Senior Executive Vice President and Senior Vice President to Executive Vice President—replacing those who retired. The Board has also entrusted the Nomination and Remuneration Committee to monitor the progress of succession planning. To this end, the Nomination and Remuneration Committee has prescribed that the report on the execution of succession plans shall be an annual agenda item.

### Performance Appraisal of the President and Executives

All non-executive directors collectively assess the President's performance. They consider the Company's operating results, his implementation of policies assigned by the Board, and his competencies. Factors for consideration include the following:

- Qualitative indicators, such as leadership, relationship with the Board, risk management and internal controls, human resource management, good corporate governance, and conduct
- Achievement of the key performance indicators (KPIs), which are set annually and in long-term plans
- The ability to take the business to the next level each year

The Nomination and Remuneration Committee is responsible for evaluating the performance of Senior Executive Vice Presidents and Executive Vice Presidents based on their individual KPIs.

### Remuneration of Executives

All non-executive directors serving on the Board are responsible for determining the remuneration scheme for the President and approving the Company's remuneration structure. The Board periodically surveys executive remuneration to ensure that its payment rate is competitive and sufficient to attract and maintain qualified executives. Executives who sit on the Board and Subcommittees are not entitled to any director remuneration.

### Remuneration of the President

The remuneration scheme for the President, consisting of monthly salary and bonus, takes into consideration the monthly wage of executives in the same industry and the annual performance appraisal. The President's bonus is based on the achievement of both annual KPIs and long-term KPIs. The latter

are set in the strategic plan to generate future growth. The President's remuneration scheme is therefore aligned with EGCO's primary objectives and goals, as well as its short- and long-term benefits. Details of remuneration of executives are disclosed in the Annual Report under Governance Structure.

**The Board understands that the structure and relationship of shareholders** might affect the Company's management and operations. The Board has, therefore, determined guidelines and measures to prevent possible negative impacts, such as measures or procedures for approving connected transactions, insider trading prevention, and conflict prevention. Details of these are disclosed in the Annual Report under Connected Transactions and Corporate Governance (Insider Trading Prevention and Conflict of Interest Prevention subsections, respectively).

**The Board regularly monitors personnel management and development** to ensure the appropriate number, knowledge, skills, experience, and incentives. In 2020 the Board continued to support the development of the HR Roadmap, which deals with disruption. The details on this matter can be found in the Annual Report under Creating Value to the Society (Human Resource Management subsection). In addition, EGCO promotes employees' awareness of being good employees and citizens, as well as the importance of corporate governance and ethics. The Board has encouraged communications of Good Corporate Governance Policy and Principles and Code of Conduct internally and externally. Internal communication channels include meetings between employees and the President (Communication Day), an internal website (EGCO Groupnet), wire broadcasting on Fridays at EGCO headquarters, and awareness-raising activities. External communication channels include the Company's website ([www.egco.com](http://www.egco.com)). Due to the COVID-19 outbreak in 2020, EGCO shifted its emphasis on online activities for all participants' health. The main event was the CG Champion League, in which participants collected points from completing the following activities:

- CG Podcast discusses good corporate governance principles, answers questions about EGCO's Good Corporate Governance Principles, and raises anti-corruption awareness. The podcast operates under the concept "CG at Work and at Home." There are 2 episodes: "CG from Home" and "Say No Corruption."
- CG Cartoon Clips promote good corporate governance and anti-corruption principles through animation. There are 2 episodes. Each is no more than 3 minutes in length. These are "When In Doubt" and "Anti-Corruption." Available on the e-learning platform, EGCO Group employees can watch them at anytime and from anywhere.
- CG Quiz tests employees' understanding of EGCO Group's Good Corporate Governance Principles. It is the last activity in the CG Champion League, following CG Podcast and CG Cartoon Clips.





### Compliance Monitoring and Appraisal

The Board monitors and ensures that directors, executives, and employees comply with the Good Corporate Governance Principles and Code of Conduct. Each director receives a Director Manual and a Code of Conduct booklet for Directors upon appointment. All new employees must obtain a Code of Conduct booklet from the Human Resources Division to be signed to acknowledge strict compliance. The President requires employees at all levels to act in compliance with good corporate governance principles and review their compliance

activities. Additionally, the Board has promoted innovation and technology in work processes and approved the use of an online appraisal form to measure employees' knowledge and understanding of good corporate governance principles and guidelines and the Code of Conduct since 2017. In 2020 EGCO Group made use of the CG Quiz, which was one of the CG Champion League activities, to test employees' knowledge and understanding of good corporate governance principles. 98% of the participants passed the quiz.

## PRINCIPLE 5 NURTURE INNOVATION AND RESPONSIBLE BUSINESS

**Business value creation through innovation** is executed in parallel with the creation of benefits for customers and concerned parties. The Board emphasizes and supports innovation, as well as social and environmental responsibility, as a way to contribute to the creation of business value and benefits for customers and concerned parties. The Board has entrusted the President and management to promote a mindset of creative and innovative thinking among EGCO Group employees. It has also made innovation one of the Company's core values. Innovation projects and activities are annually undertaken in a concrete way. Details about innovation projects and activities are disclosed in the Annual Report under Innovation and EGCO Group's Adaptation in the Digital Age.

### Information Technology

The Board has underlined the importance of information technology and promoted its use to improve business operations and risk management. To this end, it has required

management to conduct a study on the proper, correct, complete, and safe use of information technology to support EGCO's new businesses. In 2020 the Information Technology Division improved the following information technology systems for higher operational efficiency:

- **Corporate Performance Management System:** This information management system encompasses planning, budgeting, estimation, asset management analysis, operation and maintenance, and finances. All of this provides executives with the information necessary for decision-making and supports different divisions with the required information for their operations.
- **Cloud:** The use of corporate cloud services, such as email, intranet, business processes, and collaboration tools, allows employees to work from anywhere without disrupting operations.
- **ISO/IEC 27001 compliant data security management**
- **Distributed Denial-of-Service (DDoS) Attack Prevention:** The

development of a DDoS attack prevention system provides additional security for EGCO's corporate network infrastructure. It offers protection against DDoS attacks from applications, webpages, botnets, and scripts.

- Backup: Thanks to backup, EGCO avoids the undesirable effects of data loss and damage on its businesses. Backup data allows operations to continue smoothly.
- Protect and Control Documents System
- Training: Through training, EGCO Group employees understand and are aware and wary of cyber threats. They can effectively protect themselves and the organization from cybercriminals.

These improvements have ensured that the Company can provide safer, more efficient, and more convenient systems, facilitating operations in today's context.

### Social and Environmental Responsibility

As Thailand's first large-scale, privately-owned power producer, EGCO is committed to business growth and sustainability. In addition to careful management for the benefit of steady corporate growth, EGCO has also understood that social and environmental sustainability is the foundation of its success. It has clearly set in its vision and mission statements the commitment to the cause, which is part of its roles and responsibilities as a good corporate citizen. EGCO's chosen power generating technologies effectively minimize their impacts on the environment and society, contributing to the fight against climate change and global warming continues. EGCO strictly complies with environmental laws and regulations on controlling emissions of pollutants and waste. It fairly treats stakeholders and is involved in the social development of communities surrounding its power plants. EGCO's good corporate governance ensures fair, efficient, transparent, and accountable operations. All of this not only enhances confidence among shareholders, stakeholders, and all concerned parties but also promotes sustainable growth and increases long-term competitiveness. EGCO reports on its social and environmental responsibility performance annually, complying with the disclosure requirements of the SET. Since 2019 it has prepared an Integrated Report (IR) according to the framework of the International Integrated Reporting Council (IIRC). This IR covers its sustainability performance pursuant to the GRI Sustainability Reporting Standards (GRI Standards). In addition, to ensure that the information reported is correct, transparent, and credible, an independent third party verifies the credibility of

the information reported, especially the information about the production, environment, and safety and occupational health.

### Roles of Stakeholders and Protection of Stakeholders' Rights

The Board has also taken great care of the rights of all groups of stakeholders by giving priority to internal and external issues that may affect its business, as well as corporate social and environmental responsibility. Therefore, the Board has established **Guidelines for Responding to Stakeholders' Needs** in the Good Corporate Governance Policy and Code of Conduct, by which directors, management, and employees must abide. Moreover, in 2020 the Board regrouped stakeholders through the process of stakeholder engagement for better suitability to the current situation. Details of the new stakeholder groups are presented under Business Driving for Sustainability-Oriented Operation. To this end, EGCO's various operations take new and existing stakeholder groups into account, complying with the Good Corporate Governance Policy and Code of Conduct. Measures for the protection of stakeholders' rights that have already been applied are summarized below. Meanwhile, additional details about treatment towards employees and stakeholders may be found under Sustainability-Oriented Operation.

- **Employees:** EGCO's Human Resource Policy places a great deal of importance on all facets of its employees, starting from recruitment. All new hires must come through a recruitment process that offers equal opportunities to all interested persons. Because EGCO wants its employees not only to be good at their jobs but also to be good people, its recruitment and hiring process prioritize people with a good attitude towards their peers, duties, responsibilities, as well as the Company, in extension to job-specific qualifications, such as knowledge, expertise, and potential. These individuals are known as "givers," because they willingly help others and give back to society. As good people who are good at their jobs come together at EGCO, they advance the organization with benevolence and goodwill. EGCO also supports local employments to create jobs and promote revenue generation in communities in which EGCO operates. Since 2017 EGCO has also supported projects that help people living with disabilities in the provinces where its power plants are located, in lieu of fund contributions. In 2020 the Company sponsored 3 projects in Chiang Mai—namely, a longan orchard

improvement project, a pig farm project, and a fish farm project. With respect to employee treatment, EGCO provides a safe working environment in addition to appropriate and fair remuneration and welfare. EGCO supports its people to continue to enhance their knowledge and capabilities through training for the benefit of increased work efficiency. Employees are also encouraged to participate in community and social development activities to ensure harmonious relations with surrounding communities, especially those around the headquarters and EGCO-operated power plants. Activities between employees and executives are also organized to foster good professional relationships, contributing to a happy workplace. EGCO Group has always put great emphasis on the physical and mental well-being of its people. The Company believes that quality people are the most efficient workers. In addition to the appropriate qualifications, the management of their quality of life and well-being also enables them to achieve a good work and life balance, which will result in employee loyalty and mutual growth. EGCO Group has considered and determined reasonable compensation for its employees. In 2020 the Company worked on a plan entitled "Compensation Structure Implementation," which is a continuation of the previous year's improvement plan for its human resource management system. It ensures that EGCO Group operates fairly, transparently, and consistent with its performance. Furthermore, the Company provides appropriate welfare to its employees—namely:

- EGCO has implemented the Work from Home Policy, later renamed Work From Anywhere Policy. The policy not only empowers employees to manage their time according to work and personal life needs but also contributes to work efficiency.
- EGCO has improved the work environment by integrating Microsoft Teams even more into the process, increasing employees' convenience.
- EGCO now offers a shuttle bus service on 2 routes: Mo Chit BTS Station–EGCO Building and Nonthaburi Government Complex–EGCO Building.

Thanks to this level of care, there were no disputes or lawsuits between EGCO and its employees in 2020. There were no accidents that caused a shutdown of any of its subsidiaries.

- **Customers:** As a power producer-cum-seller and energy supplier, EGCO demonstrates its commitment to customers by delivering quality products and services in a timely and reliable manner within the framework of fairness, accountability, and freedom from corruption. Moreover, to build lasting relations, EGCO keeps customers' information in strictest confidence and never wrongfully uses customers' information for its own or any other entity's benefit. In 2020 there were no disputes or lawsuits between EGCO, or any of its subsidiaries, and its customers. Concerning the power generating business, EGCO Group's Equivalent Availability Factor (EAF) is higher than the benchmark prescribed in Power Purchase Agreements (PPAs) and higher than its annual target. Its customers were satisfied with EGCO Group's power plant operations, as shown by the average score of 93.43% from the customer satisfaction survey. As for the maintenance business, EGCO Group's services were rated "Excellent," with an average score of 96.70% from the customer satisfaction survey.



EGCO Group's  
services were rated

**Excellent**

Average score

**96.70%**

- **Creditor:** EGCO has treated all of its creditors with fairness, responsibility, and transparency. It fulfills the commitment it has made to every creditor by strictly adhering to loan agreement terms and correctly disclosing its financial status. If it suspects that an event will affect a creditor, EGCO will immediately take action to find a solution. In 2020 EGCO and its subsidiaries fulfilled all the obligations they have to their creditors and never failed to make payments due.
- **Suppliers and Business Partners:** Because these stakeholders play a significant role in its operations, EGCO Group has continued to improve upon its supply chain management guidelines to ensure the success and sustainability of its supply chain management. It has also added communication channels with its suppliers and business partners to promote sustainable development, foster their understanding of the subject, and ensure that they have a standard-compliant management system in place that deals with the sustainability issues that concern EGCO Group. All of this enables EGCO's suppliers and business partners to operate ethically with due regard to their social and environmental impacts and fosters their cooperation with EGCO Group on risk prevention and

mitigation. Details about its supply chain management performance can be found under Supply Chain Management.

- **Competitors:** EGCO operates ethically on a transparent, accountable, and corruption-free basis. It never seeks to gain its competitors' confidential information through inappropriate means, such as bribing its competitors' employees or tarnishing their reputation with false allegations. In 2020 there were no disputes or lawsuits between EGCO Group and its competitors.
- **Society:** EGCO Group conducts its business with due consideration to society, especially to those communities where its operations are located. Since part of the Company's mission is to be a good and caring corporate citizen, EGCO executives and employees have a role to play. Any information they provide must be truthful and current. They must foster supportive coexistence by respecting local customs and traditions, as well as participate in activities that improve the quality of life in these communities and help them create a pleasant environment to live in. All of this will lead to the sustainable development of society at large. Since its establishment, EGCO Group has continuously conducted various social contribution projects and activities, which fall under 3 main categories—namely improving the quality of life for local communities around its power plants, promoting the education of young Thais in energy and environmental science, and conserving forested watersheds. These are further divided into 86 community contribution projects and 2 social contribution projects. Moreover, EGCO publishes a quarterly newsletter named Sukjai, which serves as a communication channel that bolsters good relations with surrounding communities. It has also continuously supported the operation of the Thai Rak Pa Foundation, which it has established to sustainably promote the conservation of forested watersheds in collaboration with a network of allies from all sectors. In 2020 the Thai Rak Pa Foundation pursued forested watershed conservation and restoration tasks in 3 regions. In Northern Thailand, the foundation supported the conservation of approximately 72,000 rai of forested watershed communities in the Doi Inthanon National Park, Chiang Mai; it also encouraged people in Mae Cham District, Chiang Mai, to join the Reforestation for Income Generation Project, which has reduced the use of land for monoculture by 911 rai from

2017 to 2020. In the South, the Foundation supported the conservation of 30,000 rai of forested watershed communities in the Khao Luang National Park, Nakhon Si Thammarat. In Northeastern Thailand, it continued the Lam Pa Thao Forested Watershed Restoration Project in Chaiyaphum, which is part of a broader social effort to conserve watersheds named Reforestation and Watershed Conservation. This project seeks to plant local species and imitate the existing forest structure with help from local communities. From 2017 to 2020 the project has reforested 145 rai of land. This recent figure is lower than the previous year's due to a forest fire in February 2020. Furthermore, EGCO has received a certification confirming its success in the sequestration of 7,275 tonCO<sub>2</sub>e through trees planted from 2017 to 2020 by schools in its network. In 2020 there were no disputes or lawsuits between EGCO or its subsidiaries and people in the communities around its power plants or civil society organizations.

**Respect for human rights** is one of the fundamental principles of good corporate governance. It plays a significant role in any business operation. EGCO Group has continuously promoted the understanding of human rights and their guidelines among its employees and suppliers according to the Universal Declaration of Human Rights (UDHR). It has also embraced respect for human rights as part of its corporate culture. The EGCO Group's human rights policy, which encompasses various significant issues, serves as guidelines for EGCO's employees, business partners, and suppliers and demonstrates EGCO's full commitment to doing business with respect for human rights. EGCO Group has also exercised human rights due diligence and performed human rights risk assessments on all of its operations and supply chain activities according to the UN Guiding Principles on Business and Human Rights (UNGP) to ensure that there are no human rights violations in any of its operational processes, whether internal or external, or by any stakeholder throughout its supply chain. Moreover, EGCO Group has underlined the importance of compliance with the International Norms of Ethical Practices, which have been incorporated into its Code of Conduct for employees. Further details on this subject can be found in the Annual Report under Corporate Governance (Guidelines for Responding to Stakeholders' Needs subsection) and Creating Value to the Society (Our People subsection).

To promote respect for human rights as part of its corporate culture, EGCO Group provides training and performs human rights risk assessments throughout its value chain; it also raises awareness and promotes a better understanding of human rights throughout its organization. In 2020 all of its employees (100%) underwent human rights training. Additionally, EGCO Group has established clear onboarding guidelines for its own workers and business partners, focusing on strict compliance with labor laws across the board, including child labor and forced labor prohibition and the provision of a safety-oriented

work environment and systems. In 2020 EGCO Group has received no complaints or reports on human rights issues in its activities, business operations, and supply chain

Moreover, EGCO's Welfare Committee heeds the opinions and recommendations that are beneficial and necessary for the current situation, which it uses to further improve employees' benefits and welfare.

## PRINCIPLE 6

## STRENGTHEN EFFECTIVE RISK MANAGEMENT AND INTERNAL CONTROL

### Risk Management

Understanding the importance of risk management, especially under today's threat of disruption, the Board formed the Risk Management Committee in 2019. Meanwhile, the Board has entrusted its Risk Oversight Committee with working with management on risk management policy, implementation, and guidelines for EGCO Group. All of this is formulated according to EGCO's risk management philosophy of commitment to effective risk management with due regard to the balance of risks, returns on investment, and benefits to stakeholders to increase the chances of achieving goals and creating sustainable value. Additionally, risk management and related issues and recommendations are reported to the Risk Oversight Committee once a month and to the Board regularly to ensure the risk management system's adequacy and effectiveness. In doing so, strategies, plans, and management approaches can be adjusted promptly. Recognizing the importance of risk management in EGCO Group's corporate governance, the Board has separated risk management and assessment from the Planning Division. It has established a new division, the Risk Assessment Division, to monitor risk management performance throughout the organization according to EGCO Group's policy and guidelines. This new division also conducts risk assessments and reports results to the relevant committees, subject to their responsibilities. The Risk Assessment Division reports to the Executive Vice President of Asset Management, who reports to the Senior Executive Vice President of Strategy and Asset Management Group.

### EGCO's Risk Management Framework is as follows:

- The Risk Management Committee consists of EGCO executives. The President serves as Chairman, senior executive vice presidents of every division as committee members, Executive Vice President of Corporate Strategy as an advisor, and Senior Vice President of Risk Assessment as Secretary. The Risk Management Committee oversees the implementation of EGCO's risk management policy and guidelines. It also promotes and supports risk management activities throughout the organization. In addition, it promptly reports any new risk factor that could significantly affect EGCO's operations to the Risk Oversight Committee and the Board, respectively. Moreover, each power plant has its own risk management committee to monitor and manage its risk in accordance with EGCO Group's policy and guidelines and to better address the overall business condition of each power plant.
- The Risk Assessment Division is responsible for ensuring risk management's efficiency and suitability to EGCO Group's current business context. The division collaborates with risk owners and presents a risk management report to the Risk Management Committee every quarter and to the Risk Oversight Committee every month.
- Risk management is engrained in EGCO's operations. The Company assesses internal and external risk factors, considers their probabilities and impacts, and establishes risk mitigation measures and plans. It also raises an organization-wide awareness of risk management, which is part of its corporate culture, and equips all employees

with an understanding of the importance of risk management in their functions. To this end, EGCO underlines the importance of risk management through Tone at the Top (directors and senior management) activities and various other channels, including annual corporate risk seminars; a corporate risk management manual; and risk management news, articles, and activities for employees in the forms of internal broadcast, public relations boards, website, and e-learning training materials.

EGCO Group has adopted the Risk Management Policy and Manual as guidelines for its operations since 2001. At board meeting no. 8/2020 on June 17, 2020, the Board of Directors at the suggestion of the Risk Oversight Committee approved the revised Risk Management Policy, which was aligned with EGCO Group's risk management philosophy established by the Board to support organization-wide risk management within the 2017 COSO Enterprise Risk Management Integrated Framework (2017 COSO ERM) that EGCO Group has adopted. The Risk Management Manual has also been revised accordingly. Furthermore, EGCO Group has required that risk assessment be part of the self-appraisal to control or mitigate operational risks and create value-added for the organization. The 2020 assessment shows that EGCO Group companies have appropriately implemented risk management. More details on this matter can be found in the Annual Report under Risk Factors and Risk Management.

### Internal Control and Internal Audit Systems

The Board has clearly established the duties, responsibilities, and authorities of executives and employees in writing. The separation of powers ensures checks and balances and allows assets to be used genuinely for the benefit of the Company. EGCO also has an accurate and timely financial reporting system in place. Moreover, EGCO's Internal Audit Division—with Mrs. Jutima Tangcharoendee as Senior Vice President of Internal Audit Division and Secretary of the Audit Committee—is responsible for independently auditing EGCO Group's domestic and overseas activities and providing advice to relevant units to ensure that the internal control system is appropriate and adequate for the prevention of fraud and corruption risks. The Internal Audit Division reports directly to the Audit Committee, which is responsible for approving internal audit plans and appointing, removing, and evaluating the Senior Vice President of Internal Audit Division to ensure independence.

The Audit Committee supports the continued development of internal auditors' knowledge to prepare them for changing scenarios. Due to the COVID-19 pandemic, the Internal Audit Division has resorted to self-studies through EGCO's e-learning system and participation in webinars organized by external agencies. In 2020 the Internal Audit Division participated in the following training programs:

1. IAASB's Work Plan and Value of the Audit to the Users of Financial Statements by the Federation of Accounting Professions under the Royal Patronage of His Majesty the King and the Securities and Exchange Commission (SEC)
2. Impact of COVID-19 Pandemic on ASEAN Energy Sector by Delta Electronics (Thailand) PCL
3. Forensic Accounting Certificate by the Federation of Accounting Professions under the Royal Patronage of His Majesty the King
4. Roles of Accounting Executives in the Post-COVID-19 Era by the Federation of Accounting Professions under the Royal Patronage of His Majesty the King
5. Panel Discussion on Business Adaptation after the COVID Pandemic Through Business Reorganization (Session 1) by the Federation of Accounting Professions under the Royal Patronage of His Majesty the King
6. Certified Professional Audit of Thailand by the Institute of Internal Auditors of Thailand
7. Development of a Modern Itemized Internal Audit Plan Format by the Institute of Internal Auditors of Thailand
8. IA's New Value Proposal During and After the Crisis by the Institute of Internal Auditors of Thailand
9. Financial Accounting for Internal Auditors by the Institute of Internal Auditors of Thailand
10. Management Accounting for Internal Auditors by the Institute of Internal Auditors of Thailand
11. Financial Management for Internal Auditors by the Institute of Internal Auditors of Thailand
12. Understanding Financial Statements (Session 1) by the Institute of Internal Auditors of Thailand
13. Practice Guides – IPPF by the Institute of Internal Auditors of Thailand
14. Analytical Thinking for Professional Internal Auditor by the Institute of Internal Auditors of Thailand
15. Introduction Data Analytics for IA by the Institute of Internal Auditors of Thailand
16. Post-COVID-19 New Business Normal Internal Auditing by the Institute of Internal Auditors of Thailand

17. Online Auditing by the Institute of Internal Auditors of Thailand
18. PDPA for Internal Audit by the Political Science Association of Kasetsart University
19. Management Audit and Fraud Trends by PricewaterhouseCoopers ABAS Ltd. (PwC)
20. Touchstone Research for Internal Audit: A Look at the Now and Tomorrow of Internal Audit by Wolters Kluwer & PricewaterhouseCoopers ABAS Ltd. (PwC)

### Auditor Appointment and Remuneration

The Audit Committee is responsible for selecting, nominating, and removing the Company's independent auditor and determining the audit fee, subject to shareholder approval at the Annual General Meeting (AGM). In 2020 the Board and the Audit Committee were of the following opinion: Auditor PricewaterhouseCoopers ABAS Co., Ltd. (PwC) had shown professionalism, independence, and impartiality; demonstrated a track record in the energy industry; and gained insight into EGCO Group companies through continuous auditing. PwC had also provided excellent auditing service, offered beneficial guidance, demonstrated a satisfactory auditing standard, and quickly and punctually delivered audit results. Moreover, PwC had been internationally reputable for its auditing standards and had its accounting and auditing offices in countries in which EGCO had invested. The Board and the Audit Committee, therefore, deemed it appropriate to appoint PwC as EGCO Group's 2020 auditor for an audit fee of 3,522,400 baht with an additional budget of up to 175,000 baht for other actual expenses incurred from auditing activities performed in Thailand. As for auditing activities conducted in other countries in which the Company had invested, EGCO would assume responsibility for the actual travel expenses incurred, subject to suitability. Shareholders at the 2020 AGM resolved to approve the auditor's appointment and remuneration proposed by the Board.

### Compliance

The Board oversees the Company's operations through 2 responsible bodies. 1. The Compliance Unit under the Corporate Secretary Division is responsible for overseeing EGCO's and its Board's compliance with the securities and exchange law, rules, regulations, and notifications of the SET. 2. The Law Division is responsible for overseeing compliance with relevant laws.

### Conflicts of Interest

The Board has a policy in place to avoid conflicts between personal interests and corporate interests, which is prescribed in the Good Corporate Governance Principles. The following is a summary of guidelines:

- Directors or employees wishing to serve as directors or advisors at another company or organization shall ensure that their new role does not create a conflict with their current position and shall inform the Board before assuming this new role.
  - When any of the directors or their family members engage in or become a shareholder of any business that may be of benefit to or cause a conflict of interest with the Company, have any direct or indirect interest in any contract entered into by the Company, or hold securities in the Company or any of its subsidiaries, the director in question shall promptly notify the Board of the potential conflict of interest in detail and refrain from participating in related discussions or voting on related agenda items, or shall be absent from any meetings in which such agenda items are discussed, or shall request not to receive any related documents, or resign from the post.
  - Directors and senior executives shall report any changes in their holding of EGCO securities to the regulatory agency under relevant laws. Executive vice presidents, Corporate Secretary, Senior Vice President of Corporate Communications, and Senior Vice President of Investor Relations shall also report their and their associates' holding of EGCO securities. The Corporate Secretary is responsible for presenting these securities holding reports to the Board at every board meeting. Additionally, directors and executives shall report their and their associates' interests to the Company, pursuant to the Notification of the Capital Market Supervisory Board No. TorChor. 2/2552, which came into effect on July 1, 2009, prescribing that the report must be prepared quarterly in case of any changes during each quarter. In compliance with this provision, the directors and senior executives shall prepare a report without delay. The Corporate Secretary shall submit a copy of these reports to the Chairman of the Board and the Chairman of the Audit Committee for acknowledgement within 7 business days from the date the Company has received that report.
- The Corporate Secretary has also informed the directors that directors and executives, including their spouses and underage children, pursuant to Section 258 of the Securities and Exchange Act B.E. 2535 (1992), shall prepare and

submit to the SEC a report on the holding of securities and the changing of securities for every purchase, sale, transfer, or acceptance of transfer of securities within 3 days from the date of sale/purchase.

- Upon the commencement of their employment with EGCO group, employees must disclose their interests by reporting on their and their associates' positions as shareholders, directors, or executives in companies, trade partners, contractors, or competitors of EGCO and its subsidiaries. The employees shall report without delay any transaction that may constitute a conflict of interest between the Company and them or any of their family members that have not been reported. Moreover, employees have a duty to review their interests annually and provide an update whenever there is a change.
- Employees shall not borrow funds from any supplier, individuals, or juristic persons who engage in business with the Company, except for financial institutions, which may impact the employees' performance as the Company's representatives.
- Connected transaction procedures and disclosure shall be strictly executed as required by the SEC and the SET. The Corporate Secretary Division shall verify the types of transaction and approval authority before reporting them to the Audit Committee for acknowledgement.

Furthermore, EGCO's Audit Committee is responsible for reviewing and providing opinions on connected transactions. The committee compares each connected transaction with ones made with other outsiders to determine its appropriateness. The Audit Committee is required to report its findings and opinions to the Board and/or shareholders for further consideration, subject to the criteria set by the SET and the Capital Market Supervisory Board. The committee shall also ensure the completeness of all information disclosure assure all related parties that all connected transactions are made in the best interest of the Company and its shareholders.



### Prevention of Insider Information Misuse

EGCO has established in writing stringent guidelines to prevent the misuse of insider information, which appear in the Code of Conduct and Good Corporate Governance Principles. Improper use of insider information is the exploitation of information available only to insiders for one's own or another person's benefit. Doing so gives the user an advantage over other shareholders or may cause damage to shareholders as a whole. An internal control system has been established to prevent information from being leaked to the public before it is officially announced. These measures and controls are part of the Company's essential risk control activities. It is the duty and responsibility of a supervisor to control and ensure that confidential information is kept and used well under pertinent rules and regulations. An employee performing insider trading for him- or herself or his or her family member is a severe violation of the Code of Conduct. The principles regarding this matter are as follows:

- Directors and employees shall at all times strictly observe the rules and regulations issued by the SET and the SEC, as well as relevant laws, and equitably disclose information to the shareholders and/or the public.
- Directors and employees shall not misuse any information acquired by virtue of the directors' and employees' position or cause damage to the Company by doing so.
- Trade secrets or any sensitive business information shall not be disclosed to any outsiders.
- Directors and employees in possession of insider information relating to financial statements shall refrain from trading securities 45 days before and 24 hours after information disclosure. As for any other significant information, they shall refrain from trading from the day they learn of the information and 24 hours after the information has been disclosed to the SET. The Corporate Secretary will be responsible for sending an email to remind directors, executives, and related employees of the blackout period before every fiscal budget announcement.
- Together with their spouses and underage children, directors or senior executives who wish to trade the Company's stock shall inform the Corporate Secretary at least one day before the transaction.
- Disclosure of any information to the public that will affect the business and EGCO's stock price requires approval from the President, who will be responsible for disclosing this information or authorize another person to do so on his/her behalf.
- The Corporate Communications Division, the Corporate Secretary Division, and the Investor Relations Unit are the central units responsible for disclosing EGCO's information to the public and investors. The information owners, meanwhile, will be responsible for providing necessary fact sheets.

### Equitable Treatment of Shareholders

The Board recognizes the need to treat all shareholders, including foreign shareholders and institutional investors, fairly and equitably. It ensures that all shareholders are well-informed of EGCO's important decisions as prescribed by laws or Articles of Association in the following ways:

- The Board afforded shareholders an opportunity to propose agenda items and nominate qualified director candidates. This opportunity was announced via SET Portal and on EGCO's website. The criteria and procedures were clear, transparent, and in line with the SET's additional guidelines on minority shareholders' rights. Shareholders were able to nominate director candidates from October 1 to December 31, 2019, or about 7 months before the Annual General Meeting (AGM). The minimum number of shares was fixed at 0.05% of the Company's total shares (equivalent to 263,233 shares as of October 1, 2019). This minimum could be met either as a single shareholder or a group of shareholders. It was lower than the SET's recommendation of 5% shareholding. Nonetheless, no shareholders proposed an agenda item or nominated a director candidate.
- To protect the rights of all shareholders at the AGM, EGCO permitted no agenda item to be added without notice to afford all shareholders adequate time to familiarize themselves with the information before casting their votes. Shareholders had the right to vote according to the number of shares in their possession. One share was equal to one vote. No share had a special privilege that limited the rights of other shareholders.
- For transparency and accountability, ballot papers were employed when voting on any agenda item, and directors were elected individually by shareholders. Baker & McKenzie Co., Ltd. served as an independent inspector to ensure that the AGM was conducted transparently and in compliance with the laws and the Company's Articles of Association. Shareholders who were unable to attend the AGM in person could vote by proxy, using any of the 3 proxy forms introduced by the Department of Business

Development, Ministry of Commerce. Alternatively, 3 independent directors of the Company who did not have a conflict of interest with any item on the AGM agenda could be appointed proxies. The proxy forms were made available for shareholders on EGCO's website.

- Since most shareholders attending the AGM were Thai, the meeting was conducted in Thai. However, considering the needs of foreign shareholders, EGCO prepared the meeting notice and supporting documents in both Thai and English. English interpreters were also available in the meeting hall.
- Minutes of the meeting were disseminated via SET Portal and the Company's website within 14 days from the meeting date to allow shareholders to review them.
- Understanding that some shareholders may not have access to the minutes on SET Portal or EGCO's website, the Board mailed a hard copy of the minutes of the 2020 AGM to each shareholder.

### Intellectual Property and Copyright

It is EGCO's policy to comply with intellectual property and copyright laws. The use of work or information belonging to a third party requires verification to prevent intellectual property violations. Moreover, the Company has established guidelines for using personal computers and company laptops and desktops. To this end, employees must comply with copyright laws to prevent intellectual property violations and only install software permitted by the Company. They must not download

or upload unauthorized software via the internet. The Information Technology Division, which is responsible for matters of information technology, has required employees to sign a policy and procedure acknowledgement form every time new computers are set up. Training is also provided to educate employees whenever there is a new computer system update.

### Anti-Corruption Policy and Guidelines

The Board ensures that EGCO has control, audit, and prevention processes in place for all direct and indirect forms of corruption. Additionally, the Anti-corruption Policy and Anti-corruption Measures Manual have been established as guidelines for EGCO Group and disseminated and communicated to all employees of the Company's and EGCO Group companies and even to outsiders. Further details on this subject can be found in the Annual Report under Corporate Governance (EGCO Group's Memberships in Other Organizations). In this regard, the Board has established an Anti-Corruption Working Committee of EGCO Group, consisting of representatives from EGCO and Group companies, to implement the Board's policy, communicate and raise awareness, and foster anti-corruption cooperation among EGCO Group companies. The Board has also encouraged EGCO subsidiaries to apply for membership in Thailand's Private Sector Collective Action Coalition Against Corruption (CAC). Currently, 3 EGCO Group companies are CAC members—namely EGCO, EGCO Engineering and Service Co., Ltd., and Khanom Electricity Generating Co., Ltd..



## Whistleblowing

EGCO encourages employees and stakeholders to take part in monitoring its compliance with applicable laws, rules, regulations, corporate governance principles, and the Code of Conduct. EGCO also encourages them to report and file grievances against any suspected violation of the law or Code of Conduct or any behavior implicative of corruption or misconduct. To this end, a formal whistleblowing procedure has been put in place, along with a mechanism to protect whistleblowers and the accused. For peace of mind, any information obtained will be kept in strictest confidence and accessible only on a need-to-know basis. The following should be reported: 1. non-compliance with applicable laws, rules, regulations, or the code of conduct, 2. corruption and bribery, and 3. suspected money laundering, or accounting, finance, internal controls, or auditing malpractice or misconduct.



## Whistleblowing Channels and Procedures

The whistleblower can report via 2 channels:



### Channel 1 Send an email to one of the following committees

- The Audit Committee via [auditcommittee@egco.com](mailto:auditcommittee@egco.com)
- The Good Governance Working Committee via [GoodGovernance@egco.com](mailto:GoodGovernance@egco.com)
- The Board of Directors via [directors@egco.com](mailto:directors@egco.com)



### Channel 2 Mail in your report addressed to one of the committees at the following address:

Electricity Generating Public Company Limited,  
EGCO Tower, 222, Vibhavadi Rangsit Road,  
Tungsonghong, Laksi, Bangkok 10210



EGCO has established due processes for whistleblowing, protection of whistleblowers and the accused, hearing, and whistleblowing report. The recipient of a whistleblowing report has the responsibility to forward it to the Board for further action. All of these processes appear in detail in the Anti-Corruption Measures Manual.

In 2020 the Board did not receive any report of non-compliance that could be considered a violation of the Code of Conduct or the Anti-Corruption Policy and that resulted in damages.

### Monitoring, Review, and Assessment

The Anti-Corruption Working Committee is responsible for monitoring, reviewing, and assessing risks on a yearly basis. When a new risk is identified, the Working Committee shall prepare and submit prevention and mitigation plans and guidelines to the Audit Committee, which oversees matters of compliance with anti-corruption measures and reviews measures and related internal control activities. Moreover, the Internal Audit Division is responsible for reporting any wrongdoing or violation of the Company's Code of Conduct to the Audit Committee on a quarterly basis. The Audit Committee then forwards these reports to the Board through the Audit Committee's report, which is included in the agenda of every board meeting.

### 2021 Anti-Corruption Plan

The Board will continue to encourage and support one more EGCO subsidiary to be a certified CAC member. The policy is communicated through representatives holding directorial and management positions in EGCO Group companies. EGCO's ultimate goal is to have all of its subsidiaries become certified CAC members. In addition, EGCO has been raising EGCO Group employees' anti-corruption awareness and knowledge via e-learning activities since 2019.

### Communication Channels

Stakeholders can raise submit their opinions, recommendations, and other non-corruption-related concerns to EGCO via the following channels:

#### Email

CHANNELS	EMAIL ADDRESS	TELEPHONE NUMBER
Board of Directors	directors@egco.com	-
Audit Committee	auditcommittee@egco.com	-
Corporate Secretary	cs@egco.com	0 2998 5020-6
Corporate Communications Division	corp_com@egco.com	0 2998 5130-7
Investor Relations Unit	ir@egco.com	0 2998 5150-3

#### Mail

The mailing address is  
Electricity Generating Public Company  
Limited, EGCO Tower, 222, Vibhavadi  
Rangsit Road, Tungsonghong, Laksi,  
Bangkok 10210.



### Person in Charge of Documents Addressed to the Board

The Corporate Secretary is responsible for accepting documents addressed to the Board and forwarding them to relevant committees or directors. Issues and recommendations will be summarized and submitted to the Board on a quarterly basis, except for documents addressed to the Audit Committee, which will be directly forwarded to the Audit Committee. Any email sent to the address auditcommittee@egco.com can only be accessed by the Audit Committee.

## PRINCIPLE 7 ENSURE DISCLOSURE AND FINANCIAL INTEGRITY

### Information Disclosure and Transparency

The Board is responsible for ensuring that financial reports and information are disclosed in an accurate, adequate, and timely manner and in compliance with relevant rules, criteria, and guidelines. The Board reviews the policy and guidelines on information disclosure every year. In 2020 the Board concluded that the information disclosure policy and guidelines, which were revised in 2017, were still proper and aligned with the rules and regulations of regulatory agencies, the SEC's corporate governance principles, and revised criteria for assessing good corporate governance. The Board also believed that they accommodated changing circumstances and corresponded to the roles of communication technologies and online media. It is also the Board's policy to encourage the use of information technology for information disclosure. To this end, the information disclosure policy and guidelines apply to written information prepared in both Thai and English and non-written information and all communication methods used by EGCO, such as meetings, conference calls, interviews, and all communication channels, including online media such as webpages and Facebook pages.

### Guidelines for Information Disclosure and Confidentiality of Different Types of Information

#### TYPES OF INFORMATION

1. Material Non-Public Information
2. Forward-Looking Information
3. Material Public Information
4. Non-Material Information
5. Business or Competition Sensitive Information
6. Irregular Information, such as rumor or data leakage
7. Online and Social Network Information

#### INFORMATION DISCLOSURE CHANNELS

- Regulatory agencies, i.e., SET's website ([www.set.or.th](http://www.set.or.th)) and SEC's website ([www.sec.or.th](http://www.sec.or.th))
- Shareholders, individual investors, securities analysts, and institutional investors
  - Press conferences for investors and analysts
  - Roadshows
  - Company visit
  - Notice via mail
- Mass media, e.g., PR news, newspapers, advertising media, journals, and television programs
- Online media
- Annual report and Form 56-1
- Management discussion and analysis
- Company website, i.e., [www.egco.com](http://www.egco.com)

## UNITS AND PERSONS RESPONSIBLE FOR INFORMATION DISCLOSURE

- Responsible Units
  - Corporate Secretary Division : To the SEC, the SET, and major shareholders
  - Investor Relations Unit : To minor shareholders, securities analysts, institutional investors, and individual Investors
  - Corporate Communication Division : To the media, NGOs, and general public
- Responsible Persons
  - President
  - Senior Executive Vice President of Accounting and Finance
  - Senior executives authorized by the President

### Financial Statement Preparation

Entrusted by the Board, the Audit Committee is responsible for preparing financial reports that are accurate, complete, and in compliance with relevant laws and notifications. It is also responsible for overseeing the consistent implementation of appropriate accounting policies. Doing so demonstrates that EGCO takes the accuracy, completeness, and transparency of its financial reports seriously; protects the Company's assets against losses or use by unauthorized persons; and prevents corruption and irregular transactions. EGCO's practices align with Thailand's generally accepted accounting standards and applicable laws and regulations, enhancing stakeholders' confidence in its financial reports. To this end, the Audit Committee requires a meeting with the auditor, without the presence of management, at least once a year to inquire and seek opinions from the auditor on matters related to financial reports. Furthermore, the Board also prepares a report on its responsibility towards the financial reports, which covers significant issues according to the SET Code of Best Practice for Directors of Listed Companies as shown in the Auditor's Report in the Annual Report. In 2020 EGCO appointed PricewaterhouseCoopers ABAS Ltd. as its auditor after considering this auditor's professional expertise, independence, impartiality, and experience. The appointment has enhanced the confidence of the Board and shareholders that the Company's financial reports accurately and reliably reflected all aspects of its actual financial standing and performance.

EGCO also prepares a Management Discussion and Analysis to provide analytic information on the Company's financial status, business performance, and significant changes for investors and securities analysts every quarter. This report is

submitted via SET Portal along with the Company's financial statements.

Moreover, the International Standard on Auditing (ISA) 720 (Revised), the Auditor's Responsibilities Relating to Other Information, prescribes that the auditor shall read and consider other information, such as financial and non-financial information (other than financial statements and the auditor's report), which is included in the Company's Annual Report, to ensure that the materiality of other information and financial statements and the auditor's knowledge gained from auditing do not significantly contradict facts. Doing so ensures that the financial reports prepared by management, the report of the Board's financial reporting responsibilities, and the auditor's report are accurate, reliable, and consistent.

It should be noted that the SEC has never demanded that EGCO restate the financial statements. In addition, the Company has always disclosed quarterly and annual financial statements to shareholders and investors before due dates.

### Preparation of Sustainability Report

It has been the Board's policy to prepare a sustainability report since 2007. In 2018 EGCO prepared the 2018 Sustainability Report separately, applying standards of the Global Reporting Initiative (GRI) to prioritize the materiality of each issue according to stakeholders' opinions, EGCO's interests, and Sustainable Development Goals (SDGs). It has been the Board's view that these issues would help point EGCO's operations towards a sustainable future.

### Information Disclosure of Concerned Units

The Board has determined that the following units shall be responsible for information disclosure to communicate with the shareholders and other stakeholders in an appropriate, equal, and timely manner:

1. **Investor Relations Unit:** The Investor Relations Unit is responsible for equally and fairly communicating to all institutional investors, shareholders, and analysts, as well as devising a consistent annual investor relations plan. Considering the importance of equitable treatment of shareholders, EGCO has carefully disclosed information to ensure that all stakeholders have equal access. The quiet period, during which no information or answers to questions related to performance forecast are given to analysts and investors, is 14 days before the release of a financial statement. Moreover, the Investor Relations Unit has

adhered to EGCO's Code of Conduct for Investor Relations Practitioners approved by the Board in 2018. Significant issues are as follows: 1. Disclosure of significant and necessary information in an accurate, adequate, and timely manner 2. Protection of internal information 3. Disclosure of information in a fair and equitable manner 4. Performance of duties with integrity.

**Information Dissemination via Investor Relations Activities:** EGCO also emphasizes information dissemination via investor relations activities. Its executives have participated in these activities by presenting information and meeting with investors to create a good understanding of the Company's management, foster good relationships with investors, and encourage continuous exchanges of opinions. The main activities in 2020 were as follows:

ACTIVITIES	NUMBER OF ACTIVITIES
Quarterly analyst meetings	4
Power plant visits for investors and shareholders*	-
Power plant visits for analysts and institutional investors*	-
National and international seminars and meetings with investors and securities analysts	18
Communication via emails and phones	Approximately 5 times a day
Preparation of Life quarterly newsletter as a channel to communicate the Company's significant activities and performance to shareholders	4
EGCO Group's Q&A in the Life quarterly newsletter to provide information for shareholders	4

\*Cancelled due to the COVID-19 pandemic.

The activities for investors and shareholders are stated in the Annual Report under 2020 Performance Highlights: Activities for Shareholders and Investors.

2. **Communications Division:** The Corporate Communications Division is responsible for communicating the Company's activities and cooperation with other organizations to all media and the public. Major events in 2020 included 2 press conferences about its operating results, business direction,

and projects' progress, an excursion to the Kew Mae Pan Nature Trail in Chiang Mai with the media, a school building renovation project with the media, and 24 pieces of published public relations news and articles.

3. **Corporate Secretary Division:** The Corporate Secretary Division is responsible for disclosing all information required by the SET and the SEC accurately, completely, and transparently. Information disclosure is subject to due

procedures. In 2020 the division submitted 29 notifications to the SET.

Understanding the need to provide the most up-to-date, complete, and accurate information, EGCO ensures that the information on its website is always detailed and updated. The efficiency of information disclosure is assessed by a questionnaire every time a meeting is held with shareholders, investors, or analysts. The answers are then used as guidelines to improve the efficiency of information disclosure and investor relations.

### Use of Information Technology for Information Dissemination

EGCO has made notable and interesting information available on its website ([www.egco.com](http://www.egco.com)) in Thai and English, enabling shareholders, investors, and interested persons to have access to the most accurate and up-to-date information about the Company. The information available includes company profile, vision and mission, shareholder structure, Board of Directors, subcommittees, management team, EGCO Group's businesses, whistleblowing channels, and downloadable documents, such as corporate governance policy, company registration certificate, Articles of Association, financial statements, annual reports, sustainability reports, AGM meeting notices, annual registration statements (Form 56-1), and documents to be presented in analyst meetings.

## PRINCIPLE 8

## ENSURE ENGAGEMENT AND COMMUNICATION WITH SHAREHOLDERS

### Rights of Shareholders

EGCO values and respects shareholders, including institutional investors, as investors in and owners of the Company. Therefore, the Board encourages all shareholders to exercise their fundamental rights. These rights include the right to share profits; buy, sell, or transfer shares; receive adequate company information; and attend shareholders meetings to vote to appoint or remove directors, determine director remuneration, appoint auditors, and determine audit fees, and consider other significant issues affecting the Company, and make inquiries and voice opinions.

Besides encouraging shareholders and institutional investors to exercise these basic rights, EGCO endeavors to ensure the equitable treatment of shareholders, such as providing updated information via the Company's website in Thai and English, newsletters, and site visits for shareholders. EGCO has ensured that none of its activities would ever deprive shareholders of their rights or violate them.

### Shareholder Meetings

The Board considers an Annual General Meeting of Shareholders (AGM) a crucial event. An AGM is held within 4 months from the Company's closing date to accommodate shareholders' participation in monitoring the Company's performance. The Board may call for an extraordinary general meeting of

shareholders on a case by case basis to consider a special agenda item that affects or involves shareholders' interests and requires shareholder approval. EGCO's 2020 AGM was postponed from April 10, 2020, to July 20, 2020, due to the COVID-19 pandemic. It was held at the Vibhavadee Ballroom, Centara Grand Hotel at Central Plaza Ladprao, Bangkok. There was no extraordinary general meeting of shareholders this past year. This AGM was arranged in accordance with AGM checklists issued by the Thai Investors Association, Listed Companies Association, and the SEC. Details of the meeting are as follows:



### Before the Meeting

EGCO prepares and delivers comprehensive meeting documents to shareholders in advance to afford them material information needed for voting. It also encourages shareholders to actively participate in annual general meetings and facilitates proxy voting for those unable to attend in person. In 2020 EGCO made the meeting notice and relevant documents accessible via QR Codes for the first time. It also encouraged shareholders to appoint independent directors to vote on their behalf instead of in-person participation to prevent the spread of COVID-19. The Company also arranged a live broadcast of the event for shareholders to follow along remotely. EGCO performed the following activities before the Annual General Meeting of Shareholders:

- We made the meeting schedule and agenda available via SETLink and our company website on June 17, 2020, or 33 days before the AGM date, before mailing them out. The record date was also detailed in the meeting notice.
- We distributed the meeting notice with details of each distinct agenda item in Thai and English. The notice consisted of matters for consideration pursuant to Chapter IV of the Articles of Association entitled Shareholders' Meeting. The election of directors to replace those who had retired by rotation and consideration of the remuneration for directors appeared as separate items on the agenda. Included in the agenda were general information, objectives, reasons, opinion of the Board, voting requirements, remuneration policy and regulations, director nomination policies and criteria, names and biographies of director nominees, and detailed minutes of the previous meeting. Also included were the criteria and methods for attendance, 3 proxy forms (Forms A, B, and C) according to the Department of Business Development, Ministry of Commerce, along with the QR Code to access the annual report. EGCO notified its shareholders of the meeting on June 19, 2020, or 31 days before the meeting date. The meeting was also announced in 2 Thai daily newspapers and 1 English newspaper for 3 consecutive days to afford shareholders sufficient time to prepare for the meeting. All relevant information was presented on EGCO's website to allow shareholders to have time to familiarize themselves with the available information ahead of the meeting. The meeting notice was delivered to shareholders 11 days before the meeting date. EGCO provided a telephone number for further inquiries, if needed. It also provided material information pertinent to the election of directors in accordance with best practices of the SEC and the SET.
- To encourage institutional investors' attendance, the Investor Relations Unit asked institutional investors to submit their registration documents to EGCO 7 days ahead of the meeting date for verification in case any additional documents were needed to facilitate the administrative process on the actual meeting day.
- Shareholders could make inquiries about the agenda in advance by sending an email to [cs@egco.com](mailto:cs@egco.com) or a facsimile to the number 0 2998 5999 ext. 5020-5027 for shareholders to make the most out of the meeting and to protect their legal rights to the fullest extent, as well as to prevent the spread of COVID-19.



### On the Day of the Meeting

EGCO strongly encourages shareholders to exercise their rights to attend and vote at shareholder meetings. All due processes, including registration, vote counting, and voting result announcements, are conducted transparently, correctly, and accountably. EGCO never deprives shareholders of their rights or violates them. Shareholders' inquiries and opinions are welcomed and taken into consideration. A summary of EGCO's conduct on the day of the meeting is as follows:

- Directors, executives, and external auditors from PricewaterhouseCoopers ABAS (PwC) were present to answer shareholders' questions and acknowledge their opinions. A total of 15 directors, including the Chairman and directors, attended the 2020 AGM, which accounted for 100% of the Board. The Chairman of the Board, the chairmen of all subcommittees, and the President, together with senior executives, provided detailed explanations regarding agenda items and answered shareholders' questions.
- In the meeting notice, EGCO identified the names of directors with personal interests in agenda items. These directors were not present in the meeting when these agenda items were being discussed.
- Facilitating the participation of shareholders and institutional investors was EGCO's top priority. The map of the meeting venue, as well as new normal measures and guidelines, was attached to the meeting notice. Several registration counters were appropriately and adequately provided for shareholders' convenience.
- One volunteer shareholder was invited to observe the vote-counting process. Representatives from the Thai Investors Association also observed the process.
- Shareholders who completed registration after the meeting had already started were permitted to vote on the ongoing and remaining agenda items.
- The AGM was convened according to the order of agenda items. The introduction to each agenda item included the general background, supporting rationale, and recommendation of the Board. All material information was included in the meeting notice delivered to shareholders. No ad hoc agenda items were added during the meeting.
- Shareholders were equitably treated and allowed to raise questions and opinions. All questions were addressed and clarified by the Chairman and comprehensively recorded in the minutes.

- Baker & McKenzie Co., Ltd. was hired to inspect shareholders' or their proxies' registration documents, meeting quorum, voting methods, vote counting pursuant to the Company's Articles of Association, shareholders' ballot collection, and voting results. The inspector reported that the quorum of the Board, the meeting itself, and the voting procedures were transparent and compliant with the Company's Articles of Association, applicable laws, and the SET's best practices. In addition, the inspector reported that EGCO highly respected its shareholders' rights to participate in the meeting and voice their opinions actively, as well as efficiently facilitated all aspects of the meeting for shareholders.
- An AGM quality assessment questionnaire was circulated to gather feedback for future improvement in the best interest of the Company and its shareholders.

As of the close, 138 shareholders attended the meeting in person and 1,609 shareholders attended by proxy, representing 416,822,908 shares or 79.1739% of the total issued shares.



### After the Meeting

- After the AGM, EGCO delivers the summary of a concluded resolution for each agenda item to shareholders and the SET via SETLink according to the SET's information disclosure requirements. In 2020 the summary was made available after 5:00 p.m. of July 20, 2020, the same day as the AGM.
- EGCO also prepared minutes of the meeting, which included the names and titles of directors, executives, auditors, and meeting inspector in attendance; voting and vote counting procedures; voting ballot instructions; Board's recommendations; inquiries and recommendations of shareholders; and clarifications from management. Details on the number of "approve," "disapprove," and "abstain," votes, void ballot papers, and the resolution of each agenda item were made available to shareholders on EGCO's website ([www.egco.com](http://www.egco.com)) on August 3, 2020, within 14 days after the meeting as required by the SET. Moreover, EGCO disseminated a visual and audio recording of the AGM on its website for absent shareholders' acknowledgment.

- EGCO coordinated with the securities registrar at Thailand Securities Depository Co., Ltd. (TSD, to ensure that shareholders received dividend payments in a complete and accurate manner.
- Recommendations made and opinions raised by the shareholders and inspectors were taken into further consideration for the continuous improvement of the AGM.

## EGCO GROUP'S MEMBERSHIPS IN OTHER ORGANIZATIONS (GRI 415-1)

EGCO Group operates under corporate governance principles and is committed to the anti-corruption ideology, which stipulates that all forms of corruption in all transactions with the public and private sectors are unacceptable. To this end, EGCO Group has issued guidelines on its funding of and participation in other organizations to ensure transparency and lawfulness. These guidelines allow for the sustainable development of EGCO Group's businesses according to the action plan under the Business Sustainability Policy. To access EGCO's Anti-Corruption Policy, please scan the QR Code on the right side or visit the Company's website ([www.egco.com](http://www.egco.com))



In 2020 EGO Group maintained its membership in various organizations and paid a total of 375,059 baht in membership fees. It remained impartial on matters of politics, lobbying, voting, and referenda. The details of EGCO Group's memberships are as follows:

ORGANIZATION	TYPE	2017	2018	2019	2020
Electricity Supply Industry Association of Thailand (TESIA)	Trade Associations	200,000	200,000	200,000	200,000
Petroleum Institute of Thailand		50,000	50,000	50,000	50,000
Association of Private Power Producers (APPP)		40,000	40,000	40,000	40,000
Power Producer Industry Club		40,000	40,000	40,000	40,000
International Council on Large Electric System (CIGRE)		22,068	22,789	21,944	19,659
Thai Chamber of Commerce		17,000	17,000	17,000	17,000
Federation of Thai Industries (FTI)		11,877	6,400	8,400	8,400
Association of the Electricity Supply Industry of East Asia and the Western Pacific (AESIEAP)		60,209	-	-	-
Thailand–Cambodia and Thailand–Vietnam Business Council		5,607	-	-	-
Total		446,761	376,189	377,344	375,059

Throughout 2020 EGCO Group made no donations linked to politics, lobbying, voting, or referenda.

### Major Issues that EGCO Group Supported in 2020 include the following:

#### Issue

Promotion of technology and innovation in the electricity industry

#### EGCO Group's Direction

Support

#### Sum of Funding in 2020

299,659 baht

#### Participation

EGCO Group has joined and supported various trade associations to promote and develop technology in the electricity industry. In addition, EGCO Group has founded the Electricity Industry Association of Thailand (TESIA) in conjunction with the Electricity Generating Authority of Thailand (EGAT), the Provincial Electricity Authority (PEA), Metropolitan Electricity Authority (MEA), and Ratchaburi Holding Public Company Limited. Its objectives are to promote and exchange technological knowledge and experience, especially in the electricity industry; build relationships and promote unity among members; protect members' interests; and foster professional security for members who produce or distribute electricity. EGCO Group currently has 2 representatives in the association—namely the First Vice President and a member of the association's board of directors.

In 2020 the association organized the following:

- a special lecture on "Wheeling Change Service Fee Rates" at the Annual General Meeting on July 30, 2020.



### Issue

Promotion of understanding and good relations between private power producers in Thailand

### EGCO Group's Direction

Support

### Sum of Funding in 2020

280,000 baht

### Participation

EGCO Group participated and supported various activities to foster good relations between private power producers in Thailand to bring about cooperation and exchange of knowledge between these players for the sustainable development of Thailand's electricity generation industry. EGCO Group, small power producers (SPP) and independent power producers (IPPs) are members of the Association of Private Power Producers (APPP), which aims to coordinate, build understanding and good relations between private power producers in Thailand, and promote ethical operations and social responsibility. The association also acts as a representative of private power producers to make recommendations, express opinions, and protect the interests of private power producers.



In 2020 the association organized the following:

- In cooperation with EGAT, the association organized a seminar entitled "Thai Power Producers Network 2020," September 10–11, 2020, to strengthen the relationships between players in the energy sector and enable them to exchange their opinions for the security of the industry in Thailand. There was also a special lecture entitled "5G and the Development of a Smart Nation."

### Results of Compliance with Good Corporate Governance Policy

EGCO Group directors, management, and employees have always strictly adhered to the Good Corporate Governance Policy. Thanks to this commitment, EGCO has always passed assessments and earned awards for corporate governance. EGCO's assessment results and awards for 2020 are as follows:

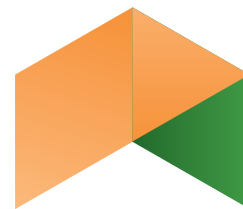
- EGCO Group became a certified member in the Emerging Markets Index of the Dow Jones Sustainability Indices (DJSI) under Electric Utilities category for the first time in 2020. It is Thailand's first power producer to do so.
- EGCO Group has been included on the Thailand Sustainability Investment (THSI) list of the Stock Exchange of Thailand, part of the SET Awards 2020, under the "Resources" category for the sixth consecutive year in recognition of its sustainable business operations with a focus on growth under principles of corporate governance, transparency, and accountability, as well as the role it has fulfilled as a good corporate citizen who cares for its environment, communities, and society at large.
- EGCO Group garnered a Sustainability Disclosure Award in 2020 from Thaiphait Institute in recognition of its disclosure

of sustainability information to the public and relevant stakeholders. This awarding committee considered EGCO Group's sustainability disclosure through its sustainability report. It is a reflection of our commitment to the economic, social, and environmental pillars of corporate sustainability and corporate governance principles for sustainable organizational growth.

- EGCO Group received a full score of 100 for its 2020 Annual General Meeting of Shareholders (AGM). The assessment was conducted by the Thai Investor Association.
- EGCO Group received a score of 96 or "Excellent" for the Corporate Governance Report of Thai Listed Companies (CGR) Assessment Project conducted by the Thai Institute of Directors (IOD).
- Khanom Electricity Generating Co., Ltd., a subsidiary of EGCO Group, received 2 awards at the Prime Minister's Industry Awards 2020 organized by the Ministry of Industry: 1. For its commitment to a sustainable operation of an energy business with care for environmental preservation and social development in the environmental protection and safety management category; and 2. For its ability to pass all required industry standards.

# Subcommittees' Reports

## Audit Committee's Report



The Audit Committee of Electricity Generating Public Company Limited or EGCO consists of three independent directors: Ms. Jaruwan Ruangswadipong as Chairman, Mr. Anya Khanthavit, and Mr. Paisan Mahapunnaporn, who are knowledgeable and experienced in law, accounting, finance, economics, strategy and business plan, corporate governance, audit, internal control and enterprise risk management, human resource development, as well as knowledge in industrial business.

In 2020, the Audit Committee convened a total of 14 meetings, which all Committee members attended. There were also discussions attended by the Management, internal auditors, and external auditors as well as meetings with the auditors without the presence of the Management in order to independently discuss EGCO's operations and exchange ideas with the auditors. In order to comply with the preventative measures with regard to the COVID-19 pandemic, EGCO held hybrid meetings – remote video conferences with the main attendees actually situated in meeting rooms – from April 2020 onwards.

The Audit Committee performed all the duties within the scope and the responsibilities assigned by the Board of Directors, as defined in the Audit Committee Charter, which is in accordance with the regulations of the Stock Exchange of Thailand (SET), and regularly reported its performance to the Board of Directors. The Committee was of the opinion that EGCO provided accurate, complete, reliable financial reports with appropriate and adequate internal control systems and good corporate governance, in compliance with the law on securities and exchange, SET's regulations, and applicable laws. Connected transactions or potential conflicts of interest were also accurately and fully disclosed.

### Summary of the Audit Committee's Activities

#### Review of financial statements

The Audit Committee reviewed the quarterly and annual financial statements for the year 2020 in cooperation with the external auditors and the Management. The Committee also inquired the external auditors about the accuracy and completeness of the financial statements and significant adjustments that affected the financial statements to ensure that EGCO's financial reports were prepared in accordance with generally accepted accounting standards and that the information disclosed in the financial statements was adequate, accurate,

reliable, and in compliance with governing laws and regulations. The Audit Committee reviewed, in cooperation with the management, the preparation of the Management Discussion and Analysis report to ensure that the information was correct, complete, sufficient, and beneficial to investment decisions of shareholders and general investors.

The Audit Committee reviewed non-audit services performed by the group companies' audit firm for EGCO and subsidiaries to ensure that that such services did not compromise the independence of the auditor.

#### Reviewing the internal control system

At the Board's meeting no. 1/2020 on January 17, 2020, the Board of Directors deliberated the report on the assessment of the adequacy of the internal control system, which had been reviewed by the Audit Committee. The Board of Directors agreed with the Audit Committee that EGCO's internal control system was adequate and appropriate and that EGCO provided sufficient personnel to operate the systems efficiently. In addition, the internal control system was properly set to monitor and supervise the operations of the subsidiaries in order to protect the assets of the Company and subsidiaries from misuse or unauthorized use by Directors, the Management, or employees.

In the previous year, the Board of Directors and the Audit Committee received reports from the external auditor that there was no significant deficiency in the internal control system.

#### Oversight of internal audit

The Audit Committee considered and approved the annual internal audit plan, budget plan, and manpower plan for the year 2021, with a focus on the preparation of the internal audit's strategic plan and long-term work plan in support of the implementation of EGCO's strategic plan to drive

the development and elevation of internal audit. A quality assessment and improvement of the work of the Internal Audit Division for the year 2020 was also carried out.

The Audit Committee considered and supported the development of assessment tools of the internal control system of companies of which EGCO was not a controlling person to ensure that investments in those companies were guided by good corporate governance and had an adequate internal control system, thus adding value to the organization.

The Audit Committee also considered and reviewed the audit report of the Internal Audit Division and provided comments and recommendations to properly improve internal control. The Internal Audit Division submitted the report directly to the Audit Committee to ensure independence.

The Audit Committee also encouraged the professional development of internal auditors, approved the key performance indices (KPIs), and assessed the performance of the Chief Internal Auditor.

#### **Review of connected transactions or potential conflicts of interest**

The Audit Committee considered connected transactions to ensure their compliance with SET's regulations, taking into account the reasonableness and the best interest of the Company, with approval from an authorized person having no interest in such transactions. In 2020, there were no transactions that required which required the endorsement of the Audit Committee prior to the approval of the Board and the shareholders' meeting.

#### **Review of risk management**

The Audit Committee reviewed EGCO's risk management measures and processes, including various risk factors and aspects that required improvement to comply with the Company's policies as well as defined risk management strategies and plans. The Committee also monitored and assessed the performance of the risk management process.

#### **Review of good corporate governance**

The Audit Committee conducted a review in cooperation with the Management to ensure that EGCO's activities were in accordance with the laws on securities and exchange, regulations of the SET and the Securities and Exchange Commission (SEC), and the laws relevant to EGCO's business.

The Audit Committee supported good corporate governance practices as well as considered and acknowledged the compliance statement of EGCO's Business Code of Conduct throughout the hierarchy of the company to the President, with the President signing the compliance statement to the Chairman of the Board of Directors. The process and content of the compliance statement ensured that EGCO operated in accordance with business code of conduct and relevant laws and promoted the prevention of fraud and corruption. Relevant information or complaints regarding illegal acts or business ethics breach, as well as questions about EGCO's financial reports or internal control system can be submitted directly to the Audit Committee at email address: [auditcommittee@egco.com](mailto:auditcommittee@egco.com). A whistleblowing system has also been put in place, along with protection measures to keep the identity of the whistleblower confidential.

#### **Maintaining the quality of the Audit Committee**

The Audit Committee reviewed the Audit Committee Charter and conducted an annual performance assessment of the Audit Committee to ensure that its composition, qualifications, and performance of assigned duties were consistent with its scope of authority, duties, and responsibilities, compliant with both SET's and international best practices, and suitable for EGCO's business.

#### **Appointment of external auditors for 2021**

The Audit Committee reviewed qualifications, independence, performance and appropriate fee of the auditors and resolved to propose the appointment of Ms. Amornrat Pearmpoonvatanasuk, Certified Public Accountant (Thailand) No. 4599, Mr. Vichien Khingmontri, Certified Public Accountant (Thailand) No. 3977, and Ms. Rodjanart Banyatananusard, Certified Public Accountant (Thailand) No. 8435, auditors from the audit firm, Pricewaterhouse Coopers ABAS Ltd. as EGCO's auditors in 2021 to the Board of Directors for consideration and subsequently for the shareholders' approval in the annual general meeting of shareholders. The Audit Committee also determined the audit fee for 2021.



**MRS. JARUWAN RUANGSWADIPONG**

Chairman of the Audit Committee

## Risk Oversight Committee's Report



As of December 31, 2020, the Risk Oversight Committee (ROC) of Electricity Generating Public Company Limited (EGCO) is comprised of five members who have vast experience and knowledge regarding risk management, law, finance and banking, engineering, and the energy business. These five members include two independent directors, Chairman Professor Dr. Anya Khanthavit and Mr. Paisan Mapunnaporn, two non-executive directors, Mr. Roengchai Khongthong and Mr. Tomoyuki Ochiai, and one president, Mr. Thepparat Theppitak. The senior vice president of the risk assessment division serves as the secretary of the committee.

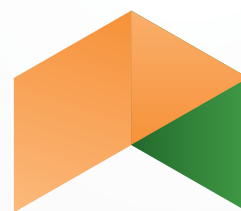
The ROC performed its assigned duties as prescribed in the charter and regularly reported their meeting resolutions to the board.

In 2020, 13 meetings were held to carry out the ROC's duties and responsibilities. Their activities are listed below.

1. Unanimously elected Professor Dr. Anya Khanthavit as Chairman of the ROC.
2. Reviewed the EGCO Group's risk management philosophy, risk management policy, risk appetite, and risk tolerance.
3. Revised the EGCO Group's risk management manual to align it with the COSO 2017 Enterprise Risk Management (ERM) – Integrated Framework.
4. Close monitored of construction risk and risk mitigation of under-construction projects, such as the Nam Theun 1 Hydropower Plant in Laos, the extension of the petroleum pipeline system to the Northeastern region of Thailand, the Yunlin offshore wind farm in Taiwan, and the Gangdong fuel cell power plant in South Korea.
5. Advised on the development of the EGCO Group's risk management monitoring system, which updates at a minimum of once per quarter for corporate risk, and on the key risk indicator (KRI) Monitoring Report in this year's ROC meeting and risk management committee (RMC) meeting.
6. Advised on the organization of the seminar and workshop on sustainable value creation through an enterprise risk management plan for the EGCO Group's employees, executives, risk owners, and risk coordinators (for organizations, subsidiaries, joint ventures, power plants, and department risk levels) in July 2020. Identified the EGCO Group's 2021 corporate key risks and KRIs, and created an effective risk management plan.
7. Advised on the application of the COSO Enterprise Risk Management Integrated Framework for companies within the EGCO group. Emphasized the importance of considering risk in both the strategy-setting process and performance improvement.
8. Advised on the EGCO's international credit rating risk appetite and risk tolerance.
9. Considered the EGCO group's 2021 corporate key risks, KRIs, risk rating scale, root cause analysis, and risk mitigation plans.
10. Set the ROC's 2021 agenda and meeting schedule.
11. Conducted the annual self-assessment using the ROC's self-assessment form, which was created according to the guidelines of the Stock Exchange of Thailand (SET). The 2020 self-assessment results showed that the composition, qualifications, and performance of the ROC were well aligned with the ROC Charter and the SET's guidelines. The results were then reported to the board of directors.

**PROFESSOR DR. ANYA KHANTHAVIT**  
Chairman of the Risk Oversight Committee

## Investment Committee's Report



EGCO's Investment Committee Charter prescribes that the Board of Directors shall appoint a total of five members to the Investment Committee, comprising four non-executive directors and the President, with the Senior Vice President of the Corporate Secretary Division assigned to serve as the Secretary to the Committee. As of December 31, 2019, the Investment Committee, appointed by the Board of Directors, consisted of non-executive directors, namely Mr. Kulit Sombatsiri, the Chairman of the Committee, Ms. Choosri Kietkajornkul, Mr. Shunichi Tanaka, and Mr. Naoki Tsutsumi, and Mr. Thepparat Theppitak, the President. All directors are experts with experience in the electricity and energy industry and in management, both in Thailand and overseas.

**MR. KULIT SOMBATSIRI**

The Chairman of the Investment Committee

In 2020, the Investment Committee placed emphasis on strategic plans and investment directions to cope with the energy situation and global economic conditions. The Investment Committee convened a total of 13 meetings to consider significant issues assigned by the Board of Directors as prescribed in the Investment Committee Charter. Its activities can be summarized as follows:

1. The Committee considered the feasibility study and progress of new investment projects both in energy businesses and in new energy-related businesses in Thailand and overseas. Additionally, the Committee secured funding in accordance with the Company's vision and strategic plans, taking into consideration appropriate remuneration and offering opinions and suggestions on operations to the Management.
2. The Committee considered asset management strategies to ensure the maximum benefits of the Company, such as capital reduction, loan refinancing, and the development of EGCO Rayong Industrial Estate on the site of EGCO's Rayong Power Plant in collaboration with the Industrial Estate Authority of Thailand to take advantage of existing assets and create growth opportunities for EGCO's main and related businesses as well as opportunities for investment in new businesses.
3. The Committee reviewed and scrutinized the Investment Guideline as well as the amendment of the regulations of the Electricity Generating Public Company Limited regarding the governance of subsidiaries, affiliates, and joint ventures, and subsequently proposed them to the Board of Directors for consideration to ensure alignment with the Company's current business operation.
4. The Committee scrutinized both short-term and long-term strategic plans, annual action plans, budgets, and manpower before proposing them to the Board of Directors for approval to ensure that they were in line with the Company's vision, mission, and policies and that the budget and manpower were sufficient for operation support the approved strategic and action plans.
5. The Committee monitored and assessed investment projects to ensure that they were managed and executed as planned and provided guidance and suggestions if they were not implemented in accordance with the plan assigned by the Board of Directors.
6. The Committee followed up the 2020 action plan, covering four areas of the Balanced Scorecard, namely finance, customer, internal management, and learning and growth. The Management was assigned to report monthly progress and presented quarterly reports to the Board of Directors to provide suggestions in case the action plan was not executed as planned.

The Investment Committee had fulfilled its duties as prescribed in the Charter and as assigned by the Board of Directors. The Committee had considered various matters in the best interests of the Company and stakeholders with care and diligence and in accordance with relevant laws and Company's regulations. The meeting results were also regularly reported to the Board of Directors.

## Nomination and Remuneration Committee's Report

In 2020, the Nomination and Remuneration Committee, appointed by the Board of Directors, consisted of two non-executive directors, namely Mr. Toshiro Kudama, Chairman of the Nomination and Remuneration Committee, and Mr. Roengchai Khongthong, and three independent directors, namely Dr. Pasu Loharjun, Assoc. Prof. Dr. Nualnoi Treerat, and Assoc. Prof. Dr. Bordin Rassameethes. The Nomination and Remuneration Committee performed its duties assigned by the Board of Directors as stipulated in the Nomination and Remuneration Committee Charter.



In the previous year, the Nomination and Remuneration Committee convened a total of nine meetings. In addition to the nomination and remuneration of directors and senior executives according to the Company's criteria and procedures, the Nomination and Remuneration Committee also placed importance on organization restructuring and remuneration restructuring to ensure alignment with the revision of the Company's vision, mission, and strategic plans and to accommodate the Company's long-term growth. Additionally, the Committee revised the board appraisal to ensure consistency with international practices. Its main activities were as follows:

### 1. Self-appraisal of the Board of Directors and the Nomination and Remuneration Committee

The Nomination and Remuneration Committee reviewed the appraisal criteria and procedures, self-appraisal forms of the Board of Directors, and its own performance. In 2020, the Committee, in its meeting no. 8/2019 held on October 20, 2020, deemed that both individual and group appraisal of the Board of Directors should continue as in 2019, using a revised appraisal form. The Committee also introduced cross-appraisal for the board, to better reflect the board performance of which the result would be used as guidelines for improvement. As for its own self-appraisal, the Nomination and Remuneration Committee deemed that the current appraisal procedures and self-appraisal forms were appropriate.

The Committee conducted its self-appraisal and disclosed the appraisal results under the section of Corporate Governance.

### 2. Organization Restructuring

The Committee approved the restructure of the following functions: President, Strategy and Asset Management, and Domestic Business Development to better correspond with the nature of their functions and the Company's current business operation as well as seek opportunities of investing in new electricity-related businesses.

The revised structure was approved by the Board of Directors, effective as of January 1, 2021.

### 3. Improvement of Employee Welfare and Benefits

In light of the COVID-19 pandemic, the Committee approved temporary one-year COVID-19 insurance for employees as well as improved welfare to cover preventive medical expenses more flexible. Additionally, the Committee improved the welfare and benefits for employees assigned to work overseas to ensure that they are commensurate with each country's cost of living.

### 4. Remuneration Restructuring


The Committee considered and approved the restructuring of the remuneration of employees at various levels to maintain competitiveness against other companies in the power generation industry as part of the Company's HR Roadmap in 2020.

The revised remuneration structure was approved by the Board of Directors, effective as of January 1, 2021.

## 5. Succession Planning

As several senior executives are due to retire in 2020, the Committee constantly followed up on the progress of succession planning and human resource development planning to ensure that the qualified successors would be appointed in a timely manner to continue the operation and drive the Company towards the vision and strategies as determined by the Board of Directors.

The Nomination and Remuneration Committee had performed its duties as prescribed in the Charter and as delegated by the Board of Directors with care and diligence as well as fairness and transparency, complying with the good corporate governance principles and acting in the best interests of the Company and stakeholders.



**MR. TOSHIRO KUDAMA**

Chairman of the Nomination and  
Remuneration Committee



# Corporate Governance and Social Responsibility Committee's Report



The Corporate Governance and Social Responsibility Committee of Electricity Generating Public Company Limited comprises five directors: three independent directors, one non-executive director, and the President.

As of December 31, 2020, members of the Corporate Governance and Social Responsibility Committee are as follows: Dr. Pasu Loharjun, Independent Director and Committee Chairman; Assoc. Prof. Dr. Nualnoi Treerat, Independent Director; Assoc. Prof. Dr. Bordin Rassameethes, Independent Director; Prof. Dr. Pisut Painmanakul, Director; and Mr. Thepparat Theppitak, President. The Senior Vice President of the Corporate Secretary Division serves as Secretary to the Committee.

The Committee's duties are assigned by the Board of Directors. It oversees and monitors the Company's operations to ensure compliance with the Good Corporate Governance Principles and Anti-Corruption Policy. It also promotes the Corporate Social Responsibility Policy, focusing on equitable treatment of all shareholders for sustainable development and continuous growth.

In 2020 the Committee held four meetings. The details of its activities can be summarized as follows:

## 1. Good Corporate Governance

1.1 The Committee reviewed and amended the Good Corporate Governance Principle Sections: Conflicts of Interest. The Committee presented the Board with the revised text, detailing the policy and guidelines for the prevention of conflicts of interest applicable to employees and executives, aiming to strengthen corporate governance and augment ethical practices. In essence, the amended principle stipulates that all employees, from operational staff to executive vice presidents, must report any conflict of interest they or their family members may have with the Company. Reporting shall be done electronically and submitted to the head of their division. The Corporate Secretary shall keep a copy of these reports.

1.2 Pursuant to the SEC's new 56-1 One Report requirement, which seeks to lessen listed companies' annual reporting

burden by combining Form 56-1 with Form 56-2 and elevate the standard for Environment, Society, Governance (ESG) disclosure, and its provision that allows well-prepared listed companies to begin submitting the new integrated report ahead of the effective date in 2022, the Committee proposed to the Board that EGCO had the potential and capability to submit the new integrated 56-1 One Report, which would also include a sustainability report. The Committee reasoned that doing so would demonstrate the EGCO Group's sustainable operations and reinforce its good corporate governance.

1.3 The Committee reviewed and approved the Corporate Governance and Anti-Corruption plans, which the Committee deemed in compliance with EGCO's short- and long-term strategic plans and international standards. In addition, the Committee monitored and offered beneficial suggestions for the Action Plan for the Promotion of Good Corporate Governance and Anti-Corruption Principles, as well as provided operational oversight throughout the year to ensure compliance with the EGCO Group's Good Corporate Governance Principles.

1.4 The Committee promoted and encouraged communications and activities that promoted good corporate governance principles. In 2020 the EGCO Group conducted online activities, such as CG e-learning and CG Podcast, instead of conventional offline activities to reduce the risk of COVID-19 spreading due to physical contact.

## 2. Corporate Social Responsibility for Sustainable Business Operations

2.1 The Committee monitored the progress of DJSI Corporate Sustainability Assessment (CSA) questionnaire completion and acknowledged the result of the previous year's assessment. The EGCO Group has become Thailand's first power company to be an Electric Utilities member of the Emerging Markets Index of the Dow Jones Sustainability Indices (DJSI) as of 2020.

2.2 The Committee acknowledged the EGCO Group's corporate social responsibility (CSR) performance. The CSR has been underway as part of the long-term action plan since 2017 for the benefit of communities, society, and the environment. It is part of the EGCO Group's Business Sustainability Policy. In 2020, despite the COVID-19 pandemic, EGCO was able to adhere to most of the plan, with minor adjustments that suit the situation for the continued benefit of communities and society. EGCO's CSR activities included the following:

**2.2.1 Improving the quality of life of communities around its power plants**

Each power plant conducted its own projects or activities based on the operational framework's six dimensions and appropriateness to the context of its immediate surroundings. These six dimensions support local employment, child and youth development, development of vocational skills, promotion of good community hygiene and sanitation, development of public utilities, and conservation of natural resources and the environment. Moreover, EGCO published a special issue of the Sukjai newsletter entitled "Guide to the New Way of Life: How to Take Care of Your Body and Mind in Every Crisis" to help communities protect themselves from the COVID-19 pandemic and adjust to the New Normal.

**2.2.2 Child and youth development**

EGCO continued developing the two projects approved in 2016: the Khanom Power Plant Learning Center and EGCO's Power Plants and Children's Schools Project. In 2020, EGCO created a virtual tour of the Khanom Power Plant Learning Center through which children, teachers, families, and the general public may learn about electricity. Being online allows the public to access the center's knowledge at any time and place without interruption. This virtual tour has been created under the concept "Stop the Disease. Never Stop Learning."

As for EGCO's Power Plants and Children's Schools, EGCO gave vocational scholarships to young students in communities around its power plants for the fourth consecutive year, according to its action plan. Additionally, EGCO expanded its energy and environmental conservation activities from the student level to the school level through the inclusion of teachers. EGCO began mapping schools' carbon

footprint and financially supported school activities that promoted greenhouse gas emission reduction and carbon sequestration in trees. This initiative is part of its participation in the Low Emission Support Scheme (LESS) of the Thailand Greenhouse Gas Management Organization (Public Organization). Furthermore, EGCO is currently developing the Energy Teachers curriculum, which will enable teachers to educate young students about electricity upon completion.

**2.2.3 Watershed forest conservation and reforestation**

This project is spearheaded by the non-profit Thai Rak Pa Foundation, whose inception and operations have always been supported by EGCO. The project aims to foster sustainable development by conserving and restoring watershed forests and their biodiversity through collaborations with a network of allies in key locations across the country. In 2020, the foundation took part in the "Reforestation for Income" project in Chiang Mai to decrease monocultural land and increase the accumulated green spaces to 911 rai, which is already higher than the target. The foundation also reforested an area of 145 rai in Chaiyaphum in the project entitled "Reforestation and Watershed Conservation."

2.3 The Committee endorsed the 2021 CSR Action Plan, which supports EGCO's sustainability through the following two programs:

**2.3.1 Khanom Power Plant's Biodiversity Development Plan (a continuation of the 2020 Plan)**

**2.3.2 Integrated CSR guidelines, which are in compliance with international sustainability standards**

In accordance with good corporate governance principles, the Committee provided a meeting report to the Board of Directors after every meeting.



**DR. PASU LOCHARJUN**

Chairman of the Corporate Governance  
and Social Responsibility Committee



# Internal Control and Related Transactions

## Internal Control

The Board has assigned the Audit Committee the responsibility of reviewing and monitoring the adequacy of the internal control system as well as considering the audit result of the Internal Audit Division and the external auditors' opinions on the internal control system of EGCO and its subsidiaries. In 2020, the Audit Committee reviewed the appropriateness and effectiveness of the internal control system assessment report provided by the Management to ensure that the internal control system of EGCO and its subsidiaries was in compliance with the guidelines of the Securities and Exchange Commission (SEC), the Stock Exchange of Thailand (SET), and the Internal Control Integrated Framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In the Board of Directors' meeting No. 2/2021 on January 22, 2021, with the Audit Committee also attending, the Board of Directors approved the assessment of the internal control system of EGCO and its subsidiaries. The Board of Directors agreed with the Audit Committee that the internal control system of EGCO and its subsidiaries was sufficient and appropriate and that EGCO and its subsidiaries had adequate personnel to operate the system efficiently. In addition, the internal control system was properly set to monitor and supervise the operations of subsidiaries to safeguard the assets of the Company and subsidiaries from misuse or unauthorized use by Directors, Executives, or employees and sufficiently prevent transactions with persons who might have conflicts of interest and related parties. Regarding other aspects of internal control, the Board of Directors found the measures to be sufficient. In the previous year, the Audit Committee received a report from the external auditors stating that there was no significant deficiency in the internal control system.

EGCO's internal control system includes operations objectives, reporting objectives, and compliance objectives. The review of the internal control system of EGCO and its subsidiaries according to the five components of the COSO Internal Control Integrated Framework can be summarized as follows:

### 1. Control Environment

- A clear vision, mission statement, and business objectives have been set by the Board of Directors as guidelines for the Management and employees, with regular monitoring to ensure target achievement, taking into account fair treatment to all stakeholders, which is linked to the creation of long-term value for the Company.
- The Board of Directors has designed a suitable organizational structure to accommodate business growth. The organization structure is subject to adjustment according to the changing environment.
- The Board of Directors has established EGCO's Business Code of Conduct and good corporate governance principles in writing, subject to periodic review, for Directors, Executives, and employees to adhere to. Orientation is also organized for new employees to foster an understanding of their roles and responsibilities in upholding the aforementioned practices and to prevent conflicts of interest.
- The Board of Directors has established regulations, orders, and the table of authorities in writing and announced them to employees for their acknowledgment and compliance.
- The Board of Directors has established an Anti-Corruption Policy and endorsed the Anti-Corruption Manual as guidelines for Directors, Executives, and employees to adhere to.
- EGCO has put an internal control policy in place. The Board of Directors has assigned the Audit Committee to review the suitability and effectiveness of the internal control system to ensure that the Company and its subsidiaries have suitable and adequate measures to protect their assets and protect the interests of their shareholders. The Internal Audit Division is charged with the duty of auditing the activities of all divisions.

### 2. Risk Assessment

- The Board of Directors has assigned the Risk Oversight Committee to supervise the identification of risks, perform impact assessment, identify opportunities that may arise



in the future, as well as oversee a monthly corporate risk management plan. The Board of Directors has also assigned the Audit Committee to monitor corporate risks on a quarterly basis.

- EGCO recognizes that risk management is the duty of all divisions and has assigned the Risk Assessment Division to perform as the support unit for the Company's integrated risk management to ensure that the level of efficiency and effectiveness is in line with EGCO's current business situation.
- EGCO conducts risk assessment based on external and internal factors that might affect its target. The likelihood and impact of each factor is assessed and prioritized. Key risks are identified, and risk mitigation measures are implemented to manage them. EGCO also embraces the risk culture as its corporate culture.
- In 2020, EGCO developed a management plan for the organization's core risks as well as plans to deal with emerging risks, including the 2019 coronavirus disease (COVID-19) epidemic, changes in government policies due to climate change, technological changes, cybersecurity, and the protection of personal information.

### 3. Control Activities

- EGCO has defined the authorities and transaction approval levels of executives in writing in the table of authorities, which is reviewed at appropriate intervals.
- EGCO has required that its procurement comply with relevant regulations and orders. The procedures as well as the responsibilities in the procurement process were clearly defined.
- Responsible units for transaction approval, account operation or recording, and asset safeguarding are properly segregated.
- The Company monitors and supervises the operating results of its subsidiaries and associated companies, with the Management reporting such performance to the Board of Directors for acknowledgment on a monthly basis.
- Transactions that qualify as connected transactions are executed in compliance with SET's regulations, taking into account the reasonableness and the best interest of the Company. They must also be approved by an authorized person with no interest in such transactions
- A business continuity plan (BCP) has been drawn up to mitigate the impact of the 2019 coronavirus disease (COVID-19), which may affect the operations of EGCO's

headquarters and power plants in EGCO Group. The plan includes measures such as working from home, restricted areas, and limiting the number of employees in the control room per shift.

- EGCO has improved the Distributed Denial-of-Service (DDoS) attack monitoring and prevent system and has established an information security system in accordance with the ISO/IEC 27001 international standard to cope with the risk of technological changes and cybersecurity risks.

### 4. Information & Communication

EGCO's information system provides sufficient important information for the decision making of the Board of Directors, Sub-committee, and the Management as well as effective internal communication channels as detailed below:

- The Board of Directors and the Sub-committees receive the meeting notice and agenda containing necessary and sufficient information no less than 7 days prior to the meeting.
- The monthly performance report is to be sent to the Board of Directors. In addition, the Board of Directors can invite relevant persons including the Management, employees, external auditors, internal auditors to attend a meeting to discuss, offer clarifications, or answer questions.
- EGCO utilizes its intranet and EGCO Talk Radio as internal communication channels for corporate information related to policies, regulations, orders, and good corporate governance, including the Anti-Corruption Manual. In addition, in 2020, EGCO provided knowledge about fighting corruption through regular activities held on the Company's Intranet.
- Data and documents used in the preparation prepare the financial report, accounting records, and other important documents are stored and categorized in an orderly manner. The auditor using the stored information did not find any defects and had no recommendation for improvement.
- Laws, regulations, and orders relevant to EGCO's business are categorized and compiled in a compliance database for reference and research, with the legal division responsible for handling the information and advising on inquiries.
- EGCO has provided two-way communication channels. EGCO's website, [www.egco.com](http://www.egco.com), serves as a communication channel for all external stakeholders and gives them access to corporate information at all times. The Company also holds a quarterly meeting with investors and analysts as well as press conferences with the media. In addition,



an investor brochure is prepared by the Investor Relations Division for distribution to shareholders and investors. Stakeholders can contact EGCO and inquire about EGCO through the aforementioned channels as well.

- The whistleblowing system has been codified in EGCO's Code of Conduct, which is available on its website. Employees and stakeholders are, therefore, able to report any suspected violations to the Corporate Governance Committee, the Audit Committee, and the Board of Directors, while maintaining anonymity. The system also provides protection to whistleblowers by keeping the source of information confidential and revealing such information only to those assigned relevant duties in order to foster trust among whistleblowers.
- The Company requires employees from the operational level to the assistant executive level to prepare a report on interest through the MS Forms system in EGCOGroupNet in order to comply with the policies and the conflict of interest practices of Electricity Generating Public Company Limited, which requires employees to prepare a report on employee interest on their first day of duties at EGCO.

## 5. Monitoring Activities

- The Asset Management Unit, Power Plant Management Unit, and Project Management Unit have been established to carry out the duties for monitoring and overseeing the performance of EGCO as well as its subsidiaries and associated companies against operation plans and KPIs. These units are also tasked with analyzing failure to follow such plans or meet such KPIs and regularly reporting the results to Executives and the Board of Directors.
- External auditors are encouraged to perform their tasks independently and regularly report audit results to the Audit Committee.
- EGCO requires that the Management review the internal control system of EGCO and its subsidiaries annually to assess its adequacy and suitability, using the assessment form prepared in accordance with the guidelines of the SEC.
- EGCO's employees and Executives are required to study and strictly adhere to rules and regulations and Code of Conduct in EGCO's intranet system as well as required to sign a compliance statement that confirms their adherence to the code of conduct.
- The Internal Audit Division regularly reviews the adequacy and suitability of the internal control system and monitors the implementation of the Anti-Corruption Policy. The

review outcomes are presented to the Audit Committee for consideration and approval and subsequently to the Board of Directors for acknowledgment.

- External auditors review EGCO's internal control system in accounting and finance to determine audit guidelines, timeframe, and scope of work. In 2020, the external auditor did not find any material issues and had no recommendation for improvement.

### Chief Internal Audit

In the Audit Committee Meeting No. 7/2019 held on 9 July 2019, the Audit Committee appointed Mrs. Jutima Tungcharoendee as the Chief Internal Audit due to her knowledge, ability, and experience in the internal auditing of EGCO. She had attended courses related to internal audit, was a Certified Professional Internal Audit of Thailand (CPIAT), and had passed the Forensic Accounting Certificate (FAC) exam. She also possessed an understanding of EGCO's activities and operations. Therefore, she was deemed appropriate to adequately and appropriately perform such duties.



## Related Transactions

In conducting our business activities and services, there are related transactions between EGCO or its subsidiaries and persons or parties who may have potential conflicts of interest. EGCO endeavors to ensure that these transactions are justified and in compliance with the Stock Exchange of Thailand ("SET") and the Capital Market Supervisory Board's rules and regulations. Apart from designating the authorized persons to approve the transaction in accordance

with the Table of Authority, the Audit Committee is entrusted to review the related transactions that need to be approved by the Board of Directors. The details of the related transactions are disclosed under the items 37 and 39 of the Notes to Financial Statements for the year ended December 31, 2020.

### PROCEDURES TO APPROVE THE RELATED TRANSACTIONS

EGCO has materialized the following policies and guidelines in treating and approving the related transactions.

- In case of entering into any agreements or any related transactions with EGCO, subsidiaries, joint venture companies, associate companies and/or any concerned parties, EGCO will consider the necessity and justification of such transactions for the best interest of the Company. Costs are charged at the market price like transactions with any other outside parties (Arm's Length Basis). If there is no such price, EGCO will apply the price of similar market transactions. EGCO may also compare the price with the one recommended by an independent appraiser to ensure that such price is reasonable to maximize the Company's benefits.
- Business transactions that are considered connected transactions according to the SET's rules and regulations have to strictly comply with the requirements of the SET's and the Capital Market Supervisory Board. They are also to be reviewed by the Audit Committee in case that such transactions must be approved by the Board of Directors.
- For business transactions having terms and agreements that any ordinary person will agree with the counterpart under similar circumstances, EGCO always ensures its bargaining power without any influential privileges resulted from persons holding administrative titles as the director, executive or related authority. Such transactions shall be reported to the Audit Committee and the Board of Directors. This is aimed to ensure that such transactions are properly carried out and provide optimal benefits to the Company and in line with the procedures.
- In case that the shareholders' approval is needed, the major shareholders who may have conflicts of interest can attend the meeting in order to constitute a quorum but will not have voting rights, thus does not affect the quorum and the vote counting.
- Directors and executives with potential conflicts of interest are not allowed to vote or attend the meeting.



## RELATED TRANSACTIONS IN 2020

EGCO or subsidiaries' related transactions which may have potential conflicts of interest in 2020 as follows:

### 1. Related Transactions with Electricity Generating Authority of Thailand (EGAT)

EGAT is a major shareholder which owns 25.41% of EGCO stakes and has 4 representative directors on EGCO Board.

TRANSACTIONS	VALUE OF RELATED TRANSACTIONS FOR THE FISCAL YEAR ENDED 31 DECEMBER 2020 (IN MILLION BAHT)	NECESSITY AND REASONABLENESS
1. Sales of electricity - Revenue for the period - Receivable	20,833 2,780	The Group has entered into 6 power purchase agreements with EGAT. The agreements are effective for periods of 21 years to 25 years, and another one with a term of renewable period every 5 years. EGAT is the only purchaser which its price and conditions are in accordance with standard prices and have been approved by the government agency.
2. Maintenance / Services Income - Revenue for the period - Receivable	24 24	The Group has entered into maintenance service agreement with EGAT by the price and conditions are following the general business conditions.
3. Back up power fee - Expense for the period - Account Payables	15 2	The Group has entered into a backup power purchase agreement with EGAT for the use in the event of an interruption of the power generation. The prices and conditions are mutually agreed in the agreements which are following the general business conditions.
4. Fuel management and diesel fuel management fee - Expense for the period - Account Payables	4 -	The Group hired an advisor for fuel management and diesel fuel management with EGAT by the price and conditions are following the general business conditions.
5. Service of install and analyze equipment and general repair services fee - Expense for the period - Account Payables	4 3	The Group has hired a service of install and analyze equipment. Including hiring general repair services with EGAT by the price and conditions are following the general business conditions.
6. Training fee - Expense for the period - Account Payables	0.46 0.45	The Group hired EGAT to train employees in a Netmation DCS 2020, Turbine Supervisory, and maintenance course for electrical equipment and generators for power plants in order to develop personnel knowledge and skills to meet commercial requirements.

## 2. Related Transactions with TEPDIA Generating B.V. (TEPDIA)

TEPDIA is a major shareholder which owns 23.94% of EGCO stakes and has 4 representative directors on EGCO Board.

### 2.1 Mitsubishi Corporation Machinery, Inc (MC)

MC indirectly holds some stakes in TEPDIA which owns 5.985%

TRANSACTIONS	VALUE OF RELATED TRANSACTIONS FOR THE FISCAL YEAR ENDED 31 DECEMBER 2020 (IN MILLION BAHT)	NECESSITY AND REASONABLENESS
1. Operation / Maintenance Services Fee - Expense for the period - Account Payables	85 19	The Group has entered into Major Maintenance Agreement with MC in order to provide maintenance services to the power plants. The price for such services is calculated under the agreements on a cost plus basis and will be adjusted annually according to the Consumer Price Index. The agreements are effective for a period of 12 years, commencing from 19 June 2016.
2. Purchases of Spareparts - Spareparts - Account Payables	30 -	The Group received spareparts from MC in accordance with Engineering Procurement and Construction agreement to compensate for the failure to meet the contract conditions totalling 30 million Baht in 2019.
3. Purchases of Spareparts - Spareparts - Account Payables	28 7	The Group has entered into spareparts purchases agreement with MC which is the manufacturer in order to provide maintenance services to the power plants. Prices and conditions are following the general business conditions.
4. Training fee - Expense for the period - Account Payables	1 -	The Group has entered into Cloud Simulator program for employees' training with MC to develop personnel on knowledge and skills to meet commercial requirements. The training agreement is valid for 3 years.

## 2.2 Mitsubishi Corporation Machinery, Inc. (MCM)

MCM is a wholly 100% owned subsidiary of MC which indirectly holds some stakes in TEPDIA which owns 5.985%.

TRANSACTIONS	VALUE OF RELATED TRANSACTIONS FOR THE FISCAL YEAR ENDED 31 DECEMBER 2020 (IN MILLION BAHT)	NECESSITY AND REASONABLENESS
1. Long-term technical advisory service fees - Expense for the period - Account Payables	481 77	The Group has entered into a maintenance service agreement with MCM to provide maintenance to the power plant. The service fee is based on the basis of cost plus margin under the terms of the contract and will be adjusted annually according to the consumer price index. The prices and conditions are in accordance with general business conditions. The agreement is effective for a period 12 years commencing from June 19, 2016.
2. Purchases of Spareparts - Spareparts - Account Payables	3 -	The Group has entered into spareparts purchases agreement with MCM which is the manufacturer in order to provide maintenance services to the power plants. Prices and conditions are following the general business conditions.

## 2.3 JERA Co., Inc. (JERA)

JERA indirectly holds some stakes in TEPDIA which owns 11.97%

TRANSACTIONS	VALUE OF RELATED TRANSACTIONS FOR THE FISCAL YEAR ENDED 31 DECEMBER 2020 (IN MILLION BAHT)	NECESSITY AND REASONABLENESS
1. Long-term technical advisory service fees - Expense for the period - Account Payables	13 3	The Group has entered into a Long-term technical advisory service agreement with JERA to manage the power plant efficiency through expert supervision and consultation. The prices and conditions are in accordance with general business conditions. The agreement is effective for a period 25 years, commencing from June 19, 2016.

## POLICY AND TENDENCY OF FUTURE RELATED TRANSACTIONS

EGCO's existing related transactions tends to continue and EGCO will seek to ensure that all of the related transactions be conducted transparently, fair and beneficial to the Company. The Audit Committee, external auditors or independent consultants shall be assigned by the Board to review and give their independent opinions on the pricing and justifications of those transactions. Disclosure of related transactions shall strictly follow the notifications of SET and SEC. In addition, EGCO will continue to provide the updated information, rules and regulations on related transactions to concerned staffs for thorough understanding which will certainly lead to full compliance and transparency for the optimal benefits of the shareholders.

## SECTION 3

# FINANCIAL STATEMENT



# Financial Overview

## Consolidated Financial Statements

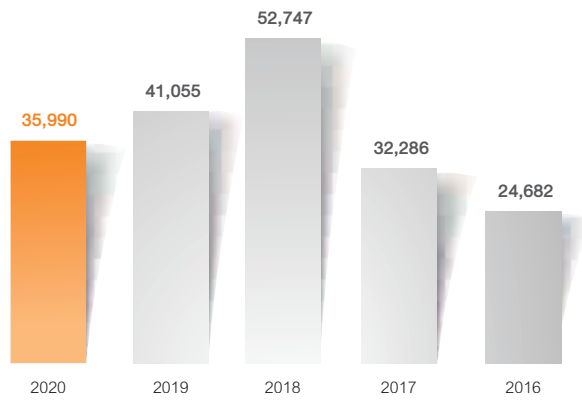
	2020	2019	2018	2017	2016
<b>FINANCIAL PERFORMANCE (Million Baht)</b>					
Sales and service income	33,578	37,511	35,522	30,018	22,794
Dividend and other income	2,412	2,895	2,652	2,268	1,888
Net gain on disposal investments in subsidiary and joint ventures	-	-	9,819	-	-
Net gain on disposal investment in marketable securities	-	-	4,358	-	-
Net gain on dissolutions of subsidiary and joint ventures	-	649	395	-	-
Cost of sales and services	(25,258)	(28,420)	(26,606)	(21,332)	(14,840)
Administrative expenses and income taxes	(5,243)	(4,360)	(6,414)	(3,480)	(4,091)
Finance costs	(4,221)	(1,254)	(4,009)	210	(3,610)
Gains on remeasurement of financial instruments, net	1,793	-	-	-	-
Share of profit (loss) from investments in associates and joint ventures	4,838	6,405	5,488	5,773	6,062
Net profit (loss) attributable to non-controlling interests	27	67	43	45	60
Fx gain (loss)	861	(300)	(89)	(1,594)	178
Net profit (loss) attributable to owners of the parent	8,733	13,059	21,073	11,818	8,321
Operating profit (loss) <sup>1</sup>	8,738	10,368	23,372	9,268	9,157
<b>FINANCIAL POSITION (Million Baht)</b>					
Total assets	214,438	208,523	206,428	200,333	197,255
Total liabilities	111,604	103,416	105,577	113,476	114,657
Equity attributable to the owners	102,243	104,491	100,239	86,238	81,973
Non-controlling interests	591	616	611	618	625
Issued and paid-up share capital	5,265	5,265	5,265	5,265	5,265
<b>PER SHARE DATA (Baht)</b>					
Earnings per share	16.59	24.81	40.03	22.45	15.81
Book value	194.21	198.48	190.40	163.81	155.70
Dividend	6.50 <sup>2</sup>	6.50	9.50	7.00	6.50
<b>RATIO ANALYSIS</b>					
Liquidity ratio (Time)	2.14	2.87	1.51	2.26	1.49
Cashflows liquidity ratio (Time)	0.81	0.49	0.44	0.71	0.62
Gross profit ratio (%)	24.78	24.24	25.10	28.94	34.90
Earnings ratio (%)	21.39	27.52	36.19	31.05	27.06
Return on equity ratio (%)	8.45	12.76	22.60	14.05	10.45
Return on assets ratio (%)	4.13	6.29	10.36	5.95	4.41
Debt to equity ratio (Time)	1.09	0.98	1.05	1.31	1.39

Remarks : <sup>1</sup> Net profit (loss) attributable to owners of the parent before the effects of foreign exchange (FX) gain (loss), deferred tax, impairment, financial instruments and lease income.

<sup>2</sup> Subject to the approval of the 2021 Shareholders' Annual General Meeting for the appropriation of net profit and the payment of dividend.

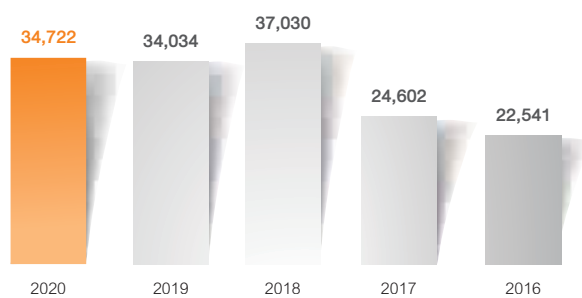
### Total Revenues

Unit : Million Baht



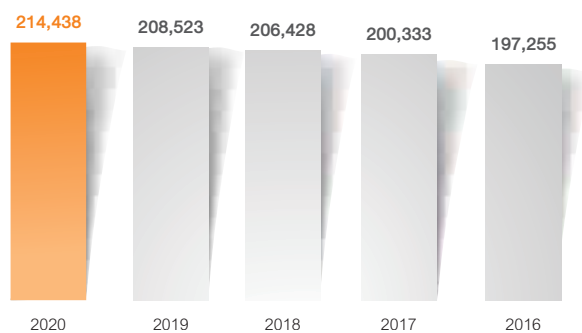
### Total Expenses Excluding Currency Exchange Gains or Losses

Unit : Million Baht



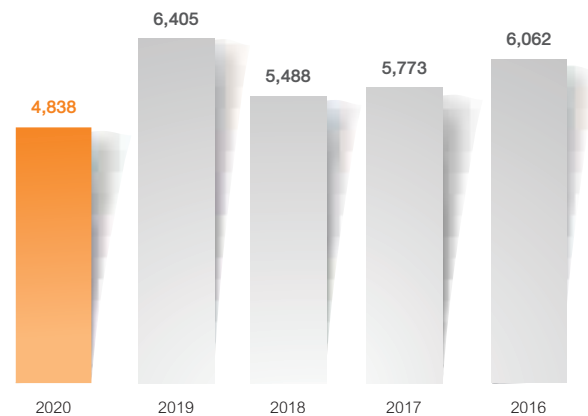
### Total Assets

Unit : Million Baht



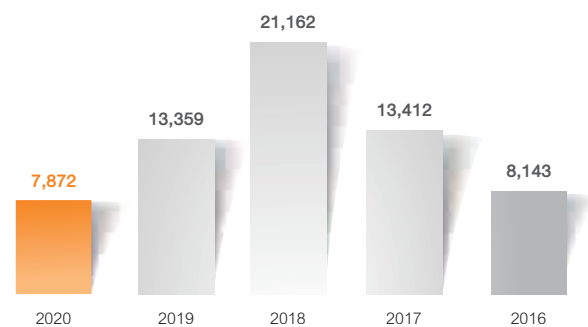
### Share of Profit from Investments in Associates and Joint Ventures

Unit : Million Baht



### Net Profit Excluding Currency Exchange Gains or Losses

Unit : Million Baht



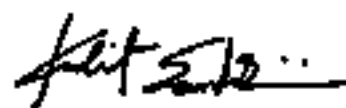
# Statement of Directors' Responsibilities

According to the Public Limited Companies Act B.E. 2535, the Accounting Act B.E. 2543, the Securities and Exchange Act B.E. 2535, and the Notification of Capital Market Supervisory Board re: "Disclosure of Financial Statements and Performance of Listed Companies", the Board of Directors is responsible for preparing the company's true and fair financial statements.

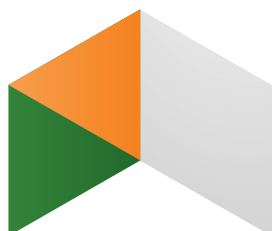
To adhere with such responsibilities, the Electricity Generating Public Company Limited's (EGCO) Board of Directors has issued the company's accounting, finance and budget regulation, B.E. 2550, that Management must comply with. The Audit Committee has reviewed to ensure that EGCO's financial statements are justified and prudently prepared, are in compliance with laws and regulations, and that appropriate accounting policies are consistently applied. The Audit Committee also has reviewed EGCO's internal control systems to ensure their adequacy and effectiveness as a means to safeguard the company's assets from unauthorized use and to prevent fraud.

EGCO has prepared both consolidated and separate financial statements for the year ending December 31, 2020, in compliance with the Thai Financial Reporting Standards, and the financial reporting requirements issued under the Securities and Exchange Act. The appropriate accounting policies were consistently applied, and financial statements were prepared in a prudent and justified manner with significant information adequately disclosed in the financial statement notes. The consolidated and separate financial statements were audited by the auditor with unqualified opinions.

The Board of Directors' opinion is that both the consolidated and separate financial statements for 2020 fairly present EGCO's financial position, operating results and cash flows, in all material respects and in a reliable manner, and that such statements were in compliance with the Thai Financial Reporting Standards and all governing laws and regulations.



MR. KULIT SOMBATSIRI  
Chairman



# Independent Auditor's Report

## To the Shareholders of Electricity Generating Public Company Limited

### My opinion

In my opinion, the consolidated financial statements and the separate financial statements present fairly, in all material respects, the consolidated financial position of Electricity Generating Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial position of the Company as at 31 December 2020, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRS).

### What I have audited

The consolidated financial statements and the separate financial statements comprise:

- the consolidated and separate statements of financial position as at 31 December 2020;
- the consolidated and separate statements of income for the year then ended;
- the consolidated and separate statements of comprehensive income for the year then ended;
- the consolidated and separate statements of changes in equity for the year then ended;
- the consolidated and separate statements of cash flows for the year then ended; and
- the notes to the consolidated and separate financial statements, which include significant accounting policies and other explanatory information.

### 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 are 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.

KEY AUDIT MATTER	HOW MY AUDIT ADDRESSED THE KEY AUDIT MATTER
<p><b>Impairment assessment of goodwill</b></p> <p>Refer to Note 9.3 Impairment of goodwill and Note 21 Goodwill.</p> <p>As at 31 December 2020, the Group had goodwill of Baht 10,012 million less a provision for impairment of Baht 2,096 million, resulting in net book value of Baht 7,916 million, which represented 3.69% of the total consolidated assets. Of this, Baht 7,895 million arose from the acquisition of electricity generation business in the Philippines, and the remaining Baht 21 million arose from the acquisition of an electricity generation businesses in Thailand. The Group recognised an additional impairment loss of Baht 183 million in the consolidated financial statements for the year ended 31 December 2020.</p> <p>The management tests the impairment of goodwill annually at the cash-generating unit level (CGU) and calculates its recoverable amount by applying the value-in-use model. This model involves management's significant judgements in respect to the business' future operating results, projected cash flows and the discount rate to be applied to those projected cash flows. Key assumptions applied in the value-in-use model are electricity tariffs, capacity of the power plants, operating expenditures, capital structure, growth rates and the discount rate to be applied to the projected cash flows.</p> <p>I focused on the goodwill valuation arising from the acquisition of the electricity generation business in the Philippines due to its significant value and the fact that the determination of value-in-use depends on a number of assumptions. Those assumptions involve management's significant judgements in assessing the feasibility of future business plans.</p>	<p>I carried out the following procedures to assess the impairment testing of the goodwill arising from the acquisition of the electricity generation business in the Philippines which was prepared by the management:</p> <ul style="list-style-type: none"> <li>assessed the appropriateness of the management's identification of the CGUs</li> <li>held discussions with management to understand the basis for the assumptions applied and evaluated whether the goodwill impairment testing process and assumptions had been applied consistently across the Group</li> <li>challenged management's significant assumptions used in the goodwill impairment testing, especially the electricity tariffs, capacity of the power plants, operating expenditures, capital structure, growth rates and discount rate. My procedures included comparing those assumptions to the underlying agreements, external sources, forecasted foreign exchange rates and the approved business plan</li> <li>assessed the reasonableness of the business plan by comparing the 2020 plan with actual results</li> <li>assessed whether the discount rate applied by the management was within the acceptable range, taking into account independently obtained data from available public information of companies in the industry</li> <li>tested the sensitivity analysis of key assumptions to assess which factors are sensitive to assumptions and the potential impacts of the range of possible outcomes.</li> </ul> <p>As a result of the procedures performed, I noted that the key assumptions applied by the management are within the acceptable range and consistent with supporting evidence.</p>

KEY AUDIT MATTER	HOW MY AUDIT ADDRESSED THE KEY AUDIT MATTER
<p><b>Impairment assessment of investments in subsidiaries and their related assets</b></p> <p>Refer to Note 9.4 Impairment of investments in subsidiaries, associates and joint ventures and related assets, Note 17 Investments in subsidiaries, associates and joint ventures, Note 19 Property, plant and equipment and Note 20 Intangible assets.</p> <p>The Company recognised a provision for impairment loss on investments in subsidiaries which operate renewable power plants in Thailand of Baht 174 million in the separate statement of income for the year ended 31 December 2020. Also, the Group recognised a provision for impairment loss on the subsidiaries' power plants of Baht 767 million and the relevant rights in the long-term power purchase agreements (presented in intangible assets) of Baht 98 million in the consolidated statement of income for the year then ended. This was because of the less remaining period of adder tariffs as specified in the power purchase agreements which resulted in the significant decrease of the subsidiaries' forecasted revenue.</p> <p>In addition, the Group recognised a provision for impairment loss on the subsidiary' power plant which operates the wind power plant in Australia of Baht 472 million in the consolidated statement of income for the year then ended. This was because of the decrease of the estimated electricity market price which resulted in significant decrease of the forecasted revenue.</p> <p>The management recognised the provision for impairment loss on the investments in the subsidiaries and their related assets and calculated their recoverable amounts by applying the value-in-use model or fair value less costs of disposal. The subsidiaries' significant assets are their power plants and rights in the long-term power purchase agreements.</p> <p>The calculation of the recoverable amounts involves management's significant judgements in identifying CGUs and the assumptions applied, which are the electricity tariffs, capacity of the power plants, operating expenditures, capital structure, growth rates and discount rate to be applied to the projected cash flows.</p> <p>I focused on the impairment assessment of the investments in subsidiaries and their related assets due to their significant values, the various assumptions applied for the calculation of the recoverable amounts and management's significant judgements involved in determining the appropriate level of impairment to be recorded.</p>	<p>I carried out the procedures to assess the impairment testing of the investments in subsidiaries which operate renewable power plants in Thailand and their related assets. In addition, a component auditor in Australia carried out the procedures to assess the impairment testing of the subsidiary's power plant which operates the wind power plant in Australia and I understood and evaluated the work of the component auditor to obtain sufficient and appropriate audit evidences.</p> <p>The component auditor and I carried out the following to review the management's assessment of impairment testing prepared by the management.</p> <ul style="list-style-type: none"> <li>assessed the appropriateness of the impairment indicators and management's identification of the CGUs</li> <li>held discussions with management to understand the basis for the assumptions applied and evaluated whether the impairment testing process and assumptions had been applied consistently across the Group</li> <li>challenged management's significant assumptions used in the impairment testing of the investments in the subsidiaries and their related assets, especially the electricity tariffs, capacity of the power plants, operating expenditures, capital structure, growth rates and discount rates. My procedures included comparing those assumptions to the underlying agreements, external sources and the approved business plan</li> <li>assessed the reasonableness of the business plan by comparing the 2020 plan with actual results</li> <li>assessed whether the discount rate applied by the management was within the acceptable range, taking into account independently obtained data from available public information of companies in the industry.</li> </ul> <p>As a result of the procedures performed, I noted that the key assumptions applied by management in assessing the recoverable amounts were reasonable and consistent with supporting evidence.</p>

KEY AUDIT MATTER	HOW MY AUDIT ADDRESSED THE KEY AUDIT MATTER
<p><b>Acquisition of investment in a joint venture</b></p> <p>Refer to Note 9.2 Fair value estimation on acquisition of investment in a joint venture and Note 17 Investments in subsidiaries, associates and joint ventures.</p> <p>During the year ended 31 December 2020, the Group acquired an investment in a joint venture which invests in a wind electricity generation plant in the Republic of China (Taiwan). Management determined that this acquisition was an investment in a joint venture, applying the definition in TFRS 11 Joint arrangement. In doing so, as required by TAS 28 Investments in Associates and Joint Venture, the management had to determine the fair value of the net identifiable assets acquired and review the purchase price allocation (PPA) in accordance with the concepts in TFRS 3 Business combination. The fair value of identifiable assets acquired and liabilities assumed were presented as part of the investment cost.</p> <p>The management determined that the fair value of net identifiable assets acquired was Baht 10,320 million, which mainly consists of cash and cash equivalents, construction in progress, prepayment for equipment and the rights in the long-term power purchase agreement. The fair value of liabilities assumed was Baht 12,023 million. The valuation of net assets acquired was performed as part of the PPA.</p> <p>The fair value determination of the rights in the long-term power purchase agreement is Baht 9,543 million which involves management's significant judgements in respect to future operating results, projected cash flows and the discount rate to be applied to those projected cash flows. Key assumptions applied in determining the fair value are the electricity tariffs, capacity of the power plants, operating expenditures, capital structure, growth rates and discount rate to be applied to the projected cash flows.</p> <p>I focused on the fair value of the rights in the long-term power purchase agreement because the management applied the discounted cash flow model and the model contains several assumptions. Those assumptions involve management's significant judgements in assessing future cash flows and the discount rate applied for the future cash flows.</p>	<p>I carried out the following procedures to get evidence of management's assessment of the investment acquisition and the fair value determination of the net identifiable assets acquired:</p> <ul style="list-style-type: none"> <li>• read the share purchase agreement to understand the key terms and conditions and confirmed our understanding of the transaction with the management</li> <li>• assessed whether management's accounting for the investment acquisition should be accounted for as an investment in a joint venture and whether it's in accordance with the accounting for business combinations</li> <li>• assessed the appropriateness of the identifiable assets acquired and liabilities assumed as at the acquisition date and evaluated management's procedures for determining the fair values of the net identifiable assets acquired</li> <li>• tested the fair value calculation of the rights in the long-term power purchase agreement and challenged management's significant assumptions applied in the estimation of projected cash flows, such as the electricity tariffs, capacity of the power plant, operating expenditures, capital structure and growth rates, by comparing those assumptions to the underlying agreements and external sources</li> <li>• assessed whether the discount rate applied by management was within the acceptable range, taking into account independently obtained data from available public information of companies in the industry.</li> </ul> <p>As a result of the procedures performed, I determined that the acquisition of the investment that invests in the wind electricity generation plant in the Republic of China (Taiwan) is an investment in a joint venture in accordance with the definition set out in TFRS 11. The assumptions applied in identifying the fair values of the rights in the long-term power purchase agreements were reasonable and in line with the accounting for business combinations.</p>

### Other information

The directors are 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 the audit committee.

### Responsibilities of the directors for the consolidated and separate financial statements

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRS, and for such internal control as the directors determine 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, the directors are 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 the directors either intend to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

The audit committee assists the directors in discharging their responsibilities 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 scepticism 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 the directors.
- Conclude on the appropriateness of the directors' 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 the audit committee 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 the audit committee 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 the audit committee, 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.

PricewaterhouseCoopers ABAS Ltd.



**AMORN RAT PEARMPOONVATANASUK**

Certified Public Accountant (Thailand) No. 4599

Bangkok

22 February 2021



# Statement of Financial Position

Electricity Generating Public Company Limited As at 31 December 2020

	Notes	Consolidated		Separate	
		financial statements		financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	11	17,236,749,670	20,487,547,927	3,682,899,950	4,026,384,871
Short-term investments	12	-	765,325,096	-	138,000,000
Short-term investments used as collateral	13	-	3,932,986,104	-	-
Financial assets measured at amortised cost	12	3,257,439,292	-	1,927,863,103	-
Financial assets used as collateral measured at amortised cost	13	3,639,546,585	-	-	-
Trade receivables, net	14	4,810,991,543	5,582,801,908	-	-
Current portion of lease receivable under power purchase agreements from a related party, net	39.3	1,466,629,335	1,355,511,717	-	-
Other receivables, net	16	1,393,471,390	1,136,171,541	3,008,300,829	875,355,841
Current portion of long-term loans to related parties	39.5	8,334,905	-	193,283,616	1,862,358,255
Derivative assets	7, 8	222,577,631	-	-	-
Fuel and spare parts and supplies, net	15	2,760,001,008	2,533,919,504	-	-
Non-current assets held-for-sale	19	115,600,000	-	-	-
<b>Total current assets</b>		<b>34,911,341,359</b>	<b>35,794,263,797</b>	<b>8,812,347,498</b>	<b>6,902,098,967</b>

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

# Statement of Financial Position

Electricity Generating Public Company Limited As at 31 December 2020

	Notes	Consolidated		Separate	
		financial statements		financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
<b>Assets (continued)</b>					
<b>Non-current assets</b>					
Lease receivables under power purchase agreements from a related party, net	39.3	15,945,866,644	16,817,262,696	-	-
Other receivables, net	16	715,813,462	1,507,895,165	730,972,134	1,678,372,296
Long-term loans to related parties, net	39.5	1,290,936,127	1,231,200,000	50,883,161,860	49,889,026,121
Investments in subsidiaries, net	17.2	-	-	15,597,965,222	15,772,110,177
Investments in associates	17.3	14,010,610,872	14,573,577,102	3,357,625,000	3,357,625,000
Investment in joint ventures, net	17.4	82,601,529,874	72,707,152,764	27,432,963,101	27,432,963,101
Investment property, net	18	518,174,085	519,210,182	719,908,547	719,908,547
Property, plant and equipment, net	19	49,750,113,726	52,781,655,445	424,324,065	727,243,766
Right-of-use assets, net		512,883,256	-	29,517,536	-
Intangible assets, net	20	2,991,502,254	3,603,529,378	-	-
Goodwill, net	21	7,915,962,810	8,098,933,815	-	-
Derivative assets	7, 8	2,017,420,535	-	552,990,728	-
Deferred tax assets, net	26	1,002,859,734	629,838,569	-	-
Other non-current assets		252,680,100	258,085,742	24,740,603	13,528,166
<b>Total non-current assets</b>		<b>179,526,353,479</b>	<b>172,728,340,858</b>	<b>99,754,168,796</b>	<b>99,590,777,174</b>
<b>Total assets</b>		<b>214,437,694,838</b>	<b>208,522,604,655</b>	<b>108,566,516,294</b>	<b>106,492,876,141</b>



For Director .....

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

# Statement of Financial Position

Electricity Generating Public Company Limited As at 31 December 2020

	Notes	Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
<b>Liabilities and equity</b>					
<b>Current liabilities</b>					
Short-term loans from financial institutions	22	-	37,580,625	-	-
Trade payables		2,509,974,373	2,862,129,907	-	-
Other payables	23	2,427,473,018	2,584,697,826	607,646,251	576,725,475
Payable for acquisition of investment in a joint venture	17.1.3	-	1,240,000,000	-	1,240,000,000
Current portion of long-term loans from financial institutions, net	24.1	11,066,549,535	5,754,330,228	6,141,986,148	936,080,312
Current portion of long-term loans from other company, net	24.2	103,471,913	-	-	-
Derivative liabilities	7, 8	139,107,932	-	88,974,645	-
Current portion of lease liabilities, net		43,532,326	-	4,913,267	-
<b>Total current liabilities</b>		<b>16,290,109,097</b>	<b>12,478,738,586</b>	<b>6,843,520,311</b>	<b>2,752,805,787</b>
<b>Non-current liabilities</b>					
Long-term loans from financial institutions, net	24.1	76,332,703,816	78,986,495,241	27,670,000,713	33,900,450,635
Long-term loan from other company, net	24.2	383,510,375	-	-	-
Debenture	25	5,041,566,080	4,786,803,360	5,041,566,080	4,786,803,360
Derivative liabilities	7, 8	6,117,562,236	-	1,385,285,896	-
Lease liabilities, net		484,808,293	-	25,193,687	-
Retirement benefit obligations		689,557,426	602,699,376	274,805,894	233,409,750
Provision for decommissioning costs	27	2,501,966,353	1,982,621,801	-	115,490,000
Deferred tax liabilities, net	26	2,969,172,768	3,053,843,649	-	-
Other non-current liabilities	28	792,497,186	1,524,995,640	2,046,871	20,649,926
<b>Total non-current liabilities</b>		<b>95,313,344,533</b>	<b>90,937,459,067</b>	<b>34,398,899,141</b>	<b>39,056,803,671</b>
<b>Total liabilities</b>		<b>111,603,453,630</b>	<b>103,416,197,653</b>	<b>41,242,419,452</b>	<b>41,809,609,458</b>

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

# Statement of Financial Position

Electricity Generating Public Company Limited As at 31 December 2020

		Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
	Note	Baht	Baht	Baht	Baht
Liabilities and equity (continued)					
Equity					
Share capital					
Authorised share capital					
- 530,000,000 ordinary shares at par of Baht 10 per share					
		5,300,000,000	5,300,000,000	5,300,000,000	5,300,000,000
Issued and paid-up share capital					
- 526,465,000 ordinary shares paid-up at Baht 10 per share					
		5,264,650,000	5,264,650,000	5,264,650,000	5,264,650,000
Premium on share capital		8,601,300,000	8,601,300,000	8,601,300,000	8,601,300,000
Premium on treasury stock		47,373,035	47,373,035	47,373,035	47,373,035
Surplus from acquisition of non-controlling interests		(218,688,716)	(218,688,716)	-	-
Retained earnings					
Appropriated					
- Legal reserve	29	530,000,000	530,000,000	530,000,000	530,000,000
Unappropriated		102,196,276,309	97,171,751,541	54,447,221,695	50,362,962,532
Other components of equity		(14,177,706,870)	(6,905,974,725)	(1,566,447,888)	(123,018,884)
Total equity attributable to the owners of the parent					
		102,243,203,758	104,490,411,135	67,324,096,842	64,683,266,683
Non-controlling interests		591,037,450	615,995,867	-	-
Total equity					
		102,834,241,208	105,106,407,002	67,324,096,842	64,683,266,683
Total liabilities and equity					
		214,437,694,838	208,522,604,655	108,566,516,294	106,492,876,141

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

# Statement of Income

Electricity Generating Public Company Limited For the year ended 31 December 2020

	Notes	Consolidated financial statements		Separate financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
Sales and services income	30	30,700,606,032	31,208,995,946	-	-
Lease income under power purchase agreements		2,877,064,795	6,301,947,319	-	-
Costs of sales and services	31	(25,257,849,594)	(27,887,748,128)	-	-
Costs of lease under power purchase agreements		-	(532,371,620)	-	-
<b>Gross profit</b>		<b>8,319,821,233</b>	<b>9,090,823,517</b>	<b>-</b>	<b>-</b>
Dividend and other income	32	2,412,689,410	2,894,966,633	10,201,867,650	10,142,792,749
Net gain on dissolution of a subsidiary		-	649,112,418	-	641,664,225
Loss on impairment of assets	33	(1,608,501,204)	(610,766,408)	(174,144,955)	(2,830,000,000)
Net gain (losses) on currency exchange		860,816,052	(299,880,275)	(25,364,818)	(31,845,343)
Gains on remeasurement of financial instruments, net		1,792,608,475	-	203,469,789	-
Administrative expenses		(2,612,841,607)	(2,890,248,805)	(1,138,521,338)	(1,299,507,406)
Finance costs	34	(4,220,655,920)	(1,253,470,310)	(1,654,380,159)	667,009,869
Share of profit from investments in associates and joint ventures, net	17.1	4,838,035,052	6,404,977,057	-	-
<b>Profit before income tax expense</b>		<b>9,781,971,491</b>	<b>13,985,513,827</b>	<b>7,412,926,169</b>	<b>7,290,114,094</b>
Income tax expense	35	(1,022,100,500)	(858,898,670)	-	-
<b>Profit for the year</b>		<b>8,759,870,991</b>	<b>13,126,615,157</b>	<b>7,412,926,169</b>	<b>7,290,114,094</b>
<b>Profit attributable to:</b>					
Owners of the parent		8,733,030,898	13,059,235,793	7,412,926,169	7,290,114,094
Non-controlling interests		26,840,093	67,379,364	-	-
<b>Profit for the year</b>		<b>8,759,870,991</b>	<b>13,126,615,157</b>	<b>7,412,926,169</b>	<b>7,290,114,094</b>
<b>Basic earnings per share - owners of the parent</b>	36	<b>16.59</b>	<b>24.81</b>	<b>14.08</b>	<b>13.85</b>

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

# Statement of Comprehensive Income

Electricity Generating Public Company Limited For the year ended 31 December 2020

	Note	Consolidated		Separate	
		financial statements		financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
<b>Profit for the year</b>		8,759,870,991	13,126,615,157	7,412,926,169	7,290,114,094
<b>Other comprehensive income (expense)</b>					
<b>Items that will not be reclassified subsequently to profit or loss</b>					
- Remeasurements of post-employment benefit obligations		(81,199,717)	(72,584,130)	(25,039,922)	(16,530,418)
<u>Less</u> Income tax relating to other comprehensive income (expense)		12,586,771	13,536,910	-	-
- Share of other comprehensive income (expense) of associates and joint ventures accounted for using the equity method, net of income tax	17.1	10,525,439	(3,493,773)	-	-
<b>Items that will be reclassified subsequently to profit or loss</b>					
- Cost of hedging		43,388,207	-	-	-
- Cash flow hedges		(1,518,178,366)	-	(787,466,586)	-
<u>Less</u> Income tax relating to other comprehensive income (expense)		26,985,306	-	-	-
- Share of other comprehensive expense of associates and joint ventures accounted for using the equity method, net of income tax	17.1	(1,220,719,710)	(2,582,977,096)	-	-
- Exchange difference on translation		(576,286,918)	(2,514,866,823)	-	-
<b>Other comprehensive expense for the year, net of tax</b>		(3,302,898,988)	(5,160,384,912)	(812,506,508)	(16,530,418)
<b>Total comprehensive income for the year</b>		5,456,972,003	7,966,230,245	6,600,419,661	7,273,583,676
<b>Total comprehensive income attributable to:</b>					
Owners of the parent		5,432,305,338	7,898,850,881	6,600,419,661	7,273,583,676
Non-controlling interests		24,666,665	67,379,364	-	-
<b>Total comprehensive income for the year</b>		5,456,972,003	7,966,230,245	6,600,419,661	7,273,583,676

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

# Statement of Changes in Equity

Electricity Generating Public Company Limited For the year ended 31 December 2020

Consolidated financial statements														
Notes	Attributable to owners of the parent						Other components of equity							
	Retained earnings						Other comprehensive income (expense)							
	Remeasurements						Share of other comprehensive income (expense)							
	Issued and paid-up share capital	Premium on share capital	Premium on treasury stock	Surplus from acquisition of non-controlling interests	Appropriated - legal reserve	Unappropriated reserve	Remeasurements of post-employment benefit obligations	Cost of hedging	Cash flow hedges	Income tax relating to comprehensive income (expense)	Share of other comprehensive income (expense) of associates and joint ventures	Exchange difference on translation	Total other components of equity	Total owners of the parent
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
<b>Opening balance as at 1 January 2019</b>	5,254,650,000	8,601,300,000	47,373,035	(218,688,716)	530,000,000	87,665,978,769	(112,373,514)	-	-	(941,750)	(70,580,730)	(1,561,693,819)	(1,745,589,813)	100,145,023,275
<b>Changes in equity for the year</b>														
Total comprehensive income (expense) for the year	-	-	-	-	-	13,059,235,793	(72,584,130)	-	-	13,536,910	(2,586,470,869)	(2,514,866,823)	(5,160,384,912)	7,898,850,881
Dividends paid	-	-	-	-	-	(3,553,463,021)	-	-	-	-	-	-	-	(3,553,463,021)
Dividends paid of subsidiaries	-	-	-	-	-	-	-	-	-	-	-	-	-	(62,350,000)
<b>Closing balance as at 31 December 2019</b>	5,254,650,000	8,601,300,000	47,373,035	(218,688,716)	530,000,000	97,171,751,541	(184,957,644)	-	-	12,595,160	(2,557,051,599)	(4,076,560,642)	(6,905,974,725)	104,490,411,135
<b>Opening balance as at 1 January 2020</b>	5,254,650,000	8,601,300,000	47,373,035	(218,688,716)	530,000,000	97,171,751,541	(184,957,644)	-	-	12,595,160	(2,557,051,599)	(4,076,560,642)	(6,905,974,725)	104,490,411,135
<b>Changes in equity for the year</b>														
Total comprehensive income (expense) for the year	-	-	-	-	-	8,733,030,898	(80,997,693)	41,338,621	(1,518,255,325)	43,670,026	(1,210,194,271)	(576,286,918)	(3,300,725,560)	5,432,305,338
Dividends paid	-	-	-	-	-	(3,290,303,850)	-	-	-	-	-	-	-	(3,290,303,850)
Dividends paid of subsidiaries	-	-	-	-	-	-	-	-	-	-	-	-	-	(35,597,988)
<b>Closing balance as at 31 December 2020</b>	5,254,650,000	8,601,300,000	47,373,035	(218,688,716)	530,000,000	102,196,276,309	(265,955,337)	(37,092,311)	(5,099,194,320)	457,751,372	(4,580,368,714)	(4,652,847,560)	(14,177,706,870)	102,243,203,758



# Statement of Changes in Equity

Electricity Generating Public Company Limited For the year ended 31 December 2020

Separate financial statements												
Notes	Issued and paid-up share capital	Premium on share capital	Premium on treasury stock	Retained earnings			Other components of equity					Total equity
				Baht	Baht	Baht	Appropriated - legal reserve		Remeasurements of post-employment benefit obligations	Cash flow hedges	Total other components of equity	
							Baht	Baht				
	5,264,650,000	8,601,300,000	47,373,035	530,000,000	46,626,311,459	(106,488,466)	-	(106,488,466)				60,963,146,028
Opening balance as at 1 January 2019												
Changes in equity for the year												
	-	-	-	-	7,290,114,094	(16,530,418)	-	(16,530,418)				7,273,583,676
	-	-	-	-	(3,553,463,021)	-	-	-				(3,553,463,021)
	5,264,650,000	8,601,300,000	47,373,035	530,000,000	50,362,962,532	(123,018,884)	-	(123,018,884)				64,683,266,683
Closing balance as at 31 December 2019												
	5,264,650,000	8,601,300,000	47,373,035	530,000,000	50,362,962,532	(123,018,884)	-	(123,018,884)				64,683,266,683
4	-	-	-	-	(38,363,156)	-	(630,922,496)	(630,922,496)				(669,285,652)
	5,264,650,000	8,601,300,000	47,373,035	530,000,000	50,324,599,376	(123,018,884)	(630,922,496)	(753,941,380)				64,013,981,031
Opening balance as at 1 January 2020												
Changes in equity for the year												
	-	-	-	-	7,412,926,169	(25,039,922)	(787,466,586)	(812,506,508)				6,600,419,661
	-	-	-	-	(3,290,303,850)	-	-	-				(3,290,303,850)
37	5,264,650,000	8,601,300,000	47,373,035	530,000,000	54,447,221,695	(148,058,806)	(1,418,389,082)	(1,566,447,888)				67,324,096,842
Closing balance as at 31 December 2020												

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

# Statement of Cash Flows

Electricity Generating Public Company Limited For the year ended 31 December 2020

	Notes	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
<b>Cash flows from operating activities</b>					
Profit before income tax expense		9,781,971,491	13,985,513,827	7,412,926,169	7,290,114,094
Adjustments to reconcile profit before income tax expense to net cash provided by operations:					
- Depreciation and amortisation	33	3,131,380,018	3,066,936,298	34,441,483	39,976,983
- Allowance for obsolescence of spare parts and lower of net realisable value of fuel		22,964,003	44,954,606	-	413,038
- Retirement benefit expenses		84,669,088	189,454,881	31,337,122	81,916,184
- (Reversal of) Impairment loss on trade receivables		(1,006,114)	1,860,000	-	-
- Interest income		(260,383,199)	(584,353,285)	(2,518,915,936)	(1,646,731,588)
- Interest expense and other finance costs		3,869,345,122	4,252,157,102	1,472,725,670	1,641,676,706
- Net gains on dissolutions of a subsidiary		-	(649,112,418)	-	(641,664,225)
- Loss on impairment of investment in a subsidiary and joint ventures	17.1	88,204,434	296,549,767	174,144,955	2,830,000,000
- Losses on impairment of property, plant and equipment	19	1,239,411,531	3,576,015	-	-
- Losses on impairment of intangible assets	20	97,914,234	249,590,672	-	-
- Losses on impairment of goodwill	21	182,971,005	61,049,954	-	-
- Unrealised losses (gains) on exchange rates		291,174,573	(2,197,751,334)	181,654,490	(1,628,686,766)
- Gains on remeasurement of financial instruments, net		(1,821,125,683)	-	(203,469,789)	-
- Net gains on write-off and disposal of building and equipment		(167,879,617)	(540,081)	(167,694,121)	(714,632)
- Dividends received from subsidiaries and joint ventures	17.5	-	-	(7,185,683,631)	(8,226,594,068)
- Share of profit from investments in associates and joint ventures, net	17.1	(4,838,035,052)	(6,404,977,057)	-	-
Cash flows before changes in operating assets and liabilities		11,701,575,834	12,314,908,947	(768,533,588)	(260,294,274)
Changes in operating assets and liabilities: (excluding the effects of acquisition or disposal of subsidiaries)					
- Trade receivables		795,787,215	192,428,270	-	-
- Lease receivable under power purchase agreement from a related party		766,825,338	818,690,305	-	-
- Other receivables		89,389,741	332,421,907	(336,415)	(11,161,839)
- Fuel and spare parts and supplies		(249,045,507)	425,294,232	-	-
- Other non-current assets		(28,292,783)	(49,571,568)	(11,212,437)	15,098,256
- Trade payables		(350,858,478)	(1,226,929,489)	-	-
- Other payables		115,934,844	(1,643,861)	(38,782,757)	73,483,457
- Retirement benefit paid		(77,912,570)	(56,746,577)	(14,980,900)	(26,331,833)
- Other non-current liabilities		(62,332,983)	(186,164,074)	(18,603,055)	813,584
Cash generated from (used in) operations		12,701,070,651	12,562,688,092	(852,449,152)	(208,392,649)
- Withholding tax refunded		8,719,722	9,642,728	7,354,944	7,146,812
- Tax paid		(996,828,443)	(1,142,685,323)	-	-
<b>Net cash receipts from (payments in) operating activities</b>		<b>11,712,961,930</b>	<b>11,429,645,497</b>	<b>(845,094,208)</b>	<b>(201,245,837)</b>

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



# Statement of Cash Flows

Electricity Generating Public Company Limited For the year ended 31 December 2020

	Notes	Consolidated		Separate	
		financial statements		financial statements	
		2020	2019	2020	2019
		Baht	Baht	Baht	Baht
<b>Cash flows from investing activities</b>					
Addition of investments in an associate and joint ventures	17.1	(811,883,916)	(4,750,905,370)	-	(160,491,375)
Acquisition of investments in joint ventures	17.1	(13,462,184,408)	(25,002,033,933)	(1,240,000,000)	(1,980,000,000)
Cash receipts from redemptions of an associate' shares	17.1	431,609,475	60,273,867	-	-
Cash receipt from dissolution of a subsidiary	17.1.1	-	-	-	24,767,294
Net cash payments for short-term investments		-	(672,111,258)	-	(138,000,000)
Net cash receipt from short-term investments used as collateral		-	417,823,723	-	-
Net cash payments for financial assets measured at amortised cost		(2,420,638,181)	-	(1,789,863,103)	-
Net cash receipt from financial assets used as collateral measured at amortised cost		318,175,244	-	-	-
Interest received		192,361,903	496,711,425	195,123,805	332,066,128
Cash payments for purchases of investment property		-	(50,022,557)	-	(50,022,557)
Cash payments for purchases of equipment and construction in progress		(247,420,040)	(275,784,171)	(35,618,658)	(80,380,585)
Cash receipts from disposal of property and equipment		280,639,554	20,205,921	280,358,692	1,356,736
Cash payments for purchases of intangible assets		(3,573,000)	(2,907,000)	-	-
Cash payment for decommissioning costs of power plants	27	(1,304,540)	-	-	-
Cash receipts from long-term loans to related parties	39.5	619,288	-	273,000,000	239,035,023
Dividends received from subsidiaries and joint ventures	17.5	6,407,100,639	11,942,565,979	7,003,124,123	13,060,337,300
<b>Net cash receipts from (payment in) investing activities</b>		<b>(9,316,497,982)</b>	<b>(17,816,183,374)</b>	<b>4,686,124,859</b>	<b>11,248,667,964</b>
<b>Cash flows from financing activities</b>					
Interests paid		(3,784,951,807)	(3,873,543,133)	(460,728,427)	(337,454,317)
Proceeds from short-term loans from financial institutions	22.1	6,037,958,133	3,235,241,533	-	-
Payments on short-term loans from financial institutions	22.1	(6,076,958,272)	(3,313,028,758)	-	-
Proceeds from long-term loans from financial institutions	24.1.2	7,873,505,003	20,219,362,773	-	7,609,105,000
Payments on long-term loans from financial institutions	24.1.2	(5,926,429,386)	(19,055,327,830)	(400,000,000)	(13,615,180,000)
Payments on long-term loans from other company	24.2.1	(111,150,396)	-	-	-
Payments on lease liabilities		(49,840,245)	-	(4,548,232)	-
Payments on deferred financing fee and other finance cost		(66,700,358)	(86,908,267)	(29,727,798)	(46,621,279)
Dividends paid to shareholders and non-controlling interest		(3,325,087,063)	(3,615,472,211)	(3,289,511,115)	(3,553,122,134)
<b>Net cash payments in financing activities</b>		<b>(5,429,654,391)</b>	<b>(6,489,675,893)</b>	<b>(4,184,515,572)</b>	<b>(9,943,272,730)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>		<b>(3,033,190,443)</b>	<b>(12,876,213,770)</b>	<b>(343,484,921)</b>	<b>1,104,149,397</b>
Beginning balance		20,487,547,927	34,876,629,903	4,026,384,871	2,922,235,474
Effect of exchange rate changes		(217,607,814)	(1,512,868,206)	-	-
<b>Ending balance</b>		<b>17,236,749,670</b>	<b>20,487,547,927</b>	<b>3,682,899,950</b>	<b>4,026,384,871</b>

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

# Statement of Cash Flows

Electricity Generating Public Company Limited For the year ended 31 December 2020

		Consolidated		Separate	
		financial statements		financial statements	
	Notes	2020	2019	2020	2019
		Baht	Baht	Baht	Baht
<b>Cash and cash equivalents as at 31 December are made up as follows:</b>					
- Cash in hand and deposits at financial institutions - maturities within three months		3,790,857,181	2,782,622,655	36,785,132	18,327,883
- Short-term investments in promissory notes - maturities within three months		13,445,892,489	17,704,925,272	3,646,114,818	4,008,056,988
		17,236,749,670	20,487,547,927	3,682,899,950	4,026,384,871
<b>Non-cash transactions</b>					
- Payables for purchases of property, plant and equipment		11,198,121	10,678,071	2,186,545	766,500
- Reclassification of advance payments for spare parts to property, plant and equipment		19,924,214	77,749,385	-	-
- Reclassification of advance payment for investment to investment in joint ventures		-	2,427,830,235	-	-
- Payable for acquisition of investment in a joint venture	17.1.3	-	1,240,000,000	-	1,240,000,000
- Receivable from disposal of power plants		277,500,000	-	277,500,000	-
- Payable for decommissioning costs of power plants		195,000,000	-	195,000,000	-
- Note receivable for share capital return in advance from a subsidiary	39.5	-	-	-	49,094,007,879
- Net of payments on long-term loans from financial institutions with dividends received from a subsidiary	17.5	-	-	280,876,885	283,013,231
- Net of interest paid on long-term loans from financial institutions with dividends received from a subsidiary	17.5	-	-	115,242,022	562,656,546
- Net of payments on long-term loans from financial institutions with long-term loans to a subsidiary	39.5	-	-	-	272,698,616
- Net of interest paid on long-term loans from financial institutions with long-term loans to a subsidiary	39.5	-	-	401,938,900	672,783,066
- Net of payments on additional share capital of a joint venture with long-term loans to a subsidiary	39.5	-	-	-	34,483,896
- Net of payments on additional share capital of a joint venture with interest receivable from long-term loans to a subsidiary		-	-	-	578,526,104
- Net of payments on additional share capital of a joint venture with dividends received from a subsidiary	17.5	-	-	-	814,617,001
- Net of payments on long-term loans from financial institutions with interest receivables from long-term loans to a subsidiary		-	-	279,228,846	-
- Net of interest paid on long-term loans from financial institutions with interest receivables from long-term loans to a subsidiary		-	-	474,969,992	-

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

# Notes to the Consolidated and Separate Financial Statements

Electricity Generating Public Company Limited For the year ended 31 December 2020

## 1 General information

Electricity Generating Public Company Limited (the Company) is a public limited company which is listed on the Stock Exchange of Thailand and is incorporated and resident in Thailand. The address of its registered office is 14<sup>th</sup> and 15<sup>th</sup> floor, EGCO Tower, 222, Vibhavadi Rangsit Road, Tungsonghong, Laksi, Bangkok 10210.

The Company is listed on the Stock Exchange of Thailand. For reporting purposes, the Company and its subsidiaries are referred to as the Group.

The principal business operation of the Group is the generation of electricity for sales to the government sector and industrial users.

These consolidated and separate financial statements were authorised for issue by the president on 22 February 2021.

## 2 Basis of preparation

The consolidated and separate financial statements have been prepared in accordance with Thai Financial Reporting Standards (TFRS), and the financial reporting requirements issued under the Securities and Exchange Act.

The consolidated and separate financial statements have been prepared under the historical cost convention except as disclosed in the accounting policies below.

The preparation of financial statements in conformity with Thai generally accepted accounting principles requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group's accounting policies and to disclose the areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated and separate financial statements are disclosed in Note 9.

An English version of the consolidated and separate financial statements have been prepared from the statutory financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

The Group has reclassified comparative figures to conform with the current period presentation of the Group as described below.

Impacts on the statement of financial position as at 31 December 2019 are as follows:

Consolidated statement of financial position	Million Baht		
	Previously reported	Reclassifications	Reclassified
<b>Current assets</b>			
Trade receivables, net	2,084	3,499	5,583
Trade receivable from a related party	1,530	(1,530)	-
Trade receivable from a related party for services under power purchase agreements	1,969	(1,969)	-
Other receivables, net	-	1,136	1,136
Amounts due from related parties	205	(205)	-
Other current assets	932	(932)	-
<b>Non-current assets</b>			
Other receivables, net	-	1,508	1,508
Interest receivables and dividend receivables from related parties	1,085	(1,085)	-
Other non-current assets	680	(422)	258
<b>Current liabilities</b>			
Trade payables	2,769	93	2,862
Trade payables to related parties	93	(93)	-
Other payables	-	2,585	2,585
Amounts due to related parties	46	(46)	-
Other current liabilities	2,539	(2,539)	-



**Separate statement of financial position**

	Previously reported	Reclassifications	Million Baht Reclassified
<b>Current assets</b>			
Other receivables, net	-	875	875
Amounts due from related parties	824	(824)	-
Other current assets	51	(51)	-
<b>Non-current assets</b>			
Other receivables, net	-	1,678	1,678
Interest receivables and dividend receivables from related parties	1,312	(1,312)	-
Other non-current assets	380	(366)	14
<b>Current liabilities</b>			
Other payables	-	577	577
Amounts due to related parties	4	(4)	-
Other current liabilities	573	(573)	-

**3 New and amended financial reporting standards****3.1 New and amended financial reporting standards that are effective for accounting period beginning on or after 1 January 2020 and have significant impacts to the Group****a) Financial instruments**

The new financial standards relate to financial instruments are:

- TAS 32 Financial Instruments: Presentation
- TFRS 7 Financial Instruments: Disclosures
- TFRS 9 Financial Instruments
- TFRIC 16 Hedges of a Net Investment in a Foreign Operation
- TFRIC 19 Extinguishing Financial Liabilities with Equity Instruments

The new financial reporting standards related to financial instruments introduce new classification and measurement requirements for financial instruments as well as provide derecognition guidance on financial assets and financial liabilities. The new guidance also provides an option for the Group to apply hedge accounting to reduce accounting mismatch between hedged item and hedging instrument. In addition, the new rule provides detailed guidance on financial instruments issued by the Group whether it is a liability or an equity. Among other things, they require extensive disclosure on financial instruments and related risks.

The new classification requirements of financial assets require the Group to assess both i) business model for holding the financial assets; and ii) cash flow characteristics of the asset whether the contractual cash flows represent solely payments of principal and interest (SPPI). The classification affects the financial assets' measurement. The new guidance requires assessment of impairment of financial assets as well as contract assets and recognition of expected credit loss from initial recognition.

**b) TFRS 16, Leases**

Where the Group is a lessee, TFRS 16, Leases will result in almost all leases being recognised on the balance sheet as the distinction between operating and finance leases is removed. A right-of-use asset and a lease liability will be recognised, with exception on short-term and low-value leases.

On 1 January 2020, the Group has adopted the new financial instruments and lease standard in its financial statements. The impact from the first-time adoption has been disclosed in Note 4.

### 3.2 New and amended financial reporting standards that are effective for accounting period beginning or after 1 January 2021 and 2022 and the Group has not yet adopted these standards.

#### For accounting period beginning or after 1 January 2021

a) **Revised Conceptual Framework for Financial Reporting** added the following key principals and guidance:

- Measurement basis, including factors in considering difference measurement basis
- Presentation and disclosure, including classification of income and expenses in other comprehensive income
- Definition of a reporting entity, which maybe a legal entity, or a portion of an entity
- Derecognition of assets and liabilities

The amendment also includes the revision to the definition of an asset and liability in the financial statements, and clarification to the prominence of stewardship in the objective of financial reporting.

b) **Amendment to TFRS 3, Business combinations** amended the definition of a business which requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs. The definition of the term 'outputs' is amended to focus on goods and services provided to customers and to exclude returns in the form of lower costs and other economic benefits.

c) **Amendment to TFRS 9, Financial instruments and TFRS 7, Financial instruments: disclosures** amended to provide relief from applying specific hedge accounting requirements to the uncertainty arising from interest rate benchmark reform such as IBOR. The amendment also requires disclosure of hedging relationships directly affected by the uncertainty.

d) **Amendment to TAS 1, Presentation of financial statements and TAS 8, Accounting policies, changes in accounting estimates and errors** amended to definition of materiality. The amendment allows for a consistent definition of materiality throughout the Thai Financial Reporting Standards and the Conceptual Framework for Financial Reporting. It also clarified when information is material and incorporates some of the guidance in TAS 1 about immaterial information.

#### For accounting period beginning or after 1 January 2022

e) **Amendment to TFRS 16, Leases** amended to include a practical expedient for leases that are modified as a direct consequence of IBOR reform (e.g. replacement of THBFIX as a benchmark interest rate due to the cancellation of LIBOR) for lessee to remeasure the lease liability by discounting the revised lease payments using a discount rate that reflects the change in the interest rate. An early application of the amendment is permitted.

The Group's management is currently assessing the impact of adoption of these standards.

## 4 Impacts from initial application of the new and revised financial reporting standards

This note explains the impact of the adoption of financial standard related to financial Instruments (TAS 32, TFRS 7 and TFRS 9) and Leases (TFRS 16) on the Group's consolidated financial statements and the Company's separate financial statements. The new accounting policies applied from 1 January 2020 were disclosed in Note 5.

The Group and the Company have adopted those accounting policies from 1 January 2020 by applying the modified retrospective approach. The comparative figures have not been restated. The reclassifications and the adjustments arising from the changes in accounting policies were therefore recognised in the statement of financial position as of 1 January 2020.

The impact of first-time adoption of new financial reporting standards on the consolidated and separate statements of financial position are as follows:

Consolidated financial statements				
	As at 31 December 2019	TAS 32 and TFRS 9	TFRS 16	As at 1 January 2020
Notes	Reclassified Million Baht	Million Baht (Note 4.1)	Million Baht (Note 4.2)	Restated Million Baht
<b>Assets</b>				
<b>Current assets</b>				
Short-term investments	a	765	(765)	-
Short-term investments used as collateral	a	3,933	(3,933)	-
Financial assets measured at amortised cost	a	-	765	765
Financial assets used as collateral measured at amortised cost	a	-	3,933	3,933
Trade receivables, net	b	5,583	(1)	5,582
Other receivables, net	c	1,136	(33)	1,103
Current portion of long-term loan to a related party	d	-	1	1
<b>Non-current assets</b>				
Other receivables, net	b, c	1,508	(502)	1,006
Long-term loans to related parties	d	1,231	68	1,299
Investments in associates	c	14,574	(68)	14,506
Investment in joint ventures, net	c, d, f	72,707	(550)	72,157
Intangible assets, net	d	3,603	(69)	3,534
Right-of-use assets, net		-	-	464
Derivative assets	c	-	447	447
Deferred tax assets, net	c	630	413	1,043
<b>Total adjusted assets</b>		105,670	(294)	105,840

		Consolidated financial statements			
		As at 31 December 2019 Reclassified Million Baht	TAS 32 and TFRS 9 Million Baht (Note 4.1)	TFRS 16 Million Baht (Note 4.2)	As at 1 January 2020 Restated Million Baht
	Notes				
<b>Liabilities and equity</b>					
<b>Current liabilities</b>					
Other payables	c, e	2,585	(210)	-	2,375
Current portion of long-term loan from other company, net	e	-	103	-	103
Derivative liabilities	c	-	93	-	93
Current portion of lease liabilities, net		-	-	33	33
<b>Non-current liabilities</b>					
Long-term loan from other company, net	e	-	471	-	471
Derivative liabilities	c	-	4,393	-	4,393
Lease liabilities, net		-	-	431	431
Deferred tax liabilities, net	c, e	3,053	(67)	-	2,986
Other non-current liabilities	c, e	1,525	(674)	-	851
<b>Total adjusted liabilities</b>		<b>7,163</b>	<b>4,109</b>	<b>464</b>	<b>11,736</b>
<b>Equity</b>					
Retained earnings - Unappropriated		97,172	-	-	97,172
- Fair value of derivatives	c	-	(459)	-	(459)
- Impairment of financial assets	b	-	(81)	-	(81)
- Classification and measurements of financial assets and financial liabilities	e	-	26	-	26
- Share of profit from investment in joint ventures, net	c, d, f	-	96	-	96
<b>Total retained earnings - Unappropriated</b>		<b>97,172</b>	<b>(418)</b>	<b>-</b>	<b>96,754</b>
Other components of equity					
- Cost of Hedge	c	-	(78)	-	(78)
- Cash flow Hedge	c	-	(3,581)	-	(3,581)
- Deferred tax on other components of equity	c	-	401	-	401
- Share of other comprehensive expense of joint ventures and associates accounted for using the equity method, net of income tax	c, f	(2,657)	(713)	-	(3,370)
Non-controlling interests	c	616	(14)	-	602
<b>Total adjusted equity</b>		<b>95,131</b>	<b>(4,403)</b>	<b>-</b>	<b>90,728</b>
<b>Total adjusted liabilities and equity</b>		<b>102,294</b>	<b>(294)</b>	<b>464</b>	<b>102,464</b>

- Notes**
- Classification and measurement of short-term investments and short-term investment used as collateral previously classified as held-to-maturity investment to financial assets at amortised cost. Since the Group's intention is to collect a contractual cash flow and meet the requirement of principal and interest (SPPI) from a principal.
  - Impairment of financial assets
  - Fair value measurement of derivatives and hedge accounting
  - Classification and measurement of long-term loan to a related party (the Group paid in advance for the construction of transmission line facility to Electricity Generating Authority of Thailand and will receive cash payment from sales of electricity, previously called intangible assets - right to transmission facility)
  - Classification and measurement of long-term loans from other company (cash received for target excess generation from customer) during the year 2008 to 2017 and repaid to Meralco by annually from the year 2018 to 2025 which was previously classified as other payables and other non-current liabilities)
  - Measurement of investment in mutual fund (previously presented as available-for-sales investment)

Separate financial statements				
Notes	As at 31 December 2019 Reclassified Million Baht	TAS 32 and TFRS 9 Adjustments and reclassifications Million Baht (Note 4.1)	TFRS 16 Adjustments and reclassifications Million Baht (Note 4.2)	As at 1 January 2020 Restated Million Baht
<b>Assets</b>				
<b>Current assets</b>				
Short-term investments	a	138	(138)	-
Financial assets measured at amortised cost	a	-	138	138
Other receivables, net	b	875	(2)	873
<b>Non-current assets</b>				
Other receivables, net	b, c	1,678	(446)	1,232
Right-of-use assets, net		-	-	30
Derivative assets	b	-	352	352
<b>Total adjusted assets</b>		2,691	(96)	2,625
<b>Liabilities and equity</b>				
<b>Current liabilities</b>				
Other payables	b	577	(48)	529
Current portion of lease liabilities, net		-	-	4
<b>Non-current liabilities</b>				
Derivative liabilities	b	-	621	621
Lease liabilities, net		-	-	26
<b>Total adjusted liabilities</b>		577	573	1,180
<b>Equity</b>				
Retained earnings - Unappropriated		50,363	-	50,363
- Change in fair value of derivatives	b	-	42	42
- Impairment of financial assets	c	-	(80)	(80)
Total retained earnings - Unappropriated		50,363	(38)	50,325
Other components of equity				
- Cash flow Hedge	b	-	(631)	(631)
- Income tax relating to other comprehensive income (expense)		-	-	-
<b>Total equity</b>		50,363	(669)	49,694
<b>Total adjusted liabilities and equity</b>		50,940	(96)	50,874

- Notes**
- Classification and measurement of short-term investments previously classified as held-to-maturity investment to financial assets at amortised cost. Since the Group's intention is to collect a contractual cash flow and meet the requirement of principal and interest (SPPI) from a principal.
  - Fair value measurement of derivatives and hedge accounting
  - Impairment of financial assets

## 4.1 Financial instruments

The first-time adoption of the new financial reporting standards related to financial instruments has made a significant impact on the Group's accounting practices in the following areas.

### 4.1.1 Classification of financial instruments

On 1 January 2020, the measurement categories and carrying amounts of financial assets and financial liabilities were as follows:

		Consolidated financial statements			
		Measurement categories		Carrying amounts	
	Previously reported (TAS 105 and other TAS)	New (TFRS 9)	Reclassified Million Baht	Restated Million Baht	Difference Million Baht
<b>Financial assets</b>					
Cash and cash equivalents	Amortised cost	Amortised cost	20,488	20,488	-
Short-term investments	Amortised cost	Amortised cost	765	765	-
Short-term investments used as collateral	Amortised cost	Amortised cost	3,933	3,933	-
Trade receivables, net	Amortised cost	Amortised cost	5,583	5,582	(1)
Lease receivable from a related party for services under power purchase agreements	Amortised cost	Amortised cost	18,173	18,173	-
Other receivables, net	Amortised cost	Amortised cost	2,644	2,109	(535)
Long-term loan to a related party, net	Amortised cost	Amortised cost	1,231	1,300	69
Derivative assets	Unrecognised	FVPL	-	447	447
<b>Financial liabilities</b>					
Short-term loan from financial institutions	Amortised cost	Amortised cost	38	38	-
Trade payables	Amortised cost	Amortised cost	2,862	2,862	-
Other payables	Amortised cost	Amortised cost	2,585	2,375	(210)
Payable for acquisition of investment in a joint venture	Amortised cost	Amortised cost	1,240	1,240	-
Long-term loan from financial institutions, net	Amortised cost	Amortised cost	84,741	84,741	-
Long-term loan from other company, net	Amortised cost	Amortised cost	-	574	574
Debentures	Amortised cost	Amortised cost	4,787	4,787	-
Derivative liabilities	Unrecognised	FVPL	-	4,486	4,486

		Separate financial statements			
		Measurement categories		Carrying amounts	
	Previously reported (TAS 105 and other TAS)	New (TFRS 9)	Reclassified Million Baht	Restated Million Baht	Difference Million Baht
<b>Financial assets</b>					
Cash and cash equivalents	Amortised cost	Amortised cost	4,026	4,026	-
Short-term investments	Amortised cost	Amortised cost	138	138	-
Other receivables, net	Amortised cost	Amortised cost	2,553	2,105	(448)
Long-term loan to a related party, net	Amortised cost	Amortised cost	51,751	51,751	-
Derivative assets	Unrecognised	FVPL	-	352	352
<b>Financial liabilities</b>					
Other payables	Amortised cost	Amortised cost	577	529	(48)
Payable for acquisition of investment in a joint venture	Amortised cost	Amortised cost	1,240	1,240	-
Long-term loan from financial institutions, net	Amortised cost	Amortised cost	34,837	34,837	-
Debentures	Amortised cost	Amortised cost	4,787	4,787	-
Derivative liabilities	Unrecognised	FVPL	-	621	621

#### 4.1.2 Impairment of financial assets

The Group has following financial assets that are subject to the expected credit loss model:

- Cash and cash equivalents
- Trade receivables
- Lease receivables from services under power purchase agreements
- Other receivables
- Loans to related parties
- Other financial assets measured at amortised cost

On 1 January 2020, the Group was required to revise its impairment methodology under TFRS 9. The Group recognised impairment loss of accounts and other receivables on retained earnings in consolidated and separate financial statements of Baht 81 million and Baht 80 million, respectively. The impairment loss allowance of other financial assets are immaterial.

#### 4.1.3 Derivatives and hedging activities

Currently, the Group has entered into derivative contracts to reduce uncertainty over future cash flows arising from movements in interest and exchange rates, including fluctuations in electricity prices. These derivatives consist of interest rate swap contracts, foreign currency forward contracts, cross currency swap contracts, cross currency interest rate swap contracts, and electricity swaption contract.

Before 1 January 2020 the Group did not recognise the fair value of derivatives in financial statements. However, the Group disclosed fair value of derivatives in the notes to financial statements. On 1 January 2020, the Group recognised fair value of derivatives in the financial statements and applied hedge accounting for the first time for certain derivative contracts which were designated and qualified as the cash flow hedge as disclosed in Note 7.

On 1 January 2020, the Group recognised the cumulative adjustment of Baht 4,023 million in the consolidated financial statements to the other components of equity of Baht 3,941 million (including equity method of Baht 683 Million) and to retained earnings of Baht 82 million (including equity method of Baht 56 Million). In respect of derivative contracts that the Group does not apply the hedge accounting, the cumulative adjustment as at 1 January 2020 of Baht 433 million is recognised to the retained earnings in the consolidated financial statements

As at 1 January 2020, the Group recognised the cumulative adjustment, net of tax of the fair value of derivatives in cash flow hedges reserve and retained earnings as follows.

	Consolidated financial statements			Separate financial statements	
	Cost of hedging Million Baht	Cash flow hedges reserve Million Baht	Retained earnings Million Baht	Cash flow hedges reserve Million Baht	Retained earnings Million Baht
Derivatives (not applied hedge accounting)					
- Interest rate swap contracts	-	-	(143)	-	-
- Foreign currency forward contracts	-	-	(268)	-	-
- Cross currency swap contracts	-	-	(3)	-	9
- Electricity swaption contract	-	-	(19)	-	-
Hedging derivatives					
- Interest rate swap contracts	-	(3,021)	33	(631)	33
- Foreign currency forward contracts	(27)	(226)	9	-	-
- Cross currency swap contracts	(51)	157	(68)	-	-
- Cross currency interest rate swap contracts	-	(90)	-	-	-
<b>Total</b>	<b>(78)</b>	<b>(3,180)</b>	<b>(459)</b>	<b>(631)</b>	<b>42</b>

## 4.2 Leases

### Leases - where the Group is the lessee

On adoption of TFRS 16, the Group recognised lease liabilities in relation to leases which had previously been classified as “operating leases” under the principles of TAS 17 Leases. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee’s incremental borrowing rate as at 1 January 2020. The lessee’s incremental borrowing rates applied to the lease liabilities on 1 January 2020 were 2.36% to 4.85% per annum.

The Group recognised right-of-use assets at the amount equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position as at 31 December 2019.

For leases previously classified as finance leases, the Group recognised the carrying amount of the lease asset and lease liability immediately before transition as the carrying amount of the right-of-use asset and the lease liability at the date of initial application.

#### *Practical expedients applied*

In applying TFRS 16 for the first time for the leases before 1 January 2020, the Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics
- reliance on previous assessments on whether leases are onerous
- the accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2020 as short-term leases
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application, and
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease

### Leases - where the Group is the lessor

The Group has adopted TFRS 16 “Lease” which supersedes TFRIC 4 “Determining whether an Arrangement contains a Lease” and TAS 17 “Lease”. Therefore, the Group reassessed the agreements whether they contain leases under TFRS 16 by consideration of right to control use of assets. Service income under power purchase agreement of a subsidiary in Philippines, which was previously assessed that it contained a lease and classified as an operating lease under TAS 17, does not further meet the conditions of lease under TFRS 16. As a result, the Group recognises revenue under the power purchase agreements and its related costs as sales of electricity and costs of sales in accordance with TFRS 15 “Revenue from Contracts with Customers” from 1 January 2020 onwards and presented as sales and service income and costs of sales and services in the consolidated statement of income, respectively. reliance on previous assessments on whether leases are onerous.

However, the new TFRS 16 Lease does not have significant impact on the financial statements of the Group.

## 5 Accounting policies

The accounting policies used in the preparation of the consolidated and separate financial statements as follows:

### 5.1 Principles of consolidation

#### 5.1.1 Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group 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. Subsidiaries are consolidated from the date on which control is transferred to the Group until the date that control ceases.

In the separate financial statements, investments in subsidiaries are accounted for using cost method less allowance for impairment (if any).

### 5.1.2 Associates

Associates are all entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting.

In the separate financial statements, investments in associates are accounted for using cost method less allowance for impairment (if any).

### 5.1.3 Joint arrangements

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangements.

#### *Joint operations*

A joint operation is a joint arrangement whereby the Group has rights to the assets, and obligations for the liabilities relating to the arrangement. The Group recognises its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. These have been incorporated in the Group's financial statement line items.

#### *Joint ventures*

A joint venture is a joint arrangement whereby the Group has rights to the net assets of the arrangement. Interests in joint ventures are accounted for using the equity method.

In the separate financial statements, investments in joint ventures are accounted for using cost method less allowance for impairment (if any).

### 5.1.4 Equity method

The investment is initially recognised at cost which is consideration paid and directly attributable costs.

The Group's subsequently recognises shares of its associates and joint ventures' profits or losses and other comprehensive income in the profit or loss and other comprehensive income, respectively. The subsequent cumulative movements are adjusted against the carrying amount of the investment.

When the Group's share of losses in associates and joint ventures equals or exceeds its interest in the associates and joint ventures, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associates and joint ventures.

### 5.1.5 Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A difference between the amount of the adjustment to non-controlling interests to reflect their relative interest in the subsidiary and any consideration paid or received is recognised within equity.

If the ownership interest in associates and joint ventures is reduced but significant influence and joint control is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate. Profit or loss from reduce of the ownership interest in associates and joint ventures is recognise in profit or loss.

When the Group losses control, joint control or significant influence over investments, any retained interest in the investment is remeasured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value becomes the initial carrying amount of the retained interest which is reclassified to investment in an associate, or a joint venture or a financial asset accordingly.

### 5.1.6 Intercompany transactions on consolidation

Intra-group transactions, balances and unrealised gains on transactions are eliminated. Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in the associates and joint ventures. Unrealised losses are also eliminated in the same manner unless the transaction provides evidence of an impairment of the asset transferred.

## 5.2 Business Combination

The Group applies the acquisition method to account for business combinations with an exception on business combination under common control. The consideration transferred for the acquisition of a subsidiary comprises:

- Fair value of the assets transferred
- Liabilities incurred to the former owners of the acquiree
- Equity interests issued by the Group

Identifiable assets and liabilities acquired and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date.

On an acquisition-by-acquisition basis, the Group initially recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The excess of the consideration transferred, the amount of any non-controlling interest recognised and the acquisition-date fair value of any previous equity interest in the acquiree (for business combination achieved in stages) over the fair value of the identifiable net assets acquired is recorded as goodwill. In the case of a bargain purchase, the difference is recognised directly in profit or loss.

### *Acquisition-related cost*

Acquisition-related cost are recognised as expenses in consolidated financial statements

### *Step-up acquisition*

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measured are recognised in profit or loss.

### *Changes in fair value of contingent consideration paid/received*

Subsequent changes to the fair value of the contingent consideration that is an asset or liability is recognised in profit or loss. Contingent consideration that is classified as equity is not re-measured.

## 5.3 Foreign currency translation

### 5.3.1 Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The financial statements are presented in Thai Baht, which is the functional and presentation currency of the Group.

### 5.3.2 Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transaction.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

When a gain or loss on a non-monetary item is recognised in other comprehensive income, any exchange component of that gain or loss is recognised in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognised in profit and loss, any exchange component of that gain or loss is recognised in profit and loss.

### 5.3.3 Group companies

The results and financial position of each of the Group's entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- Income and expenses of each statement of income and statement of comprehensive income are translated at average exchange rates; and
- All resulting exchange differences are recognised in other comprehensive income.

Goodwill arose on or after 1 January 2013 and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate at the date of that statement of financial position.

### 5.4 Cash and cash equivalents

In the statements of cash flows, cash and cash equivalents includes cash in hand, deposits held at call, other short-term highly liquid investments with maturities of three months or less from acquisition date.

### 5.5 Trade receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. They are generally due for settlement within 30 days and therefore are all classified as current.

Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, they are recognised at fair value. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost.

### 5.6 Fuel and spare parts and supplies

#### 5.6.1 Fuel

Fuel includes coal and diesel. Fuel is stated at the lower of cost or net realisable value. Cost is determined by the moving average basis method.

#### 5.6.2 Spare parts and supplies

Spare parts that do not meet definitions of property, plant and equipment are stated at cost less allowance for obsolescence. Cost is determined by the moving average basis method.

The allowance for capital spare parts that are used for specific plant equipment in power plants is made on a specific basis.

The allowance for common spare parts is made on an aging analysis.

### 5.7 Financial asset

For the year ended 31 December 2020

#### 5.7.1 Classification

From 1 January 2020, the Group classifies its debt instrument financial assets in the following measurement categories depending on i) business model for managing the asset and ii) the cash flow characteristics of the asset whether they represent solely payments of principal and interest (SPPI).

- those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss); and
- those to be measured at amortised cost.

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

For investments in equity instruments, the Group has an irrevocable election at the time of initial recognition to account for the equity investment at fair value through profit or loss (FVPL) or at fair value through other comprehensive income (FVOCI) except those that are held for trading, they are measured at FVPL.

### 5.7.2 Recognition and derecognition

Regular way purchases, acquires and sales of financial assets are recognised on trade-date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

### 5.7.3 Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether the cash flows are solely payment of principal and interest.

### 5.7.4 Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the financial assets. There are three measurement categories into which the Group classifies its debt instruments:

- Amortised cost: Financial assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is included in other income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss and presented in other gains/(losses) together with foreign exchange gains and losses. Impairment losses are presented as administrative expense in the statement of income.
- FVOCI: Financial assets that are held for i) collection of contractual cash flows; and ii) for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through other comprehensive income (OCI), except for the recognition of impairment gains or losses, interest income using the effective interest method, and foreign exchange gains and losses which are recognised in profit or loss. When the financial assets is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and recognised in other gains/(losses). Interest income is included in other income. Impairment expenses are presented as administrative expense in the statement of income.
- FVPL: Financial assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within gains (losses) on remeasurement of financial instruments, net in the period in which it arises.

### 5.7.5 Equity instruments

The Group measures all equity investments at fair value. Where the Group has elected to present fair value gains and losses on equity instruments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in profit or loss as dividend income when the right to receive payments is established.

Changes in the fair value of financial assets at FVPL are recognised in other gains/(losses) in the statement of income.

Impairment losses (and reversal of impairment losses) on equity investments are reported together with changes in fair value.

### 5.7.6 Impairment

From 1 January 2020, the Group applies the simplified approach and general approach from TFRS9 in recognition of impairment of trade receivables, lease receivables under Power Purchase Agreement and other receivables, which applies lifetime expected credit loss, from initial recognition, for all trade receivables, lease receivables under Power Purchase Agreement and other receivables.

To measure the expected credit losses by using simplified approach, the management grouped the receivables based on shared credit risk characteristics and the days past due. The expected credit loss rates are based on payment profiles, historical credit losses as well as forward-looking information and factors that may affect the ability of the customers to settle the outstanding balances. In addition to the simplified approach, the management applies the general approach, which is to consider the individual assessments by using the discounted cashflow method. For this, management uses an estimate debtor's future cash flows based on the original effective interest rate.

For other financial assets carried at amortised cost and FVOCI, the Group applies TFRS 9 general approach in measuring the expected credit loss of those financial assets. Under the general approach, the 12-month or the lifetime expected credit loss is applied depending on whether there has been a significant increase in credit risk since the initial recognition.

The significant increase in credit risk (from initial recognition) assessment is performed every end of reporting period by comparing i) expected risk of default as of the reporting date and ii) estimated risk of default on the date of initial recognition.

The Group assesses expected credit loss by taking into consideration forward-looking information and past experiences. The expected credit loss is a probability-weighted estimate of credit losses (probability-weighted present value of estimated cash shortfall). The cash shortfall is the difference between all contractual cash flows that are due to the Group and all cash flows expected to receive, discounted at the original effective interest rate.

When measuring expected credit losses, the Group reflects the following:

- probability-weighted estimated uncollectible amounts
- time value of money; and
- supportable and reasonable information as of the reporting date about past experience, current conditions and forecasts of future situations.

Impairment and reversal of impairment losses are recognised in profit or loss and included in administrative expenses.

#### For the year ended 31 December 2019

Investments other than investments in subsidiaries, associates and joint ventures are classified as trading investments; held-to-maturity investments; available-for-sale investments; and general investments. The classification is dependent on the purpose for which the investments were acquired. Management determines the appropriate classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

- Trading investments are primarily intended to profit from short-term price fluctuations including for current assets.
- Held-to-maturity investments have fixed maturity and management has the intent and ability to hold them to maturity.
- Available-for-sale investments are intended to be held for an indefinite period and may be sold to enhance liquidity or when interest rates change.
- General investments are in non-marketable equity instruments.

All four investment types are initially measured at cost, which is the fair value of the consideration paid to acquire the investment plus transaction expenses.

Trading and available-for-sale investments are subsequently measured at fair value. The unrealised gain/loss is recognised in profit or loss for trading investments, and other comprehensive income for available-for-sale investments.

Held-to-maturity investments are measured after acquisition using the amortised cost method based on the effective interest rate less allowance for impairment.

General investments are stated at cost less allowance for impairment.

A test for impairment is carried out when there is a factor indicating that an investment might be impaired. If the carrying value of investment is higher than its recoverable amount, impairment loss is charged to profit or loss.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is charged or credited to profit or loss. When partially disposing part of an investment held in debt or equity instruments, the carrying amount of the disposed investment is determined using the weighted average method of the total amount held.

## 5.8 (Group of) non-current assets held-for-sale

Non-current assets (or disposal groups) are classified as assets held-for-sale when their carrying amount will be recovered principally through a sale transaction and a sale is considered highly probable. They are measured at the lower of the carrying amount and fair value less costs to sell.

An impairment loss is recognised for write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognised.

Non-current assets (including those that are part of a disposal group) are not depreciated or amortised.

## 5.9 Investment property

Land and buildings of the Group that are held for long-term rental or for capital appreciation or both, and that are not occupied by the companies in the Group, are classified as investment property. Investment property also includes property that is being constructed or developed for future use as investment property or land held for a currently undetermined future use.

Investment property is measured initially at its cost including related transaction and borrowing costs.

Subsequent expenditure is capitalised to the asset's carrying amount only when it is probable that future economic benefits associated with the expenditure will flow to the Group and the cost of the item can be measured reliably. All other repair and maintenance costs are expensed when incurred. When part of an investment property is replaced, the carrying amount of the replaced part is derecognised.

Subsequently, the investment property is carried at cost less accumulated depreciation and impairment (if any).

Land is not depreciated. Depreciation on other investment properties is calculated using straight-line methods to allocate their costs over their estimated useful lives.

## 5.10 Property, plant and equipment

Property, plant and equipment are initially recorded at cost. Subsequently, plant and equipment are stated at historical cost less accumulated depreciation and impairment (if any). The costs of property, plant and equipment comprise both the purchase price and any costs directly attributable to bringing the assets to location and condition necessary for them to be capable of operating in the manner intended by management. These can include the initial estimate of the costs of dismantling and removing the item and restoring the site on which they are located, the obligation for which the Group incurs either when the items are acquired or as a consequence of having used the items during a particular period.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to profit or loss when incurred.

Depreciation is calculated using the straight-line method to allocate their cost to their residual value over their estimated useful lives, except land which is considered to have an indefinite life, as follows:

	<b>Years</b>
Buildings and structures	10 to 20
Power plants	21 to 50
Substation and transmission system	20 to 25
Capital spare parts	5 to 25
Operating and maintenance equipment	5
Office equipment, furniture and computers	3 to 10
Motor vehicles	5

The assets' residual values and useful lives are reviewed and adjusted if appropriate, at the end of each reporting period.

Where the carrying amount of asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount.

Gains and losses on disposals of assets are determined by comparing proceeds with the carrying amount and are recognised in the profit or loss.

## 5.11 Goodwill

Goodwill represents the excess of the consideration transferred over the fair value of the Group's share of the net identifiable assets liabilities and contingent liabilities of the acquired subsidiary undertaking or joint venture or associate at the date of acquisition.

Goodwill on acquisitions of subsidiaries is separately reported in the consolidated statement of financial position. Goodwill on acquisitions of joint ventures or associates is included in investments in joint ventures or associates and is tested for impairments part of the overall balance.

Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash generating units for the purpose of impairment testing. The allocation is made to those cash generating units or groups of cash generating units that are expected to benefit from the business combination in which the goodwill arose, identified according to operating segment.

## 5.12 Intangible assets

### 5.12.1 Right in Power Purchase Agreements and Right to use the transmission facilities

The right in Power Purchase Agreements (PPA) arising on the acquisitions of businesses, are amortised by using straight-line method over the periods of the PPA which are between 15 and 25 years.

The right to use transmission facilities is an expenditure paid to acquire a right to use the transmission facilities which are amortised by using straight-line method over the useful life of 15 to 25 years, which is in accordance with the PPA.

### 5.12.2 Licences for operating power plants

Licences for operating power plants arising on the acquisitions of businesses, which are amortised by using straight-line method over the periods of the licences for operating power plants, which are 25 to 35 years.

### 5.12.3 Favourable contract assets

Favourable contract assets are recognised as identifiable assets of an acquiree as part of the purchase price allocation at the acquisition date. The favourable contract assets incurred from an excess of the fair value of long-term liquefied natural gas purchase contracts than purchase values specified in such contracts. The favourable contract assets are amortised based on unit of liquefied natural gas used in electricity generation.

### 5.12.4 Rights to operate oil pipeline transportation system

Rights to operate oil pipeline transportation system arising on the acquisitions of businesses, which are amortised by using straight-line method over the periods of oil pipeline transportation services, which are approximately 40 years.

### 5.12.5 Development expenditure

Development expenditure is recognised as intangible assets when the Group can reliably measure the expenditure attributable to its development and can demonstrate that it is technically, financially, commercially, and resourcefully feasible; and the Group intends to and has the ability to complete the development for the purpose of using or selling.

Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

Capitalised development costs are amortised when the asset is ready to use or sell by applying a straight-line method over the period of its expected benefit.

## 5.13 Impairment of assets

Assets that have an indefinite useful life are tested annually for impairment, or more frequently if events or changes in circumstances indicate that it might be impaired. Assets that are subject to amortisation are reviewed for impairment whenever there is an indication of impairment. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use.

Where the reasons for previously recognised impairments no longer exist, the impairment losses on the assets concerned other than goodwill is reversed.

## 5.14 Leases

### For the year ended 31 December 2020

#### Leases - where the Group is the lessee

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term.

The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices. However, for leases of real estate for which the group is a lessee, it has elected not to separate lease and non-lease components and instead accounts for these as a single lease component.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

The group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise of office furniture.

#### Leases - where the Group is the lessor

When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Lease income is recognised over the term of the lease which reflects a constant periodic rate of return. Initial direct costs are included in initial measurement of the finance lease receivable and reduce the amount of income recognised over the lease term.

### For the year ended 31 December 2019

The determination of whether an arrangement is or contains a lease shall be based on the substance of the arrangement, and not merely the legal form. It requires an assessment of whether (a) the fulfilment of the arrangement is dependent on the use of specific assets and (b) the arrangement conveys a right to use such assets.

If the arrangement is a lease or contains a lease, payments and other consideration required by the arrangement shall be separated into those for the lease and those for other elements (e.g. for services and the cost of inputs) on the basis of their relative fair values. The lease element of the arrangement shall be classified as a finance lease or an operating lease.

### Leases - where the Group is the lessee

Leases of assets where the lessee has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the inception of the lease at the lower of the fair value of the leased assets and the present value of the minimum lease payments. Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the liabilities balance outstanding. The corresponding rental obligations, net of finance charges, are included in other long-term payables. The interest element of the finance cost is charged to profit or loss over the lease period so as to achieve a constant periodic rate of interest on the remaining balance of the liability for each period. The asset acquired under finance leases is depreciated over the shorter period of the useful life of the asset and the lease term.

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the period of the lease.

### Leases - where the Group is the lessor

Lease in which a significant portion of the risk and rewards of ownership are retained by the lessee are classified as finance lease. When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Lease income (interest income from finance lease receivable) is recognised over the term of the lease using the net investment method, which reflects a constant periodic rate of return. The recognition follows accounting policy in Note 5.22.

Lease in which a significant portion of the risk and rewards of ownership are retained by the lessor are classified as operating lease. Assets leased out under operating leases are included in property, plant and equipment in the statement of financial position. They are depreciated over their expected useful lives on a basis consistent with other similar property, plant and equipment owned by the Group. The recognition follows accounting policy in Note 5.22.

## 5.15 Financial liabilities

For the year ended 31 December 2020

### 5.15.1 Classification

Financial instruments issued by the Group are classified as either financial liabilities or equity securities by considering contractual obligations.

- Where the Group has an unconditional contractual obligation to deliver cash or another financial asset to another entity, it is considered a financial liability unless there is a predetermined or possible settlement for a fixed amount of cash in exchange of a fixed number of the Group's own equity instruments.
- Where the Group has no contractual obligation or has an unconditional right to avoid delivering cash or another financial asset in settlement of the obligation, it is considered an equity instrument.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

### 5.15.2 Measurement

Financial liabilities are initially recognised at fair value and are subsequently measured at amortised cost.

### 5.15.3 Derecognition and modification

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled, or expired.

Where the terms of a financial liability are renegotiated/modified, the Group assesses whether the renegotiation/modification results in the derecognition of that financial liability. Where the modification results in an extinguishment, the new financial liability is recognised based on fair value of its obligation. The remaining carrying amount of financial liability is derecognised. The difference as well as proceed paid is recognised as other gains/(losses) in profit or loss.

Where the modification does not result in the derecognition of the financial liability, the carrying amount of the financial liability is recalculated as the present value of the renegotiated/modified contractual cash flows discounted at its original effective interest rate. The difference is recognised in other gains/(losses) in profit or loss.

## For the year ended 31 December 2019

### *Borrowings*

Borrowings are recognised initially at the fair value, net of the transaction costs incurred. Borrowings are subsequently stated at amortised cost using the effective interest rate method; any difference between the proceeds (net of transaction costs) and the redemption value is recognised in profit or loss over the period of the borrowings.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liabilities for at least 12 months after the end of reporting date.

### **5.16 Borrowing costs**

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets (assets that take several time to get ready for its intended use) are added to the cost of those assets less investment income earned from those specific borrowings. The capitalisation of borrowing costs is ceased when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete.

Other borrowing costs are expensed in the period in which they are incurred.

### **5.17 Current and deferred income taxes**

The tax expense for the period comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity.

#### *Current tax*

The current income tax is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

#### *Deferred income tax*

Deferred income tax is recognised on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements. However, deferred income tax is not recognised for temporary differences arise from:

- initial recognition of an asset or liability in a transaction other than a business combination that affects neither accounting nor taxable profit or loss is not recognised
- investments in subsidiaries, associates and joint arrangements where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax is measured using tax rates of the period in which temporary difference is expected to be reversed, based on tax rates and laws that have been enacted or substantially enacted by the end of the reporting period.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

## 5.18 Employee benefits

The Group has post-employment benefits consisting of both provident fund and retirement benefits.

### 5.18.1 Provident fund

The Group operates a provident fund that is a defined contribution plan. The assets are held in a separated fund which is managed by an external fund manager in accordance with the Provident Fund Act B.E. 2530. The provident fund is contributed by employees and by the Group. Contributions to the provident fund are charged to the profit or loss when they are due.

### 5.18.2 Retirement benefits

The Group provides for post-employment benefits, payable to employees under the labour laws applicable in Thailand and other countries in which the Group has its operations, or when the term of service is terminated according to the agreement between the Group and employees. Typically, defined benefit plans define an amount of retirement benefit that an employee will receive on retirement, usually depends on many factors such as age, years of service and compensation.

The liability in respect of employee benefits is the present value of the defined benefit obligation at the end of the reporting date which is calculated by an independent actuary using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting estimated future cash flows using yields on government bonds that matches the terms and currency of the expected cash outflows.

Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

Past-service costs are recognised immediately in profit or loss.

## 5.19 Provisions

### 5.19.1 General provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and the amount has been reliably estimate.

### 5.19.2 Provision for decommissioning costs

The Group recognises provision for decommissioning costs, which are provided at the onset of completion of the project, for the estimate of the eventual costs that relate to the removal. The recognised provision for decommissioning costs are based on future removal cost estimates and incorporate many assumptions such as abandonment times and future inflation rate and discounted to present value at the discount rate estimated by the management. Those are included as part of cost.

## 5.20 Treasury stock

Treasury stock presented in statements of financial position is carried at cost and shown as a deduction from total equity. Gains on disposal of treasury stock are determined by reference to its carrying amount and are taken to premium on treasury stock. Losses on disposal of treasury stock are determined by reference to its carrying amount and are taken out of premium on treasury stock and retained earnings consecutively.

## 5.21 Government grants

Government grants are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions.

Government grants relating to the compensation of costs are deferred and recognised in profit or loss to match the costs they are intended to compensate.

Government grants relating to the purchase of assets are included in non-current liabilities as other liabilities and are credited to profit or loss on a straight-line basis over the expected lives of the related assets.

## 5.22 Revenue recognition

Revenue are recorded net of value added tax. They are recognised in accordance with the provision of goods or services, provided that collectability of the consideration is probable.

Multiple element arrangements involving delivery or provision of multiple products or services are separated into distinct performance obligations. Total transaction price of the bundled contract is allocated to each performance obligation based on their relative standalone selling prices or estimated standalone selling prices. Each performance obligation is recognised as revenue on fulfilment of the obligation to the customer as details below.

### *Revenue under the Power Purchase Agreements (PPA)*

#### (a) Revenue under the PPA which are not classified as lease

- The Group recognises Capacity Payments or Availability Payments which are the revenue for maintaining availabilities of power plants as agreed with EGAT and industrial customers in accordance with terms of PPA. The Group recognises this revenue in profit or loss when rendering services to customer according to the agreements. If the Group receives consideration above the services rendered, the Group recognises the excess consideration as a contract liability. On the other hand, if the Group receives consideration less than the services rendered, the Group recognises the consideration as a contract asset.
- Energy Payments are recognised at a point in time when the controls over the products are transferred to the customers at destinations as stated in the agreements. The revenue from Energy Payments are recognised based on transaction price net of output tax, rebates and discounts.

#### (b) Revenue under the Power Purchase Agreements which are classified as lease

- Finance lease income under the power purchase agreements is recognized on an effective interest method over the period of the agreements. Rental income from operating lease under the power purchase agreements is recognised on a straight-line basis over the period of the agreements.
- Service income under finance and operating lease agreements related to power purchase agreements, which comprises revenue for maintaining availabilities of power plants, other service income and Energy Payments received from financial lease receivables and operating lease receivables with respect to the leased assets, is recognised when the services are rendered. If the Group receives consideration above the services rendered, the Group recognises the excess consideration as a contract liability. On the other hand, if the Group receives consideration less than the services rendered, the Group recognises the consideration as a contract asset.
- Contingent rents are recognised in profit or loss in the period in which they are incurred. Contingent rent is that portion of lease payments that is not fixed in amount but varies based on a future factor, such as the amount of use or production.

### *Other service income*

The Group recognises income from other services, net of value added tax. The Group will recognise when there was probable to receive payment when service rendered.

The Group recognises income from service contract which has continuous service attribute on straight-line basis regardless of payment terms in contract.

### *Interest income*

Interest income are recognised on an accrual basis unless collectability is in doubt.

### *Dividend income*

Dividend income is recognised when the right to receive payment is established.

## 5.23 Dividends distribution

Dividends distribution to the group's shareholders is recognised as liability in the financial statements in the period in which the dividends are approved by the Company's shareholders and interim dividend are approved by the Board of Directors.

## 5.24 Derivatives and hedging activities

### 5.24.1 Embedded derivative and derivatives that do not qualify for hedge accounting

Embedded derivative that is separately accounted for and derivatives that do not qualify for hedge accounting is initially recognised at fair value. Changes in the fair value are included in gain (loss) on remeasurement of financial instruments, net.

Fair value of derivatives is classified as a current or non-current following its remaining maturity.

### 5.24.2 Hedge accounting

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The Group designates certain derivatives as either:

- hedges of the fair value of i) recognised assets or liabilities or ii) unrecognised firm commitments (fair value hedges) or
- hedges of a particular risk associated with the cash flows of i) recognised assets and liabilities and ii) highly probable forecast transactions (cash flow hedges)

At inception of the hedge relationship, the Group documents i) the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items and ii) its risk management objective and strategy for undertaking its hedge transactions.

The full fair value of a hedging derivative is classified as a current or non-current asset or liability following the maturity of related hedged item.

#### *Cash flow hedges that qualify for hedge accounting*

The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges is recognised in the cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in gain (loss) on remeasurement of financial instruments.

The Group uses derivatives contracts, for example foreign currency forward contracts, cross currency and interest rate swap contracts to hedge forecast transactions. The Group generally designates only the change in fair value related to the spot component as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot component are recognised as the cash flow hedge reserve in the other comprehensive income within equity. The change in the forward element that relates to the hedged item ('aligned forward element') is recognised as the cost of hedging reserve in other comprehensive income within equity.

In some cases, the Group may designate the full change in fair value of the derivatives (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire contract are recognised as the cash flow hedge reserve in the other comprehensive income within equity.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

#### For the year ended 31 December 2019

The Group is party to derivative financial instruments, which mainly comprise foreign currency forward contracts, interest rate swap contracts, cross currency swap contracts and cross currency interest rate swap contracts.

Foreign currency forward contracts protect the exposure from movements in exchange rates by determining the future exchange rate that assets or liabilities in foreign currencies will be received or paid. Foreign currency forward contracts are recognised in the financial statements on the contract date. Any fee, premiums or discounts arising from foreign currency forward contracts are amortised over the contract's period.

Interest rate swap contracts protect the exposure from movements in interest rates. Any differential to be paid or received on the interest rate swap contracts is recognised as a component of finance costs as incurred. Gains and losses from early cancellation of interest rate swap contracts is recognised in profit or loss.

## 5.25 Financial guarantee contracts

Financial guarantee contracts are recognised as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value and subsequently at the higher of:

- the amount determined in accordance with the expected credit loss model under TFRS 9; and
- the amount initially recognised less the cumulative amount of income recognised in accordance with the principles of TFRS 15.

The fair value of financial guarantees is determined based on the present value of the difference in cash flows between a) the contractual payments required under the debt instrument; and b) the payments that would be required without the guarantee, or the estimated amount that would be payable to a third party for assuming the obligations.

Where guarantees in relation to loans or other payables of associates are provided for no compensation, the fair values are accounted for as contributions and recognised as part of the cost of the investment.

## 6 Financial risk management

### 6.1 Financial risk

The Group exposes to a variety of financial risk: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance.

Financial risk management is carried out by the Group Treasury and Finance Division. The Group's policy includes areas such as foreign exchange risk, interest rate risk, credit risk and liquidity risk. The framework parameters are approved by the Board of Directors and uses as the key communication and control tools for treasury team globally.

The Group use financial instruments and derivative to minimise the uncertainty over future cash flow from changes in interest rates, foreign exchange rates, volatility in electricity price, and to assist cash and liquidity management. The derivatives comprise interest rate swap contracts, foreign currency forward contracts, cross currency swap contracts, cross currency interest rate swap contracts, and electricity swaption contract.

Trading for speculative purposes is not allowed. All derivative transactions are subject to prior approval by the respective board of director of each company in the Group.

Where all relevant criteria are met, hedge accounting is applied to remove the accounting mismatch between the hedging instrument and the hedged item.

#### 6.1.1 Market risk

##### a) Foreign exchange risk

The Group are exposed to foreign exchange risk from future commercial transactions, trading transactions purchase of goods and services, net investments in foreign operations, foreign currency borrowings, and net monetary assets and liabilities that are denominated in a currency that is not the entity's functional currency. In respect of currency exchange risk of the domestic operation, the formula for the calculation of the Availability Payments and Energy Payments charged to Electricity Generating Authority of Thailand (EGAT) allows for the minimisation of the impact of currency exchange. For the exchange rate risks of the overseas operations, the Group receives cash inflow from trade receivables in the same currency as the major liabilities of the Group (Natural Hedge).

#### Financial instruments used by the Group

The Group seeks to reduce this risk by entering into derivatives contracts when it considers appropriate. The Group uses foreign currency forwards contracts, cross currency swap contracts and cross currency interest rate swap contracts in a consistent manner to hedge firm and anticipated foreign exchange commitments and manage their foreign exchange risk arising from future commercial transactions, trading transactions purchase of goods and services and foreign currency borrowings. The purpose of these hedges is to mitigate the impact of movements in foreign exchange rates on assets and liabilities and the profit and loss account of the Group.

Under the group's policy, the critical terms of the derivatives contracts used as financial instruments on foreign exchange risk must align with the hedged items.

### Exposure

As at 31 December, the Group has significant exposure to foreign currency risk that are denominated in a currency that is not the entity's functional currency, expressed in Baht are as follows:

	Consolidated financial statements									
	As at 31 December 2020					As at 31 December 2019				
	US Dollar Million Baht	Japanese Yen Million Baht	Philippines Peso Million Baht	Swedish krona Million Baht	US Dollar Million Baht	Japanese Yen Million Baht	Philippines Peso Million Baht	Swedish krona Million Baht	US Dollar Million Baht	Japanese Yen Million Baht
Cash and cash equivalents	5,625	-	298	-	10,840	-	84	-	-	-
Financial assets used as collateral measured at amortised cost	441	38	-	-	474	35	-	-	-	-
Trade receivables, net	-	-	702	-	53	-	594	-	-	-
Lease receivable from a related party for services under power purchase agreement	8,424	101	-	-	8,789	122	-	-	-	-
Trade and other payables	284	85	371	-	476	71	138	-	-	-
Long-term loans from financial institutions	44,951	-	-	-	46,712	-	-	-	-	-
Debentures	-	5,042	-	-	-	4,787	-	-	-	-
Derivatives where the hedge accounting is not applied	-	2,200	-	-	-	2,149	-	-	-	-
- Foreign currency forward contracts	-	4,321	-	-	-	4,339	-	-	-	-
- Cross currency swap contracts	-	-	-	-	-	-	-	-	-	-
Derivatives where the hedge accounting is applied	60	348	-	664	-	318	-	723	-	-
- Foreign currency forward contracts	4,457	-	-	-	4,447	-	-	-	-	-
- Cross currency swap contracts	9,687	-	-	-	9,099	-	-	-	-	-
- Cross currency interest rate swap contracts	-	-	-	-	-	-	-	-	-	-

	Separate financial statements			
	2020		2019	
	US Dollar Million Baht	Japanese Yen Million Baht	US Dollar Million Baht	Japanese Yen Million Baht
Cash and cash equivalents	1,314	-	740	-
Long-term loans from financial institutions	23,434	-	24,067	-
Debentures	-	5,042	-	4,787
Derivatives where the hedge accounting is not applied				
- Cross currency swap contracts	-	4,321	-	4,339

The significant effects of the foreign currency-related hedging instruments on the Group's and the Company's financial position and performance are as follows:

1. Foreign currency forward contracts

	Consolidated financial statements		
	2020		
	US Dollar long-term loans Million Baht	Japanese Yen long-term technical service agreement Million Baht	Swedish krona long-term technical service agreement Million Baht
Carrying amount (liability)	(5)	(58)	(81)
Notional amount	60	348	664
Maturity date	30 June 2030	30 September 2026	16 June 2025
Change in discounted spot value of outstanding hedging instruments since 1 January	1	14	95
Change in value of hedged item used to determine hedge effectiveness	(1)	(14)	(95)
Hedged rate for outstanding hedging instruments (including forward points)	Baht 32.73 per 1 US Dollar	Baht 32.43 - 39.20 per 100 Yen	Baht 4.17 per 1 Krona

2. Cross currency swap contracts

	Consolidated financial statements	
	2020	
	US Dollar long-term loans Million Baht	
Carrying amount (liability)	(283)	(101)
Notional amount	3,229	1,228
Maturity date	28 December 2023	31 December 2028 to 30 December 2032
Change in fair value of outstanding hedge instruments since 1 January	71	(121)
Change in value of hedged item used to determine hedge effectiveness	(71)	121
Hedged rate for outstanding hedging instruments (including forward points)	1,172 Won per 1 US Dollar	Baht 29.50 - 32.73 per 1 US Dollar
SWAP rate	1.70% - 1.85%	1.55% - 2.60%

## 3. Cross currency interest rate swap contracts

	Consolidated financial statements 2020 US Dollar long-term loans Million Baht
Carrying amount (liability)	(546)
Notional amount	9,687
Maturity date	28 December 2023
Change in fair value of outstanding hedge instruments since 1 January	(379)
Change in value of hedged item used to determine hedge effectiveness	379
Hedged rate for outstanding hedging instruments (including forward points)	1,172 Won per 1 US Dollar
SWAP rate	2.99%

*Sensitivity*

As shown in the table above, the Group is primarily exposed to changes in Baht and US Dollar, Baht and Japanese Yen, Korean Won and US Dollar, and US Dollar and Japanese Yen. The sensitivity of profit or loss to changes in the exchange rates arises mainly from financial assets and financial liabilities denominated in US Dollar and Japanese Yen and the impact on other components of equity arises from foreign currency forward contracts and cross currency interest rate swap contracts designated as cash flow hedges. The Group's exposure to other foreign exchange movements is immaterial.

	Consolidated financial statements	
	Impact to net profit	Impact to other components of equity
	2020 Million Baht	2020 Million Baht
Baht to 1 US Dollar exchange rate - increase 10% *	(1,289)	(205)
Baht to 1 US Dollar exchange rate - decrease 10% *	914	203
Baht to 100 Japanese Yen exchange rate - increase 10% *	(481)	28
Baht to 100 Japanese Yen exchange rate - decrease 10% *	481	(28)
Korean Won to 1 US Dollar exchange rate - increase 10% *	(485)	56
Korean Won to 1 US Dollar exchange rate - decrease 10% *	485	(54)
US Dollar to 100 Japanese Yen exchange rate - increase 10% *	678	-
US Dollar to 100 Japanese Yen exchange rate - decrease 10% *	(700)	-

\* Holding all other variables constant

	Separate financial statements	
	Impact to net profit	Impact to other components of equity
	2020 Million Baht	2020 Million Baht
Baht to 1 US Dollar exchange rate - increase 10% *	(2,226)	-
Baht to 1 US Dollar exchange rate - decrease 10% *	2,226	-
Baht to 100 Japanese Yen exchange rate - increase 10% *	(504)	-
Baht to 100 Japanese Yen exchange rate - decrease 10% *	504	-
US Dollar to 100 Japanese Yen exchange rate - increase 10% *	486	-
US Dollar to 100 Japanese Yen exchange rate - decrease 10% *	(510)	-

\* Holding all other variables constant

## b) Cash flow and interest rate risk

The Group's main interest rate risk arises from long-term borrowings with variable rates, which expose the Group to cash flow risk. The Group uses interest rate swap contracts, cross currency swap contracts and cross currency interest rate swap contracts to manage the risk when necessary.

Generally, the Group enters into long-term borrowings at floating rates and swaps them into fixed rates. During 2020, the Group's borrowings at variable rate were mainly denominated in Baht, US dollars, Australian dollar and Euro.

The exposure of the Group's interest rate of long-term borrowings from financial institutions before impact of derivatives are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Long-term loans from financial institutions, net				
- Fixed rate	5,083	7,063	-	-
- Floating rate	82,316	77,678	33,812	34,837
Total Long-term loans from financial institutions, net	87,399	84,741	33,812	34,837
Debentures				
- Fixed rate	5,042	4,787	5,042	4,787
Total Debentures	5,042	4,787	5,042	4,787

An analysis by maturities is provided in Note 24.1.3

### Instruments used by the Group

The Group and the Company entered into interest rate swaps contracts covering approximately 96% of the variable loan principal outstanding. The fixed interest rates of the swaps range between 1.55% and 5.55%. As at 31 December 2020, the variable rates of the loans are described in Note 24.

The swap contracts require settlement of net interest receivable or payable between 90 to 180 days. The settlement dates coincide with the dates on which interest is payable on the underlying debt.

The significant effects of the interest rate-related hedging instruments on the Group financial position and performance are as follows:

### *Interest rate swaps*

	Consolidated financial statements 2020 US Dollar long-term loans Million Baht
Carrying amount (asset)	1
Notional amount	380
Maturity date	28 December 2035
Change in fair value of outstanding hedge instruments since 1 January	1
Change in value of hedged item used to determine hedge effectiveness	(1)
SWAP rate	2.70%

<b>Consolidated financial statements</b>		
<b>2020</b>		
	<b>Baht long-term loans Million Baht</b>	<b>US Dollar long-term loans Million Baht</b>
Carrying amount (liability)	(2,626)	(2,123)
Notional amount	27,701	30,334
Maturity date	8 December 2021 to 30 December 2037	15 January 2021 to 27 August 2036
Change in fair value of outstanding hedge instruments since 1 January	(71)	(1,135)
Change in value of hedged item used to determine hedge effectiveness	71	1,128
Change in value of hedged item used to determine hedge ineffectiveness	-	7
SWAP rate	3.60% - 5.55%	2.63% - 4.12%

<b>Separate financial statements</b>		
<b>2020</b>		
	<b>Baht long-term loans Million Baht</b>	<b>US Dollar long-term loans Million Baht</b>
Carrying amount (liability)	(424)	(1,050)
Notional amount	10,400	23,434
Maturity date	8 December 2021 to 30 June 2026	15 January 2021 to 10 March 2025
Change in fair value of outstanding hedge instruments since 1 January	(64)	(723)
Change in value of hedged item used to determine hedge effectiveness	64	716
Change in value of hedged item used to determine hedge ineffectiveness	-	7
SWAP rate	3.60% - 4.33%	2.63% - 4.08%

The significant impact of interest rate hedging instruments on the Group's financial position and performance by entering into cross currency swaps and cross currency interest rate swap was disclosed in Note 6.1.1 (a) including with the hedging foreign exchange rate risk

#### *Sensitivity*

Profit or loss is sensitive to higher or lower interest income from cash and cash equivalents, and interest expenses from borrowings as a result of changes in interest rates. Other components of equity changes as a result of an increase or decrease in the fair value of the cash flow hedges of long-term loans.

<b>Consolidated financial statements</b>		
	<b>Impact to net profit 2020 Million baht</b>	<b>Impact to other components of equity 2020 Million baht</b>
Interest rate - increase 0.5%	(190)	1,642
Interest rate - increase 0.5%	187	(1,546)
<b>Separate financial statements</b>		
	<b>Impact to net profit 2020 Million baht</b>	<b>Impact to other components of equity 2020 Million baht</b>
Interest rate - increase 0.5%	(145)	448
Interest rate - increase 0.5%	156	(463)

\* Holding all other variables constant

### c) Price risk

The Group's exposures to the fluctuations in coal price which is partly consumed as fuel in electricity generation by the power plant incorporated in the Philippines. The Group monitors coal price index in order to plan a purchase of coal at appropriate quantity and price.

In addition, the Group exposes to the fluctuations in the electricity market price in Australia. This is because all electricity supplied to the market is sold at the spot price, which fluctuates in response to supply and demand. To manage electricity price volatility, the Group enters into electricity swaption contract with its customer to fix the price for future electricity sale for a total period of 15 years. However, the Group does not apply the hedge accounting for this transaction. Therefore, the changes in fair value of electricity swaption contract were recognised in profit or loss and presented in net gains (losses) on remeasurement of financial instruments.

#### *Sensitivity analysis*

The change in electricity forward price will impact the fair value of electricity swaption contract as follows:

	<b>Consolidated financial statement Impact to net profit 2020 Million Baht</b>
Electricity forward price - increase by 10%*	(239)
Electricity forward price - decrease by 10%*	239
* Holding all other variables constant	

### 6.1.2 Credit risk

#### a) Risk management

Credit risk is managed on a group basis which arises from cash and cash equivalents and contractual cash flows of debt investments carried at amortised cost. For banks and financial institutions, only independently rated parties with a minimum rating of A- are accepted. The Group has policy to limit the transactions with specific financial institutions to reduce potential risks and use excess portion to invest in lower-risk investment. From past experience, the Group has no loss from cash and investment.

For transaction with customers, the Group's sale contracts are made to state-owned enterprises and industrial users under the terms and conditions of the long-term Power Purchase Agreements and the long-term Electricity and Steam Sales and Purchase Agreements. The customers are reliable and have low credit risk. However, management regularly monitors credit term compliance granted to each customer.

The Group's investments in debt instruments are considered to be low risk investments. The Group regularly monitors the credit ratings of the investments for credit deterioration.

#### b) Security

For some trade receivables the Group may obtain security in the form of guarantees or letters of credit which can be called upon if the counterparty is in default under the terms of the agreement.

#### c) Impairment of financial assets

The Group and the Company have following financial assets that are subject to the expected credit loss model:

- Cash and cash equivalents
- Trade receivables
- Lease receivables from services under power purchase agreements
- Other receivables
- Loans to related parties
- Other financial assets measured at amortised cost

Management considered the identified impairment loss on financial assets are immaterial.

### 6.1.3 Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities and the availability of funding through an adequate amount of committed credit facilities to meet obligations when due and to close out market positions. Due to the dynamic nature of the underlying businesses, the Group treasury maintains flexibility in funding by maintaining availability under committed credit lines.

The tables below analyse the maturity of financial liabilities grouping based on their contractual maturities. The amounts disclosed are the contractual undiscounted cash flows.

	Consolidated financial statements				
	Within 1 year Million Baht	1 - 5 years Million Baht	Over 5 years Million Baht	Total Million Baht	Carrying amount Million Baht
<b>Maturity of financial liabilities As at 31 December 2020</b>					
Trade payables and other payables	4,365	-	-	4,365	4,365
Lease liabilities	55	145	405	605	528
Long-term loans from financial institutions and interest expenses	13,064	64,926	20,434	98,424	87,689
Debentures and interest expenses	88	5,054	-	5,142	5,063
<b>Total financial liabilities that is not derivatives</b>	<b>17,572</b>	<b>70,125</b>	<b>20,839</b>	<b>108,536</b>	<b>97,645</b>
Derivatives where the hedge accounting is not applied					
- Interest rate swap contracts	50	143	-	193	193
- Foreign currency forward contracts	46	229	-	275	241
Derivatives where the hedge accounting is applied					
- Interest rate swap contracts	1,274	3,006	2,275	6,555	4,749
- Foreign currency forward contracts	40	155	55	250	144
- Cross currency swap contracts	20	117	387	524	384
- Cross currency interest rate swap contracts	155	394	-	549	546
<b>Total derivative liabilities</b>	<b>1,585</b>	<b>4,044</b>	<b>2,717</b>	<b>8,346</b>	<b>6,257</b>
<b>Total</b>	<b>19,157</b>	<b>74,169</b>	<b>23,556</b>	<b>116,882</b>	<b>103,902</b>
	Separate financial statements				
	Within 1 year Million Baht	1 - 5 years Million Baht	Over 5 years Million Baht	Total Million Baht	Carrying amount Million Baht
<b>Maturity of financial liabilities As at 31 December 2020</b>					
Trade payables and other payables	512	-	-	512	512
Lease liabilities	6	13	18	37	30
Long-term loans from financial institutions and interest expenses	6,715	28,161	303	35,179	33,886
Debentures and interest expenses	88	5,054	-	5,142	5,063
<b>Total financial liabilities that is not derivatives</b>	<b>7,321</b>	<b>33,228</b>	<b>321</b>	<b>40,870</b>	<b>39,491</b>
Derivatives where the hedge accounting is not applied					
- Interest rate swap contracts	588	919	3	1,510	1,474
<b>Total derivative liabilities</b>	<b>588</b>	<b>919</b>	<b>3</b>	<b>1,510</b>	<b>1,474</b>
<b>Total</b>	<b>7,909</b>	<b>34,147</b>	<b>324</b>	<b>42,380</b>	<b>40,965</b>

As at 31 December 2020, the Company had commitments under long-term loans from financial institutions to subsidiaries and joint ventures, as described in Note 40. These commitments must be paid to lenders if the subsidiaries and joint ventures don't comply with the certain procedure and condition of the subsidiaries and joint ventures' long-term loan agreements, according to the principal repayment at maturity as described in Note 24.

However, as at 31 December 2020, managements considered no risks from these commitments since subsidiaries and joint ventures are in a good financial position and can meet the obligations of the long-term loan agreements.

## 6.2 Capital management

The objectives when managing capital are to safeguard their ability to continue as a going concern, to provide returns for shareholders and benefits for other stakeholders, and maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group has several operational guidelines such as return capital to shareholders, issue new shares which the Group has to comply with requirements in long-term loans and debenture as described in Note 24 and 25.

During the year 2020, the Group's strategy remains unchanged.

As at 31 December, net debt to equity ratios of the Group are as follows:

	<b>Consolidated financial statements</b>	
	<b>2020 Million Baht</b>	<b>2019 Million Baht</b>
Net debt	111,603	103,416
Equity (including non-controlling interests)	102,834	105,106
<b>Net debt to equity ratio</b>	<b>1.09</b>	<b>0.98</b>

## 7 Derivatives and hedging activities

As at 31 December 2020, the Group had derivative contracts as follows:

	<b>Consolidated financial statements</b>	<b>Separate financial statements</b>
	<b>Million Baht</b>	<b>Million Baht</b>
<b>Current derivative assets</b>		
Derivatives where the hedge accounting is not applied		
- Electricity swaption contract	223	-
<b>Total current derivative assets</b>	<b>223</b>	<b>-</b>
<b>Non-current derivative assets</b>		
Derivatives where the hedge accounting is not applied		
- Cross currency swap contracts	569	553
- Electricity swaption contract	1,447	-
Derivatives where the hedge accounting is applied		
- Interest rate swap contracts	1	-
<b>Total non-current derivative assets</b>	<b>2,017</b>	<b>553</b>

	Consolidated financial statements	Separate financial statements
	Million Baht	Million Baht
<b>Current derivative liabilities</b>		
Derivatives where the hedge accounting is not applied		
- Interest rate swap contracts	50	-
- Foreign currency forward contracts	-	-
- Electricity swaption contract	-	-
Derivatives where the hedge accounting is applied		
- Interest rate swap contracts	89	89
<b>Total current derivative liabilities</b>	<b>139</b>	<b>89</b>
<b>Non-current derivative liabilities</b>		
Derivatives where the hedge accounting is not applied		
- Interest rate swap contracts	143	-
- Foreign currency forward contracts	241	-
Derivatives where the hedge accounting is applied		
- Interest rate swap contracts	4,660	1,385
- Foreign currency forward contracts	144	-
- Cross currency swap contracts	384	-
- Cross currency interest rate swap contracts	546	-
<b>Total non-current derivative liabilities</b>	<b>6,118</b>	<b>1,385</b>

## 7.1 Classification of derivatives

Derivatives are for the purpose of hedging against economic risks, not for investment for profit. The Group applies hedge accounting for some derivatives. This qualifies as a cash flow hedge instrument with a hedge ratio of 1:1 based on the relationship of the underlying risk variables between the hedged item and the hedging instrument. However, if a derivative contract doesn't meet the criteria for hedge accounting, it's classified as trading and measured at fair value through profit or loss.

The Group presents fair value of derivative contracts as current and non-current based on each maturity of hedged items.

## 7.2 Hedge effectiveness

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments, to ensure that an economic relationship exists between the hedged item and hedging instrument.

### Foreign exchange risk

For hedges of foreign currency purchases, the Group enters into hedge relationships where the critical terms of the hedging instrument match exactly with the terms of the hedged item. The Group therefore performs a qualitative assessment of effectiveness. If changes in circumstances affect the terms of the hedged item such that the critical terms no longer match exactly with the critical terms of the hedging instrument, the Group uses the hypothetical derivative method to assess effectiveness.

In hedges of foreign currency purchases, ineffectiveness may arise if the timing of the forecast transaction changes from what was originally estimated, or if there are changes in the credit risk of the derivative counterparty.

### Interest rate risk

The Group enters into interest rate swaps that have similar critical terms as the hedged item, such as reference rate, reset dates, payment dates, maturities and notional amount. The Group does not hedge 100% of its loans, therefore the hedged item is identified as a proportion of the outstanding loans up to the notional amount of the swaps. As all critical terms matched during the year, there is an economic relationship.

Hedge ineffectiveness for interest rate swaps is assessed using the same principles as for hedges of foreign currency purchases. It may occur due to the credit value/debit value adjustment on the interest rate swaps which is not matched by the loan and differences in critical terms between the interest rate swaps and loans.

### 7.3 Hedging reserves

Hedging reserves comprise hedging costs and cash flow hedge reserves. The cash flow hedge reserve is used to recognise gain/loss relating to the effective portion of the change in fair value of the derivatives for which hedge accounting is applied.

Hedging reserves are listed in other components of equity, which consists of the following hedging instruments.

	Consolidated financial statements			
	Cash flow hedged reserves			
	Cost of hedged reserve <sup>(*)</sup>	Spot component of derivatives <sup>(*)</sup>	Interest rate swaps	Total cash flow hedge reserves
	Million Baht	Million Baht	Million Baht	Million Baht
Opening balance as at 1 January 2020	(78)	(150)	(3,030)	(3,180)
Add: Change in fair value of hedging instruments recognised in OCI	-	(296)	(1,525)	(1,821)
Add: Costs of hedging deferred and recognised in OCI	41	-	-	-
Less: Reclassification from OCI to profit or loss included in				
- Sales and services income	-	4	-	4
- Costs of sales and services	-	24	-	24
- Finance costs	-	(46)	321	275
Less: Deferred tax	3	(36)	64	28
Closing balance as at 31 December 2020	(34)	(500)	(4,170)	(4,670)

	Separate financial statements
	Cash flow hedged reserves
	Interest rate swaps
	Million Baht
Opening balance as at 1 January 2020	(631)
Add: Change in fair value of hedging instruments recognised in OCI	(1,150)
Less: Reclassification from OCI to profit or loss included in finance costs	363
Less: Deferred tax	-
Closing balance as at 31 December 2020	(1,418)

<sup>(\*)</sup> Derivatives consist of foreign currency forward, cross currency swap, and cross currency interest rate swap contracts.

### 7.4 Amounts recognised in profit or loss

In addition to the amounts disclosed in the reconciliation of hedging reserves above, the following amounts were recognised in profit or loss in relation to derivatives presented in Note 7.3.

For the year ended 31 December	Consolidated financial statements	Separate financial statements
	2020	2020
	Million Baht	Million Baht
Net gain on derivatives not qualifying as hedges included in net gains/(losses) on remeasurement of financial instruments, net ineffective portion of hedging derivatives included in net gains/(losses) on remeasurement of financial instruments, net	1,800	210
	(7)	(7)

## 8 Fair value

The following table presents financial assets and liabilities that are measured at fair value in each level including fair value of financial assets and financial liabilities. The tables exclude financial assets and liabilities measured at amortised cost where their carrying value approximated fair value.

		Consolidated financial statements			
		Fair value			
		Fair value through profit or loss (FVPL)	Fair value through other comprehensive income (FVOCI)	Amortised cost	Total carrying value
		Million Baht	Million Baht	Million Baht	Million Baht
		Million Baht	Million Baht	Million Baht	Million Baht
		Million Baht	Million Baht	Million Baht	Million Baht
		Million Baht	Million Baht	Million Baht	Million Baht
		Million Baht	Million Baht	Million Baht	Million Baht
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		Million Baht	Million Baht	Million Baht	Million Baht
		Million Baht	Million Baht		

## As at 31 December 2020

## Liabilities

- Long-term loans from financial institutions  
 Debentures  
 Derivatives where the hedge accounting is not applied  
 - Interest rate swap contracts  
 - Foreign currency forward contracts  
 Derivatives where the hedge accounting is applied  
 - Interest rate swap contracts  
 - Foreign currency forward contracts  
 - Cross currency swap contracts  
 - Cross currency interest rate swap contract

Consolidated financial statements					
Fair value level	Fair value through profit or loss (FVPL) Million Baht	Fair value through other comprehensive income (FVOCI) Million Baht	Amortised cost Million Baht	Total carrying value	
				Million Baht	Fair value Million Baht
2	-	-	87,399	87,399	87,682
2	-	-	5,042	5,042	5,079
2	193	-	-	193	193
2	241	-	-	241	241
2	4,749	-	-	4,749	4,749
2	144	-	-	144	144
2	384	-	-	384	384
2	546	-	-	546	546
	6,257	-	92,441	98,698	99,018

## Total liabilities

Total liabilities

Consolidated financial statements						
Fair value level	Fair value through profit or loss (FVPL)	Fair value through other comprehensive income (FVOCI)	Amortised cost	Total carrying value	Fair value	
	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	
<b>Assets</b>						
Derivatives where the hedge accounting is not applied						
- Cross currency swap contracts	-	-	-	-	-	398
- Electricity swaption contract	-	-	-	-	-	39
Derivatives where the hedge accounting is applied						
- Foreign currency forward contracts	-	-	-	-	-	10
<b>Total assets</b>	-	-	-	-	-	447
<b>Liabilities</b>						
Long-term loans from financial institutions						
Debentures	-	-	-	84,741	85,104	
Derivatives where the hedge accounting is not applied	-	-	-	4,787	4,872	
- Interest rate swap contracts	-	-	-	-	211	
- Foreign currency forward contracts	-	-	-	-	286	
- Electricity swaption contract	-	-	-	-	58	
Derivatives where the hedge accounting is applied						
- Interest rate swap contracts	-	-	-	-	3,436	
- Foreign currency forward contracts	-	-	-	-	258	
- Cross currency swap contracts	-	-	-	-	183	
- Cross currency interest rate swap contract	-	-	-	-	54	
<b>Total liabilities</b>	-	-	-	89,528	94,462	

The Group did not classify and recognise financial assets and financial liabilities as requirement of the financial reporting standards related to financial instruments in the consolidated financial statements as at 31 December 2019.

		Separate financial statements				
		Fair value		Total carrying		Fair value
Fair value level	Fair value through profit or loss (FVPL)	through other comprehensive income (FVOCI)	Amortised cost	value	Fair value	
As at 31 December 2019						
Assets						
2	Long-term loan to related parties	-	-	51,751	52,359	
Derivatives where the hedge accounting is not applied						
2	- Cross currency swap contract	-	-	-	342	
Derivatives where the hedge accounting is applied						
2	- Interest rate swap contracts	-	-	-	10	
Total assets		-	-	51,751	52,711	
Liabilities						
2	Debenture	-	-	4,787	4,872	
Derivatives where the hedge accounting is applied						
2	- Interest rate swap contract	-	-	-	621	
Total liabilities		-	-	4,787	5,493	

The Company did not classify and recognise financial assets and financial liabilities as requirement of the financial reporting standards related to financial instruments in the separate financial statements as at 31 December 2019.

Fair value of the following financial assets and financial liabilities measured at amortised cost where their carrying value approximated fair value are as follows:

Consolidated financial statements	Separate financial statements
<b>Financial assets</b> <ul style="list-style-type: none"> <li>- Cash and cash equivalents</li> <li>- Financial assets measured at amortised cost</li> <li>- Financial assets used as collateral measured at amortised cost</li> <li>- Trade receivables</li> <li>- Lease receivables under power purchase agreements from a related party</li> <li>- Other receivables</li> <li>- Long-term loans to related parties</li> </ul>	<b>Financial assets</b> <ul style="list-style-type: none"> <li>- Cash and cash equivalents</li> <li>- Financial assets measured at amortised cost</li> <li>- Other receivables</li> </ul>
<b>Financial liabilities</b> <ul style="list-style-type: none"> <li>- Short-term loans from financial institutions</li> <li>- Trade payables</li> <li>- Other payables</li> <li>- Payable for acquisition of investment in a joint venture</li> <li>- Long-term loans from financial institutions</li> <li>- Long-term loan from other company</li> <li>- Lease liabilities</li> </ul>	<b>Financial liabilities</b> <ul style="list-style-type: none"> <li>- Other payables</li> <li>- Payable for acquisition of investment in a joint venture</li> <li>- Long-term loans from financial institutions</li> <li>- Lease liabilities</li> </ul>

The different levels have been defined as follows:

- Level 1 Fair value of financial instruments refer to quoted prices in active markets for identical assets or liabilities.  
 Level 2 Fair value of financial instruments assess from valuation techniques which use information that are observable, either directly or indirectly, for the asset or liability  
 Level 3 Fair value of financial instruments assess from valuation techniques that are not based on observable market data.

There were no transfers between Levels 1, 2 and 3 of fair value level during the year.

## 8.1 Valuation techniques used to measure fair value level 2

Valuation techniques used to measure fair value level 2 of derivatives are as follows:

- Fair value of interest rate swaps contracts is determined using forward interests extracted from observable yield curves.
- Fair value of foreign currency forward contracts is determined using forward exchange rates that are quoted in an active market.
- Fair value of cross currency swap contracts and cross currency interest rate swap contracts are determined using forward interests extracted from observable yield curves and using forward exchange rates that are quoted in an active market.

## 8.2 Valuation techniques used to measure fair value level 3

Changes in level 3 derivatives that are measured at fair value for the year ended 31 December 2020 are as follows:

	Consolidated financial statements
	<b>Electricity swaption contract Million Baht</b>
Opening balance as at 1 January 2020	(19)
Increase through profit and loss	1,580
Exchange difference on translation	109
Closing balance as at 31 December 2020	1,670

The following table summarises the quantitative information about the significant unobservable inputs used in level 3 fair value measurements as at 31 December 2020.

	Consolidated financial statements		
	Fair value Million Baht	Unobservable inputs	Range of inputs
Electricity swaption contract	1,670	Growth rate of cash flows Risk-adjusted discount rate Electricity forward price	0.70% 0.13% - 2.04% 39.40 - 143.60 Australian Dollar

As at 31 December 2020, relationship of unobservable inputs to fair value are shown as follows:

			Consolidated financial statements	
			Change in fair value	
	Unobservable inputs	Movement	Increase in assumptions	Decrease in assumptions
			Million Baht	Million Baht
Electricity swaption contract	Growth rate of cash flows	1%	(121)	114
	Risk-adjusted discount rate	1%	(198)	230
	Electricity forward price	10%	(239)	239

### The Group's valuation process

The Management appoints independent valuation team to discuss and carry out fair value valuation process on quarterly basis.

Significant unobservable input of fair value hierarchy level 3 is risk-adjusted discount rate which reference to the rate of return in the financial market of Australia adjusted by credit risk.

## 9 Critical accounting estimates and judgments

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations or future events that are believed to be reasonable under the circumstances.

During the year 2020, the Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are outlined below.

### 9.1 Fair value of certain financial assets and derivatives

The fair value of financial instruments that are not traded in an active market is determined using valuation techniques. The Group uses judgement to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period. Details of key assumptions used are included in Note 7.

### 9.2 Fair value estimation on acquisition of investment in joint ventures

The Group estimates fair value of net assets acquired under business combination since the valuation methodology and assumptions used in the financial model involved significant management judgment. Key assumptions applied include the electricity tariffs, assumed capacity of the power plants, operating expenditures, and capital structure.

### 9.3 Impairment of goodwill

Goodwill arising from the acquisition of investment in electricity generation businesses in each country is tested annually for impairment by comparing the carrying amount to the recoverable amount for each cash-generating unit which is determined based on value-in-use calculations. These calculations use a cash flow projection covering the remaining periods of Power Purchase Agreements of the Group in each country and the tariffs and capacity stated in the agreements. Discount rates used are based on WACC of each country.

### 9.4 Impairment of investments in subsidiaries, associates and joint ventures and related assets

The Group tests impairment of investments in subsidiaries, associates and joint ventures and related assets when events or changes in circumstances indicate that the carrying value of the investment is higher than its recoverable amounts by applying the value-in-use model or fair value less costs of disposal. The value-in-use model involves management's significant judgments with respect to the future operating results of business, projected cash flows, appropriate discount rate to be applied to the projected cash flows. Key assumptions applied in the value-in-use model or fair value less costs of disposal are electricity tariff, assumed capacity of the power plants, growth rate, expected changes to operating expenditures, and the discount rate to be applied to the projected cash flows.

## 10 Segment information - consolidated financial statements

The Group has two segments report which are comprised of electricity generation and other businesses. Electricity generation is to operate electricity for sales to the government and industrial users. Other businesses are maintenance and operating services for power plants, engineering service, coal mining business and oil pipeline system business. The segment information is presented on the same basis that used for internal reporting purpose as provided to the chief operating decision maker (the President).

Consolidated financial statements For the year ended 31 December 2020						
	Electricity generation Baht	Other businesses Baht	Management Discussion and Analysis report Baht	Adjustments Baht		Total Baht
Sales and services income	35,843,401,504	736,181,358	36,579,582,862	(5,878,976,830)	(2),(4),(5),(8),(9)	30,700,606,032
Lease income under power purchase Agreements	-	-	-	2,877,064,795	(5)	2,877,064,795
Costs of sales and services	(25,971,676,460)	(594,516,496)	(26,566,192,956)	1,308,343,362	(2),(5),(8),(9)	(25,257,849,594)
Segment results	9,871,725,044	141,664,862	10,013,389,906	(1,693,568,673)		8,319,821,233
Dividend and other income	3,229,890,109	10,619,923	3,240,510,032	(827,820,622)	(4),(8),(9)	2,412,689,410
Loss on impairment of assets	(2,399,429,322)	-	(2,399,429,322)	790,928,118	(1),(9)	(1,608,501,204)
Currency exchange gains, net	245,595,692	8,049,762	253,645,454	607,170,598	(1),(2),(3),(5),(9)	860,816,052
Gains on remeasurement of financial instruments, net	1,791,126,269	275,331	1,791,401,600	1,206,875	(2)	1,792,608,475
Administrative expenses	(3,478,379,759)	(66,176,944)	(3,544,556,703)	931,715,096	(7),(8),(9)	(2,612,841,607)
Finance costs	(6,233,899,406)	(1,856,937)	(6,235,756,343)	2,015,100,423	(2),(9)	(4,220,655,920)
Share of profit from investments in associates and joint ventures, net	6,234,958,692	24,199,474	6,259,158,166	(1,421,123,114)	(1),(5),(6),(7)	4,838,035,052
Profit before income tax expense	9,261,587,319	116,775,471	9,378,362,790	403,608,701		9,781,971,491
Deferred tax income (expense)	(173,448,069)	4,777,487	(168,670,582)	143,992,683	(5),(6),(9)	(24,677,899)
Income tax expense	(976,369,908)	(17,994,070)	(994,363,978)	(3,058,623)	(9)	(997,422,601)
Profit for the year	8,111,769,342	103,558,888	8,215,328,230	544,542,761		8,759,870,991
<b>Attributable to:</b>						
Owners of the parent	8,111,769,342	103,558,888	8,215,328,230	517,702,668	(5)	8,733,030,898
Non-controlling interests	-	-	-	26,840,093	(3),(5),(9)	26,840,093
Property plant and equipment, net	49,683,429,282	66,684,444	49,750,113,726	-		49,750,113,726
Total assets	213,660,077,675	777,617,163	214,437,694,838	-		214,437,694,838
<b>Timing of revenue recognition</b>						
At a point in time	5,015,973,584	-	5,015,973,584	(3,234,747,293)	(4),(5),(8),(9)	1,781,226,291
Over time	30,827,427,920	736,181,358	31,563,609,278	(2,644,229,537)	(5),(8),(9)	28,919,379,741
Total revenue	35,843,401,504	736,181,358	36,579,582,862	(5,878,976,830)		30,700,606,032

- (1) Net gains (losses) on exchange rates and finance costs and loss on impairment of assets of associates and joint ventures  
(2) Net gains (losses) on exchange rates and remeasurement of financial instruments and finance costs of subsidiaries  
(3) Net gains (losses) on exchange rates of non-controlling interests  
(4) Adder income  
(5) Impact of the adoption of Thai Financial Reporting Standard 16 "Lease"  
(6) Deferred tax of subsidiaries, associates and joint ventures  
(7) Amortisation of rights in long-term power purchase agreements and fair value uplift of assets from business combination  
(8) Related party transaction of subsidiaries, associates and joint ventures  
(9) Non-controlling interests

Consolidated financial statements					
For the year ended 31 December 2019					
	Electricity generation Baht	Other businesses Baht	Management Discussion and Analysis report Baht	Adjustments Baht	Total Baht
Sales and services income	39,554,261,808	786,543,446	40,340,805,254	(9,131,809,308)	(4),(5),(8),(9) 31,208,995,946
Lease income under power purchase Agreements	-	-	-	6,301,947,319	(5) 6,301,947,319
Costs of sales and services	(28,890,193,566)	(673,180,448)	(29,563,374,014)	1,675,625,886	(5),(8),(9) (27,887,748,128)
Cost of lease under power purchase Agreements	-	-	-	(532,371,620)	(5) (532,371,620)
Segment results	10,664,068,242	113,362,998	10,777,431,240	(1,686,607,723)	9,090,823,517
Dividend and other income	2,626,618,177	10,951,985	2,637,570,162	257,396,471	(4),(8),(9) 2,894,966,633
Net gain from dissolution of a subsidiary	649,112,418	-	649,112,418	-	649,112,418
Loss on impairment of assets	(610,766,408)	-	(610,766,408)	-	(610,766,408)
Currency exchange gains (losses), net	2,806,026,012	(826,059)	2,805,199,953	(3,105,080,228)	(1),(2),(3),(5),(9) (299,880,275)
Administrative expenses	(3,700,759,398)	(60,155,151)	(3,760,914,549)	870,665,744	(7),(8),(9) (2,890,248,805)
Finance costs	(5,722,868,903)	-	(5,722,868,903)	4,469,398,593	(2),(9) (1,253,470,310)
Share of profit (loss) from investments in associates and joint ventures, net	6,899,075,924	(2,494,083)	6,896,581,841	(491,604,784)	(1),(5),(6),(7) 6,404,977,057
Profit before income tax expense	13,610,506,064	60,839,690	13,671,345,754	314,168,073	13,985,513,827
Deferred tax income	227,565,798	7,318,362	234,884,160	24,325,111	(5),(6),(9) 259,209,271
Income tax expense	(1,089,451,397)	(20,095,720)	(1,109,547,117)	(8,560,824)	(9) (1,118,107,941)
Profit for the year	12,748,620,465	48,062,332	12,796,682,797	329,932,360	13,126,615,157
<b>Attributable to:</b>					
Owners of the parent	12,748,620,465	48,062,332	12,796,682,797	262,552,996	(5) 13,059,235,793
Non-controlling interests	-	-	-	67,379,364	(3),(5),(9) 67,379,364
Property, plant and equipment, net	52,714,762,565	66,892,880	52,781,655,445	-	52,781,655,445
Total assets	207,647,579,450	875,025,205	208,522,604,655	-	208,522,604,655
<b>Timing of revenue recognition</b>					
At a point in time	8,518,344,192	-	8,518,344,192	(6,604,372,709)	(4),(5),(8),(9) 1,913,971,483
Over time	31,035,917,616	786,543,446	31,822,461,062	(2,527,436,599)	(5),(8),(9) 29,295,024,463
Total revenue	39,554,261,808	786,543,446	40,340,805,254	(9,131,809,308)	31,208,995,946

(1) Net gains (losses) on exchange rates and finance costs of associates and joint ventures

(2) Net gains (losses) on exchange rates and finance costs of subsidiaries

(3) Net gains (losses) on exchange rates of non-controlling interests

(4) Adder income

(5) Impact of the adoption of TFRIC 4 "Determining whether an arrangement contains a lease"

(6) Deferred tax of subsidiaries, associates and joint ventures

(7) Amortisation of rights in long-term power purchase agreements and fair value uplift of assets from business combination

(8) Related party transaction of subsidiaries, associates and joint ventures

(9) Non-controlling interests

## Geographical information

In presenting geographical information, revenue is based on the geographical location of customers and fixed assets (Property, plant and equipment) are based on the geographical location of the assets.

As at 31 December	Sales and services income		Property, plant and equipment, net	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Thailand	23,610,260,269	26,304,849,572	26,389,177,897	28,803,498,067
Philippines	9,094,905,130	10,329,346,318	18,360,056,231	18,694,209,821
Australia	872,505,428	876,747,375	5,000,879,598	5,283,947,557
Total	33,577,670,827	37,510,943,265	49,750,113,726	52,781,655,445

The Group's main customer is a related party which arises from electricity generation as disclosed in Note 39.1 totalling 62.05% of all the Group's revenue.

## 11 Cash and cash equivalents

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Cash in hand	1,442,225	1,665,796	10,037	10,037
Deposits held at call with financial institutions	3,771,379,290	2,209,307,224	36,775,095	18,317,846
Fixed deposits with financial institutions	18,035,666	571,649,635	-	-
Short-term investments in promissory notes with maturities within three months	13,445,892,489	17,704,925,272	3,646,114,818	4,008,056,988
Total cash and cash equivalents	17,236,749,670	20,487,547,927	3,682,899,950	4,026,384,871

As at 31 December 2020, the interest rates on deposits with financial institutions were 0.00% to 0.38% per annum (As at 31 December 2019: 0.10% to 0.50% per annum). The interest rates on short-term investments in promissory notes with maturities within three months were 0.01% to 1.30% per annum (As at 31 December 2019: 0.75% to 2.00% per annum).

## 12 Financial assets measured at amortised cost

As at 1 January 2020, the Group reclassified short-term investments to financial assets measured at amortised cost according to the requirement of new financial reporting standards, as describe in Note 4.

### Separate financial statements

As at 31 December 2020, financial assets measured at amortised cost of the Company are comprised of promissory notes with maturity over three months but not later than one year amounting to Baht 1,928 million. (As at 31 December 2019: Baht 138 million). Short-term investments bear an interest rate at 0.40% to 0.55% per annum (As at 31 December 2019: 1.40% per annum).

### Consolidated financial statements

As at 31 December 2020, financial assets measured at amortised cost of the Group are comprised of promissory notes and investment in government bond with maturity over three months but not later than one year amounting to US Dollar 0.06 million, Korean Won 32,162 million and Baht 2,370 million, totalling Baht 3,257 million. (As at 31 December 2019: US Dollar 0.08 million, Korean Won 17,040 million and Baht 319 million, totalling Baht 765 million). Short-term investments bear an interest rate from 0.23% to 0.90% per annum (As at 31 December 2019: interest rate from 1.35% to 1.80% per annum).

## 13 Financial assets used as collateral measured at amortised cost

As at 1 January 2020, the Group reclassified short-term investments used as collateral to financial assets used as collateral measured at amortised cost according to the requirement of new financial reporting standards, as describe in Note 4.

### Consolidated financial statements

As at 31 December 2020, financial assets used as collateral measured at amortised cost are cash reserve for the purpose of repayment of principals and payment of interests due within one year amounting to Baht 931 million (As at 31 December 2019: Baht 1,952 million) and the remaining balances of Baht 2,709 million represented collateralised deposits maintained in accordance with the loan agreements (As at 31 December 2019: Baht 1,981 million). These cash reserves are provided from the proceeds of sales of electricity and could be used subject to certain lender approvals.

Financial assets used as collateral measured at amortised cost are comprised of deposits at financial institutions, promissory notes and government bond amounting to US Dollar 15 million, Japanese Yen 133 million and Baht 3,160 million, totalling Baht 3,640 million (As at 31 December 2019: US Dollar 16 million, Japanese Yen 128 million and Baht 3,425 million, totalling Baht 3,933 million).

## 14 Trade receivables, net

As at	Note	Consolidated financial statements		Separate financial statements	
		31 December 2020 Baht	31 December 2019 Baht	31 December 2020 Baht	31 December 2019 Baht
Trade receivables		2,029,861,754	2,105,002,206	-	-
Trade receivable from a related party	39.2	1,149,399,466	1,529,774,011	-	-
Trade receivable from a related party for services under power purchase agreements	39.2	1,655,128,344	1,969,311,396	-	-
<u>Less</u> Impairment loss		(23,398,021)	(21,285,705)	-	-
Trade receivables, net		4,810,991,543	5,582,801,908	-	-

Trade receivables as at 31 December can be analysed as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Not overdue	4,811,137,977	5,551,246,024	-	-
Overdue below 3 months	-	-	-	-
Overdue 3 - 6 months	-	-	-	-
Overdue 6 - 12 months	-	-	-	-
Overdue over 12 months	23,251,587	52,841,589	-	-
	4,834,389,564	5,604,087,613	-	-
<u>Less</u> Impairment loss	(23,398,021)	(21,285,705)	-	-
Trade receivables, net	4,810,991,543	5,582,801,908	-	-

## 15 Fuel and spare parts and supplies, net

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Fuel	1,133,256,123	921,003,452	-	-
Other specific spare parts	1,439,361,353	1,386,048,004	-	-
Common spare parts	889,139,911	905,660,424	-	3,832,526
	3,461,757,387	3,212,711,880	-	3,832,526
<u>Less</u> Allowance for obsolescence	(701,756,379)	(678,792,376)	-	(3,832,526)
Fuel and spare parts and supplies, net	2,760,001,008	2,533,919,504	-	-

## 16 Other receivables, net

As at 31 December	Note	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
<b>Current</b>					
Trade receivables from a related party	39.2	235,886,470	204,521,268	2,694,518,356	824,492,617
Value added tax receivables		284,854,409	440,171,506	1,198,332	17,305,992
Prepaid insurance premium		167,742,668	109,115,835	-	-
Receivable for sale of powerplant		277,500,000	-	277,500,000	-
Others		427,487,843	382,362,932	35,084,141	33,557,232
Total current portion		1,393,471,390	1,136,171,541	3,008,300,829	875,355,841
<b>Non-current</b>					
Trade receivables from a related party	39.2	715,813,462	1,085,415,861	730,972,134	1,312,323,573
Others		-	422,479,304	-	366,048,723
Total non-current portion		715,813,462	1,507,895,165	730,972,134	1,678,372,296
Total other receivables, net		2,109,284,852	2,644,066,706	3,739,272,963	2,553,728,137

## 17 Investments in subsidiaries, associates and joint ventures

As at 31 December	Notes	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
Investments in subsidiaries		-	-	15,785,180,177	15,785,180,177
<u>Less</u> Allowance for impairment		-	-	(187,214,955)	(13,070,000)
Investments in subsidiaries, net	17.2	-	-	15,597,965,222	15,772,110,177
Investments in associates	17.3	14,010,610,872	14,573,577,102	3,357,625,000	3,357,625,000
Investments in joint ventures		82,986,284,076	73,003,702,531	31,842,963,101	31,842,963,101
<u>Less</u> Allowance for impairment		(384,754,202)	(296,549,767)	(4,410,000,000)	(4,410,000,000)
Investments in joint ventures, net	17.4	82,601,529,874	72,707,152,764	27,432,963,101	27,432,963,101
Total investments in subsidiaries, associates and joint ventures, net		96,612,140,746	87,280,729,866	46,388,553,323	46,562,698,278

## 17.1 The movements of the investments in subsidiaries, associates and joint ventures can be analysed as follows:

For the years ended 31 December		Consolidated financial statements	
		2020 Baht	2019 Baht
Notes			
Opening net book value - previously reported		87,280,729,866	55,936,321,090
Impacts from the first-time adoption of new financial reporting standards	4	(617,143,077)	(89,507,347)
Opening net book value - restated		86,663,586,789	55,846,813,743
Increase in share capital of an associate		-	160,491,375
Decrease in share capital of an associate	17.1.2	(431,609,475)	(60,273,867)
Acquisitions and addition of investment in joint ventures	17.1.3	13,034,068,324	33,260,278,163
Impairment of investment in a joint venture		(88,204,434)	(296,549,767)
Share of profit from investments in associates and joint ventures, net		4,838,035,052	6,404,977,057
Share of other comprehensive income (expense) of associates and joint ventures			
- Unrealised gain on investments in marketable securities-available-for-sale, net of income tax		-	5,265,873
- Remeasurements of post-employment benefit obligations, net of income tax		10,525,439	(3,493,773)
- Cash flow hedges, net of income tax		335,581,731	-
- Exchange difference on translation		(1,556,301,441)	(2,588,242,969)
Dividends received from associate and joint ventures	17.5	(6,193,541,239)	(5,448,535,969)
Closing net book value		96,612,140,746	87,280,729,866

For the years ended 31 December		Separate financial statements	
		2020 Baht	2019 Baht
Note			
Opening net book value		46,562,698,278	93,061,690,851
Increase in share capital of an associate		-	160,491,375
Increase in share capital of a joint venture		-	1,427,627,001
Acquisition of investment in a joint venture		-	3,220,000,000
Dissolution of a subsidiary		-	(48,477,110,949)
Impairment of investment in subsidiaries	17.1.1	(174,144,955)	-
Impairment of investment in a joint venture		-	(2,830,000,000)
Closing net book value		46,388,553,323	46,562,698,278

### 17.1.1 The significant movement of the investments in subsidiaries during the year ended 31 December 2020:

#### Direct holding by the Company

#### Subsidiaries which operate solar electricity generation plants in Thailand

For the year ended 31 December 2020, the Company recognised impairment on investments in four subsidiaries of Baht 174 million in separate statement as described in Note 19.

### 17.1.2 The significant movement of the investments in associate during the year ended 31 December 2020:

#### Indirect holding by the Company

#### Star Energy Geothermal Pte. Ltd. (SEG)

During the year ended 31 December 2020, SEG registered for capital reduction of US Dollar 72 Million (equivalent to Baht 2,163 million). The Group received cash in the same proportion as its original investment totalling US Dollar 14 million (equivalent to Baht 432 million).

### 17.1.3 The significant movement of the investments in joint ventures during the year ended 31 December 2020:

#### Direct holding by the Company

##### *Thai Pipeline Network Company Limited (TPN)*

On 4 September 2019, the Company and Biggas Technology Company Limited (BIGGAS) entered into the Shared Purchase and Subscription Agreement to acquire 7,739,998 issued and paid-up ordinary shares of TPN and subscribed for 3,185,000 new ordinary shares at a par value of Baht 100 per share, totalling Baht 3,220 million. As a result, the Company has a 44.6% shareholding interest in TPN. On 25 September 2019, the Company and BIGGAS entered into the Shareholders Agreement and made a partial payment for the acquisition of the investment and the new ordinary shares totalling Baht 1,980 million on the same date. Subsequently, the Company paid the outstanding amount for the acquisition of the investment on 28 September 2020.

As at 31 December 2020, the Group has completed the process of determining fair value of the net assets acquired and reviewing the purchase price allocation. The fair value of net identifiable assets acquired is Baht 2,635 million which mainly consists of property, plant and equipment and rights to operate oil pipeline transportation system amounted Baht 814 million and Baht 1,905 million, respectively. The fair value of the liabilities assumed is Baht 405 million. The Group amortises the rights to operate oil pipeline transportation system by the straight-line method over the period of oil pipeline transportation system agreement which is approximately 40 years.

#### Indirect holding by the Company

##### *Yunlin Holding GmbH (Yunlin) and its subsidiaries*

On 19 December 2019, the Group entered into the Shared Purchase Agreement with Taiwan Offshore Holding GmbH (the seller) to acquire a 25% shareholding interest in Yunlin Holding GmbH (Yunlin). Yunlin is a holding company which owns 100% of Yunneng Wind Power Co., Ltd. (Yunneng). Yunneng is a constructing 640MW offshore wind farm project in Republic of China (Taiwan). On 17 April 2020, the Group completed its acquisition and made a full payment to the seller.

As at 31 December 2020, the Group has completed the process of determining fair value of the net assets acquired and reviewing the purchase price allocation. The fair value of net identifiable assets acquired is Baht 10,320 million which mainly consists of cash and cash equivalents, construction in progress, prepayment for equipment and the rights in the long-term power purchase agreement that presented in investment in joint ventures amounting to Baht 9,543 million. The fair value of liabilities assumed is Baht 12,023 million. The Group amortises the rights in the long-term power purchase agreement by the straight-line method over the period of long-term power purchase agreement of Yunneng.

In addition, during the year ended 31 December 2020, Yunlin called for payment on additional share capital and the Group paid for additional share capital in the same proportion as its original investment totalling Baht 812 million.

## 17.2 Investments in subsidiaries

The details of the investments in subsidiaries are as follows:

Separate financial statements									
	Business	Portion of ordinary shares directly held by parent		Portion of ordinary shares held by the Group		Cost Method		Dividend income	
		2020	2019	2020	2019	2020	2019	2020	2019
		%	%	%	%	Million Baht	Million Baht	Million Baht	Million Baht
<b>Subsidiaries incorporated in Thailand</b>									
Khanom Electricity Generating Co., Ltd.	Electricity generation	99.99	99.99	-	-	8,005	8,005	1,196	1,447
EGCO Engineering and Service Co., Ltd.	Power plant operation and maintenance services	99.99	99.99	-	-	400	400	38	74
EGCO Green Energy Co., Ltd.	Investment in biomass fuelled electricity generation plant	74.00	74.00	-	-	129	129	-	-
- Roi-Et Green Co., Ltd.	Husk fuelled electricity generation plant	-	-	95.00	95.00	-	-	-	-
EGCO Cogeneration Co., Ltd.	Electricity cogeneration power plant	80.00	80.00	-	-	892	892	80	248
Theppana Wind Farm Co., Ltd.	Wind electricity generation plant	90.00	90.00	-	-	150	150	5	-
SPP Two Co., Ltd.	Solar electricity generation plant	99.99	99.99	-	-	266	266	-	28
SPP Three Co., Ltd.	Solar electricity generation plant	99.99	99.99	-	-	301	301	35	29
SPP Four Co., Ltd.	Solar electricity generation plant	99.99	99.99	-	-	224	224	15	19
SPP Five Co., Ltd.	Solar electricity generation plant	99.99	99.99	-	-	371	371	41	41
Yanhee EGCO Holding Co., Ltd.	Investment in solar electricity generation plant	100.00	100.00	-	-	5	5	355	404
- Solarco Co., Ltd.	Solar electricity generation plant	-	-	99.98	99.98	-	-	-	-
Klongluang Utilities Co., Ltd.	Electricity cogeneration power plant	99.99	99.99	-	-	1,000	1,000	104	-
Banpong Utilities Co., Ltd.	Electricity cogeneration power plant	99.99	99.99	-	-	2,000	2,000	260	326
Chaiyaphum Wind Farm Co., Ltd.	Wind electricity generation plant	90.00	90.00	-	-	1,532	1,532	136	-

Separate financial statements									
Business	Portion of ordinary shares directly held by the Company		Portion of ordinary shares held by the Group		Cost Method		Dividend income		2019 Million Baht
	2020	2019	2020	2019	2020	2019	2020	2019	
	%	%	%	%	Million Baht	Million Baht	Million Baht	Million Baht	
EGCO Plus Co., Ltd. (EGCO Plus) (incorporated in Thailand)	100.00	100.00	-	-	510	510	1,052	1,661	
- New Growth Plus B.V. (incorporated in the Netherlands)	-	-	100.00	100.00	-	-	-	-	
- Gen Plus B.V. (incorporated in the Netherlands)	-	-	100.00	100.00	-	-	-	-	
- Phoenix Power B.V. (incorporated in the Netherlands)	-	-	100.00	100.00	-	-	-	-	
- Millennium Energy B.V. (incorporated in the Netherlands)	-	-	100.00	100.00	-	-	-	-	
- South Pacific Power Pty Limited (incorporated in Australia)	-	-	100.00	100.00	-	-	-	-	
- Boco Rock Wind Farm Pty Ltd (incorporated in Australia)	-	-	100.00	100.00	-	-	-	-	
- New Growth B.V. (incorporated in the Netherlands)	-	-	100.00	100.00	-	-	-	-	
- Evergreen Power Ventures B.V. (incorporated in the Netherlands)	-	-	100.00	100.00	-	-	-	-	
- Pearl Energy Philippines Operating, Inc. (PEPOI) (incorporated in Cayman Islands, migrated to the Netherlands and operated in the Philippines)	-	-	100.00	100.00	-	-	-	-	
- Quezon Power, Inc. (QPI) (incorporated in Cayman Islands, migrated to the Netherlands and operated in the Philippines)	-	-	100.00	100.00	-	-	-	-	
- Quezon Power (Philippines) Limited Co. (QPL) (incorporated in the Philippines)	-	-	100.00	100.00	-	-	-	-	
- Quezon Management Service Inc. (QMS) (incorporated in Cayman Islands, migrated to the Netherlands and operated in the Philippines)	-	-	100.00	100.00	-	-	-	-	
- Mauban Holding Company Inc. (Mauban) (incorporated in the Philippines)	-	-	100.00	100.00	-	-	-	-	
- Greenwing Energy B.V. (incorporated in the Netherlands)	-	-	100.00	100.00	-	-	-	-	
- Dawei Electricity Generating Company Management Pte. Ltd. (DEGCOM) (incorporated in Singapore)	-	-	100.00	100.00	-	-	-	-	
- EGCO Pearl Co., Ltd. (EGCO Pearl) (incorporated in Taiwan)	-	-	100.00	100.00	-	-	-	-	
Total investments in subsidiaries					15,785	15,785	3,317	4,277	
Less: Allowance for impairment (Note 17.1.1)					(187)	(13)	-	-	
Total investments in subsidiaries, net					15,598	15,772	3,317	4,277	

All subsidiaries undertakings are included in the consolidation. The proportion of the voting rights in the subsidiary undertakings held directly by the parent company do not differ from the proportion of ordinary shares held. The parent company further does not have any shareholdings in the preference shares of subsidiary undertaking included in the Group.

As at 31 December 2020 and 2019, under the terms and conditions of loan agreement, the common share were pledged as collateral for its long-term loans in each subsidiary.

- Khanom Electricity Generating Co., Ltd.
- Solarco Co., Ltd.
- Chaiyaphum Wind Farm Co., Ltd.
- Klongluang Utilities Co., Ltd.
- Banpong Utilities Co., Ltd.

As at 31 December 2020 and 2019, total non-controlling interest is immaterial.

### 17.3 Investments in associates

The details of investments in associates are as follows:

Consolidated financial statements						
Business	Portion of ordinary shares held by the Group		Equity Method		Dividend income	
			2020	2019	2020	2019
	%	%	Million Baht	Million Baht	Million Baht	Million Baht
<b>Associate incorporated in the Lao People's Democratic Republic</b> Xayaburi Power Company Limited (XPCL)	12.50	12.50	3,607	3,502	-	-
<b>Associate incorporated in the Republic of Indonesia</b> Star Energy Geothermal Pte. Ltd. (SEG) and its subsidiaries	20.00	20.00	6,866	7,250	-	-
<b>Associate incorporated in the Netherlands</b> Star Energy Geothermal (Salak - Darajat) B.V (SEGSD) and its subsidiaries	20.07 <sup>(a)</sup>	20.07 <sup>(a)</sup>	3,538	3,822	535	-
Total investments in associates			14,011	14,574	535	-

<sup>(a)</sup> The Group has invested 11.89% in Star Phoenix Geothermal JV B.V. (SPGJV), which is an associate of Phoenix Power B.V., and invested more 8.18% through SEG. As a result, the Group has indirect holding 20.07% in SEGSD.

Separate financial statements						
Business	Portion of ordinary shares held by the Company		Cost Method		Dividend income	
			2020	2019	2020	2019
	%	%	Million Baht	Million Baht	Million Baht	Million Baht
<b>Associate incorporated in the Lao People's Democratic Republic</b> Xayaburi Power Company Limited (XPCL)	12.50	12.50	3,357	3,357	-	-
Total investments in associates			3,357	3,357	-	-

All associates are the limited companies and there is no quoted market price for all shares of associates. The Group has no contingent liability related to the Group's interests in associates.

### Summarised financial information for associates

The Group also has interests in immaterial associates that are accounted for using the equity method as follow:

	2020 Million Baht	2019 Million Baht
Aggregate carrying amount of individually immaterial associates	14,011	14,574
Aggregate amounts of associates' share of:		
Impacts from the first-time adoption of new financial reporting standards	(68)	-
Net profit	778	873
Other comprehensive expense	(307)	(722)
Total comprehensive income	403	151

#### 17.4 Investments in joint ventures

The details of investments in joint ventures are as follows:

**Joint ventures incorporated in Thailand**  
 Gulf Electric Public Co., Ltd. (GEC) and its subsidiaries  
 BLCP Power Ltd. (BLCP)  
 Natural Energy Development Co., Ltd. (NED)  
 G-Power Source Co., Ltd. (GPS)  
 Thai Pipeline Network Company Limited (TPN)

**Joint ventures incorporated in the Philippines**  
 Kaillayan Power Inc. (KPI)  
 San Buenaventura Power Ltd., Co. (SBPL)

**Joint ventures incorporated in the Lao People's Democratic Republic**  
 Nam Theun 1 Power Company Limited (NT1PC)

Nam Theun 2 Power Company Limited (NTPC)  
 E&E Engineering and Service Co., Ltd (E&E)

**Joint venture incorporated in the Republic of Indonesia**  
 PT Manambang Muara Enim (MME)

**Joint venture incorporated in Republic of Korea**  
 Paju Energy Service Co., Ltd (Paju)

**Joint venture incorporated in the Germany**  
 Yunlin Holding GmbH (Yunlin) and its subsidiaries

Total investments in joint ventures  
 Less Allowance for impairment

Total investments in joint ventures, net

	Consolidated financial statements					
	Portion of		Equity Method		Dividend income	
	ordinary shares held		2020		2020	
	2020	2019	Million Baht	Million Baht	Million Baht	Million Baht
Business	%	%	2020	2019	2020	2019
Investment in power projects	50.00	50.00	13,171	14,291	2,481	1,075
Electricity generation	50.00	50.00	5,252	5,104	200	2,002
Solar electricity generation plant	66.67*	66.67*	2,397	2,836	440	357
Solar electricity generation plant	60.00*	60.00*	822	944	93	73
Oil transportation service business	44.60*	44.60*	3,222	3,220	-	-
with pipeline transportation system (the Company has not yet started its business operations)						
Investment in energy related business	49.00*	49.00*	-	-	-	-
Electricity generation	49.00*	49.00*	5,237	4,411	-	-
Electricity generation (the Company has not yet started its business operations)	25.00*	25.00*	2,235	3,066	-	-
Electricity generation	35.00*	35.00*	9,511	8,915	655	443
Power plant operation and maintenance services (the Company has not yet started its business operations)	40.00*	40.00*	10	10	-	-
Coal mining	40.00*	40.00*	3,932	5,802	-	-
Electricity generation	49.00*	49.00*	23,247	24,405	1,789	1,499
Investment in wind electricity generation plant (the Company has not yet started its Business operations)	25.00*	-	13,950	-	-	-
Total investments in joint ventures			82,986	73,004	5,658	5,449
Less Allowance for impairment			(385)	(297)	-	-
Total investments in joint ventures, net			82,601	72,707	5,658	5,449

	Separate financial statements					
	Portion of		Cost Method		Dividend income	
	ordinary shares held		2020		2020	
	2020	2019	2020	2019	2020	2019
Business	%	%	Million Baht	Million Baht	Million Baht	Million Baht
<b>Joint ventures incorporated in Thailand</b>						
Gulf Electric Public Co., Ltd. (GEC) and its subsidiaries	50.00	50.00	6,673	6,673	2,481	1,075
BLCP Power Ltd. (BLCP)	50.00	50.00	10,434	10,434	200	2,002
Natural Energy Development Co., Ltd. (NED)	66.67*	66.67*	1,961	1,961	440	357
G-Power Source Co., Ltd. (GPS)	60.00*	60.00*	734	734	93	73
Thai Pipeline Network Company Limited (TPN)	44.60*	44.60*	3,220	3,220	-	-
Investment in power projects						
Electricity generation	50.00	50.00	6,673	6,673	2,481	1,075
Solar electricity generation plant	50.00	50.00	10,434	10,434	200	2,002
Solar electricity generation plant	66.67*	66.67*	1,961	1,961	440	357
Oil transportation service	60.00*	60.00*	734	734	93	73
business with pipeline transportation system	44.60*	44.60*	3,220	3,220	-	-
(the Company has not yet started its business operations)						
<b>Joint ventures incorporated in the Lao People's Democratic Republic</b>						
Nam Theun 1 Power Company Limited (NT1PC)	25.00*	25.00*	3,251	3,251	-	-
Electricity generation						
(the Company has not yet started its business operations)	25.00*	25.00*	3,251	3,251	-	-
Electricity generation	35.00*	35.00*	5,570	5,570	655	443
Total investments in joint ventures			31,843	31,843	3,869	3,950
Less Allowance for impairment			(4,410)	(4,410)	-	-
Total investments in joint ventures, net			27,433	27,433	3,869	3,950

\* Shareholder Agreements assigned the structure of the business operation and the strategic, operating and financing decisions which required unanimous consent from all parties.

There is no quoted market price for all shares of joint ventures. The Group has no contingent liability related to the group's interest in joint ventures.

As at 31 December 2020 and 2019, under the terms and conditions of loan agreements of GPS, their common shares were pledged as collateral for their long-term loans.

## Summarised financial information for joint ventures

### 17.4.1 Individually material joint ventures

Set out below are the summarised financial information for the joint ventures that are material to the Group. The information disclosed reflects the amounting presented in the financial statements of the relevant joint ventures (not the Group's shares of those amounts). They have been amended to reflect adjustments made using the equity method, including fair value adjustments and modifications for differences in accounting policies are as follows:

### Summarised statement of financial position

As at 31 December	GEC and its subsidiaries			NTPC			PAJU			Total	
	2020	2019	Million Baht	2020	2019	Million Baht	2020	2019	Million Baht	2020	2019
	Million Baht	Million Baht		Million Baht	Million Baht		Million Baht	Million Baht		Million Baht	Million Baht
<b>Current</b>											
Cash and cash equivalents	6,011	4,145		405	259		4,036	6,297		10,452	10,701
Other current assets	2,968	7,347		2,861	3,867		7,164	5,905		12,993	17,119
Total current assets	8,979	11,492		3,266	4,126		11,200	12,202		23,445	27,820
<b>Current financial liabilities</b>											
Other current liabilities	-	(867)		(1,058)	(4,374)		(3,381)	(1,114)		(4,439)	(6,355)
	(720)	(1,169)		(563)	(453)		(3,753)	(3,670)		(5,036)	(5,292)
Total current liabilities	(720)	(2,036)		(1,621)	(4,827)		(7,134)	(4,784)		(9,475)	(11,647)
<b>Non-current</b>											
Non-current assets	18,852	19,946		28,676	30,094		74,147	75,284		121,675	125,324
Non-current financial liabilities	-	-		(1,556)	(2,597)		(24,514)	(26,336)		(26,070)	(28,933)
Other non-current liabilities	(769)	(820)		(1,592)	(1,326)		(9,001)	(9,304)		(11,362)	(11,450)
Total non-current liabilities	(769)	(820)		(3,148)	(3,923)		(33,515)	(35,640)		(37,432)	(40,383)
<b>Net assets</b>	26,342	28,582		27,173	25,470		44,698	47,062		98,213	101,114

### Summarised statement of comprehensive income

#### For the years ended 31 December

	GEC and its subsidiaries				NTPC				PAJU				Total	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht
Revenue	9,839	13,851	7,410	8,271	24,595	32,488	41,844	54,610						
Depreciation and amortisation	(528)	(798)	(1,342)	(1,338)	(3,282)	(3,026)	(5,152)	(5,162)						
Interest income	41	91	26	41	65	92	132	224						
Interest expense	(8)	(78)	(411)	(720)	(758)	(743)	(1,177)	(1,541)						
<b>Profit before income tax</b>	<b>3,446</b>	<b>3,258</b>	<b>3,664</b>	<b>4,352</b>	<b>1,939</b>	<b>3,438</b>	<b>9,049</b>	<b>11,048</b>						
Income tax expense	(714)	(647)	(186)	(228)	(310)	(932)	(1,210)	(1,807)						
<b>Net profit</b>	<b>2,732</b>	<b>2,611</b>	<b>3,478</b>	<b>4,124</b>	<b>1,629</b>	<b>2,506</b>	<b>7,839</b>	<b>9,241</b>						
<b>Other comprehensive income (expense)</b>	<b>(10)</b>	<b>10</b>	<b>193</b>	<b>(1,591)</b>	<b>(202)</b>	<b>(1,579)</b>	<b>(19)</b>	<b>(3,160)</b>						
<b>Total comprehensive income</b>	<b>2,722</b>	<b>2,621</b>	<b>3,671</b>	<b>2,533</b>	<b>1,427</b>	<b>927</b>	<b>7,820</b>	<b>6,081</b>						
<b>Dividends received from joint ventures</b>	<b>4,962</b>	<b>2,150</b>	<b>1,871</b>	<b>1,266</b>	<b>3,652</b>	<b>3,059</b>	<b>10,485</b>	<b>6,475</b>						

### Reconciliation of the summarised financial information

Reconciliation of the summarised financial information presented to the carrying amount of its interest in joint ventures

	GEC and its subsidiaries				NTPC				PAJU				Total	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht	Million Baht
<b>Summarised financial information</b>														
<b>Opening net assets</b>	28,582	28,111	25,470	24,203	47,062	-	101,114	52,314						
Impacts from the first-time adoption of new financial reporting standards	-	-	(97)	-	(139)	-	(236)	-						
<b>Opening net assets - restated</b>	<b>28,582</b>	<b>28,111</b>	<b>25,373</b>	<b>24,203</b>	<b>46,923</b>	<b>-</b>	<b>100,878</b>	<b>52,314</b>						
Net assets at acquisition date	-	-	-	-	-	49,194	-	49,194						
Net profit	2,732	2,611	3,478	4,124	1,629	2,506	7,839	9,241						
Other comprehensive income (expense)	(10)	10	193	(1,591)	(202)	(1,579)	(19)	(3,160)						
Dividends	(4,962)	(2,150)	(1,871)	(1,266)	(3,652)	(3,059)	(10,485)	(6,475)						
<b>Closing net assets</b>	<b>26,342</b>	<b>28,582</b>	<b>27,173</b>	<b>25,470</b>	<b>44,698</b>	<b>47,062</b>	<b>98,213</b>	<b>101,114</b>						
Group's share in joint ventures (%)	50.00	50.00	35.00	35.00	49.00	49.00								
<b>Group's share in joint ventures</b>	<b>13,171</b>	<b>14,291</b>	<b>9,511</b>	<b>8,915</b>	<b>21,902</b>	<b>23,060</b>	<b>44,584</b>	<b>46,266</b>						
Goodwill	-	-	-	-	1,345	1,345	1,345	1,345						
<b>Joint ventures' carrying amount</b>	<b>13,171</b>	<b>14,291</b>	<b>9,511</b>	<b>8,915</b>	<b>23,247</b>	<b>24,405</b>	<b>45,929</b>	<b>47,611</b>						

### 17.4.2 Individually immaterial joint ventures

In addition to the interests in joint ventures disclosed above, the Group also has interests in a number of individually immaterial joint ventures that are accounted for using the equity method are as follows:

	2020 Million Baht	2019 Million Baht
Aggregate carrying amount of individually immaterial joint ventures	36,672	25,096
Aggregate amounts of the Group's share of:		
Impacts from the first-time adoption of new financial reporting standards	(448)	-
Net profit	679	1,555
Other comprehensive income (expense)	(867)	(539)
Total comprehensive income (expense)	(636)	1,016

### 17.5 Dividends receivable from subsidiaries, associates and joint ventures

The movements of the dividends receivable can be analysed as follows:

	Notes	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening book value - previously reported		812,536,403	7,306,566,413	1,039,444,115	7,533,474,125
Impacts from the first-time adoption of new financial reporting standards	4	(79,916,038)	-	(79,916,038)	-
Opening book value - restated		732,620,365	7,306,566,413	959,528,077	7,533,474,125
Dividends declared by subsidiaries	17.2	-	-	3,316,780,206	4,277,093,501
Dividends declared by associate	17.3	535,103,914	-	-	-
Dividends declared by joint ventures	17.4	5,658,437,325	5,448,535,969	3,868,903,425	3,949,500,567
Dividends received from subsidiaries and joint ventures		(6,407,100,639)	(11,942,565,979)	(7,003,124,123)	(13,060,337,300)
Net of dividends received from a subsidiary with					
- Principal repayment of the Company	24.1.2	-	-	(280,876,885)	(283,013,231)
- Interest repayment of the Company		-	-	(115,242,022)	(562,656,546)
- Payment on additional share capital of a joint venture		-	-	-	(814,617,001)
Amortisation of discount		12,728,567	-	12,728,567	-
Closing balance		531,789,532	812,536,403	758,697,245	1,039,444,115
Current portion		150,000,000	-	361,749,043	-
Non-current portion		381,789,532	812,536,403	396,948,202	1,039,444,115
Total dividends receivable from subsidiaries, associates and joint ventures		531,789,532	812,536,403	758,697,245	1,039,444,115

## 18 Investment property, net

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Book value	518,174,085	519,210,182	719,908,547	719,908,547
Fair value	982,249,427	961,227,225	1,231,761,058	1,202,965,041

As at 31 December 2020, investment property of the Group amounting to Baht 518 million are land held for a currently undetermined future use, land and building held for rent of a third party and land held for future industrial estate development (2019: Baht 519 million). Investment property of the Company amounting to Baht 221 million is land for rent of a subsidiary (2019: Baht 221 million).

The fair value of investment properties is classified as level 3 of the fair value hierarchy which the Management based on the government's compiling appraisal value.

## 19 Property, plant and equipment, net

	Consolidated financial statements				
	Land Baht	Buildings and land improvements Baht	Power plants, substation, transmission system and spare parts Baht	Office equipment, furniture, computers and motor vehicles Baht	Construction in progress Baht
<b>As at 1 January 2019</b>					
Cost	1,693,957,209	6,375,153,875	74,424,587,001	654,377,031	83,287,171,660
Less Accumulated depreciation	-	(2,430,590,231)	(21,526,488,615)	(517,908,079)	(24,474,986,925)
Less Allowance for impairment	-	(84,359,973)	(2,366,471,748)	-	(2,450,831,721)
Net book value	1,693,957,209	3,860,203,671	50,531,626,638	136,468,952	56,361,353,014
<b>For the year ended 31 December 2019</b>					
Opening net book value	1,693,957,209	3,860,203,671	50,531,626,638	136,468,952	56,361,353,014
Additions	-	13,456,156	235,806,248	20,594,351	61,627,573
Disposals, net	-	-	(2,378,153)	(792,238)	(3,170,391)
Write-offs, net	-	-	(313,166)	(38,643)	(420,449)
Transfer, net	-	107,667,898	40,056,504	17,217,200	(164,941,602)
Transfer to investment property, net	(16,889,050)	(4,731,981)	-	-	(21,621,031)
Increase in decommissioning costs	-	-	602,268,487	-	602,268,487
Depreciation	-	(166,413,827)	(2,375,485,163)	(51,727,350)	(2,593,626,340)
Allowance for impairment of assets	-	-	(3,576,015)	-	(3,576,015)
Exchange difference on translation	-	(148,331,013)	(1,740,291,901)	(871,072)	(1,542,172)
Closing net book value	1,677,068,159	3,661,850,904	47,287,713,479	120,851,200	52,781,655,445
<b>As at 31 December 2019</b>					
Cost	1,677,068,159	6,208,024,555	72,615,139,733	631,086,824	81,165,490,974
Less Accumulated depreciation	-	(2,461,813,678)	(22,970,715,331)	(510,235,624)	(25,942,764,633)
Less Allowance for impairment	-	(84,359,973)	(2,356,710,923)	-	(2,441,070,896)
Net book value	1,677,068,159	3,661,850,904	47,287,713,479	120,851,200	52,781,655,445

	Consolidated financial statements					
	Land Baht	Buildings and land improvements Baht	Power plants, substation, transmission system and spare parts Baht	Office equipment, furniture, computers and motor vehicles Baht	Construction in progress Baht	Total Baht
As at 1 January 2020						
Cost	1,677,068,159	6,208,024,555	72,615,139,733	631,086,824	34,171,703	81,165,490,974
Less Accumulated depreciation	-	(2,461,813,678)	(22,970,715,331)	(510,235,624)	-	(25,942,764,633)
Less Allowance for impairment	-	(84,359,973)	(2,356,710,923)	-	-	(2,441,070,896)
Net book value	1,677,068,159	3,661,850,904	47,287,713,479	120,851,200	34,171,703	52,781,655,445
For the year ended 31 December 2020						
Opening net book value	1,677,068,159	3,661,850,904	47,287,713,479	120,851,200	34,171,703	52,781,655,445
Additions	-	7,862,718	208,432,087	30,534,285	21,035,214	267,864,304
Disposals, net	-	-	-	(45,308)	-	(45,308)
Write-offs, net	-	-	(19,806)	(30,448)	-	(50,254)
Transfer, net	-	6,143,929	579,500	1,431,500	(8,154,929)	-
Reclassification to non-current assets held-for-sale, net	-	(541)	(426,251,499)	(2,335)	-	(426,254,375)
Increase in decommissioning costs	-	-	581,154,211	-	-	581,154,211
Depreciation	-	(158,505,015)	(2,409,470,600)	(45,926,830)	-	(2,613,902,445)
Allowance for impairment of assets	-	-	(1,239,411,531)	-	-	(1,239,411,531)
Exchange difference on translation	-	(1,507,740)	400,443,843	171,679	(4,103)	399,103,679
Closing net book value	1,677,068,159	3,515,844,255	44,403,169,684	106,983,743	47,047,885	49,750,113,726
As at 31 December 2020						
Cost	1,677,068,159	5,236,285,767	68,489,492,651	600,288,414	47,047,885	76,050,182,876
Less Accumulated depreciation	-	(1,647,027,288)	(22,667,132,570)	(493,304,671)	-	(24,807,464,529)
Less Allowance for impairment	-	(73,414,224)	(1,419,190,397)	-	-	(1,492,604,621)
Net book value	1,677,068,159	3,515,844,255	44,403,169,684	106,983,743	47,047,885	49,750,113,726

**As at 1 January 2019**

Cost	189,041,766
Less Accumulated depreciation	-
Less Allowance for impairment	-

Net book value

**For the year ended 31 December 2019**

Opening net book value	189,041,766
Additions	38,954,534
Disposals, net	2,965,000
Write-offs, net	-
Transfer, net	-
Depreciation	107,118,998
	(16,197,105)

Closing net book value

**As at 31 December 2019**

Cost	189,041,766
Less Accumulated depreciation	-
Less Allowance for impairment	-

Net book value

		Separate financial statements				
		Land Baht	Buildings and land improvements Baht	Power plants, substation, spare parts and transmission system Baht	Office equipment, furniture, computers and motor vehicles Baht	Construction in progress Baht
						Total Baht
		189,041,766	910,592,734	4,903,614,531	259,633,862	6,373,033,851
		-	(787,278,227)	(3,258,594,863)	(202,806,152)	(4,248,679,242)
		-	(84,359,973)	(1,333,983,855)	-	(1,418,343,828)
		189,041,766	38,954,534	311,035,813	56,827,710	706,010,781
		189,041,766	38,954,534	311,035,813	56,827,710	706,010,781
		-	2,965,000	-	12,208,326	61,852,072
		-	-	(110,574)	(503,102)	(613,676)
		-	-	(10)	(28,418)	(28,428)
		-	107,118,998	-	17,030,000	-
		-	(16,197,105)	(273,730)	(23,506,148)	(39,976,983)
		189,041,766	132,841,427	310,651,499	62,028,368	727,243,766
		189,041,766	1,020,676,732	4,873,672,154	246,936,899	6,363,008,257
		-	(803,475,332)	(3,229,036,800)	(184,908,531)	(4,217,420,663)
		-	(84,359,973)	(1,333,983,855)	-	(1,418,343,828)
		189,041,766	132,841,427	310,651,499	62,028,368	727,243,766

Separate financial statements						
	Land Baht	Buildings and land improvements Baht	Power plants, substation, spare parts and transmission system Baht	Office equipment, furniture, computers and motor vehicles Baht	Construction in progress Baht	Total Baht
<b>As at 1 January 2020</b>						
Cost	189,041,766	1,020,676,732	4,873,672,154	246,936,899	32,680,706	6,363,008,257
Less Accumulated depreciation	-	(803,475,332)	(3,229,036,800)	(184,908,531)	-	(4,217,420,663)
Less Allowance for impairment	-	(84,359,973)	(1,333,983,855)	-	-	(1,418,343,828)
Net book value	189,041,766	132,841,427	310,651,499	62,028,368	32,680,706	727,243,766
<b>For the year ended 31 December 2020</b>						
Opening net book value	189,041,766	132,841,427	310,651,499	62,028,368	32,680,706	727,243,766
Additions	-	-	-	21,702,921	15,335,782	37,038,703
Disposals, net	-	-	-	(9)	-	(9)
Write-offs, net	-	-	-	(187)	-	(187)
Transfer, net	-	3,250,000	-	1,431,500	(4,681,500)	-
Reclassification to non-current assets held-for-sale, net	-	(541)	(310,651,499)	(2,335)	-	(310,654,375)
Depreciation	-	(7,391,803)	-	(21,912,030)	-	(29,303,833)
Closing net book value	189,041,766	128,699,083	-	63,248,228	43,334,988	424,324,065
<b>As at 31 December 2020</b>						
Cost	189,041,766	923,810,738	-	211,557,374	43,334,988	1,367,744,866
Less Accumulated depreciation	-	(721,697,432)	-	(148,309,146)	-	(870,006,578)
Less Allowance for impairment	-	(73,414,223)	-	-	-	(73,414,223)
Net book value	189,041,766	128,699,083	-	63,248,228	43,334,988	424,324,065

**As at 1 January 2020**

Cost  
Less Accumulated depreciation  
Less Allowance for impairment

Net book value

**For the year ended 31 December 2020**

Opening net book value  
Additions  
Disposals, net  
Write-offs, net  
Transfer, net  
Reclassification to non-current assets held-for-sale, net  
Depreciation

Closing net book value

**As at 31 December 2020**

Cost  
Less Accumulated depreciation  
Less Allowance for impairment

Net book value

During the year ended 31 December 2020 and 2019, the Group has no borrowing costs capitalised as part of the cost of assets in additions.

As at 31 December 2020, property, plant and equipment with net book value of Baht 59,889 million (including property, plant and equipment reclassified as lease receivable under power purchase agreement amounting to Baht 15,116 million) were mortgaged and pledged as collateral for long-term loans, as described in Note 24.1 (2019: Baht 63,561 million).

### Consolidated Financial Statements

#### a) Reclassification of power plants and equipments of a subsidiary

On 23 September 2020, at the Board of directors' meeting of a subsidiary, the directors approved to enter into an Asset Purchase Agreement to sell the subsidiary's power plant that had already ceased operations. Therefore, the Company reclassified the building and equipment of its power plant from property, plant and equipment to a non-current asset held-for-sale with a net book value of Baht 116 million in the consolidated financial statements. Non-current assets held-for-sale are presented at net book value, which is lower than the selling price less costs to sell. As at 31 December 2020, the subsidiary is in the process of entering into the Asset Purchase Agreement with a buyer which expected to complete in the first quarter of 2021.

#### b) Impairment of power plants and rights in power purchase agreements of subsidiaries in Thailand

During the year ended 31 December 2020, the management assessed the impairment indicators of subsidiaries which operate renewable power plants in Thailand. This was because of the less remaining period of adder tariffs as specified in the power purchase agreements which resulted in the significant decrease of the subsidiaries' forecasted revenue. The management performed the impairment testing of subsidiaries' significant assets which are their power plants and rights in the long-term power purchase agreements by applying the value-in-use model to calculate the recoverable amounts. The calculation of the recoverable amounts involves management's significant judgements in identifying CGUs and the assumptions applied, which are the electricity tariffs, capacity of the power plants, operating expenditures, capital structure, growth rates and discount rate to be applied to the projected cash flows.

Resulting from the impairment testing, the Group recognised a provision for impairment loss on five subsidiaries' power plants of Baht 767 million and three subsidiaries' rights in the long-term power purchase agreements (presented in intangible assets) of Baht 98 million in the consolidated statement of income.

In addition, the management considered that the impairment loss of subsidiaries' significant assets may cause the impairment loss on investments in subsidiaries which is accounted for using cost method in the separate financial statements. The management further performed the impairment testing and recognised the provision for impairment loss on investments in four subsidiaries of Baht 174 million in the separate statement of income.

#### c) Impairment of power plants of a subsidiary in Australia

During the year ended 31 December 2020, the management assessed the impairment indicators of a subsidiary which operates a wind power plant in Australia. This was because of the decrease of the estimated electricity market price which resulted in a significant decrease of the forecasted revenue. The management performed the impairment testing of a subsidiary's significant asset which is its power plant by applying the fair value less costs of disposal to calculate the recoverable amount. The calculation of the recoverable amounts involves management's significant judgements in identifying CGUs and the assumptions applied, which are the electricity tariffs, capacity of the power plants, operating expenditures, capital structure, growth rates and discount rate to be applied to the projected cash flows.

Resulting from the impairment testing, the Group recognised a provision for impairment loss on the subsidiary's power plant of Baht 472 million in the consolidated statement of income.

### Separate and consolidated financial statements

On 24 September 2020, the Company entered into an Asset Purchase Agreement with a joint venture outside the Group to sell a power plant that had already ceased operations. Therefore, the Company reclassified the building and equipments of its power plant from property, plant and equipment to a non-current asset held-for-sale with a net book value of Baht 311 million in the separate and consolidated financial statements. Non-current assets held-for-sale are presented at net book value, which is lower than the selling price less costs to sell. The Company completely sold its power plant during the year.

## 20 Intangible assets, net

Consolidated financial statements			
	Right in long-term power purchase agreements and right to use transmission facilities Baht	Licences for operating power plants Baht	Total Baht
Note			
<b>As at 1 January 2019</b>			
Cost	7,109,220,325	270,838,711	7,380,059,036
<u>Less</u> Accumulated amortisation	(2,970,850,815)	(62,014,157)	(3,032,864,972)
Net book value	4,138,369,510	208,824,554	4,347,194,064
<b>For the year ended 31 December 2019</b>			
Opening net book value	4,138,369,510	208,824,554	4,347,194,064
Additions	2,907,000	-	2,907,000
Amortisation	(458,072,282)	(14,201,579)	(472,273,861)
Allowance for impairment of assets	(249,590,672)	-	(249,590,672)
Exchange difference on translation	(12,585,844)	(12,121,309)	(24,707,153)
Closing net book value	3,421,027,712	182,501,666	3,603,529,378
<b>As at 31 December 2019</b>			
Cost	7,100,966,543	254,035,954	7,355,002,497
<u>Less</u> Accumulated amortisation	(3,430,348,159)	(71,534,288)	(3,501,882,447)
<u>Less</u> Allowance for impairment	(249,590,672)	-	(249,590,672)
Net book value	3,421,027,712	182,501,666	3,603,529,378
<b>As at 1 January 2020</b>			
Opening net book value	3,421,027,712	182,501,666	3,603,529,378
Impacts from the first-time adoption of new financial reporting standards	4 (68,690,320)	-	(68,690,320)
Opening net book value - restated	3,352,337,392	182,501,666	3,534,839,058
<b>For the year ended 31 December 2020</b>			
Opening net book value	3,352,337,392	182,501,666	3,534,839,058
Additions	3,573,000	-	3,573,000
Amortisation	(455,178,953)	(13,363,894)	(468,542,847)
Allowance for impairment of assets	(97,914,234)	-	(97,914,234)
Exchange difference on translation	5,302,668	14,244,609	19,547,277
Closing net book value	2,808,119,873	183,382,381	2,991,502,254
<b>As at 31 December 2020</b>			
Cost	7,036,149,961	271,515,648	7,307,665,609
<u>Less</u> Accumulated amortisation	(3,880,525,182)	(88,133,267)	(3,968,658,449)
<u>Less</u> Allowance for impairment	(347,504,906)	-	(347,504,906)
Net book value	2,808,119,873	183,382,381	2,991,502,254

During the year ended 31 December 2020, the Group recognised a provision for impairment loss of the right in long-term power purchase agreements for three subsidiaries of Baht 98 million in the consolidated statement of income as described in Note 19.

## 21 Goodwill, net

	Consolidated financial statements	
	2020 Baht	2019 Baht
<b>As at 1 January</b>		
Cost	10,011,800,065	10,011,800,065
<u>Less</u> Provision for impairment	(1,912,866,250)	(1,851,816,296)
Net book value	8,098,933,815	8,159,983,769
<b>For the years ended 31 December</b>		
Opening net book value	8,098,933,815	8,159,983,769
Impairment of assets	(182,971,005)	(61,049,954)
Closing net book value	7,915,962,810	8,098,933,815
<b>As at 31 December</b>		
Cost	10,011,800,065	10,011,800,065
<u>Less</u> Provision for impairment	(2,095,837,255)	(1,912,866,250)
Net book value	7,915,962,810	8,098,933,815

Goodwill arose from the acquisitions of electricity generation business in Thailand and foreign countries. The Group's management considers the business in each country as a cash generating unit (CGU). Goodwill of Baht 9,725 million arising from the acquisition of investment in electricity generation business in the Philippines and remaining of Baht 287 million arising from the acquisition of investment in electricity generation business in Thailand.

Goodwill arose from the acquisition of investment in electricity generation business in each country is tested annually for impairment by comparing the carrying amount to the recoverable amount for each CGU. The recoverable amount is calculated based on value-in-use model by using cash flow projection over periods of Power Purchase Agreements in each country and the electricity tariffs and assumed capacity of the power plant specified in the agreements.

Majority of goodwill amounting to Baht 9,725 million, net of allowance for impairment Baht 1,830 million related to the acquisition of the electricity generation businesses in Philippines (Quezon Power (Philippines), Limited Co.). The recoverable amount calculated based on value-in-use model which exceeded carrying value by Baht 3,138 million. These calculations use a cash flow projection covering the remaining Power Purchase Agreement period for 5 years. The cash flows beyond the 5 year-period are extrapolated based on the market price of electricity tariffs and the assumed capacity of the power plant which approved by the management. The discount rate used in the calculation is 5.78% per annum. A rise in discount rate of 1.27% will be resulted the recoverable amount to be equal to the carrying amount.

However, the Group recognised the impairment loss on goodwill, which arose from the acquisition of electricity generation business in Thailand, amounting to Baht 183 million as part of administrative expenses in the consolidated statement of income for the year ended 31 December 2020. The recoverable amount was calculated based on value-in-use model by using a cash flow projection covering the remaining Power Purchase Agreement period for 18 to 21 years. The cash flow projection is based on the assumed capacity of the power plants and electricity tariffs specified in the Power Purchase Agreements which approved by management. The discount rate used in the calculation was 6.1% per annum.

## 22 Short-term loans from financial institutions

### 22.1 Short-term loans from financial institutions

US Dollar short-term loans of the subsidiaries are unsecured loan from the financial institutions.

The movement of the short-term loans from financial institutions for the year ended 31 December 2020 can be analysed as follows:

	Consolidated financial statements	
	2020 Baht	2019 Baht
Opening book value	37,580,625	121,365,000
<b>Cash flows</b>		
Proceeds from short-term loans	6,037,958,133	3,235,241,533
Payments on short-term loans	(6,076,958,272)	(3,313,028,758)
<b>Other non-cash movement</b>		
Exchange difference on translation	1,419,514	(5,997,150)
Closing book value	-	37,580,625

## 22.2 Credit facilities

As at 31 December 2020, the Group had the available credit facilities from short-term loans from financial institutions amounting to Baht 6,566 million and US Dollar 20 million in which an available credit facilities for the Company amounting to Baht 4,000 million (As at 31 December 2019: the Group had the available credit facilities from short-term loans from financial institutions amounting to Baht 6,582 million and US Dollar 19 million in which an available credit facilities for the Company amounting to Baht 4,000 million).

## 23 Other payables

As at 31 December	Note	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
Trade payables from a related party	39.4	48,032,533	46,068,016	44,394,544	3,565,806
Advance received from a related party	39.4	260,847,032	170,776,251	-	-
Interest payables		311,161,484	546,326,722	95,359,804	174,276,070
Value added tax payables		746,011,988	633,966,465	-	-
Corporate income tax payables		179,397,442	211,139,714	-	-
Interest rate swap contract payables		-	96,329,568	-	48,592,981
Cross currency swap contract payables		-	12,012,544	-	-
Others		882,022,539	868,078,546	467,891,903	350,290,618
Total other payables		2,427,473,018	2,584,697,826	607,646,251	576,725,475

## 24 Long-term loans

### 24.1 Long-term loans from financial institutions, net

24.1.1 The long-term loans from financial institutions are as follows:

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
<b>Current portion of long-term loans from financial institutions, net</b>				
Thai Baht	6,448,240,541	2,509,193,104	4,400,000,000	400,000,000
US Dollar	4,354,299,436	3,045,257,918	1,742,700,000	536,630,693
Australian Dollar	324,631,369	275,217,637	-	-
Less Deferred financing fee	(60,621,811)	(75,338,431)	(713,852)	(550,381)
	11,066,549,535	5,754,330,228	6,141,986,148	936,080,312
<b>Long-term loans from financial institutions, net</b>				
Thai Baht	22,454,338,893	28,902,579,434	6,000,000,000	10,400,000,000
US Dollar	42,256,531,324	46,780,786,303	21,690,806,000	23,530,089,269
Euro	8,259,585,008	-	-	-
Australian Dollar	3,683,152,093	3,681,122,905	-	-
Less Deferred financing fee	(320,903,502)	(377,993,401)	(20,805,287)	(29,638,634)
	76,332,703,816	78,986,495,241	27,670,000,713	33,900,450,635
Total long-term loans from financial institutions, net	87,399,253,351	84,740,825,469	33,811,986,861	34,836,530,947

### Long-term loans from financial institutions of the Company

The Company has entered into unsecured long-term loan facility agreements with financial institutions amounting to Baht 10,400 million and US Dollar 776 million which equivalents to Baht 23,434 million (2019: Baht 10,800 million and US Dollar 793 million which equivalents to Baht 24,067 million) as follows:

#### Thai Baht loans

Number	Outstanding balance as at 31 December 2020 (Million Baht)	Outstanding balance as at 31 December 2019 (Million Baht)	Interest rate	Principal repayment term	Interest payment period
1	4,000	4,000	THBFIX six-month plus a certain margin per annum	Repayment in December 2021	Payment every six months
2	2,400	2,800	THBFIX six-month plus a certain margin per annum	Repayment every six months from December 2019	Payment every six months
3	4,000	4,000	THBFIX six-month plus a certain margin per annum	Repayment in December 2023	Payment every six months
Total	10,400	10,800			

#### US Dollar loans

Number	Outstanding balance as at 31 December 2020 (Million US Dollar)	Outstanding balance as at 31 December 2019 (Million US Dollar)	Interest rate	Principal repayment term	Interest payment period
1	100	100	US LIBOR six-month plus a certain margin per annum	Repayment within October 2022	Payment every six months
2	40	40	US LIBOR six-month plus a certain margin per annum	Repayment within January 2021	Payment every six months
3	200	200	US LIBOR six-month plus a certain margin per annum	Repayment within March 2022	Payment every six months
4	186	203	US LIBOR six-month plus a certain margin per annum	Repayment every six months within March 2025	Payment every six months
5	200	200	US LIBOR six-month plus a certain margin per annum	Repayment within November 2024	Payment every six months
6	50	50	US LIBOR six-month plus a certain margin per annum	Repayment within December 2024	Payment every six months
Total	776	793			

### Long-term loans from financial institutions of the subsidiaries

The subsidiaries have entered into long-term loan facility agreements with financial institutions amounting to Baht 18,503 million, US Dollar 771 million which is equivalent to Baht 23,177 million, Euro 225 Million which is equivalent to Baht 8,260 million, and Australian Dollar 174 million which is equivalent to Baht 4,008 million (2019: Baht 20,612 million, US Dollar 854 million which is equivalent to Baht 25,759 million and Australian Dollar 189 million which is equivalent to Baht 3,956 million) as follows:

#### Thai Baht loans

Number	Outstanding balance as at 31 December 2020 (Million Baht)	Outstanding balance as at 31 December 2019 (Million Baht)	Interest rate	Principal repayment term	Interest payment period
1	174	273	THBFIX three-month plus a certain margin per annum	Repayment every three months from September 2012	Payment every three months
2	124	229	THBFIX three-month plus a certain margin per annum	Repayment every three months from June 2012	Payment every three months
3	85	163	THBFIX three-month plus a certain margin per annum	Repayment every three months from June 2012	Payment every three months
4	169	269	MLR six-month less a certain margin per annum	Repayment every three months from June 2012	Payment every three months
5	782	927	Fixed rate per annum	Repayment every six months from June 2014	Payment every six months
6	691	885	THBFIX three-month plus a certain margin per annum	Repayment every three months from June 2014	Payment every three months
7	67	80	Fixed rate per annum	Repayment every six months from June 2014	Payment every six months
8	48	61	THBFIX six-month plus a certain margin per annum	Repayment every six months from March 2014	Payment every six months
9	5,968	6,650	THBFIX six-month plus a certain margin per annum	Repayment every six months from February 2017	Payment every three months
10	1,360	1,483	Fixed rate per annum	Repayment every six months from June 2017	Payment every six months
11	1,591	1,771	THBFIX six-month plus a certain margin per annum	Repayment every six months from June 2017	Payment every six months
12	3,616	3,795	THBFIX three-month plus a certain margin per annum	Repayment every six months from December 2017	Payment every three months
13	3,828	4,026	THBFIX three-month plus a certain margin per annum	Repayment every six months from June 2018	Payment every three months
Total	18,503	20,612			

US Dollar loans

Number	Outstanding balance as at 31 December 2020 (Million US Dollar)	Outstanding balance as at 31 December 2019 (Million US Dollar)	Interest rate	Principal repayment term	Interest payment period
1	55	107	Fixed rate per annum	Repayment every six months from July 2012	Payment every six months
2	19	22	Fixed rate per annum	Repayment every six month from June 2014	Payment every six months
3	189	211	LIBOR six month plus a certain margin per annum	Repayment every six months from February 2017	Payment every six months
4	23	25	Fixed rate per annum	Repayment every six months from June 2017	Payment every six months
5	85	89	LIBOR three month plus a certain margin per annum	Repayment every six months from June 2018	Payment every three months
6	200	200	LIBOR six month plus a certain margin per annum	Repayment within December 2023	Payment every six months
7	200	200	LIBOR six month plus a certain margin per annum	Repayment within January 2024	Payment every six months
Total	771	854			

Euro loans

Number	Outstanding balance as at 31 December 2020 (Million Euro)	Outstanding balance as at 31 December 2019 (Million Euro)	Interest rate	Principal repayment term	Interest payment period
1	225	-	EURIBOR six month plus a certain margin per annum	Repayment within March 2025	Payment every six months
Total	225	-			

Australian Dollar loans

Number	Outstanding balance as at 31 December 2020 (Million Australian Dollar)	Outstanding balance as at 31 December 2019 (Million Australian Dollar)	Interest rate	Principal repayment term	Interest payment period
1	174	189	Floating rate plus a certain margin per annum	Repayment every three months	Payment every three months
Total	174	189			



Long-term loans from financial institutions of the subsidiaries are secured liabilities. The long-term loans are secured over land, buildings, power plants and equipment. The subsidiaries are required to maintain cash reserves which are provided from the proceeds of sales of electricity for the purpose of repayment of principals and payment of interest due within one year (refer to Note 13). In addition, the Power Purchase Agreements, the Asset Purchase Agreements, the Major Maintenance Agreements and insurance policies have been assigned as collateral in accordance with the conditions under the loan agreement. Furthermore, the subsidiaries are required to comply with certain procedure and conditions; for example, maintaining debt to equity ratio at the level as specified in the agreements.

Under the terms and conditions of loan agreement of five subsidiaries, the common share were pledged as collateral for its long-term loans as described in Note 17.2

### 24.1.2 The movement of the long-term loans from financial institutions of the Group

The movement of the long-term loans from financial institutions of the Group for the years ended 31 December can be analysed as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening net book value	84,740,825,469	86,781,357,598	34,836,530,947	42,670,217,548
<b>Cash flows</b>				
Proceeds from long-term loans	7,873,505,003	20,219,362,773	-	7,609,105,000
Payments on long-term loans	(5,926,429,386)	(19,055,327,830)	(400,000,000)	(13,615,180,000)
Payments on deferred financing fee	(26,245,017)	(40,158,859)	-	(7,620,100)
<b>Other non-cash movement</b>				
Net of long-term loans repayment with				
- Dividend received from a subsidiary	-	-	(280,876,885)	(288,515,539)
- Interest received from subsidiary	-	-	(279,228,846)	-
- Long-term loan to a subsidiary	-	-	-	(288,515,539)
Unrealised exchange gains	(820,103,362)	(2,058,736,760)	(73,108,231)	(1,267,274,423)
Amortisation of deferred financing fee	102,577,642	136,617,698	8,669,876	24,314,000
Exchange difference on translation	1,455,123,002	(1,242,289,151)	-	-
Closing net book value	87,399,253,351	84,740,825,469	33,811,986,861	34,836,530,947

### 24.1.3 Maturity of long-term loans from financial institutions is as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Within 1 year	11,066,549,535	5,754,330,228	6,141,986,148	936,080,312
Later than 1 year and not later than 5 years	60,654,517,949	57,435,860,674	27,370,160,374	29,612,510,795
Later than 5 years	15,678,185,867	21,550,634,567	299,840,339	4,287,939,840
Total long-term loans, net	87,399,253,351	84,740,825,469	33,811,986,861	34,836,530,947

### 24.1.4 Credit facilities

As at 31 December 2020, the Group and the Company had no available credit facilities from long-term loans from financial institutions (As at 31 December 2019: the Company had the available credit facilities from long-term loans amounting to US Dollar 50 million).

## 24.2 Long-term loan from other company, net

The Group had long-term loan from other company in amounting to US Dollar 16 millions which is equivalent to Baht 487 million from excess electricity sales to customer from 2008 to 2017 and will be repay to customer since 2018 to 2025.

24.2.1 The movement of the long-term loan from other company for the year ended 31 December 2020 can be analysed as follows:

		Consolidated financial statements 2020 Baht
	Note	
Opening net book value - previously reported		-
Impacts from the first-time adoption of new financial reporting standards	4	574,315,266
Opening net book value - restated		574,315,266
<b>Cash flows</b>		
Payments on long-term loan		(111,150,396)
<b>Other non-cash movement</b>		
Amortisation of discount		22,460,575
Exchange difference on translation		1,356,843
Closing net book value		486,982,288

24.2.2 Maturity of long-term loans from other company is as follows:

	Consolidated financial statements 2020 Baht
Within 1 year	103,471,913
Later than 1 year and not later than 5 years	383,510,375
Total long-term loans from other company, net	486,982,288

## 25 Debenture

Details of debenture are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Debenture	5,041,566,080	4,786,803,360	5,041,566,080	4,786,803,360
<u>Less</u> Current portion of debenture	-	-	-	-
Debenture, net	5,041,566,080	4,786,803,360	5,041,566,080	4,786,803,360

The movements of the debenture can be analysed as follows:

For the years ended 31 December	Consolidated and Separate financial statements	
	2020 Baht	2019 Baht
Opening book value	4,786,803,360	5,084,006,560
Unrealised exchange (gain) loss	254,762,720	(297,203,200)
Closing book value	5,041,566,080	4,786,803,360

Debenture is unsecured debenture amounting to Japanese Yen 17,120 million. The principal will be redeemed within seven years, dated on 10 March 2022. The debenture bears interest at a fixed rate per annum and the payment schedule is every six month. The Company is required to comply with certain procedure and conditions; for example, maintaining debt to equity ratio at the level as specified in the contract.

In addition, the Company entered into a cross currency swap contract with a financial institution to manage exposure arising from fluctuations in currency exchange rate and interest rate of such debenture, from Yen 17,120 million to US Dollar 143 million at a fixed interest rate. However, the transaction did not comply with hedge accounting requirements due to the foreign currency not being converted into the Company's functional currency. Therefore, this contract is recognised as trading derivatives. Changes in fair value are recognised immediately in profit or loss included in gain (loss) on remeasurement of financial instruments.

## 26 Deferred income taxes

The analysis of deferred tax assets and deferred tax liabilities is as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
<b>Deferred tax assets:</b>				
Deferred tax assets to be recovered within 12 months	31,626,670	31,053,279	-	-
Deferred tax assets to be recovered after more than 12 months	971,233,064	598,785,290	-	-
	1,002,859,734	629,838,569	-	-
<b>Deferred tax liabilities:</b>				
Deferred tax liabilities to be settled within 12 months	(162,298,474)	(185,902,022)	-	-
Deferred tax liabilities to be settled after more than 12 months	(2,806,874,294)	(2,867,941,627)	-	-
	(2,969,172,768)	(3,053,843,649)	-	-
<b>Deferred income taxes, net</b>	<b>(1,966,313,034)</b>	<b>(2,424,005,080)</b>	<b>-</b>	<b>-</b>

The movement in the deferred income tax account is as follows:

For the years ended 31 December	Note	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
As at 1 January		(2,424,005,080)	(2,916,285,429)	-	-
Impacts from the first-time adoption of new financial reporting standards	4	480,639,892	-	-	-
As at 1 January - restated		(1,943,365,188)	(2,916,285,429)	-	-
Charged/(credited) to profit or loss		(24,677,899)	259,209,271	-	-
Charged/(credited) directly to other comprehensive income		39,572,078	13,536,910	-	-
Exchange difference on translation		(37,842,025)	219,534,168	-	-
As at 31 December		<b>(1,966,313,034)</b>	<b>(2,424,005,080)</b>	<b>-</b>	<b>-</b>

The movement in deferred tax assets and liabilities is as follows:

		Consolidated financial statements					
Note	Provision	Tax loss carry forward	Allowance for obsolescence	Depreciation	Financial instruments	Others	Total
	Baht	Baht	Baht	Baht	Baht	Baht	Baht
<b>Deferred tax assets</b>							
As at 1 January 2019	120,004,196	310,199,206	89,323,538	3,902,672,370	-	221,399,755	4,643,599,065
Charged/(credited) to profit or loss	2,450,562	5,554,126	7,126,357	(199,395,803)	-	8,676,039	(175,588,719)
Charged/(credited) directly to other comprehensive income	13,536,910	-	-	-	-	-	13,536,910
Exchange difference on translation	(955,571)	(23,845,817)	-	-	-	(15,188,260)	(39,989,648)
As at 31 December 2019	135,036,097	291,907,515	96,449,895	3,703,276,567	-	214,887,534	4,441,557,608
<b>As at 1 January 2020</b>							
Impacts from the first-time adoption of new financial reporting standards	135,036,097	291,907,515	96,449,895	3,703,276,567	-	214,887,534	4,441,557,608
4	-	-	-	-	493,400,358	-	493,400,358
<b>As at 1 January 2020 - restated</b>							
Charged/(credited) to profit or loss	135,036,097	291,907,515	96,449,895	3,703,276,567	493,400,358	214,887,534	4,934,957,966
Charged/(credited) directly to other comprehensive income	6,076,995	(67,653,054)	(55,106,824)	(199,395,803)	(67,129,285)	110,112,192	(273,095,779)
Exchange difference on translation	12,586,771	-	-	-	30,800,097	-	43,386,868
	(131,737)	14,586,374	-	-	1,702,509	4,994,967	21,152,113
As at 31 December 2020	153,568,126	238,840,835	41,343,071	3,503,880,764	458,773,679	329,994,693	4,726,401,168

Note	Consolidated financial statements						
	Lease receivable under power purchase agreement	The assigned fair values of assets acquired in business acquisitions			Tax effect of currency translation on tax base	Financial Instruments	Others
	Baht	Depreciation and amortisation	Baht	Baht	Baht	Baht	Baht
<b>Deferred tax liabilities</b> As at 1 January 2019 (Charged)/credited to profit or loss Exchange difference on translation	3,588,900,364 (145,177,122)	572,191,629 37,267,257 (30,060,151)	2,623,953,755 (228,091,173) (176,936,287)	763,205,520 (96,042,688) (51,794,256)	- - -	11,633,226 (2,754,264) (733,122)	7,559,884,494 (434,797,990) (259,523,816)
	3,443,723,242	579,398,735	2,218,926,295	615,368,576	-	8,145,840	6,865,562,688
	3,443,723,242	579,398,735	2,218,926,295	615,368,576	-	8,145,840	6,865,562,688
4 As at 1 January 2020 Impacts from the first-time adoption of new financial reporting standards As at 1 January 2020 - restated (Charged)/credited to profit or loss (Charged)/credited directly to other comprehensive income Exchange difference on translation	-	-	-	-	8,781,760	3,978,706	12,760,466
	3,443,723,242	579,398,735	2,218,926,295	615,368,576	8,781,760	12,124,546	6,878,323,154
	(163,422,984)	(163,904,223)	(203,191,723)	(122,226,020)	388,657,355	15,669,715	(248,417,880)
As at 31 December 2020	-	-	-	-	3,814,790	-	3,814,790
	-	27,452,202	3,082,062	2,574,066	24,740,326	1,145,482	58,994,138
	3,280,300,258	442,946,714	2,018,816,634	495,716,622	425,994,231	28,939,743	6,692,714,202

	Separate financial statements
	Allowance for obsolescence Baht
<b>Deferred tax assets</b>	
As at 1 January 2019	62,130,757
Charged/(credited) to profit or loss	-
As at 31 December 2019	62,130,757
As at 1 January 2020	62,130,757
Charged/(credited) to profit or loss	(62,130,757)
As at 31 December 2020	-
	Separate financial statements
	Depreciation and amortisation Baht
<b>Deferred tax liabilities</b>	
As at 1 January 2019	62,130,757
(Charged)/credited to profit or loss	-
As at 31 December 2019	62,130,757
As at 1 January 2020	62,130,757
(Charged)/credited to profit or loss	(62,130,757)
As at 31 December 2020	-

Deferred tax assets are recognised for tax loss and carry forwards only to the extent that realisation of the related tax benefit through the future taxable profits is probable. The Group did not recognise deferred income tax assets of Baht 948 million (2019: Baht 504 million) in respect of losses amounting to Baht 4,742 million (2019: Baht 2,518 million) that can be carried forward against future taxable income. Losses amounting to Baht 1,351 million will be expired for tax benefit in 2021 (2019: Baht 194 million already expired in 2020).

## 27 Provision for decommissioning costs

For the years ended 31 December	Note	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening balance		1,982,621,801	1,375,071,901	115,490,000	115,490,000
Provision increased		581,154,211	602,268,487	-	-
Additional provision - Finance costs		65,104,490	50,145,172	-	-
Cash payment for decommissioning cost		(1,304,540)	-	-	-
Reclassification to other payable	19 a)	(115,490,000)	-	(115,490,000)	-
Exchange difference on translation		(10,119,609)	(44,863,759)	-	-
Closing balance		2,501,966,353	1,982,621,801	-	115,490,000

## 28 Other non-current liabilities

As at 31 December	Note	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
Advances received from a related party	39.4	746,628,319	791,715,579	-	-
Advances received		-	501,473,251	-	-
Cross currency swap contract payables		-	172,419,084	-	-
Others		45,868,867	59,387,726	2,046,871	20,649,926
Total other non-current liabilities		792,497,186	1,524,995,640	2,046,871	20,649,926

## 29 Legal reserve

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Opening balance	530,000,000	530,000,000	530,000,000	530,000,000
Appropriation during the year	-	-	-	-
Closing balance	530,000,000	530,000,000	530,000,000	530,000,000

Under the Public Companies Act B.E. 2535, the Company is required to set aside as a legal reserve at least 5% of its net profit after accumulated deficit brought forward (if any) until the reserve is not less than 10% of the registered capital. The legal reserve is non-distributable.

## 30 Sales and services income

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Sales of electricity	19,098,122,769	11,501,242,249	-	-
Service income under power purchase agreements	10,929,972,091	19,011,182,790	-	-
Services income	672,511,172	696,570,907	-	-
Total sales and services income	30,700,606,032	31,208,995,946	-	-

From 1 January 2020, the Group presented income under power purchase agreement of a subsidiary in the Philippines which was previously included in lease income under power purchase agreements in sales of electricity as described in Note 4.2.

## 31 Cost of sales and services

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Cost of sales of electricity	13,266,487,158	9,683,982,325	-	-
Cost of services under power purchase agreements	11,387,014,569	17,513,441,571	-	-
Cost of services	604,347,867	690,324,232	-	-
Total cost of sales and services	25,257,849,594	27,887,748,128	-	-

## 32 Dividend and other income

For the years ended 31 December	Note	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
Dividend income from subsidiaries and joint ventures	17.5	-	-	7,185,683,631	8,226,594,068
Interest income		260,383,199	584,353,285	2,518,915,936	1,646,731,588
Rental and service income		42,127,440	55,065,096	256,324,216	248,037,370
Adder*		1,837,581,224	1,990,153,849	-	-
Others		272,597,547	265,394,403	240,943,867	21,429,723
Total other income		2,412,689,410	2,894,966,633	10,201,867,650	10,142,792,749

\* The adder represented income received from Electricity Generating Authority of Thailand (EGAT) and Provincial Electricity Authority (PEA)

## 33 Expense by nature

The following expenditure items have been charged in arriving at net profit:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Depreciation and amortisation	3,131,380,018	3,066,936,298	34,441,483	39,976,983
Impairment of investments in joint ventures	88,204,434	296,549,767	-	2,830,000,000
Impairment of investments in subsidiaries	-	-	174,144,955	-
Impairment of goodwill	182,971,005	61,049,954	-	-
Impairment of property, plant and equipment	1,239,411,531	3,576,015	-	-
Impairment of intangible assets	97,914,234	249,590,672	-	-
Major repair and maintenance expenses of power plants	713,147,746	698,685,835	-	-
Staff costs	2,170,328,543	2,257,494,077	552,301,929	631,068,971

## 34 Finance costs

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Interest expenses	2,361,914,693	3,981,212,498	960,649,397	1,558,505,847
Interest expenses - derivatives	1,243,645,596	-	472,783,337	-
Net losses (gains) on exchange rates from financing activities	351,310,798	(2,998,686,792)	181,654,489	(2,308,686,575)
Other finance costs	263,784,833	270,944,604	39,292,936	83,170,859
Total finance costs	4,220,655,920	1,253,470,310	1,654,380,159	(667,009,869)

### 35 Income tax

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Current tax	997,422,601	1,118,107,941	-	-
Deferred tax	24,677,899	(259,209,271)	-	-
Total income tax expense	1,022,100,500	858,898,670	-	-

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the basic tax rate of the home country of the parent company as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Profit before tax	9,781,971,491	13,985,513,827	7,412,926,169	7,290,114,094
Tax calculated at a tax rate of 20%	20%	20%	20%	20%
The result of the accounting profit multiplied by the income tax rate	1,956,394,298	2,797,102,765	1,482,585,234	1,458,022,819
Tax effect of :				
Income not subject to tax	(459,832,425)	(1,427,604,983)	(1,440,225,043)	(1,652,725,012)
Expenses not deductible for tax purpose	84,800,419	603,907,945	108,170,679	657,465,655
Revenues that are granted income tax exemption or expenses that are deductible at a greater amount	(917,708,338)	(366,759,188)	(456,131,932)	-
Net losses deductible	(2,012,433)	(464,015,324)	-	(462,763,462)
Tax losses for the year for which no deferred income tax assets was recognised	828,928,991	581,563,115	305,601,062	-
Share of profit of investments accounted for using the equity method	(967,607,010)	(1,280,995,411)	-	-
Difference on tax rate in which countries the Group operated	499,136,998	415,699,751	-	-
Income tax	1,022,100,500	858,898,670	-	-

The weighted average applicable tax rate for the Group and the Company were 10.45% and 0.00%, respectively (2019: 6.14% and 0.00%, respectively).

### 36 Earnings per share

Basic earnings per share is calculated by dividing the net profit for the year attributable to shareholders by the weighted average number of ordinary shares issued and paid-up during the year, net of treasury stock.

	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
Net profit attributable to owners of the parent (Baht)	8,733,030,898	13,059,235,793	7,412,926,169	7,290,114,094
Weighted average number of ordinary share in issue (Shares)	526,465,000	526,465,000	526,465,000	526,465,000
Basic earnings per share (Baht)	16.59	24.81	14.08	13.85

The Group has no dilutive potential ordinary shares in issue during the periods presented, therefore, no diluted earnings per share are presented.

### 37 Dividends

At the Board of directors' meeting on 2 April 2020, the directors approved the interim dividend payment in respect of the operating results for the six-month period ended 31 December 2019 at Baht 3.25 per share for 526,465,000 shares, totalling Baht 1,711 million. These dividends were paid to the shareholders on 23 April 2020 and at the Annual General Shareholders' meeting on 20 July 2020, the shareholders acknowledged such interim dividend payment. In addition, the shareholders acknowledged the interim dividend payment in respect of the operating results for the first six-month period of 2019 at Baht 3.25 per share for 526,465,000 shares, totalling Baht 1,711 Million. These dividends were paid to the shareholders on 16 September 2019.

At the Board of directors' meeting dated 20 August 2020, the directors approved the payment of interim dividends in respect of the operating results for the six-month period ended 30 June 2020 for 526,465,000 shares at Baht 3.00 per share, totalling Baht 1,579 million. These dividends were paid to shareholders on 17 September 2020.

At the Annual General Shareholders' meeting dated 18 April 2019, the shareholders approved the payment of dividends in respect of the operating results for the six-month period ended 31 December 2018 for 526,465,000 shares at Baht 3.50 per share, totalling Baht 1,843 million. These dividends were paid to shareholders on 26 April 2019.

At the Board of directors' meeting dated 23 August 2019, the directors approved the payment of interim dividends in respect of the operating results for the six-month period ended 30 June 2019 for 526,465,000 shares at Baht 3.25 per share, totalling Baht 1,711 million. These dividends were paid to shareholders on 16 September 2019.

### 38 Promotional privileges

The Group has been granted promotional privileges by the Office of the Board of Investment under promotion certificates in respect of electricity. These ten subsidiaries have been granted exemption from certain taxes and duties as detailed in the certificates including exemption from corporate income tax for a period of eight years from the date of first revenue. As promoted entities, these subsidiaries are required to comply with the terms and conditions specified in the promotion certificates.

### 39 Related party transactions

Individuals and entities that directly or indirectly control or are controlled by or are under common control with the Company, including investment entities, associates, joint venture and individuals or entities having significant influence over the Company, key management personnel, including directors and officers of the Company and close members of the family of these individuals and entities associated with these individuals also constitute related parties.

In considering each possible related-party relationship, attention is directed to the substance of the relationship, and not merely the legal form.

The major shareholders of the Company are the Electricity Generating Authority of Thailand (EGAT) and TEPDIA Generating B.V., which is an associate between Tokyo Electric Power Company (TEPCO) and Diamond Generating Asia, Limited, holding 25.41% and 23.94% of the Company's shares, respectively. The remaining shares of the Company are widely held.

The information on the Company's subsidiaries, associates and joint ventures is provided in Note 17.

The following material transactions were carried out with related parties:

### 39.1 Sales of electricity

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
	Million Baht	Million Baht	Million Baht	Million Baht
Sales of electricity				
- Major shareholder	7,026	8,021	-	-
Lease income under power purchase agreements				
- Major shareholder	2,877	3,004	-	-
Service income under power purchase agreements				
- Major shareholder	10,930	12,118	-	-

### 39.2 Trade receivable from a related party and other receivables from related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
	Million Baht	Million Baht	Million Baht	Million Baht
Trade receivable				
- Major shareholder	1,149	1,530	-	-
Trade receivable from services under power purchase agreements				
- Major shareholder	1,655	1,969	-	-
Other receivables - Interest receivables				
- Subsidiaries	-	-	2,279	788
- Associates	341	273	341	273
- Major shareholder	1	-	-	-
	342	273	2,620	1,061
Other receivables - Dividend receivables				
- Subsidiaries	-	-	227	227
- Joint ventures	532	813	532	813
	532	813	759	1,040
Other receivables - others				
- Subsidiaries	-	-	43	33
- Joint ventures	78	175	3	3
- Other related party	-	29	-	-
	78	204	46	36

### 39.3 Lease receivable under power purchase agreements from a related party, net

As at 31 December	Consolidated financial statements			
	Minimum payment		Present value of Minimum payment	
	2020	2019	2020	2019
	Million Baht	Million Baht	Million Baht	Million Baht
Lease receivable under power purchase agreements from a related party				
- Less than 1 year	4,211	4,238	1,467	1,356
- 1 - 5 years	15,001	15,862	3,001	3,338
- Over 5 years	33,138	35,890	12,945	13,479
	52,350	55,990	17,413	18,173
<u>Less</u> Deferred financial revenue	(34,937)	(37,817)		
Present value of minimum payment	17,413	18,173		
Lease receivable under power purchase agreement from a related party can be analysed as follows:				
- Current portion			1,467	1,356
- Non-current portion			15,946	16,817
			17,413	18,173

### 39.4 Trade payables from and amounts due to related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
	Million Baht	Million Baht	Million Baht	Million Baht
Trade payable				
- Major shareholder	5	8	-	-
- Other related party	106	85	-	-
	111	93	-	-
Other payables				
- Subsidiaries	-	-	44	4
- Joint ventures	48	46	-	-
	48	46	44	4
Advance received				
- Joint ventures				
- Current portion	261	171	-	-
- Non-current portion	747	792	-	-

### 39.5 Long-term loans to related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Long-term loans to related parties				
- Subsidiaries				
- Due within 1 year	-	-	186	1,862
- Due over 1 year	-	-	49,659	48,658
	-	-	49,845	50,520
- Associates				
- Due within 1 year	7	-	7	-
- Due over 1 year	1,224	1,231	1,224	1,231
	1,231	1,231	1,231	1,231
- Major shareholder				
- Due within 1 year	1	-	-	-
- Due over 1 year	67	-	-	-
	68	-	-	-
Total Long-term loans to related parties	1,299	1,231	51,076	51,751

The movements of long-term loans to related parties can be analysed as follows:

For the years ended 31 December 2020	Note	Consolidated financial statements	Separate financial statements
		Million Baht	Million Baht
Opening net book value - previously reported		1,231	51,751
Impacts from the first-time adoption of new financial reporting standards	4	69	-
Opening net book value - restated		1,300	51,751
<b>Cash flows</b>			
Repayment during the year		(1)	(273)
<b>Other non-cash movement</b>			
Net offset principal repayment with interest payment of the Company <sup>(*)</sup>		-	(402)
Ending balance		1,299	51,076

On 1 June 2019, the Company and EGCO Plus, a subsidiary of the Company, entered into a long-term loan agreement to convert a note receivable issued by EGCO Plus into a long-term loan to EGCO Plus amounting to Baht 49,094 million. The loan bears interest at a fixed rate per annum. The principal repayment will be made on the lender's instructions with maturity within 10 years commencing from 1 June 2019, and the interest payment period is every year within the last business day of May.

<sup>(\*)</sup> During the year ended 31 December 2020, the Company instructed EGCO Plus to pay interest of long-term loans of US Dollar 13 million on behalf of the Company to the Company's lenders. During the year ended 31 December 2020, EGCO Plus fully paid for such amounts. Therefore, the Company net off these transactions with long-term loans to a subsidiary in amount of Baht 402 million.

### 39.6 Interest income and Dividend income

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
	Million Baht	Million Baht	Million Baht	Million Baht
Interest income				
- Subsidiaries	-	-	2,401	1,504
- Associates	69	79	69	79
- Major shareholder	8	-	-	-
	77	79	2,470	1,583
Dividend income				
- Subsidiaries	-	-	3,317	4,277
- Joint ventures	-	-	3,869	3,950
	-	-	7,186	8,227

### 39.7 Directors and managements remuneration

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
	Million Baht	Million Baht	Million Baht	Million Baht
Short-term employee benefits	72	91	67	72
Post-employment benefits	4	6	4	2
Total director and managements remuneration	76	97	71	74

## 40 Commitments and significant agreements

### 40.1 Commitments

- As at 31 December 2020, the Company had commitments under the Counter Guarantee and Standby Letters of Credit issued on behalf of the Company to subsidiaries and joint ventures for their obligations under long-term loan facility agreements with financial institutions amounting to US Dollar 320 million, Euro 225 million, Philippine Peso 1,209 million, Taiwan Dollar 2,279 million, Korean Won 122,909 million and Baht 3,101 million, totalling Baht 27,802 million (As at 31 December 2019: US Dollar 321 million, Philippine Peso 887 million, Korean Won 122,909 million and Baht 2,153 million, totalling Baht 15,646 million).
- According to the Power Purchase Agreements (PPAs) between the Company's subsidiaries and the Electricity Generating Authority of Thailand (EGAT) which period between 21 years and 25 years, the subsidiaries have to provide bank guarantees, totalling Baht 830 million. The collateral is to be returned to such subsidiaries upon the expiry of the agreements (As at 31 December 2019: Baht 813 million).
- The Company has provided a guarantee of up to US Dollar 23.96 million (equivalent to Baht 724 million) from 31 March 2017 to 31 December 2037 and up to US Dollar 23.78 million (equivalent to Baht 718 million) from 1 January 2038 to 31 December 2049 for an associate's obligations as the buyer under share sales and purchase agreements for geothermal operations in Indonesia. A subsidiary will pay US Dollar 5 million to Star Energy Group Holding Pte Ltd. During the year 2040 to the year 2047 in accordance with the relevant consortium agreement to be released from obligations.

## 40.2 Significant agreements

### 40.2.1 Power Purchase Agreements (PPAs)

Six subsidiaries have entered into seven PPAs with EGAT. The agreements are effective for periods of 21 years to 25 years, commencing from the Commercial Operations Dates. The sales quantity and its price must be complied with conditions specified in agreements.

Six subsidiaries have entered into eleven PPAs with the Provincial Electricity Authority (PEA) under the Very Small Power Producer (VSPP) scheme. The sales quantity and its price must be complied with conditions specified in agreements. The PPAs are effective for periods of 5 years and are automatically renewable every 5 years.

A subsidiary in the Philippines has entered into a PPA and a Transmission Line Agreement (TLA) with a purchaser in the Philippines. The PPA is effective for a period of 25 years, commencing from the Commercial Operations Date.

A subsidiary in Australia has entered into a PPA with a purchaser in Australia. The PPA is effective for a period of 10 years commencing from November 2014 and can be extended for additional 5 years.

### 40.2.2 Fuel Purchase Agreements

Four subsidiaries have entered into Gas Purchase Agreements with PTT Public Company Limited (PTT). The agreements are effective for a period between 21 years and 25 years, commencing from the Commercial Operations Dates. The sales quantity and its price must be complied with conditions specified in agreements.

A subsidiary in the Philippines has entered into Coal Supply Agreements (CSAs) with two contractors. Under the CSAs, the subsidiary has to purchase coal as specified in the agreements. The CSAs are effective for periods of 15 years and 25 years, respectively, commencing from the Commercial Operations Date.

### 40.2.3 Operation and Maintenance Agreements

A subsidiary has entered into power plant operation and maintenance, and power plant equipment maintenance agreements with 7 subsidiaries and 2 joint ventures of the Group. The agreements are effective for a period between 5 years and 6 years.

Two subsidiaries have entered into maintenance service agreement with three constructors. The agreements are effective for a period of 11 years commencing from 26 June 2013 and 12 years commencing from 19 June 2016.

Two subsidiaries have entered into a long-term technical service agreement for power plant and equipment maintenance. The agreements are effective for a period between 6 years and 8 years, commencing from the Commercial Operations Dates which can be extended from the maturity date upon the conditions specified in the agreements.

### 40.2.4 Joint development agreement

The Company, EGAT International Company Limited and RATCH Group Public Company Limited entered into a joint development agreement of Quang Tri 1 thermal power plant project (the project) in the Socialist Republic of Vietnam. The Company has a 30% shareholding interest in the project. The project is currently in the greenfield development phase with an expected Commercial Operating Date in 2025.

## 41 Events after the reporting date

- a) On 11 January 2021, the Company entered into a joint operation agreement on Rayong industrial estate together with Industrial Estate Authority of Thailand. The project is currently under development and expected to start operation by 2022. The Company has obligations under the Letter of Credit issued on behalf of the Company for guarantee of Baht 8 million.
- b) On 15 January 2021, the Group paid for additional share capital in the same proportion as its original investment and long-term loan to a joint venture totalling Euro 17 million (equivalent to Baht 604 million) and Euro 18 million (equivalent to Baht 648 million), respectively.
- c) On 29 January 2021, the Group entered into the Purchase and Sale Agreement with AEIF Linden SPV, LLC and Highstar Capital GP IV, L.P. to acquire 28% shareholding interest in Linden Topco LLC which operate a 972 MW cogeneration power plant in the United States. However, the Group is in the process of completing the purchase. The Company has obligations under Standby Letter of Credit issued on behalf of the Company to provide guarantees for its purchase amounting to US Dollar 20 million (equivalent to Baht 598 million).

# Management Discussion and Analysis

## POWER INDUSTRY AND COMPETITION

### 1. Electricity Industry and Economic Situation in Thailand

The COVID-19 pandemic has delivered a global economic shock of enormous magnitude, leading to steep recessions in many countries. According to the World Bank, the baseline forecast envisions a 4.3 percent contraction in global GDP in 2020, the deepest global recession in eight decades. As a developing economy, the Thai economy in 2020 is expected to contract 6.0 percent, mainly due to the sharp decline in numbers and revenues from foreign tourist, the severe recession of global economy and merchandised trade, the impact of the outbreak, and the drought condition. In all, it is expected that export values of goods, private consumption expenditure, and total investment will decline. For 2021, the Thai economy will gradually recover. The recovery will be supported by the success in the COVID-19 containment together with additional supports from government economic management resulting in improving domestic demand, the recovery of the world economy and global trade, and the disbursement under the budget and the government stimulus package. However, the economic recovery would remain highly uncertain because of vaccination coverage and the new waves of COVID-19 pandemic in Thailand, which would adversely impact level of business confident and economic activities.

The COVID-19 has impacted the electricity industry in various aspects such as drop in electricity demand, revision in Power Development Plan (PDP), change in demand structure with more coming from households, delay in project development and temporary slowdown in investments. The degree of COVID-19 impact to electricity demand depends on industrial power demand share, degree of tourism and export orientation economy, duration and strictness of lockdown. For Thailand's electricity industry situation in 2020, the peak demand in 3 power authorities system (Electricity Generating Authority of Thailand (EGAT), Metropolitan Electricity Authority (MEA) and, Provincial Electricity Authority (PEA)) was 30,342 megawatts, occurred on March 13, 2020 at 14.14 pm, lower than the peak demand of 32,273 megawatts in 2019 by 6.0 percent. Meanwhile, electricity consumption of the country as of November 2020 stood at 172,497 gigawatt-hours, which were 6,109 gigawatt-hours or 3.4 percent decrease, compared to the same period of 2019. These are resulted from the impact of COVID-19 outbreak, leaded to lower electricity consumption in all sectors, especially export and tourism sector. However, the electricity consumption in residential sector surged, as a result of work from home policy and high temperature. Peak demand for electricity consumption is shown in Figure 1.

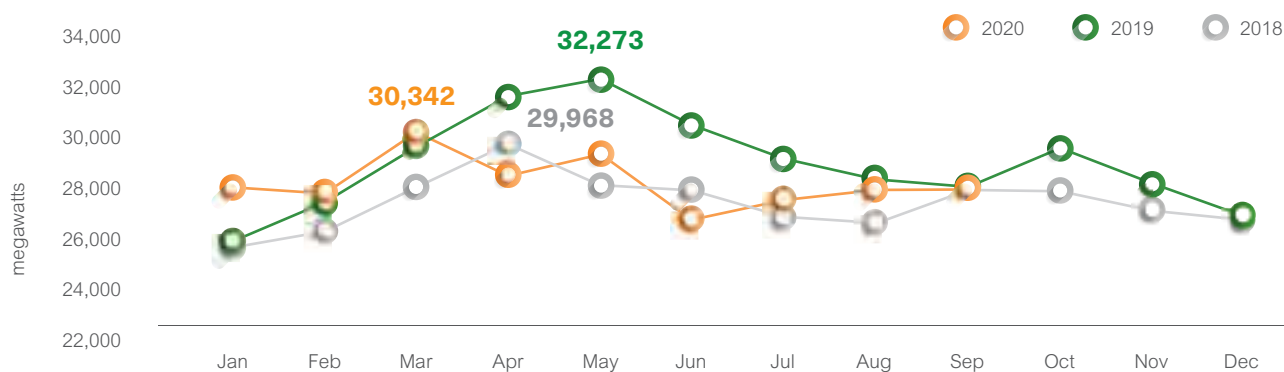


Figure 1 Peak demand for electricity consumption during 2018-2020

Source: Energy Policy and Planning Office (EPPO)

As of December 31, 2020, the country's contracted capacity in 3 power authorities system was 49,608 megawatts, 16,037 megawatts or 32.3 percent of which were generated by EGAT power plants, and the remaining from other producers as follows;

- Independent Power Producers (IPPs) 14,249 megawatts or 28.8 percent
- Small Power Producers (SPPs) 9,474 megawatts or 19.1 percent

- Import from neighboring countries 5,721 megawatts or 11.5 percent
- Very Small Power Producers (VSPPs) 4,127 megawatts or 8.3 percent

EGCO's contracted capacity of electricity sold to EGAT and PEA was 3,395 megawatts, representing 6.8 percent of the country's contracted capacity in three power authority's system, as presented in Figure 2

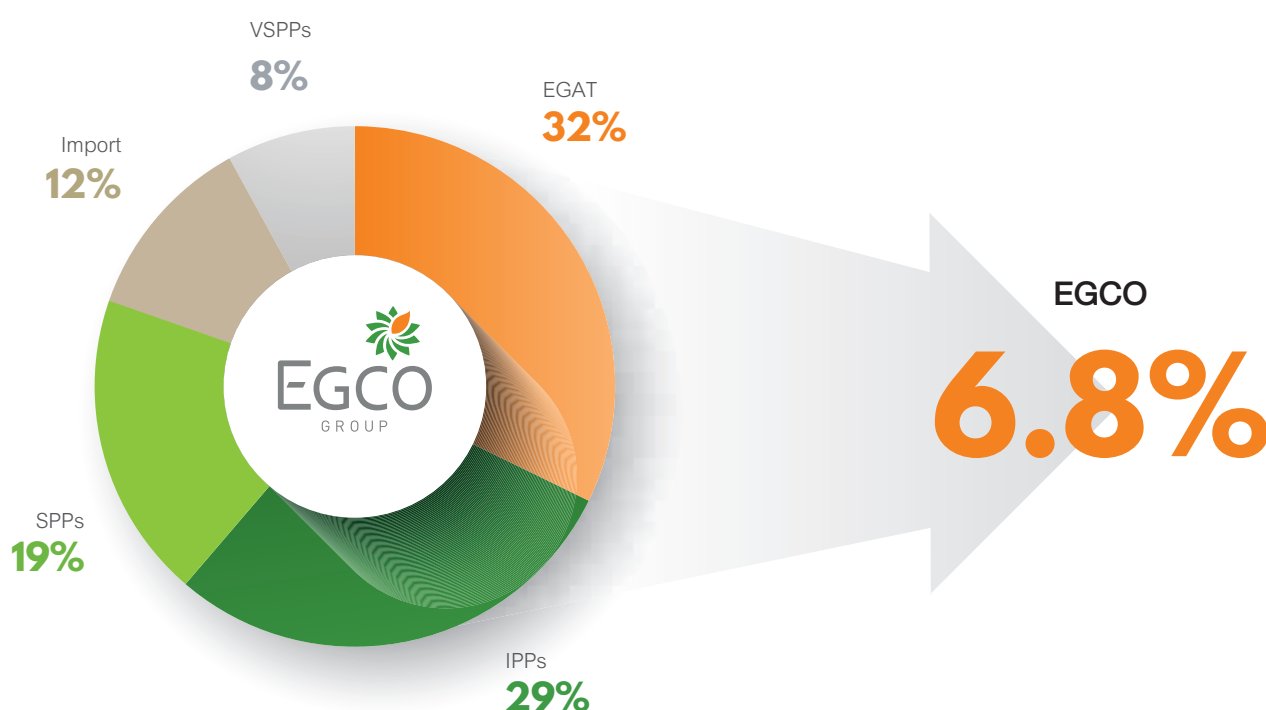


Figure 2 The country's contracted capacity of electricity in 2020 classified by producers

Source: EGAT, EPPO and Department of Alternative Energy Development and Efficiency (DEDE)

In 2020, Thailand's power development plan for 2018 to 2037 revision 1 (PDP 2018 rev.1) was approved by the National Energy Policy Council (NEPC) on 19 March 2020 and by the cabinet on 20 October 2020. The PDP 2018 rev.1 focuses on the use of natural gas as primary fuel for power generation as well as the increase proportion in renewable energy. Ministry of Energy promoted Community Power Plants for Local Economy, which aims to enable private companies to form joint ventures with local communities to operate renewable power projects in remote areas. Additionally, PDP 2018 rev.1 sets the target for solar power generated by households of 9,290 megawatts by 2037.

Regarding the Alternative Energy Development Plan for 2018 (AEDP 2018), the electricity generation from renewable energy sources will contribute a total of 28,004 megawatts by 2037. According to the Department of Alternative Energy Development and Efficiency (DEDE), the current status of renewable energy power plants as of October 2020, which achieved COD was 11,971 megawatts, increased from which of 2019 by 119 megawatts or 1.0 percent.

## 2. Electricity Industry in Target Countries

Due to limited growth prospect for domestic electricity industry, EGCO has expanded the investment in Asia-Pacific countries such as Republic of the Philippines, Lao People's Democratic Republic, Republic of Indonesia, Commonwealth of Australia, Republic of Korea and Republic of China (Taiwan) where the Company has established business bases. Investment of EGCO in each country is shown in Figure 3. In addition, EGCO has also been seeking for further investment opportunities in other countries such as Socialist Republic of Vietnam, Republic of the Union of Myanmar and Kingdom of Cambodia. EGCO consistently monitors and analyzes electricity industry situation to explore investment opportunities in those targeted countries. However, the COVID-19 impact is not incorporated in Power Development Plan in these countries, which might be revised after the COVID-19 pandemic ends. The overall industry situations of which are as briefed below;

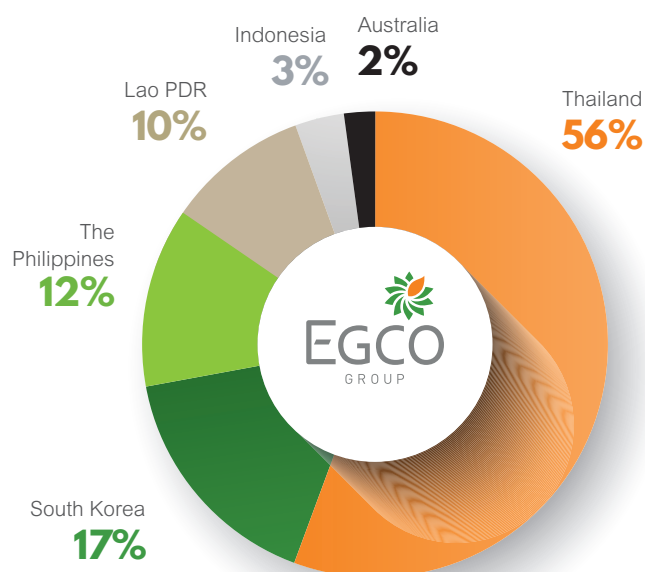


Figure 3 EGCO's equity contracted capacity of electricity in 2020 classified by country

### • Republic of the Philippines (The Philippines)

The Philippines's peak demand declined by 1.9 percent from previous year. The Philippines currently has installed capacity of 25,000 megawatts, which are primarily from coal-fired power. Peak demand in the Philippines is expected to increase 5.4 percent annually. The Philippines plan to expand its capacity by 50,000 megawatts in next 10 years, which focus on power generation from coal-fired power plant. Additionally, the Philippines plan to increase renewable energy generation of 24,000 megawatts by 2029, which promotes the power generation from solar, hydro and wind power.

### • Lao People's Democratic Republic (Lao PDR)

Lao PDR's peak demand dropped by 7.5 percent from prior year. Lao PDR's installed capacity is approximately 9,200 megawatts. Because of its abundant water resource and mountainous geography, the electricity generation is mainly from hydropower plants. With an aim to be the Battery of Asia, the electricity generation for export to neighboring countries such as Thailand and Vietnam are approximately 65 percent of total capacity. The peak demand of whole country is forecasted to grow 13.2 percent annually. Furthermore, Lao PDR's promotes the investment in power generation from hydropower and alternative renewable energies, such as solar and wind from private sectors, both domestic and overseas.

Presently, Thailand imported 5,420 megawatts of electricity from Lao PDR under Memorandum of Understanding (MoU) to purchase electricity of 9,000 megawatts.

### • Republic of Indonesia (Indonesia)

Peak Demand of Indonesia declined by 7.0 percent compared to previous year. Indonesia's installed capacity is approximately 63,000 megawatts. Coal-fired and natural gas power plants play a significant role as base load generation. Peak demand is forecasted to increase 6.5 percent annually. According to 2019-2028 Power Supply Business Plan (RUPTL), the government plans to expand its electricity generating capacity by 56,000 megawatts. The new RUPTL prioritizes the use of renewable energy sources, as well as domestic use of gas. In overall, the additional electricity generating capacity is mainly from coal, gas, geothermal and hydropower, which are the abundant resources.

- **Commonwealth of Australia (Australia)**

Australia's peak demand remained stable compared to last year. Australia's installed capacity is approximately 62,000 megawatts, mainly supplied by aging coal-fired power plants and renewable energy. In recent years, solar, wind and gas generation increased drastically, while coal-fired generation declined because of the reduction in its average availability and displacement by solar during the day. Recently, Australia has achieved renewable energy generation target of 33,000 gigawatt-hours by 2020, which was the main challenge for the government to set out a clear policy for the energy sector to enable new investments. Power generation from wind power and rooftop PV are forecasted to be more than double from present by 2030. Additionally, the government has a strong support to deploy Energy Storage System (ESS) with Variable Renewable Energy (VRE).

- **Republic of Korea (South Korea)**

South Korea's peak demand dropped by 8.9 percent from previous year. South Korea's installed capacity is approximately 120,000 megawatts, which are significantly from natural gas and coal-fired power. Peak demand is estimated to increase 1.3 percent annually. South Korea electricity market is cost based pool. The Korea Power Exchange (KPX) functions as the independent electricity market operator in South Korea. In this role, KPX also does the billing settlement for power sales and purchases. It controls real time dispatch of all generators which is set daily on a merit order. South Korea's electricity generating capacity is estimated to increase to 174,000 megawatts. The government plans to shift away from coal-fired and nuclear power towards LNG and renewables. Moreover, South Korea promotes the development of renewable energy to achieve 20 percent of total capacity by 2030, with target of 37,000 megawatts and 17,000 megawatts from solar power and wind power respectively.

Currently, South Korea is drafting the 9th Basic Plan, which plans to reduce the share of electricity supplied by nuclear power plants and coal fired power plants. The government aims to increase share of renewable energy to 40% of the nation's power by 2034 and close some coal-fired power plants, which would be converted to natural gas power plants.

- **Republic of China (Taiwan)**

Taiwan's peak demand dropped by 8.9 percent from previous year. Taiwan's installed capacity is approximately 45,000 megawatts, which are mostly generated from natural gas and coal-fired power. Peak demand is forecasted to increase 1.5 percent annually. The government of Taiwan plans to expand 26,000 megawatts of electricity generating capacity with emphasis on development of natural gas power plant while reducing the dependence on coal-fired power plants. Presently, the government has set the goal of achieving a nuclear-free homeland and increasing the ratio of renewable energy generation to 20 percent by 2025. Power generation from renewable energy focusing on solar and wind in Taiwan is expected to increase by 18,000 megawatts and 6,000 megawatts by 2025, respectively.

- **Socialist Republic of Vietnam (Vietnam)**

The installed capacity of Vietnam is approximately 48,000 megawatts, which are primarily from coal-fired power and hydropower. Peak demand is estimated to increase 8.4 percent annually. According to revision of power master plan VII, Vietnam's electricity generating capacity is forecasted to increase to 130,000 megawatts by 2030. Additionally, the government of Vietnam aims to develop power generation from renewable energy to achieve target of 48,000 megawatts by 2030, which promotes investment from solar power, hydropower and wind power.

Currently, Vietnam is drafting on its power master plan VIII, which expected to replace some coal-focused power plants with schemes favoring cleaner sources, including renewables and LNG.

- **Republic of the Union of Myanmar (Myanmar)**

Myanmar's installed capacity is approximately 5,700 megawatts, which are mainly generated by hydropower plants. However, the current supply is not sufficient to meet country's demand, which is forecasted to increase 9.6 percent annually. Additionally, as 60 percent of households are not connected to the national grid, relying on local solutions such as diesel generators and solar rooftop, the government puts an effort to achieve 100 percent electrification by 2030 by increasing energy access in rural areas and securing reliable supply in urban areas and Special Economic Zones (SEZs) through joint investment with foreign investors. With this regard, Myanmar plans to expand its electricity generating capacity

to 14,000 megawatts in 2030, which focuses on the development of hydropower plants and coal-fired plants. Thailand has signed Memorandum of Understanding (MoU) for the purchase of electricity from Myanmar, with no specific capacity.

- **Kingdom of Cambodia (Cambodia)**

The installed capacity of Cambodia is approximately 2,200 megawatts. Hydro and coal are primary source of fuel supply in Cambodia. Peak demand in Cambodia is forecasted to increase 9.5 percent annually. The government has a policy to connect all villages to the national grid by 2030 and import more energy from neighboring countries to fulfil its growing demand. Cambodia plans to increase 2,200 megawatts of electricity generating capacity, which promote power generation from hydropower and coal-fired power. Thailand has signed Memorandum of Understanding (MoU) for the purchase of electricity from Cambodia, with no specific capacity.

### 3. Competition

In 2020, power industry has faced many challenges not only the impact of COVID-19 pandemic but also disruptive technology, which created the new normal and new business opportunities. For the competition, the competitors explore opportunities and focus the investment in overseas because of the limited growth prospect for domestic electricity industry. Furthermore, as disruptive technologies have influenced the power industry over the last few years, competitors expanded the investment to energy related business as well as new business for business diversification. These led to high competition in the industry. Despite the high competition and challenges in power industry, EGCO had stability through dynamic situation and successfully expanded its investment as follows;

- EGCO Group completed acquisition of 25% ownership interest in Yunlin Holding GmbH. The project company is constructing a 640 megawatts offshore wind farm, which will be situated in the Taiwan Strait in Republic of China (Taiwan). The acquisition is completed on April 17, 2020.
- Gangdong Fuel Cell Project with an installed capacity of 19.8 megawatts, in which EGCO holds 49% of stakes in Republic of Korea (South Korea), had commenced its operation on October 1, 2020. This achievement not only strengthens the existing foothold of EGCO but also increases the renewable energy portion in portfolio, which aligned with global context.

These investments would not only enhance business growth but also provide economic value added to EGCO. EGCO is satisfactorily competitive in power business which was resulted by several key success factors including, but not limited to:

- **Human resources**

Competence and expertise of EGCO's personnel, experiences of employees and Board members are the key success factor. EGCO personnel have dependable capabilities and experiences in power industry. Board members are competent persons from diverse business areas, many of whom are knowledgeable and long-time experienced in energy and electricity areas. Moreover, EGCO is committed to building competency of employees, aligned with investment directions as well as implementing the "Knowledge Management System" to apply employee knowledge and experiences to benefit the business operations and the company's sustainable development. These ensure that employee will have the competence and expertise to support EGCO Group's continuous business expansion.

- **EGCO's trustworthy**

To ensure sustainable growth and maximize shareholders' value, EGCO continuously expands its investments with comprehensive project selection criteria to ensure quality investment, that generates good returns at an acceptable risk level. This led to satisfactory financial status, liquidity, and profit growth, which helped the company earn creditability and trustworthy from banks and financial institutions in financially supporting its ongoing investments.

- **Good relationship with communities surrounding power plants**

EGCO has always given priority to a harmonious between business, communities, society and the environment. As power generation may cause impact to nearby communities, EGCO always operates its business with regard to participation in the community and society development starting from the communities in the vicinity of power plants, covering openly disclosure of factual information and promotion of appropriate participation of the society before construction, under construction, and after completion of construction of power plants. EGCO is committed to reduce negative impacts and increase positive impacts, through participation within communities in areas of operations and build good, long-term relations through community activities, and participating in developing the quality of life for communities for sustainably growth.

## • Innovation

Innovation for sustainability at EGCO is one of the most important elements that drives forward the company's business operations not only for distinctive competitive advantage but also towards a sustainable future. EGCO aims to promote

internal innovation and encourage creativity and innovative mindsets for EGCO's employees, which can be applied to work process, increase work efficiency and obtain the competitive advantages over competitors.

## SIGNIFICANT EVENTS IN 2020

### 1. The Progress in Construction Projects

#### 1.1 Project completion

- Gangdong Fuel Cell Project (Gangdong), a project of Paju Energy Services Co.,Ltd. (Paju ES) (EGCO holds a 49.00% ownership interest), located in Gangdong-gu, Seoul, Republic of Korea (South Korea) with a capacity of 19.80 megawatts. Gangdong will sell electricity to Korea Electric Power Corporation (KEPCO), the sole off-taker of wholesale power generation in South Korea, through the Korea Power Exchange (KPX). Gangdong also sells thermal energy, and receive renewable credits in the form of Renewable Energy Certificates (REC) concerning its electricity generation output. Construction works of the project was complete and its operation started on October 1, 2020.

#### 1.2 Projects under construction

- The extension of the petroleum pipeline system to the northeastern region project (The project) is a project of Thai Pipeline Network Company Limited (TPN) (EGCO holds a 44.60% ownership interest). The project connects the Thai Petroleum Pipeline Co., Ltd (Thappline) Terminal in Saraburi to TPN's owned terminal with storage capacity of 142 million liters in Khon Kaen, through a newly constructed 342.80 kilometers underground pipeline which has an annual transport capacity of approximately 5,443 million liters. The capacity of the project shall potentially increase to 7,330 million liters in the future. The construction of the project has progressed 59.64% (The construction plan was 64.61%). The commercial operation date is scheduled in the fourth quarter of 2021.

- Yunlin Project (The project), a project of Yunlin Holding GmbH (Yunlin) (EGCO holds a 25% ownership interest), is an offshore wind farm power plant project which located in the Taiwan Strait approximately 8 km west of the coast of Yunlin Country in Republic of China (Taiwan). The project has entered into the Power Purchase Agreement (PPA) with Taiwan Power Company (Taipower) pursuant to a fixed 20-year feed-in tariff PPA, for the sale of electricity by the project with the contracted capacity of 640 megawatts. The construction of the project has progressed 65.25% (The construction plan was 70.61%). The commercial operation date is scheduled in the first quarter of 2022.
- NT1PC Project (The project), a project of Nam Theun 1 Power Company Limited (Nam Theun 1 ) (EGCO holds a 25% ownership interest), is a hydro power plant project. The project is located on the Nam Kading River in Bolikhamxay Province of Lao People's Democratic Republic. The project has entered into the PPA with EGAT with the contracted capacity of 514 megawatts and Electricite Du Laos (EDL) with the contracted capacity of 130 megawatts for 27 years. The construction of the project has progressed 81.63% (The construction plan was 84.77%). The commercial operation date is scheduled in the second quarter of 2022.

## 2. Additional Investments in Joint Ventures

- On December 19, 2019, Greenwing Energy B.V., a wholly owned subsidiary of EGCO, entered into the share purchase agreement to acquire a 25% ownership interest in Yunlin Holding GmbH (Yunlin) owned by Taiwan Offshore Holding GmbH. Yunlin is a holding company that owns 100% of Yunneng Wind Power Co., Ltd. (Yunneng). Yunneng is constructing a 640 megawatts offshore wind farm project which will be located in the Taiwan Strait approximately 8 km west of the coast of Yunlin Country in Republic of China (Taiwan). Yunneng has entered into a power purchase agreement with Taiwan Power Company (Taipower) pursuant to a fixed 20-year feed-in tariff PPA, for the sale of electricity by the project. Commissioning of Yunneng will occur in phase, with phase 1 comprising 352 megawatts and phase 2 comprising 288 megawatts. The acquisition was completed on April 17, 2020.

## 3. Other Events

- On September 16, 2020, EGCO, EGAT International Company Limited, and RATCH Group Public Company Limited entered into a joint development agreement of

Quang Tri 1 thermal power plant project (Quang Tri 1) with the shareholding proportion of 30%, 40% and 30% respectively. Quang Tri 1 is the coal-fired power plant, located in Quang Tri Economic Zones, Hai Lang District, Quang Tri Province in the central region of the Socialist Republic of Vietnam, with the installed capacity of 1,320 megawatts (2 units with generating capacity of 660 Megawatts each). The generated electricity will be sold to Vietnam Electricity (EVN) under the long-term PPA. Quang Tri 1 is currently under Green-Field development phase and under advanced negotiation process with the expected commercial operating date in 2025.

- On August 23, 2020, the 21-year PPA between Samutprakarn Cogeneration Co., Ltd. (SCC) and EGAT expired. SCC was a combined cycle power plant in Samutprakarn Province of Gulf Electric Public Company Limited (GEC) (EGCO holds a 50% ownership interest), which had entered into the PPA with EGAT with the contracted capacity of 114.45 megawatts. SCC stopped its operation and electricity sales to EGAT on the same day.

## BUSINESS OVERVIEW

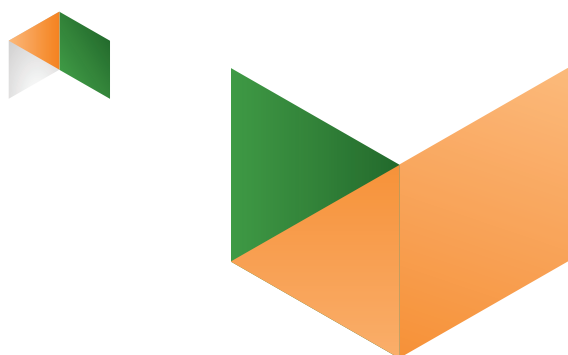
EGCO Group have invested in the Power Producer (PP), Independent Power Producer (IPP), Small Power Producer (SPP), Very Small Power Producer (VSPP), Coal Mining, Oil Transportation Service with pipeline transportation system (Oil Transportation Service), Operating and Maintenance (O&M), Management and Administrative Services (Management Services). Details of each plant are as follows:

### 1. Subsidiaries which can be categorized into 2 businesses:

#### 1. Power generation

##### 1.1 Local power generation

Khanom Electricity Generating Co., Ltd. (KEGCO)	IPP
EGCO Cogeneration Co., Ltd. (EGCO Cogen)	SPP
Roi-Et Green Co., Ltd. (RG)	SPP
Banpong Utilities Co., Ltd. (BPU)	SPP
Klongluang Utilities Co., Ltd. (KLU)	SPP
Chaiyaphum Wind Farm Co., Ltd. (CWF)	SPP
SPP Two Co., Ltd. (SPP 2)	VSPP
SPP Three Co., Ltd. (SPP 3)	VSPP
SPP Four Co., Ltd. (SPP 4)	VSPP
SPP Five Co., Ltd. (SPP 5)	VSPP
Yanhee EGCO Holding Co., Ltd. (Yanhee EGCO)	Holding Co.
• Solarco Company Limited (Solarco)	VSPP
Theppana Wind Farm Co., Ltd. (TWF)	VSPP
EGCO Plus Co., Ltd. (EGCO Plus)	Holding Co.



## 1.2 Overseas power generation

Quezon Power (Philippines) Limited Co. (Quezon)

PP

Boco Rock Wind Farm Pty Ltd. (BRWF)

PP

## 2. Other businesses

## 2.1 Local other businesses

EGCO Engineering and Service Co., Ltd. (ESCO)

O&amp;M

## 2.2 Overseas other businesses

Pearl Energy Philippines Operating Inc. (PEPOI)

O&amp;M

Quezon Management Service Inc. (QMS)

Management Services

## 2. Associated in Overseas Power Generation Business:

Star Energy Geothermal Pte. Ltd. (SEG)

PP

Star Energy Geothermal (Salak – Darajat) B.V. (SEGSD)

PP

Xayaburi Power Company Limited (XPCL)

PP

## 3. Joint Ventures which can be categorized into 2 businesses:

## 1. Power generation

## 1.1 Local power generation

Gulf Electric Public Company Limited (GEC)

Holding Co.

• Gulf Cogeneration Co., Ltd. (GCC)

SPP

• Nong Khae Cogeneration Co., Ltd. (NKCC)

SPP

• Samutprakarn Cogeneration Co., Ltd. (SCC)

SPP

• Gulf Yala Green Co., Ltd. (GYG)

SPP

• Gulf Power Generation Co., Ltd (GPG)

IPP

BLCP Power Limited (BLCP)

IPP

Natural Energy Development Co., Ltd. (NED)

SPP &amp; VSPP

G-Power Source Co., Ltd. (GPS)

VSPP

## 1.2 Overseas power generation

Nam Theun 2 Power Co., Ltd. (NTPC)

PP

San Buenaventura Power Ltd. Co. (SBPL)

PP

Nam Theun 1 Power Co., Ltd. (NT1PC)

PP

Paju Energy Services Co.,Ltd. (Paju ES)

PP

Yunlin Holding GmbH Co.,Ltd. (Yunlin)

PP

## 2. Other businesses

### 2.1 Local other businesses

Thai Pipeline Network Company Limited (TPN)

Oil Transportation Service

### 2.2 Overseas other businesses

PT Manambang Muara Enim Co., Ltd. (MME)

Coal Mining

E&E Engineering and Service Company Limited (E&E)

O&M

As of December 31, 2020, EGCO Group's portfolio consists of 28 operating power plants, with a total contracted capacity of 5,423 megawatts equity and 2 power plant construction projects, with a total contracted capacity of 321 megawatts equity.

## REPORT AND ANALYSIS OF THE OPERATING RESULTS

EGCO would like to present analysis of the operation result as follows:

### Summary of operating results for 2020, Ended of December 31, 2020

Unit : Million Baht

	POWER GENERATION		OTHERS		TOTAL		INCREASE / (DECREASE)	
	2020	2019	2020	2019	2020	2019	AMOUNT	%
Total Revenues	39,072	42,830	747	797	39,819	43,627	(3,808)	(9%)
Total Expenses	(36,660)	(39,403)	(680)	(753)	(37,340)	(40,156)	(2,816)	(7%)
Share of Profit (Loss)	6,235	6,899	24	(2)	6,259	6,897	(638)	(9%)
Operating profit (loss)*	8,647	10,326	91	42	8,738	10,368	(1,630)	(16%)
Loss from impairment	(2,400)	(611)	-	-	(2,400)	(611)	1,789	293%
Profit (Loss) before the effects of financial instruments, foreign exchange, deferred income tax and lease income	6,247	9,715	91	42	6,338	9,757	(3,419)	(35%)
Impact of financial instruments	1,791	-	-	-	1,791	-	1,791	100%

Unit : Million Baht

	POWER GENERATION		OTHERS		TOTAL		INCREASE / (DECREASE)	
	2020	2019	2020	2019	2020	2019	AMOUNT	%
Profit (Loss) before the effects of foreign exchange, deferred income tax and lease income	8,038	9,715	91	42	8,129	9,757	(1,628)	(17%)
Deferred income (expense) tax	(173)	228	5	7	(168)	235	(403)	(171%)
Profit (Loss) before the effects of foreign exchange and lease income	7,865	9,943	96	49	7,961	9,992	(2,031)	(20%)
Profit (Loss) from foreign exchange	246	2,806	8	(1)	254	2,805	(2,551)	(91%)
Net Profit (Loss) before the impact of lease income	8,111	12,749	104	48	8,215	12,797	(4,582)	(36%)
Impact of lease income	518	262	-	-	518	262	256	98%
Net Profit (Loss)	8,629	13,011	104	48	8,733	13,059	(4,326)	(33%)

\* Operating profit (loss) : Profit (Loss) before the effects of foreign exchange, deferred income tax, impairment, financial instruments and lease income.

For focusing on the operating performance, the impact of lease income and the impact of financial instruments (IFRS 9) were excluded from the analysis of the company's operating results.

The operating profit of EGCO Group for the year 2020 was Baht 8,738 million, decreasing by Baht 1,630 million compared to 2019, which came from a decrease in power generation business of Baht 1,679 million and an increase in other business of Baht 49 million. See more details in 4.1 and 4.2 as follows;

### 1. The Analysis of the Operating Results in Power Generation business

The operating profit (loss) for the year 2020 of power generation business decreased by Baht 1,679 million, comparing to 2019, mainly due to a decrease in the operating results of Paju ES, BLCP, CWF, Quezon and NTPC. On the other hand, those of SBPL, XPCL, KEGCO and GPG were increased as follows:

## Paju ES :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue	12,052	15,919	(3,867)	(24%)
Other income	497	451	46	10%
<b>Total revenues</b>	<b>12,549</b>	<b>16,370</b>	<b>(3,821)</b>	<b>(23%)</b>
Cost of sale	(10,460)	(13,591)	(3,131)	(23%)
Other expenses	(862)	(1,098)	(236)	(21%)
<b>Total expenses</b>	<b>(11,322)</b>	<b>(14,689)</b>	<b>(3,367)</b>	<b>(23%)</b>
<b>Operating profit (loss)</b>	<b>1,227</b>	<b>1,681</b>	<b>(454)</b>	<b>(27%)</b>

- Paju ES : The operating result was decreased by Baht 454 million mainly due to a decrease in electricity profit caused by lower electricity demand affected to lower electricity sales unit price, comparing to the same period of the previous year and lower operating hours due to planned maintenance.

## BLCP :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue				
- Availability Payment (AP)	1,767	2,478	(711)	(29%)
- Energy Payment (EP)	5,331	5,426	(95)	(2%)
Other income	280	209	71	34%
<b>Total revenues</b>	<b>7,378</b>	<b>8,113</b>	<b>(735)</b>	<b>(9%)</b>
Cost of sale	(6,480)	(6,599)	(119)	(2%)
Other expenses	(450)	(667)	(217)	(33%)
<b>Total expenses</b>	<b>(6,930)</b>	<b>(7,266)</b>	<b>(336)</b>	<b>(5%)</b>
<b>Operating profit (loss)</b>	<b>448</b>	<b>847</b>	<b>(399)</b>	<b>(47%)</b>

- BLCP : The operating result was decreased by Baht 399 million mainly due to a decrease in Availability Payment (AP) according to the PPA. Meanwhile, corporate income tax expenses were decreased.

## CWF :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue	689	865	(176)	(20%)
Other income	5	7	(2)	(29%)
<b>Total revenues</b>	<b>694</b>	<b>872</b>	<b>(178)</b>	<b>(20%)</b>
Cost of sale	(328)	(325)	3	1%
Other expenses	(181)	(200)	(19)	(10%)
<b>Total expenses</b>	<b>(509)</b>	<b>(525)</b>	<b>(16)</b>	<b>(3%)</b>
<b>Operating profit (loss)</b>	<b>185</b>	<b>347</b>	<b>(162)</b>	<b>(47%)</b>

- CWF : The operating result was decreased by Baht 162 million mainly due to a decrease in electricity revenue caused by lower wind speed.

## Quezon (Include PEPOI and QMS) :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue	9,670	10,845	(1,175)	(11%)
Other income	5	22	(17)	(77%)
<b>Total revenues</b>	<b>9,675</b>	<b>10,867</b>	<b>(1,192)</b>	<b>(11%)</b>
Cost of sale	(5,100)	(6,106)	(1,006)	(16%)
Other expenses	(1,332)	(1,393)	(61)	(4%)
<b>Total expenses</b>	<b>(6,432)</b>	<b>(7,499)</b>	<b>(1,067)</b>	<b>(14%)</b>
<b>Operating profit (loss)</b>	<b>3,243</b>	<b>3,368</b>	<b>(125)</b>	<b>(4%)</b>

- Quezon : The operating result was decreased by Baht 125 million mainly due to a decrease in electricity profit, caused by lower dispatch from Meralco, comparing to the same period of the previous year.

## NTPC :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue	2,545	2,807	(262)	(9%)
Other income	8	15	(7)	(47%)
<b>Total revenues</b>	<b>2,553</b>	<b>2,822</b>	<b>(269)</b>	<b>(10%)</b>
Cost of sale	(960)	(983)	(23)	(2%)
Other expenses	(324)	(489)	(165)	(34%)
<b>Total expenses</b>	<b>(1,284)</b>	<b>(1,472)</b>	<b>(188)</b>	<b>(13%)</b>
<b>Operating profit (loss)</b>	<b>1,269</b>	<b>1,350</b>	<b>(81)</b>	<b>(6%)</b>

- NTPC: The operating result was decreased by Baht 81 million mainly due to an decrease in electricity revenue, caused by lower water level, comparing to the same period of the previous year and delayed maintenance. Meanwhile, interest expense was decreased.

## SBPL :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue	3,979	1,486	2,493	168%
Other income	2	-	2	100%
<b>Total revenues</b>	<b>3,981</b>	<b>1,486</b>	<b>2,495</b>	<b>168%</b>
Cost of sale	(2,481)	(1,021)	1,460	143%
Other expenses	(876)	(248)	628	253%
<b>Total expenses</b>	<b>(3,357)</b>	<b>(1,269)</b>	<b>2,088</b>	<b>165%</b>
<b>Operating profit (loss)</b>	<b>624</b>	<b>217</b>	<b>407</b>	<b>188%</b>

- SBPL : The operating result was increased by Baht 407 million. This was resulted from the commencement of SBPL on September 26, 2019.

## XPCL :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue	1,508	190	1,318	694%
Other income	2	-	2	100%
<b>Total revenues</b>	<b>1,510</b>	<b>190</b>	<b>1,320</b>	<b>695%</b>
Cost of sale	(656)	(109)	547	502%
Other expenses	(744)	(133)	611	459%
<b>Total expenses</b>	<b>(1,400)</b>	<b>(242)</b>	<b>1,158</b>	<b>479%</b>
<b>Operating profit (loss)</b>	<b>110</b>	<b>(52)</b>	<b>162</b>	<b>312%</b>

- XPCL : The operating result was increased by Baht 162 million. This was resulted from the commencement of XPCL on October 29, 2019.

## KEGCO :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue				
- Availability Payment (AP)	3,902	3,915	(13)	(1%)
- Energy Payment (EP)	10,456	11,644	(1,188)	(10%)
Other income	30	79	(49)	(62%)
<b>Total revenues</b>	<b>14,388</b>	<b>15,638</b>	<b>(1,250)</b>	<b>(8%)</b>
Cost of sale	(12,096)	(13,275)	(1,179)	(9%)
Other expenses	(939)	(1,108)	(169)	(15%)
<b>Total expenses</b>	<b>(13,035)</b>	<b>(14,383)</b>	<b>(1,348)</b>	<b>(9%)</b>
<b>Operating profit (loss)</b>	<b>1,353</b>	<b>1,255</b>	<b>98</b>	<b>8%</b>

- KEGCO : The operating result was increased by Baht 98 million mainly due to a decrease in interest expense. Additionally, lower fuel unit price affected to lower Energy Payment (EP) and cost of sales.

## GPG :

Unit : Million Baht

	2020	2019	INCREASE/(DECREASE)	
			AMOUNT	%
Electricity revenue				
- Availability Payment (AP)	2,078	2,055	23	1%
- Energy Payment (EP)	1,004	1,582	(578)	(37%)
Other income	12	24	(12)	(50%)
<b>Total revenues</b>	<b>3,094</b>	<b>3,661</b>	<b>(567)</b>	<b>(15%)</b>
Cost of sale	(1,641)	(2,245)	(604)	(27%)
Other expenses	(373)	(381)	(8)	(2%)
<b>Total expenses</b>	<b>(2,014)</b>	<b>(2,626)</b>	<b>(612)</b>	<b>(23%)</b>
<b>Operating profit (loss)</b>	<b>1,080</b>	<b>1,035</b>	<b>45</b>	<b>4%</b>

- GPG : The operating result was increased by Baht 45 million mainly due to an increase in electricity profit, caused by higher Availability Payment (AP). Additionally, maintenance expenses were decreased due to maintenance schedule was postponed.

## Other Subsidiaries in Power Generation business :

Unit : Million Baht

	BPU*		KLU		EGCO COGEN*		RG	
	2020	2019	2020	2019	2020	2019	2020	2019
Electricity revenue	4,345	4,895	2,239	2,527	1,505	1,731	192	197
Other income	7	9	7	7	2	5	1	1
<b>Total revenues</b>	<b>4,352</b>	<b>4,904</b>	<b>2,246</b>	<b>2,534</b>	<b>1,507</b>	<b>1,736</b>	<b>193</b>	<b>198</b>
Cost of sale	(3,762)	(4,173)	(1,905)	(2,118)	(1,403)	(1,564)	(184)	(179)
Other expenses	(377)	(410)	(243)	(251)	(82)	(72)	(13)	(17)
<b>Total expenses</b>	<b>(4,139)</b>	<b>(4,583)</b>	<b>(2,148)</b>	<b>(2,369)</b>	<b>(1,485)</b>	<b>(1,636)</b>	<b>(197)</b>	<b>(196)</b>
<b>Operating profit (loss)</b>	<b>213</b>	<b>321</b>	<b>98</b>	<b>165</b>	<b>22</b>	<b>100</b>	<b>(4)</b>	<b>2</b>

\* BPU and EGCO COGEN: The operating result was decreased by Baht 108 million and Baht 78 million, respectively, mainly due to lower electricity generation to IU and a scheduled maintenance.

## Other Subsidiaries in Power Generation business (continued) :

Unit : Million Baht

	SPP 2		SPP 3		SPP 4		SPP 5	
	2020	2019	2020	2019	2020	2019	2020	2019
Electricity revenue	167	176	172	178	120	128	172	181
Other income	-	-	-	-	-	-	1	1
<b>Total revenues</b>	<b>167</b>	<b>176</b>	<b>172</b>	<b>178</b>	<b>120</b>	<b>128</b>	<b>173</b>	<b>182</b>
Cost of sale	(53)	(53)	(50)	(50)	(39)	(39)	(50)	(51)
Other expenses	(34)	(35)	(32)	(31)	(26)	(26)	(32)	(33)
<b>Total expenses</b>	<b>(87)</b>	<b>(88)</b>	<b>(82)</b>	<b>(81)</b>	<b>(65)</b>	<b>(65)</b>	<b>(82)</b>	<b>(84)</b>
<b>Operating profit (loss)</b>	<b>80</b>	<b>88</b>	<b>90</b>	<b>97</b>	<b>55</b>	<b>63</b>	<b>91</b>	<b>98</b>

## Other Subsidiaries in Power Generation business (continued) :

Unit : Million Baht

	YEH EGCO		BRWF		TWF		EGCO AND EGCO PLUS		TOTAL		INCREASE/ (DECREASE)	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	AMOUNT	%
Electricity revenue	1,277	1,318	873	877	65	77	-	-	11,127	12,285	(1,158)	(9%)
Other income	7	12	6	13	1	1	3,156	3,119	3,188	3,168	20	1%
<b>Total revenues</b>	<b>1,284</b>	<b>1,330</b>	<b>879</b>	<b>890</b>	<b>66</b>	<b>78</b>	<b>3,156</b>	<b>3,119</b>	<b>14,315</b>	<b>15,453</b>	<b>(1,138)</b>	<b>(7%)</b>
Cost of sale	(318)	(313)	(464)	(418)	(28)	(28)	-	-	(8,256)	(8,986)	(730)	(8%)
Other expenses	(276)	(306)	(285)	(302)	(14)	(17)	(7,014)	(6,510)	(8,428)	(8,010)	418	5%
<b>Total expenses</b>	<b>(594)</b>	<b>(619)</b>	<b>(749)</b>	<b>(720)</b>	<b>(42)</b>	<b>(45)</b>	<b>(7,014)</b>	<b>(6,510)</b>	<b>(16,684)</b>	<b>(16,996)</b>	<b>(312)</b>	<b>(2%)</b>
<b>Operating profit (loss)</b>	<b>690</b>	<b>711</b>	<b>130</b>	<b>170</b>	<b>24</b>	<b>33</b>	<b>(3,858)</b>	<b>(3,391)</b>	<b>(2,369)</b>	<b>(1,543)</b>	<b>(826)</b>	<b>(54%)</b>

## Other Joint Ventures and Associated in Power Generation business :

Unit : Million Baht

	GEC* (JV)		NED** (JV)		SEG*** (ASSO)		SEGSD*** (ASSO)	
	2020	2019	2020	2019	2020	2019	2020	2019
Electricity revenue	2,169	3,566	920	952	2,000	1,964	1,254	1,219
Other income	58	38	1	7	-	-	-	-
<b>Total revenues</b>	<b>2,227</b>	<b>3,604</b>	<b>921</b>	<b>959</b>	<b>2,000</b>	<b>1,964</b>	<b>1,254</b>	<b>1,219</b>
Cost of sale	(1,917)	(3,191)	(234)	(233)	(405)	(413)	(247)	(250)
Other expenses	(179)	(195)	(129)	(94)	(1,158)	(1,043)	(751)	(638)
<b>Total expenses</b>	<b>(2,096)</b>	<b>(3,386)</b>	<b>(363)</b>	<b>(327)</b>	<b>(1,563)</b>	<b>(1,456)</b>	<b>(998)</b>	<b>(888)</b>
<b>Operating profit (loss)</b>	<b>131</b>	<b>218</b>	<b>558</b>	<b>632</b>	<b>437</b>	<b>508</b>	<b>256</b>	<b>331</b>

\* GEC : GCC and SCC of the GEC group stopped its operation and electricity sales to EGAT on September 3, 2019 and August 23, 2020, respectively.

\*\* NED : The operating result was decreased by Baht 74 million mainly due to a decrease in electricity profit, caused by lower irradiation.

\*\*\* SEG and SEGSD : The operating result was decreased by Baht 71 million and Baht 75 million, respectively, mainly due to write-off deferred financing fee.

## Other Joint Ventures and Associated in Power Generation business (continued) :

Unit : Million Baht

	GPS (JV)		OTHER* (JV)		TOTAL		INCREASE/ (DECREASE)	
	2020	2019	2020	2019	2020	2019	AMOUNT	%
Electricity revenue	297	274	-	-	6,640	7,975	(1,335)	(17%)
Other income	-	-	-	-	59	45	14	31%
<b>Total revenues</b>	<b>297</b>	<b>274</b>	<b>-</b>	<b>-</b>	<b>6,699</b>	<b>8,020</b>	<b>(1,321)</b>	<b>(16%)</b>
Cost of sale	(112)	(93)	-	-	(2,915)	(4,180)	(1,265)	(30%)
Other expenses	(34)	(31)	(56)	(18)	(2,307)	(2,019)	288	14%
<b>Total expenses</b>	<b>(146)</b>	<b>(124)</b>	<b>(56)</b>	<b>(18)</b>	<b>(5,222)</b>	<b>(6,199)</b>	<b>(977)</b>	<b>(16%)</b>
<b>Operating profit (loss)</b>	<b>151</b>	<b>150</b>	<b>(56)</b>	<b>(18)</b>	<b>1,477</b>	<b>1,821</b>	<b>(344)</b>	<b>(19%)</b>

\* NT1PC and Yunlin is under construction.

## 2. The Analysis of the Operating Results in Other businesses

Operating profit (loss) for the year 2020 in other businesses increasing by Baht 49 million compared to 2019 as follows:

Subsidiaries and Joint Ventures in Other business :

Unit : Million Baht

	ESCO (SUB)		MME (JV)		TOTAL*		INCREASE/ (DECREASE)	
	2020	2019	2020	2019	2020	2019	AMOUNT	%
Revenue	-	-	623	418	623	418	205	49%
Service income	736	786	-	-	736	786	(50)	(6%)
Other income	11	11	4	11	15	22	(7)	(32%)
<b>Total revenues</b>	<b>747</b>	<b>797</b>	<b>627</b>	<b>429</b>	<b>1,374</b>	<b>1,226</b>	<b>148</b>	<b>12%</b>
Cost of sale	(594)	(673)	(547)	(386)	(1,141)	(1,059)	82	8%
Other expenses	(86)	(80)	(56)	(45)	(142)	(125)	17	14%
<b>Total expenses</b>	<b>(680)</b>	<b>(753)</b>	<b>(603)</b>	<b>(431)</b>	<b>(1,283)</b>	<b>(1,184)</b>	<b>99</b>	<b>8%</b>
<b>Operating profit (loss)</b>	<b>67</b>	<b>44</b>	<b>24</b>	<b>(2)</b>	<b>91</b>	<b>42</b>	<b>49</b>	<b>117%</b>

\* Including the operating result of TPN and E&E.

Summary of operating results for the year 2020 :

Unit : Million Baht

	2020				2019			
	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
Total Revenues	10,312	10,564	9,830	9,113	10,434	11,175	10,719	11,299
Total Expenses	(9,967)	(9,672)	(8,991)	(8,710)	(9,678)	(10,224)	(9,804)	(10,450)
Share of Profit (Loss)	2,012	1,553	2,000	694	2,159	1,643	1,649	1,446
<b>Operating profit (loss)*</b>	<b>2,357</b>	<b>2,445</b>	<b>2,839</b>	<b>1,097</b>	<b>2,915</b>	<b>2,594</b>	<b>2,564</b>	<b>2,295</b>
Loss from impairment	-	-	-	(2,400)	-	-	-	(611)

Unit : Million Baht

	2020				2019			
	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
Profit (Loss) before the effects of financial instruments, foreign exchange, deferred income tax and lease income	2,357	2,445	2,839	(1,303)	2,915	2,594	2,564	1,684
Impact of financial instruments	357	433	184	817	-	-	-	-
Profit (Loss) before the effects of foreign exchange, deferred income tax and lease income	2,714	2,878	3,023	(486)	2,915	2,594	2,564	1,684
Deferred income (expense) tax	(307)	89	(60)	110	46	169	(86)	106
Profit (Loss) before the effects of foreign exchange and lease income	2,407	2,967	2,963	(376)	2,961	2,763	2,478	1,790
Profit (Loss) from foreign exchange	(3,098)	2,016	(805)	2,141	712	1,195	224	674
Net profit (Loss) before the impact of lease income	(691)	4,983	2,158	1,765	3,673	3,958	2,702	2,464
Impact of lease income	278	92	109	39	76	(10)	121	75
Net Profit (Loss)	(413)	5,075	2,267	1,804	3,749	3,948	2,823	2,539

\* Operating profit (loss) : Profit (Loss) before the effects of foreign exchange, deferred income tax, impairment, financial instruments and lease income.

## REPORT AND ANALYSIS OF FINANCIAL POSITION

Comparing the Statements of Financial Position as at December 31, 2020 to the Statements of Financial Position as at December 31, 2019 is shown below:

	CONSOLIDATED FINANCIAL STATEMENT (MILLION BAHT)			
	YEAR		CHANGE INCREASE (DECREASE)	
	2020	2019	AMOUNT	%
<b>Assets</b>				
Current Assets	34,911	35,794	(883)	(2%)
Investments in joint ventures and associated, net and advance payments for investment	96,612	87,281	9,331	11%
Property, plant and equipment, net	49,750	52,782	(3,032)	(6%)
Other non-current assets	33,165	32,666	499	2%
<b>Total Assets</b>	<b>214,438</b>	<b>208,523</b>	<b>5,915</b>	<b>3%</b>
<b>Liabilities</b>				
Current Liabilities	5,224	6,724	(1,500)	(22%)
Long-term loans and debenture (including current portion of long-term loans)	92,440	89,528	2,912	3%
Other current liabilities	13,940	7,164	6,776	95%
<b>Total Liabilities</b>	<b>111,604</b>	<b>103,416</b>	<b>8,188</b>	<b>8%</b>
<b>Shareholders' Equity</b>				
Parent's shareholders' equity	102,243	104,491	(2,248)	(2%)
Non-controlling interests	591	616	(25)	(4%)
<b>Total Shareholders' Equity</b>	<b>102,834</b>	<b>105,107</b>	<b>(2,273)</b>	<b>(2%)</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>214,438</b>	<b>208,523</b>	<b>5,915</b>	<b>3%</b>

## 1. Asset Analysis

As of December 31, 2020 the total assets were Baht 214,438 million, increasing by Baht 5,915 million or 3% from the year 2019. The details are as follows:

- Current assets decreased by Baht 883 million or 2% mainly due to cash and cash equivalents and trade receivable decreased by Baht 3,251 million and Baht 772 million, respectively. Meanwhile, financial assets measured at amortised cost increased by Baht 2,492 million.
- Investments in joint ventures and associated (net) increased by Baht 9,331 million or 11% mainly due to an investment in a joint venture. Additionally, recognition of share of profits after dividend deduction from joint ventures and associated.
- Property, plant and equipment (net) decreased by Baht 3,032 million or 6% mainly due to depreciation. Additionally, the assets' residual values and useful lives are reviewed and adjusted if appropriate, at the end of each reporting period.

## 2. Liability Analysis

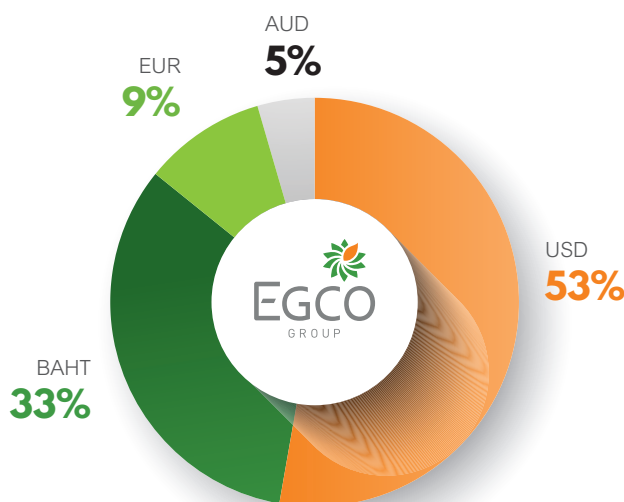
As of December 31, 2020 the total liabilities were Baht 111,604 million, increasing by Baht 8,188 million or 8% from the year 2019. The details are as follows:

- Current liabilities decreased in the amount of Baht 1,500 million or 22% mainly due to payable for acquisition of investment in a joint venture Baht 1,240 million, trade payable and trade payable to a related party decreased by Baht 131 million and interest payment by Baht 235 million. Additionally, the principle repayment of short-term loan of Quezon in the amount of Baht 38 million.

- Long-term loans and debenture increased by Baht 2,912 million or 3% mainly due to the drawn down of long-term loan of EGCO Plus to invest in a joint venture. Meanwhile, the principle repayment of long-term loan of EGCO, KEGCO and Quezon.

Outstanding long-term loans are as follows:

- USD loans : US dollar 1,547 million, equivalent to Baht 46,611 million
- Baht loans : Baht 28,902 million
- Euro loans : Euro 225 million, equivalent to Baht 8,260 million
- AUD loans : Australian dollar 174 million, equivalent to Baht 4,008 million



Loan maturities schedule as at December 31, 2020

Unit : Million Baht

MATURITY	EGCO	KEGCO	BPU	QUEZON	BRWF	CWF	KLU	YANHEE EGCO	SPP 2,3,4,5	TWF	EGCO PLUS	TOTAL
Within 1 year	6,142	1,335	311	1,660	325	390	170	452	305	36	-	11,126
2 - 5 years	27,691	3,983	1,609	-	3,683	1,792	785	1,056	229	85	20,258	61,171
Over 5 years	-	6,367	4,472	-	-	1,450	2,662	466	17	50	-	15,484
<b>Total</b>	<b>33,833</b>	<b>11,685</b>	<b>6,392</b>	<b>1,660</b>	<b>4,008</b>	<b>3,632</b>	<b>3,617</b>	<b>1,974</b>	<b>551</b>	<b>171</b>	<b>20,258</b>	<b>87,781</b>

Debenture is unsecured debenture amounting to Japanese Yen 17,120 million, redeems within 7 years from the issuance date, had a cross currency swap to US Dollar 143 million.

- Other non-current liabilities increased by Baht 6,776 million or 95% mainly due to derivative liabilities and provision for decommissioning costs increased by Baht 6,118 million and Baht 519 million, respectively.
- Commitments and commitments off-balance sheet were described in Notes to the Financial Statements on key commitments and significant agreement.

### 3. Shareholders' Equity Analysis

As of December 31, 2020, total Shareholders' Equity were Baht 102,834 million decreasing by Baht 2,273 million or 2% from the year 2019 mainly due to unappropriated retained earnings were increased by Baht 5,024 million. Meanwhile, other components of equity and non-controlling interests were decreased by Baht 7,272 million and Baht 25 million, respectively.

### 4. Cash Flow Analysis

As of December 31, 2020 cash and cash equivalents were Baht 17,237 million, decreasing by Baht 3,251 million comparing to December 31, 2019. The details are as follows:

Unit: Million Baht

Net cash <u>received from</u> operating activities	11,713
Net cash <u>payment for</u> investing activities	(9,316)
Net cash <u>payment for</u> financing activities	(5,430)
Gain from the effect of foreign exchange rate	(218)
Net decrease in cash	(3,251)

- **Net cash received from operating activities** was Baht 11,713 million from operating of EGCO and its subsidiaries.
- **Net cash payment for investing activities** was Baht 9,316 million. Net cash payment for investments and redemptions of an associate and joint ventures were Baht 13,842 million and net cash payment for financial assets and financial assets measured at amortised cost were Baht 2,103 million. Meanwhile, the dividend receives were Baht 6,407 million.
- **Net cash payment for financing activities** was Baht 5,430 million, resulted from interest payment of loans and financing fees totalling Baht 3,852 million and dividend payments to shareholders amounting to Baht 3,325 million. Meanwhile, Net cash received from proceeds and payments of short-term and long-term loans were Baht 1,908 million.

## FINANCIAL RATIOS

### Profitability Ratios

	2020	2019	CHANGE INCREASE/(DECREASE)
Gross Profit Ratio (%)	28.88	27.60	1.28
Operating Profit Ratio before FX (%)	28.14	26.23	1.91
Profit Ratio before FX (%)	10.18	11.79	(1.61)
Profit before FX per share (Baht)	15.12	18.98	(3.86)

### Trade receivables aging summary

Aging periods of trade receivables as at December 31, 2020 are shown in the table below:

Unit: Million Baht

	2020	2019	CHANGE INCREASE/(DECREASE)	
			AMOUNT	%
Current	4,811	5,551	(740)	(13%)
Overdue less than 3 months	-	-	-	-
Overdue between 3 – 6 months	-	-	-	-
Overdue between 6 – 12 months	-	-	-	-
Overdue more than 12 months	23	53	(30)	(57%)
	4,834	5,604	(770)	(14%)
<u>Less</u> Allowance for doubtful accounts	(23)	(21)	(2)	(10%)
Trade receivables, net	4,811	5,583	(772)	(14%)

### Leverage Ratio and Liquidity Ratio

	2020	2019	CHANGE INCREASE/(DECREASE)
Debt to equity ratio (Time)			
- Consolidated	1.09	0.98	0.11
- Company	0.61	0.65	(0.04)
Book value per share (Baht)			
- Consolidated	194.21	198.48	(4.27)
- Company	127.88	122.86	5.02
Current ratio (Time)			
- Consolidated	2.14	2.87	(0.73)
- Company	1.29	2.51	(1.22)
Interest Coverage Ratio (Time)			
- Company	6.03	5.44	0.59

## FUTURE PLANS

To achieve corporate vision: “To be a major sustainable Thai energy company with full commitment to environment protection and social development support”, EGCO drives the business through corporate strategies based on Balanced Scorecard concept in four strategic perspectives: finance, customer, internal process and learning and growth, that will be major drivers for EGCO’s future sustainable growth.

To embrace investment opportunities and secure continuous growth, EGCO expands investment directions to cover three areas, which are power generation, fuel and other infrastructure and smart energy solution. For Strategic Plan 2021, we set long-term investment target to decrease coal capacity portion to approximately 20-21% and increase renewable energy capacity and smart energy portion to approximately 25% of portfolio by 2030. We aim to enhance financial competitiveness by securing competitive funding sources with financial exposure optimization, which is the one of our key success factors. Moreover, we place a great emphasis on effective asset management to ensure maximum efficiency of existing power plants in order to achieve its highest performance and manage projects under construction to be completed as scheduled and within the planned budget. We also integrate Information Technology and innovation to improve work process, with an aim to enhance overall work efficiency. In order to secure the future success and enhance corporate competencies, strengthening in human resource foundation has been placed as priority to ensure the high-performance organization with

effective organization structure and people management. Furthermore, EGCO has a strong intention to enhance corporate sustainability standard of EGCO Group, by integration of sustainability practices. In overall, the corporate strategies would be implemented to ultimately deliver sustainable long-term value towards stakeholders.

For future plan, EGCO set investment budget to expand the core business in power generation by Merger and Acquisition (M&A) of new power plants in targeted country such as Republic of Indonesia, Socialist Republic of Vietnam, Republic of the Philippines, Lao People’s Democratic Republic, Commonwealth of Australia, Republic of Korea, Republic of China (Taiwan) and The United States of America, where are the large energy market with high electricity demand growth and vast opportunities in renewable and supporting gas-fired power facilities. Apart from core business in power generation, we allocated the investment budget to invest in new business, which focus on fuel & other infrastructure and smart energy solution business such as Floating Storage Regasification Unit (FSRU), Solar Solution Provider, and EGCO Rayong Industrial Estate. The future investment would be aligned with the long-term target to decrease coal capacity portion and increase renewable energy capacity and smart energy portion in portfolio.



# Audit Fee for the Year 2020

## Audit Fee

In 2020, EGCO and its subsidiaries paid the audit fee of 7,026,900 Baht to the Office of the Auditors, comprising EGCO's and subsidiaries' audit fees of 3,297,400 Baht and 3,729,500 Baht, respectively. No other audit fee had been paid to the auditors or related parties to the Auditors and the Auditors' office.

## Non-Audit Fee

In 2020, EGCO's and subsidiaries' total non-audit fee was 34,620,600 Baht which was already paid of 33,820,600 Baht. In addition, EGCO would also be responsible for the expenses of undelivered work of 800,000 Baht. The details of the non-audit fee were as follows:

- 1. Payment to the Office of the Auditors:** The non-audit fee for BOI auditing, financial covenant ratio review and Inventory destruction observation at EGCO's subsidiaries was 1,457,400 Baht which was already recorded as fee expenses for the Office of the Auditors.
- 2. Payment to Other Related Parties of the Auditors' Office:** The non-audit fee for the advisory services for account, finance, and tax due diligence on investment, advisory services on offshore investment structure and legal advisory service at EGCO was 33,163,200 Baht which was already paid of 32,363,200 Baht to other related parties of the Auditors' office. In addition, EGCO would also be responsible for the expenses of undelivered work of 800,000 Baht.

Management agreed that the engagements of the office of the Auditors and its related parties to provide the non-audit work did not involve any conflict of interest or any review of their own work which would contaminate the independence judgment of the auditors, and this has been approved by the Audit Committee.



SECTION 4

# OTHER INFORMATION



# General Information

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Electricity Generating Public Company Limited (EGCO)</b>						
Registration	0107537000866 (Previously Number Listed Co. 333)	Holding Company focusing on Power business and others related to power business	5,300	10	5,264.65	-
Sector	Energy and Utilities					
Industry	Resources					
Foreign Limit	44.82%					
% Free Float	50.01% as at July 1, 2020					
Head Office	14 <sup>th</sup> , 15 <sup>th</sup> Floor EGCO Tower, 222, VibhavadiRangsit Road, Tungsonghong, Laksi, Bangkok 10210, Thailand					
	Website www.egco.com					
	Tel. +66 (0) 2998 5000					
	Fax +66 (0) 2998 5999					
Board of Directors	E-mail: directors@egco.com					
Audit Committee	E-mail: auditcommittee@egco.com					
Corporate Secretary	Tel. 0 2998 5020-7					
	E-mail: cs@egco.com					
Investor Relations	Tel. 0 2998 5147-8					
Contact	E-mail: ir@egco.com					

## Subsidiaries

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Khanom Electricity Generating Company Limited (KEGCO)</b>						
Office	12 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2955 0931	IPP Electricity Generating and supply business using Natural gas	8,395	10	8,005.02	99.99
Site Office	112 Moo 8, Tongnean, Khanom, Nakhon Sri Thammarat, 80210, Thailand					
	Tel. +66 (0) 7552 9173 +66 (0) 7552 9179					
	Fax +66 (0) 7552 8358					

## Subsidiaries (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>EGCO Engineering &amp; Service Company Limited (ESCO)</b>						
Office	13 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000	Engineering, operation and maintenance services for power plants and manufacturers	400	10	400	99.99
Site Office	35 Rayong Highway No. 3191 Huay Pong, AmphurMuang, Rayong 21150, Thailand Tel. +66 (0) 3868 2611-4 Fax +66 (0) 3868 2823					
<b>Dawei Electricity Generating Company Management Pte., Ltd. (DEGCOM)</b> (EGCO Plus is the company's 100% direct shareholder)						
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Holding company focusing on investment in electricity generating companies in Myanmar	2.99 <sup>/1</sup> <i>(100,000 USD)</i>	-	2.99 <sup>/1</sup> <i>(100,000 USD)</i>	100
Overseas Office	9 Raffles Place, #26-01 Republic Plaza, Singapore 048619					
<b>New Growth Plus B.V. (NGP)</b> (EGCO Plus is the company's 100% direct shareholder)						
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Holding company focusing on investment in electricity generating companies in foreign countries	46,214.16 <sup>/1</sup> <i>(1,543,059,337 USD)</i>	29.95 <sup>/1</sup> <i>(1 USD)</i>	46,214.16 <sup>/1</sup> <i>(1,543,059,337 USD)</i>	100
Overseas Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					
<b>New Growth B.V. (New Growth)</b> (EGCO Plus is the company's 100% indirect shareholder)						
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Holding company focusing on investment in electricity generating companies in foreign countries	0.93 <sup>/1</sup> <i>(30,894 USD)</i>	-	0.93 <sup>/1</sup> <i>(30,894 USD)</i>	100
Overseas Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					

## Subsidiaries (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Quezon Power, Inc. (QPI)</b> (EGCO Plus is the company's 100% indirect shareholder)		Holding company focusing on investment in electricity generating companies in Philippines	5.99 <sup>1</sup>	-	5.99 <sup>1</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(200,000 USD)		(200,000 USD)	
Philippines Office	14 <sup>th</sup> Floor Zuellig Building, Makati Avenue corner Paseo de Roxas, Makati City 1225, Philippines					
Netherlands Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					
<b>Quezon Power (Philippines), Limited Co. (Quezon)</b> (EGCO Plus is the company's 100% indirect shareholder)		IPP Electricity Generating and supply business using Coal	6,218.79 <sup>1</sup>	-	6,218.79 <sup>1</sup>	100
Makati Office	14 <sup>th</sup> Floor Zuellig Building, Makati Avenue corner Paseo de Roxas, Makati City 1225, Philippines		(207,641,268 USD)		(207,641,268 USD)	
Overseas Office	Barangay, Cagsiay I, Mauban, Quezon Province, Philippines 4330					
<b>Pearl Energy Philippines Operating, Inc. (PEPOI)</b> (EGCO Plus is the company's 100% indirect shareholder)		Operation and Maintenance of QPL and SBPL Power Plant	5.99 <sup>1</sup>	-	5.99 <sup>1</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(200,000 USD)		(200,000 USD)	
Philippines Office	Barangay, Cagsiay I, Mauban, Quezon, Philippines 4330					
Netherlands Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					
<b>Quezon Management Service Inc. (QMS)</b> (EGCO Plus is the company's 100% indirect shareholder)		Management service for QPL and SBPL Power Plant	3.26 <sup>3</sup>	-	3.26 <sup>3</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(5,260,000 PESO)		(5,260,000 PESO)	
Philippines Office	14 <sup>th</sup> Floor Zuellig Building, Makati Avenue corner Paseo de Roxas, Makati City 1225, Philippines					
Netherlands Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					

## Subsidiaries (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Mauban Holdings Company Inc. (Mauban)</b> (EGCO Plus is the company's 100% indirect shareholder)		Holding company focusing on investment in electricity generating companies in Philippines	4,336.01 <sup>/3</sup>	62.04 <sup>/3</sup>	4,196.21 <sup>/3</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(6,989,056,900 PESO)	(100 PESO)	(6,763,715,990 PESO)	
Overseas Office	14 <sup>th</sup> Floor Zuellig Building, Makati Avenue corner Paseo de Roxas, Makati City 1225, Philippines					
<b>Evergreen Power Venture B.V. (Evergreen)</b> (EGCO Plus is the company's 100% indirect shareholder)		Holding company focusing on investment in electricity generating companies in Philippines	0.00 <sup>/1</sup>	29.95 <sup>/1</sup>	0.00 <sup>/1</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(1 USD)	(1 USD)	(1 USD)	
Overseas Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					
<b>Millennium Energy B.V. (Millennium)</b> (EGCO Plus is the company's 100% indirect shareholder)		Holding company focusing on investment in electricity generating companies in foreign countries	0.00 <sup>/1</sup>	29.95 <sup>/1</sup>	0.00 <sup>/1</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(1 USD)	(1 USD)	(1 USD)	
Overseas Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					
<b>South Pacific Power Pty Limited (SPPP)</b> (EGCO Plus is the company's 100% indirect shareholder)		Holding company focusing on investment in electricity generating companies in Australia	2,511.61 <sup>/4</sup>	22.76 <sup>/4</sup>	2,511.61 <sup>/4</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(110,366,987 AUD)	(1 AUD)	(110,366,987 AUD)	
Overseas Office	One International Towers, Waterman Quay, Barangaroo, New South Wales 2000, Australia Tel. +61 2 8266 0000 Fax +61 2 8286 3128					

## Subsidiaries (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Boco Rock Wind Farm Pty Limited (BRWF)</b> (EGCO Plus is the company's 100% indirect shareholder)		Electricity Generating and Supply Business using Wind Power	1,974.12 <sup>/4</sup>	22.76 <sup>/4</sup>	1,974.12 <sup>/4</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(86,747,980 AUD)	(1 AUD)	(86,747,980 AUD)	
Overseas Office	One International Towers, Waterman Quay, Barangaroo, New South Wales 2000, Australia Tel. +61 2 8266 0000 Fax +61 2 8286 3128					
<b>Gen Plus B.V. (Gen Plus)</b> (EGCO Plus is the company's 100% indirect shareholder)		Holding company focusing on investment in electricity generating companies in foreign countries	0.00 <sup>/1</sup>	29.95 <sup>/1</sup>	0.00 <sup>/1</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(1 USD)	(1 USD)	(1 USD)	
Overseas Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					
<b>Phoenix Power B.V. (PP)</b> (EGCO Plus is the company's 100% indirect shareholder)		Holding company focusing on investment in electricity generating companies in foreign countries	0.00 <sup>/1</sup>	29.95 <sup>/1</sup>	0.00 <sup>/1</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(100 USD)	(1 USD)	(100 USD)	
Overseas Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					
<b>Greenwing Energy B.V. (Greenwing)</b> (EGCO Plus is the company's 100% indirect shareholder)		Holding company focusing on investment in electricity generating companies in foreign countries	0.00 <sup>/1</sup>	29.95 <sup>/1</sup>	0.00 <sup>/1</sup>	100
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999		(100 USD)	(1 USD)	(100 USD)	
Overseas Office	Gustav Mahlerlaan 1212, 1081 LA, Amsterdam, The Netherlands					

## Subsidiaries (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>EGCO Cogeneration Company Limited (EGCO Cogen)</b>						
Office	13 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	SPP Electricity and steam generating and supply business using Natural gas	1,060	10	1,060	80
Site Office	222 Moo 8, Mabkha, Nikhom Phattana, Rayong, 21180, Thailand Tel. +66 (0) 3863 7051-57 Fax +66 (0) 3863 7063					
<b>EGCO Green Energy Company Limited (EGCO Green)</b>						
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Holding company focusing on power business	175	10	175	74
<b>Roi-Et Green Company Limited (RG)</b> (EGCO Green is the company's 95% shareholder)						
Office	13 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	SPP Electricity Generating and Supply Business using Biomass as primary fuel	180	10	180	70.30
Site Office	22 Moo 10, Nua-Muang, Mueang Roi Et, Roi Et 45000, Thailand Tel. +66 (0) 4351 9825-6 Fax +66 (0) 4351 9827					
<b>SPP Two Company Limited (SPP 2)</b>						
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	VSPP Electricity Generating and Supply Business using Solar Power	196.7	10	196.7	99.99
Site Office	160 Moo 5, Salaeng Phan, Wang Muang, Saraburi 18220, Thailand					
<b>SPP Three Company Limited (SPP 3)</b>						
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	VSPP Electricity Generating and Supply Business using Solar Power	197.5	10	197.5	99.99
Site Office	85 Moo 3, Thakhlo, Benchalak, Srisaket 33110, Thailand					

## Subsidiaries (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>SPP Four Company Limited (SPP 4)</b>						
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	VSPP Electricity Generating and Supply Business using Solar Power	148.7	10	148.7	99.99
Site Office	85 Moo 3, Thakhlo, Benchalak, Srisaket 33110, Thailand					
<b>SPP Five Company Limited (SPP 5)</b>						
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	VSPP Electricity Generating and Supply Business using Solar Power	198.4	10	198.4	99.99
Site Office	128 Moo 2, Khu Mueang, Mueang Suang, Roi Et 45220, Thailand					
<b>Theppana Wind Farm Company Limited (TWF)</b>						
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	VSPP Electricity Generating and Supply Business using Wind Power	157.32	100	145.23	90
Site Office	555 Moo1, Watabaek, Thepsathit, Chaiyaphum, 36230, Thailand					
<b>Yanhee EGCO Holding Company Limited (Yanhee EGCO)</b>						
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Holding Company investing in electricity generating from Solar Power	10.01	100	10.01	49

## Subsidiaries (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Solarco Company Limited (Solarco)</b> (Yanhee EGCO is the company's 100% shareholder)		VSP	1,650	100	1,650	49
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Electricity Generating and Supply Business using Solar Power				
Site Office						
- Branch 1	317, 318 Moo 1, Bang Ta Then, Song Pee Nong, Suphanburi 72110					
- Branch 2	155, 156 Moo 17, Bang Luang, Bang Lane, Nakhonpathom 73190					
- Branch 3	157, 158 Moo 17, Bang Luang, Bang Lane, Nakhonpathom 73190					
- Branch 4	94, 95 Moo 1, HinMool, Bang Lane, Nakhonpathom 73190					
- Branch 5	96, 97 Moo 1, HinMool, Bang Lane, Nakhonpathom 73190					
- Branch 6	98, 99 Moo 1, HinMool, Bang Lane, Nakhonpathom 73190					
<b>Chaiyaphum Wind Farm Company Limited (CWF)</b>		SPP	1,514	100	1,514	90
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Electricity Generating and Supply Business using Wind Power				
Site Office	190 Moo 9, Subyai, Subyai, Chaiyaphum 36130, Thailand					
<b>Klongluang Utilities Company Limited (KLU)</b>		SPP	1,000	10	1,000	99.99
Office	11 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Electricity and steam generating and supply business using Natural gas				
Site Office	1/9 Moo 3, Klongnueng, Klongluang, Pathumthani 12120, Thailand					

## Subsidiaries (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Banpong Utilities Company Limited (BPU)</b>						
Office	11 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	SPP Electricity and steam generating and supply business using Natural gas	2,000	10	2,000	99.99
Site Office	19/300 Moo 19, Tha Pha, Banpong, Ratchaburi, 70110, Thailand					
<b>EGCO Plus Company Limited (EGCO Plus)</b>						
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Holding company focusing on investment in electricity generating companies in foreign countries	510	10	510	100
<b>EGCO Pearl Co., Ltd. (EGCO Pearl)</b> (EGCO Plus is the company's 100% direct shareholder)						
Office	EGCO Tower Tel. +66 (0) 998 5000 Fax. +66 (0) 998 5999	Holding company focusing on investment in electricity generating companies in Taiwan	1.02 <sup>5</sup> <i>(950,000 TWD)</i>	10.69 <sup>5</sup> <i>(10 TWD)</i>	1.02 <sup>5</sup> <i>(950,000 TWD)</i>	100
Overseas Office	8F., No. 560, Sec. 4, Zhongxiao E. Rd., Xinyi Dist., Taipei City 110, Taiwan (R.O.C)					

## Joint Ventures

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Gulf Electric Public Company Limited (GEC)</b>						
Office	8 <sup>th</sup> Floor, M. Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. +66 (0) 2654 0155 Fax +66 (0) 2654 0156-7	Holding company focusing on IPP and SPP	14,000	10	13,784.35	50
<b>Gulf Energy Company Limited (GEN)</b> (GEC is the company's 100% shareholder)						
Office	8 <sup>th</sup> Floor, M. Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. +66 (0) 2654 0155 Fax +66 (0) 2654 0156-7	Holding company focusing on IPP	9,782	10	9,782	50
<b>Gulf IPP Company Limited (GIPP)</b> (GEC is the company's 100% shareholder)						
Office	8 <sup>th</sup> Floor, M. Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. +66 (0) 2654 0155 Fax +66 (0) 2654 0156-7	Holding company focusing on IPP	9,779	10	9,779	50
<b>Gulf Power Generation Company Limited (GPG)</b> (GEC is the company's 100% shareholder)						
Office	8 <sup>th</sup> Floor, M. Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. +66 (0) 2654 0155 Fax +66 (0) 2654 0156-7	IPP Electricity Generating and supply business using Natural gas	9,607	10	9,607	50
Site Office	64 Moo 2, Ban Pa, Kaeng Khoi, Saraburi 18110, Thailand Tel. +66 (0) 3626 2403-9 Fax +66 (0) 3626 2402					

## Joint Ventures (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Gulf Cogeneration Company Limited (GCC)</b> (GEC is the company's 100% shareholder)		SPP	850	10	850	50
Office	8 <sup>th</sup> Floor, M. Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. +66 (0) 2654 0155 Fax +66 (0) 2654 0156-7	Electricity and steam generating and supply business using Natural gas				
Site Office	79 Moo 3, Tandeow, Kaeng Khoi, Saraburi 18110, Thailand Tel. +66 (0) 3624 6203-4 Fax +66 (0) 3624 6531					
<b>Nong Khae Cogeneration Company Limited (NKCC)</b> (GEC is the company's 100% shareholder)		SPP	1,241.72	74	1,241.72	50
Office	8 <sup>th</sup> Floor, M. Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. +66 (0) 2654 0155 Fax +66 (0) 2654 0156-7	Electricity and steam generating and supply business using Natural gas				
Site Office	111/11 Moo 7, Nongplamor, Nong Khae, Saraburi 18140, Thailand Tel. +66 (0) 3637 3676 Fax +66 (0) 3637 3691					
<b>Samutprakarn Cogeneration Company Limited (SCC)</b> (GEC is the company's 100% shareholder)		SPP	981.54	76	981.54	50
Office	8 <sup>th</sup> Floor, M. Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. +66 (0) 2654 0155 Fax +66 (0) 2654 0156-7	Electricity and steam generating and supply business using Natural gas				
Site Office	745 Moo 2, Bang Pu Mai Mueang Samutprakarn, Samutprakarn 10280, Thailand Tel. +66 (0) 2709 0751 Fax +66 (0) 2709 1842					

## Joint Ventures (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Gulf Yala Green Company Limited (GYG)</b> (GEC is the company's 100% shareholder)		SPP Electricity Generating and Supply Business using Biomass Power	460	10	460	50
Office	8 <sup>th</sup> Floor, M. Thai Tower, All Seasons Place, 87 Wireless Road, Lumpini, Pathumwan, Bangkok 10330, Thailand Tel. +66 (0) 2654 0155 Fax +66 (0) 2654 0156-7					
Site Office	80 Moo 1, Pron, Mueang Yala, Yala 95160, Thailand Tel. +66 (0) 7325 2721 Fax +66 (0) 7325 2722					
<b>BLCP Power Limited (BLCP)</b>		IPP Electricity Generating and supply business using Coal	12,010	100	12,010	50
Office	No. 9, I-8 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Rayong 21150, Thailand Tel. +66 (0) 3892 5100 Fax +66 (0) 3892 5199					
<b>Nam Theun 2 Power Company Limited (NTPC)</b>		IPP Electricity Generating and supply business using Hydro power	13,477.37 <sup>1</sup> (450,000,000 USD)	2,994.97 <sup>1</sup> (100 USD)	11,186.21 <sup>1</sup> (373,500,000 USD)	35
Office	Unit 9, Tat Luang Road, Nongbone Village, P.O. Box 5862, Vientiane, Lao PDR Tel. (856-21) 263 900 Fax (856-21) 263 901					
<b>G-Power Source Company Limited (GPS)</b>		VSPP Electricity Generating and Supply Business using Solar Power	930	100	930	60
Office	10 <sup>th</sup> Floor, EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999					
Site Office						
- Branch 1	11/1, 111, 111/1 Moo 11, Dong Khon, Sankhaburi, Chai Nat 17140					
- Branch 2	11/1, 111/11 Moo 5, Ta Khit, Banphot Phisai, Nakhon Sawan 60180					
- Branch 3	11, 11/1 Moo 2, Ta Sang, Banphot Phisai, Nakhon Sawan 60180					
- Branch 4	311, 311/1 Moo 2, Sap Samo Thot, Bueng Sam Phan, Phetchabun 67160					

## Joint Ventures (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Natural Energy Development Company Limited (NED)</b>						
Office	188 Moo 3, Wang Ploeng, Khok Samrong, Lopburi, 15120, Thailand	SPP Electricity Generating and Supply Business using Solar Power	2,304	10	2,283	66.67
Site Office	188 Moo 3, Wang Ploeng, Khok Samrong, Lopburi, 15120, Thailand					
<b>PT Manambang Maura Enim (MME)</b> (EGCO Plus is the company's 100% indirect shareholder)						
Office	Gedung Puri Matari 2 Lantai 1, Jl. H.R. Rasuna Said Kav. H1-H2, Jakarta Selatan 12920	COAL MINING industry, covering coal mining, coal trading and shipping	1,562.55 <sup>2</sup> <i>(750,000,000 Thousand Rupiah)</i>	2.0834 <sup>2</sup> <i>(1,000 Thousand Rupiah)</i>	390.64 <sup>2</sup> <i>(187,500,000 Thousand Rupiah)</i>	40
Site Office	Lawang Kidul and Tanjung Enim, Muara Enim City, Sumatera Selatan (South Sumatra) Province 12920, Indonesia					
<b>Kalilayan Power Inc. (Kalilayan)</b> (EGCO Plus is the company's 49% indirect shareholder)						
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	Holding company focusing on investment in electricity generating companies in Philippines	5.58 <sup>3</sup> <i>(9,000,000 PESO)</i>	6.20 <sup>3</sup> <i>(10 PESO)</i>	5.58 <sup>3</sup> <i>(9,000,000 PESO)</i>	49
Overseas Office	62 H. Dela Costa Street, Barangay Daungan Mauban, Quezon Province, Philippines					
<b>San Buenaventura Power Ltd. (SBPL)</b> (EGCO Plus is the company's 49% indirect shareholder)						
Office	EGCO Tower Tel. +66 (0) 2998 5000 Fax +66 (0) 2998 5999	IPP Electricity Generating and supply business using Coal	8,325.97 <sup>3</sup> <i>(13,420,331,000 PESO)</i>	-	8,325.97 <sup>3</sup> <i>(13,420,331,000 PESO)</i>	49
Overseas Office	62 H. Dela Costa Street, Barangay Daungan Mauban, Quezon Province, Philippines					

## Joint Ventures (Cont)

COMPANY		BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Nam Theun 1 Power Company Limited (NT1PC)</b>						
Office	Unit 15, Sithong Road, Pak Thang Village, Sikhottabong District, Vientiane Capital, Lao PDR Tel. +856 (0) 21 550 775 Fax +856 (0) 21 550 771	IPP Electricity Generating and supply business using Hydro power	11,994.85 <sup>/1</sup>  (400,500,000 USD)	2,994.97 <sup>/1</sup>  (100 USD)	11,994.85 <sup>/1</sup>  (400,500,000 USD)	25
<b>E&amp;E Engineering and Service Company Limited (E&amp;E)</b> (ESCO is the company's 40% shareholder)						
Office	Lao-Thai Friendship Road, Thongkang Village, EDL Training Center Building, Sisattanak District, Vientiane Capital, Lao PDR Tel. +856 (0) 21 316 758-59	Operation and Maintenance of NT1PC, other power plants and industries in the Laps PDR	25.87 <sup>/7</sup>  (8,000 Bn. LAK)	258.72 <sup>/7</sup>  (80,000 LAK)	25.87 <sup>/7</sup>  (8,000 Bn. LAK)	40
<b>Paju Energy Service Company Limited (Paju)</b>						
Office	336-234, Hyuam-ro, Paju-eup, Paju-si, Gyeonggi-do, P.O. Box: 10839, Republic of Korea	IPP Electricity Generating and supply business using Natural gas (Imported LNG)	15,180  (550 Bn. KRW)	138  (5,000 KRW)	15,180  (550 Bn. KRW)	49
<b>Thai Pipeline Network Company Limited (TPN)</b>						
Office	349 SJ Infinite I Business Complex 19 <sup>th</sup> Fl. Vibhavadi-Rangsit Rd, Chompon, Chatuchak, Bangkok, 10900, Thailand Tel. +66 (0) 2408 6230-34 Fax +66 (0) 2408 6235	Oil transportation service business with pipeline transportation system	2,450	100	2,450	44.60

## Associate

COMPANY	BUSINESS	REGISTERED SHARE CAPITAL (MILLION BAHT)	PAR VALUE (BAHT)	PAID-UP SHARE CAPITAL (MILLION BAHT)	OWNERSHIP INTEREST (DIRECT+ INDIRECT) (%)
<b>Star Energy Geothermal Pte. Ltd. (SEG)</b> (EGCO Plus is the company's 20% indirect shareholder) Office 120 Robinson Road #08-01, Singapore, 068913	Holding company focusing on investment in geothermal power plants in Indonesia	676.37 <sup>/1</sup>  (22,583,650 USD)	-	676.37 <sup>/1</sup>  (22,583,650 USD)	20
<b>Star Energy Geothermal (Salak - Darajat) B.V. (SEGSD)</b> (EGCO Plus is the company's 20.07% indirect shareholder) Office Herikerbergweg 88 1101 CM Amsterdam, the Netherlands	Holding company focusing on investment in geothermal power plants in Indonesia	0.30 <sup>/1</sup>  (10,000 USD)	-	0.30 <sup>/1</sup>  (10,000 USD)	20.07
<b>Xayaburi Power Company Limited (XPCL)</b> Office 215 Lanexang Avenue, Ban Siang Yuen Chantaburi District, Vientiane, Lao PDR Tel. (856-21) 223 215, 252 060 Fax (856-21) 215 500	IPP Electricity Generating and supply business using Hydro power	26,861	10	26,861	12.50

Note : The Exchange rate as at December 30, 2020

<sup>/1.</sup> 1 USD = Baht 29.9497

<sup>/2.</sup> 1,000 Rupiah = Baht 2.0834

<sup>/3.</sup> 1 PESO = Baht 0.6204

<sup>/4.</sup> 1 AUD = Baht 22.7569

<sup>/5.</sup> 1 TWD = Baht 1.069

<sup>/6.</sup> 1 KRW = Baht 0.0276

<sup>/7.</sup> 100 LAK = Baht 0.3234

## Reference Persons

<b>Regulator</b>	Securities and Exchange Commission, Thailand 333/3 Vibhavadi Rangsit Road, Chomphon, Chatuchak, Bangkok 10900, Thailand Tel. +66 (0) 2033 9999 Fax. +66 (0) 2033 9660 E-mail info@sec.or.th Website www.sec.or.th			
<b>Regulator</b>	The Stock Exchange of Thailand The Stock Exchange of Thailand Building, 93 Ratchadaphisek Road, Dindaeng, Bangkok 10400, Thailand Tel. +66 (0) 2009 9000 Fax. +66 (0) 2009 9991 Call Center +66 (0) 2009 9999 E-mail SETCallCenter@set.or.th Website www.set.or.th			
<b>Share and Debenture Registrar</b>	Thailand Securities Depository Company Limited 93 Ratchadaphisek Road, Dindaeng, Bangkok 10400, Thailand Tel. +66 (0) 2009 9000 Fax. +66 (0) 2009 999 Call Center +66 (0) 2009 9999 E-mail SETContactCenter@set.or.th Website www.set.or.th/tsd			
<b>Auditor</b>	1. Ms. Amornrat Pearmpoonvatanasuk Certified Public Accountant (Thailand) No. 4599 2. Mr. Vichien Khingmontri Certified Public Accountant (Thailand) No. 3977 3. Ms. Rodjanart Banyatananusard Certified Public Accountant (Thailand) No. 8435  PricewaterhouseCoopers ABAS Limited 179/74-80 Bangkok City Tower, 15 <sup>th</sup> Floor, South Sathorn Road, Bangkok 10120, Thailand Tel. +66 (0) 2844 1000 Fax. +66 (0) 2286 5050			

### Details of Senior Vice President – Internal Audit

#### MS. JUTIMA TUNGCHAROENDEE

Age 47

**Dispute** None

**Family Relationship between the Management** None

**Amount of Shares (%)** 0.000

#### Education

- Bachelor of Business Administration Program in Accounting, Rajamangala Institute of Technology

#### Certificate

- Certificate of Professional Internal Auditor of Thailand (CPIAT), The Institute of Internal Auditors of Thailand
- Forensic Accounting Certificate (FAC)

#### Working Experience (During the Recent 5 Years)

2019 - Present	Senior Vice President - Internal Audit, Electricity Generating Public Company Limited
2013 - 2019	Vice President - Internal Audit, Electricity Generating Public Company Limited

## Details of Senior Vice President – Corporate Secretary

### MS. KULKANOK LEONGSOITHONG

Age 50

**Dispute** None

**Family Relationship between the Management** None

**Amount of Shares (%)** 1,000 shares (0.000190)

#### Education

- Master of Arts, University of Kansas, United States of America
- Bachelor of Arts, Chulalongkorn University

#### Certificate

- 2020 - Leading Business through Uncertainties, Thai Institute of Directors Association
- Board War Room Series, Thai Institute of Directors Association
- Independent Director Forum (ID Forum), Thai Institute of Directors Association
- 2019 - Personal Data Protection Act 2020: Process and Practice, ThaiLawTraining
- 2018 - CG Workshop, Assist Your BOD in Leading through Disruption with CG Perspective by Deloitte Thailand
- Independent Director Forum (ID Forum): Tough boardroom situations-independent directors share lessons learned, Thai Institute of Directors Association
- 2017 - Value Creation and Enhancement for Listed Companies with the New COSO 2017
- Enterprise Risk Management (ERM), Faculty of Commerce and Accountancy, Thammasat University
- EGAT Get Ready Program III, Electricity Generating Authority of Thailand and National Institute of Development Administration
- 2016 - Board that Make a Difference, Thai Institute of Directors Association

- IT Governance for Directors, Thai Institute of Directors Association

2015 - Corporate Governance for Executives class 3/2015, Thai Institute of Directors Association

2014 - The Leadership Grid

2013 - Director Certificate Program, 179/2013, Thai Institute of Directors Association

2006 - Effective Minutes Taking 4/2006, Thai Institute of Directors Association

2005 - Corporate Secretary Program 13/2005, Thai Institute of Directors Association

- Business Law, Thammasat University

2004 - Law and Practice for Company Secretary, Chulalongkorn University

1997 - Mini - MBA, Kasetsart University

#### Working Experience (During the Recent 5 Years)

2012 - Present Senior Vice President - Corporate Secretary and Corporate Secretary, Electricity Generating Public Company Limited

### Responsibility of Corporate Secretary

The Board has appointed Ms. Kulkanok Leongsoithong as the Corporate Secretary with the duty and responsibility as prescribed in the Securities and Exchange Act (No. 4) B.E. 2551. Ms. Kulkanok also serves as the secretary to the Board of Directors and Committees including Investment Committee, Nomination and Remuneration Committee and Corporate Governance and Social Responsibility Committee. The Corporate Secretary has the following functions to assist the Board as well as to coordinate with other parties for subsequent actions under the Board's resolution.

- Provide primary advice pertaining to EGCO's regulations and articles of associations, and monitor to ensure regulatory compliance on a regular basis, and report any significant changes to the directors
- Arrange meetings of the shareholders and the Board in accordance with the laws and regulations, including EGCO's articles of associations and best practices
- Prepare minutes of shareholders' and the Board of Directors' meetings, and follow-up to ensure compliance with resolutions of shareholders' and Board meetings
- Ensure that corporate information disclosure to regulatory agencies is in accordance with the laws and the SEC's and SET's regulations
- Communicate with shareholders of their legitimate rights including EGCO's news;
- Facilitate board's activities including director orientation
- Safeguard EGCO's records such as directors' registration, meeting notices, minutes of meetings, annual reports, notices to shareholders' meetings, shareholders' minutes of meetings and reports on directors' and Management's interest.

In 2020, the Corporate Secretary attended seminars and provided opinions on the hearings hosted by the listed company regulators, the Thai Institute of Directors so that information should be used to enhance the efficiency of the Corporate Secretary and corporate governance tasks.



## Dispute

In 2020, EGCO and its subsidiaries had no litigation based on the definition of SEC as follows:

- Legal case that has negative impact on EGCO and its subsidiaries with the size larger than 5% of the shareholders' equity as at the end of the accounting year.
- Legal case that has significant impact of which the value cannot be assessed.
- Legal case which is not related to EGCO's normal business.



# Glossary

## 01

### COMPANIES

BLCP	BLCP Power Limited
BPU	Banpong Utilities Company Limited
BRWF	Boco Rock Wind Farm Pty Limited
CWF	Chaiyaphum Wind Farm Company Limited
DEGCOM	Dawei Electricity Generating Company Management Pte., Ltd.
DGA	Diamond Generating Asia
DGA HK	Diamond Generating Asia Limited
DGA Thailand	DGA Thailand B.V.
E&E	E&E Engineering & Service Company Limited
EGCO, Company	Electricity Generating Public Company Limited
EGCO Cogen	EGCO Cogeneration Company Limited
EGCO Green	EGCO Green Energy Company Limited
EGCO Plus	EGCO Plus Company Limited
EGCO Pearl	EGCO Pearl Company Limited
ESCO	EGCO Engineering and Service Company Limited
Evergreen	Evergreen Power Venture B.V.
Gangdong	Gangdong Fuel Cell Project
GEC	Gulf Electric Public Company Limited
GEN	Gulf Energy Company Limited
Gen Plus	Gen Plus B.V.
GIPP	Gulf IPP Company Limited
GPG	Gulf Power Generation Company Limited
GPS	G-Power Source Company Limited
Greenwing	Greenwing Energy B.V.
Group companies, EGCO Group	Electricity Generating Public Company Limited and its subsidiaries and joint venture companies.
Gunkul	Gunkul Engineering Public Company Limited
GYG	Gulf Yala Green Company Limited

## 01

## COMPANIES

Kalilayan	Kalilayan Power Inc.
KEGCO	Khanom Electricity Generating Company Limited
KLU	Klongluang Utilities Company Limited
Mauban	Mauban Holdings Company Inc.
Millennium	Millennium Energy B.V.
MME	PT Manambang Muara Enim Company Limited
NED	Natural Energy Development Company Limited
New Growth	New Growth B.V.
NGP	New Growth Plus B.V.
NKCC	Nong Khae Cogeneration Company Limited
NT1PC	Nam Theun 1 Power Company Limited
NTPC	Nam Theun 2 Power Company Limited
Paju	Paju Energy Services Company Limited
PEPOI	Pearl Energy Philippines Operating, Inc.
PP	Phoenix Power B.V.
QMS	Quezon Management Service Inc.
QPI	Quezon Power, Inc.
Quang Tri 1	Quang Tri 1 Thermal power plant project
Quezon, QPL	Quezon Power (Philippines) Limited Company
RG	Roi-Et Green Company Limited
RYPP	Rayong Power Plant
SBPL	San Buenaventura Power Limited Company
SCC	Samutprakarn Cogeneration Company Limited
Solarco	Solarco Company Limited
SPP2	SPP Two Company Limited
SPP3	SPP Three Company Limited
SPP4	SPP Four Company Limited
SPP5	SPP Five Company Limited

## 01

## COMPANIES

SPPP	South Pacific Power Pty Limited
SEG	Star Energy Geothermal Pte. Ltd.
SEGSD	Star Energy Geothermal (Salak – Darajat) B.V.
TEPCO	Tokyo Electric Power Company
TEPCO International	Tokyo Electric Power Company International B.V.
TEPDIA	TEPDIA Generating B.V.
TPN	Thai Pipeline Network Company Limited
TWF	Theppana Wind Farm Company Limited
XPCL	Xayaburi Power Company Limited
Yanhee EGCO	Yanhee EGCO Holding Company Limited
Yunlin	Yunlin Holding GmbH
Yunneng	Yunneng Wind power Company Limited

## 02

## GOVERNMENT ORGANIZATIONS

EGAT	Electricity Generating Authority of Thailand
EPPO	Energy Policy and Planning Office
ERC	Energy Regulatory Commission
NEPC	National Energy Policy Commission
PEA	Provincial Electricity Authority
PWA	Provincial Waterworks Authority
SEC	Securities and Exchange Commission
SET	Stock Exchange of Thailand

## 03

## OTHER INSTITUTIONS

COSO	Committee of Sponsoring Organizations of the Treadway Commission
IOD	Thai Institute of Directors
JBIC	Japan Bank for International Corporation

## 04

## TECHNICAL TERMS

Associated Company	A company that: An entity that Listed company or its subsidiary has significant influence but not controlling power. Normally, Listed company or its subsidiary hold 20.00% (twenty percent) of more than but not more than 50.00% (fifty percent) of its overall voting stock.
Controlling Person	<p>A shareholder or person who, through its behavior, can significantly influence the policy, management and operations of a listed company. This is irrespective of the source of its authority: through its rights, contracts, or any others.</p> <p>Specially a “controlling person” includes, but it is not limited to, one who:</p> <p>A) Has direct or indirect voting rights exceeding 25.00% (twenty-five percent) of the total company votes.</p> <p>B) Through its behavior, has control over the appointment or removal of company directors.</p> <p>C) Through its behavior, has de facto control or undue influence over policy, controlling those company members authorized to determine management and operational policies.</p> <p>D) Through its behavior, acts or has the power to act in the same manner as the company management. This includes those who hold other positions in the company, but are able to act in the same manner as the company management.</p>
IPP	Independent Power Producer
Major Shareholder	A shareholder, whose shares in a listed company exceeds 10.00% (ten percent) of the listed company’s overall voting shares.
PDP	Power Development Plan
SPP	Small Power Producer
Subsidiary Company	An entity that is controlled by Listed company or its subsidiary
Joint ventures	An entity that Listed company or its subsidiary has contractually agreed sharing of control over an economic activity. The strategic financial and operating decisions relating to the activity require the unanimous consent of the parties sharing control.
VSPP	Very Small Power Producer

# Performance Summary 2017 - 2020

## ECONOMIC DIMENSION

GRI 201-1: DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED					
PERFORMANCE	UNIT	2017	2018	2019	2020
Sales and Service Income	Baht	30,223,559,318	38,174,192,131	41,055,022,317	35,990,360,237
Operating costs (Excluding Employee Remunerations)	Baht	20,512,962,193	29,966,151,852	29,663,640,885	26,836,951,163
Employee wages and benefits	Baht	1,954,105,893	2,115,617,704	2,257,494,077	2,170,328,543
Dividends paid to shareholders	Baht	3,553,622,137	5,000,975,850	3,553,463,021	3,290,303,850
Investment and financial expenses for lenders	Baht	3,805,853,260	4,023,693,045	3,981,212,498	2,361,914,693
Tax paid to government and local authorities	Baht	1,201,179,751	1,089,771,424	1,575,796,528	1,212,228,961
Payment for the Power Development Fund	Baht	84,352,714	103,313,215	100,257,302	99,791,849
<b>Philanthropic contributions</b>	<b>Baht</b>				
Charitable donations	Baht	472,000,000	16,181,570	8,799,731	12,480,564
Community investments	Baht		218,948,407	113,652,675	113,209,215
Commercial initiatives	Baht	N/A	N/A	46,546,854	72,993,010

GRI 205-2: COMMUNICATION AND TRAINING ABOUT ANTI-CORRUPTION POLICIES AND PROCEDURES					
PERFORMANCE	UNIT	2017	2018	2019	2020
Governance body members that the organization's anti-corruption policies and procedures have been communicated to	Persons	15	15	15	15
	%	100	100	100	100
Governance body members that have received training on anti-corruption	Persons	N/A	1	1	0
	%	N/A	7	7	0
Business partner that anti-corruption policies and procedures have been communicated to	%	100	100	100	100
Employees that anti-corruption policies and procedures have been communicated to	Persons	187	187	171	66
	%	20	17	21	7
Employees that have received training on anti-corruption	Persons	78	150	191	66
	%	4	13	22	7

**GRI 205-3: CONFIRMED INCIDENTS OF CORRUPTION AND ACTIONS TAKEN**

PERFORMANCE	UNIT	2017	2018	2019	2020
Confirmed incidents of corruption and bribery	Cases	0	0	0	0

**GRI 206-1: LEGAL ACTIONS FOR ANTI-COMPETITIVE BEHAVIOR, ANTI-TRUST, AND MONOPOLY PRACTICES**

PERFORMANCE	UNIT	2017	2018	2019	2020
Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	Case	0	0	0	0

**GRI 405-1: DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEES**

PERFORMANCE	UNIT	2017		2018		2019		2020	
		MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
Number of governance bodies by age group									
- Under 30 years	Persons	0	0	0	0	0	0	0	0
	Percentage	0		0		0		0	
- 30 – 50 years	Persons	2	0	1	0	1	0	2	0
	Percentage	13		7		7		2	
- Over 50 years	Persons	11	2	12	2	12	2	10	3
	Percentage	87		93		93		87	

**Supply Chain Management****GRI 308-1: NEW SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL CRITERIA**

PERFORMANCE	UNIT	2017	2018	2019	2020
Percentage of new suppliers that were screened using environmental criteria	%	30.23	41.37	100	100

**GRI 414-1: NEW SUPPLIERS THAT WERE SCREENED USING SOCIAL CRITERIA**

PERFORMANCE	UNIT	2017	2018	2019	2020
Percentage of new suppliers that were screened using social criteria	%	30.23	41.37	100	100

## Reliable Power Supply

### G4-PR5: CUSTOMER SATISFACTION SURVEY RESULTS REPORTED FOR ORGANIZATION

PERFORMANCE	UNIT	2017	2018	2019	2020
Target	%	90.00	90.00	90.00	90.00
Customer Satisfaction Survey	%	92.21	93.30	92.42	93.43
Data Coverage	% of Revenue	54	63	87	87

### G4-EU1: INSTALL CAPACITY BY PRODUCTION PRIMARY ENERGY SOURCE

PERFORMANCE	UNIT	2017	2018	2019	2020
Coal	%	27	22	22	22
Nuclear	%	0	0	0	0
Natural Gas	%	57	65	65	65
Oil	%	0	0	0	0
Hydro (> 10 MW)	%	0	0	0	0
Wind	%	11	9	9	9
Other Renewable	%	5	4	4	4
Installed Capacity	MW	1,887	2,265	2,265	2,265
Net Energy Capacity	GJ	38,874,641	46,716,204	50,283,910	45,888,116
Transmission Loss as a % of total Energy	%	N/A (transmission of electricity is beyond EGCO's operations)			

### G4-EU 30: AVERAGE PLANT AVAILABILITY FACTOR

Coal	%	82.54	80.00	89.96	88.10
Natural Gas	%	95.94	92.32	97.05	97.88

### IF-EU-550A.1: NUMBER OF INCIDENTS OF NON-COMPLIANCE WITH PHYSICAL AND/OR CYBERSECURITY STANDARDS OR REGULATIONS

PERFORMANCE	UNIT	2017	2018	2019	2020
Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	Number of incidents	0	0	0	0

## G4-EU11: AVERAGE PLANT EFFICIENCY

THERMAL PLANTS	UNITS	INSTALLED CAPACITY (MW)	AVERAGE EFFICIENCY (%)	MAIN FUEL SOURCE
KEGCO	2	970	51.07	Gas
EGCO Cogen	1	117	43.11	Gas
KLU	1	122	42.21	Gas
BPU	2	256	43.75	Gas
Quezon	1	502.5	36.02	Coal
RG	1	9.9	16.08	Biomass

## SOCIAL PERFORMANCE

## GRI 102-8: INFORMATION ON EMPLOYEES AND OTHER WORKERS

Performance	Unit	2017			2018			2019			2020		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total employee by employee type													
Total Employees	Persons	966	362	1,328	1,046	315	1,361	1,112	311	1,423	1,094	323	1,417
- Permanent Employee	Persons	727	227	954	858	259	1,117	926	271	1,197	859	267	1,126
- Outsource	Persons	217	132	349	161	52	213	129	34	163	189	52	241
- Staff under O&M Agreement and/or Service Agreement	Persons	22	3	25	27	4	31	57	6	63	46	4	50
Total employee by area													
- Thailand	Persons	561	200	761	668	222	890	650	219	969	661	225	886
- Oversea	Persons	166	27	193	190	37	227	276	52	271	198	42	240

## GRI 401-1: NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER

Performance	Unit	2017			2018			2019			2020		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
New Employee hired by age group													
Total New Hire	Persons	57	17	74	43	25	68	88	23	111	52	19	71
- Below 30 years old	Persons	45	12	57	17	22	39	47	18	65	33	17	50
- 30 - 50 years old	Persons	10	5	15	23	2	25	40	5	45	16	2	18
- Over 50 years old	Persons	2	0	2	3	1	4	1	0	1	3	0	3
Total New Hire Rate	%	7.84	7.49	7.76	5.01	9.65	6.09	9.50	8.49	9.27	6.05	7.12	6.31
Turnover of permanent employee by age group													
Total permanent employee turnover	Persons	31	10	41	19	13	32	39	20	59	36	13	49
- Below 30 years old	Persons	14	7	21	6	7	13	12	9	21	15	1	16
- 30 - 50 years old	Persons	14	3	17	9	6	15	13	2	15	7	7	14
- Over 50 years old	Persons	3	0	3	4	0	4	14	9	23	14	5	19
Total employee turnover rate	%	4.26	4.41	4.30	2.21	5.02	2.86	4.21	7.38	4.93	4.19	4.87	4.35
Voluntary employee turnover rate	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.14	2.62	3.02

## GRI 401-3: PARENTAL LEAVE

PERFORMANCE	UNIT	2017			2018			2019			2020		
		MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
Employee taken parental leave	Persons	4	2	6	8	3	11	17	2	19	19	6	25
Employee returned to work after parental leave	Persons	4	2	6	10	4	14	17	2	19	19	5	24

## GRI 404-1: AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE

PERFORMANCE	2017			2018			2019			2020		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
Training by Employee Type												
- Executive	836	339	1,175	734	147	881	971	527	1,498	160	89	249
- Middle Management	5,882	2,066	7,947	1,632	1,318	2,950	3,929	1,866	5,794	2,898	1,668	4,566
- First-Level Management	11,485	1,986	13,471	3,078	2,323	5,401	3,818	2,181	5,998	2,554	2,805	5,359
- Employee (Non-Management)	69,937	9,115	79,051	18,692	6,026	24,717	17,148	6,463	23,611	10,556	5,562	16,118
Total Training Hours	88,139	13,505	101,644	24,135	9,814	33,949	25,865	11,036	36,901	16,168	10,123	26,291
Training by Topics												
- Environment, Health and Safety	22,622	2,309	24,931	8,561	1,637	10,197	6,119	1,317	7,436	4,590	1,194	5,784
- Code of Conduct	-	-	-	65	3	68	0	51	51	113	178	291
- Anti-Corruption	-	-	-	-	-	-	-	-	-	117	72	189
- Others	65,518	11,196	76,713	15,509	8,174	23,684	19,746	9,669	29,415	11,348	8,679	20,027
Total Training Hours by Topics	88,139	13,505	101,644	24,135	9,814	33,949	25,865	11,036	36,901	16,168	10,123	26,291
Average Training Hours by Employee Types (Hour/person/year)												
- Executive	26.00	42.20	29.68	40.78	24.50	36.71	60.69	105.30	71.31	10.00	17.80	11.86
- Middle Management	53.07	77.20	59.20	34.72	57.30	42.14	95.82	84.80	91.97	67.40	79.40	71.34
- First-Level Management	36.88	34.88	36.14	36.21	41.48	38.30	42.42	38.94	41.08	31.15	46.74	37.74
- Employee (non-management Level)	22.06	23.23	22.31	26.40	34.63	28.02	22.01	34.38	24.42	14.70	30.73	17.93
Total Average Training Hours	25.68	29.63	26.62	28.28	37.40	30.39	27.93	40.72	30.83	18.82	37.91	23.35
Average Training Hours by Topic												
- Environment, Health and Safety	13.52	5.70	12.00	9.98	6.32	9.13	6.61	4.86	6.21	4.20	3.70	4.08
- Code of Conduct	-	-	-	-	-	-	-	-	-	0.10	0.55	0.21
- Anti-Corruption	-	-	-	-	-	-	-	-	-	0.11	0.22	0.13
- Others	39.16	27.64	36.92	18.30	31.08	21.26	21.32	35.87	24.62	10.37	26.87	14.13
Total Average training hours	52.68	33.34	48.91	28.35	37.41	30.45	27.93	40.72	30.83	14.78	31.34	18.55

**GRI 404-3: PERCENTAGE OF EMPLOYEES RECEIVING REGULAR PERFORMANCE  
AND CAREER DEVELOPMENT REVIEWS**

PERFORMANCE	2017			2018			2019			2020		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
- Executive	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
- Middle Management	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
- First-Level Management	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
- Employee (Non-Management)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

**GRI 405-1: DIVERSITY OF EMPLOYEES (PERMANENT EMPLOYEES ONLY)**

Performance	Unit	2017			2018			2019			2020		
		Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total employee by employee category													
- Executive	Persons	17	5	22	18	6	24	16	5	21	16	5	21
	%	77	23	100	75	25	100	76	24	100	76	24	100
- Middle Management	Persons	44	15	59	47	23	70	41	22	63	43	21	64
	%	75	25	100	67	33	100	65	35	100	67	33	100
- First-Level Management	Persons	81	47	128	85	56	141	90	56	146	82	60	142
	%	63	37	100	60	40	100	62	38	100	58	42	100
- Employee (Non-management level)	Persons	585	160	745	708	174	882	779	188	967	718	181	899
	%	79	21	100	80	20	100	81	19	100	80	20	100

**LABOR PRACTICES**

PERFORMANCE	UNIT	2017			2018			2019			2020		
		MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
Employees represented by an independent trade union	Persons	-	-	-	113	21	134	113	21	134	116	24	140
- Labor Union	Persons	-	-	-	109	15	124	109	15	124	101	15	116
- Welfare Committee	Persons	-	-	-	4	6	10	4	6	10	15	9	24
Percentage of employee under supervision of the welfare committee/ Labor union	%			100			100			100			100

## Occupational Health and Safety Performance

GRI 403-9: WORK-RELATED INJURIES					
PERFORMANCE	UNIT	2017	2018	2019	2020
<b>Fatality</b>					
- Employees	Cases	0	0	0	0
- Contractors	Cases	0	0	0	0
Rate of fatality	Cases/Million hours	0	0	0	0
<b>High-consequence work-related Injury</b>					
- Employees	Cases	0	0	0	0
- Contractors	Cases	0	0	0	0
Rate of high-consequence work-related injury	Cases/Million hours	0	0	0	0
<b>Recordable work-related injury</b>					
- Employees	Cases	0	0	1	1
- Contractors	Cases	0	1	1	5
Rate of recordable work-related injury	Cases/Million hours	0	0.16	0.33	0.96
<b>Lost Time Injury Frequency Rate (LTIFR)</b>					
- Employees	Cases/Million hours	0.00	0.00	0.00	0.00
- Contractors	Cases/Million hours	0.00	0.25	0.00	0.75
<b>Injury Frequency Rate (IFR)</b>					
- Employees	Cases/Million hours	0.00	0.00	0.45	0.44
- Contractors	Cases/Million hours	0.00	0.25	0.26	1.26

## ENVIRONMENTAL PERFORMANCE

GRI 302-1: ENERGY CONSUMPTION WITHIN THE ORGANIZATION					
PERFORMANCE	UNIT	2017	2018	2019	2020
A: Non-renewable fuel consumed	GJ	80,348,844	93,704,049	99,664,665	92,163,764
- Coal	GJ	29,769,911	25,215,135	28,548,751	21,642,335
- Gas	GJ	50,362,998	68,266,718	70,936,554	70,380,899
- Other: Diesel oil, Gasoline	GJ	215,935	222,196	179,360	140,531
B: Renewable Fuel consumed: Biomass	GJ	1,236,642	1,118,660	1,226,128	1,311,891
C: Electricity, heating, cooling and steam purchased for consumption	GJ	41,873	47,407	38,962	68,441
D: Electricity, heating, cooling and steam sold	GJ	38,874,641	46,716,204	50,283,910	45,888,116
- Electricity	GJ	38,722,752	44,552,249	48,059,288	43,753,368
- Steam	GJ	151,889	2,163,955	2,224,622	2,134,748
Total energy consumption (A+B+C-D)	GJ	42,752,718	48,153,912	50,645,845	47,655,981
Generation					
Total electricity and steam generation	MWh	11,004,699	13,223,341	14,237,198	13,312,704

GRI 302-3: ENERGY INTENSITY					
PERFORMANCE	UNIT	2017	2018	2019	2020
Energy intensity within organization	GJ/MWh	3.88	3.64	3.56	3.58

GRI 305: GREENHOUSE GAS EMISSIONS (GHGs)					
PERFORMANCE	UNIT	2017	2018	2019	2020
GRI 305-1: Direct (Scope 1) GHG emissions	ton CO <sub>2</sub> e	5,828,891	6,664,845	7,034,130	6,529,416
GRI 305-2: Energy indirect (Scope 2) GHG emissions	ton CO <sub>2</sub> e	6,762	8,670	7,127	10,474
GRI 305-4: GHG emissions intensity (Scope 1)	ton CO <sub>2</sub> e/ MWh	0.53	0.50	0.49	0.49

## GRI 303-3: WATER WITHDRAWAL

PERFORMANCE	UNIT	2017	2018	2019	2020
Total water withdrawal from all areas	m <sup>3</sup>	1,203,249,635	1,132,021,128	1,214,665,915	1,229,830,129
- Surface water (Incl. Water from rivers, lakes)	m <sup>3</sup>	1,203,223,412	4,884,040	4,816,148	5,373,643
- Fresh water (≤1,000 mg/L TDS)	m <sup>3</sup>	N/A	4,884,040	4,816,148	5,373,643
- Other water (>1,000 mg/L TDS)	m <sup>3</sup>	N/A	0	0	0
- Ground Water	m <sup>3</sup>	25,230	34,980	31,083	19,887
- Fresh water (≤1,000 mg/L TDS)	m <sup>3</sup>	N/A	N/A	N/A	19,887
- Other water (>1,000 mg/L TDS)	m <sup>3</sup>	N/A	N/A	N/A	0
- Seawater	m <sup>3</sup>	N/A	1,126,110,005	1,208,701,639	1,223,274,898
- Fresh water (≤1,000 mg/L TDS)	m <sup>3</sup>	N/A	0	0	0
- Other water (>1,000 mg/L TDS)	m <sup>3</sup>	N/A	1,126,110,005	1,208,701,639	1,223,274,898
- Third-party water: Municipal water suppliers or other water utilities	m <sup>3</sup>	993	992,103	1,117,044	1,161,701
- Fresh water (≤1,000 mg/L TDS)	m <sup>3</sup>	993	992,103	1,117,044	1,161,701
- Other water (>1,000 mg/L TDS)	m <sup>3</sup>	0	0	0	0
Total water withdrawal from water stress areas	m <sup>3</sup>	0	0	0	0
Recycled water	m <sup>3</sup>	148,653	157,382	146,698	135,010

## GRI 303-4: WATER DISCHARGE

PERFORMANCE	UNIT	2017	2018	2019	2020
Total water discharge to all areas	m <sup>3</sup>	1,201,789,992	1,127,340,300	1,209,779,948	1,224,580,409
- Surface water	m <sup>3</sup>	534,758,777	806,253	572,692	500,265
- Ground water	m <sup>3</sup>	0	17,539	19,559	69,078
- Seawater	m <sup>3</sup>	667,031,215	1,126,502,145	1,209,041,300	1,223,995,990
- On-site storage	m <sup>3</sup>	0	14,363	146,397	15,076
Total water discharge by water type	m <sup>3</sup>				
- Fresh water (≤1,000 mg/L TDS)	m <sup>3</sup>	534,758,777	838,155	738,648	584,419
- Other water (>1,000 mg/L TDS)	m <sup>3</sup>	667,031,215	1,126,502,145	1,209,041,300	1,223,995,990

## GRI 303-5: WATER CONSUMPTION

PERFORMANCE	UNIT	2017	2018	2019	2020
Water consumption (Water withdrawal - Water Discharge)	m <sup>3</sup>	1,459,644	4,680,829	4,885,967	5,249,720

**GRI 305-7: NITROGEN OXIDES (NO<sub>x</sub>), SULFUR OXIDES (SO<sub>x</sub>), AND OTHER SIGNIFICANT AIR EMISSIONS**

PERFORMANCE	UNIT	2017	2018	2019	2020
- NO <sub>x</sub> emissions	Tons	6,385	6,746	7,649	7,010
- SO <sub>x</sub> emissions	Tons	4,047	5,945	6,661	6,379
- TSP	Tons	782	524	584	295
- Mercury emissions	Tons	0.0000	0.0072	0.0087	0.0037
- SF <sub>6</sub> emissions	Tons	0.0000	0.1000	0.0000	0.0000

**GRI 306-2: WASTE BY TYPE AND DISPOSAL METHODS**

PERFORMANCE	UNIT	2017	2018	2019	2020
<b>Hazardous waste</b>					
Total hazardous waste	Tons	221	111	116	152
- Landfill	Tons	161	65	16	44
- Reuse	Tons	-	-	-	-
- Recycling	Tons	42	24	24	9
- Recovery	Tons	14	19	16	45
- Incineration	Tons	-	-	25	12
- On-site storage	Tons	-	3	25	16
- Other	Tons	3	-	11	27
<b>Non-hazardous waste</b>					
Total non-hazardous waste (excluding ash)	Tons	2,741	1,574	3,148	3,854
- Landfill	Tons	943	910	986	2,179
- Reuse	Tons	-	-	-	-
- Recycling	Tons	606	604	1,347	876
- Recovery	Tons	-	-	3	-
- Incineration	Tons	-	-	-	-
- On-site storage	Tons	-	-	-	0.03
- Composting	Tons	-	57	74	70
- Other	Tons	1,193	-	71	-
<b>Non-hazardous waste (ash only)</b>					
Ash	Tons	45,771	44,029	44,667	52,163
- Landfill	Tons	17,151	14,189	13,561	12,797
- Recycling	Tons	28,620	29,840	31,106	25,676
- Other (Donated)	Tons	0	0	0	13,689

**GRI 306-3: SIGNIFICANT SPILLS**

PERFORMANCE	UNIT	2017	2018	2019	2020
Number of significant spills	Number	0	0	0	0
Total volume of significant spills	Litres	0	0	0	0

**GRI 307-1: NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS**

PERFORMANCE	UNIT	2017	2018	2019	2020
Total number of violations of legal obligations/regulations	Cases	0	0	0	0
- Significant fines	Baht	0	0	0	0
- Non-monetary sanctions	Cases	0	0	0	0
- Case brought through dispute resolution mechanisms	Cases	0	0	0	0



# GRI Content Index

## GLOBAL REPORTING INITIATIVE: CORE STANDARDS

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GRI 102-2	Activities, brands, products, and services	Business Overview (P.18) Products and Services (P.33-42)	
GRI 102-3	Location of headquarters	About this Report (P.17) Business Characteristics (P.30-32)	
GRI 102-4	Location of operations	Investment Map (P.32)	
GRI 102-5	Ownership and legal form	Business Characteristics (P.30)	
GRI 102-6	Markets served	Business Characteristics (P.30)	
GRI 102-7	Scale of the organization	Business Characteristics (P.30) Value Creation (P.66-67)	
GRI 102-8	Information on employees and other workers	Performance Summary 2017–2020 (P.423)	
GRI 102-9	Supply chain	Supply Chain Management (P.138-141)	
GRI 102-10	Significant changes to the organization and its supply chain	In 2020, there were no material changes in EGCO's size, structure, ownership or supply chain.	
GRI 102-11	Precautionary principles or approach	Risk Factors (P.56-65)	
GRI 102-12	External initiatives	About this Report (P.17) Sustainability Development Goals (SDGs) and EGCO Group's Performance (P.76-79)	
GRI 102-13	Membership of associations	EGCO Group's Membership in Other Organizations (P.248-250)	
<b>STRATEGY</b>			
GRI 102-14	Statement from senior decision-maker	Message from the Chairman of the Board of Directors and the President (P.13)	

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ETHICS AND INTEGRITY			
GRI 102-16	Values, principles, standards, and norms of behavior	Corporate Governance (P.218)	
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GRI 102-18	Governance structure	Organizational Structure (P.28-29) Governance Structure (P.165-179)	
GRI 102-19	Delegating authority	EGCO Group's Management for Business Sustainability (P.68-73)	
GRI 102-20	Executive-level responsibility for economic, environmental, and social topics	EGCO Group's Management for Business Sustainability (P.68)	
GRI 102-30	Effectiveness of risk management processes	Risk Factors (P.56-65)	
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GRI 102-41	Collective bargaining agreements	Performance Summary 2017–2020 – Labor Practices (P.426)	
GRI 102-42	Identifying and selecting stakeholders	EGCO Group's Management for Business Sustainability (P.68-73)	
GRI 102-43	Approach to stakeholder engagement	EGCO Group's Management for Business Sustainability (P.68)	
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GRI 102-46	Defining report content and topic boundaries	About this Report (P.17) EGCO Group's Management for Business Sustainability (P.68-74)	
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GRI 102-48	Restatements of information	About this Report (P.17)	
GRI 102-49	Changes in reporting	Revisiting materiality topics and groups of stakeholder	
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GRI 102-54	Claims of reporting in accordance with the GRI Standards	About this Report (P.17)	
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GRI 103-1	Explanation of the material topic and its boundary	All chapters	
GRI 103-2	The management approach and its boundary	All chapters	
GRI 103-3	Evaluation of the management approach	All chapters	
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<b>ECONOMIC VALUE</b>			
GRI 201-1	Direct economic value generated and distributed	Performance Summary 2017–2020 (P.420)	
<b>ANTI-CORRUPTION</b>			
GRI 205-2	Communication and training about anti-corruption policies and procedures	Corporate Governance – Principle 2 Define Objectives that Promote Sustainable Value Creation (P.220-221) Performance Summary 2017–2020 (P.420)	
GRI 205-3	Confirmed incidents of corruption and actions taken	Performance Summary 2017–2020 (P.421)	
<b>ANTI-COMPETITIVE BEHAVIOR</b>			
GRI 206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Performance Summary 2017–2020 (P.421)	
<b>GRI 300: ENVIRONMENTAL PERFORMANCE</b>			
<b>ENERGY</b>			
GRI 302-1	Energy consumption within the organization	Energy Management (P.106-107) Performance Summary 2017–2020 (P.428)	✓
GRI 302-3	Energy intensity	Performance Summary 2017–2020 (P.428)	✓
GRI 302-4	Reduction of energy consumption	Energy Management (P.106-107)	

GLOBAL REPORTING INITIATIVE		PAGE/WEBSITE/NOTES	EXTERNAL ASSURANCE
WATER AND EFFLUENTS			
GRI 303-1 (2018)	Integrations with water as a shared resource	Water and Wastewater Management (P.111-112)	✓
GRI 303-2 (2018)	Management of water discharge-related impacts	Water and Wastewater Management (P.111-112)	
GRI 303-3 (2018)	Water withdrawal	Water and Wastewater Management (P.111-112) Performance Summary 2017–2020 (P.429)	✓ (303-3a)
GRI 303-4 (2018)	Water discharge	Water and Wastewater Management (P.111-112) Performance Summary 2017–2020 (P.429)	✓ (303-4a)
GRI 303-5 (2018)	Water consumption	Water and Wastewater Management (P.111-112) Performance Summary 2017–2020 (P.429)	✓ (303-5a)
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GRI 304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Conservation and Restoration of Ecosystems and Biodiversity (P.113-119)	
GRI 304-2	Significant impacts of activities, products, and services on biodiversity	Conservation and Restoration of Ecosystems and Biodiversity (P.113-119)	
GRI 304-3	Habitats protected or restored	Conservation and Restoration of Ecosystems and Biodiversity (P.113-119)	
EMISSIONS			
GRI 305-1	Direct (Scope 1) GHG emissions	Climate Change (P.98-100) Performance Summary 2017–2020 (P.428)	✓
GRI 305-2	Energy indirect (Scope 2) GHG emissions	Climate Change (P.98-100) Performance Summary 2017–2020 (P.428)	✓
GRI 305-4	GHG emissions intensity	Climate Change (P.98-100) Performance Summary 2017–2020 (P.428)	
GRI 305-5	Reduction of GHG emissions	Climate Change (P.98-100)	

GLOBAL REPORTING INITIATIVE		PAGE/WEBSITE/NOTES	EXTERNAL ASSURANCE
GRI 305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Environmental Management (P.109-110) Performance Summary 2017–2020 (P.430)	✓
EFFLUENTS AND WASTE			
GRI 306-1	Waste discharge by quality and destination	Environmental Management (P.110)	✓
GRI 306-2	Waste by type and disposal methods	Environmental Management (P.110) Performance Summary 2017–2020 (P.430)	✓
GRI 306-3	Significant spills	Performance Summary 2017–2020 (P.430)	✓
ENVIRONMENTAL COMPLIANCE			
GRI 307-1	Non-compliance with environmental laws and regulations	Environmental Management (P.108) Performance Summary 2017–2020 (P.431)	
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GRI 308-1	New suppliers that were screened using environmental criteria	Supply Chain Management (P.138-141) Performance Summary 2017–2020 (P.421)	
GRI 308-2	Negative environmental impacts in the supply chain and actions taken	Supply Chain Management (P.138-141)	
GRI 400: SOCIAL PERFORMANCE			
EMPLOYMENT			
GRI 401-1	New employee hires and employee turnover	Our People (P.120-122) Performance Summary 2017–2020 (P.424)	
GRI 401-2	Benefit provided to full-time employees that are not provided to temporary or part-time employees	Our People (P.125-126)	
GRI 401-3	Parental leave	Performance Summary 2017–2020 (P.424)	
OCCUPATIONAL HEALTH AND SAFETY			
GRI 403-1	Occupational health and safety management systems	Occupational Health & Safety (P. 130-131)	
GRI 403-2	Hazard identification, risk assessments, and incident investigation	Occupational Health & Safety (P. 130-131)	
GRI 403-3	Occupational health services	Occupational Health & Safety (P. 130-131)	

GLOBAL REPORTING INITIATIVE		PAGE/WEBSITE/NOTES	EXTERNAL ASSURANCE
GRI 403-4	Worker participation, consultation, and communication on occupational health and safety	Occupational Health & Safety (P. 130-137)	
GRI 403-5	Worker training on occupational health and safety	Occupational Health & Safety (P.132-134)	
GRI 403-6	Promotion of worker health	Occupational Health & Safety (P.132-134)	
GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Health & Safety (P.130-131)	
GRI 403-8	Workers covered by an occupational health and safety management system	Occupational Health & Safety (P.130-131)	
GRI 403-9	Work-related injuries	Occupational Health & Safety (P.131) Performance Summary 2017–2020 (P.427)	✓ (403-9a and 403-9b)
TRAINING AND EDUCATION			
GRI 404-1	Average hours of training per year per employee	Performance Summary 2017–2020 (P.425)	
GRI 404-2	Programs for upgrading employee skills and transition assistance programs	Our People (P.123-125)	
GRI 404-3	Percentage of employees receiving regular performance and career development reviews	Performance Summary 2017–2020 (P.426)	
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GRI 405-1	Diversity of governance bodies and employees	Performance Summary 2017–2020 (P.426)	
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GRI 412-2	Employee training on human rights policies or procedures	Respect for Human Rights (P.128-129)	
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GRI 413-1	Operations with local community engagement, impact assessments, and development program	Participation in Sustainable Development of Community and Society (P.142-158)	
GRI 413-2	Operations with Significant actual and potential negative impacts on local communities	Participation in Sustainable Development of Community and Society (P.142-158)	

GLOBAL REPORTING INITIATIVE		PAGE/WEBSITE/NOTES	EXTERNAL ASSURANCE
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GRI 414-2	Negative social impacts in the supply chain and actions taken	Supply Chain Management (P.138-141)	
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GRI 415-1	Political contributions	EGCO Group's Membership in Other Organizations (P.248-249)	
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GRI 418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Credibility Management and Customer's Satisfaction (P.104-105)	
SOCIOECONOMIC COMPLIANCE			
GRI 419-1	Non-compliance with laws and regulations in the social and economic area	Participation in Sustainable Development of Community and Society (P.142-158)	
G4 SECTOR DISCLOSURE: ELECTRIC UTILITIES			
G4-PR5	Customer satisfaction survey results reported for organization	Credibility Management and Customer's Satisfaction (P.104-105) Performance Summary 2017–2020 (P.422)	
G4-EU1	Installed capacity, broken down by primary energy source and by regulatory regime	Investment Map (P.32) Generating Capacity (P.102-104) Performance Summary 2017–2020 (P.422)	
G4-EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime	Investment Map (P.32) Generating Capacity (P.102-104) Performance Summary 2017–2020 (P.423)	
G4-EU30	Average plant availability factor by energy source and by regulatory regime	Generating Capacity (P.102-104) Performance Summary 2017–2020 (P.422)	
SASB IF-EU-550a. 1	Number of incident of non-compliance with physical and/or cybersecurity standards or regulations	Cybersecurity & Privacy Protection (P.95-97) Performance Summary 2017–2020 (P.422)	



# LR Independent Assurance Statement

## Relating to Electricity Generating Public Company Limited's Environmental and Social Disclosures within the Sustainability Report for the calendar year 2020

This Assurance Statement has been prepared for Electricity Generating Public Company Limited in accordance with our contract but is intended for the readers of this Report.

### Terms of engagement

Lloyd's Register Quality Assurance Ltd. (LRQA) was commissioned by Electricity Generating Public Company Limited (EGCO) to provide independent assurance on the environmental and social disclosures within its Sustainability Report 2020 ("the Report") against the assurance criteria below to a limited level of assurance and at the materiality of the professional judgement using LR's verification procedure. LR's verification procedure is based on current best practise and uses the principles of AA1000AS (2008) - inclusivity, materiality, responsiveness and reliability of performance data and processes defined in ISAE3000.

Our assurance engagement covered fourteen of EGCO's operations and activities in Thailand, Australia and Philippines and three subsidiary companies and specifically the following requirements:

- Reviewing whether the selected environmental and social disclosures within the Report have taken account of GRI Sustainability Reporting Standards (2018), and then
- Evaluating the reliability of data and information for the selected environmental and social disclosures listed below <sup>1</sup>:
  - Environmental: 302-1, 302-3, 303-1, 303-3a, 303-4a, 303-5, 305-1, 305-2, 305-7, 306-1, 306-2, 306-3
  - Social: 403-9a, 403-9b

Our assurance engagement excluded EGCO's operations and activities outside Thailand except only for Quezon Power (Philippines) Limited Co. and Boco Rock Wind Farm Pty Ltd. It also excluded the data and information of EGCO's suppliers, contractors and any third-parties mentioned in the Report.

LR's responsibility is only to EGCO. LR disclaims any liability or responsibility to others as explained in the end footnote. EGCO's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the Report and for maintaining effective internal controls over the systems from which the Report is derived. Ultimately, the Report has been approved by, and remains the responsibility of EGCO.

### LR's Opinion

Based on LR's approach nothing has come to our attention that would cause us to believe that EGCO has not:

- Met the requirements above
- Disclosed reliable data and information for the selected environmental and social disclosures as no errors or omissions were detected
- Covered all the issues that are important to the stakeholders and readers of this Report.

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier.

**Note:** The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

### LR's approach

LR's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

<sup>1</sup> GHG quantification is subject to inherent uncertainty.



- Assessing EGCO's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this through reviewing documents and associated records.
- Reviewing EGCO's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by checking that the Report covered sector specific issues. We also reviewed whether business decisions made by EGCO's management were informed and if any opportunities have been created that contribute towards sustainable development.
- Auditing EGCO's data management systems to confirm that there were no significant errors, omissions or mis-statements in the Report. We did this by reviewing the effectiveness of data handling procedures, instructions, and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the Report.
- Undertaking remote audits, using IT platforms, to check how data management systems were applied at sites sampled (QPL, BRWF, SPP4, BPU and RG power plant) as well as sampling the reliability of sites' data and information for the selected environmental and social disclosures.

Note: LRQA did not verify the data back to its original sources, nor did it assess the accuracy and completeness of the data reported by individual locations

## Observations

Further observations and findings, made during the assurance engagement, are:

- **Stakeholder inclusivity:**  
We are not aware of any key stakeholder groups that have been excluded from EGCO's stakeholder engagement process. However, EGCO should continue to engage with overseas stakeholders so that EGCO can develop their understanding of material issues with a regional context.
- **Materiality:**  
Although EGCO has disclosed all expected material issues, their priority sometimes differs when compared with their peers. We believe that EGCO should re-evaluate the materiality determination process to:
  - better reflect stakeholders' perception of regional issues, such as biodiversity and environmental management, and
  - ensure that those material issues which are prioritised as high inform EGCO's sustainable development plans.
- **Responsiveness:**  
EGCO has systems in place to respond to stakeholder concerns near its power stations and also the material issue of climate change. For climate change, EGCO has a long-term strategy to reduce GHG emissions by increasing the mix of renewable fuels in its portfolio as well as maintaining biodiversity systems. We believe that EGCO's next report should respond in detail on the material issue of waste disposal management. In particular, EGCO should report on how it plans to achieve "zero to landfill". For example, EGCO may wish to explain alternatives to landfill disposal.
- **Reliability:**  
Although EGCO has established a central data collection management system to obtain data and information from each facility, we would recommend that EGCO introduce a QA/QC process at the central office to ensure the accuracy of data prior to its further processing and disclosure. Likewise, EGCO should review their data collection procedure to ensure that all facilities understand and implement the requirements consistently.

## LR's standards, competence and independence

LR implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 *Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition* and ISO/IEC 17021 *Conformity assessment – Requirements for bodies providing audit and certification of management systems* that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants.

LR ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.



The verification is the only work undertaken by LR for EGCO and as such does not compromise our independence or impartiality.

Signed

Dated: 3 March 2021

A handwritten signature in black ink, appearing to read 'Nit Tanasuthiseri'.

Nit Tanasuthiseri,  
LR Lead Verifier

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