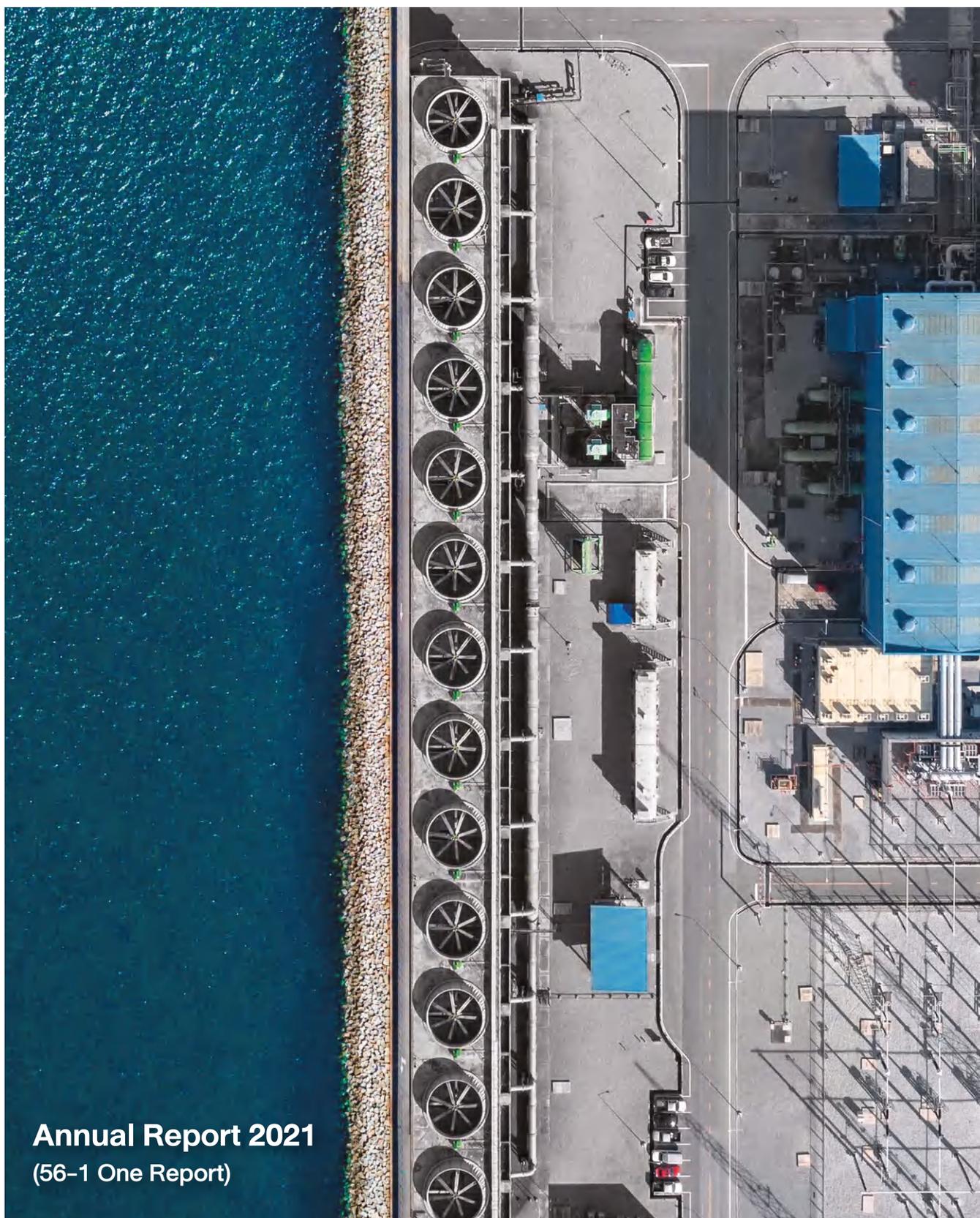




Gulf Energy Development Public Company Limited



Annual Report 2021
(56-1 One Report)

This 56-1 One Report is intended to highlight the Company's performance on key issues. The information contained in this report covers all associates, joint ventures and subsidiaries under Gulf Group. The report is produced at the beginning of each year and reflects data about the Company's activities from 1 January to 31 December of the previous year (unless otherwise stated). External assurance for selected topics may be found at the end of the report. In case where this 56-1 One Report refers to information published on the Company's website (www.gulf.co.th), the information published on the website is considered a part of this 56-1 One Report. Questions about this report may be directed to the Investor Relations department.

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G

Goal-Oriented



U nity





earning



F

lexible





MESSAGE FROM THE CHAIRMAN



Handwritten signature of Mr. Viset Choopiban in black ink.

Mr. Viset Choopiban
Chairman of the Board

Dear esteemed investors,

Amid the many challenges that the world and Thailand faced during the COVID-19 outbreak over the past two years, Gulf Energy Development Public Company Limited (“GULF”) managed to achieve record-high core profit in the past year. 2021 also marked the start of a new era of growth for GULF as the first 2 units of its 5,300-megawatt gas-fired IPP power plants commenced commercial operation, with plans to open the remaining phases over the next 3 years. GULF made significant progress with its infrastructure projects with the signing of the Public-Private Partnership contracts for its intercity motorway projects and deep-sea container port project. GULF

also expanded its business into digital infrastructure to capture the exponential growth in that sector, starting with its investment in a telecommunications and technology company and its venture into the data center and digital asset exchange businesses. These initiatives are in line with its strategy to grow its business through sustainable value creation.

As a public company, GULF must be agile and be able to adapt to changing global trends and business disruptions to remain relevant. Global concerns over climate change have reshaped the way businesses operate, with a worldwide focus on decarbonization.

GULF realizes the importance of decarbonization and would like to reiterate once again its No Coal Policy. In addition, long-term business strategies have been developed to increase its investments in renewable energy to comprise no less than 30% of its total energy portfolio by 2030. It is also aiming to reduce its carbon intensity by at least 25% within the same year. To achieve these goals, several M&A opportunities in renewable energy are being studied, both in Thailand and overseas, as well as investments in several hydroelectric power plants in Laos. At the same time, the transition to a low-carbon economy is a gradual process that depends on several external factors and as such, GULF will continue to be involved in gas-fired power projects, which is the cleanest fossil fuel, during the energy transition to ensure energy security and provide affordable energy to all.

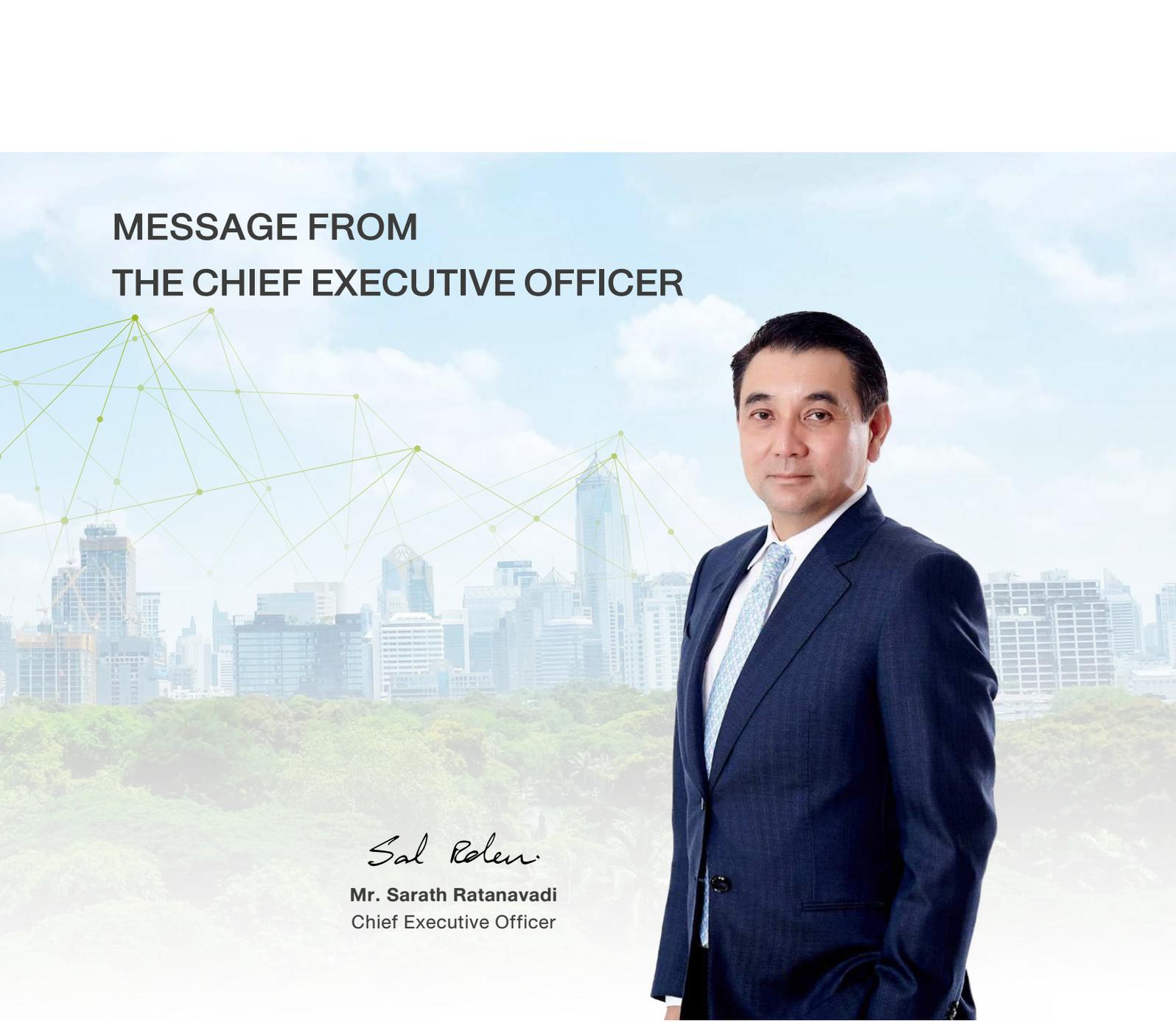
As part of its commitment to grow the business sustainably, GULF places great importance not just on the economic and environmental dimensions but also on the social aspect, and continued to focus on improving the quality of life for its employees, members of the local communities around its projects and the society. In 2021, GULF directed its corporate social responsibility initiatives with contribution of over THB 90 million towards the prevention of COVID-19 and vulnerable groups affected by the virus. Some of these projects included donations to Ramathibodi Hospital for the procurement of high flow oxygen machines, providing meal boxes and GULF CARE home isolation kits to patients under home isolation, community isolation and field hospitals, as well as donations to Thammasat University Hospital for the construction of high-performance smart hemodialysis units. Aside from medical aid programs, GULF also provides jobs for the local communities and promote sustainable coexistence between its power projects and the surrounding communities through the New Theory Agriculture Learning Center and Demonstration Farm, located next to the Gulf Nong Saeng power plant in Saraburi province. Now in its eighth year, the project stretches over 10 rai of land

which comprises of a learning center for providing local farmers and visitors with agricultural knowledge, and a demonstration farm used for organic farming and raising animals. The project has generated close to THB 1 million of income for the local community in the past year.

To ensure continued transparency and accountability of the Company, GULF increased its focus on governance in the past year. The scope of the responsibilities of the Sustainability, Governance and Risk Management Committee was expanded to cover corporate governance. Moreover, it submitted a membership application to the Thai Private Sector Collective Action Against Corruption (CAC) and expanded its risk management to cover corruption risks to demonstrate its commitment to anti-corruption and anti-bribery.

These achievements reflect the hard work and dedication of the GULF family and the support of its stakeholders. On behalf of the Board of Directors, the management and the employees of GULF, I would like to express our heartfelt gratitude to all stakeholders for the trust that they have placed in GULF.

MESSAGE FROM THE CHIEF EXECUTIVE OFFICER



Sarath Ratanavadi

Mr. Sarath Ratanavadi
Chief Executive Officer

Dear valued shareholders,

At present, the world continues to face the challenges which began in previous years. However, whereas 2020 was marked by uncertainty and volatility, I believe 2021 has been a year of strength and hope. For Gulf Energy Development Public Company Limited, this past year has been an opportunity for us to demonstrate our resilience during these unprecedented times. We have been able to manage and move forward through the global crisis, maintaining our responsibility to our shareholders and all stakeholders while also keeping our commitment to economic, environmental and social responsibility.

Nevertheless, if the past is anything to go by, we should expect to encounter even more unprecedented events in the future. We have therefore focused this past year on laying a strong foundation to build up our resilience and enable our Company to successfully navigate the coming changes. These changes include, for example, an even stronger focus on climate action following the discussions at the COP26 conference, a reevaluation of global supply chain management in light of the disruptions caused by the Covid-19 pandemic, and a greater role for telecommunications and digital connectivity in all aspects of life. To prepare for the future, we have expanded our business strategies to capture

opportunities in line with these global trends. More specifically, we have reorganized our business into three main pillars – energy, logistics, and digital – with the aim of building GULF into a leading infrastructure provider that enables sustainable development for Thailand and other countries where we operate.

Under our energy infrastructure business, which is focused on supporting energy security and the energy transition to a low carbon society, we were able to achieve commercial operation of Units 1 and 2 of our GSRC gas-fired power project in Chonburi, Thailand, as planned, as well as expand our gas business through the purchase of additional shares in PTT NGD, a natural gas distribution company, and an increased capacity to import LNG. In addition, we also reorganized our operating renewable energy projects under the umbrella of Gulf Renewable Energy Co., Ltd. and have launched a number of projects under our Gulf1 solar energy solutions and maintenance services business.

In terms of logistics infrastructure, we have executed Public-Private Partnership (PPP) contracts for the Bang Pa-in - Nakhon Rachasima (M6) and Bang Yai - Kanchanaburi (M81) inter-city motorways as well as the Laem Chabang Port Phase 3, Terminal F project, a deep sea container port, which, in addition to our Map Ta Phut Industrial Port Development Phase 3 (Phase 1) project which will include an LNG terminal, will help to strengthen Thailand's role as a leading logistics hub of Southeast Asia.

Furthermore, in this past year we have also taken an important first step into digital infrastructure, a key enabler for Thailand's digital economy transformation. As the world becomes increasingly driven by technology and innovation, there will be rapid growth in the demand for digital infrastructure in all sectors. Thus, in 2021, after completing a major deal to purchase shares in Intouch Holdings PCL, a leader in the telecommunications industry, we established Gulf Innova Co., Ltd. as a flagship company to expand into other digital businesses, such as data centers and digital finance platforms. We will continue to engage in more digital infrastructure and platform opportunities as we believe these projects will help

open doors for us to play a pivotal role in other digital ecosystems, which is well aligned with the Thai government's national strategic direction.

Because we have taken a sustainability-focused management approach, our support for sustainable economic growth runs in parallel with our corporate social responsibility to our employees, local communities, the society and the environment. In 2021, we invested close to 200 million baht in a number of community and social development initiatives including supporting the procurement of medical equipment and services (both Covid and non-Covid related) for national and local hospitals, providing home care and essential needs kits for thousands of families affected by the Covid-19 pandemic, funding educational programs and scholarships for students of all ages across Thailand, promoting local and organic agriculture, and raising awareness about environmental issues within local communities. We also continue to uphold our commitment to conducting business in an ethical manner and have taken steps to strengthening that commitment by submitting our application to the Thai Private Sector Collective Action Against Corruption and expanding the role of our Sustainability and Risk Management Committee to also cover corporate governance. As a result of our efforts, we have been included in the S&P Global Sustainability Yearbook for the second consecutive year and are now also included in the FTSE4Good Index Series.

We have been able to achieve these successes, despite the challenges the whole world has faced, because of the unwavering dedication of our GULF family and the encouragement we have received from the people around us. On behalf of the GULF management and employees, I would therefore like to express our sincere gratitude to all our shareholders, investors and stakeholders for the constant support you have shown us from the very beginning. We will use this support to drive our commitment to building GULF into an internationally successful company that can help lead the way towards a more resilient and sustainable future.

GENERAL INFORMATION



Company name

บริษัท กัลฟ์ เอ็นเนอร์จี ดีเวลลอปเมนท์ จำกัด (มหาชน)
Gulf Energy Development Public Company Limited



Ticker symbol

GULF



Stock exchange

Stock Exchange of Thailand



Industry sector

Energy and Utilities



Company registration number

0107560000231



Type of business

Holding company that invests in a portfolio of conventional and renewable power generation and distribution businesses, including natural gas supply and distribution, infrastructure and utilities business, digital infrastructure business, and other related businesses.



Registered Capital (THB)

11,733,150,000

Paid-up capital (THB)

11,733,149,998

comprised of

11,733,149,998

ordinary shares



Par Value (THB)

1.0

Head Office

87 M. Thai Tower, All Seasons Place, 11th Floor,
Wireless Road, Lumpini Sub-District,
Pathumwan District, Bangkok 10330

☎ : +66 2080 4499 📠 : +66 2080 4455

🌐 : www.gulf.co.th

Corporate Secretary

☎ : +66 2080 4070 📠 : +66 2080 4455 📧 : cs@gulf.co.th

Investor Relations

☎ : +66 2080 4488 📠 : +66 2080 4455 📧 : ir@gulf.co.th

Awards & Recognition



FTSE4Good

Included in the
FTSE4Good
Indexes Series



Received "Excellent" CG
Scoring for 2021



Achieved 100 scores ("Excellent")
from the 2021 Annual General
Shareholders' Meeting Assessment
Project (AGM Checklist)



Included in the List of
Thailand Sustainability
Investment Index (THSI)
2021 for 3rd consecutive year

Sustainability Yearbook
Member 2022

S&P Global

Included in the
Sustainability
Yearbook 2022

Other References

Securities Registrar **Thailand Securities Depository Co., Ltd.**

 93 The Stock Exchange of Thailand Building, Ratchadaphisek Road, Dindaeng Sub-District, Dindaeng District, Bangkok 10400

 +66 2009 9999

 +66 2009 9991

 www.set.or.th/tsd

Auditor **KPMG Phoomchai Audit Ltd.**

Auditor's name Mr. Waiyawat Kosamarnchaiyakij (Certified Public Accountant (Thailand) No. 6333) or Mr. Natthaphong Tantichattanon (Certified Public Accountant (Thailand) No. 8829) or Miss Sophit Prompol (Certified Public Accountant (Thailand) No. 10042)

 50th Floor, Empire Tower 1, South Sathorn Road, Yannawa Sub-District, Sathorn District, Bangkok 10120

 +66 2677 2000

 +66 2677 2222

Debenture Registrar **Bangkok Bank Public Company Limited**

(Only for debentures GULF241A, GULF261A, GULF291A)

 333 Silom Road, Silom Sub-District, Bangrak District, Bangkok 10500

 +66 2230 1478

The Siam Commercial Bank Public Company Limited

(Only for debentures GULF238A, GULF258A, GULF278A, GULF308A)

 9 Rama 9 Rd., Huai Khwang Sub-district, Huai Khwang District, Bangkok 10310

 +66 2128 4625

KASIKORNBANK Public Company Limited

(Only for debentures GULF249A, GULF269A, GULF289A, GULF319A)

 400/22 Phahon Yothin Road, Sam Sen Nai Sub-district, Phaya Thai District, Bangkok 10400

 +66 2470 1987

Debenture Representative **Bangkok Bank Public Company Limited**

(Only for debentures GULF241A, GULF261A, GULF291A)

 333 Silom Road, Silom Sub-District, Bangrak District, Bangkok 10500

 +66 2230 1894

The Siam Commercial Bank Public Company Limited

(Only for debentures GULF238A, GULF258A, GULF278A, GULF308A)

 9 Rama 9 Rd., Huai Khwang Sub-district, Huai Khwang District, Bangkok 10310

 +66 2128 2316-7

KASIKORNBANK Public Company Limited

(Only for debentures GULF249A, GULF269A, GULF289A, GULF319A)

 1 Soi Rat Burana 27/1, Rat Burana Road, Rat Burana Sub-district, Rat Burana District, Bangkok 10140

 +66 2470 1946

SECURITIES AND SHAREHOLDER INFORMATION

Ordinary Shares

As of December 31, 2021, the Company has issued 11,733,149,998 ordinary shares at the par value of THB 1.0 per share.

The ten largest shareholders whose names appear in the shareholders' registration as of December 31, 2021 are as follows:

No.	Major Shareholders	Number of Shares	Shareholding (%)
1.	Group of Mr. Sarath Ratanavadi	8,614,109,219	73.42
	- Mr. Sarath Ratanavadi	4,171,077,797	35.55
	- Mrs. Nalinee Ratanavadi ⁽¹⁾	23,100,000	0.20
	- Gulf Holdings (Thailand) Company Limited ⁽²⁾	551,729,877	4.70
	- Gulf Capital Holdings Limited ⁽³⁾	2,626,240,498	22.38
	- Gulf Investment and Trading Pte. Ltd. ⁽⁴⁾	1,241,961,047	10.59
2.	Thai NVDR Company Limited	439,007,817	3.74
3.	Sino-Thai Engineering & Construction Public Company Limited	220,000,000	1.88
4.	South East Asia UK (Type C) Nominees Limited	158,465,003	1.35
5.	Bangkok Bank Public Company Limited	145,539,022	1.24
6.	Rojana Industrial Park Public Company Limited	109,340,000	0.93
7.	Social Security Office	93,045,100	0.79
8.	State Street Europe Limited	60,182,524	0.51
9.	Asian Development Bank	56,452,800	0.48
10.	TISCO Master Pooled Registered Provident Fund	37,665,480	0.32
	Total	9,933,806,965	84.66

Remarks: ⁽¹⁾ Mrs. Nalinee Ratanavadi is the spouse of Mr. Sarath Ratanavadi.

⁽²⁾ A company limited registered under the laws of Thailand wholly owned by Mr. Sarath Ratanavadi.

⁽³⁾ A company limited registered under the laws of Hong Kong of which Mr. Sarath Ratanavadi is beneficiary.

⁽⁴⁾ A company limited registered under the laws of Singapore of which Mr. Sarath Ratanavadi is beneficiary.

Minor shareholders:

Shareholding percentage of minor shareholders (Free Float) is 26.22% (as of December 31, 2021)

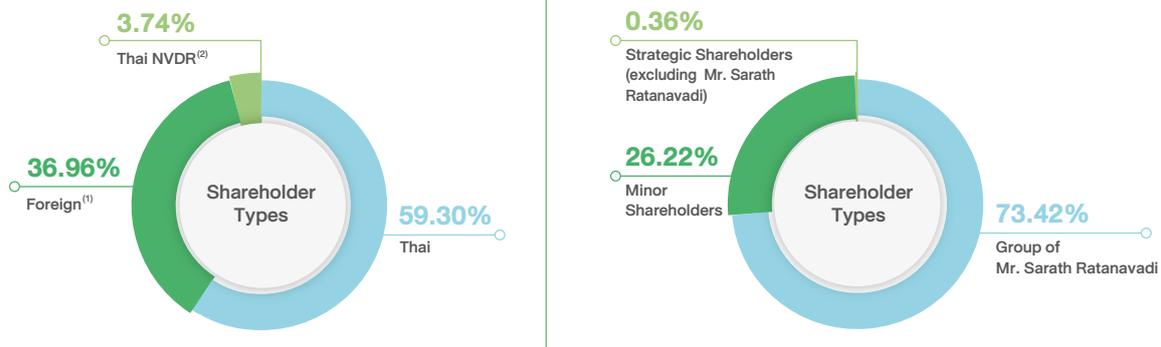
The Company's major shareholder who is a connected person to the Company and participates in management of the Company's operation:

Mr. Sarath Ratanavadi, holding 4,171,077,797 shares or equivalent to 35.55% (as of December 31, 2021)

Shareholders agreements that significantly impact the Company or other shareholders:

The Company does not have any shareholder agreements with the major shareholders of the Company, which could have an impact on the operation of the Company or on other shareholders.

Shareholder Types



Remarks: ⁽¹⁾The Company has a foreign ownership limit of 49%.

⁽²⁾Thai NVDR Company Limited is a company that issues non-voting depository receipts (NVDRs) to both Thai and foreign investors. NVDR shareholders are entitled to the same economic benefits as those who invest in a company's stock; however, NVDR shareholders do not have voting rights at shareholders' meetings.

The share distribution of shareholders as of December 31, 2021

No. of shares	No. of shareholders		No. of shares	
	No. of shareholders	Shareholding (%)	No. of shares	Shareholding (%)
1 – 999	17,380	41.8483	4,900,674	0.0418
1,000 – 10,000	17,692	42.5995	60,132,079	0.5125
10,001 – 100,000	5,121	12.3305	162,493,532	1.3849
100,001 – less than 5% of paid-up shares	1,334	3.2121	3,823,795,474	32.5897
5% or more of paid-up shares	4	0.0096	7,681,828,239	65.4712
Total	41,531	100.0000	11,733,149,998	100.0000

List of major shareholders of the Company's subsidiaries with direct shareholding by the Company and who operate the Company's core business (As of December 31, 2021)

List of Shareholders	IPD		GMP		GRE	
	No. of shares	Shareholding (%)	No. of shares	Shareholding (%)	No. of shares	Shareholding (%)
1. The Company	779,006,665	70.00	946,049,998	70.00	589,174,998	100.00
2. Mit-Power Capitals (Thailand) Limited	333,860,000	30.00	405,450,000	30.00	-	-
3. Mrs. Pornnipa Chinvetkitvanit	1	0.00	1	0.00	1	0.00
4. Mr. Boonchai Thirati	1	0.00	-	-	-	-
5. Mr. Rattaphol Cheunsomchit	1	0.00	1	0.00	1	0.00
Total	1,112,866,668	100.00	1,351,500,000	100.00	589,175,000	100.00

Debentures

As of December 31, 2021, the Company has outstanding debentures in the aggregate amount of THB 47,500 million. The details of which are as follows:

No.	Type of Debenture	Issue Date	Maturity Date	Issue Amount (THB million) ⁽¹⁾	Coupon Rate (%)	Issue Rating / Outlook by TRIS
1/2019 Tranche 1 (GULF221A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	January 25, 2019	January 25, 2022	2,000	2.73	A- / Stable
1/2019 Tranche 2 (GULF241A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	January 25, 2019	January 25, 2024	2,500	3.28	A- / Stable
1/2019 Tranche 3 (GULF261A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	January 25, 2019	January 25, 2026	2,000	3.61	A- / Stable
1/2019 Tranche 4 (GULF291A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	January 25, 2019	January 25, 2029	1,000	3.85	A- / Stable
1/2020 Tranche 1 (GULF238A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	August 19, 2020	August 19, 2023	4,500	2.65	A- / Stable
1/2020 Tranche 2 (GULF258A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	August 19, 2020	August 19, 2025	2,500	3.10	A- / Stable
1/2020 Tranche 3 (GULF278A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	August 19, 2020	August 19, 2027	2,000	3.34	A- / Stable

No.	Type of Debenture	Issue Date	Maturity Date	Issue Amount (THB million) ⁽¹⁾	Coupon Rate (%)	Issue Rating / Outlook by TRIS
1/2020 Tranche 4 (GULF308A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	August 19, 2020	August 19, 2030	1,000	3.46	A- / Stable
1/2021 Tranche 1 (GULF249A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	September 29, 2021	September 29, 2024	12,000	1.74	A- / Stable
1/2021 Tranche 2 (GULF269A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	September 29, 2021	September 29, 2026	6,000	2.48	A- / Stable
1/2021 Tranche 3 (GULF289A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	September 29, 2021	September 29, 2028	3,000	3.01	A- / Stable
1/2021 Tranche 4 (GULF319A)	Name-Registered Unsubordinated and Unsecured Debentures with a Debentureholders' Representative	September 29, 2021	September 29, 2031	9,000	3.40	A- / Stable

Remarks: ⁽¹⁾ The total amount of outstanding debentures issued by the Company shown in the table above is the offering amount of such debentures, which is different from the amount set out in the Company's financial statements due to amortization.

DIVIDEND POLICY

Dividend Policy of the Company

The Company has the policy to pay dividends to the shareholders at **no less than 30.00%** of the Company's separate net profit, after deducting tax, legal reserve and other obligations under financing agreements. However, the Company's dividend payment may be adjusted depending on the Company's performance, cash flow, investment requirements, conditions and restrictions under relevant financing agreements and other relevant considerations in the future. In the case where it is resolved by the Company's Board of Directors to pay annual dividend, the Company's Board of Directors must propose such resolution to the Company's meeting of the shareholders for approval, unless it is an interim dividend payment which the Company's Board of Directors has the authority to authorize dividend payment to the shareholders and will report such payment in the subsequent Shareholders' Meeting.

The Company is a holding company whose income is earned from holding shares in other companies and which does not conduct any significant income-earning business of its own, with its

major assets being investments in subsidiaries and associates. Therefore, the Company's ability to pay dividends mainly depends on the performance of, and payment of dividends by, the Company's subsidiaries and associates.

Dividend Policy of the Company's Subsidiaries

The dividend policy of the Company's subsidiaries is set in accordance with the consideration of the subsidiaries' Board of Directors, subject to the approval of each company's shareholder in the meeting of shareholders each year, provided that the dividend must be paid from its net profit, after deducting tax, legal reserve and other obligations under financing agreements. The amount of dividend payment of each of the Company's subsidiaries depends on its performance, cash flows, investment requirements, conditions and restrictions under relevant financing agreements and any other considerations. The Board of Directors of each subsidiary may also by resolution has authority to authorize dividend payment to its shareholders and such interim dividend payment must be reported to the shareholders of the subsidiary in the subsequent shareholders' meeting.

Dividend payment from the annual operating results can be summarized as follows:

Dividend payment for the annual operating results	Total dividend payment (THB million)	Dividend per share (THB/share) ⁽¹⁾	Dividend payout ratio on net profit according to the separate financial statements of the Company (%)	Dividend payment date
2017	853.3	0.40	49.3	14 May 2018
2018	2,560.0	1.20	78.9	21 May 2019
2019	2,773.3	1.30	89.5	28 April 2020
2020	4,458.6	0.38	87.8	28 April 2021
2021 ⁽²⁾	5,162.6	0.44	87.8	28 April 2022

Remarks: ⁽¹⁾ In 2017 to 2019, dividend per share was calculated based on par value of THB 5.0 per share and in 2020 to 2021, dividend per share was calculated based on par value of THB 1.0 per share.

⁽²⁾ The Company's Board of Directors' Meeting No. 2/2022 dated February 18, 2022 resolved to propose to the Annual General Meeting of Shareholders for the Year 2022 to be held on April 8, 2022 that the dividend payment for the Company's performance ended as of December 31, 2021 be made at the rate of THB 0.44 per share, which amounts to THB 5,162.6 million in total.



BOARD OF DIRECTORS



01

01 Mr. Viset Choopiban

Independent Director /
Chairman of the Board

02

02 Mr. Kasem Snidvongs

Independent Director /
Chairman of Audit Committee

03

03 Mr. Sommai Phasee

Independent Director / Member of
the Audit Committee / Chairman
of the Sustainability, Governance
and Risk Management Committee

04

04 Dr. Raweporn Kuhirun

Independent Director /
Member of the Audit Committee

05

05 Mr. Santi Boonprakub

Independent Director / Member of the
Sustainability, Governance and Risk
Management Committee



06

06 Mr. Sarath Ratanavadi

Director / Vice Chairman of the Board / Chief Executive Officer

07

07 Mrs. Porntipa Chinvetkitvanit

Director / Member of the Sustainability, Governance and Risk Management Committee / Deputy Chief Executive Officer

08

08 Mr. Boonchai Thirati

Director / Deputy Chief Executive Officer

09

09 Ms. Yupapin Wangviwat

Director / Member of the Sustainability, Governance and Risk Management Committee / Chief Financial Officer

10

10 Mrs. Chotikul Sookpiromkasem

Director

MANAGEMENT TEAM



01

01 Mr. Sarath Ratanavadi

Director / Vice Chairman of the Board / Chief Executive Officer

02

02 Mrs. Pornnipa Chinvetkitvanit

Director / Member of the Sustainability, Governance and Risk Management Committee / Deputy Chief Executive Officer

03

03 Mr. Rattaphol Cheunsomchit

Member of the Sustainability, Governance and Risk Management Committee / Deputy Chief Executive Officer

04

04 Mr. Boonchai Thirati

Director / Deputy Chief Executive Officer

05 Ms. Yupapin Wangviwat

Director / Member of the Sustainability, Governance and Risk Management Committee / Chief Financial Officer

05

06 Ms. Bung-on Suttipattanakit

Chief Corporate Planning Officer

06

**07****07 Mr. Ravi Kurmarohita**Chief International Business
Officer**08****08 Mr. Smith Banomyong**Chief Operating Officer -
Group Asset Management &
Investment**09****09 Mr. Worapong Vivatanavanich**Chief Project Development
Officer**10****10 Mr. Tanon Tantisunthorn**

Chief Corporate Affairs Officer

11**11 Mr. Suporn Luckmunkong**

Chief of Public Affairs

12**12 Mr. Jirapat Archalaka**

Chief of Engineering

13**13 Mr. Olarn Srivalattha**

Senior Vice President II - Accounting

BACKGROUND AND KEY MILESTONES

2007

- GHC was established by Mr. Sarath Ratanavadi, as his wholly-owned company

2009

- GHC acquired a 10.0% equity interest in GJP from J-Power

2010

- GHC was awarded 12 gas-fired SPPs

2011

- The Company was established by Mr. Sarath Ratanavadi, as his wholly-owned company
- GHC transferred all of its stake in 12 gas-fired SPPs to the Company

2012

- GHC transferred 10.0% of its stake in GJP to the Company

2013

- IPD, a subsidiary which the Company jointly holds equity interest together with Mitsui & Co., was awarded 2 gas-fired IPPs, GSRC and GPD
- GMP was established by the Company, and the Company transferred all of its stake in the 12 gas-fired SPPs to GMP
- 7 gas-fired SPPs under GJP commenced commercial operation

2014 - 2015

- 2 gas-fired IPPs under GJP commenced commercial operation

2016

- The Company was awarded the GCG biomass project
- The Company acquired an additional equity interest in GJP, from 10.0% to 40.0%

2017

- The Company registered its conversion to a public company limited
- 4 gas-fired SPPs under GMP commenced commercial operation
- The Company's shares were listed and began first trading on the Stock Exchange of Thailand on December 6, 2017

2018

- The Company invested a 35.0% equity interest in Gulf WHA MT with WHAUP and MITG to jointly develop the natural gas distribution business to industrial users
- The Company acquired an additional equity interest in IPD from 51.0% to 70.0% while being entitled to receive 75.0% dividends
- The Company acquired a 49.0% equity interest in solar farm projects GTN1 and GTN2, and Mekong wind power project in Vietnam
- The Company won the bid to develop DIPWP gas-fired power project in Oman, with a 45.0% equity interest in the project
- 4 gas-fired SPPs under GMP and WHA NGD2 commenced commercial operation

2019

- The Company acquired an additional equity interest in GTN1 and GTN2 from 49.0% to 90.0%
- The Company acquired an additional equity interest in Mekong wind project from 49.0% to 95.0%
- The Company invested a 70.0% equity interest with PTT Tank in Gulf MTP which entered into a PPP contract with IEAT for Map Ta Phut Industrial Port Development Phase 3 Project
- 4 gas-fired SPPs under GMP, WHA NGD4 project, GTN1 and GTN2 projects commenced commercial operation

2020

- GCG biomass power plant commenced commercial operation
- The Company invested 49.0% and 35.0% equity interest in HKP and BPP, respectively
- The Company, Mitsui & Co. and TGES invested equally at 33.3% equity interest in BSE, to invest in the power distribution system (through Bangkok Smart Power Company Limited (BSP) which BSE holds 40.0% equity interest) and district cooling system (through Bangkok Smart DCS Company Limited (BSD) which BSE holds 49.0% equity interest) for One Bangkok Project
- The Company changed the par value of its shares from THB 5 per share to THB 1 per share, resulting in an increase in number of shares from 2,133,300,000 shares to 10,666,500,000 shares
- Gulf LNG and HKH obtained LNG shipper licenses to import LNG in the amount of 300,000 tons per year and 1,400,000 tons per year, respectively
- The Company changed the shareholding structure of the project in Oman, from holding 45.0% of shares in DIPWP to holding 49% equity interest at the holding level in Marafiq, which holds 100% equity interest in DIPWP and has exclusive rights to conduct utility businesses in Duqm SEZ
- The Company indirectly invested a 50.0% equity interest in the BKR2 offshore wind project in Germany
- The Company increased its registered capital from THB 10,666,500,000 to THB 11,733,150,000 by offering newly issued ordinary shares to existing shareholders in proportion to their respective shareholdings (Rights Offering) at the allocation ratio of 10:1
- The Company invested a 40.0% equity interest in PTT Natural Gas Distribution Company Limited (PTT NGD)

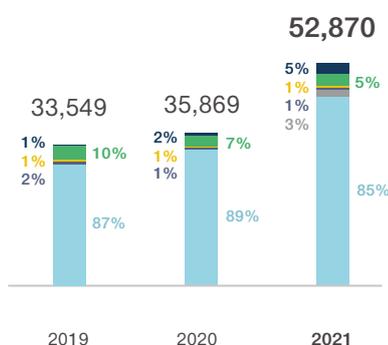
2021

- Gas-fired IPP project GSRC units 1–2 commenced commercial operation
- The Company acquired an additional equity interest in PTT NGD from 40.00 to 42.00%
- The Company invested in ordinary shares of INTUCH and made a tender offer for all securities of INTUCH at the Offer Price of THB 65.00 per share, resulting in the Company holding 42.25% of INTUCH
- BGSR 6 and BGSR 81, joint ventures in which the Company holds 40% equity interest together with BTS STEC and RATCH, entered into PPP contracts with the Department of Highways to operate the Intercity Motorway Bang Pa-In - Nakhon Ratchasima (M6) and Bang Yai - Kanchanaburi (M81) projects
- The Company entered into a Memorandum of Understanding with Singtel to jointly study and develop Data Center business in Thailand
- GPC, an associate in which the Company holds 40% equity interest together with PTT Tank Terminal Company Limited and CHEC OVERSEA INFRASTRUCTURE HOLDING, entered into a PPP contract with the Port Authority of Thailand to develop and operate the Laem Chabang Port Phase 3, Terminal F project
- DIPWP project phase 1 in Oman commenced commercial operation (only for electricity distribution)

FINANCIAL HIGHLIGHTS

	2019	2020	2021
Consolidated Statements of Comprehensive Income (THB mn)			
Total revenues	33,549	35,869	52,870
Revenue from sales, lease contracts under power purchase agreement, management fee, and service concession arrangement	30,040	32,863	47,467
Total cost of sales, service from concession agreement and management fee	(22,791)	(23,702)	(34,388)
Gain (loss) on exchange rate, net	1,003	(134)	(1,075)
Share of profit from an associate and joint ventures	3,205	2,462	2,886
Profit (loss) for the year	7,166	6,144	9,167
Profit (loss) attributable to owners of the parent	4,887	4,282	7,670
Core profit	3,509	4,478	8,812
Consolidated Statements of Financial Position (THB mn)			
Total assets	134,278	245,581	362,674
Total liabilities	85,238	173,501	255,165
Total equity	49,040	72,080	107,509
Total equity attributable to owners of the parent	38,427	64,027	96,596

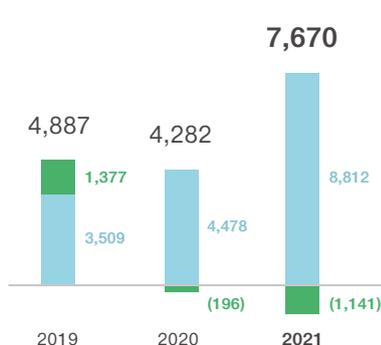
Total revenue breakdown
(THB mn)



Total Revenue

- Other income including interest and dividend income
- Share of profit from an associate and joint ventures
- Revenue from management fee
- Revenue from service from concession agreement
- Revenue from steam sales
- Revenue from lease contracts under power purchase agreement
- Revenue from electricity sales

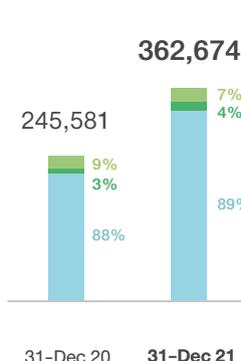
Core profit and net profit attributable to owners of the parent
(THB mn)



Profit attributable to owners of the parent

- Gain (loss) on exchange rate attributable to owners of the parent and unrealized gain (loss) on derivatives of an associate
- Core profit

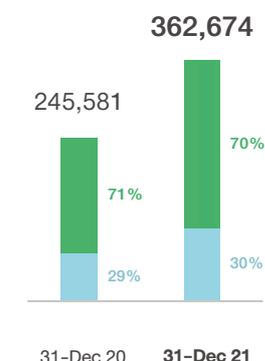
Assets
(THB mn)



Total Assets

- Cash, cash equivalents, and short-term investment
- Other current assets
- Non-current assets

Liabilities and Equity
(THB mn)



Total liabilities and equity

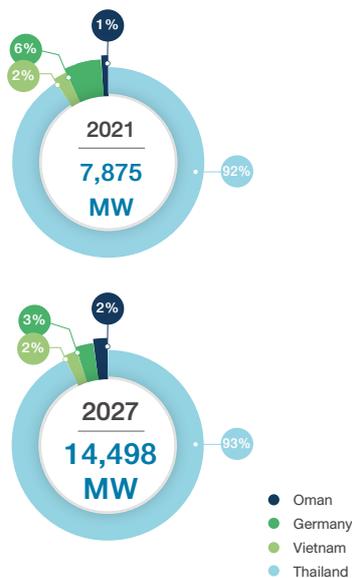
- Total liabilities
- Total equity

	2019	2020	2021
Financial Ratios			
Book value per share (THB)	3.60	5.46	8.23
Basic earnings per share (THB)	0.46	0.39	0.65
Gross profit margin from sales (%)	23.9%	27.6%	27.3%
EBITDA margin ⁽¹⁾⁽²⁾ (%)	31.7%	37.6%	41.9%
Net profit margin ⁽²⁾ (%)	21.4%	17.1%	17.3%
Profit exclude gain (loss) on exchange rate to total revenues ⁽²⁾ (%)	18.4%	17.5%	19.4%
Return on equity (%)	15.3%	10.1%	10.2%
Return on assets (%)	5.6%	3.2%	3.0%
Current ratio (times)	2.20	1.02	1.11
Quick ratio (times)	2.04	0.93	0.92
Debt to equity (times)	1.74	2.41	2.37
Interest-bearing debt to equity (times)	1.57	1.95	2.07
Net debt to equity (times)	1.44	2.09	2.15

⁽¹⁾ EBITDA = Earnings before Interest, Taxes, Depreciation, and Amortization, gain (loss) on exchange rate of the Company and its associates and unrealized gain (loss) on derivatives of PTT NGD

⁽²⁾ Total revenues = revenues from sales and management fee + other income + interest income + dividend income + share of profit from associates and joint ventures

Installed Power Generation Capacity by Geography

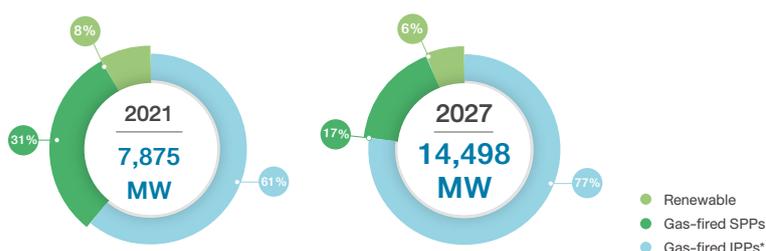


Remarks:

2021: Projects that have commenced commercial operation only

2027: Including projects that are under development/construction, in which installed capacity may be subject to change as appropriate

Installed Power Generation Capacity by Types of Energy Resources



Remarks: *Including gas-fired power project in Oman

2021: Projects that have commenced commercial operation only

2027: Including projects that are under development/construction, in which installed capacity may be subject to change as appropriate

Contracted Power Generation Capacity by Customers (Power Projects in Thailand Only)



Remarks:

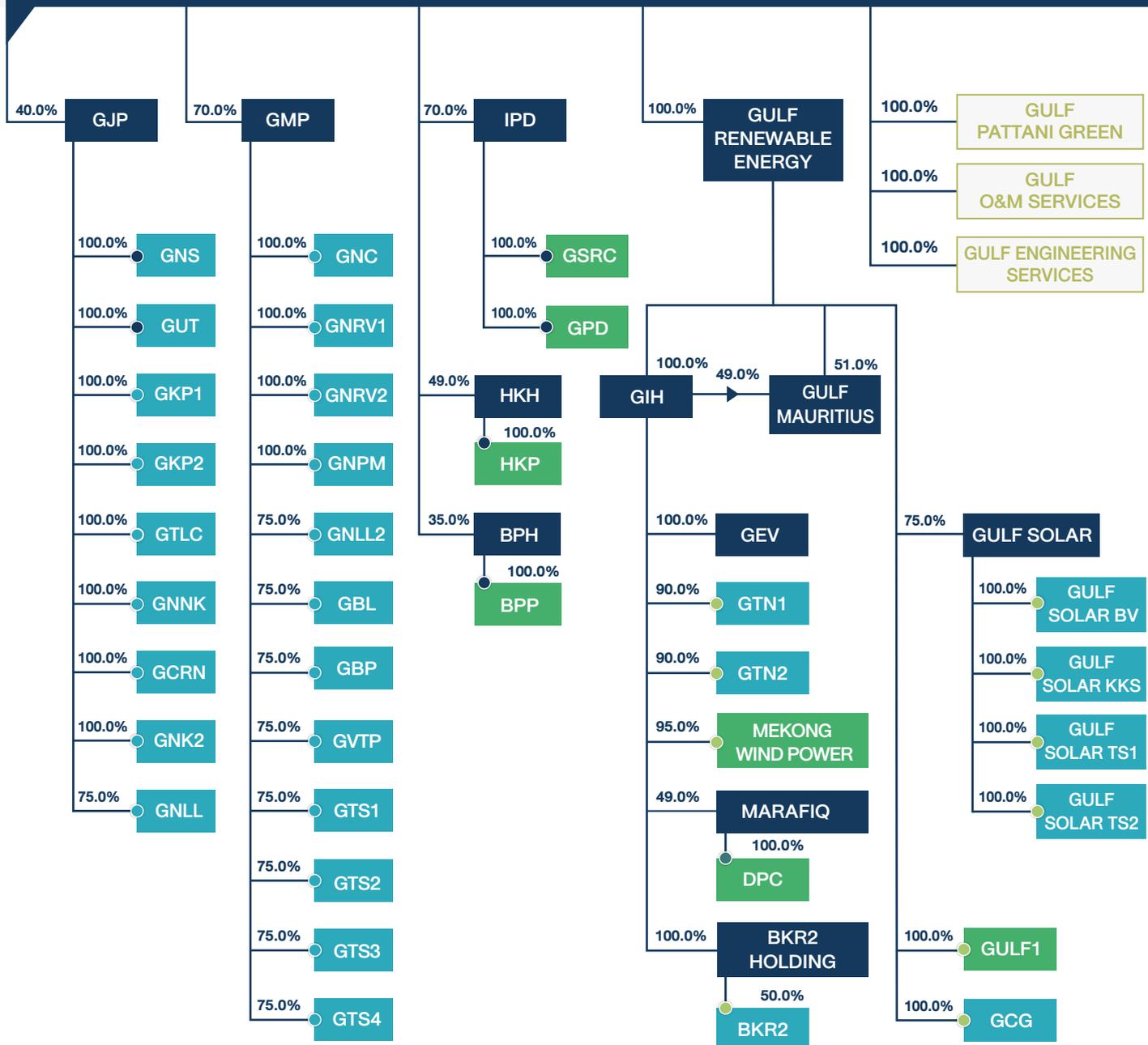
2021: Projects that have commenced commercial operation only

2027: Including projects that are under development/construction

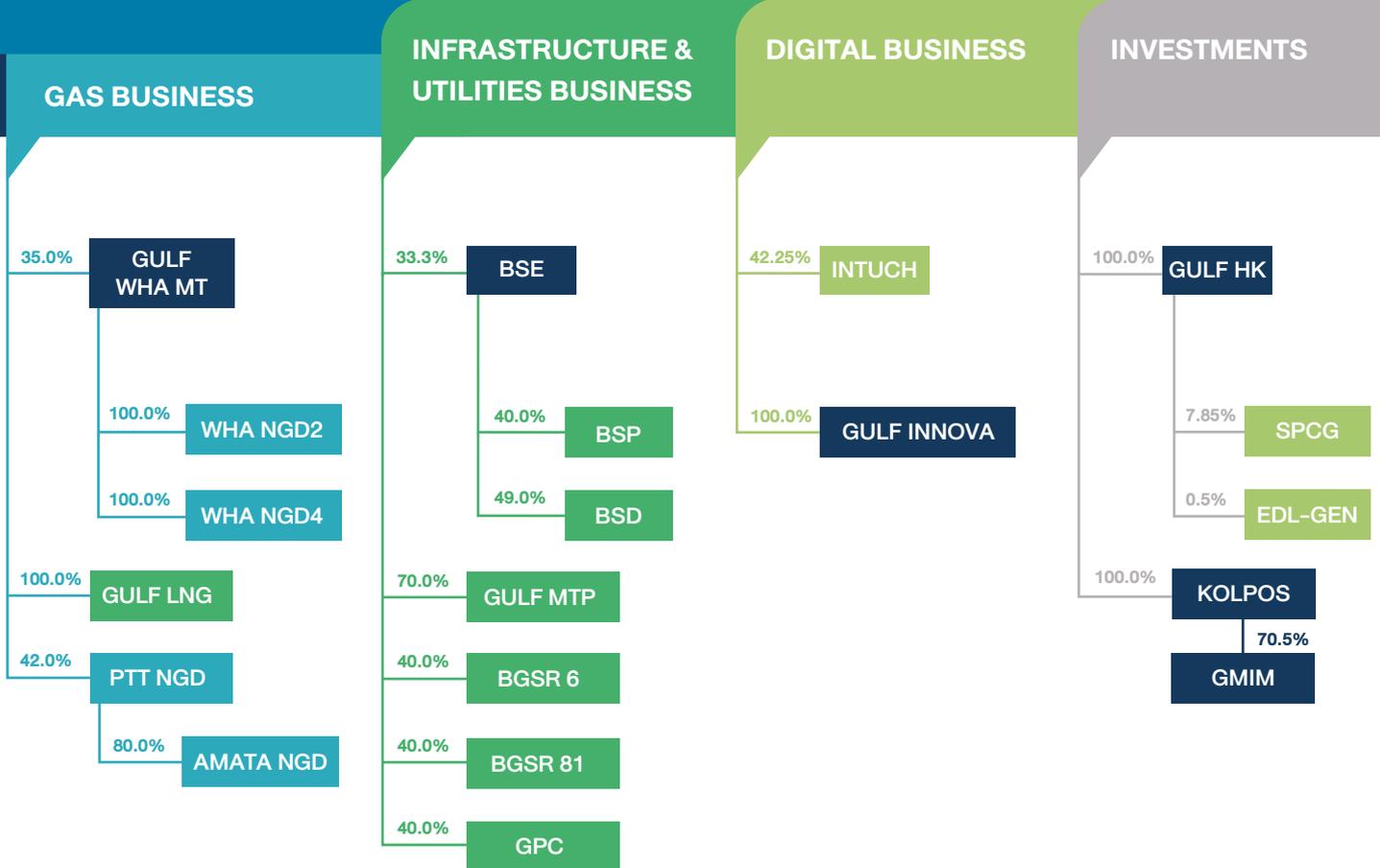
INVESTMENT STRUCTURE

ENERGY BUSINESS

POWER GENERATION BUSINESS (Gas-fired power generation & Renewables)



Data as of December 31, 2021



- POWER GENERATION BUSINESS
- GAS BUSINESS
- INFRASTRUCTURE & UTILITIES BUSINESS
- DIGITAL BUSINESS
- INVESTMENTS

- Holding Company
- Operating Projects
- Under Development / Under Construction
- Investment
- Dormant Entities

- IPP
- SPP
- Renewable
- Captive

01

BUSINESS OPERATION AND OPERATING RESULTS





INDUSTRY OVERVIEW

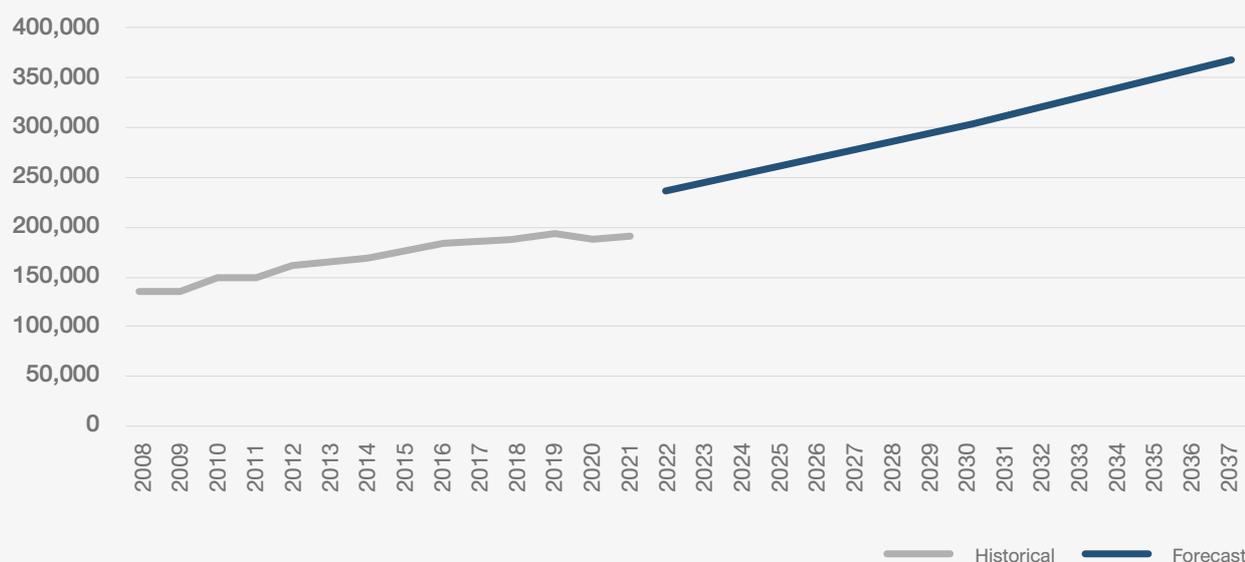
Industry situation and outlook for Power Generation Business

a) Thailand

Based on the database from Energy Policy and Planning Office (“EPPO”), Ministry of Energy, in the year 2021, Thailand's electricity demand was recorded at 190,468 gigawatt-hours, slightly recovered, or increased by 1.8% from the same period of last year. The recovery of electricity demand was mainly from the industrial and household sectors, as the demand in 2020 was abnormally low as a result of the first wave of COVID-19 outbreak in Thailand. Another factor supporting the growing demand in 2021 was from the export sector which grew in tandem with the economic recovery of the world and Thailand’s trading countries. However, the third wave of COVID-19 outbreak in Thailand during the end of 2021 has negatively affected the electricity demand from the business sector. Nevertheless, according to the Bank of Thailand's economic forecast, in 2022, the GDP is projected to expand by 3.4%, which should result in a further recovery in electricity demand in 2022.

Based on EPPO’s database, over the past decade, electricity demand from EGAT increased at a CAGR of 2.5% from 148,855 gigawatt-hours in 2011 to 190,468 gigawatt-hours in 2021. According to the forecast of electricity demand from the 3 electricity authorities as appeared in estimates published in the Thailand’s Power Development Plan 2018–2037 Revision 1 (“PDP2018 Revision 1”), electricity consumption in Thailand will reach 367,458 gigawatt-hours in 2037.

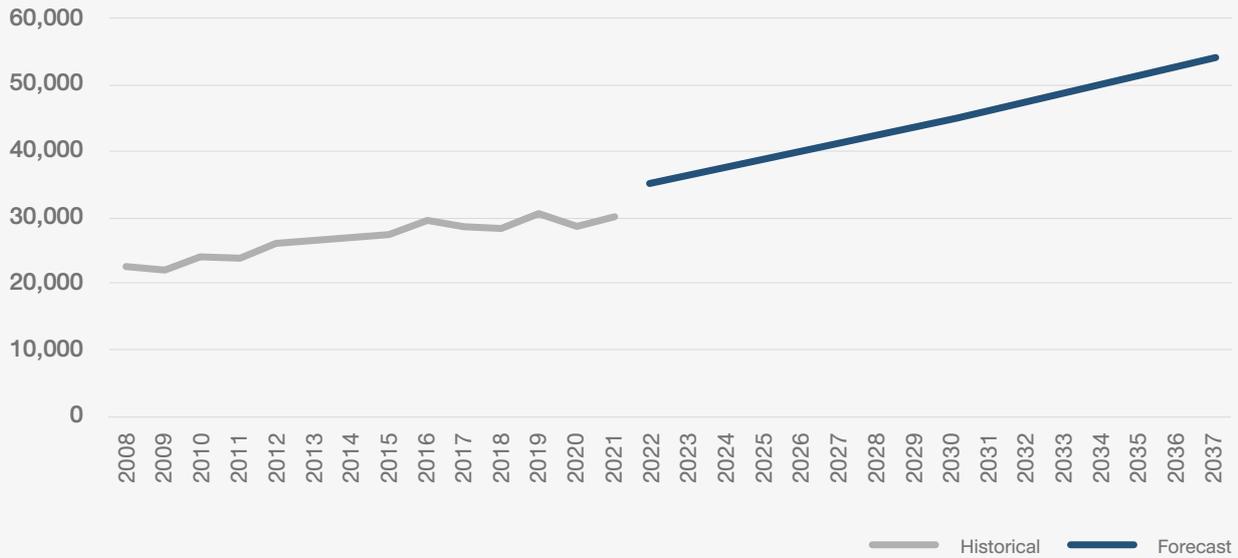
Thailand’s Electricity Consumption in 2008-2037 (Gigawatt-hours)



In 2011-2021, peak power demand increased at a CAGR of 2.3%, with peak power demand increasing from 23,900 megawatts in 2011 to 30,135 megawatts in 2021.

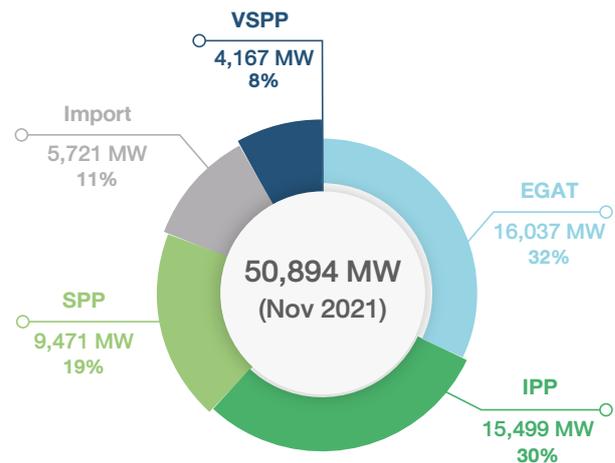
According to PDP2018 Revision 1’s forecast, the peak demand for electricity in 2037 will reach 53,997 megawatts.

Peak Power Demand in Thailand from 2008 to 2037 (Megawatts)



According to EGAT's energy statistics, as of November 2021, total contracted power generation capacity in Thailand was 50,894 megawatts, of which 16,037 megawatts or 31.5% of total power generation capacity was generated by EGAT, 15,499 megawatts or 30.5% was generated by IPPs, 9,471 megawatts or 18.6% was generated by SPPs, and 4,167 megawatts or 8.3% from VSPPs. In addition, Thailand also imported 5,721 megawatts or 11.2% of its total contracted power generation capacity from Lao PDR and Malaysia.

Thailand's Total Contracted Capacity from the Grid (As of November 2021)



Note: The above information includes contracted power generation capacity on EGAT's transmission system but excludes Independent Power Supply (IPS)

Source: Energy Policy and Planning Office (EPPO)

In 2021-2027, Thailand will have contracted capacity from new IPP power plants, which come from four power plant projects under the Group, with a total contracted capacity of 5,690 megawatts or 11.2% of the current contracted capacity. Details are as follows: (Information as of November 30, 2021)

Scheduled Commercial Operation Date (SCOD)	Project Name	Company's Equity Ownership	Location	Type	Source of Fuel	Contracted Capacity (MW)
2022	1. GSRC (units 3&4)	70.00 %	Chonburi	IPP	Natural Gas	1,250.0
2023	2. GPD (units 1&2)	70.00 %	Rayong	IPP	Natural Gas	1,250.0
2024	2. GPD (units 3&4)	70.00 %	Rayong	IPP	Natural Gas	1,250.0
2024	3. HKP (unit 1)	49.00 %	Ratchaburi	IPP	Natural Gas	700.0
2025	3. HKP (unit 2)	49.00 %	Ratchaburi	IPP	Natural Gas	700.0
2027	4. BPP	35.00 %	Chachoengsao	IPP	Natural Gas	540.0

According to PDP2018 Revision 1, Thailand plans to add new power generation capacity of approximately 56,431 megawatts in total to meet future demand for electricity and replace the power plants that will be retired from the system. The PDP2018 Revision 1 will place the most focus on renewable energy, resulting in new capacity from renewable energy power plants of approximately 20,766 megawatts, followed by combined cycle power plants which account for approximately 15,096 megawatts.

Apart from Thailand, the Company is investing in Power Generation Business in other countries namely; Oman, Vietnam, Germany, and Lao PDR, with industry overview in each country as follows:

b) Oman

Based on the Oman Power and Water Procurement's 7-year Statement (2019 – 2025), the peak power demand in the Main Interconnected System (MIS) where Muscat, Oman's capital city, is located, is expected to grow at a CAGR of 3.0-8.0% and to rise to 8,600 megawatts by 2025 from 6,770 megawatts in 2020. Power demand in Rural Areas Electricity Company (RAECO) is expected to grow by 23.0% per annum, resulting in insufficient power generation capacity in RAECO to serve the demand in the area. As such, the Government of Oman has plans to connect the MIS to RAECO in order to improve the efficiency in electricity transmission to meet the electricity demands in all areas. Currently, the source of fuel for electricity generation primarily comes from oil and natural gas; however, the government has issued a policy to increase the use of renewable energy such as solar power and wind power to generate electricity in order to reduce the amount of natural gas usage in the country.

c) Vietnam

Vietnam's economy has been expanding from higher population and industrial growth, with average GDP growth rate of 6% per annum. In this regard, the economic development and population increase has led to increasingly higher electricity demand. As such, the government has issued a policy to increase the country's electricity generation capability as well as support domestic industrial development and growth. Based on The Revised National Power Development Master Plan from 2011–2020 period with the visions extended to 2030

(The Revised PDP VII), it is anticipated that total power generation capacity will reach 97,500 megawatts in 2025, and reach 129,000 megawatts by 2030, which is equivalent to a CAGR of 7.2%. In addition, the government has a policy to develop renewable energy power plants such as solar power, wind power and hydroelectricity, and power generation capacity from renewable energy is expected to account for 38.0% of the total power generation capacity, or equivalent to 49,000 megawatts by 2030.

d) Germany

Germany has the fourth largest economy in the world and the largest in European Union, with the average GDP growth of USD 4.23 trillion, or eight times greater than that of Thailand. Germany has the highest electricity demand in Europe, or more than 448,700 gigawatt-hours, which is three times higher than that of Thailand. According to Germany's PDP or Energiewende 2010-2050, the German government promotes the development of renewable energy to replace nuclear power plants and fossil fuel power plants. According to Fraunhofer ISE, renewable energy utilization accounted for 46% of total electricity consumption in Germany, with renewable energy installed capacity from wind and solar of more than 183.0 gigawatts in 2021, and is likely to increase continuously as a response to the European Union's Net-Zero Carbon Emissions Policy.

e) Lao PDR

According to the World Bank's forecast, Laos will have a GDP growth rate of 3.6% in 2021, with electricity generation and export as key drivers of the country's economy. The government of Laos is in the process of accelerating the development and construction of several power plants, especially hydropower projects, to comply with Lao PDR's policy to become the "Battery of ASEAN", with a total electricity generation target of approximately 29,000 megawatts by 2030.

Industry situation and outlook for Gas Business

For gas business in Thailand, The Natural Gas Management Plan 2018-2037 (Gas Plan 2018) which aims to provide adequate gas supply for the country's demand at the fair price to support economic development while taking into consideration the environmental balance, has specified 4 objectives for Thailand's gas management as follows: 1) Support the gas usage in every sector to reduce air pollution 2) Explore and produce natural gas from petroleum field in the country as well as in joint development areas 3) Develop infrastructures for gas drilling and extraction to fulfill the country's demand, and support the absolute efficiency of the infrastructures 4) Promote competitiveness of natural gas trading business in the country.

According to EPPO's database, Thailand's gas demand in 2021 was recorded at 4,395 million cubic feet per day, an increase of 0.6% from the same period of 2020. In the long-run, Gas Plan 2018 forecasted that Thailand's natural gas demand will increase at an average rate of 0.7% per annum, and will reach 5,348 million cubic feet per day in 2037, 67% of which will be used in power generation, 21% in industrial sector, 11% in gas separation plants, and 1% in transportation sector. With the demand for power generation and industrial sector on a growing trend, in contrast with the gas supply in the Gulf of Thailand that is diminishing, the Gas Plan 2018 forecasted that Thailand will have to increase the amount of imported liquefied natural gas (LNG) from 10.9 million tons in 2021 to 26 million tons in 2037, to support the rise in natural gas demand. At present, there are 8 companies that have acquired LNG shipper licenses from the Energy Regulatory Commission, with 2 of the licensed companies being GULF's subsidiary and associate, namely, Gulf LNG and HKH.

Industry situation and outlook for Infrastructure and Utilities Business

Although Thailand has been developing its infrastructures and utilities projects for a certain period of time, there remains a necessity to develop a large number of projects to serve as building blocks for further development and increase Thailand's competitive advantage on various fronts in accordance with the government's policy, whether it be the quality of life of citizens, transportation network, and economic development, both domestically and internationally. This resulted in the government further pursuing joint investment projects between government agencies and the private sector in order to meet national demands for infrastructure project developments, and a combination in specialization between the government sector and the private sector in utilizing resources, including cutting edge innovation to increase efficiency and promote the quality of service to the public. This can be seen in the number of projects that have been attached to joint government and private sector strategic investment plan according to the Public-Private Partnership (PPP) program, which has been increasing every year. There are currently over 60 infrastructure projects with an aggregate value worth trillions of Thai Baht. Most of the PPP projects are in roads and public transportation areas, e.g. intercity motorway projects by the Department of Highways, double track railway projects by the State Railway of Thailand, skytrain projects by the Mass Rapid Transit Authority of Thailand, industrial port development projects by the Port Authority of Thailand, and other infrastructure projects in the Eastern Economic Corridor (EEC).

Industry situation and outlook for Digital Business

Technology is becoming progressively more crucial in daily life and becoming more important for economic activities. The COVID-19 pandemic acted as a catalyst for accelerating disruptions, leading to higher demand for digital infrastructures such as the implementation of Internet of Things to enable individuals to control various devices with their fingertips, the utilization of 5G technology in telecommunications to speed up connectivity, support a large number of users and allow intercontinental communications in a fraction of a second, or even financial businesses where applications of blockchain technology, which serves as a basis for cryptocurrency and digital assets, have become financial ecosystems with trillions of dollars in circulation. There are also many other uses of digital technology. For these reasons, it is undeniable that digital business is a new industry that will be of great importance in the future, with vast opportunities for all sectors to participate in the development of new businesses. Both the public and private sectors will need to prepare for this rapid transformation to drive the society and economy of the country.



GLOBAL TRENDS

The Company recognizes that changing global trends are driving the world forward. Global trends that have the potential to significantly change the energy industry include decarbonization, decentralization, and digitalization,



DECARBONIZATION

There is a strong emphasis on taking action, in all sectors, to combat the negative impacts of climate change. Global efforts are put towards limiting the rise in global average temperature to 1.5°C as set out in the Paris Agreement. Moreover, at the COP26 conference held in 2021, Thailand has committed to the target to achieve carbon neutrality by 2050 and reach net zero emission by 2065.



DECENTRALIZATION

Improvements in the efficiency of alternative energy technology and storage systems, as well as the significant reduction in cost, have led to an increase in “prosumers” – energy consumers who now also have the capability to act as power producers. Moreover, advancements in grid technology will support the expansion of distributed energy resources that will change the structure of the energy industry across the world.

BUSINESS STRATEGIES

To support its objective of improving the quality of life for people in the society through sustainable value creation while maintaining its competitiveness by evolving with the changing world, the Company has developed the following business strategies:



Driving the energy transition towards low carbon society through increasing investment in renewable energy

The Company endeavors to build on its extensive experience in gas-fired power generation business, which is a fuel that emits lower carbon than other fossil fuels, together with the expansion in investments in renewable energy and other related businesses, to become an internationally-recognized player driving the transition to a low carbon society both domestically and overseas. The Company recognizes the importance of managing greenhouse gas emissions and has given precedence to increase its investment in renewable energy projects with the goal of increasing the proportion of energy generated from renewable sources, comprising of solar power plants, wind power plants, hydroelectric power plants, biomass power plants and waste-to-energy power plants, to at least 30% of its total gross installed capacity by 2030. At the same time, the Company continues to manage its existing projects to maintain the highest levels of efficiency and expects to reduce its carbon intensity by 25% within 2030. To this end, the Company is studying a number of renewable energy projects and continues to uphold its commitment to move towards cleaner energy sources by maintaining its No Coal Policy.



Supporting economic growth through diversification into infrastructure and utilities

The Company understands that strong economic growth is a key part of sustainable development as it drives wealth creation and employment as well as a healthy exchange of knowledge and technology. Thus, in addition to producing electricity that serves as the lifeblood of the industrial sector, the Company aims to support the development of modern and efficient infrastructure projects to promote Thailand’s competitiveness. To this end, the Company has invested in a number of infrastructure and utility projects, including the development of the Map Ta Phut Industrial Port Phase 3 (Phase 1) project, the Laem Chabang Port Development Phase 3 (Terminal F) project, the M6 (Bang Pa-in – Nakhon Rachasima) and M81 (Bang Yai – Kanchanaburi) Intercity Motorway projects, as well as the development of electricity distribution and district cooling system project.

the adoption of which is accelerated by rapid advancements in new and potentially disruptive technologies such as electric vehicles, carbon capture and storage systems, and digital trading platforms.



DIGITALIZATION

The move towards digitalization has resulted in changes and benefits for all sectors. Advancements in technology will make it possible to collect, process, and analyze massive amounts of information as well as connect and communicate efficiently – creating a data-driven society and changes in people's lifestyles. At the same time, advancements in the development of robotics and artificial intelligence will also contribute to the modernization of the industrial workforce and the way businesses operate in the future.



DISRUPTIVE TECHNOLOGIES

The COVID-19 pandemic has demonstrated that the ability to adapt to new circumstances is critical to survive in a disruptive environment where there may be business interruptions or major changes in business operations. With the rapid advancements in technology and the expansion of distributed energy resources, there is strong potential for disruption, not just in the energy industry, but in other sectors as well. Such disruption provides strong opportunities for business in terms of improvement and growth if organizations can adapt quickly.



Enhancing energy security through development of the gas business, in line with the government's strategy

The Company supports the Thailand Integrated Energy Blueprint as well as The Natural Gas Management Plan 2018-2037, which is a part of Thailand's Power Development Plan, that is linked to Thailand's national strategy to promote competition in the natural gas business, including the procurement and management of liquefied natural gas (LNG). As such, the Company has set a strategy to increase its investment in a fully integrated gas business, covering supply and distribution as well as storage and processing of LNG, to support the government's policy. The Company was awarded an LNG shipper license to supply natural gas to power plants and businesses within the Group for approximately 7.8 million tons per annum, with plans to import LNG under short-term and long-term contracts at competitive prices. Moreover, the Company has been developing an LNG terminal project with the capacity of approximately 10.8 million tons per annum located in Map Ta Phut Industrial Port Development Phase 3, which is one of the country's gas infrastructure projects that will support Thailand in becoming a regional LNG hub.



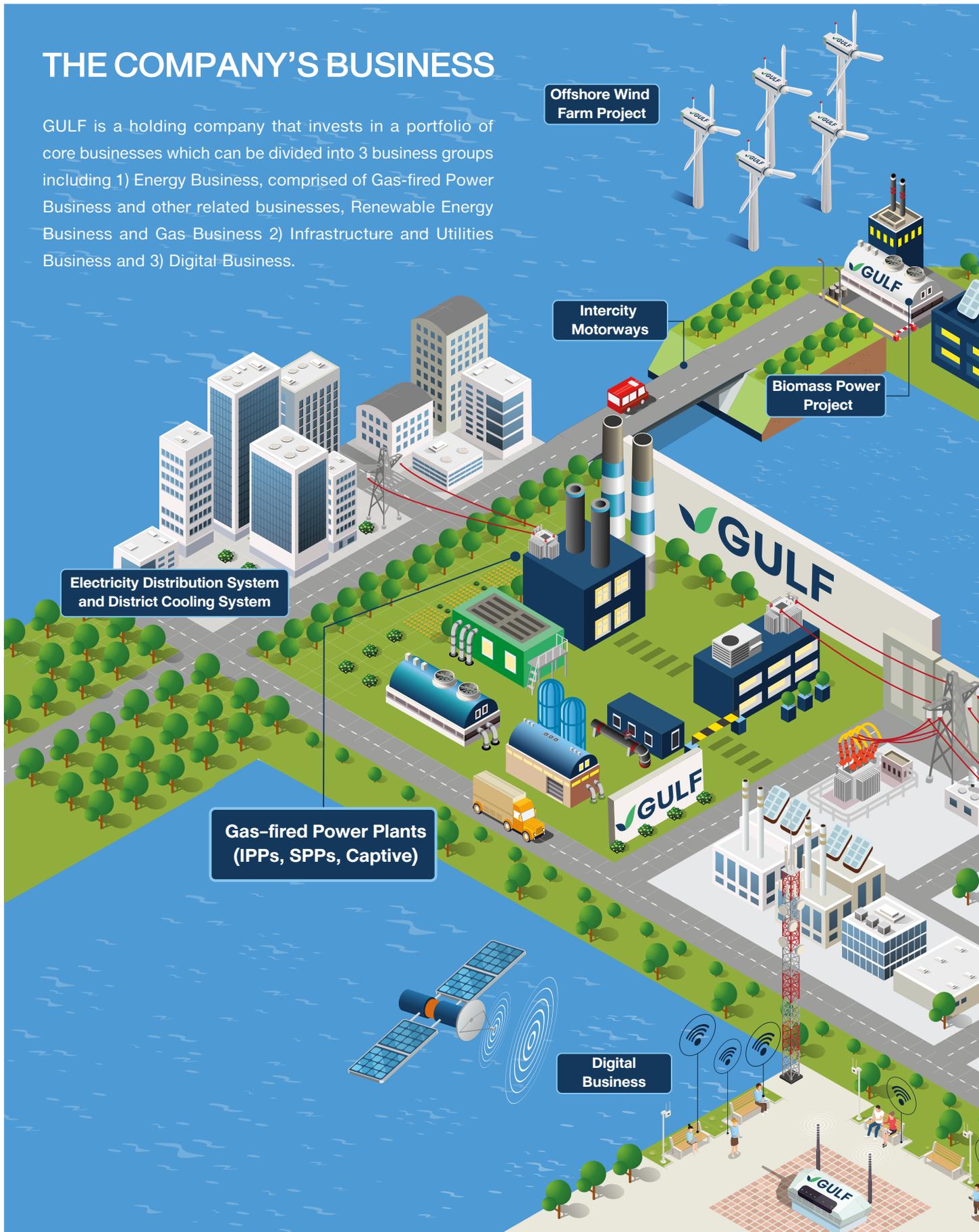
Preparing for the future through investments in digital businesses and new technologies

The Company recognizes various business benefits that innovation and technology provide and has thus made it a major part of its strategy to utilize state-of-the-art technology in all its projects, as well as to use digital tools in its management of the business to achieve the highest levels of efficiency. Furthermore, the Company recognizes that rapid advancements in technology could result in major disruptions not just in the energy industry but in other sectors as well, such as the expansion of distributed energy resources and the shift in consumer behavior towards digital platform. As a result, the Company has diversified its business into digital infrastructure by holding equity stake in INTUCH and studying the data center business in Thailand. The Company also aims to closely monitor and explore new technologies and businesses to ensure that GULF will remain an agile and dynamic company that can maintain sustainable growth for the benefit of its stakeholders.

The Company supports the implementation of its business strategies with sound management practices and good corporate governance, seeking opportunities to form strategic partnerships with key players at the local and global level while maintaining its commitment to corporate social responsibility to ensure that all projects are developed within the set budget and timeframe and operate with high efficiency without neglecting the Company's environmental and social responsibility.

THE COMPANY'S BUSINESS

GULF is a holding company that invests in a portfolio of core businesses which can be divided into 3 business groups including 1) Energy Business, comprised of Gas-fired Power Business and other related businesses, Renewable Energy Business and Gas Business 2) Infrastructure and Utilities Business and 3) Digital Business.



Offshore Wind Farm Project

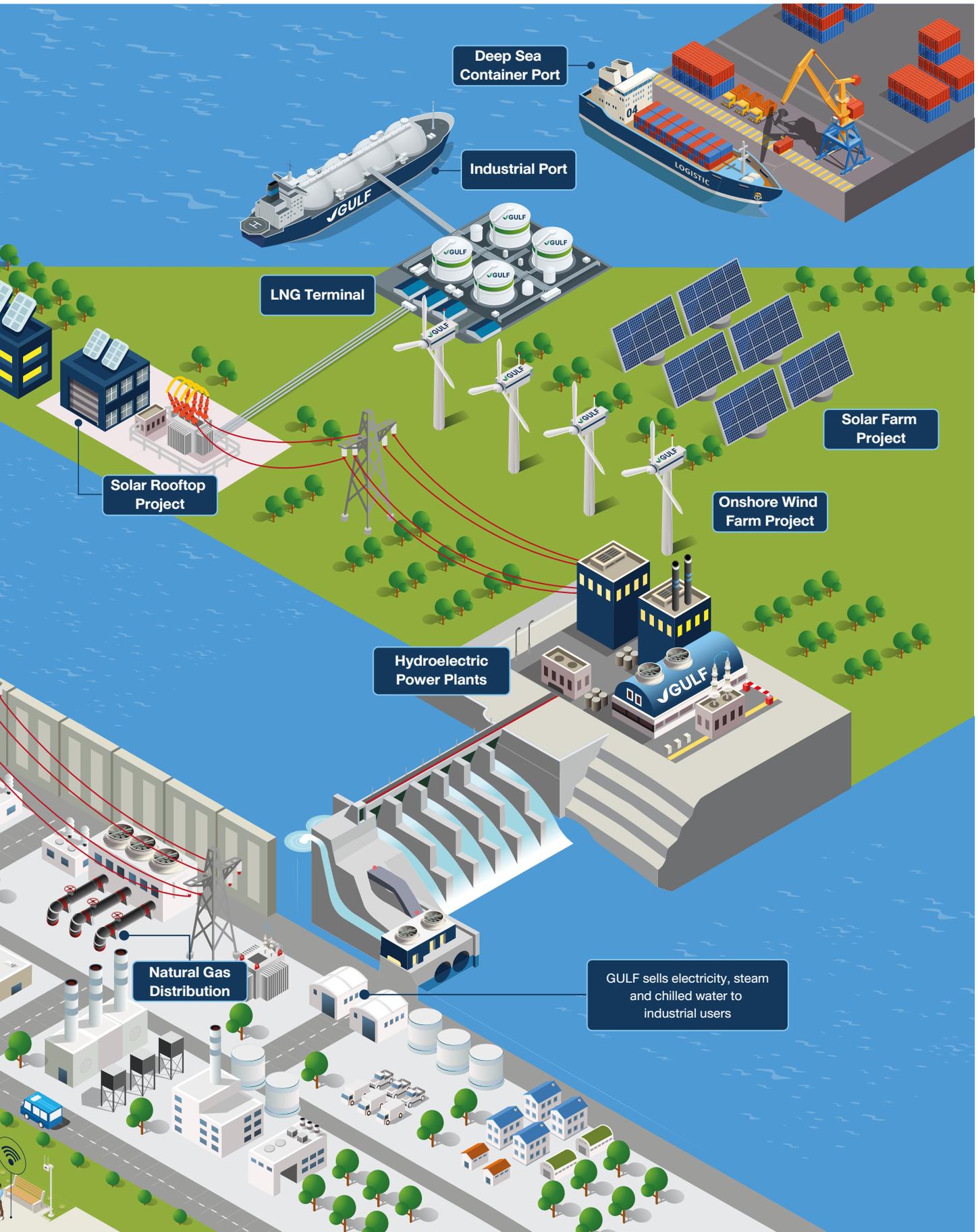
Intercity Motorways

Biomass Power Project

Electricity Distribution System and District Cooling System

Gas-fired Power Plants (IPPs, SPPs, Captive)

Digital Business



1. Power Generation Business

The Company conducts its Energy Business by investing in the development, construction, and operation of gas-fired power plants and renewable power plants, which have long term power purchase agreements with governments or strong and stable private sectors, through its subsidiaries and associates. GULF also invests in the development, construction, and operation of Gas Business, which is the Company's and the country's main source of fuel for electricity generation, to diversify into the upstream business for the Gas-Fired Power Generation Business. The Gas Business under Group comprised of the Natural Gas Distribution Business, LNG Shipper Business, and LNG Terminal Business.

As of December 31, 2021, power plants in operation under the Group had a total installed capacity of 7,875 megawatts and equity installed capacity of 3,951 megawatts. The Group also has projects under development and construction which will add 6,622 megawatts to the total installed capacity, of which equity installed capacity is 4,054 megawatts. Once the projects under development and construction achieve commercial operation in 2027, the Group will have a total installed capacity of 14,498 megawatts combined with the total installed capacity from operating projects, of which equity installed capacity will be 8,005 megawatts.

For Gas Business, the Natural Gas Distribution Business under the Group has already achieved commercial operation while the LNG Shipper Business and LNG Terminal Business, which is under preparation and development phase, will become a vital part in supplying fuel to the Group's power plants as well as strengthen the country's energy security in the future.

1.1 Power Generation Business

1.1.1 Gas-fired Power Business

The Company invests in the development, construction and operation of gas-fired power plants to support the growing electricity demand of the country, which is necessary for industrial and economic growth. Gas-fired power plant is a baseload power plant which can generate electricity steadily and continuously, and will be a bridge to the transition to a low-carbon society. The gas-fired power plants under GULF's group

can be divided into 3 categories based on the type of power purchase agreement:

a) IPP Power Projects

The Group operates, constructs and develops 6 gas-fired IPP (Independent Power Producer) power projects, with a total installed capacity of 4,786 megawatts in operation and 6,401 megawatts under construction / development, all of which are located in Thailand and generate and sell electricity to EGAT under a 25-year power purchase agreement.

b) SPP Power Projects

The Company operates 19 gas-fired SPP (Small Power Producer) power projects in Thailand with a total installed capacity of 2,474 megawatts, all of which are under operation and sell 70.0%-80.0% of the electricity generated to EGAT under a 25-year power purchase agreement which begins when the project achieves commercial operation. Electricity sold to EGAT is distributed through EGAT's country-wide transmission network from where it is then sold to PEA and MEA who then distribute it to consumers across the country. In addition, the gas-fired power projects also sell electricity, steam and chilled water to industrial users under power purchase agreements with certain groups of industrial users.

c) Captive Power Plant Project

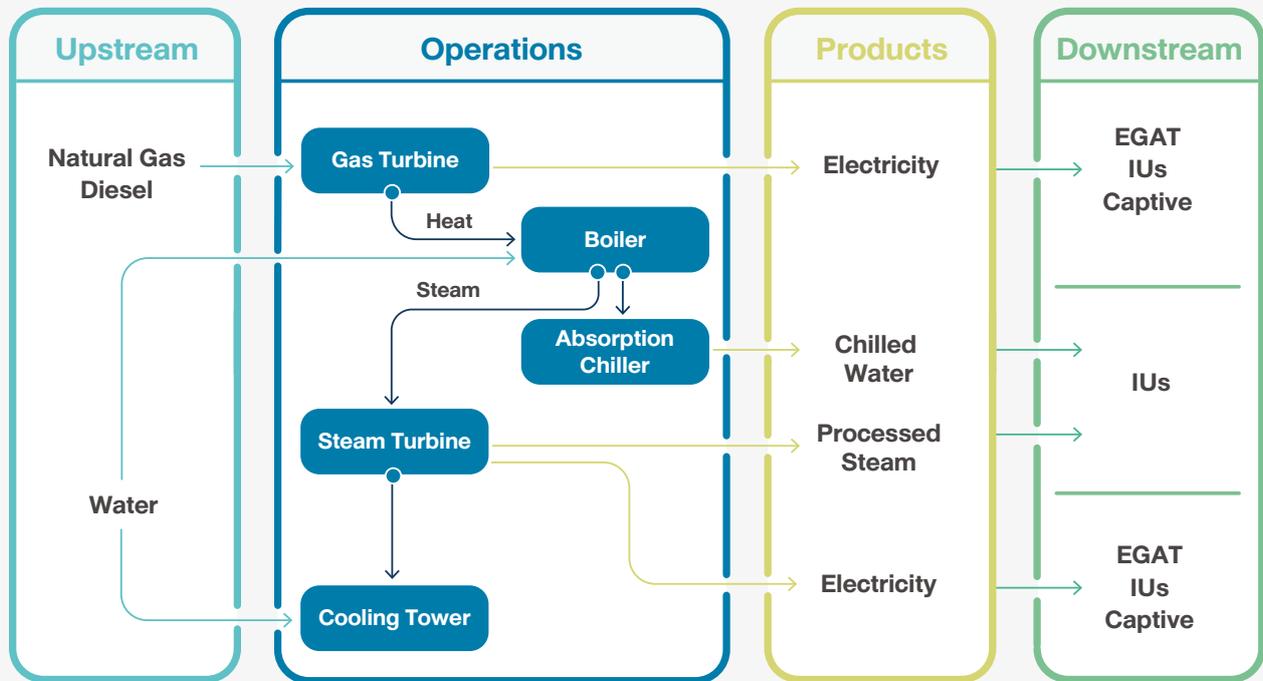
The Group's gas-fired captive power plant is located in the Duqm Special Economic Zone (Duqm SEZ) in Oman, with a total installed capacity of approximately 326 megawatts and an installed water generation capacity of approximately 1,667 cubic meters per hour. The project supplies power and water to DRPIC refinery under a 25-year long-term power purchase agreement commencing from the commercial operation date and also has been granted exclusive rights to operate a utility business in Duqm SEZ. As of December 31, 2021, the project's first phase with installed capacity of 40 megawatts has reached commercial operation, and the rest of the phases are scheduled to commence commercial operation in 2023.

1.1.2 Other Related Services

In addition to generating and distributing electricity, steam and chilled water to EGAT, PEA, and industrial customers in various industrial estates, the Company also provides management services for power plant projects within the Group ranging from managing projects at the development and construction stage to managing the projects after they achieve commercial operation. The services that the Company’s project management committee

provides for power plant projects under construction / preparation for construction and under development include contractor recruitment and construction contract management. For power plants that are in operation, the services include managing, planning of work and policy of operation and maintenance, accounting, finance and other administrative work for the power plant projects, under Management Service Agreement, Secondment Agreement and Short-Term Funding Agreement, etc.

Value Chain & Stakeholders



GULF’s gas-fired power plants are configured with cogeneration system or combined cycle gas turbine that use natural gas as a primary fuel, and IPP power plants may use diesel oil as a back-up fuel. Combustion of the fuel will produce a high-pressure hot gas which is used to rotate the gas turbine, generating electrical current and voltage. The gas turbine’s exhaust gas will be used to generate steam that then drives a steam turbine to generate additional electricity. The power plants have closed-loop circulating water system with mechanical draft cooling tower rejects the waste heat to the atmosphere. For SPP power projects, unused steam from the power generation process is sold to industrial users or transferred to an absorption chiller to produce chilled water which will be dispatched to industrial users as well.

1.2 Renewable Energy Business

The Company has always recognized the importance of climate change and decarbonization, and focuses its investments in Renewable Energy Business, in order to support the government's policy that targets to achieve carbon neutrality by 2050 and net-zero greenhouse gas emissions by 2065, and global efforts that aim to reduce greenhouse gas emissions to counter the negative effects from climate change. The Company invests in and operates several types of renewable power plants, namely;

a) Biomass Power Project

The Group operates a biomass SPP which uses wood pellets as fuel, located in Thailand with a total installed capacity of 25 megawatts. The electricity generated from the project is sold to EGAT under a Non-Firm power purchase agreement, and the project has already achieved commercial operation.

b) Solar Power Projects

Solar Rooftop

The Group operates 4 solar rooftops VSPP (Very Small Power Producer) projects in Thailand, with a total installed power generation capacity of 0.6 megawatts. The electricity generated from the projects is sold to the PEA under a 25-year long-term power purchase agreement, and all the projects have achieved commercial operation.

Moreover, the Group operates businesses related to solar energy business, including solar farms, floating solar farms, and solar rooftop, as well as providing a full range of energy solution and maintenance services. As of December 31, 2021, total installed power generation capacity under the group of business was at 2.3 megawatts, and the

customer base is continuously expanding. The project sells electricity to industrial users under long-term solar power purchase agreements for 16-17 years, commencing from the commercial operation date which starts from 2021 onwards.

Solar Farm

The Group operates 2 solar farms in Vietnam with a total installed capacity of 118.8 megawatts. The electricity generated from both projects are sold to EVN under a 20-year power purchase agreement, and both projects have already achieved commercial operation.

c) Wind Power Projects

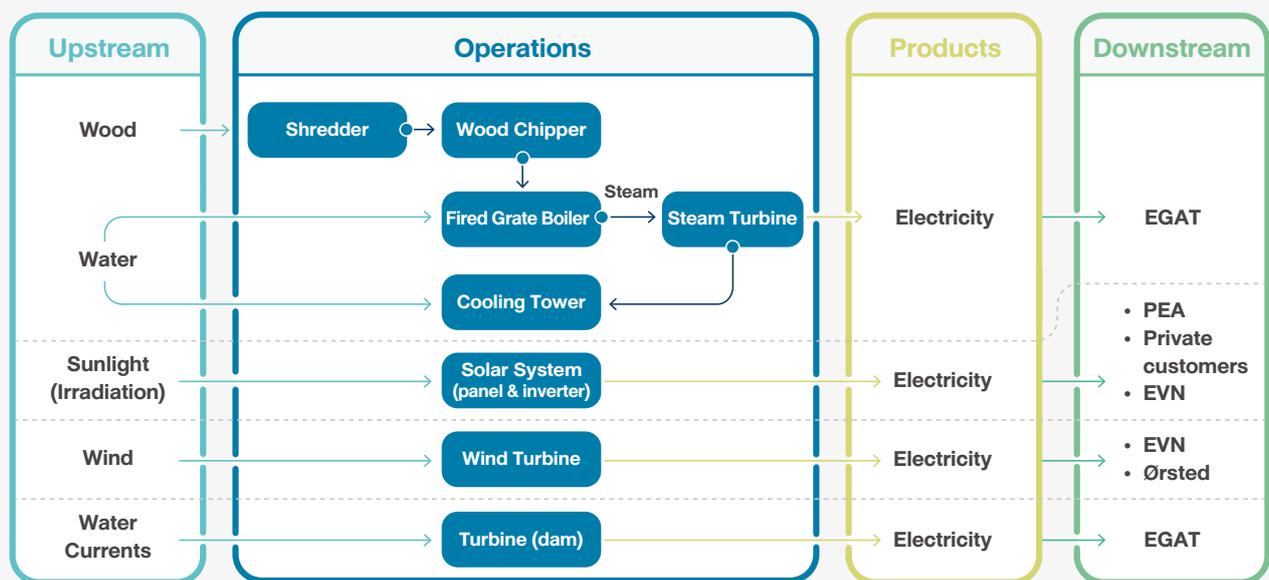
The Group's wind power projects are comprised of 2 offshore wind farms in Vietnam and Germany, with the projects' details as follows:

- **Vietnam:** the Group operates an offshore wind farm with a total installed capacity of 128 megawatts, with the electricity sold to EVN under a 20-year power purchase agreement commencing from the commercial operation date. The project is divided into several phases, with some parts (4.2 megawatts) already in operation, while other phases are expected to commence commercial operations in the 2nd quarter of 2022.
- **Germany:** the Group invests in an offshore wind farm located in the North Sea in northwestern Germany with a total installed power generation capacity of 464.8 megawatts. The project supplies electricity to Ørsted Group under a 20-year power purchase agreement from the commercial operation date, and the project has already achieved commercial operation.

d) Hydroelectric Power Project

The Company is currently studying the feasibility of developing hydropower projects on the Mekong River Basin in the Lao People's Democratic Republic (Lao PDR) in accordance with the power purchase MOU between Thailand and the Lao PDR. The hydropower projects under study are run-of-the-river type with no large reservoir and no water diverting from the Mekong River. It uses the natural flow rate of water to generate electricity, resulting in the equal amount of water inflow and water outflow and therefore, will have no impact on the water volume in the Mekong River.

Value Chain & Stakeholders



Configuration of the biomass power plants resembles the gas-fired power plants which utilize the heat generated from fuel combustion to produce steam that will be passed through the steam turbine to produce electric power. Other types of renewable power plants use natural energy sources such as solar, wind, and water currents in the river, to produce electricity.

1.3 Gas Business

In response to the energy demand in Thailand that has been rising in tandem with the economic growth, the government is promoting the utilization of natural gas, which is a fuel source that has cleaner combustion and emits fewer carbons than other types of fossil fuels, for economic activities in every sector. It is also promoting the import of Liquefied Natural Gas (LNG), and encouraging competition in gas trading business. In order to support the energy demand which will be a main driver for economic growth, the Company invests in, develops and operates Gas Business to support the accessibility and usage of natural gas for the country, to respond to the energy demand that will be the main driver for Thailand's economic advancement, and strengthen the fuel security for the Group's gas-fired power plants. Gas Business under the Group can be divided into 3 types, with details as follows:

a) Natural Gas Distribution

The Company operates two gas distribution projects serving industrial users in industrial estates under WHA Group with a total service capacity of approximately 4,000,000 mmbtu per year under a 10-year gas purchase agreement from the date of commercial operation, and both projects have already achieved commercial operation.

In addition, the Company holds 42.0% in PTT NGD, a natural gas distribution business operator that invests in the construction of a natural gas distribution pipeline system to serve customers in 13 industrial areas in the Bangkok Metropolitan region and in Rayong province. In 2021, PTT NGD had a total natural gas distribution volume of approximately 32,000,000 mmbtu.

The aforementioned 3 gas distribution projects invests, develops, and constructs natural gas distribution pipeline systems which connect to PTT's transmission pipelines to the customers in the industrial estates mentioned above.

b) LNG Terminal

The Group is the developer and operator of the Industrial Port Development Project with LNG terminal located in Map Ta Phut Industrial Estate, Rayong Province, under a 35-year public-private partnership (PPP) contract with IEAT. The project is divided into 2 parts including; (1) Infrastructure design and construction part (details appear in Infrastructure and Utilities Business section); and (2) Superstructure part which includes design, construction and operation of LNG terminal on the reclamation area of approximately 200 rai to facilitate shipment of LNG of up to 5 million tons per year (for LNG terminal phase 1) and the extension up to 10.8 million tons per year. The LNG terminal phase 1 is expected to commence commercial operation around 2027, and the project is already included in the national Gas Plan.

c) LNG Shipper

The Company operates natural gas supply and wholesaling business through Gulf LNG, a subsidiary in which the Company holds 100.00% of equity interest. Gulf LNG was granted an LNG shipper license from the ERC to procure LNG from global market suppliers, and utilize LNG Terminal to store and regasify the LNG to gas state before distributing through PTT's gas transmission pipeline system and selling natural gas to IPP and SPP power plants as well as natural gas distributors under the Group, totaling 24 entities, in the amount of 6.4 million tons per annum.

Moreover, the Company holds 49.00% in HKH who was granted an LNG shipper license from the ERC in the amount of 1.4 million tons per annum to supply natural gas to HKP power plant. HKH will begin supplying natural gas to HKP power plant project when HKP commences commercial operation.

2. Infrastructure and Utilities Business

The Company's Infrastructure and Utility Business focuses on large-scale infrastructure and utility projects which serve as the country's foundation for further development on various fronts in accordance to the government's policy, such as the quality of life of citizens, transportation network, and economic development, both domestically and internationally. The government has launched a National Strategy which supports and promotes the public-private partnership, to reduce burden of the government expenditure as well as public debt, allowing the government budget to be managed for other affairs, and to utilize private sector's strengths to manage the projects efficiently. The Group's infrastructure and utility projects have already signed public-private partnership contracts with the government, or utility development agreements with strong and stable private sector, with details of the projects as follows:

a) Map Ta Phut Industrial Port Development Phase 3 Project (Phase 1)

The Company holds 70.00% equity interest in Gulf MTP, the developer and operator of Map Ta Phut Industrial Port Development Phase 3 Project (Phase 1) located in Map Ta Phut Industrial Estate, Rayong province, under a 35-year public-private partnership (PPP) contract with IEAT. The project is divided into 2 parts including; (1) Infrastructure design and construction part, which includes dredging and land reclamation work in an area of approximately 1,000 rai, which is expected to take approximately 3 years to complete or within 2024; and (2) Superstructure part which includes design, construction and operation of LNG terminal on the reclamation area of approximately 200 rai (details appear in Gas Business section).

b) Bang Pa-In - Nakhon Ratchasima (M6) Intercity Motorway and Bang Yai - Kanchanaburi (M81) Intercity Motorway Projects (Operation and Maintenance: O&M)

The Company holds an equity interest of 40.00% in BGSR 6 and BGSR 81, the operator of Bang Pa-In - Nakhon Ratchasima (M6) intercity motorway project and Bang Yai - Kanchanaburi (M81) intercity motorway project, with a distance of 196 kilometers and 96 kilometers, respectively. The projects operate under 33-year public-private partnership (PPP) contracts with the Department of Highways, which is divided into 2 parts including; (1) design and construction of system works and other related elements, which is expected to take approximately 3 years from the start date; and (2) Operation and Maintenance (O&M) for both the civil works invested by the government and the infrastructure invested by the private sector which includes toll collection management, traffic management, and other related system works as well as equipment and materials maintenance, for a period of 30 years from the commencement of commercial operation which is scheduled in 2024.

c) Electricity Distribution System and District Chilled Water Distribution System (DCS)

BSE is a joint venture in which the Company holds 33.3% equity interest, established as a holding company to invest in BSP and BSD, with details as follows:

- BSP Power Distribution System Project

BSE holds 40.00% equity interest in BSP, which is the operator of the electricity distribution system for One Bangkok project by purchasing 115/69 kV of high-voltage electricity from the MEA and converted to medium voltage at 11.0 kV and 24.0 kV through a substation within the central utility plant of One Bangkok project to be sold to the buildings in One Bangkok project under the 30-year Utility Development Agreement (Electricity). The power purchase date is scheduled to commence in 2022.

- BSD District Cooling System Project

BSE holds 49.00% equity interest in BSD, who is the operator of district cooling system for One Bangkok project to provide cooling system related services and install centralized water cooling system. BSD purchases electricity from BSP and treated water from the center utility plant combined with tap water from the Metropolitan Waterworks Authority to use in the district cooling system of One Bangkok, before supplying chilled water to the buildings within One Bangkok through pipeline network and receiving water from closed cooling water heat exchangers back to the central utility plant for water cooling process. BSD will operate an installed capacity of approximately 36,000 refrigeration tons under 30-year Utility Development Agreements (District Cooling) with One Bangkok Project, with the power purchase date scheduled to commence in 2023.

d) Laem Chabang Port Development Phase 3 (Terminal F)

The Company holds 40.00% equity interest in GPC who is the operator of the Laem Chabang Port Development Phase 3 project (Terminal F) under a 35-year public-private partnership (PPP) contract with PAT. The PAT is responsible for the land reclamation work, while the private sector will be responsible for the design, construction, and operation and maintenance (O&M) services for F1 and F2 container berths to accommodate container throughput and implement automation technology for the operation of the project which can accommodate container cargoes of at least 4,000,000 TEU per annum, with a total berth length of 2,000 meters, and a total width of 550 meters. The F1 container berth is expected to start construction in 2023 and commence commercial operation in 2025, and the F2 container berth is expected to start construction in 2027 and commence commercial operation in 2029.

3. Digital Business

The Company envisions the importance of the rapid growth of digital infrastructure business in Thailand, as the economy is increasingly being driven by innovation and technologies, resulting in the rising demand for data management and data storage from local and international organizations such as hyperscalers that have business operations in Thailand.

Further, regarding the growing trend where digital technology is becoming an important part of business operation, the Company realizes the increasing opportunity to invest and operate in digital infrastructures businesses to respond to the aforementioned business trend; as such, during 29 June – 4 August 2021, the Company has made a Conditional Voluntary Tender Offer for INTUCH's shares. As a result, the Company is currently holding 42.25% of equity interest in INTUCH and is now INTUCH's major shareholder. The Company's shareholding in INTUCH will open new doors to other interesting opportunities for digital infrastructure.

Supply Procurement and Distribution

At present, all the operating projects under the Group are mainly under Energy Business, namely Gas-fired Power Business, Renewable Energy Business, and Gas Business. As a result, the main suppliers for the Group are fuel suppliers for power plants, and gas suppliers for natural gas distribution business, which can be divided into the types of fuel used for power generation as follows:

a) Natural Gas

For natural gas trading business in Thailand, as of 31 December 2021, PTT, who is a state-owned enterprise operating on petroleum fuel and natural gas business, is the only operator who is granted shipper license to supply natural gas to gas-fired power plants in Thailand. The Group's gas-fired power plants which are in operation each has a gas supply agreement with PTT with the same length as its power purchase agreement with EGAT. The gas supply agreements are effective from the signing date until 25 years after each power plant's commercial operation date. However, in the future, the Company plans to supply natural gas to the power plants under the Group through Gulf LNG and HKH who have already acquired LNG shipper licenses from the ERC.

For captive power plant in Oman, the power plant signed a gas supply agreement with Ministry of Oil and Gas of Oman, which is effective for the whole period of power purchase agreement with DRPIC refinery. The gas supply agreement is effective for 25 years from the commercial operation date.

For natural gas distribution business under WHA NGD2, WHA NGD4 and PTT NGD, the companies all have long-term gas purchase agreement of 5 – 10 years, depending on the operational area, with PTT, with gas price structure according to ERC's regulation comprising of natural gas charge, transmission pipeline tariff, and distributor's fee.

b) Diesel Oil

The Company uses diesel oil for electricity generation in the gas-fired IPP power projects only when the natural gas supply is disrupted or according to EGAT's order, as diesel oil cost is higher and causes more deterioration to the gas turbine when compared to natural gas; however, in case where an IPP power project has to operate on diesel oil, the fuel cost will be passed through to EGAT under the power purchase agreement. The Company's IPP power plants that are currently under operation; i.e. GNS, GUT, and GSRC units 1 and 2, each has signed a diesel oil supply agreement with top oil companies to supply diesel oil as a backup fuel for the power plants.

c) Wood

Biomass SPP power project under GCG uses wood pellets especially parawood as fuel, as the project is located at Chana District, Songkhla Province, which is one of the country's important parawood plantation area. The Company buys wood pellets from the nearby farmers and lumber mills at market price.

d) Raw Water

Sourcing and consumption of raw water differ between each power plant. Power plants that are located in or near industrial estates use water supplied by industrial estates, while other power plants use water from nearby rivers or canals by constructing water pipelines and pumping station to transport raw water to the power plant.

The table below shows information about the Group's power projects in Thailand and overseas and other businesses, categorized by the projects' operational status as projects in operation, projects under construction/preparing for construction, and projects under development (as of December 31, 2020).



Power Generation Business

Gas-fired Power Projects in Thailand

Project Name	Category	Location	Type of Power Project ⁽¹⁾	Installed Power/ Steam/ Chilled Water Generation Capacity ⁽²⁾	Equity Participation ⁽³⁾	Equity Installed Power/Steam/ Chilled Water Generation Capacity ⁽²⁾	Contracted Power/Steam/ Chilled Water Generation Capacity ⁽⁴⁾⁽⁵⁾	Project Status
GVTP	SPP	Eastern Seaboard Industrial Estate, Rayong Province	Gas-fired (CG)	EE: 140.9 MW ST: 20.0 TPH	52.49%	EE: 73.9 MW ST: 10.5 TPH	PPA: 90.0 MW ESA: 50.5 MW SSA: 7.0 TPH	<u>In Operation</u> May 16, 2017
GTS1	SPP	Eastern Seaboard Industrial Estate, Rayong Province	Gas-fired (CG)	EE: 138.3 MW ST: 30.0 TPH	52.49%	EE: 72.6 MW ST: 15.7 TPH	PPA: 90.0 MW ESA: 44.5 MW SSA: 42.0 TPH	<u>In Operation</u> July 8, 2017
GTS2	SPP	Eastern Seaboard Industrial Estate, Rayong Province	Gas-fired (CG)	EE: 138.3 MW ST: 30.0 TPH	52.49%	EE: 72.6 MW ST: 15.7 TPH	PPA: 90.0 MW ESA: 43.9 MW SSA: 36.0 TPH	<u>In Operation</u> September 1, 2017
GTS3	SPP	WHA Eastern Seaboard Industrial Estate 1, Rayong Province	Gas-fired (CG)	EE: 130.2 MW ST: 25.0 TPH	52.49%	EE: 68.2 MW ST: 13.1 TPH	PPA: 90.0 MW ESA: 44.9 MW SSA: 25.0 TPH	<u>In Operation</u> November 1, 2017
GTS4	SPP	WHA Eastern Seaboard Industrial Estate 1, Rayong Province	Gas-fired (CG)	EE: 130.2 MW ST: 25.0 TPH	52.49%	EE: 68.2 MW ST: 13.1 TPH	PPA: 90.0 MW ESA: 35.3 MW SSA: 25.0 TPH	<u>In Operation</u> January 1, 2018

GMP Group (Subsidiary) :

Project Name	Category	Location	Type of Power Project ⁽¹⁾	Installed Power/ Steam/ Chilled Water Generation Capacity ⁽²⁾	Equity Participation ⁽³⁾	Equity Installed Power/Steam/ Chilled Water Generation Capacity ⁽²⁾	Contracted Power/Steam/ Chilled Water Generation Capacity ⁽⁴⁾⁽⁵⁾	Project Status
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GMP Group (Subsidiary) :

GNC	SPP	Saha Group Industrial Park Kabinburi Branch, Prachinburi Province	Gas-fired (CG)	EE: 126.5 MW ST: 20.0 TPH	70.00%	EE: 88.6 MW ST: 14.0 TPH	PPA: 90.0 MW ESA: 17.7 MW SSA: 22.0 TPH	<u>In Operation</u> March 1, 2018
GBL	SPP	Hi-Tech Industrial Estate, Ayutthaya Province	Gas-fired (CG)	EE: 129.5 MW ST: 10.0 TPH	52.50%	EE: 66.6 MW ST: 5.3 TPH	PPA: 90.0 MW ESA: 33.5 MW SSA: 8.0 TPH	<u>In Operation</u> September 1, 2018
GBP	SPP	Hi-Tech Industrial Estate Ayutthaya Province	Gas-fired (CG)	EE: 129.5 MW ST: 10.0 TPH	52.50%	EE: 66.6 MW ST: 5.3 TPH	PPA: 90.0 MW ESA: 34.0 MW SSA: 6.5 TPH	<u>In Operation</u> November 1, 2018
GNLL2	SPP	WHA Rayong Industrial Land, Rayong Province	Gas-fired (CG)	EE: 129.5 MW ST: 10.0 TPH	52.49%	EE: 66.6 MW ST: 5.2 TPH	PPA: 90.0 MW ESA: 31.4 MW	<u>In Operation</u> January 1, 2019
GNPM	SPP	WHA Rayong Industrial Land Saraburi Province	Gas-fired (CG)	EE: 138.3 MW ST: 25.0 TPH	70.00%	EE: 94.7 MW ST: 17.5 TPH	PPA: 90.0 MW ESA: 43.0 MW SSA: 37.0 TPH	<u>In Operation</u> March 1, 2019
GNRV1	SPP	Suranaree Industrial Zone, Nakorn Ratchasima Province	Gas-fired (CG)	EE: 127.5 MW ST: 10.0 TPH	70.00%	EE: 89.7 MW ST: 7.0 TPH	PPA: 90.0 MW ESA: 30.9 MW SSA: 2.0 TPH	<u>In Operation</u> May 1, 2019
GNRV2	SPP	Suranaree Industrial Zone, Nakorn Ratchasima Province	Gas-fired (CG)	EE: 127.5 MW ST: 10.0 TPH	70.00%	EE: 89.7 MW ST: 7.0 TPH	PPA: 90.0 MW ESA: 24.0 MW	<u>In Operation</u> July 1, 2019
Subtotal GMP Group				EE: 1,585.9 MW ST: 225.0 TPH		EE: 923.4 MW ST: 129.5 TPH	PPA: 1,080.0 MW ESA: 433.6 MW SSA: 210.5 TPH	

IPD Group (Subsidiary) :

GSRC	IPP	WHA Eastern Seaboard Industrial Estate1, Sriracha District, Chonburi Province	Gas-fired (CCGT)	EE: 2,650.0 MW	70.00%	EE: 1,855.0 MW	PPA: 2,500.0 MW	<u>Units 1 and 2: In Operation</u> March 31, 2021 and October 1, 2021, respectively <u>Units 3 and 4: Under Construction</u> Scheduled Commercial Operation Date in 2022
GPD	IPP	Rojana Pluak Daeng Industrial Estate, Pluakdaeng District, Rayong Province	Gas-fired (CCGT)	EE: 2,650.0 MW	70.00%	EE: 1,855.0 MW	PPA: 2,500.0 MW	<u>Units 1 and 2: Under Construction</u> Scheduled Commercial Operation Date in 2023 <u>Units 3 and 4: Under Construction</u> Scheduled Commercial Operation Date in 2024
Subtotal IPD Group				EE: 5,300.0 MW		EE: 3,710.0 MW	PPA: 5,000.0 MW	

Project Name	Category	Location	Type of Power Project ⁽¹⁾	Installed Power/ Steam/ Chilled Water Generation Capacity ⁽²⁾	Equity Participation ⁽³⁾	Equity Installed Power/Steam/ Chilled Water Generation Capacity ⁽²⁾	Contracted Power/Steam/ Chilled Water Generation Capacity ⁽⁴⁾⁽⁵⁾	Project Status
GJP Group (Associates) :								
GNS	IPP	Nong Saeng District, Saraburi Province	Gas-fired (CCGT)	EE: 1,668.2 MW	40.00%	EE: 667.3 MW	PPA: 1,600.0 MW	Unit 1: <u>In Operation</u> June 1, 2014 Unit 2: <u>In Operation</u> December 1, 2014
GUT	IPP	Rojana Industrial Park Uthai District, Ayutthaya Province	Gas-fired (CCGT)	EE: 1,752.4 MW	40.00%	EE: 701.0 MW	PPA: 1,600.0 MW	Unit 1: <u>In Operation</u> June 1, 2015 Unit 2: <u>In Operation</u> December 1, 2015
GKP1	SPP	Nong Khae Industrial Estate Saraburi Province	Gas-fired (CG)	EE: 124.3 MW ST: 22.0 TPH	40.00%	EE: 49.7 MW ST: 8.8 TPH	PPA: 90.0 MW ESA: 27.7 MW SSA: 18.0 TPH	<u>In Operation</u> January 5, 2013
GKP2	SPP	Nong Khae Industrial Estate Saraburi Province	Gas-fired (CG)	EE: 124.3 MW ST: 22.0 TPH	40.00%	EE: 49.7 MW ST: 8.8 TPH	PPA: 90.0 MW ESA: 23.2 MW SSA: 26.5 TPH	<u>In Operation</u> February 1, 2013
GTLC	SPP	Taling Chan Subdistrict, Mueang District, Saraburi Province	Gas-fired (CG)	EE: 125.8 MW ST: 15.0 TPH	40.00%	EE: 50.3 MW ST: 6.0 TPH	PPA: 90.0 MW ESA: 30.2 MW SSA: 15.0 TPH	<u>In Operation</u> March 1, 2013
GNNK	SPP	Khlong Nakhon Nueng Subdistrict, Mueang District, Chachoengsao Province	Gas-fired (CG)	EE: 130.0 MW CW: 3,200.0 RT	40.00%	EE: 52.0 MW CW: 1,280.0 RT	PPA: 90.0 MW ESA: 29.7 MW CWSA: 1,525.0 RT	<u>In Operation</u> April 1, 2013
GNLL	SPP	WHA Rayong Industrial Land Rayong Province	Gas-fired (CG)	EE: 125.3 MW ST: 8.0 TPH CW: 4,600.0 RT	30.00%	EE: 37.6 MW ST: 2.4 TPH CW: 1,380.0 RT	PPA: 90.0 MW ESA: 29.1 MW SSA: 3.0 TPH CWSA: 3,200.0 RT	<u>In Operation</u> May 1, 2013
GCRN	SPP	Chiang Rak Noi Subdistrict, Sam Khok District, Pathumthani Province	Gas-fired (CG)	EE: 125.9 MW ST: 15.0 TPH	40.00%	EE: 50.4 MW ST: 6.0 TPH	PPA: 90.0 MW ESA: 27.9 MW SSA: 15.0 TPH	<u>In Operation</u> July 1, 2013
GNK2	SPP	WHA Saraburi Industrial Land Saraburi Province	Gas-fired (CG)	EE: 132.4 MW ST: 10.0 TPH	40.00%	EE: 53.0 MW ST: 4.0 TPH	PPA: 90.0 MW ESA: 44.8 MW SSA: 10.9 TPH	<u>In Operation</u> October 1, 2013
Subtotal GJP Group				EE: 4,308.7 MW		EE: 1,710.9 MW	PPA: 3,830.0 MW ESA: 212.6 MW SSA: 88.4 TPH CW: 2,660.0 RT CWSA: 4,725.0 RT	

Project Name	Category	Location	Type of Power Project ⁽¹⁾	Installed Power/Steam/Chilled Water Generation Capacity ⁽²⁾	Equity Participation ⁽³⁾	Equity Installed Power/Steam/Chilled Water Generation Capacity ⁽²⁾	Contracted Power/Steam/Chilled Water Generation Capacity ⁽⁴⁾⁽⁵⁾	Project Status
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HKH (Joint Venture) :

HKP	IPP	Hin Kong Subdistrict, Mueang District, Ratchaburi Province	Gas-fired (CCGT)	EE: 1,540.0 MW	49.00%	EE: 754.6 MW	PPA: 1,400.0 MW	Unit 1: <u>Under Construction</u> Scheduled Commercial Operation Date in 2024 Unit 2: <u>Under Construction</u> Scheduled Commercial Operation Date in 2025
Subtotal HKH				EE: 1,540.0 MW		EE: 754.6 MW	PPA: 1,400.0 MW	

BPH (Joint Venture) :

BPP	IPP	Khao Hin Son Subdistrict, Phanom Sarakham District, Chachoengsao Province	Gas-fired (CCGT)	EE: 600.0 MW	35.00%	EE: 210.0 MW	PPA: 540.0 MW	<u>Under Development</u> Scheduled Commercial Operation Date in 2027
Subtotal BPH				EE: 600.0 MW		EE: 210.0 MW	PPA: 540.0 MW	

Gas-fired Power Projects Overseas

Marafiq (Joint Venture)

Duqm Integrated Power & Water Project (DIPWP)	-	Duqm Special Economic Zone, Oman	Gas-fired (Captive)	EE: 326.0 MW WT: 1,667.0 m ³ /hr	49.00%	EE: 159.7 MW WT: 816.8 m ³ /hr	PWPA: 208.0 MW / 1,250.0 m ³ /hr	Unit 1: <u>In Operation (electricity)</u> December 1, 2021 Unit 2-3: <u>Under Construction</u> Scheduled Commercial Operation Date in 2023
Subtotal Marafiq				EE: 326.0 MW WT: 1,667.0 m³/hr		EE: 159.7 MW WT: 816.8 m³/hr	PWPA: 208.0 MW / 1,250.0 m³/hr	



Renewable Energy Business

Renewable Energy Projects in Thailand

Project Name	Category	Location	Type of Power Project ⁽¹⁾	Installed Power Generation Capacity ⁽²⁾	Equity Participation ⁽³⁾	Equity Installed Power Generation Capacity ⁽²⁾	Contracted Power Generation Capacity ⁽⁴⁾⁽⁵⁾	Project Status
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Gulf Solar Group (Subsidiary) :

Gulf Solar BV ⁽⁶⁾	VSP	WHA Chonburi Industrial Estate 1, Chonburi Province	Solar Rooftop	EE: 0.13 MW	74.99%	EE: 0.1 MW	PPA: 0.13 MW (132.8 kW)	<u>In Operation</u> June 23, 2014
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Project Name	Category	Location	Type of Power Project ⁽¹⁾	Installed Power Generation Capacity ⁽²⁾	Equity Participation ⁽³⁾	Equity Installed Power Generation Capacity ⁽²⁾	Contracted Power Generation Capacity ⁽⁴⁾⁽⁵⁾	Project Status
Gulf Solar TS1	VSP	WHA Eastern Seaboard Industrial Estate 1, Rayong Province	Solar Rooftop	EE: 0.13 MW	74.99%	EE: 0.1 MW	PPA: 0.13 MW (127.4 kW)	<u>In Operation</u> August 27, 2014
Gulf Solar KKS	VSP	WHA Logistics Park 1, Chonburi Province	Solar Rooftop	EE: 0.25 MW	74.99%	EE: 0.2 MW	PPA: 0.25 MW (249.6 kW)	<u>In Operation</u> December 26, 2014
Gulf Solar TS2 ⁽⁶⁾	VSP	Eastern Seaboard Industrial Estate, Rayong Province	Solar Rooftop	EE: 0.09 MW	74.99%	EE: 0.1 MW	PPA: 0.10 MW (95.6 kW)	<u>In Operation</u> January 8, 2015
Subtotal Gulf Solar Group				EE: 0.6 MW		EE: 0.45 MW	PPA: 0.6 MW	
GCG (Subsidiary) :								
GCG	SPP	Khu Subdistrict, Chana District Songkhla Province	Biomass	EE: 25.0 MW	100.00%	EE: 25.0 MW	PPA: 20.6 MW	<u>In Operation</u> March 1, 2020
Subtotal GCG				EE: 25.0 MW		EE: 25.0 MW	PPA: 20.6 MW	
GULF1 (Subsidiary):								
GULF1 (Operating)	-	-	Solar Rooftop	EE: 2.3 MW	99.99%	EE: 1.2 MW	PPA: 2.3 MW	<u>In Operation</u> 2021
GULF1 (Developing)	-	-	Solar Rooftop	EE: 97.7 MW	99.99%	EE: 48.8 MW	PPA: 97.7 MW	<u>Under Development</u> Scheduled Commercial Operation Date in 2022
Subtotal GULF1				EE: 100.0 MW		EE: 50.0 MW	PPA: 100.0 MW	
Renewable Energy Projects Overseas								
GIH Group (Subsidiary):								
GTN1	-	Tay Ninh, Vietnam	Solar Farm	EE: 68.8 MW	90.00%	EE: 61.9 MW	PPA: 48.0 MW	<u>In Operation</u> March 6, 2019
GTN2	-	Tay Ninh, Vietnam	Solar Farm	EE: 50.0 MW	90.00%	EE: 45.0 MW	PPA: 40.8 MW	<u>In Operation</u> April 19, 2019
BKR2	-	North Sea, Germany	Offshore Wind	EE: 464.8 MW	50.00%	EE: 232.4 MW	PPA: 450.0 MW	<u>In Operation</u> April 2019
Mekong Wind Farm (Ph. 1-3)	-	Ben Tre, Vietnam	Offshore Wind	EE: 128.0 MW	95.00%	EE: 121.6 MW	PPA: 128.0 MW	<u>Partially In Operation</u> (4.2 MW) October 2021 <u>The rest of the units:</u> <u>Under Construction</u> Scheduled Commercial Operation Date in 2022
Subtotal GIH Group				EE: 711.6 MW		EE: 460.9 MW	PPA: 666.8 MW	

	Installed Power Generation Capacity ⁽²⁾	Equity Installed Power Generation Capacity ⁽²⁾	Contracted Power Generation Capacity ⁽⁴⁾⁽⁵⁾
Total Gas-fired Power Projects and Renewable Energy Projects			
Total power projects in operation	EE: 7,875.3 MW ST: 317.0 TPH CW: 7,800.0 RT	EE: 3,951.4 MW ST: 165.5 TPH CW: 2,660.0 RT	PPA: 6,766.5 MW ESA: 646.2 MW SSA: 289.9 TPH CWSA: 4,725.0 RT
Total power projects preparing for /under construction	EE: 6,622.5 MW WT: 1,667.0 m ³ /hr	EE: 4,053.7 MW WT: 816.8 m ³ /hr	PPA/PWPA: 6,079.5 MW / 1,250.0 m ³ /hr
Total Gas-fired Power Projects and Renewable Energy Projects	EE: 14,497.7 MW WT: 1,667.0 m ³ /hr ST: 317.0 TPH CW: 7,800.0 RT	EE: 8,005.1 MW WT: 816.8 m ³ /hr ST: 165.5 TPH CW: 2,660.0 RT	PPA/PWPA: 12,846.0 MW / 1,250 m ³ /hr ESA: 646.2 MW SSA: 298.9 TPH CWSA: 4,725.0 RT



Gas Business

Gas Business in Thailand

Project Name	Type of Project	Location	Scope	Equity Participation ⁽³⁾	Project Status
Gulf WHA MT	-	WHA Eastern Seaboard Industrial Estate 2, Chonburi Province WHA Eastern Seaboard Industrial Estate 4, Rayong Province	Natural gas distribution pipeline system	35.00%	<u>In Operation</u> Year 2018 - 2019
PTT NGD	-	Bangkok Rayong Province Chonburi Province Samut Prakan Province	Natural gas distribution pipeline system to customers in 13 industrial areas	42.00%	<u>In Operation</u>
GULF LNG	-	-	LNG shipper	100.00%	<u>Under Development</u> Preparing to supply natural gas to the projects under the Group
Map Ta Phut Industrial Port Development Phase 3 Project (Phase1)	Superstructure: LNG terminal	Map Ta Phut Industrial Estate Rayong Province	LNG terminal: up to 10.8 MTPA	70.00%	<u>Under Development</u> Construction period 2023 - 2027* *subject to the country's LNG demand



Infrastructure and Utilities Business

Infrastructure and Utilities Projects in Thailand

Project Name	Type of Project	Location	Scope	Equity Participation ⁽³⁾	Project Status
Map Ta Phut Industrial Port Development Phase 3 Project (Phase1)	Infrastructure: dredging and land reclamation	Map Ta Phut Industrial Estate Rayong Province	land reclamation: 1,000 rai	70.00%	<u>Under Construction</u> Construction period 2021-2024
M6 Intercity Motorway	Design, construction, and operation and maintenance (O&M) of toll collection system, traffic management & control system, and other infrastructures	Bang Pa-In - Nakhon Ratchasima	M6: 196 km	40.00%	<u>Under Development</u> Scheduled Commercial Operation Date in 2024
M81 Intercity Motorway	Design, construction, and operation and maintenance (O&M) of toll collection system, traffic management & control system, and other infrastructures	Bang Yai - Kanchanaburi	M81: 96 km	40.00%	<u>Under Development</u> Scheduled Commercial Operation Date in 2024
Laem Chabang Port Development Phase 3 (Terminal F) project	Design, construction and operation and maintenance (O&M) of F1 and F2 Terminal	Laem Chabang Port, Chonburi Province	F1 and F2 Terminals with total berth length of 2,000 meters and total width of 550 meters	40.00%	<u>Under Development</u> <u>F1 Terminal</u> : Scheduled Commercial Operation Date in 2025 <u>F2 Terminal</u> : Scheduled Commercial Operation Date in 2029
One Bangkok	Power distribution system and district cooling system project	Bangkok	EE: 240.0 MW CW: 36,000.0 RT UDA: 240.0 MW	BSP: 13.33% BSD: 16.33%	<u>Under Construction</u> <u>Phase 1</u> : Scheduled Commercial Operation Date in 2022 (Electricity) <u>Phase 2</u> : Scheduled Commercial Operation Date in 2024 (Power & Chilled Water)

Remarks ⁽¹⁾ CCGT refers to combined-cycle gas turbine system, CG refers to cogeneration system and Captive refers to power generation system that is sold directly to clients.

⁽²⁾ EE refers to power generation capacity in megawatts (MW) or kilowatts (kW); ST refers to steam generation capacity in tons per hour (TPH); CW refers to chilled water generation capacity in refrigeration tons (RT); and WT refers to desalinated water generation capacity in cubic meter per hour (m³/hr). The installed capacities of each power project preparing for or under construction or under development are expected numbers. When any of these power projects becomes operational, the actual installed capacity may differ slightly from the expected numbers.

⁽³⁾ Equity participation refers to the effective equity stake directly or indirectly held by the Company.

⁽⁴⁾ PPA refers to the contracted power generation capacity under PPAs between the power projects and EGAT or PEA or EVN, and private sector such as Ørsted or STEC; ESA refers to the contracted power generation capacity under ESAs between the power projects and industrial users; SSA refers to the contracted steam generation capacity under SSAs between the power projects and industrial users; CWSA refers to the contracted chilled water generation capacity under CWSAs between the power projects and industrial users; and PWPA refers to the contracted power and water generation capacity under PWPAs between the power projects Duqm Refinery and Petrochemical Industries Company L.L.C.; and UDA refers to the contracted power generation capacity between BSP and One Bangkok, and district cooling system between BSD, and One Bangkok.

⁽⁵⁾ The contracted capacities of electricity, steam and chilled water are presented as of December 31, 2021, which represent the capacities under the agreements into which the Group's power projects had entered with EGAT, PEA and industrial users in each case for the time period indicated (as the case may be).

⁽⁶⁾ Each of Gulf Solar BV and Gulf Solar TS2 owns two power projects and has entered into two PPAs. The selected data is presented on a consolidated basis.

Outstanding Projects

As of December 31, 2021, the Group's projects that are under construction / preparing for construction and under development are as follows:

- **Projects under construction / preparing for construction**

- a) Power plant projects that are under construction
 - Captive power plant project DIPWP under GIH
 - IPP power plant projects GSRC and GPD under IPD
 - IPP power plant project HKP under HKH
 - Mekong Wind Farm project under GIH
 - Solar Rooftop projects under GULF1 with installed power generation capacity of 97.7 megawatts

Details about the scheduled commercial operation dates (SCOD) and the construction progress as of December 31, 2021 for each project are as follows:

Power Plant Project	Scheduled Commercial Operation Date (SCOD) (Year)	Construction Progress (%)
DIPWP	2021 – 2023	94.4%
GSRC	2021 – 2022	Units 1-2: in operation Units 3-4: average 99.1%
GPD	2023 – 2024	average 52.9%
HKP	2024 – 2025	average 11.3%
Mekong Wind Farm	2021 – 2022	Phase 1: 99.8% Phase 2-3: average 98.7%
GULF1	2022	average 55%

- b) Infrastructure and Utilities projects that are under construction / preparing for construction
 - Map Ta Phut Industrial Port Development Phase 3 Project (Phase 1) has already signed an Engineering, Procurement and Construction Contract, with construction expected to be finished in 2024.
 - Intercity Motorway Bang Pa-In - Nakhon Ratchasima (M6) and Bang Yai - Kanchanaburi (M81) Projects have entered into the public-private partnership (PPP) contract with the Department of Highways on September 29, 2021, and currently preparing for construction, which is scheduled to commence in January 2022.
 - Electricity Distribution System and District Chilled Water Distribution System

Infrastructure and Utilities Project	Scheduled Commercial Operation Date (SCOD) (Year)	Construction Progress (%)
One Bangkok	(Power) 2022	43.4%
	(Chilled Water) 2023	21.1%

• Projects under development

a) Power plant projects

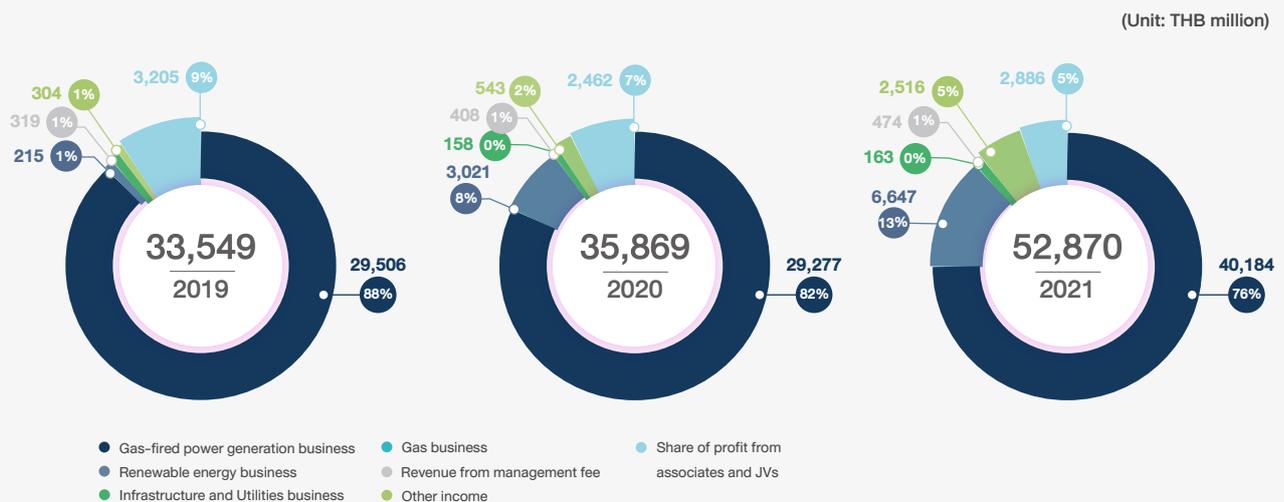
- IPP power plant project BPP under BPH is under environmental impact assessment (EIA) study for gas pipeline, and has a scheduled commercial operation date in 2027.

b) Infrastructure and Utilities projects

- Laem Chabang Port Development Phase 3 (Terminal F) project has entered into a public-private partnership (PPP) contract with PAT on November 25, 2021, and is now currently under Environmental and Health Impact Assessment (EHIA) design and preparation.

Revenue Structure

The Group's main revenue is from the sales of electricity, steam, chilled water, and desalinated water, and share of profit from associates and joint ventures, from the operation of Gas-fired Power Generation and Renewable Energy Business. However, the Gas Business and Infrastructure and Utilities business, which are currently under construction and development, will become important and contribute more revenue to the Group in the future. The revenue contribution of each business category under the Group are displayed in the chart below:



Marketing and Competition

1. Energy Business

1.1 Gas-fired Power Generation and Renewable Energy Business

Marketing

a) Customers

IPP power projects, captive power projects, and renewable energy projects that the Company operates, constructs, and develops, both in Thailand and overseas, sell all of the electricity generated to governments or strong and stable private sectors, with long-term power purchase agreements. SPP power plants sell 70-80% of the total installed power generation capacity to the government and 20-30% of the installed power generation capacity as well as steam and chilled water to industrial users.

Details for the power purchase agreements of the Group are as follows:

Power purchase agreements with governments

- **Power plant projects in Thailand**

All the IPP and SPP power projects under the Group that are in operation, under construction, and under development, sell electricity generated to EGAT under 25-year power purchase agreements which begin when each project achieves commercial operation, except GCG project, which has a 5-year power purchase agreement that can be renewed after each 5-year period ends with the PEA.

- **Power plant projects in other countries**

The Group operates, constructs and develops power plant projects in Vietnam, with 20-year power purchase agreements with EVN, which begin when each project achieves commercial operation.

Power purchase agreements with private sector

- **Power plant projects in Thailand**

Apart from the power purchase agreements with EGAT and PEA, gas-fired SPP power plants which have already commenced commercial operation can also enter into Electricity Supply Agreement (ESA) with industrial users which are located in the industrial estate or nearby areas where each gas-fired SPP is located. The ESA has a duration of up to 15 years beginning on the date of electricity sales commencement. Moreover, the Electricity Distribution System under the Group's infrastructure and utilities business has entered into a 30-year Utility Development Agreement (Electricity) with One Bangkok project, which begins on the date which electricity sales are commenced. Lastly, solar power projects under GULF1 have entered into power purchase agreements with industrial users for a period of approximately 16-17 years.

- **Power plant projects in other countries**

The Company operates and constructs power plant projects in Oman and Germany, namely:

Gas-fired captive power plant project in Oman supplies power and water to DRPIC refinery under a 25-year long-term power purchase agreement commencing from the commercial operation.

Offshore wind farm in Germany supplies electricity under power purchase agreement with the Ørsted Group and receives a Feed-in tariff (FiT) that is guaranteed by the German government for a period of 20 years after the commencement of commercial operation.

b) Electricity Tariff Structure

The Company considers the breakeven point, suitability of the costs and operating expenses of the power plant projects by analyzing the investment budget including the construction cost of transmission line, steam pipeline and chilled water pipeline (if applicable), to calculate and conclude the selling price. The Company examines and sets the selling price differently for each type of customer. For the electricity sold to EGAT or PEA, the electricity selling prices are determined by the power purchase agreements, while for the electricity, steam, and chilled water sold to industrial users, the selling prices are set by providing a discount to the EGAT or PEA electricity price, or discounting from the industrial users' cost of producing steam or chilled water, depending on the cases.

Gas-fired IPP power plants

Under the Power Purchase Agreement with EGAT, gas-fired IPPs follow the tariff scheme below which comprises availability payments and energy payments.

- Availability Payment: Commencing from the commercial operation date of the first generating unit, the gas-fired IPP is entitled to receive availability payments from EGAT for making its contracted power generation capacity available to EGAT. The availability payment includes major maintenance costs, covering the

project's fixed operating and maintenance costs, debt servicing expenses and a predetermined return on equity. The availability payment is paid irrespective of whether electricity is actually supplied and is a function of the availability factor, as adjusted by the consumer price indices of both Thailand and the United States and the U.S. dollar to Baht exchange rate. Throughout the term of the PPA commencing from the commercial operation date, EGAT is required to make availability payments regardless of whether any power is dispatched to EGAT as long as the gas-fired IPP makes its capacity available to EGAT and meets certain performance targets as specified in the agreement. Availability payments are subject to deductions due to (1) reduced availability of power generation capacity, (2) short notice for reduced availability of power generation capacity or (3) dispatch failure or non-compliance with EGAT's order.

- **Energy payment:** Commencing from the commercial operation date of the first generating unit, the gas-fired IPP is also entitled to receive energy payments from EGAT, which covers the fuel costs of the power projects, the variable operating and maintenance costs. The fuel costs component of the energy payment is a function of the actual amount of electricity supplied to EGAT, the gas price paid by the project and a predetermined heat rate in the respective PPAs.

Gas-fired SPP power plants

Under the Power Purchase Agreement with EGAT, SPP power projects are entitled to receive from EGAT tariff which consists of Capacity Payment, Energy Payment, and Fuel Saving Payment.

- **Capacity Payment:** The SPP power project is entitled to receive capacity payment from EGAT at a fixed rate calculated monthly for making available to EGAT its contracted power generation capacity under the agreement. The capacity payment will cover various fixed costs and debt service expenses in relation to the power plant, and will be adjusted for the change in exchange rate for Thai Baht against US Dollar at the end of each month where the capacity payment is charged. EGAT is required to make capacity payment to the power project regardless of whether any power is dispatched to EGAT as long as the power project makes its capacity available to EGAT and meets certain performance targets as specified in the agreement.
- **Energy Payment:** The SPP power project shall receive the energy payment from EGAT, which consists of fuel costs and other variable operating and maintenance costs of a power plant. The energy payment rate is calculated from (i) the energy payment base rate and (ii) adjustable component which varies depending on natural gas price. EGAT will bear the cost of natural gas used by the SPP power plants under the power purchase agreement.
- **Fuel Saving Payment:** The fuel saving payment shall be paid in full by EGAT to the power project according to the power project's fuel efficiency in power and heat generation. This is measured by the amount of heat power used for activities other than electricity generation (e.g. steam generation) meeting the specified criteria.

Captive Power Plant

Under the Power and Water Purchase Agreement (PWPA) with Duqm Refinery and Petrochemical Industries Company L.L.C, the captive power plant shall receive tariff which comprises capacity payment and energy payment.

- **Capacity Payment:** Captive Power Plant is entitled to receive payments covering the project's fixed operating and maintenance cost, debt servicing expenses and a predetermined return on equity, commencing from the commercial operation date. Under the agreement, the payment is paid irrespective of whether electricity is actually supplied.

- Energy Payment: Energy Payment covers the fuel costs of the captive power projects, the variable operating and maintenance costs. Duqm Refinery and Petrochemical Industries Company L.L.C will bear the cost of natural gas used by the captive power plants under the PWPA.

Biomass SPP

Under the Power Purchase Agreement with EGAT, biomass SPP power project is entitled to receive from EGAT tariff which consists of Base tariff and Adder.

- Base tariff: Biomass SPPs are entitled to receive a base tariff equal to a base wholesale tariff plus the Ft wholesale rate announced by EGAT.
- Adder: Biomass SPPs are also entitled to receive adder rate payments of THB 1.30/kWh for seven years from the commercial operation date of the power project, which are subsidies from the government based on the specific government's incentive scheme for renewable power projects located in three southern provinces and four districts in the Songkhla province.

Solar Rooftop

- Under the Power Purchase Agreement with PEA, VSPP Solar Rooftop shall receive payments based on the Feed-in Tariff (FiT) rate which is a fixed rate throughout the 25 years under the PPA commencing from the plant's commercial operation date.
- Under the power purchase agreement with the private sector, solar rooftop VSPPs shall receive payments which are calculated from the Ft discounted rate to counterparties (referring to the electricity tariff base rate announced by MEA or PEA).

Solar Farm

- Under the power purchase agreement with EVN, solar farm projects shall receive payments calculated from the electricity purchase rate from renewable energy in the project which is a Feed-in Tariff (FiT). The project will receive a fixed rate of approximately USD 9.35 cents per kWh throughout the power purchase agreement of 20 years from the date of commercial operation.

Offshore Wind Farm

- Under the power purchase agreement with EVN, offshore wind farm projects shall receive payments calculated from the electricity purchase rate from renewable energy in the project which is a Feed-in Tariff (FiT). The project will receive a fixed rate of approximately USD 9.80 cents per kWh throughout the power purchase agreement of 20 years from the date of commercial operation.
- Under the the Power Purchase Agreement with the Ørsted Group, the offshore wind farm project in Germany receives a Feed-in tariff (FiT) that is guaranteed by the German government for a period of 9.5 years after the commencement of commercial operation and will receive a merchant price with a guaranteed floor price for year 9.5 to year 20.

c) Execution of power purchase agreement and electricity, steam and chilled water supply agreement

To execute a power purchase agreement with EGAT and PEA, the Company needs to use the standard agreement form that is designated by EGAT or PEA, and follows related regulations. For electricity, steam and chilled water supply agreements, the Company will execute the agreement within 90 days after the commercial proposals have been confirmed by the industrial users, using the Company's standard agreement form which the customers may negotiate some details or conditions in the agreement before or after the execution date. The Company also manages and monitors the agreements that are near expiry date and coordinate with the customers to extend the agreement.

d) Customer satisfaction survey

The Company conducts a satisfaction survey of the customers for the Company's products and services at least once a year to conform with ISO 9001 standard, with the target to complete the surveys within the 4th quarter of every year. The satisfaction survey covers various aspects such as the communication convenience, information and advice provided, quality of service, quantity of products delivered, problem solving and prevention. After conducting the surveys, the Company will combine and analyze the information to summarize and further improve the services.

Competition

The Group's gas-fired IPP power projects, captive power projects, and renewable energy power projects, both in Thailand and other countries, sell all of the electricity under long-term power purchase agreement to a government or a strong and stable private sector, and have only one offtaker for each project. As such, after the commercial operation date, the Company does not need to compete with other players to find other customers. However, for the bidding or investment of new power plant projects in the future, the Company will need to compete with other companies who generate and sell electricity, both from Thailand and other countries, or other parties. However, with the Group's experience and success in developing power plant projects during the past years, its vision, the readiness of its human resources, and the good relationship with its partners, the Company believes that it has strong capabilities to face the competition in the future.

For the electricity, steam, and chilled water generated and sold by the gas-fired SPP power plant projects under the Group, the majority of the electricity is sold to EGAT under the 25-year power purchase agreements. For the rest of the electricity which is sold to industrial users, the Company may face competition from PEA, or from other power plants if there is a new awarding round of private power producers and other new power plants that are located near the Company's SPPs. For steam and chilled water sold to industrial users which usually have steam and chilled water systems in the factories, the customers have the option to either purchase the steam and chilled water from the Group or to produce it themselves. Nevertheless, the Company believes that it will be able to maintain its customer base in the long run, as a result of its ability and experience in producing and selling steam and chilled water with reliability and appropriate pricing strategy

1.2 Gas Business

Marketing

a) Customers

LNG Shipper

The Group's target customers are natural gas users with high demand, comprised of (1) Power Producers (2) Natural Gas Distributors (3) Retail LNG Distributors, which could be companies under GULF's group or other companies. The sector with the largest natural gas demand is Power Producers, which accounts for 57-67% of the country's natural gas demand between 2018 to 2037, or approximately 19-23 million tons per annum, and is the business sector with the highest growth of natural gas demand.

Natural Gas Distribution

The Group's target customer is the industrial sector with natural gas demand in 15 industrial estates that are in the Group's area of service. The Group's customers grow in tandem with the expansion of factories and companies within the industrial estates.

e) **Tariff Structure**

LNG Shipper

The tariff for the LNG Shipper business under the Group uses cost-plus structure which is regulated by the ERC, as it is a natural gas wholesale to the industrial sector which are important to the country's economy and security.

Natural Gas Distribution

The Group sets the natural gas selling price in reference with the fuel price that its customers previously use, such as fuel oil or liquid petroleum gas, along with some fixed charges to cover the Group's investments, with the retail natural gas price structure approved by the ERC.

f) **Execution of natural gas selling agreement**

LNG Shipper

Natural gas supply agreements normally last 5 - 25 years depending on the type of the customer, in order for the Company as well as its customers to manage the long term risks, with annual minimum purchasing amount that may be applied.

Natural Gas Distribution

Retail natural gas supply agreements for natural gas distribution through gas pipeline system normally last 5 – 10 years depending on the type of the customer, with annual minimum purchasing amount, and compensation charge in the case where agreements are terminated before the specified date, that may be applied.

Competition

LNG Shipper

Under Thailand's policy to support the competition in natural gas business phase 2, at present, there are 8 companies that have been granted the LNG Shipper license from the ERC, with each LNG Shipper having a different customer target group.

Natural Gas Distribution

Currently, there are 4 companies that have granted license for natural gas retail distribution through gas pipeline system. Each natural gas distributor's service areas are not overlapping, as the gas pipeline systems are capital intensive business, so each operator will not invest redundantly in any area. However, the service area of each operator will grow in accordance to the expansion of industrial sector in the estates or along PTT's main gas pipeline system.

2. Infrastructure and Utilities Business

Marketing

Infrastructure and Utilities Businesses under the Group focuses on the large-scale infrastructure and utility projects, mainly are government's projects which allow private sector to joint-invest under the Public Private Partnership (PPP) contracts that can be categorized into 2 types, namely:

- **PPP Gross Cost**

Projects under PPP Gross Cost scheme that the Company invests in are Bang Pa-In - Nakhon Ratchasima (M6) Intercity Motorway and Bang Yai - Kanchanaburi (M81) Intercity Motorway projects (Operation and Maintenance: O&M). The projects operates under 33-year public-private partnership (PPP) contract with the Department of Highways, which is divided into 2 parts including; (1) design and construction of system works and other related elements. It is expected that the construction will take approximately 3 years from the start date of the work; and (2) Operation and Maintenance (O&M) for a period of 30 years from the commencement of commercial operation. The projects will receive operation and maintenance fee from the government sector.

- **PPP Net Cost**

Projects under PPP Net Cost scheme that the Company invests in are as follows:

Map Ta Phut Industrial Port Development Phase 3 Project (Phase 1) which has a 35-year public-private partnership (PPP) contract with IEAT. The project is divided into 2 parts including; (1) infrastructure design and construction part, which includes dredging and land reclamation work in an area of approximately 1,000 rai, which is expected to take approximately 3 years and will receive land reclamation fee from the government sector; and (2) Superstructure part which includes design, construction and operation of LNG terminal which will collect fare revenue to for providing LNG terminal operation services to the customers, with concession fee paid to the government sector as specified in the PPP contract.

Laem Chabang Port Development Phase 3 (Terminal F) which has a 35-year public-private partnership (PPP) contract with PAT. The project will collect fare revenue from providing container port services with automation technology to the customers, with concession fee paid to the government sector as specified in the PPP contract.

In terms of customer targeting for Laem Chabang Port Development Phase 3 (Terminal F), which is currently under development, the Group prepared to specify its customer target group by considering the customers' numbers of containers, financial performance, and business networks, to propose attractive conditions and fees which are competitive and reasonable with the operating costs and expenses.

With the Company's extensive experience in developing and operating large-scale energy projects, GULF has accumulated the strengths and broad business networks in many business areas. The Group has been continuously studying projects as well as discussing with its business partners about various projects, and preparing highly skilled and knowledgeable personnels with experiences in various areas to be ready for developing and operating infrastructure projects with its partners.

Moreover, the Company has provided support to the government sector by offering useful opinions for the government sector in various occasions. The Group has presented its willingness in utilizing its experience in developing sizable projects to jointly develop infrastructure projects with the government. The Company's ability is recognized by the government sector, and GULF has always been invited by the government to provide its viewpoints.

Competition

Infrastructure and utilities projects in Thailand are mainly government projects with participation from the private sector to jointly invest under the Public-Private Partnership (PPP) contracts, and the level of competition depends on the type of project. For projects with PPP Gross Cost contracts such as the Bang Pa-In - Nakhon Ratchasima (M6) Intercity Motorway and Bang Yai - Kanchanaburi (M81) Intercity Motorway projects (Operation and Maintenance: O&M), although there is no competition which will impact the projects' financial performance, the Group will still have to maintain the service standards to meet with the Key Performance Indicator that was determined by the government sector, which will affect the operation and maintenance fee that the Group will receive.

On the other hand, projects with PPP Net Cost contracts will have high competition, such as the Laem Chabang Port Development Phase 3 (Terminal F) (currently under development) which will have to compete with existing container port operators who hold concessions from PAT to operate within the Laem Chabang Port area, and other private operators outside of Laem Chabang Port area. However, as the project is the largest deep sea container port in Thailand with long berth length and state-of-the-art automatic port management system, the Terminal F will have a high competitive advantage that can compete with large scale port in the region such as in Singapore and Malaysia.

Although infrastructure and utilities projects are a relatively new business for the Group, with GULF's experience in managing sizable projects, the partners' expertise, strategic planning, and managements' vision, the Group has confidence in our capability to effectively compete in this field of business.

Incentives to obtain investment promotion

The companies that operate core businesses under GULF's group have obtained investment promotion under The Investment Promotion Act B.E. 2520 from The Office of the Board on Investment. The power plants under the Group which have obtained investment promotions are as follows:

Company / Project	Corporate income tax exemption on the profit derived from promoted activities for the period of 8 years from the date of revenue derivation from business operations ⁽¹⁾	50 percent reduction of the corporate income tax on the profit derived from promoted activities for the period of 5 years from the expiration of the corporate income tax exemption	50 percent reduction of the corporate income tax on the profit derived from promoted activities for the period of 3 years from the expiration of the corporate income tax exemption	Exemption of machinery import duties as approved by the Board of Investment	Corporate income tax exemption for dividends received from the promoted activities throughout the promotional period
Subsidiaries					
GMP Group					
GVTP	✓	✓	-	✓	✓
GTS1	✓	✓	-	✓	✓
GTS2	✓	✓	-	✓	✓
GTS3	✓	✓	-	✓	✓
GTS4	✓	✓	-	✓	✓
GNC	✓	-	-	✓	✓
GBL	✓	-	-	✓	✓
GBP	✓	-	-	✓	✓
GNLL2	✓	✓	-	✓	✓
GNPM	✓	-	-	✓	✓
GNRV1	✓	-	-	✓	✓
GNRV2	✓	-	-	✓	✓
IPD Group					
GSRC	✓	-	-	✓	✓
GPD	✓	✓	-	✓	✓
Gulf Solar Group					
Gulf Solar BV	✓	✓	-	✓	✓
Gulf Solar KKS	✓	✓	-	✓	✓
Gulf Solar TS1	✓	✓	-	✓	✓
Gulf Solar TS2	✓	✓	-	✓	✓
Other groups					
GCG	✓	✓	-	✓	✓
HKP	-	-	✓	✓	✓
BPP	✓	-	-	✓	✓
GULF1	✓	-	-	✓	✓
Gulf JP1	✓	-	-	✓	✓

⁽¹⁾ Each project is entitled to corporate income tax exemption with a cap of 100 percent of the investment capital (excluding cost of land and working capital) within the promotional period, except for GUT project, which has corporate income tax exemption with a cap of 150 percent of the investment capital, and projects under Gulf Solar group and GCG which have no limit on the maximum corporate income tax exemption compared to the investment capital.

Company / Project	Corporate income tax exemption on the profit derived from promoted activities for the period of 8 years from the date of revenue derivation from business operations ⁽¹⁾	50 percent reduction of the corporate income tax on the profit derived from promoted activities for the period of 5 years from the expiration of the corporate income tax exemption	50 percent reduction of the corporate income tax on the profit derived from promoted activities for the period of 3 years from the expiration of the corporate income tax exemption	Exemption of machinery import duties as approved by the Board of Investment	Corporate income tax exemption for dividends received from the promoted activities throughout the promotional period
Associates					
GJP Group					
GJP ⁽²⁾	-	-	-	-	-
GUT	✓	-	✓	✓	✓
GNS	✓	-	-	✓	✓
GKP1	✓	-	-	✓	✓
GKP2	✓	-	-	✓	✓
GTLC	✓	-	-	✓	✓
GNNK	✓	-	-	✓	✓
GCRN	✓	-	-	✓	✓
GNK2	✓	-	-	✓	✓
GNULL	✓	✓	-	✓	✓

Power plant projects under the Group which has received important benefits from investment promotion are as follows:

Company / Project	Promotional Period	Exemption of corporate income tax on the profit from promoted activities	5 percent reduction of the corporate income tax on the profit derived from promoted activities for the period of 9 years from the expiration of the corporate income tax exemption	10 percent reduction of the corporate income tax on the profit derived from promoted activities for the period of 2 years from the expiration of the 5 percent corporate income tax exemption	Exemption of machinery import duties
Subsidiaries					
GIH Group					
DIPWP (Oman)	25 years from commercial operation date	✓ (25 years)	-	-	✓
GTN1 (Vietnam)	15 years from commercial operation date	✓ (4 years)	✓	✓	✓
GTN2 (Vietnam)			✓	✓	✓
Mekong (Vietnam)			✓	✓	✓

⁽¹⁾ Each project is entitled to corporate income tax exemption with a cap of 100 percent of the investment capital (excluding cost of land and working capital) within the promotional period, except for GUT project, which has corporate income tax exemption with a cap of 150 percent of the investment capital, and projects under Gulf Solar group and GCG which have no limit on the maximum corporate income tax exemption compared to the investment capital.

⁽²⁾ GJP project is entitled to the incentives of investment promotion certificate in Trade and Investment Support Office (TISO) activity which differs from those shown in the table above. For example, permit to bring into the Kingdom skilled workers and experts to work in investment promoted activities and permit to take out or remit money abroad in foreign currency.

IMPORTANT FINANCIAL INFORMATION

Consolidated financial statements and key financial ratios of Gulf Energy Development Public Company Limited for the year 2019 – 2021

(unit : THB million)

Consolidated statement of financial position	31 December 2019	%	31 December 2020	%	31 December 2021	%
Assets						
Current assets						
Cash and cash equivalents	12,645.8	9.4%	15,902.2	6.5%	19,846.8	5.5%
Short-term deposits at financial institutions used as collateral	2,164.3	1.6%	5,869.8	2.4%	2,786.7	0.8%
Trade receivables	5,199.0	3.9%	5,660.4	2.3%	9,568.9	2.6%
Current portion of lease receivable under power purchase agreement	-	0.0%	-	0.0%	596.3	0.2%
Other receivables	593.5	0.4%	676.4	0.3%	1,392.2	0.4%
Other current financial assets	15.1	0.0%	317.6	0.1%	2,313.7	0.6%
Spare parts	156.9	0.1%	331.0	0.1%	1,302.6	0.4%
Refundable VAT	-	0.0%	-	0.0%	1,004.0	0.3%
Other current assets	756.0	0.6%	1,596.8	0.7%	-	0.0%
Total current assets	21,530.7	16.0%	30,354.4	12.4%	38,811.2	10.7%
Non-current assets						
Deposits at financial institutions used as collateral	-	0.0%	1,225.7	0.5%	1,319.9	0.4%
Other non-current financial assets	2,104.1	1.6%	28,522.6	11.6%	3,340.5	0.9%
Investments in associates	20,865.5	15.5%	20,526.9	8.4%	130,220.6	35.9%
Investments in joint ventures	381.7	0.3%	1,552.0	0.6%	5,352.8	1.5%
Other non-current receivables	544.6	0.4%	355.6	0.1%	1,267.5	0.3%
Lease receivable under power purchase agreement	-	0.0%	-	0.0%	20,334.8	5.6%
Receivable from service concession arrangement	-	0.0%	159.3	0.1%	334.4	0.1%
Long-term loans to related parties	2,324.1	1.7%	4,638.5	1.9%	6,655.1	1.8%
Investment properties	97.6	0.1%	112.6	0.0%	112.6	0.0%
Advance payments for property, plant and equipment	3,069.9	2.3%	6,701.1	2.7%	3,016.7	0.8%
Property, plant and equipment	80,960.7	60.3%	129,718.3	52.8%	130,128.0	35.9%
Right-of-use assets	-	0.0%	787.4	0.3%	656.8	0.2%
Goodwill	109.1	0.1%	7,679.9	3.1%	7,902.9	2.2%
Intangible assets	1,003.4	0.7%	9,674.0	3.9%	11,061.5	3.0%
Deferred tax assets	374.3	0.3%	3,018.5	1.2%	1,896.5	0.5%
Refundable VAT	-	0.0%	-	0.0%	85.9	0.0%
Other non-current assets	911.9	0.7%	553.7	0.2%	176.2	0.0%
Total non-current assets	112,746.8	84.0%	215,226.1	87.6%	323,862.7	89.3%
Total assets	134,277.5	100.0%	245,580.5	100.0%	362,673.8	100.0%

Gulf Energy Development Public Company Limited

For the year ended 31 December 2019, 2020, and 2021

(unit : THB million)

Consolidated statement of financial position	31 December 2019	%	31 December 2020	%	31 December 2021	%
Liabilities and equity						
Current liabilities						
Trade payables	1,689.1	1.3%	1,353.5	0.6%	3,080.4	0.8%
Other payables	635.1	0.5%	1,020.2	0.4%	3,574.4	1.0%
Accrued expenses	1,083.4	0.8%	1,424.8	0.6%	-	0.0%
Construction payable	2,772.9	2.1%	7,176.5	2.9%	8,155.3	2.2%
Short-term loans from financial institutions	68.0	0.1%	11,500.0	4.7%	9,927.0	2.7%
Short-term loans from related parties	324.9	0.2%	-	0.0%	70.6	0.0%
Current portion of long-term loans from financial institutions	2,821.2	2.1%	2,392.2	1.0%	3,004.0	0.8%
Current portion of debentures	-	0.0%	4,394.5	1.8%	6,524.0	1.8%
Other current financial liabilities	67.3	0.1%	-	0.0%	512.3	0.1%
Current portion of lease liabilities	-	0.0%	73.2	0.0%	76.0	0.0%
Current income tax payable	9.4	0.0%	4.6	0.0%	92.1	0.0%
Other current liabilities	337.6	0.3%	303.1	0.1%	-	0.0%
Total current liabilities	9,808.9	7.3%	29,642.6	12.1%	35,016.2	9.7%
Non-current liabilities						
Other non-current payables	-	0.0%	632.3	0.3%	700.6	0.2%
Other non-current financial liabilities	409.5	0.3%	13,904.3	5.7%	9,169.3	2.5%
Long-term loans from financial institutions	66,452.7	49.5%	83,543.6	34.0%	138,761.2	38.3%
Lease liabilities	-	0.0%	780.9	0.3%	666.9	0.2%
Debentures	7,493.9	5.6%	39,033.9	15.9%	64,534.4	17.8%
Provision for decommissioning costs	673.6	0.5%	2,083.6	0.8%	2,234.6	0.6%
Deferred tax liabilities	191.6	0.1%	3,648.2	1.5%	3,821.8	1.1%
Provisions for employee benefits	207.2	0.2%	231.2	0.1%	259.7	0.1%
Total non-current liabilities	75,428.7	56.2%	143,858.1	58.6%	220,148.5	60.7%
Total liabilities	85,237.6	63.5%	173,500.7	70.6%	255,164.7	70.4%

(unit : THB million)

Consolidated statement of financial position	31 December 2019	%	31 December 2020	%	31 December 2021	%
Liabilities and equity (continued)						
Equity						
Share capital						
Authorized share capital						
2,133,300,000 ordinary shares at a par value of Baht 5 each	10,666.5		-		-	
11,733,150,000 ordinary shares at a par value of Baht 1 each	-		11,733.2		11,733.2	
Issued and paid-up share capital						
2,133,300,000 ordinary shares at paid-up of Baht 5 each	10,666.50	7.9%	-	0.0%	-	0.0%
11,733,150,000 ordinary shares at paid-up of Baht 1 each	-	0.0%	11,733.1	4.8%	11,733.1	3.2%
Share premium	20,889.3	15.6%	51,822.1	21.1%	51,822.1	14.3%
Surplus from business combination under common control	(316.2)	-0.2%	(316.2)	-0.1%	(316.2)	-0.1%
Changes in proportion of investment/ interests in subsidiaries	1,489.8	1.1%	1,489.8	0.6%	1,489.8	0.4%
Retained earnings						
Legal reserve	403.8	0.3%	657.7	0.3%	951.6	0.3%
Unappropriated	6,084.3	4.5%	7,310.1	3.0%	35,979.6	9.9%
Other components of equity	(790.3)	-0.6%	(8,669.5)	-3.5%	(5,064.0)	-1.4%
Equity attributable to owners of the parent	38,427.1	28.6%	64,027.1	26.1%	96,595.9	26.6%
Non-controlling interests	10,612.8	7.9%	8,052.7	3.3%	10,913.2	3.0%
Total equity	49,039.9	36.5%	72,079.8	29.4%	107,509.1	29.6%
Total liabilities and equity	134,277.5	100.0%	245,580.5	100.0%	362,673.8	100.0%

Gulf Energy Development Public Company Limited

For the year ended 31 December 2019, 2020, and 2021

(unit : THB million)

Consolidated statement of comprehensive income	31 December 2019	%	31 December 2020	%	31 December 2021	%
Revenue from sales	29,721.1	98.9%	32,298.1	98.4%	45,372.8	95.6%
Revenue from lease contracts under power purchase agreement	-	0.0%	-	0.0%	1,457.6	3.1%
Revenue from service concession arrangement	-	0.0%	157.5	0.5%	162.7	0.3%
Revenue from management fee	318.6	1.1%	371.5	1.1%	474.1	1.0%
Cost of sales	(22,631.1)	-75.3%	(23,369.0)	-71.2%	(34,026.8)	-71.7%
Cost from service concession arrangement	-	0.0%	(145.9)	-0.4%	(146.1)	-0.3%
Cost of management fee	(160.0)	-0.5%	(187.3)	-0.6%	(215.1)	-0.5%
Gross profit	7,248.6	24.1%	9,124.9	27.8%	13,079.3	27.6%
Interest income	188.9	0.6%	83.3	0.3%	83.2	0.2%
Other income	14.3	0.0%	19.9	0.1%	7.6	0.0%
Dividend income	100.5	0.3%	440.2	1.3%	2,425.7	5.1%
Administrative expenses	(1,713.1)	-5.7%	(2,079.9)	-6.3%	(2,297.4)	-4.8%
Net gain (loss) on exchange rate	1,003.5	3.3%	(133.8)	-0.4%	(1,074.8)	-2.3%
Finance costs	(2,895.7)	-9.6%	(3,665.0)	-11.2%	(5,595.6)	-11.8%
Share of profit of associates and joint ventures	3,205.4	10.7%	2,462.1	7.5%	2,886.0	6.1%
Profit before income tax expense	7,152.4	23.8%	6,251.6	19.0%	9,514.0	20.0%
Tax (expense) income	13.7	0.0%	(107.3)	-0.3%	(346.9)	-0.7%
Profit for the year	7,166.1	23.9%	6,144.3	18.7%	9,167.1	19.3%
Profit attributable to:						
Owners of the parent	4,886.6	16.3%	4,282.1	13.0%	7,670.3	16.2%
Non-controlling interests	2,279.5	7.6%	1,862.2	5.7%	1,496.8	3.2%
	7,166.1	23.9%	6,144.3	18.7%	9,167.1	19.3%
Earnings per share for the owners of the parent						
Basic earnings per share	2.29		0.39		0.65	
Diluted earnings per share	2.29		0.36		0.65	

(unit : THB million)

Consolidated statement of comprehensive income	31 December 2019	31 December 2020	31 December 2021
Profit for the year	7,166.1	6,144.3	9,167.1
Other comprehensive income (expense)			
Items that will be reclassified subsequently to profit or loss			
Change in fair value of available-for-sale investments	108.20	-	-
Reclassification adjustments to profit or (loss) of available-for-sale investments	(0.3)	-	-
Gain (loss) on cash flow hedges	(565.0)	(2,199.6)	4,016.0
Exchange differences on translating financial statements	(96.5)	695.1	193.8
Gain on investments in debt instruments designated at fair value through other comprehensive income (expense)	-	0.04	0.02
Share of other comprehensive income (expense) of associates and joint ventures	(43.7)	(489.8)	1,125.9
Total items that will be reclassified subsequently to profit or loss	(597.1)	(1,994.4)	5,335.7
Items that will not be reclassified subsequently to profit or loss			
Loss on remeasurements of defined benefit plans	(8.09)	-	-
Gain (loss) on sales of investment in equity instruments designated at fair value through other comprehensive income (expense)	0	32.1	(122.5)
Gain on investments in equity instruments designated at fair value through other comprehensive income (expense)	0	793.3	25,469.6
Share of other comprehensive income (expense) of associates and joint ventures	8.4	-	7.7
Total items that will not be reclassified subsequently to profit or loss	0.3	825.4	25,354.9
Other comprehensive income (expense) for the year, net of tax	(596.8)	(1,169.0)	30,690.6
Total comprehensive income (expense) for the year	6,569.3	4,975.4	39,857.7
Total comprehensive income attributable to:			
Owners of the parent	4,450.1	3,698.6	37,027.3
Non-controlling interests	2,119.2	1,276.8	2,830.3
	6,569.3	4,975.4	39,857.7

Gulf Energy Development Public Company Limited

For the year ended 31 December 2019, 2020, and 2021

(unit : THB million)

Consolidated statement of cash flows	31 December 2019	31 December 2020	31 December 2021
Cash flows from operating activities			
Profit before corporate income tax benefits (expenses)	7,152.4	6,251.6	9,514.0
Adjustments to reconcile profit to cash receipts (payments)			
- Finance costs	2,895.7	3,665.0	5,595.6
- Depreciation and amortization	2,433.9	3,431.4	4,988.9
- (Gain) loss from disposal and write-off plant, property and equipment	0.1	1.5	17.2
- Unrealized (gain) loss on exchange rate	(1,009.9)	773.1	1,674.8
- Gain on sales of available-for-sale investments	(0.3)	-	-
- Accounting losses on business combinations	82.0	-	-
- Reversal of impairment loss of investment properties	-	(15.0)	-
- Share of profit of associates and joint ventures	(3,205.4)	(2,462.1)	(2,886.0)
- Provisions for employee benefits obligation	-	-	31.4
- Dividend income	(100.5)	(440.2)	(2,425.7)
- Interest income	(188.9)	(83.3)	(83.2)
Cash flows from operating activities before changes in operating assets and liabilities	8,059.0	11,122.0	16,427.0
Changes in operating assets and liabilities (excluding effects from acquisition and disposal of subsidiaries)			
- Trade receivables	(1,634.3)	470.2	(3,871.2)
- Lease receivable under power purchase agreement	-	-	212.2
- Other receivables	1,299.3	14.7	(402.7)
- Spare parts	(106.9)	(174.1)	(971.6)
- Other current assets	147.2	(327.2)	-
- Refundable VAT	-	-	182.8
- Other non-current receivables	-	(65.0)	(808.5)
- Receivable from service concession arrangement	-	(157.5)	(162.7)
- Other non-current assets	3.3	(156.9)	216.2
- Trade payables	511.5	(335.6)	1,726.9
- Other payables	211.2	(35.8)	1,251.3
- Accrued expenses	(424.1)	230.7	-
- Other current liabilities	(46.2)	(34.5)	260.0
- Provisions for employee benefits obligation	50.2	27.8	(2.9)
Cash from (used in) operating activities	8,070.1	10,578.6	14,056.8
- Taxes received (paid)	(21.7)	0.2	(42.1)
Net cash from (used in) operating activities	8,048.4	10,578.8	14,014.7

(unit : THB million)

Consolidated statement of cash flows	31 December 2019	31 December 2020	31 December 2021
Cash flows from investing activities			
Deposits at financial institutions used as collateral	(69.2)	(4,931.2)	2,988.9
Payments for short-term investments	(2,000.0)	-	-
Proceeds from short-term investments	2,000.0	-	-
Advance payment for share subscription	(49.7)	(154.4)	-
Payments for investment in subsidiaries	-	(18,529.3)	-
Payments for investment in associates	-	(2,475.9)	(139.6)
Payments for investment in joint ventures	(27.1)	(1,205.4)	(3,489.6)
Payments for business combinations achieved in stage	(265.8)	-	-
Proceeds from short-term loans to related parties	-	-	-
Payments for long-term loans to related parties	(2,403.3)	(2,457.7)	(1,424.5)
Proceeds from available-for-sales investments	22.0	-	-
Payments for available-for-sales investments	(400.3)	-	-
Acquisition of property, plant and equipment	(12,558.0)	(10,846.3)	(20,847.8)
Payments for borrowing costs capitalized in property, plant and equipment	(830.3)	(1,010.6)	(1,235.0)
Payments for advance payments for land and power plant construction	(236.0)	(6,743.7)	(87.1)
Proceeds from disposals of property, plant and equipment	0.0	-	-
Acquisition of intangible assets	(25.2)	(10.6)	(25.9)
Payments for other financial assets	-	(26,203.8)	(59,406.4)
Proceeds from sale of other non-current financial assets	-	939.9	909.0
Dividend received	2,337.1	3,137.2	4,482.3
Interest received	189.1	81.6	69.6
Net cash used in investing activities	(14,316.6)	(70,410.2)	(78,206.3)

Gulf Energy Development Public Company Limited

For the year ended 31 December 2019, 2020, and 2021

(unit : THB million)

Consolidated statement of cash flows	31 December 2019	31 December 2020	31 December 2021
Cash flows from financing activities			
Proceeds from short-term loan from related party	-	-	70.6
Proceeds from long-term loans from related party	-	-	-
Proceeds from short-term loans from financial institutions	2,932.0	78,005.2	67,127.0
Payments for short-term loans from financial institutions	(3,744.0)	(66,898.1)	(68,700.0)
Proceeds from long-term loans from financial institutions	11,197.2	21,721.3	66,862.2
Payments for long-term loans from financial institutions	(4,282.8)	(4,100.9)	(14,334.1)
Payments for deferred financing fees for loans	(49.0)	(405.1)	-
Payments for lease liabilities	-	(83.6)	(114.4)
Proceeds from issuance of debentures	7,500.0	10,000.0	30,000.0
Payments for debentures	(6,000.0)	-	(2,985.3)
Payments for deferred financing fee for debentures	(7.5)	(10.0)	(24.0)
Proceed from call for additional paid-up capital of subsidiary	1,153.5	490.8	1,864.2
Proceeds from issuance of shares	-	31,999.5	-
Dividend paid	(2,559.9)	(2,773.3)	(4,458.5)
Dividend paid to non-controlling interests	(1,115.2)	(1,573.4)	(1,834.0)
Payments for finance costs	(2,648.3)	(3,271.9)	(5,345.7)
Payments for other finance costs	(155.5)	-	-
Net cash from financing activities	2,220.5	63,100.6	68,128.1
Net increase in cash and cash equivalents, before effect of exchange rate changes	(4,047.7)	3,269.2	3,936.6
Cash and cash equivalents at 1 January	16,698.5	12,645.8	15,902.2
Effect of exchange rate changes on cash and cash equivalents	(5.0)	(12.8)	8.0
Cash and cash equivalents at 31 December	12,645.8	15,902.2	19,846.8

(unit : THB million)

Consolidated statement of cash flows	31 December 2019	31 December 2020	31 December 2021
Non-cash transactions			
Increase in construction in progress from advance payment for power plant construction	2,633.7	3,549.1	3,966.6
Accounts payable for property, plant, equipment and intangible assets	2,772.5	7,169.9	8,170.2
Increase in assets from other payable	15.3	16.7	-
Retention	0.3	6.6	-
Increase from provision for decommissioning costs capitalized in assets	251.2	41.9	127.5
Increase in construction in progress from amortization of deferred financing fee	15.7	162.7	-
Business combinations achieved in stage from advance payment for share subscription	178.7	-	-
Payable for a business combination	46.1	-	-
Increase in plant and equipment from business combination	3,230.9	41,177.1	-
Increase in investment in associate from other payables	-	242.4	-
Increase in investment in associate from reclassification of investments in equity instruments	-	-	107,702.9

Key financial ratios of Gulf Energy Development Public Company Limited

Financial ratios	For the year ended 31 December		
	2019	2020	2021
Liquidity Ratios			
Current ratio (time)	2.20	1.02	1.11
Quick ratio (time)	2.04	0.93	0.92
Operating cash flow to current liabilities (time)	0.57	0.54	0.43
Receivable turnover (time)	6.90	6.05	6.00
Collection period (day)	52.20	59.55	60.01
Inventory turnover (time)	-	-	-
Average inventory period (day)	-	-	-
Accounts payable turnover (time)	15.90	15.58	15.51
Payment period (day)	22.64	23.11	23.21
Cash cycle (day)	29.56	36.44	36.80
Profitability Ratios			
Gross profit margin (percentage)	24.13	27.80	27.55
Operating profit margin (percentage)	18.43	21.46	22.71
Other profit margin (percentage)	13.06	8.04	8.36
Cash to income ratio (percentage)	145.40	150.16	129.98
Net profit margin (percentage) ⁽¹⁾	21.36	17.15	17.34
Return on equity (percentage)	15.27	10.15	10.21
Efficiency Ratios			
Return on assets (percentage)	5.56	3.24	3.01
Return on fixed assets (percentage)	12.83	8.65	10.09
Assets turnover (time)	0.27	0.19	0.17
Financial Policy Ratios			
Debt to equity ratio (time)	1.74	2.41	2.37
Interest coverage ratio (time) ⁽²⁾	3.67	3.67	3.96
Debt service coverage ratio (DSCR) (time) ⁽³⁾	3.31	0.73	1.13
Dividend payout to net profit (percentage)	52.39	64.76	58.13
Interest-bearing debt to equity ratio (time) ⁽⁴⁾	1.57	1.89	2.07
Net interest-bearing debt (including lease liabilities) to equity ratio (for bonds issued in 2019) (times) ⁽⁵⁾⁽⁷⁾	1.25	1.47	1.77
Net interest-bearing debt (excluding lease liabilities) to equity ratio (for bonds issued in 2020) (times) ⁽⁶⁾⁽⁷⁾	1.30	1.40	1.70
Interest-bearing debt to EBITDA (time) ⁽⁸⁾	7.25	10.47	10.06
Current interest-bearing debt to total interest-bearing debt (percentage)	4.17	12.98	8.76
Loans from financial institutions to interest-bearing debt (percentage)	89.87	69.17	68.08

Remarks:

⁽¹⁾ Net Profit Margin is calculated by dividing profit for the year by the aggregate of (a) Revenue from sale (b) Revenue from management fee (c) Other income (interest income, dividend income, other income) and (d) Share of profit of associates and joint ventures.

⁽²⁾ Interest coverage ratio is calculated by the aggregate of (a) Revenue from sale (b) Revenue from management fee (c) Other income (interest income, dividend income, other income) and (d) Share of profit of associates and joint ventures by Finance costs.

⁽³⁾ Debt service coverage ratio (DSCR) is calculated by EBITDA (which included Share of profit of associates and joint ventures and excluded associates and joint ventures' Gain (loss) on exchange rate) divided by Current Interest-Bearing Debt.

⁽⁴⁾ Interest-bearing debt to equity ratio is calculated by the aggregate of (a) Short-term loans (b) Short-term loans from financial institutions (c) Current portion of long-term loans from financial institutions (d) Current portion of debentures (e) Long-term loans, Debentures (f) Long-term loans from related parties and (g) Long-term loans from financial institutions, divided by Equity.

⁽⁵⁾ Net interest-bearing debt (including lease liabilities) to Equity Ratio (for bonds issued in 2019) is calculated by Interest-bearing debt less (a) cash/ cash equivalent and (b) Deposits at financial institutions used as collateral divided by Total Equity less Other components of equity as shown in the Issuer's audited consolidated Financial Report.

⁽⁶⁾ Net interest-bearing debt (excluding lease liabilities) to Equity Ratio (for bonds issued in 2020) is calculated by Interest-bearing debt (excluding lease liabilities) less (a) cash/ cash equivalent and (b) Deposits at financial institutions used as collateral divided by Total Equity less Other components of equity as shown in the Issuer's audited consolidated Financial Report and excluding unrealized gain (loss) on exchange rate and unrealized gain (loss) from changes in the derivatives and Embedded Derivatives (if any) that was recorded in non-controlling interest. With the value shown in the table below.

(unit : THB million)

Transactions	2019	2020	2021
Unrealized gain (loss) on exchange rate	1,915	(131)	(2,290)
Unrealized gain (loss) from changes in the derivatives and Embedded Derivatives that was recorded in non-controlling interest	(145)	(3,466)	(2,132)

⁽⁷⁾ Terms and conditions for the securities and debentures issuers regulated that the net debt to equity ratio must be maintained at below 3.5:1 times, calculated by using the information in the audited consolidated financial statement ended 31 December of each year, applicable from Gulf Energy Development Public Company Limited's debenture 1/2019 onwards.

⁽⁸⁾ Interest bearing debt to EBITDA is calculated by interest bearing debt (excluding lease liabilities) divided by EBITDA (which included Share of profit of associates and joint ventures and excluded Associates and joint venture's Gain (loss) on exchange rate).

(unit : THB million)

Transactions	2019	2020	2021
EBITDA (which included Share of profit of associates and joint ventures and excluded associates and joint venture's Gain (loss) on exchange rate)	10,638	13,455	22,152

MANAGEMENT DISCUSSION AND ANALYSIS

EXECUTIVE SUMMARY

Economic Situation

Although the Thai economy was still affected by the COVID-19 outbreak in 2021, there was a slight recovery from 2020, mainly due to the domestic demand and industrial production sector which improved from the relaxation of lockdown measures in the country, coupled with the international tourism sector which started to resume activities in accordance with the government's re-opening policy, and the export value that expanded from the volume growth as well as the price which increased in tandem with the higher global commodity prices.

For the economic outlook in 2022, the Bank of Thailand forecasted that the Thai economy will grow at approximately 3.4%, primarily supported by domestic consumption, private sector's investments, the recovery of the number of foreign tourists as vaccines become more widely available, and the supporting policies from the government, despite the potential delays of private sector's investments, and the export sector that are still affected by the Omicron variant of COVID-19 virus. However, the supply disruption in several industries and the price volatility of energy and commodities, as well as the instability of global financial markets, are the factors that may pressure the economic recovery in the upcoming period.

Thai Baht Currency Situation

In 2021, the Thai Baht largely depreciated against the US Dollar. In Q1'21, Thai Baht depreciated together with other currencies in the region while US Dollar appreciated following the large-scale economic stimulation of the US government. Later in Q2'21 to Q3'21, Thai Baht continued to depreciate from the 3rd round of COVID-19 virus outbreak in Thailand, coupled with the FED's signaling for the possibility of faster interest rate increase. However, in the middle of Q4'21, Thai Baht appreciated from the better economic sentiment due to Thailand's re-opening plan, and depreciated again in December 2021 from the tendency of monetary policy tightening in Developed Markets, along with the outbreak of the Omicron variant of COVID-19 virus in Thailand. Further into 2022, the BOT forecasted that Thai Baht exchange rate has a tendency to be volatile from the uncertainty of COVID-19, and the monetary policy of Developed Market countries in the high inflation environment.

However, as the electricity selling price structure for IPP and SPP power plants in Thailand partially correlates with the change in Thai Baht / US Dollar exchange rate, the Group structures its long-term loan for its power plants to be partially in USD, in order for the cash flow received and paid to be in harmonized in terms of currency (natural hedge), as a foreign exchange rate risk hedging method.

Financial Performance Overview

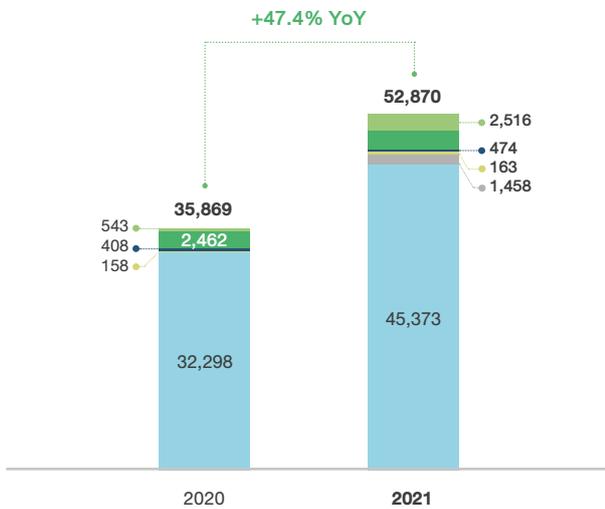
	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from sales, lease contracts under power purchase agreement, management fee, and service concession arrangement	9,309	11,903	15,287	28.4%	64.2%	32,863	47,467	44.4%
Share of profit (loss) from associates and JVs	979	175	1,936	1003.6%	97.8%	2,462	2,886	17.2%
Other income	21	1,702	31	-98.2%	46.9%	543	2,516	363.2%
Total revenues	10,309	13,780	17,254	25.2%	67.4%	35,869	52,870	47.4%
EBITDA⁽¹⁾	4,172	6,034	6,706	11.1%	60.7%	13,462	22,152	64.5%
Profit for the period	2,736	1,679	3,864	130.1%	41.3%	6,144	9,167	49.2%
Profit attributable to owners of the parent	1,844	1,588	3,043	91.6%	65.0%	4,282	7,670	79.1%
Less: gain (loss) on exchange rate attributable to owners of the parent	612	(767)	242	n.a.	-60.4%	(189)	(1,227)	-549.4%
Less: unrealized gain (loss) on derivatives of PTT NGD	(7)	62	73	18.7%	n.a.	(7)	86	n.a.
Core Profit⁽²⁾	1,239	2,293	2,728	18.9%	120.1%	4,478	8,812	96.8%
Share of Core Profit from associates and JVs ⁽³⁾	442	690	1,699	146.1%	284.1%	2,443	3,864	58.2%
Basic earnings per share (THB)	0.16	0.14	0.26	91.6%	60.7%	0.39	0.65	67.6%

⁽¹⁾ EBITDA = Earnings before Interest, Taxes, Depreciation, and Amortization, gain (loss) on exchange rate of the Company and of GJP and INTUCH, and unrealized gain (loss) on derivatives of PTT NGD

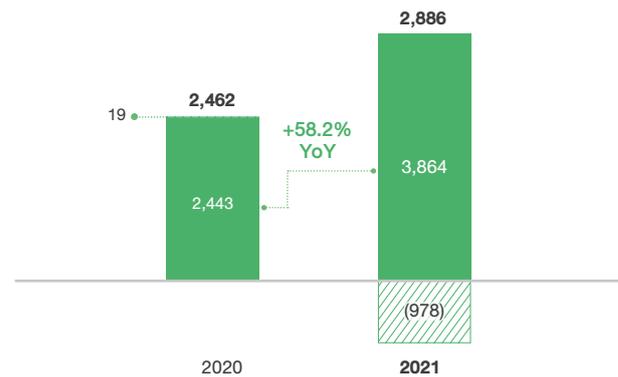
⁽²⁾ Core Profit = profit attributable to owners of the parent before gain (loss) on exchange rate and unrealized gain (loss) on derivatives of PTT NGD

⁽³⁾ Share of Core Profit from associates and JVs = share of profit (loss) from associates and JVs before gain (loss) on exchange rate of GJP and INTUCH and unrealized gain (loss) on derivatives of PTT NGD

Total revenue (THB mn)



Share of profit from associates and JVs (THB mn)



- Other income
- Share of profit from associates and JVs
- Revenue from management fee
- Revenue from service concession arrangement
- Revenue from lease contracts under power purchase agreement
- Revenue from sales
- Total revenues**

- FX gain/loss and unrealized gain/loss from derivative contracts of PTT NGD
- Share of core profit
- Total share of profit**

Revenue breakdown by Business Unit	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Gas-fired power business	6,964	10,414	12,889	23.8%	85.1%	29,277	40,184	37.3%
Renewable energy business	2,220	1,317	2,248	70.8%	1.3%	3,021	6,647	120.0%
Infrastructure & utilities business	27	50	22	-56.6%	-20.3%	158	163	3.3%
Gas business	-	-	-	n.a.	n.a.	-	-	n.a.
Revenue from management fee	98	123	128	3.9%	30.4%	408	474	16.4%
Other income	21	1,702	31	-98.2%	46.9%	543	2,516	363.2%
Share of profit from associates and JVs	979	175	1,936	1003.6%	97.8%	2,462	2,886	17.2%
Total Revenue	10,309	13,780	17,254	25.2%	67.4%	35,869	52,870	47.4%

Revenue breakdown by business units (%)



Total revenue in Q4'21 was recorded at THB 17,254 million, an increase of 67.4% YoY, and 25.2% QoQ. For the year 2021, total revenue was THB 52,870 million, an increase of 47.4% YoY, with the main factors as follows:

- 1) Revenue from Gas-Fired Power business was at THB 12,889 million in Q4'21, and THB 40,184 million for the year 2021, accounting for 76.0% of total revenues for the year.

For Q4'21, revenue increased by 85.1% YoY and 23.8% QoQ, and increased by 37.3% for the year 2021, mainly from the revenue recognition of GSRC units 1-2 since their commercial operation dates on March 31 and October 1, 2021, as well as from the average electricity selling price per unit which increased in line with higher natural gas price. Moreover, GMP group recorded higher electricity and steam sales volume to industrial users.

- 2) Revenue from Renewable Energy business was THB 2,248 million in Q4'21, and THB 6,647 million for the year 2021, accounting for 12.6% of total revenues for the year.

For Q4'21, revenue increased 1.3% YoY, primarily due to the depreciation of Thai Baht against US Dollar and Euro currencies, which resulted in the higher selling price per unit booked in Thai Baht from the BKR2 offshore wind power project in Germany and GTN1 and GTN2 solar projects in Vietnam, despite the slightly softened sales volume from the aforementioned projects. **However, when compared to Q3'21, revenue increased 70.8% QoQ** from the revenue of BKR2 offshore wind power project which entered its high season. **For the year 2021 compared to 2020, revenue increased 120.0% YoY**, mainly from the full year performance of BKR2 offshore wind project, compared to 1 quarter of performance recognized in 2020, coupled with the full year performance contribution from GCG biomass project which commenced its commercial operation on March 1, 2021.

- 3) Revenue from Infrastructure & Utilities business was THB 22 million in Q4'21, and THB 163 million for the year 2021, accounting for 0.3% of total revenues for the year, from service concession arrangement revenue for the land reclamation work of MTP3 industrial port development project, which is scheduled to be completed in 2024, and the Company began to recognize such revenue since Q3'20.
- 4) Revenue from Management Fee was THB 128 million in Q4'21, and THB 474 million for the year 2021, accounting for 0.9% of total revenues for the year from the revenue received from the provision of management services by the Company to its associate GJP which increased as stipulated in the service agreement, and from services provided to HKP project and SPP power plants under GEC.

- 5) **Other income was THB 31 million in Q4'21, and THB 2,516 million for the year 2021**, mainly from the dividend income from INTUCH of THB 2,349 million which was booked in Q1'21 and Q3'21 following the increase in the Company's investment in INTUCH during the year 2021. However, the Company will record a share of profit from INTUCH instead of dividend income from Q4'21 onwards.
- 6) **Share of profit from associates and JVs was THB 1,936 million in Q4'21, and THB 2,886 million for the year 2021, accounting for 5.5% of total revenues for the year.**
- **In Q4'21, share of profit increased by 97.8% YoY**, mainly from the recognition of share of profit from INTUCH for the first time, and a share of Core Profit from GJP which increased from the higher Availability Payment revenue due to the depreciation of Thai Baht, despite the share of FX gain and an unrealized gain on derivatives of associates which was recorded in Q4'21 at THB 238 million which was lower than in Q4'20 which recorded a net gain from these items of THB 537 million. However, **when compared with Q3'21, share of profit increased by 1,003.6% QoQ**, mainly from the share of profit from INTUCH. Furthermore, the Company also recorded share of FX gain and an unrealized gain on derivatives of associates in Q4'21, while these items resulted in a net loss of THB 515 million in Q3'21.
 - **For the year 2021 when compared to 2020, share of profit increased by 17.2% YoY** from the recognition of share of profit from INTUCH and higher share of profit from PTT NGD after the Company invested 40% in PTT NGD in December 2020, and increased the equity interest to 42% in April 2021. Share of Core Profit from GJP remained at a similar level as last year. However, in 2021, the Company recorded a net loss of THB 978 million share of FX loss and an unrealized gain on derivatives of associates, compared to in 2020, which recorded THB 19 million net gain from these items.

Net profit attributable to owners of the parent (THB mn)



- **Core Profit in Q4'21 was recorded at THB 2,728 million, and in 2021 was recorded at THB 8,812 million**
- **For Q4'21, Core Profit increased by 120.1% YoY and 18.9% QoQ**, primarily from the performance of GSRC units 1-2 which commenced commercial operation during the year, and the share of profit from INTUCH which was recorded for the first time in Q4'21. Moreover, when compared to Q3'21, the performance contribution from BKR2 offshore wind project significantly improved due to the seasonal factor.
- **For the year 2021 compared to 2020, Core Profit increased by 96.8% YoY**, mainly from the commercial operation commencement of GSRC units 1-2, full year performance recorded from the BKR2 offshore wind project, and the improved performance from the power plants under GMP group. Moreover, dividend income from INTUCH increased from the Company's higher equity interest in INTUCH; however, from October 1, 2021 onwards, the Company will record share of profit from INTUCH as an associate, and will no longer record dividend income from INTUCH in the future. As such, in Q4'21, the Company recorded a share of profit from INTUCH for the first time.

- **Net profit attributable to owners of the parent in Q4'21 was recorded at THB 3,043 million, and in 2021 was recorded at THB 7,670 million**
 - **For Q4'21, Net profit attributable to owners of the parent rose by 65.0% YoY and 91.6% QoQ**, increased in the same direction as the Core Profit; however, in Q4'21, the Company recorded FX gain attributable to owners of the parent and unrealized gain on derivatives of associates totaling of THB 316 million, compared to THB 605 million gain from the items in Q4'20, and THB 705 million loss from the items in Q3'21.
 - **For the year 2021 compared to 2020, Net profit attributable to owners of the parent rose by 79.1% YoY**, increased in the same direction as the Core Profit; however, in 2021, the Company recorded FX loss attributable to owners of the parent and unrealized gain on derivatives of associates totaling of THB 1,141 million loss, compared to THB 196 million loss from the items in 2020. Nonetheless, the recording of such gain (loss) on exchange rate and unrealized gain (loss) on derivatives are accounting transaction which has no impact on the cash flow and performance of the Group at all.

Summary of the Company's Financial Position Ended December 31, 2021

- **Total assets as of December 31, 2021, was equal to THB 362,674 million, an increase of THB 117,093 million (+47.7%)** from December 31, 2020, mainly attributable to the higher investment value in INTUCH, following Company's additional investment in equity interest of INTUCH to 42.25%, and the change in accounting treatment for its investment in INTUCH from other non-current financial assets to investment in associates, which requires the Company to adjust its average acquisition cost of INTUCH to fair value as of the effective date of the change in accounting method.
- **Total liabilities as of December 31, 2021, were equal to THB 255,165 million, an increase of THB 81,664 million or (+47.1%)** from December 31, 2020, mainly from long term loans from financial institutions which were used for the Company's investment in INTUCH, and the issuance of the Company's 1/2021 debentures which was used as working capital for business expansion. GSRC and GPD projects also drew down loans in accordance with the construction progress.
- **Total equity as of December 31, 2021, was THB 107,509 million, an increase of THB 35,429 million or (+49.2%)** from December 31, 2020, from the Company's operating performance, unrealized gain from adjusting average acquisition cost of INTUCH to fair value as of October 1, 2021, and fair value of interest rate swap derivatives, which was measured as required under TFRS 9 and recorded within other components of shareholders' equity.
- **As of December 31, 2021, the Group recorded a net interest-bearing debt (including lease liabilities) to equity ratio at 1.77 times**, which is lower than the Company's bond covenant of 3.50 times.

OPERATING RESULTS BY BUSINESS UNITS

Gas-Fired Power Business Performance

Gas-Fired Power Business	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from electricity sold to EGAT	5,106	8,010	10,078	25.8%	97.4%	22,500	30,745	36.6%
Revenue from electricity sold to industrial users	1,729	1,853	1,921	3.7%	11.1%	6,318	7,323	15.9%
Revenue from steam sold to industrial users	129	160	196	22.6%	52.1%	460	659	43.4%
Revenue from lease contracts under power purchase agreement	-	390	694	78.2%	n.a.	-	1,458	n.a.
Total Revenue from Gas-Fired Power Business	6,964	10,414	12,889	23.8%	85.1%	29,277	40,184	37.3%

Revenue from Sales (Gas-Fired Power business)

In Q4'21, Gas-Fired Power Generation business recorded revenue from sales and lease contracts under power purchase agreement at THB 12,889 million, an increase of 85.1% YoY when compared to Q4'20 mainly due to the recognition of revenue from electricity sales to EGAT and revenue from lease contracts under power purchase agreement according to TFRS 16 from GSRC unit 1-2 projects, after their commercial operation commencement on March 31 and October 1, 2021. In addition, 12SPPs under GMP group recorded a higher revenue from electricity sold to EGAT and industrial users, which were in line with the higher electricity and steam sales volume to industrial users, both from the existing customers and from the Company's customer base expansion. Apart from the higher electricity sales volume, Energy Payment revenue for the Gas-Fired Power Generation business group also increased in line with the natural gas price, as the gas cost for SPP power plants rose from 214.03 THB/mmbtu in Q4'20 to 336.74 THB/mmbtu in Q4'21 (+57.3% YoY).

Compared to Q3'21, Gas-Fired Power Generation business recorded 23.8% QoQ higher revenue from sales and lease contracts under power purchase agreement, mainly due to the commercial operation commencement of GSRC unit 2 project on October 1, 2021. Moreover, the revenue from electricity and steam sales from Gas-Fired Power Generation business also increased in tandem with the higher natural gas price (the cost of natural gas of SPPs increased from 268.61 THB/mmbtu in Q3'21 to 336.74 THB/mmbtu in Q4'21 (+25.4% QoQ)), resulting in the higher Energy Payment revenue as well. Nevertheless, the electricity sales volume to EGAT of GMP group softened by 6.8% as there were 2 planned maintenance shutdown (B-inspection) in Q4'21, compared to the previous quarter where there was no power plant which underwent B-inspection. Nevertheless, electricity sales of GSRC group slightly declined from the weakened electricity demand in the country, causing EGAT to dispatch less electricity.

For the year 2021, revenue from sales and lease contracts under power purchase agreement for the Gas-Fired Power Generation business was recorded at THB 40,184 million, an increase of 37.3% YoY, primarily resulting from the commercial operation commencement of GSRC unit 1-2 projects as previously mentioned, and revenue from the 12SPPs under GMP group which increased from the higher electricity and steam sales volume, as the industrial users' load factor rose from 56% in 2020 to 60% in 2021, mainly increased in electronics components, automotive, packaging, and steel sectors. Moreover, the electricity and steam selling price per unit also increased in tandem with the higher natural gas price, as the SPPs gas cost increased from 244.51THB/mmbtu in 2020 to 266.02 THB/mmbtu in 2021 (+8.8% YoY).

Revenue drivers for Gas-Fired Power Generation business

Electricity and steam sales volume	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			%YoY
Power projects under GMP								
Electricity sold to EGAT (GWh)	1,854	1,983	1,848	-6.8%	-0.3%	7,541	7,559	0.2%
Electricity sold to IUs (GWh)	519	568	592	4.2%	14.1%	1,914	2,238	16.9%
Steam sold (tons)	180,262	163,081	183,044	12.2%	1.5%	649,497	713,329	9.8%
Power projects under IPD								
Electricity sold to EGAT (GWh)	-	878	857	-2.4%	n.a.	-	2,946	n.a.
Average selling price per unit	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			%YoY
Power projects under GMP								
Electricity sold to EGAT (THB/kWh)	2.74	3.17	3.75	18.3%	36.9%	2.98	3.16	6.1%
Electricity sold to IUs (THB/kWh)	3.21	3.21	3.26	1.4%	1.5%	3.26	3.20	-1.6%
Steam sold (THB/ton)	640.6	962.5	1,050.1	9.1%	63.9%	701.0	908.1	29.5%
Power projects under IPD								
Electricity sold to EGAT (THB/kWh)	-	2.08	4.58	120.0%	n.a.	-	2.76	n.a.

Renewable Energy Business Performance

Renewable Energy Business	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from electricity sold to EGAT and PEA	177	184	172	-6.1%	-2.7%	569	698	22.8%
Revenue from electricity sold to IUs	-	0.3	0.6	136.7%	n.a.	-	0.8	n.a.
Revenue from electricity sold to EVN	117	126	120	-4.5%	2.8%	526	494	-6.1%
Revenue from electricity sold to Ørsted Energy	1,926	1,007	1,947	93.4%	1.1%	1,926	5,445	182.7%
Revenue from Solar Rooftop construction for IUs	-	0.3	8	3113.6%	n.a.	-	8	n.a.
Total Revenue from Renewable Energy Business	2,220	1,317	2,248	70.8%	1.3%	3,021	6,647	120.0%

Revenue from Sales (Renewable Energy business)

In Q4'21, the Renewable Energy business recorded revenue from sales at THB 2,248 million, an increase of 1.3% YoY compared to Q4'20. The revenue of BKR2 offshore wind power project in Germany was recorded at a similar level as in Q4'20, as the selling price per unit in Thai Baht-equivalent increased from the exchange rate of Thai Baht against Euro currency which was weaker in Q4'21 compared to Q4'20. The higher selling price per unit was able to compensate for the sales volume which was slightly lower from the decreased wind speed, and the Capacity Factor in Q4'21 was recorded at 47.5% compared to 52.7% in Q4'20. Nevertheless, the curtailment of BKR2 project did not have any effect on the Company's revenue as BKR2 project received full compensation for the total amount of electricity that was affected as if there were no curtailment.

For GTN1 & GTN2 solar power projects in Vietnam, revenue from electricity sold to EVN increased by 2.8% YoY from the depreciation of Thai Baht against the US Dollar which resulted in the higher selling price per unit when converted to Thai Baht, although the electricity sales volume in Vietnam was softened from the temporary curtailment, as a result of the COVID-19 outbreak which led to stricter lockdown measures in Vietnam when compared to the same period of last year.

Revenue contribution of GCG biomass power project in Thailand slightly decreased from last year's, in line with the electricity sales volume which decreased 3.8% YoY, as the project underwent short-period maintenance for 2 days.

Furthermore, in 2021 the Company started to recognize revenue contribution from solar rooftop projects under the Company's subsidiary, GULF1, both from the electricity sales from the projects that started commercial operation, and the Revenue from Solar Rooftop construction for industrial users.

Compared to Q3'21, revenue from sales of Renewable Energy business increased by 70.8% QoQ mainly due to the performance of BKR2 offshore wind project in Germany which significantly recovered due to seasonal factors, as the performance in the previous quarter softened from the nature of the project's seasonality, while the 4th quarter is the high season. In Q4'21, BKR2's capacity factor was at 47.5% compared to 24.7% in Q3'21.

However, electricity sales revenue of the GTN1 & GTN2 solar power plant projects in Vietnam softened by 4.5% QoQ with higher impacts from the curtailment as the COVID-19 outbreak was more severe in Q4'21, resulting in a more serious lockdown measure and hence the weaker demand for electricity.

GCG biomass project recorded lower revenue from electricity sales which was in line with the lower volume of electricity sales by 6.9% QoQ, resulting from the aforementioned maintenance period.

For the year 2021 compared to 2020, revenue from sales of Renewable Energy business was recorded at THB 6,647 million (+120.0% YoY), majorly a result of the full year revenue recognition of the BKR2 offshore wind project in Germany, following the Company's investment in 50% of the project's equity interest on September 24, 2020. As for the GTN1 and GTN2 solar power projects in Vietnam, the revenue declined by 6.1% from the effect of the curtailment following the strict lockdown measure in the country. However, the GCG biomass project in 2021 recorded a higher sales revenue from the full year operation, after the project commenced commercial operation on March 1, 2020.

Revenue drivers for Renewable Energy business

Electricity sales volume	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			%YoY
GCG biomass power project								
Electricity sold to EGAT (GWh)	44	46	42	-6.9%	-3.8%	138	173	25.0%
GTN1 & GTN2 solar power projects in Vietnam								
Electricity sold to EVN (GWh)	41	40	35	-12.1%	-13.5%	180	161	-10.3%
BKR2 offshore wind power project								
Electricity sold (GWh)	541	251	483	92.5%	-10.7%	541	1,348	149.2%
Compensation (GWh)	39	29	73	156.5%	87.9%	39	217	456.4%
Average selling price per unit								
Average selling price per unit	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			%YoY
GCG biomass power project								
Electricity sold to EGAT (THB/kWh)	3.98	4.01	4.04	0.7%	1.5%	4.08	4.01	-1.6%
GTN1 & GTN2 solar power projects in Vietnam								
Electricity sold to EVN (THB/kWh)	2.90	3.11	3.17	1.8%	9.2%	2.93	3.01	2.7%
BKR2 offshore wind power project								
Electricity sold (THB/kWh)	6.71	7.14	7.04	-1.5%	4.8%	6.71	6.94	3.4%

Infrastructures & Utilities Business Performance

Infrastructures & Utilities Business	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from service concession arrangement	27	50	22	-56.6%	-20.3%	158	163	3.3%

In Q4'21, the Infrastructures & Utilities Business recorded revenue from service concession arrangement of THB 22 million, a revenue from service concession arrangement for the land reclamation work of MTP3 industrial port development project, which is scheduled to be completed in 2024, and began to be recognized in the Company's financial statement since Q3'20 in accordance with the Thai Financial Reporting Standards (TFRIC) 12. The revenue from service concession arrangement reduced 20.3% YoY and 56.6% QoQ, in line with the lower land reclamation cost in the quarter. However, for the year 2021 when compared to 2020, revenue from service concession arrangement increased by 3.3% YoY, in accordance with the project's development progress.

Revenue From Management Fee

Revenue from Management Fee	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from Management Fee	98	123	128	3.9%	30.4%	408	474	16.4%

In Q4'21, Revenue from Management Fee was recorded at THB 128 million, an increase of 30.4% YoY and 3.9% QoQ, and for the year 2021 was recorded at 474 THB million, an increase of 16.4%, from the revenue received from the provision of management services by the Company to its associate GJP which increased as stipulated in the service agreement, and from services provided to HKP project and SPP power plant under GEC.

Other Income

Other Income	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Dividend income	-	1,681	-	n.a.	n.a.	440	2,426	451.1%
Interest income	19	20	27	37.7%	41.4%	83	83	-0.1%
Other income	2	1	3	192.4%	115.3%	20	8	-61.9%
Total Other Income	21	1,702	31	-98.2%	46.9%	543	2,516	363.2%

In Q4'21, other income was recorded at THB 31 million, an increase of 46.9% YoY when compared to Q4'20, primarily from the interest income from the service concession arrangement of MTP3 industrial port development project. However, when compared to Q3'21, other income decreased by 98.2% QoQ mainly from the absence of dividend income from INTUCH at THB 1,666 million which was recorded in Q3'21, while there is no dividend income recorded in Q4'21.

For the year 2021, other income was recorded at THB 2,516 million, an increase of 363.2% YoY mainly increased from dividend income from INTUCH which was recorded in 2021 of THB 2,349 million, compared to THB 440 million in the previous year, a result of the Company's increased equity interest in INTUCH. However, since October 1, 2021, the Company will record performance contribution from INTUCH as a share of profit from associates, and will no longer record dividend income from INTUCH in the future.

Cost and Expense Structure

Cost of sales structure	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Cost of sales	5,870	8,848	10,815	22.2%	84.2%	23,369	34,027	45.6%
<i>Fuel cost</i>	<i>3,936</i>	<i>6,774</i>	<i>8,669</i>	<i>28.0%</i>	<i>120.3%</i>	<i>17,631</i>	<i>25,749</i>	<i>46.0%</i>
<i>Operations and maintenance cost</i>	<i>436</i>	<i>483</i>	<i>485</i>	<i>0.4%</i>	<i>11.3%</i>	<i>1,202</i>	<i>1,973</i>	<i>64.1%</i>
<i>Depreciation</i>	<i>1,177</i>	<i>1,231</i>	<i>1,229</i>	<i>-0.1%</i>	<i>4.4%</i>	<i>3,281</i>	<i>4,830</i>	<i>47.2%</i>
<i>Others</i>	<i>321</i>	<i>360</i>	<i>431</i>	<i>19.9%</i>	<i>34.6%</i>	<i>1,255</i>	<i>1,474</i>	<i>17.5%</i>
Cost of service concession arrangement	25	42	20	-51.8%	-20.2%	146	146	0.2%
Cost of service	48	54	55	2.4%	15.6%	187	215	14.8%
Total cost of sales and service	5,943	8,944	10,890	21.8%	83.2%	23,702	34,388	45.1%
Selling and administrative expenses	878	589	692	17.6%	-21.2%	2,116	2,297	8.6%
Total operating costs and administrative expenses	6,821	9,533	11,582	21.5%	69.8%	25,782	36,685	42.3%

Cost of sales

Cost of sales in Q4'21 was THB 10,815 million, an increase from the same period of last year by 84.2% YoY, mainly increased in the fuel cost, due to the higher fuel consumption volume and the higher fuel cost per unit, as the average cost of natural gas for SPP power plants rose 57.3% YoY. At the same time, the commercial operation commencement of GSRC unit 1-2 projects on March 31 and October 1, 2021, also resulted in the higher fuel cost, operations and maintenance cost, and depreciation cost recognized into the Company's consolidated financial statement. Moreover, the fuel cost was higher from the power plants under GSRC group which partially used diesel oil for their operation for some period in the quarter, and the power plants under GMP group which recorded higher fuel consumption in tandem with the higher sales volume.

Compared to Q3'21, cost of sales increased by 22.2% QoQ. The fuel cost escalated from the higher fuel consumption following the commercial operation of GSRC unit 2 project which commenced commercial operation on October 1, 2021, coupled with the higher natural gas cost (average cost of natural gas per unit for SPP power plants increased 25.4% QoQ). Moreover, the usage of diesel oil as a source of fuel for GSRC group for some period also contributed to the higher fuel cost for the Company's group as well.

For the year 2021, cost of sales increased by THB 45.6% YoY, a result of the GSRC unit 1-2 projects which commenced their commercial operation during the year 2021, and the recognition of BKR2 offshore wind project's costs for the full year, after the Company invested in 50% equity interest of the project in September 2020. Furthermore, natural gas cost for the Gas-Fired Power Generation Business also increased (average cost of natural gas per unit for SPP power plants increased 8.8% YoY), and the power plants under GMP group recorded an increased fuel consumption which was in line with the higher sales volume.

Cost drivers

Consumption and average cost per unit	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			
Natural gas (SPP under GMP)								
Consumption (thousand mmbtu)	17,959	19,162	18,255	-4.7%	1.6%	71,104	73,755	3.7%
Average cost per unit (THB/mmbtu)	214.03	268.61	336.74	25.4%	57.3%	244.51	266.02	8.8%
Natural gas and Diesel (IPP under GSRC)								
Natural gas consumption (thousand mmbtu)	-	5,589	4,468	-20.1%	n.a.	-	17,685	n.a.
Natural gas average cost per unit (THB/mmbtu)	-	259.17	327.41	26.3%	n.a.	-	263.47	n.a.
Diesel consumption (thousand litres)	-	-	30,445	n.a.	n.a.	-	30,445	n.a.
Diesel average cost per unit (THB/litre)	-	-	28.12	n.a.	n.a.	-	28.12	n.a.
Biomass (Wood)								
Consumption (ton)	81,877	74,589	83,041	11.3%	1.4%	239,364	296,865	24.0%
Average cost per unit (THB/ton)	1,202	996	1,047	5.1%	-12.9%	1,117	1,088	-2.6%

Cost of construction fee under concession arrangement

Cost of construction fee under service concession arrangement is a cost incurred from MTP3 industrial port development project for the infrastructure part which is recorded in accordance with TFRIC 12 standard. **In Q4'21, cost of construction fee under service concession arrangement was THB 20 million, a decrease of 20.2% YoY and 51.8% QoQ, reduced from the lower land reclamation cost. However, for the year 2021, cost of construction fee under service concession arrangement was THB 146 million, an increase of 0.2% YoY, grew in tandem with the progress of project development.**

Cost of service

Cost of service is a cost incurred from the Company providing management services to its associate GJP, to HKP, and to SPPs under GEC Group. **In Q4'21, cost of service was THB 55 million, an increase of 15.6% YoY and 2.4% QoQ, mainly from a higher personnel related cost. For the year 2021, cost of service was THB 215 million, increased by 14.8% YoY when compared to 2020 mainly from the services provided to HKP power plant project and the higher personnel related cost.**

Administrative expenses

In Q4'21, administrative expenses were THB 692 million, a decrease of 21.2% YoY, as there was a one-time expense related to BKR2 offshore wind farm acquisition recorded in the same period of last year. However, when compared to Q3'21, administrative expenses increased by 17.6% QoQ, and for the year 2021, administrative expenses was recorded at THB 2,297 million, an increase of 8.6% YoY, due to recognition of administrative expenses which increased in line with the growing number of power plants under the Group.

Finance Costs

Finance costs	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Interest expense	970	1,311	1,618	23.4%	66.8%	3,358	5,000	48.9%
Guarantee fee	9	10	9	-8.6%	2.6%	22	37	70.5%
Arrangement fee	14	300	32	-89.4%	127.8%	55	361	555.5%
Commitment fee	36	87	22	-74.9%	-40.0%	160	162	1.2%
Other costs	11	46	57	23.9%	400.2%	70	35	-49.6%
Total finance costs	1,040	1,753	1,737	-0.9%	67.0%	3,665	5,596	52.7%

Finance costs in Q4'21 were THB 1,737 million, an increase of 67.0% YoY, and for the year 2021 finance costs were THB 5,596 million, an increase of 52.7% YoY, from the higher interest expense and fees related to the long-term loans from financial institutions which were used for the Company's additional investment in INTUCH. Furthermore, there were interest expenses added from the Company's recent debenture issuance, and the finance cost of the GSRC unit 1-2 projects which were booked after the projects' commercial operation commencement.

When compared to Q3'21, finance costs reduced by 0.9% QoQ, as in the previous quarter, there was a one-time loan arrangement fee for the long-term loans used for the Company's additional investment in INTUCH, resulting in the total finance costs for Q3'21 to be abnormally high. However, in Q4'21 there was additional interest expense for the Company's 1/2021 debenture which was booked for the full quarter, after being issued in September 2021. When combining the two aforementioned factors, the Company's total finance cost in Q4'21 remain unchanged from the previous quarter.

Share of Profit From Associates & Joint Ventures

The Group recorded a share of profit from associates and joint ventures of THB 1,936 million in Q4'21. If excluding the impact from GJP's gain on exchange rate of THB 152 million, which incurred from translating long-term debts denominated in USD to Thai Baht using the exchange rate at the end of the accounting period, INTUCH's gain on exchange rate of THB 12 million, and unrealized gain on derivatives of PTT NGD of THB 73 million, share of Core Profit from associates and JVs in Q4'21 was THB 1,699 million, an increase of 284.1% YoY and 146.1% QoQ.

For the year 2021, share of profit from associates and joint ventures was recorded at THB 2,886 million. If excluding the impact from GJP's loss on exchange rate of THB 1,076 million, INTUCH's gain on exchange rate of THB 12 million and unrealized gain on derivatives of PTT NGD of THB 86 million, share of Core Profit from associates and JVs in 2021 was THB 3,864 million, an increase of 58.2% YoY, with the contributing factors as follows;

Share of profit from associates and JVs	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Share of profit from INTUCH	-	-	1,105	n.a.	n.a.	-	1,105	n.a.
Share of profit from GJP	977	34	676	1869.4%	-30.9%	2,487	1,370	-44.9%
Share of profit from PTT NGD	3	129	105	-18.6%	3378.5%	3	300	9819.6%
Share of profit from GJP1	-	-	0	n.a.	n.a.	-	0	n.a.
Share of profit from Gulf WHA MT	1	1	1	27.6%	-32.2%	(1)	3	403.4%
Share of profit from BSE	(0)	(0)	(0)	-2.8%	-1133.3%	(7)	(1)	80.7%
Share of profit from HKH	(2)	(2)	(6)	-155.1%	-264.7%	(8)	(14)	-88.4%
Share of profit from BPH	0	0	0	70.6%	61.1%	1	1	13.6%
Share of profit from BGSR 6	0	(0)	(2)	-609.1%	-1400.0%	0	(2)	-1441.4%
Share of profit from BGSR 81	0	(0)	(2)	-558.3%	-1680.0%	0	(2)	-1774.5%
Share of profit from GPC	-	-	(0)	n.a.	n.a.	-	(0)	n.a.
Share of profit from GMIM	-	5	42	766.8%	n.a.	-	88	n.a.
Share of profit from a project in Oman	(1)	10	18	86.3%	n.a.	(13)	38	n.a.
Total share of profit from associates and JVs	979	175	1,936	1003.5%	97.8%	2,462	2,886	17.2%
Less: Gain (loss) on exchange rate from INTUCH's share of profit	-	-	12	n.a.	n.a.	-	12	n.a.
INTUCH's share of Core Profit	-	-	1,093	n.a.	n.a.	-	1,093	n.a.
Less: Gain (loss) on exchange rate from GJP's share of profit	544	(577)	152	n.a.	-72.0%	26	(1,076)	-4162.6%
GJP's share of Core Profit	433	611	523	-14.4%	20.7%	2,461	2,446	-0.6%
Less: Unrealized gain (loss) on derivatives of PTT NGD	(7)	62	73	18.7%	n.a.	(7)	86	n.a.
PTT NGD's share of Core Profit	10	67	32	-52.9%	210.0%	10	214	1993.1%
Total share of Core Profit from associates and JVs	442	690	1,699	146.1%	284.1%	2,443	3,864	58.2%

Share of profit from an associate GJP

Share of profit from an associate GJP before gain (loss) on exchange rate in Q4'21 was THB 523 million (+20.7% YoY), although the power plants under GJP group recorded lower volume of electricity sold to EGAT, but the depreciation of Thai Baht against US Dollar when compared to the same period of last year had led to the higher Availability Payment. However, the 7SPPs under GJP group recorded a softened performance which was affected by the natural gas price which increased at a higher rate than the electricity selling price, as the natural gas cost rose by 57.3% YoY, while the average electricity selling price to EGAT and industrial users increased by 38.5% and 1.5%, respectively. Nevertheless, the volume of electricity and steam sold to industrial users from the 7SPPs was able to expand, especially in the textiles, food & beverages, and electronic components sectors.

Compared to Q3'21, share of Core Profit from an associate GJP softened by 14.4% QoQ, mainly reduced from the performance of the 7SPPs which was pressured by the natural gas price which increased at a higher rate than the electricity selling price (the natural gas cost of SPPs increased by 25.4% QoQ, while the average electricity selling price to EGAT and industrial users increased by 20.3% and 1.4%, respectively). Nonetheless, the volume of electricity and steam sold from the 7SPPs remained stable from the previous quarter.

For the year 2021, share of Core Profit from an associate GJP was THB 2,446 million, a level similar from the previous year. The electricity and steam sales volume to industrial users which grew from the previous year was able to fully compensate the softened performance of the 7SPPs which was affected by the cost of natural gas which increased at a higher rate than the average electricity selling price per unit, and the sales volume to EGAT which slightly reduced from last year.

Volume of electricity, steam and chilled water sold by power projects under GJP

Volume of electricity, steam and chilled water sold	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			%YoY
2 IPPs								
Electricity sold to EGAT (GWh)	673	301	570	89.3%	-15.3%	5,476	5,392	-1.5%
7 SPPs								
Electricity sold to EGAT (GWh)	1,093	1,126	1,085	-3.7%	-0.7%	4,427	4,363	-1.4%
Electricity sold to industrial users (GWh)	281	290	287	-1.0%	2.0%	1,105	1,168	5.7%
Steam sold (tons)	78,019	82,376	82,595	0.3%	5.9%	291,606	336,860	15.5%
Chilled water sold (million refrigeration tons)	7	7	6	-13.1%	-9.0%	25	27	8.0%

Share of profit from an associate PTT NGD

Share of Core Profit from an associate PTT NGD was recorded at THB 32 million in Q4'21, an increase of 210.0% YoY. The Company started realizing share of profit from PTT NGD after invested in 40% of the shares in December 2020, and increased the investment to 42% in April 2021. **When compared with Q3'21, core profit from an associate PTT NGD decreased 52.9% QoQ,** a result of the lower gross margin per unit which reduced by 38% QoQ due to the cost which increased at a higher rate than the selling price. However, the sales volume in Q4'21 was at 8.3 million mmbtu (+6.4% QoQ). Nevertheless, in Q4'21, PTT NGD recorded THB 73 million unrealized gain on derivative contracts which was entered to hedge against fluctuations of the selling price, resulting from the fuel oil price that increased to a higher level in the previous quarter, compared to THB 62 million unrealized gain on derivative contracts of in Q3'21.

For the year 2021, share of Core Profit from an associate PTT NGD was recorded at THB 214 million, with gas sales volume recorded at 31.9 million mmbtu, and unrealized gain on derivative contracts of THB 86 million.

Share of profit from an associate INTUCH

Share of Core Profit from an associate INTUCH was recorded for the first time in Q4'21 at THB 1,093 million, after the Company's increased its equity interest in INTUCH to 42.25% on August 4, 2021, followed by INTUCH's Extraordinary General Meeting of Shareholders No. 1/2021 which has passed the resolution to appoint 4 of GULF's representatives to be INTUCH's directors, effective as of October 1, 2021, resulting in the Company realizing performance from INTUCH as an associate from October 1, 2021 onwards.

Gain / Loss From Exchange Rate

Gain (loss) on exchange rate primarily results from loans of the power projects under the GMP and IPD group that were denominated in a foreign currency (USD), which the Group is required to record unrealized gain (loss) on exchange rate incurred from translating long-term debts denominated in USD to Thai Baht using the exchange rate at the end of the accounting period. In cases where the Thai Baht appreciates against USD, the Group will record a gain on exchange rate, as the Group's amount of outstanding debts converted to Thai Baht is lower. The reverse will occur if the Thai Baht depreciates against USD. However, since the long-term debts have not reached the due dates yet, such gain (loss) on exchange rate is only recognized as unrealized gain (loss).

Moreover, in Q3'20, the Company has granted a loan in EUR to its subsidiary GIH, which incorporated in Singapore, to invest in BKR2 offshore wind project, and at the same time partially entered into Cross Currency Swap (CCS) agreements to hedge against exchange rate fluctuations, causing the Company to recognize unrealized gain (loss) from exchange rate from converting EUR denominated loan to related party to THB, and mark to market the fair value of the CCS at the end of each accounting period. In cases where the Thai Baht appreciates against EUR, the Group will record a loss on exchange rate, as the Group's amount of outstanding loan to related parties converted to Thai Baht is lower. The reverse will occur if the Thai Baht depreciates against EUR. Currently, GIH has a EUR denominated loan from the Company in the higher amount than the loan GIH has given to BKR2. However, as the accounting standard requires that foreign currency denominated financial assets and loans, which is not in the functional currency of each country that a company is incorporated in, to be translated to income statement, GIH which has functional currency in USD but has debtor and loan payable in EUR, must also record unrealized gain (loss) from foreign exchange for the items. As a result, exchange rate between USD and EUR affects the Company's consolidated financial statement as well. In cases where the USD depreciates against EUR, GIH will record an unrealized loss on exchange rate, and the reverse will occur if the USD appreciates against EUR.

At the end of Q4'21, Thai Baht appreciated against USD by 0.498 THB/USD, and appreciated against EUR by 1.468 THB/EUR compared to Q3'21, resulting in the Group to record unrealized gain on exchange rate on USD denominated loan and unrealized loss on EUR denominated loan that the Company granted to GIH. Nonetheless, USD appreciated against EUR by 0.03 USD/EUR compared to Q3'21, resulting in GIH to record a net unrealized gain on the exchange rate difference between EUR denominated debtors and loan payable, resulting in the Group to record a net gain on exchange rate in Q4'21 of THB 237 million.

In Q4'21, a total unrealized gain on exchange rate attributable to the owners of the parent was recorded at THB 242 million, comprised of THB 164 million gain on exchange rate from the associate GJP and INTUCH, and THB 78 million gain on exchange rate from the Company and its subsidiaries.

For the year 2021, the group realized a total unrealized loss on exchange rate at THB 1,075 million, a result of the depreciation of Thai Baht against USD by 3.3861 THB/USD when compared to the end of 2020. Although the Company recorded a gain from the depreciation of Thai Baht against EUR by 1.0134 THB/EUR, and an unrealized gain on the exchange rate difference between EUR denominated debtors and loan payable of GIH from the appreciation of USD against EUR by 0.0975 USD/EUR. In summary, **for 2021, a total unrealized loss on exchange rate attributable to the owners of the parent was recorded at THB 1,227 million**, comprised of THB 1,064 million loss on exchange rate from the associate GJP and INTUCH, and THB 163 million loss on exchange rate from the Company and its subsidiaries.

Gain (loss) on exchange rate	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Gain (loss) on exchange rate	455	(725)	237	<i>n.a.</i>	-47.8%	(134)	(1,075)	-703.5%
Less: Gain (loss) on exchange rate attributable to non-controlling interests	387	(535)	159	<i>n.a.</i>	-58.8%	89	(912)	-1125.8%
Gain (loss) on exchange rate attributable to the owners of the parent	68	(190)	78	<i>n.a.</i>	14.6%	(215)	(163)	24.4%
Add: Gain (loss) on exchange rate attributable to share of profit from an associate	544	(577)	164	<i>n.a.</i>	-69.8%	26	(1,064)	-4117.5%
Total gain (loss) from exchange rate attributable to owners of the parent	612	(767)	242	<i>n.a.</i>	-60.4%	(189)	(1,227)	-549.4%

	FX Rate at End of Period		
	(THB/USD)	(THB/EUR)	(USD/EUR)*
Q3'63	31.8258	36.7782	-
Q4'63	30.2068	36.4949	1.2290
Q1'64	31.5052	36.3346	1.1706
Q2'64	32.2219	37.7588	1.1902
Q3'64	34.0908	38.9765	1.1604
Q4'64	33.5929	37.5083	1.1315

*Based on the exchange rate in Singapore.

Profit

Profit for the period	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Gross profit	3,367	2,959	4,397	48.6%	30.6%	9,161	13,079	42.8%
<i>Gross profit from sales and lease contracts under power purchase agreement</i>	3,314	2,882	4,323	50.0%	30.4%	8,929	12,804	43.4%
<i>Gross profit from service from concession arrangement</i>	2	8	2	-80.5%	-20.3%	12	17	42.3%
<i>Gross profit from management services</i>	50	69	73	5.2%	44.6%	220	259	17.7%
EBITDA ⁽¹⁾	4,165	6,034	6,706	11.1%	60.7%	13,462	22,152	64.5%
Profit for the period	2,736	1,679	3,864	n.a.	41.3%	6,144	9,167	49.2%
Profit attributable to owners of the parent	1,844	1,588	3,043	91.6%	65.0%	4,282	7,670	79.1%
Less: Gain (loss) on exchange rate attributable to owners of the parent	612	(767)	242	131.6%	-60.4%	(189)	(1,227)	-549.3%
Less: unrealized gain (loss) on derivatives of PTT NGD	(7)	62	73	18.7%	n.a.	(7)	86	n.a.
Core Profit⁽²⁾	1,239	2,293	2,728	18.9%	120.1%	4,478	8,812	96.8%
<i>Gross profit margin (sales)</i>	36.1%	24.6%	28.6%	4.0%	-7.5%	27.6%	27.3%	-0.3%
<i>Gross profit margin (services)</i>	51.4%	56.3%	56.9%	0.7%	5.6%	54.0%	54.6%	0.6%
<i>EBITDA margin</i>	40.5%	43.8%	38.9%	-4.9%	-1.6%	37.6%	41.9%	4.4%
<i>Net profit margin⁽³⁾</i>	17.9%	11.5%	17.6%	6.1%	-0.2%	11.9%	14.5%	2.6%
<i>Net profit for the period / Total revenue (excl. share of profit from associates and JVs)</i>	29.3%	12.3%	25.2%	12.9%	-4.1%	18.4%	18.3%	-0.1%
<i>Core Profit margin</i>	12.0%	16.6%	15.8%	-0.8%	3.8%	12.5%	16.7%	4.2%

⁽¹⁾ EBITDA = Earnings before Interest, Taxes, Depreciation, and Amortization, gain (loss) on exchange rate of the Company and of GJP and INTUCH, and unrealized gain (loss) on derivatives of PTT NGD

⁽²⁾ Core Profit = profit attributable to owners of the parent before gain (loss) on exchange rate and unrealized gain (loss) on derivatives of PTT NGD

⁽³⁾ Net profit margin = profit attributable to owners of the parent / Total Revenue

Gross profit

Gross profit in Q4'21 was THB 4,397 million, an increase of 30.6% YoY compared to Q4'20, mainly increased from the gross profit from sales and lease contracts under power purchase agreement, from the profit recognition of GSRC unit 1-2 projects after its commercial operation date on March 31 and October 1, 2021, which could entirely compensate the softened gross profit margin from sales which was pressured by the higher natural gas cost (natural gas cost for SPP power plants rose by 57.3% YoY, while the average electricity selling price per unit to EGAT and industrial users increased 36.9% YoY and 1.5% YoY, respectively). Nonetheless, as 86% of the Company's electricity is sold to EGAT with the natural gas cost being entirely passed through in the selling price to EGAT, and only 14% of the electricity is being sold to industrial users, the impact of the higher natural gas price to the Company's performance is limited. However, gross profit from services increased by 44.6% YoY from the higher revenue from management fee from the provision of management services by the Company to its associate GJP, HKP, and power plants under GEC group.

Compared to Q3'21, gross profit grew by 48.6% QoQ. Gross profit from sales and lease contracts increased from the performance of BKR2 offshore wind project which substantially recovered from the previous quarter (+99.0% QoQ) due to the seasonal factor. Also, wind power projects have a lower cost of sales by nature when compared to gas-fired power projects. Moreover, the Gas-fired Power business received a higher Availability Payment from the commercial operation commencement of the GSRC unit 2 project, despite the slightly softened electricity sales volume of the GSRC group. From the factors mentioned, gross profit margin from sales was able to increase by 4.0% QoQ, although being pressured by the natural gas price which increased at a higher rate than the electricity selling price (natural gas cost per unit of the SPP power projects under GMP group increased by 25.4% QoQ, while the electricity selling price to EGAT and industrial users increased by 18.3% QoQ and 1.4% QoQ, respectively). Nevertheless, gross profit from services grew 5.2% QoQ from the revenue from management fee for an associate GJP, HKP, and power plants under GEC group as mentioned earlier.

For the year 2021, gross profit was THB 13,079 million, an increase of 42.8% YoY, from the profit recognition from GSRC unit 1-2 projects which commenced commercial operation during the year, the full year profit contribution from BKR2 offshore wind project, and the performance of the power plants under GMP group which improved in the same direction with the higher electricity sales volume to EGAT and industrial users. However, gross profit margin from sales remained at a similar level as last year's, supported by the gross profit margin of BKR2 offshore wind project, which is generally superior than the gas-fired power projects', that was able to offset the effect from the average natural gas cost of the gas-fired SPP power projects which increased at a higher rate than the electricity selling price.

EBITDA

EBITDA in Q4'21 was THB 6,706 million, increased by 60.7% YoY and 11.1% QoQ, and for the year 2021, EBITDA was THB 22,152 million, increased by 64.5% YoY, which moved in tandem with Core Profit.

Core Profit

Core Profit was recorded at THB 2,728 million in Q4'21, an increase of 120.1% YoY from Q4'20, mainly from:

- 1) Profit contribution from GSRC power plant units 1-2 which commenced commercial operation on March 31 and October 1, 2021.
- 2) Recognized 284.1% YoY higher share of Core Profit from associates, mainly due to the share of profit from INTUCH of THB 1,093 million which was realized for the first time in Q4'21, and share of Core Profit from GJP which improved from the appreciation of Thai Baht against USD when compared to the same period of last year, resulting in the higher Availability Payment received.

When compared with Q3'21, Core Profit increased by 18.9% QoQ, mainly from:

- 1) Profit contribution from GSRC power plant unit 2 which commenced commercial operation on October 1, 2021.
- 2) Performance from BKR2 offshore wind project improved by 99.0% QoQ due to seasonal factors.
- 3) Share of Core Profit from associates in Q4'21 increased by 146.1% from the recognition of share of profit from INTUCH, despite the softened share of Core Profit from GJP as the performance of the 7 SPPs power projects were pressured by the natural gas price that rose at the higher rate than the average electricity selling price per unit.

For the year 2021, Core Profit was at THB 8,812 million, increased by 96.8% YoY, mainly from:

- 1) Profit contribution from GSRC power plant units 1-2 which commenced commercial operation during the year.
- 2) Recognized full year contribution from BKR2 wind power project, compared to 2020 which recorded performance from BKR2 project for only 1 quarter.
- 3) SPP power projects under GMP group recorded an improved performance which grew in tandem with the higher electricity and steam sales volume to industrial users, although being pressured by the natural gas cost which increased at a higher rate than the average electricity selling price.
- 4) Dividend received in 2021 increased by 451.1% from 2020, mainly increased from the dividend from INTUCH, after the Company increased its equity interest in INTUCH during the year. However, from October 1, 2021 onwards, the Company will record performance contribution from INTUCH as a share of profit from an associate instead of dividend income.
- 5) Recorded 58.2% YoY higher share of Core Profit from associates, primarily from the share of profit from INTUCH which was booked in Q4'21 for the first time, coupled by a higher share of profit from PTT NGD. However, the share of Core Profit from GJP remained at the similar level as 2020, as the higher electricity and steam sales volume to industrial users, and the higher gross profit from the 2IPPs under GJP group were able to offset the effects from the softened electricity sales volume to EGAT, and the natural gas cost which rose at the higher rate than the average selling price per unit.

Net profit attributable to the owners of the parent

Net profit attributable to the owners of the parent in Q4'21 was THB 3,043 million, an increase of 65.0% YoY, mainly grew from the commercial operation commencement of GSRC unit 1-2 projects, the share of profit from INTUCH, and higher share of Core Profit from GJP. However, net profit attributable to the owners of the parent grew at a lower rate than the Core Profit, as there was a gain on exchange rate and unrealized gain on derivatives totaling of THB 316 million in Q4'21, which was lower than in Q4'20 which record a total gain from the items at THB 605 million.

When compared to Q3'21, net profit attributable to the owners of the parent increased by 91.6%, primarily from the commercial operation commencement of GSRC unit 2 project, together with the share of profit from INTUCH, and the improved performance of BKR2 offshore wind project. Nevertheless, net profit attributable to the owners of the parent grew at a higher rate than the Core Profit, as there was a net loss of THB 705 million from exchange rate and derivatives in Q3'21, compared to Q4'21, which recorded net gains from these items.

For the year 2021, net profit attributable to the owners of the parent was THB 7,670 million, increased by 79.1% YoY, resulted from the commercial operation commencement of GSRC unit 1-2 projects, full year profit recognition of BKR2 offshore wind project, and received higher dividend income from INTUCH, as well as a share of profit from INTUCH which has been realized from October 1, 2021 onwards. However, in 2021, the Company recorded a loss on exchange rate and unrealized gain on derivatives totaling at the amount of THB 1,141 million, compared to a loss from the items of THB196 million in 2020. As a result, net profit attributable to the owners of the parent for the year 2021 increased at a lower rate than the Core Profit. Nonetheless, the recording of such gain (loss) on exchange rate and unrealized gain (loss) on derivatives are accounting transactions which have no impact on the cash flow and performance of the Group at all.

Financial Position As of December 31, 2021

Financial position	As of	As of	Change
	December 31, 2020	December 31, 2021	
	THB mn	THB mn	%
Cash, cash equivalents, short-term deposits at financial institutions used as collateral	22,998	23,953	4.2%
Trade accounts receivable	5,660	9,569	69.0%
Investments in associates and joint ventures	22,079	135,573	514.0%
Advance payments for land and power plant construction	6,701	3,017	-55.0%
Property, plant and equipment, net	129,718	130,128	0.3%
Other non-current financial assets	28,523	3,340	-88.3%
Finance lease receivable under power purchase agreement	0	20,931	n.a.
Other assets	29,901	36,162	20.9%
Total assets	245,581	362,674	47.7%
Short-term loans from financial institutions	11,500	9,927	-13.7%
Accounts payable for power plant construction	7,170	8,155	13.7%
Trade accounts payable	1,353	3,080	127.6%
Long-term loans from financial institutions	85,936	141,765	65.0%
Debentures	43,428	71,058	63.6%
Other liabilities	24,113	21,178	-12.2%
Total liabilities	173,501	255,165	47.1%
Issued and paid-up capital	11,733	11,733	0.0%
Share premium	51,822	51,822	0.0%
Unappropriated retained earnings	7,310	35,980	392.2%
Other components of equity	(8,670)	(5,064)	41.6%
Other equity	1,831	2,125	16.0%
Total equity attributable to owners	64,027	96,596	50.9%
Non-controlling interests	8,053	10,913	35.5%
Total equity	72,080	107,509	49.2%
Total equity excluding other components of equity	80,749	112,573	39.4%

Total Assets

Total assets as of December 31, 2021 was THB 362,674 million, an increase of THB 117,093 million (+47.7%) from December 31, 2020. The increase was attributable to the following factors:

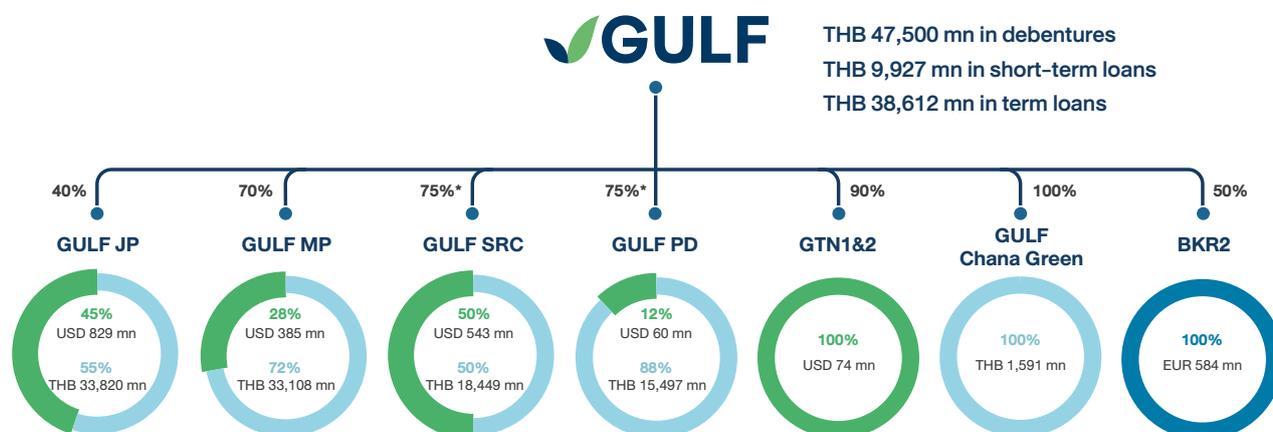
- 1) Investment in associates increased by 514.0% or THB 113,495 million, and other non-current financial assets decreased by 88.3% or THB 25,182 million, mainly from the Company's tender offer for INTUCH's ordinary shares during the year, and the change in accounting treatment for its investment in INTUCH from other non-current financial asset to investment in associates, which requires the Company to adjust its average acquisition cost of INTUCH to fair value as of the effective date of the change in accounting method. Moreover, investment in associates and JVs also increased from the performance contribution from GJP and PTT NGD, and from the investment in the joint venture GPC.
- 2) Trade accounts receivable increased by 69.0% or THB 3,908 million, in line with the increase in revenue from GSRC power plant unit 1 and 2 after its commercial operation date on March 31 and October 1, 2021.
- 3) Property, plant and equipment net increased by 0.3% or THB 410 million, primarily increased from the construction progress of GSRC, GPD, and Mekong power projects, deduct with the decreasing part that was booked in accordance with the TFRS 16 accounting standards following the commercial operation commencement of GSRC unit 1 and 2 projects, which also resulted in the finance lease receivable under power purchase agreement to increase by THB 20,931 million.
- 4) Accounts payable for property and power plant construction reduced by 55% THB 3,684 million, from the delivery of the construction works from the contractors according to the projects' milestones.
- 5) Other assets increased by 20.9% or THB 6,261 million, mainly increased from long-term loans to related party which increased by 43% from the loans given to DIPWP project in Oman to be used for power plant construction, coupled with other current financial assets which increased by 629% from short term investment, and intangible assets which increased by 14% from the right to use electrical substations and gas pipeline following the commercial operation of GSRC power plant units 1 and 2.

Total Liabilities

Total liabilities as of December 31, 2021 was THB 255,165 million, an increase of THB 81,664 million (+47.1%) from December 31, 2020. The increase was attributable to the following factors:

- 1) Short-term debts decreased by 13.7% or THB 1,573 million from the repayment of the Company's short-term loan from financial institutions.
- 2) Trade accounts payable increased by 127.6% or THB 1,727 million from the additional cost of sales recorded after the commercial operation commencement of GSRC units 1-2.
- 3) Long-term loans from financial institutions increased by 65.0% or THB 55,829 million, primarily from the loan drawdowns for the construction of GSRC and GPD power projects, the acquisition of INTUCH's shares, and for the Company's working capital.
- 4) Debentures increased by 63.6% or THB 27,630 million, mainly increased from the issuance of the Company's 1/2021 debentures, value of THB 30,000 million, which was used for the Company's working capital for future investments.

Total debt outstanding of the Company and its subsidiaries as of December 31, 2021



Total loan outstanding (THB equivalent) :

THB 61,657 mn	THB 46,042 mn	THB 36,686 mn	THB 17,520 mn	THB 2,482 mn	THB 1,591 mn	THB 22,368 mn
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* Based on % profit sharing received from GSRC & GPD

Total Equity

Total equity as of December 31, 2021 was THB 107,509 million, an increase of THB 35,429 million (+ 49.2%) from December 31, 2020 due to following factors:

- 1) Other components of equity increased by THB 3,605 million, and non-controlling interests increased by THB 2,861 million, mostly due to the increase in fair value of interest rate swap derivative contracts which was measured as required under TFRS 9. However, such accounting record does not affect the Company's operating performance.
- 2) Unappropriated retained earnings increased by THB 28,669 million from net profit attributable to the parent company of THB 7,670 million, the change in accounting method used to record the Company's investment in INTUCH, from fair value measurement booked in other comprehensive income to Equity Method, resulting in the higher retained earnings value of the Company, caused by the unrealized gain from adjusting average acquisition cost of INTUCH to fair value as of October 1, 2021 (effective date of the change in accounting method), net with dividend payment THB 4,459 million, reserve according to legal requirement THB 294 million.

Capital Structure

As of December 31, 2021, the Group recorded a debt to equity ratio of 2.37 times. However, when considering the covenant of the Company's debenture, net interest-bearing debt (including lease liabilities) to equity was recorded at 1.77 times.

Statement of Cash Flows

Statement of cash flows	For the year ended December 31, 2021
	<i>THB mn</i>
Net cash generated from (used in) operating activities	14,015
Net cash generated from (used in) investing activities	(78,206)
Net cash generated from (used in) financing activities	68,128
Net increase (decrease) in cash and cash equivalents	3,937
Gain (loss) adjustment from foreign exchange translation of cash and cash equivalents	8
Cash and cash equivalents as of January 1, 2021	15,902
Cash and cash equivalents as of December 31, 2021	19,847

As of December 31, 2021, the Company and its subsidiaries recorded cash and cash equivalents of THB 19,847 million attributable to the following factors:

Net cash received from operating activities of THB 14,015 million mainly from:

- Cash from operating profit of THB 16,385 million
- Net cash paid for operating assets and liabilities THB 2,370 million

Net cash used in investing activities of THB 78,206 million mainly from:

- Payments for property, plant and equipment of THB 20,848 million, primarily for projects under GSRC, GPD, and Mekong Wind
- Payments for other financial assets of THB 59,406 million, pursuant to the Company's additional investment in ordinary shares of INTUCH

Net cash received from financing activities of THB 68,128 million mainly from:

- Net cash received from long-term loans of THB 52,528 million
- Net cash received from debentures of THB 27,015 million
- Payments for interest expense and finance costs of THB 5,346 million
- Payment for dividend of THB 6,293 million

Key Financial Ratios

Financial ratios	Q4'20	Q3'21	Q4'21	2020	2021
Basic earnings per share (THB)	0.16	0.14	0.26	0.39	0.65
Gross profit margin from sales (%)	36.1%	24.6%	28.6%	27.6%	27.3%
EBITDA margin	40.5%	43.8%	38.9%	37.55%	41.90%
Net profit margin ⁽¹⁾ (%)	17.9%	11.5%	17.6%	11.95%	14.51%
Core Profit margin ⁽¹⁾⁽²⁾ (%)	12.0%	16.6%	15.8%	12.5%	16.7%
Net profit for the period / Total revenue (excl. share of profit from associates and JVs)	29.3%	12.3%	25.2%	18.39%	18.34%
Return on equity (%)	10.1%	9.7%	10.2%	10.1%	10.2%
Return on assets ⁽³⁾ (%)	3.2%	2.8%	3.0%	3.2%	3.0%

	Dec 31, 2020	Sep 30, 2021	Dec 31, 2021
Book value per share (THB)	5.46	7.60	8.23
Current ratio (times)	1.02	1.24	1.11
Quick ratio (times)	0.93	1.09	0.92
Debt to equity (times)	2.41	2.57	2.37
Net interest-bearing debt (including lease liabilities) to equity ⁽⁴⁾ (times)	1.47	2.34	1.77

⁽¹⁾ Total revenues = revenues from sales and management fee + other income + interest income + dividend income + share of profit from associates and joint ventures

⁽²⁾ Core Profit = profit attributable to owners of the parent before gain (loss) on exchange rate and unrealized gain (loss) on derivatives of PTT NGD

⁽³⁾ ROA calculated using net profit (annualized) / average total assets

⁽⁴⁾ Net debt to equity ratio that must be maintained in accordance with the terms and conditions (times) = Net debt to equity ratio that must be maintained in accordance with the terms and conditions is calculated by finding the difference of (a) total interest-bearing debt, (b) cash and cash equivalents and (c) deposits at financial institutions used as collateral, and divided by the issuer's equity which excludes other components of equity as shown in the consolidated financial statements audited by the issuer's auditor



02

BUSINESS SUSTAINABILITY

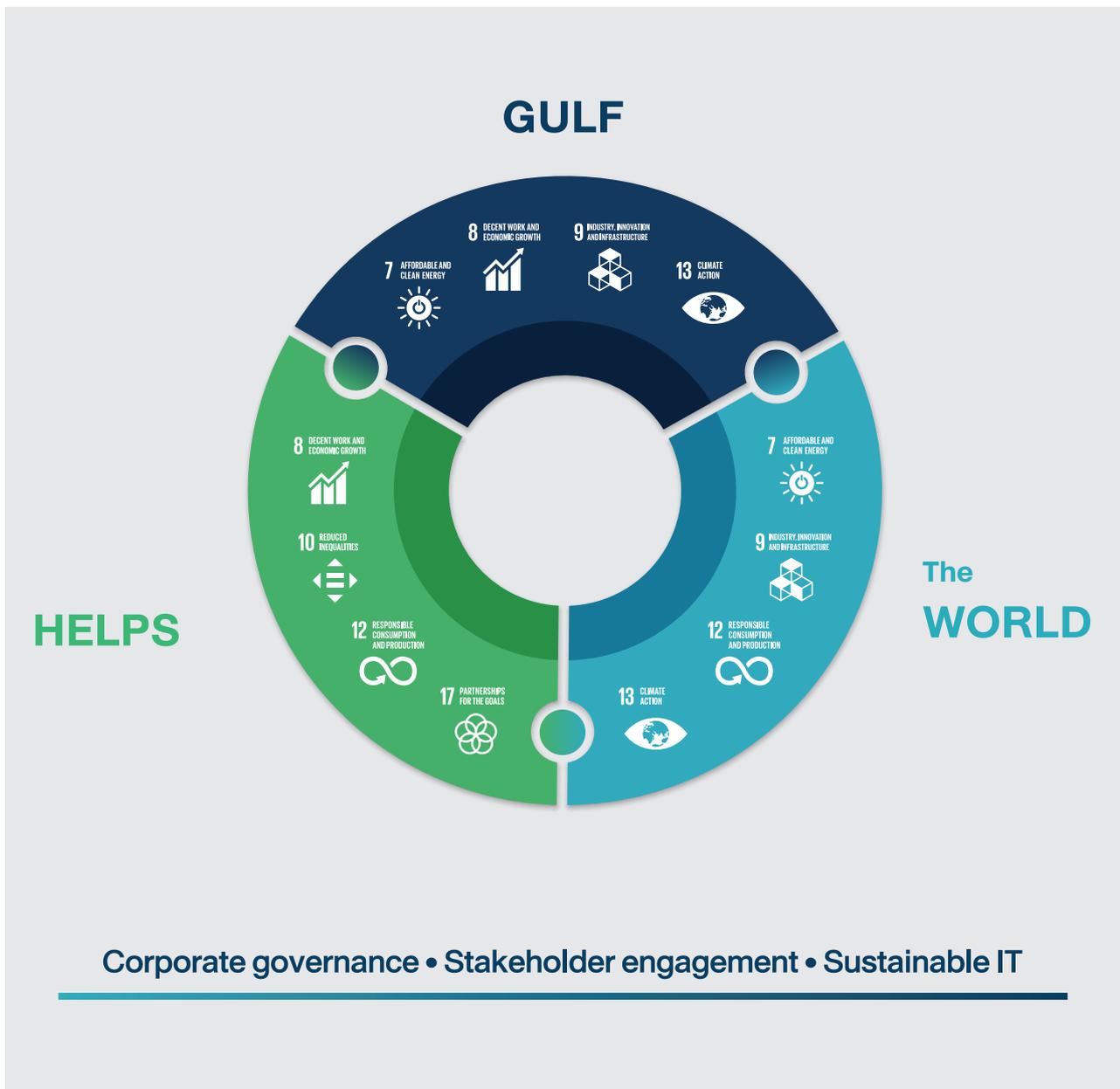




SUSTAINABILITY POLICY AND FRAMEWORK

Sustainability framework

The Company recognizes that long-term business success can only be achieved when it is built on a foundation of social and environmental responsibility, and thus places great importance on conducting business in a sustainable manner. To this end, the Company has therefore developed a Sustainability Framework that reflects its efforts to create a balance between the economic, environmental and social dimensions. The Framework also indicates the key issues within each dimension and the connection with the United Nations Sustainable Development Goals. The aforementioned commitments are guided by the principles of good corporate governance and stakeholder engagement, and supported by a sustainable information technology system which serves as a tool to enable the Company to grow its business sustainably.





GULF

GULF refers to the economic dimension. The Company has over two decades of experience with a strong track record of successful energy project development and continues to strive for greater growth in the future under a vision that emphasizes investing in projects that will create positive impacts in the long term to create opportunities for both the current and future generations.

Power generation

The Company invests in the development, construction and operation of gas-fired power plants to support the growing electricity demand of the country, which is necessary for industrial and economic growth. The Company operates 3 types of gas-fired power projects: IPPs, SPPs, and captive plants.

Renewable energy

The Company has always recognized the importance of climate change and decarbonization, and focuses its investments in the renewable energy business, investing in and operating several types of renewable power projects including biomass, solar, wind and hydropower projects.

Gas business

The Company invests in the development, construction, and operation of projects related to natural gas, which is the Company and country's main fuel for electricity generation. The gas business under the Group comprises the natural gas distribution business, LNG shipper business, and LNG terminal business.

Infrastructure and utilities

The Company's infrastructure and utilities business focuses on large-scale projects which are the foundation for the country's development in various areas, in line with government policy, such as the quality of life of citizens, transportation networks, and economic development, both domestically and internationally.

Digital business

With the growing trend of integrating digital tools and technology into business operations, the Company recognizes the opportunity to invest in and operate digital infrastructure-related businesses which will open new doors to other interesting opportunities for digital infrastructure in the future.



H



E



L



P



S

HELPS

HELPS refers to the social dimension. The Company places great importance on conducting business in a socially responsible manner because “people” are the heart of the Company. As such, the Company aims to contribute to improving the quality of life for people in society through positive impacts created by its operations.

Human rights

The Company believes that human rights are fundamental in a good society and is therefore committed to respecting these rights in every aspect of work, placing special emphasis on non-discrimination, gender equality, and the fair and equitable treatment of all stakeholders.

Employees

The Company places great importance on all aspects of employee care, whether that is creating a good working environment, ensuring occupational health and safety, providing appropriate and fair compensation and benefits, offering equal opportunities for learning and development, or other areas.

Local communities

The Company seeks to enhance people’s quality of life and support development in every area where it conducts business. This means, especially, developing strong relationships with the local communities built on mutual respect, as well as supporting open communication between the Company and the communities in order to create shared understanding and value.

Philanthropy

The Company recognizes that it has the potential to make a positive impact on a wide scale through initiatives that create benefit for society. As such, the Company undertakes multiple philanthropic activities each year under the theme of “IMPACT” which serves as a guideline for the Company’s corporate social responsibility.

Strategic partnerships

The Company understands that success cannot be achieved without support from others. Therefore, the Company seeks to develop good relationships with all its stakeholders, such as partners, suppliers, investors, advisors, and others in order to seek a way to grow the business in a sustainable and responsible manner together.



The WORLD

WORLD refers to the environmental dimension. Just as humans cannot exist without the world, the Company must rely on natural resources in its business operations. Thus, the Company prioritizes environmentally-responsible conduct as well as environmental protection and conservation for a sustainable future.

Waste management

The Company works to ensure that its operations do not leave behind negative effects on the environment by carefully monitoring and checking all stages of the production process to effectively manage anything that comes out of its projects including, air emissions, greenhouse gases, hazardous and non-hazardous waste, and discharged water.

Operational eco-efficiency

The Company invests in state-of-the-art technology as well as research and development to improve the efficiency of the production process which will result in direct and indirect benefits for the environment.

Resource management

The Company's business must rely on natural resources such as water, natural gas and land, all of which are finite and in limited supply. As such, the Company ensures it has in place management systems and procedures that prioritize using resources in an efficient and responsible manner.

Local impacts

The Company understands that businesses cannot survive without being a part of the society. The Company therefore places emphasis on ensuring its operations do not create negative impacts for the local communities or people in the areas where it conducts business. More importantly, the Company seeks to create positive impacts the demonstrate its social responsibility through its environmental responsibility.

Development and conservation

In addition to managing its own operations, the Company also recognizes the importance of encouraging environmental responsibility among people outside the organization. The Company therefore also supports projects and initiatives that help increase awareness and understanding about environmental issues in order to inspire others to join in protecting, developing and conserving nature.



United Nations Sustainable Development Goals

Furthermore, the Company also recognizes that importance of supporting the United Nations Sustainable Development Goals, with emphasis on the following 5 goals.

Affordable and clean energy

The Company recognizes the essential role energy plays in driving growth and is committed to providing affordable, clean and reliable power to support economic and social development.

Decent work and economic growth

The Company works to contribute to economic development in all sectors, from the grassroots and local level through to the national and regional level. The Company is also committed to supporting job creation and upholding fair labor practices wherever it operates.

Industry, innovation and infrastructure

The Company invests in large-scale projects that will provide to long-term benefits to society in order to support industrial growth and national development. It also encourages the use of innovative practices and technologies in its operations.

Responsible consumption and production

The Company makes it a priority to use energy and natural resources as efficiently as possible to avoid negative environmental impacts and encourage the creation of positive impacts through education and conservation programs.

Climate action

The Company stands by its No Coal policy and strives to increase its investment in renewable energy, as well as prioritizes that use of state-of-the-art technology to allow projects to operate at the highest efficiency, to ensure that the Company contributes to building a sustainable future.

SUSTAINABILITY POLICY

The Company has developed a sustainability policy which serves as a guideline for conduct across several key issues.

Sustainability policy

	Key issue	Details
	Sustainability in operations	The Company seeks to achieve sustainability in the economic, environmental and social dimensions under the principles of good corporate governance, and promotes sustainable practices for internal and external stakeholders.
	Legal compliance	The Company conducts its business within the confines of the law, complying with regulations, requirements and agreements as well as international standards such as respecting human and labor rights.
	Corporate governance	The Company places importance on conducting business under the principles of good corporate governance, with an emphasis on transparency, anti-bribery and corruption, and fair and ethical conduct.
	Risk management	The Company ensures that risks are assessed and managed in a systematic manner, which includes regular monitoring and evaluation as well as internal and external auditing to ensure the Company has appropriate and sufficient internal controls.
	Stakeholder engagement	The Company has established clear communication channels with internal and external stakeholders in order to disseminate accurate and reliable information as well as to receive comments and complaints. The Company also encourages dialogue and participation with all stakeholder groups, and has in place a procedure to manage complaints or requests for consultation in a systematic manner.
	Employee engagement	The Company provides a safe and happy work environment in accordance with occupational health and safety guidelines. It also encourages employee development while strictly adhering to its commitment to non-discrimination and gender equality to support employee well-being.
	Environmental protection	The Company is committed to environmental protection in every stage of project development and operation through the adoption of technologies and practices that help reduce negative impacts on the environment. The Company also encourages the creation of positive impacts through its support for environmental awareness and conservation programs.

In addition, the Company also has a number of other related policies and guidelines which relate to sustainability such as the Corporate Governance policy, the Human Rights policy, and the Environmental and Social Management policy. Details can be found within the relevant sections of this report as well as on the Company's website.

Sustainability governance

The Company's Board of Directors recognizes the importance of good governance, especially for sustainability-related matters, and therefore established a sub-committee, namely, the Sustainability and Risk Management Committee (SRMC), to ensure that the Company has sufficient and appropriate sustainability governance. The SRMC consists of 5 members comprising 2 independent directors and 3 executives of the Company – the Deputy Chief Executive Officer, the Chief International Business Officer, and the Chief Financial Officer.

Responsibilities for sustainability-related matters can be divided into three levels: the Board level, the Management level, and the Operational level.

Board level responsibilities

The Company's Board of Directors, as well as the Sustainability and Risk Management Committee, are responsible for governance and oversight of sustainability-related matters overall, including considering and approving Company policies, to ensure that the Company's operations align with its business direction and strategy.

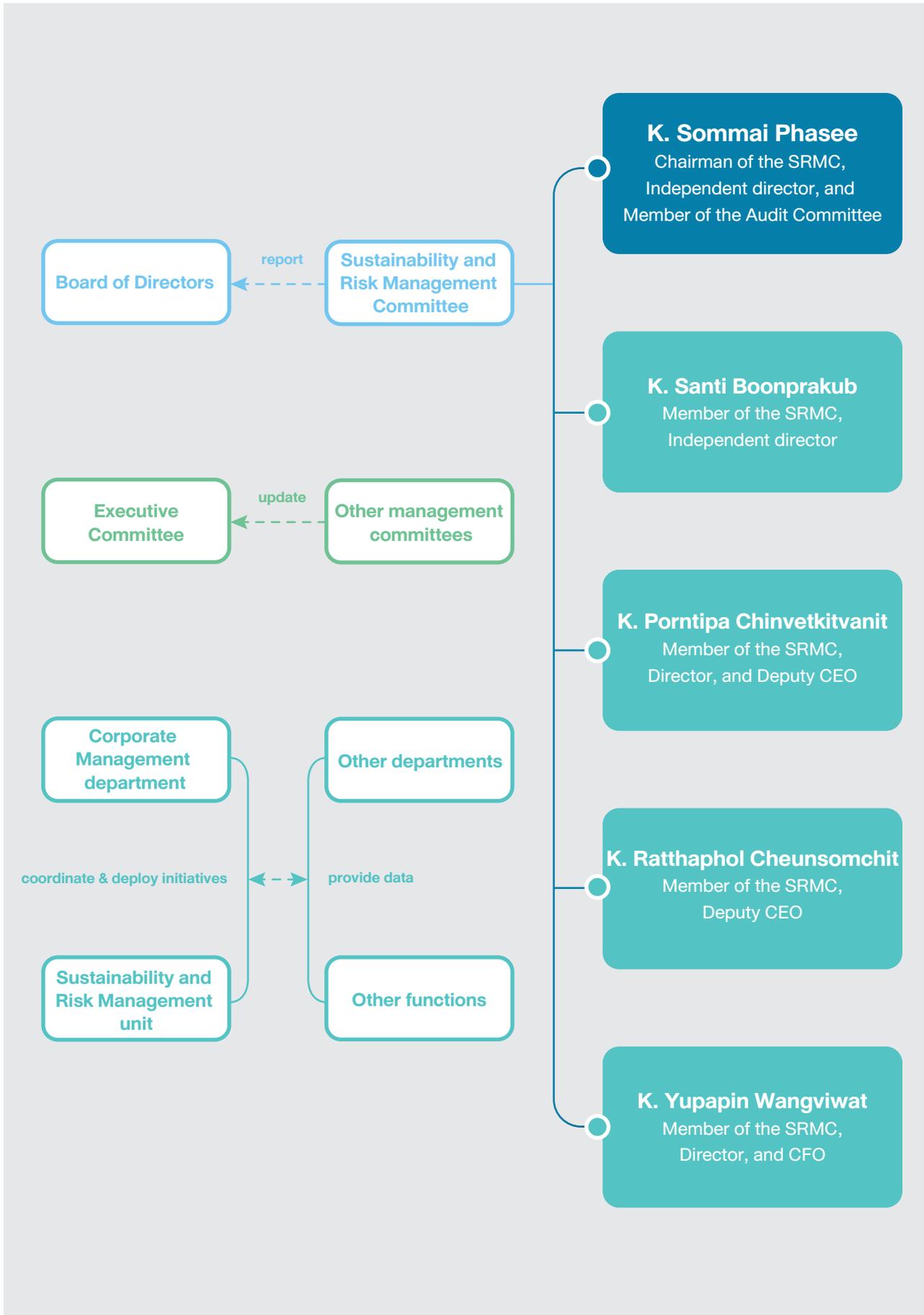
Management level responsibilities

The Company's management, which includes the Executive Committee, other management committees, and senior management of the Company, have the responsibility of establishing the business direction, strategies, policies, and targets for the Company. In addition, the management establishes operational guidelines as well as evaluates the effectiveness and progress of work, along with reviewing the Company's materiality and risk assessment.

Operational level responsibilities

All employees have the responsibility of performing their duties in line with the direction and guidelines for sustainable growth established by the management. The Sustainability and Risk Management unit, under the Corporate Management department, has the responsibility of coordinating between all functions of the Company to communicate management direction, as well as compiling and analyzing data to support the management's decision-making. In addition, every function has the duty to monitor and manage day-to-day risks in line with risk management plans, which the Sustainability and Risk Management unit will monitor in order to develop risk reports for the management and SRMC at regular intervals.

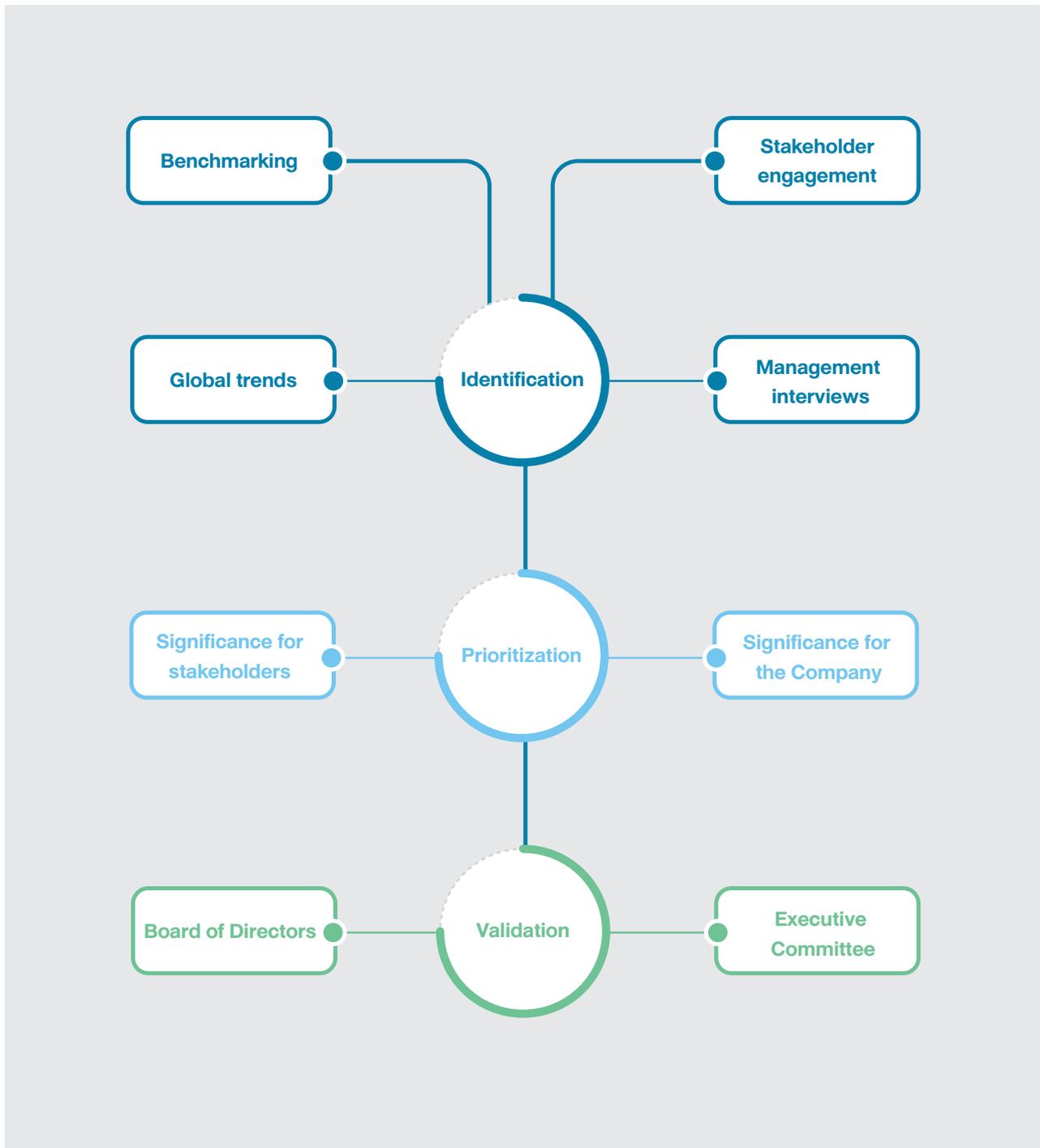
Furthermore, in order to enhance the Company's sustainability governance, the Board of Directors resolved to expand the scope of responsibilities of the SRMC to also cover corporate governance, thus changing the name of the sub-committee to the "Sustainability, Governance and Risk Management Committee" (SGRC). The SGRC will comprise the same members and will begin their expanded duties from 2022 onwards.



MATERIALITY

Material issues

The Company identifies and reviews material issues every year in order to ensure that its operations align with global trends, stakeholder interests, and the direction of the Company's business growth. The materiality assessment process is composed of three main steps, as follows.





Governance and anti-corruption



Cybersecurity



Risk and crisis management



Stakeholder engagement



Human capital management



Water management



Climate management



Expansion of the digital business

Materiality process

Step 1: Compiling and identifying material issues

The Company will compile key issues through the consideration of information from many sources such as from studying global trends, from the enterprise risk assessment process, and from benchmarking against peers in the same industry or area of operations. In addition, relevant departments will seek the input of various stakeholders both inside and outside the organization, including the Company's management and employees, the local community, suppliers, and investors.

Step 2: Prioritization of material issues

Once a list of material issues has been compiled, the Company will consider the various issues to determine the priority issues for the year. This is done by considering the impact that the particular issue could have on the Company and on various stakeholder groups. The Company will prioritize issues which have the most significant impacts on the Company and stakeholders.

Step 3: Validation of material issues

In the final step, the identification and prioritization of material issues must be verified and approved the Company's senior management and executives. The material issues will guide the Company's operations each year, with targets set to measure progress and success in managing each material issue.



Governance and anti-corruption

The Company places the highest importance on conducting business in an honest and transparent manner. The Company ensure that there is an appropriate and sufficient governance and internal control system in order to prevent legal or ethical violations, as well as to ensure anti-bribery and corruption measures are in place. Details can be found on page 129.

Target Become a certified member of the Thai Private Sector Collective Action Against Corruption (CAC) within 2022

Progress In December 2021, the Company completed the submission of its membership application to the CAC and is currently in the process of awaiting the decision of the CAC. The Company expects to be accepted as a full member within 2022 in line with its set target.



Cybersecurity

The Company recognizes the importance of maintaining strong cybersecurity measures and therefore has established a secure information technology (IT) system to prevent unauthorized access to the system or to information. Furthermore, the Company ensures continual threat monitoring and regularly invests in security system improvements as new threats emerge.

Target Received ISO27001 certification for 100% of the IT system within 2023

Progress The Company has implemented procedures based on the National Institute of Standards and Technology (NIST) cybersecurity framework and the ISO/IEC 27001:2013 standards for information security. To this end, the Company has enhanced its basic infrastructure and ERP systems to ISO27001 standards. To date, 70% of the Company's IT system has received ISO27001 certification.



Risk and crisis management

The Company implements an enterprise risk management system in accordance with the guidelines set out by COSO.

The Company's risk management also covers the assessment of ESG (environmental, social and governance) risks as well as emerging risks. Details can be found on page 123.

Target Ensure all employees receive risk management training annually

Progress In 2021, the Company developed additional corporate training courses related to risk management including practical risk management workshops and an e-learning course on business continuity management (BCM) which all employees of all levels were required to complete.



Stakeholder engagement

The Company has established clear guidelines and processes for stakeholder engagement which includes maintaining regular communications with key stakeholders, implementing a grievance mechanism, and monitoring and managing stakeholder concerns in an appropriate manner. Details can be found on page 120.

Target Investigate grievance reports and close all verified cases within the timeframe dictated by the stakeholder management policy

Progress The Company has been able to achieve its target and has developed additional channels of communication for various stakeholders to provide greater convenience during the ongoing Covid-19 pandemic. As such, all information received by the Company is managed in accordance with the regulations and guidelines of the Thai Personal Data Protection Act B.E. 2562 (PDPA).



Human capital management

The Company understands that human capital management is a key factor of successful business growth and therefore supports employee development to prepare for changes both within and outside the organization. In addition, the Company has also established strategies for talent attraction and retention in order to ensure sustainable business expansion. Details can be found on page 147.

Target Fill and develop a succession plan for all critical positions

Progress In 2021, the Company improved its employee development plan, placing increased emphasis on developing leadership skills in order to prepare the new generation of employees who will become the successors of key positions. In addition, the Company has also recruited high potential talent to the Company to support business growth and diversification into new businesses.



Expansion of the digital business

Part of the Company's business strategy is to expand its digital business, in line with the global trend that is rapidly moving towards a fully digital society. To this end, the Company has invested in the digital business as a means to help it develop and adapt to the various changes happening, as well as to be able to access technologies and innovations which can enhance the efficiency of the Company's operations now and in the future. Details can be found on page 40.

Target Increase investment in the digital business and new technologies, as well as enter into collaborations to study and develop innovations and digital tools.

Progress In 2021, the Company established Gulf Innova Company Limited, a wholly-owned subsidiary, with the objective of to operating a digital infrastructure and digital-related services business. Furthermore, the Company has entered into Memorandums of Understanding (MOU) with various companies such as Singtel and PEA Encom to jointly study and invest in the digital business and related projects.



Water management

As water is a resource that is essential for life, as well as an important resource in the production process, the Company ensures that all projects that have achieved commercial operation have in place a comprehensive water management plan which covers the assessment and regular monitoring of water-related risks in order to ensure its operations are sustainable and its water usage is fair to other stakeholders who also rely on the water. Details can be found on page 141.

Target Receive Water Footprint certification for all projects which have been in operation for at least one year.

Progress In 2021, the Company had a total of 615.7 projects which had been in operation for at least one year, all of which have received Water Footprint certification. Furthermore, the Company has ensured that all projects have in place a comprehensive water management plan and have conducted an assessment of water-related risks to ensure that the Company is able to manage its water usage in a sustainable manner.



Climate management

The Company endeavors to become a leader in the transition to a low carbon society with a strong plan to increase its investment in renewable energy. As such, the Company places great importance on developing clean energy projects that can provide reliable and accessible energy to support economic growth both domestically and overseas as well as enhance the quality of life for the general society in a sustainable manner. Details can be found on page 134.

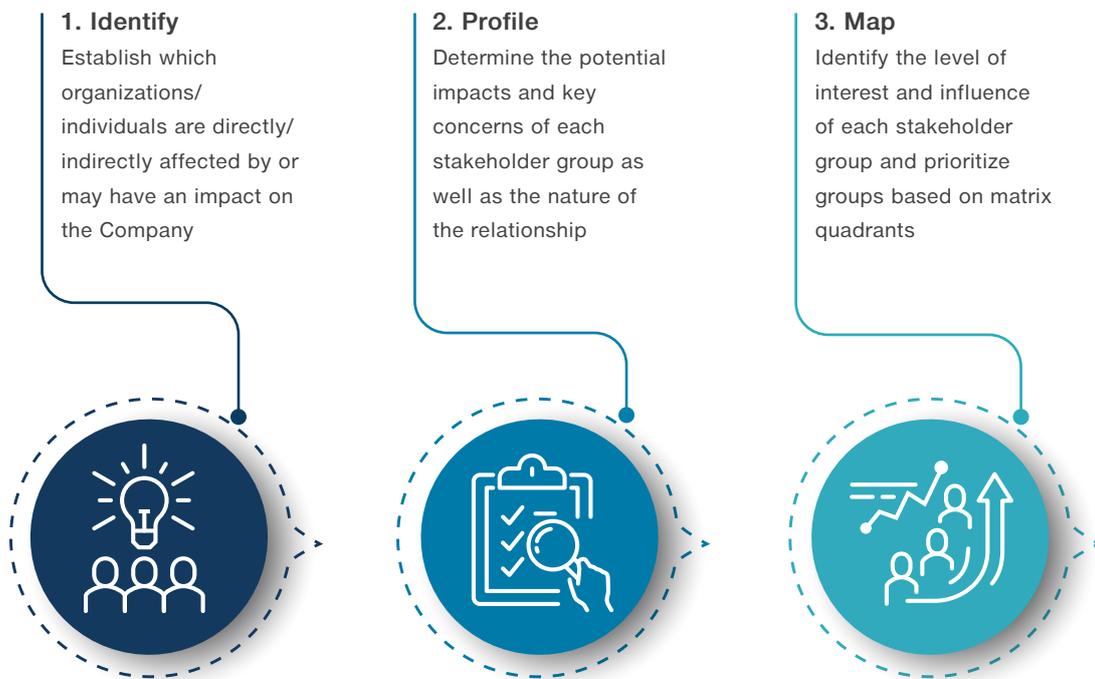
Target Increase the proportion of renewables in the generation mix to 30% of total installed capacity within 2030 and reduce carbon intensity by 25% within 2030 compared to the base year of 2019.

Progress In 2021, the Company's installed capacity from renewable energy totaled 615.7 megawatts, equivalent to 8% of the total installed capacity. The Company has plans to acquire and/or develop additional renewable energy projects both in Thailand and overseas.

STAKEHOLDER ENGAGEMENT

GULF places great importance on understanding and addressing the needs of its stakeholders. The Company ensures that it is effectively engaging with all its stakeholders by implementing a 7-step cyclical stakeholder engagement process that allows the Company to constantly communicate with stakeholders in order to identify and prioritize stakeholder needs, design appropriate engagement plans, and monitor the effectiveness of those plans. The Company also has a clear grievance mechanism. In 2021, the Company added more channels of communication to enable stakeholders to voice their concerns and receive feedback through multiple channels in a safe and convenient manner during the Covid-19 pandemic. As such, all information received by the Company is managed in accordance with the regulations and guidelines set out by the Thai Personal Data Protection Act B.E. 2562 (PDPA) and the Company's Whistleblower Policy.

Stakeholder engagement process



Grievance mechanism



Communication channels



4. Design

Determine programs, including grievance mechanisms, to build and maintain constructive relationships with stakeholders through an appropriate engagement plan

5. Implement

Set resources, frequency, communication channels and person/team responsible for implementing each program

6. Monitor

Monitor and report on the status of the stakeholder engagement plan, including how stakeholders will be informed of the plan

7. Review

Evaluate effectiveness of the plan based on stakeholder feedback and Company objectives, and update as required



Investigations



Clarification / Remediation

Environmental Impact Committee



Monthly reports

Key stakeholders



Investors

Key Issues: Sustainable business growth, providing funding for new projects while maintaining financial stability and profitability

Management method: Seek and build strategic partnerships with experienced players to manage risks (especially financial risks) and find alternate ways to raise funds without diluting shares for current shareholders

Engagement channels: Investor Relations section in the Company's website, annual reports, annual shareholder meetings, analyst meetings, and various activities such as roadshows



Employees

Key Issues: Mental and physical well-being, occupational health and safety, career advancement, job security

Management method: Foster corporate values, create a safe and happy work environment, provide opportunities for learning and development, provide competitive compensation, emphasize fair and non-discriminatory treatment

Engagement channels: Employee engagement survey, activities such as company-sponsored sports clubs, management visits, townhall events, and regular visits from the human resources department



Local communities

Key Issues: Manage impacts from the Company's operations, increase positive impacts, improve quality of life for the people in the community, promote sustainable communities

Management method: Invest in community development projects such as building and repairing roads, dredging canals and installing light poles, support educational and health projects such as scholarships, internships and hospital renovations, support activities such as sports tournaments and cultural events

Engagement channels: Environmental impact committee, community surveys, regular visits from the Community Relations department



Other stakeholders

The Company has dedicated teams that are responsible for ensuring regular and frequent communication with other stakeholder groups. The Company's overall stakeholder engagement process seeks to balance the needs of all its stakeholders while striving for business success.

- Local government agencies
- Customers
- Competitors
- Partners
- NGOs
- Analysts
- General society
- Regulatory agencies
- Suppliers
- Media
- Advisors/Consultants
- Others



- Incidences of human rights violations
- Complaints / incidences of ethical misconduct
- Complaints / incidences of harassment between employees
- Environmental fines / official warnings
- Social fines / official warnings

RISK MANAGEMENT

Risk management framework

GULF recognizes the importance of, and places high priority on, ensuring the appropriate identification, assessment, analysis, monitoring, and management of potential risks that may have an impact on the Company's business operations or investments. In order to ensure that its operations align with its business strategies, which include expanding to overseas markets and diversifying into new businesses, the Company has developed an enterprise risk management approach based on the framework set out by COSO (The Committee of the Sponsoring Organizations of the Treadway Commission) and the risk management policy of the Company.

The Company fosters a risk management culture within the organization to ensure that risk is properly managed in all operating processes and levels. This includes providing risk management training for employees on a regular basis. In 2021, the Company developed an e-learning course to allow employees to learn about risk management throughout the year. In addition, the Company has appointed the Sustainability, Governance, and Risk Management Committee, a sub-committee of the Board of Directors, to oversee risk management and ensure that the Company achieves its business targets and creates value for all stakeholders in a sustainable manner.



Risk management process

The Company's risk management process comprises 6 steps, covering the assessment of strategic, financial, operational and compliance risks, as well as ESG (environmental, social, governance) risks and emerging risks. Risks are assessed and managed at the corporate, department/unit, and project level.

In addition, the Company has also developed a Business Continuity Management (BCM) process comprising a risk assessment of various threats, a business impact analysis, and the preparation of key business continuity management plans, namely, emergency plans, crisis management and communication plans, and business continuity plans, in order to ensure the necessary resources are in place to minimize impacts from any potentially disruptive situations.

Environmental, Social, and Governance (ESG) risk

In addition to its business risk assessment covering strategic, financial, operational, and compliance risks, the Company also assesses environmental, social, and governance, or ESG, risks as part of its enterprise risk management process as such risks are embedded in all processes within the Company and can be managed through the establishment of operating procedures that support responsible business conduct.





Strategic risks

Strategic risks are defined as events or factors that may prevent the Company from implementing its strategies or achieving its targets, or risks arising from the Company's business strategies. In 2021, the Company's strategies included expanding its business overseas and diversifying into new businesses such as renewable energy, infrastructure and utilities, and the digital business.

Key strategic risks include risks arising from doing business in new geographical areas, such as understanding and complying with laws and public policies, establishing new networks and relationships, and political risks. Additionally, the Company is aware of risks resulting from changes in national and global policies, such as the

COVID-19 pandemic management policies of various countries, which may impact overseas project management, supply chains, or liquidity of customers.

In this regard, the Company has established a risk management approach which emphasizes strong due diligence of projects, partners or countries of interest to the Company. In addition, the Company supports developing a strong network and collaborating with leading companies with experience and know-how in the locations or businesses which the Company plans to enter, as well as engaging consultants with specialized expertise to ensure that the Company has sufficient knowledge and understanding before making investment decisions. Furthermore, the Company encourages employees to work on-site and share their experience with others in order to develop their working knowledge and capabilities. Furthermore, the Company has established business continuity plans to enhance its ability to adapt and handle any unforeseen events and an ever-changing environment.



Financial risks

Financial risks are defined as risks related to the financial liquidity of the Company, including impacts which may result from changes in macroeconomic or market factors.

Based on the 2021 risk assessment, it was found that the key financial risks of the Company comprised risks from changing macroeconomic factors that may impact financial markets, such as investment policies of financial institutions, lending terms and conditions, or interest rate adjustments that may impact financing. In addition, market fluctuations may affect foreign exchange or interest rates that may impact the project cost and financial performance of the Group as (a) a portion of financing is denominated in US dollars, (b) a portion of payments under EPC contracts is denominated in foreign currencies, (c) a portion of payments under long-term service and parts agreements is denominated in foreign currencies, (d) a portion of the power projects' sales revenues is linked to the US dollar, and (e) loans to subsidiaries in US dollar and Euro. Furthermore, the Group obtains financing for a significant portion of its project development and construction costs.

The Company has established a clear policy and approach for financial risk management, placing importance on careful financial planning and management with utilization of appropriate financial instruments, diversification of sources of funding, and utilizing currency forward contracts and cross-currency swaps as well as interest rate swaps. Furthermore, the Company has strictly followed its hedging policy, using a natural hedge (cash inflows to offset cash outflows) during construction phase and after commencement of commercial operation.



Operational risks

Operational risks are defined as risks resulting from inadequate or ineffective internal systems, processes, or people, as well as external events that may impact the effectiveness of such internal systems, processes, and/ or people.

Operational risks cover several aspects as various factors could impact the operations of the Company, especially with regards to project management which may be affected by external factors that could result in the Company not being able to develop or complete construction of projects within the designated period or have cost overruns. Such

factors include but are not limited to underperformance of contractors, delays in issuance of permits from the relevant authorities, natural disasters or climate impacts, accidents or other unexpected events, or delays in delivery of fuel or key equipment.

Furthermore, the Company also takes into account other key issues that may affect its operations such as human capital management, which may prevent the Company from achieving growth as planned, or information technology management and cybersecurity, which are key factors in protecting the Company's data, as well as social and environmental risks and risk resulting from climate change, which may disrupt power plant operations. These risks also include potential impacts to the local community which may result from the operations of the Company.

In managing its operational risks, the Company recognizes the importance ensuring adequate and appropriate governance and internal control systems. As such, the Company has established a clear risk management policy and approach that emphasizes strict compliance with laws, regulations, and contractual obligations, as well as regular communications, reporting, and audits. In addition, the Company closely monitors the work of key departments, such as the Human Resources or IT department, to ensure they receive adequate and appropriate support as required to execute the Company's strategies and targets.



Governance and compliance risks

Governance and compliance risks are defined as risks that may result from the Company failing to comply with laws, regulations, contractual obligations, or operating standards, as well as corruption risks, and also extends to potential impacts to the Company's reputation and trust from stakeholders.

Apart from governance in alignment with the existing corporate governance framework, policies, and approach, in 2021, the Company developed a corruption risk assessment process in compliance with the criteria of the Thai Private Sector Collective Action Against Corruption (CAC). The Company support and cooperates with the Internal Audit department to ensure that the department is able to work independently and conduct audits of all functions within the organization. To this end, the Company's approach to managing governance and compliance risks places great importance on Company-wide communication to ensure correct understanding of the abovementioned risks and to raise awareness about the Company's policies and appropriate conduct.

Additional details about governance risks may be found on page 129.



Climate change

The Company assesses risks and opportunities which may arise from climate change, covering both physical risks which may have operational or financial impacts as well as transition risks which may have strategic, financial or reputational impacts on the Company.

Risk management approach

Details about risks and opportunities from climate change may be found in the Climate Management section on page 134.

Water management and water-related risks

The Company assesses risks relating to water availability and scarcity, which may have operational impacts for the Company. Water-related risks may also impact external stakeholders such as local communities in the areas where the Company's projects are located, which may also lead to impacts to the Company's reputation. In addition, the Company assesses physical risks such as storms or flooding that may impact operations and operating expenses.

Risk management approach

Details about water-related risks and the Company's management approach may be found in the Water Management section on page 141.

Environmental impacts around the projects

The Company monitors various factors that may impact the local ecosystems such as risks related to biodiversity, air and water quality, use of natural resources, and safety in the production process.

Risk management approach

The Company conducts an environmental impact assessment (EIA) before the commencement of any project to ensure that project development and operations will avoid or minimize impacts to the environment as much as possible. The Company monitors air emissions and water quality, and also conducts carbon and water footprint assessments every year, as part of the Company's strategy to enhance resource and waste management. Furthermore, the Company implements and tests emergency plans to ensure that any unforeseen events can be handled in a timely manner.

Details about the Company's environmental management can be found on page 132.



Health and safety

The Company proactively monitors and manages risks that could potentially impact the health and safety of employees, contractors, and the local community. These include accidents, impacts to air or water quality, noise pollution, and other emergency situations which may have occupational, compliance and reputational impacts on the Company.

Risk management approach

The Company has strict safety standards and utilizes digital tools in all its projects to allow employees to participate in monitoring safety practices. In addition, the Company arranges safety training for employees and contractors on a regular basis. It has also prepared emergency plans, crisis management and communications plans, and business continuity plans, and conducts regular testing in order to improve those plans. In 2021, the Company maintained the Covid-19 health and safety measures it implemented for employees from the previous year. Additional details may be found in the GULF Family section on page 151.

Human rights

The Company conducts human rights risk assessments within the organization, local communities around the Company's area of operation, project sites under construction, and those in commercial operation. Such risks may have operational, compliance, and reputational impacts within the organization, as well as external impacts, for example, on local communities, vulnerable groups, or other stakeholders.

Risk management approach

Details about the Company's human rights due diligence process may be found in the Human Rights section on page 144.

Impact on local communities

The Company recognizes that local communities may have concerns about large moving into new areas, which may disrupt the local way of life or livelihood of community members, as well as concerns about resource sharing. The Company thus communicates with the communities on a regular basis to monitor the opinions and satisfaction level of this stakeholder group.

Risk management approach

The Company's Code of Conduct is founded on its commitment to improving quality of life for everyone in society. Thus, the Company works closely with the local communities in the areas where it operates to support community development including improving local infrastructure, promoting local agriculture and businesses, and engaging with members of the local community. The Company also collaborates with state agencies and community representatives in various locations through its Environmental Impact Committee to discuss matters such as water-sharing schemes and joint community-building activities. Details may be found in the Corporate Social Responsibility section on page 152.

Labor practices

Respecting labor rights is not only about ensuring compliance with laws and regulations, but also about strengthening the human capital within the organization, a key factor for sustainable business growth.

Risk management approach

The Company's human resources policy covers key issues, ranging from the attraction and recruitment stage to termination of employment. The Company provides fair and competitive compensation, comparable to peers and benchmark rates in the same industries, and reflective of economic conditions as well as the Company's and the employee's performance. Furthermore, the Company's labor practices demonstrate its commitment to equality and non-discrimination, human capital development, and occupational health and safety.



Corporate governance and internal control

The Company places importance on conducting business in a responsible manner in accordance with the principles of good corporate governance. Nevertheless, there is a risk of intentional or unintentional misconduct that may have operational, financial, or reputational impacts on the Company.

In 2021, the Company enhanced its assessment of governance and internal control risks through the development of a corruption risk assessment process based on the criteria of the Thai Private Sector Collective Action Against Corruption (CAC) to assess the risk of corruption to facilitate business or job opportunities, wrongdoing or convenience in various business activities.

Risk management approach

The Company conducts annual Code of Conduct training and testing for all employees. In addition, it holds regular, independent internal audits, with the audit results reported directly to the Audit Committee and reviewed by external auditors in compliance with relevant laws and international standards. Furthermore, following the declaration in 2020 of its intention to join the CAC, in 2021 the Company developed additional anti-corruption training programs and updated its anti-bribery and corruption policy, as well as established an Anti-Corruption Committee comprising senior executives of the Company. As such, the Company expects to become a certified member of the CAC within 2022.

Compliance with laws, rules, regulations, and contractual obligations

As the Company operates its business in both domestic and overseas markets, it is essential that any changes in laws or regulations are closely monitored, as they may have strategic, operational, financial or reputational impacts on the Company.

Risk management approach

The Company continually and proactively monitors changes in laws and regulations. It also organizes training programs conducted by internal and external speakers as well as consultants with Company-related subject matter expertise. In addition, the Company uses internal communication platforms across multiple channels to effectively disseminate relevant information across the organization as well as to raise awareness about key rules and regulations.

Emerging risks

The Company evaluates short-term risk (1-2 years), medium-term risk (3-5 years), and long-term risk (6-10 years or above). Importance is given to risks which may have a significant impact in the next 3-5 years, which are defined as emerging risks, to ensure that the Company's strategy and direction align with global trends and to prepare the Company to manage any new events that may occur in the future. The Company firmly believes with appropriate risk management, risks can be turned into opportunities for business development and expansion for the Company.

Climate change

There are two types of risks arising from climate change, namely, physical risks that will impact mainly on operations and operating costs, and transition risks that may have many different impacts, including strategic, financial, compliance or reputational impacts. Details may be found in the Climate Management section on page 134.

Disruptive technologies

Rapid technological developments may result in business disruption, especially in the energy industry where the trend is moving towards renewable energy and decentralized power production. This may have strategic impacts on the Company as the Company was established from the development gas-fired power projects. In any case, the Company gives importance to close monitoring and proactive study of new technologies to find ways to implement such technologies in its current projects as well as to plan for future projects. Furthermore, the Company has a unit

dedicated to developing business related to new technology as well as a unit that is responsible for studying and continuously improving project efficiency.

Digitalization

The world is firmly stepping into the digital era, with new innovations and technologies constantly being developed such as electric vehicles, financial technology (FinTech), or the Internet of Things (IoT). The Company is of the opinion that this move towards the digital era will only become a risk if the Company or its employees are not open to change or are unwilling to learn new things. However, the Company continues to uphold its core values which prioritize learning and flexibility, which will ensure the Company is prepared for change and can implement various innovations and technologies in its business activities. Furthermore, the Company has established a digital business unit to begin studying and investing in digital infrastructure and other related businesses.

Risk to investment of asset holders

The Articles of Association of the Company state certain limitations on shareholding of foreign shareholders, which may result in constraints on share transfers and may impact the liquidity and market share price of the Company's stocks.

Currently, the Company's Articles of Association limit the size of ownership of total issued and sold shares of the Company whereby foreign investors are allowed to own up to 49.00 percent of total issued and paid shares. In this regard, the Articles of Association prohibits the transfer of the Company's shares, deemed a violation of limitation on shareholding of foreign investors. In case the proportion of shares held by foreign investors reaches the threshold, shareholders of the Company may not be allowed to transfer their shares to non-Thai citizens, while non-Thai citizens who own the Company's share may be forced to sell their shares on the domestic stock exchange. Therefore, the liquidity and market price of the Company's shares may see a negative impact. In addition, any non-Thai citizens who hold, buy, or sell shares of the Company may not be able to foresee whether or not such transacted shares are subject to shareholding volume limitation applicable to foreign investors, which may trigger the shares to be prohibited from registration in the name of the buyers, or the registrar may deny the share transfer registration.



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Environmental

- Environmental Management
- Climate Management
- Operational Eco-efficiency
- Water Management

ENVIRONMENTAL MANAGEMENT

Environmental policy

The Company understands that its business relies heavily on natural resources and therefore prioritizes conducting business in an environmentally-responsible manner, placing emphasis on operational eco-efficiency and waste management. In addition, the Company is well aware of the relationship between the local community and ecosystem, as well as the influence that the environment has on people's way of life. For this reason, the Company has chosen to adopt an environmental and social management system (ESMS) which reflects its commitment to environmental stewardship and corporate social responsibility.

	Key issue	Details
	Environmental and social performance	The Company has chosen to implement an Environmental and Social Management System to continually develop and enhance its operations.
	Legal compliance	The Company strives to comply with environmental, social, and health and safety laws and regulations, at minimum.
	Creating a culture of responsibility	The Company aims to instill and encourage environmental and social responsibility, with emphasis on employee engagement at all levels.
	Management of impacts in the value chain	The Company seeks to reduce negative impacts and promote stakeholder engagement within its value chain in order to balance the needs of various groups.
	Promoting good conduct outside the organization	The Company encourages its contractors, producers, suppliers and partners to operate responsibly, and has developed a Supplier Code of Conduct which emphasizes taking care of the environment and society.
	Governance	The Company ensures regular reporting and review of environmental and social performance, as well as appropriate disclosure of information.

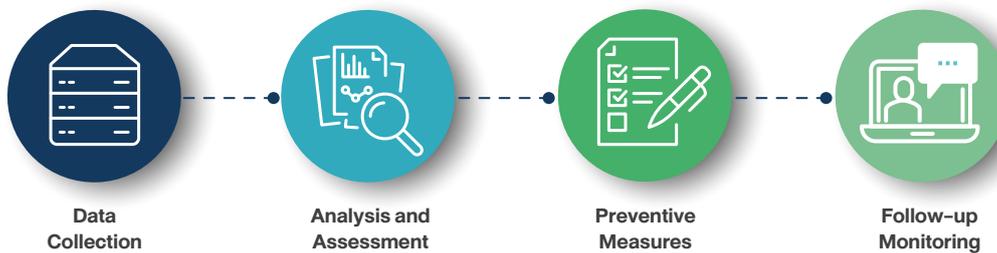
In addition, the Company continues to adhere to its sustainability framework in the “WORLD” dimension which places importance on managing impacts both within and outside the organization, as well as promoting learning and awareness about environmental issues, with the aim of ensuring that the Company's environmental management approach not only helps to reduce negative environmental impacts as much as possible but also creates positive impacts that contribute to solving global environmental problems.

Environmental impact assessment

The Company has a policy to investigate and mitigate environmental impacts from the moment it starts a study on a new project. As such, all Company projects must conduct an Environmental Impact Assessment (EIA) in order to ensure that project development, from planning and design to construction and operation, creates the smallest impact possible to the surrounding area.

The EIA process begins with collecting information about the environment in the area under study which might be affected. The responsible team will use scientific methods to analyze and assess both positive and negative impacts which may occur at each stage of project development and operation. This

assessment covers both potential impacts to the local ecosystem as well as potential impacts to the community in the surrounding area, in accordance with the Company's management policy under the Environmental and Social Management System. Measures are then developed to prevent or mitigate negative impacts and promote positive impacts. In addition, the Company has also established a monitoring and performance review plan. Dedicated environmental, community relations and EIA teams are responsible for regularly monitoring performance and engaging with relevant stakeholders, from the project design and construction stage through to project operation.



Environmental performance monitoring

The Company has set up an Environmental Impact Committee at every commercially-operating power project in Thailand comprising representatives from the Company, the local community, and relevant local and national state agencies. The Committee is responsible for checking and following up on environmental conditions around the Company's projects, in line with legal and regulatory operating standards, to monitor and prevent negative impacts that may result from project operations. In addition, the Committee serves as an additional communication channel through which the local community can voice their concerns or provide suggestions to the Company. The Committee meets at least once every three months to regularly follow up on the progress of work.

Furthermore, the Company also requires that environmental performance data is reported to the Company's Executive Committee or other management committees not less than once a week in order to ensure that the teams responsible for operations at each project are closely monitoring their impacts. This also ensures that there is environmental governance at both the operational and management levels. In addition, the Company also submits reports to regulatory agencies, such as the Office of Natural Resources and Environmental Policy and Planning (ONEP), at least twice a year. The Company has a policy to engage external entities to provide third-party verification of environmental data before disclosing such information in its annual reporting or other media.

CLIMATE MANAGEMENT

GULF recognizes that climate change will have significant impacts on business, especially for the energy industry. The Company has therefore established business strategies to manage climate-related risks and opportunities. These risks and opportunities are assessed as part of the Company's enterprise risk management process which covers assessments for the short term (significance within 1-2 years), medium term (significance within 3-5 years), and long term (significance within 6-10 years or later). The Company conducts scenario analysis using multiple scenarios including IPCC RCP8.5, IEA STEPS, IPCC RCP2.6, IEA SDS, and WEC Unfinished Symphony which reflect three scenarios: business-as-usual, aggressive carbon reduction and intermediate scenarios (moderate carbon reduction). The Company has adopted the Taskforce for Climate-related Financial Disclosures (TCFD) framework as a guideline for reporting its climate-related risks and opportunities.

Opportunities

Resource efficiency

The Company promotes innovation in operations and has implemented a number of efficiency improvement projects, such as its tie-line project, which have helped the Company reduce its fuel consumption and carbon intensity, resulting in over 300 million THB in operational cost savings in 2021.

Energy source

Government and investor policies supporting investment in renewable energy have provided the Company with a number of opportunities to expand its business in this area. The Company aims to increase the proportion of renewables in its generation mix to at least 30% of total gross installed capacity by 2030. Currently, the Company has over 600 megawatts of installed renewable capacity.

Products and services

The trend toward decarbonization has led to increased demand for low-carbon energy, providing the Company with opportunities to expand its products and services in new business areas such as renewable energy projects, a solar business, and other energy services. In 2021, the Company reorganized its investment structure, transferring all of its operating subsidiaries that conduct businesses related to renewable energy to be managed under Gulf Renewable Energy Company Limited in order to support the expansion of the Company's renewable energy business in the future.

Markets

The Company's strategy to expand its business overseas is facilitated by global efforts to decarbonize, providing opportunities for growth in new territories and markets such as Germany, Laos and Vietnam. In addition, the Company has also taken steps to enter the renewable energy market in Thailand through the establishment of Gulf1 Company Limited, in which the Company holds 99.99% stake to operate solar energy related businesses including solar rooftops and providing a full range of maintenance services for such systems.

Resilience

Based on the Company's strategies, which are strongly focused on increasing production from renewable sources and supporting energy security through natural gas and infrastructure projects in line with global trends and market needs, as well as its expansion into the digital business which will allow the Company to utilize new tools and technologies to enhance the efficiency of the Company's work and that of the various projects within the Group, it can be considered that the Company will be resilient to the impacts of climate change.

Risks

Acute physical risks

The Company has determined that the main acute physical risks it may face are droughts, floods, or more severe natural disasters. The Company has established procedures to manage these risks on many levels such as increasing the efficiency of water usage in its power projects, incorporating raw water storage ponds in project designs, seeking alternative water sources, and developing emergency and business continuity plans. In addition, the Company also ensures it has sufficient insurance coverage should any loss or damage occur.

Chronic physical risks

Changes in precipitation patterns may affect water availability and accuracy of weather forecasts, which could affect electricity production. The Company has comprehensive water management plans in place at all projects in operation and utilizes technology for key processes such as weather forecasting. More importantly, the Company has conducted a study of water-stressed areas, as well as the forecasted expansion of such areas, and selects project locations that are not in water-stressed areas.

Regulatory

Increased restrictions on fossil fuels may impact the financial viability of current projects or feasibility of future projects. The Company has change-in-law clauses in place to cover potential impacts resulting from changes in government policies or laws. In addition, the Company has diversified into the renewable energy business in line with future trends, as the Company believes the potential regulatory changes will actually provide greater opportunities for the Company in expanding its renewable energy business.

Technology

Improved renewable technology may reduce the competitiveness of fossil-fuel projects and may also promote the rise of "prosumers". The Company has therefore established Gulf1 Company Limited to operate its solar rooftop business which serves as a way for the Company to meet consumer demand while also helping the Company expand its renewable energy business. Furthermore, the Company uses state-of-the-art technology to continually enhance its operations which will allow it to maintain high levels of efficiency in the long term. In addition, the Company has established a dedicated unit to study and begin investing in new technology.

Markets

The energy transition may provide fewer opportunities for growth for large-scale gas-fired power plants. There may also be a shift from wholesale to retail energy production and consumption. The Company proactively seeks opportunities to diversify its business in line with market changes, for example through its power distribution system project, district cooling system project, waste to energy projects, and solar rooftop business.

Reputation

The Company understands that, regardless of whether the issue is about climate change or other issues, if it does not adapt to global trends or does not adjust its management approach in line with changes in policy or stakeholder expectations, it cannot achieve sustainable business growth. In fact, this could also result in stakeholders not accepting or even protesting against the Company, which could impact its ability to secure financing, enter new areas, compete, or gain the trust of various stakeholder groups. The Company therefore seeks to build up its profile with the aim of becoming an internationally-recognized player in the renewable energy business and other businesses.

Climate strategy

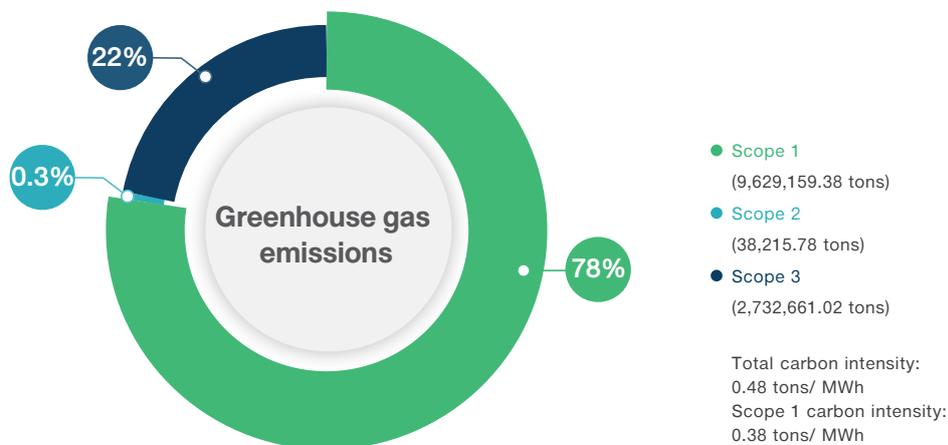
The Company has established a climate strategy in line with its business strategies and current global trends in order to ensure that the Company is prepared to handle climate change and the potential impacts that may result. The strategy focuses on reducing the proportion of electricity generated through combustion by increasing investment in renewable energy and other related businesses. Furthermore, the Company has developed processes to reduce its energy consumption and greenhouse gas emissions, having implemented a No Coal Policy and promoting innovation to increase efficiency in operations. The Company encourages employees to continually seek ways to improve operations and increase the efficiency of the production process, and has a dedicated innovation team responsible for plant efficiency. In addition, the Company also sets key performance indicators (KPIs) to reflect the success of the implementation of such improvement projects.

Aside from managing its direct impacts, the Company also contributes indirectly to climate action in other ways, most significantly through its services which help its industrial customers reduce their greenhouse gas emissions, namely, through the Company's production and sale of steam and chilled water to industrial customers. As industrial customers tend to

use only a small amount of steam or chilled water, many companies choose to install small, inefficient boilers that run on diesel or fuel oil to produce steam, while those that require chilled water often use large amounts of electricity to chill the water. As the Company is able to use top-quality technology to produce steam and chilled water in large amounts as part of the electricity generation process, it is able to eliminate the need to run the older, inefficient boilers or use extra electricity, therefore contributing to reducing greenhouse gas emissions from the Company's industrial users.

Carbon footprint

The Company measures its greenhouse gas emissions in order to calculate its carbon footprint covering Scope 1 (direct emissions from owned or controlled sources), Scope 2 (indirect emissions from the purchase of electricity), and Scope 3 (other indirect emissions). The Company requires all its power projects in Thailand which have achieved commercial operation for at least one year to participate in the Thailand Greenhouse Gas Management Organization (Public Organization) or TGO carbon footprint project. Currently, 24 Gulf power projects have received Carbon Footprint for Organization (CFO) and Carbon Footprint for Product (CFP) certification from the TGO.



As part of its efforts to support energy security in the ASEAN region and its commitment to enhance its operations in line with the Thai government's policy on carbon neutrality and net zero GHG emission, the Company has set a target to reduce its carbon intensity by 25% within 2030 compared to the base year of 2019.

OPERATIONAL ECO-EFFICIENCY

As its operations rely on natural resources, especially water and natural gas which are essential components of the electricity generation process, the Company is well aware that it must help conserve and protect those resources for the benefit of current and future generations. As such, the Company places the highest priority on managing environmental impacts in all areas where it operates, such as the areas around its power projects which may be affected differently depending on the surrounding conditions. The Company has therefore established an environmental management policy which covers operational eco-efficiency, reduction of potential negative social and environmental impacts, and promotion of positive impacts, especially in terms of resource-sharing with local communities as well as environmental protection and conservation.

Because modern society relies on electricity in every aspect of life, power generation companies must consider the demand for electricity as well as the need to maintain energy security. In this regard, the Company views natural gas as having an important role as a clean fuel source which can reliably meet the ever-increasing demand for energy and has therefore elected to invest in a number of gas-fired power projects which will play a part in driving economic growth and enhancing quality of life for everyone in society.

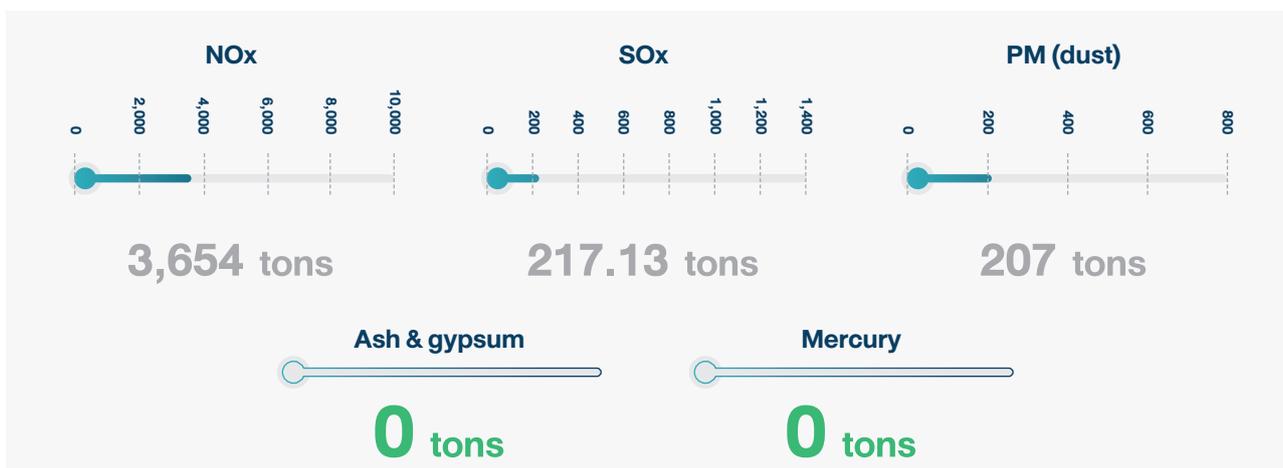
In any case, the Company continues to prioritize socially and environmentally responsible operations and uses state-of-the-art technology in all the projects it invests in, which helps to ensure that the Company’s power projects are able to produce electricity with

high efficiency, meaning they can generate more power using less fuel and fewer resources. In addition, the Company encourages its employees to seek ways to maintain or improve efficiency and implements a number of projects and processes which also help the Company’s various power projects reduce their consumption of fuel, energy and other resources.

Air quality management

The Company requires a strict Environmental Impact Assessment (EIA) for all projects prior to construction. The conclusions from the assessment are used to develop the project design as well as to set operating standards during the construction and operation phases with the objective of reducing negative impacts to the environment and local communities as much as possible. As a result, the Company adheres to air emissions standards which are stricter than regulatory limits and employs a Continuous Emissions Monitoring system to measure air quality at emissions points as well as various locations in the area surrounding the project.

The Company has been able to control various emissions, such as nitrous oxide (NOx), sulfur oxide (SOx) and dust (PM: particulate matter), to levels well below regulatory limits. Because the Company’s power projects operate at high efficiency, they are able to turn the same amount of fuel into more electricity and also waste less fuel in the combustion process compared to similarly-sized power plants of lower efficiency, thus resulting in significantly lower air emissions.



Energy consumption

Almost all of the Company's energy consumption comes from fuel consumption, specifically, natural gas, which is the key fuel used in the Company's electricity generation process. Nevertheless, the Company promotes energy conservation in every step of operations with a strategy to reduce absolute energy consumption and energy intensity that focuses on maintain the highest level of efficiency in its operations. In 2021, the Company's energy intensity was 9.7 GJ/ MWh. The Company has the following approach to achieving its energy consumption objectives.



Technology

The Company's policy is to use high-quality state-of-the-art technology from internationally-recognized suppliers with strong technical expertise related to the equipment used in the Company's projects. Furthermore, the Company utilized digital tools in its work in order to promote data-driven operations, for example using digital performance measurement and data storage systems which can analyze data pulled from the machinery to develop operations and maintenance plans.



O & M Planning

The Company has carefully planned operation and maintenance schedules, including a proactive preventive maintenance regime, to prevent unnecessary shutdowns that would reduce efficiency. In addition, the Company as a dedicated team tasked with finding solutions to improving operational efficiency through various methods such as linking two power projects together (tie-line), adjusting various settings on the machinery, and developing preventative measures for operating procedures.



Innovation

Aside from the responsibility assigned to the aforementioned team, the Company also encourages all its employees to participate in seeking ways to improve efficiency by setting key performance indicators (KPIs) at the project, department and individual level which reflect the successful implementation of the various improvement projects. Furthermore, the Company supports cooperation with suppliers, universities, customers and other external entities to study new innovations and processes which may help improve efficiency in operations.

Waste management

The Company places great importance on responsible consumption and production for the greater good. Although the electricity generation process does not produce much waste as it does not require a lot of materials or chemicals, with the majority of the waste produced being naturally-occurring sediment which is filtered out of the water used in the electricity generation process, the Company still makes it a priority to dispose of waste appropriately in order to avoid creating negative impacts for the environment or the communities in the areas where the Company operates.



Waste from the Company’s power projects is divided into two types: hazardous waste and non-hazardous waste, which must be managed differently as each type of waste has a specific disposal method. The Company’s waste management approach can be summarized as follows:



The Company has been able to maintain its zero waste to landfill target since 2020 and in 2021 was also able to achieve its zero waste incineration* target.

*Note: A small amount of hazardous waste was incinerated at the beginning of the year before the Company found a more appropriate method of disposal. The amount of waste incinerated was 3% of total hazardous waste or 0.02% of total waste generated.

Biodiversity

The Company is fully aware of its environmental responsibility and aims to avoid and minimize any potential negative impacts to the ecosystem in the areas where the Company operates. The Company upholds this commitment through sufficient and appropriate governance and oversight as well as responsible management practices. In addition, the Company supports education and advocacy initiatives related to biodiversity and other environmental issues.

With regards to protection of biodiversity, the Company conducts extensive environmental impact assessments and outlines appropriate environmental management plans before starting development on any project. The Company develops projects only in industrial estates or areas where the government allows industrial development. Thus, most of the Company's projects are located in industrial estates which pose limited impacts to biodiversity and the ecosystem. For projects outside industrial estates, the Company only develops projects in areas that are not environmentally vulnerable or of high biodiversity value. In addition, the Company does not engage in any forest-clearing.

The Company has a strong environmental management policy and requires close monitoring of biodiversity, conducting regular biodiversity surveys every six months to record the number of plant and animal species found in the area. From the biodiversity surveys over the past year, the majority of the surveyed sites showed that the biodiversity index downstream had no significant difference from that upstream, indicating that the discharge water from the Company's projects have no impact to the biodiversity of the aquatic biological habitat in the surrounding areas. Furthermore, there are no IUCN Red List or national conservation species in the areas where the Company operates.



WATER MANAGEMENT

The Company recognizes that water is a fundamental natural resource that is vital for life and is also an essential part of operations in every industrial sector. It is therefore a resource that must be efficiently and effectively managed to ensure that the Company is using this valuable resource in an equitable and sustainable manner. The Company's water management approach takes into account key issues including managing water-related risks such as droughts or floods, controlling water consumption, protecting water sources, monitoring water quality, and sharing water to ensure everyone in the area has fair access.

Reducing water consumption

The Company's projects require large amounts of water, especially its gas-fired and biomass power projects as the electricity generation process in these projects involves fuel combustion to create heat which is used to produce steam that drives generation turbines. In addition, water is also used to prevent the temperature from fuel combustion from getting too high. As such, the majority of the water used in the Company's power projects is directed to boilers where it is turned into steam, and to the cooling towers which remove heat through water evaporation. The unevaporated water in the cooling towers can be cycled and reused. However, as a large amount of water is lost through evaporation, it is necessary to regularly input water back into the system.

Because water is such an essential part of the production process, a water shortage or drought could impact the Group's operations. Therefore, the Company closely monitors the amount of accessible water at various water sources. Currently, the Company's gas-fired and biomass power projects are located in Thailand. These projects can be divided into two groups: those located in industrial estates and those located outside industrial estates. Projects in the first group will purchase water from the industrial estate while projects which are located outside industrial estates will pump water directly from natural waterways located nearby, such as canals or rivers.

All projects have raw water storage ponds which can hold enough water for 45-60 days of operations in order to prevent interruptions should a drought occur. In addition, the Company studies ways to reduce the amount of raw water it needs and has implemented two key approaches to reduce its water consumption, as follows.



Increasing the number of times water is cycled through the cooling towers

Unevaporated water can be cycled back through the cooling towers, which will help reduce that amount of water that needs to be added to the system. However, as the water will begin to collect sediment or other contaminants through each cycle, the Company must closely monitor water quality to ensure water quality indicator limits are not exceeded. The Company will discharge water when the levels of these indicators begins to rise.



Using reclaimed water from the treatment process to produce premium clarified water

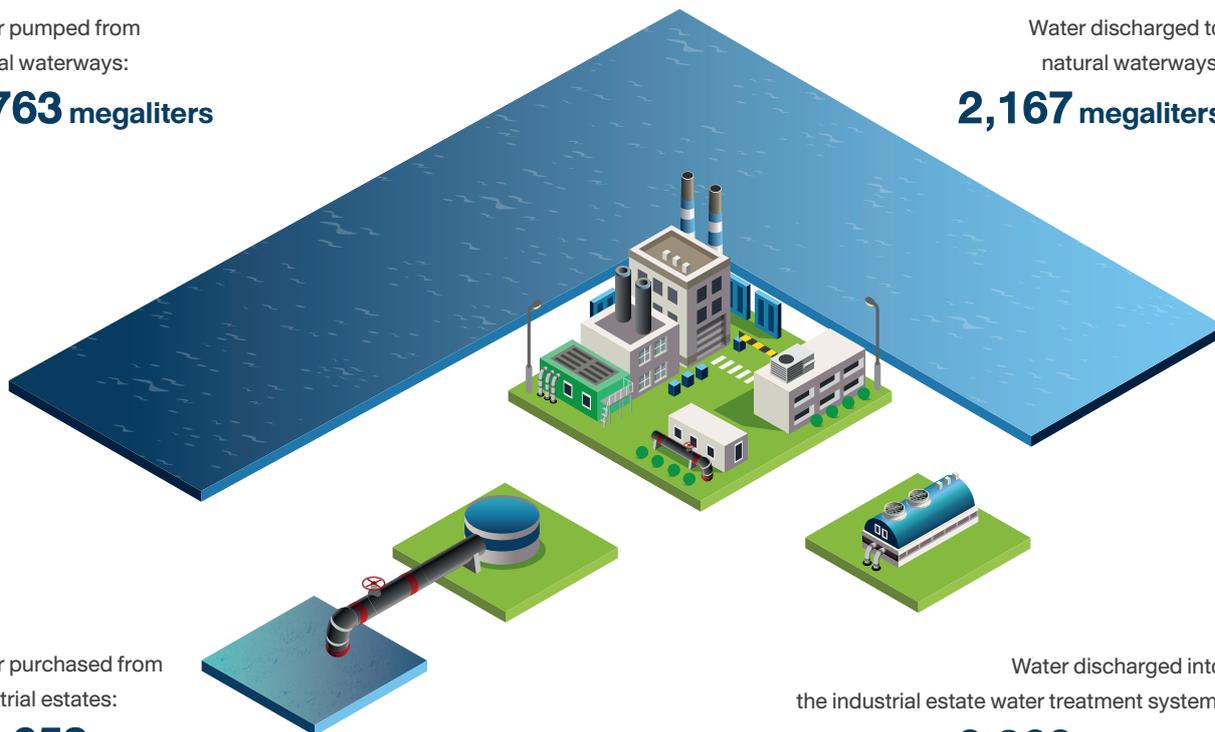
For projects located in industrial estates, the Company has studied and initiated a program to use reclaimed water from the industrial estate's water treatment process which will reduce the amount of raw water the industrial estate needs to pump from water sources. In addition, since the water treatment process removes almost all contaminants and sediment, the water quality is very high. This allows the Company to cycle water through the cooling towers many more times, leading to up to a 30% reduction in purchased water in some projects.

Water pumped from natural waterways:

7,763 megaliters

Water discharged to natural waterways:

2,167 megaliters



Water purchased from industrial estates:

19,659 megaliters

Water discharged into the industrial estate water treatment system:

2,362 megaliters

Water quality management

Water discharged from the Company's power projects must meet regulatory quality standards. The Company will discharge water back to the same source. In other words, projects located in industrial estates will discharge water into the industrial estate's water treatment system while projects located outside industrial estates will discharge water back into the canal or river from which it was pumped. In any case, the Company continuously checks and monitors water quality to ensure that the quality of the water discharged from its projects are within safe environmental limits. In fact, in some cases, the water discharged into natural waterways is of better quality than that in the waterways themselves. Details regarding the environmental impact can be found under the Biodiversity topic on page 140.

Water sharing

In addition to monitoring its water consumption and the quality of water discharged from its various projects, the Company also places great importance on sharing resources with other stakeholders in the area, especially local farmers and nearby communities. The Company regularly communicates with these stakeholder groups through its Environmental Impact Committee as well as through activities it conducts with the local communities. Furthermore, the Company also engages in discussions with suppliers and relevant regulatory agencies such as the Royal Irrigation Department on a regular basis in order to follow up on water usage and the status of key water sources. In any case, the Company does not have any projects located in water-stressed areas. *

The Company is very careful about its water usage and thus, for projects which source their water from natural waterways, the Company has a designated period for pumping water and will not pump water from these waterways during the dry season. In addition, the Company also shares water with local farmers if they are unable to pump water from the waterways during dry periods in order to ensure that the Company's water usage does not have any negative effects on the livelihoods of other stakeholders in the area.

*Note: As identified by the UN FAO AQUASTAT tool.



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Social

- Human Rights
- GULF Family
- Corporate Social Responsibility
- Demonstration Farm

HUMAN RIGHTS

Respect for human rights is a key component of GULF's sustainability framework and part of the Company's foundational beliefs on how business should be conducted. That said, the nature of the energy industry and accompanying regulatory frameworks in Thailand, where GULF is based and where the majority of its business operations are located, already facilitate – and in fact require – socially responsible corporate conduct. In any case, the Company continues to expand on its commitment to respect human rights both within and outside the organization.

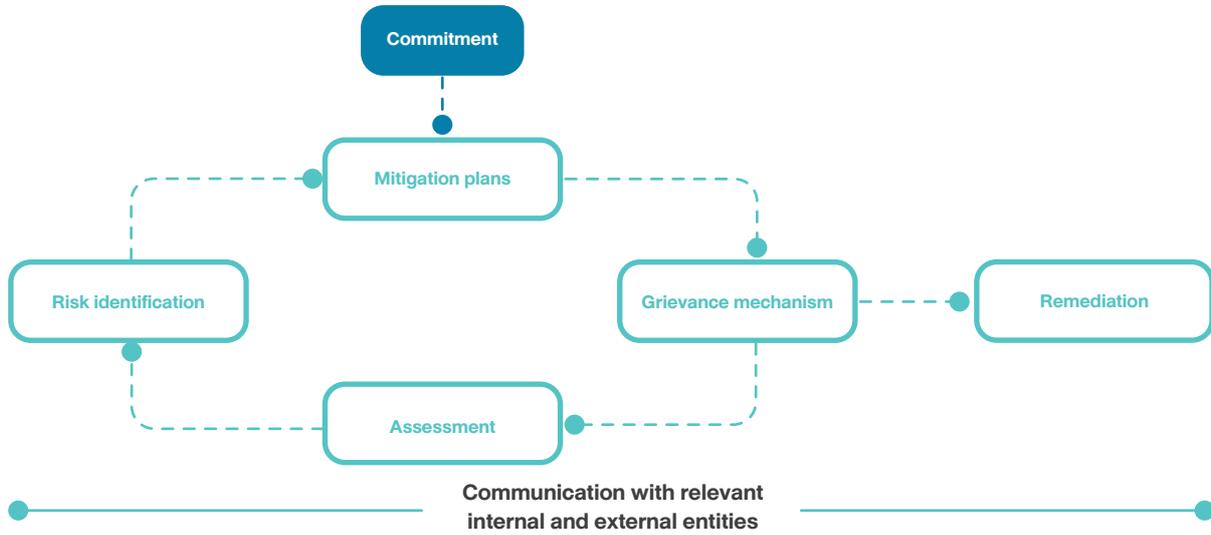
The Company's Human Rights Policy, approved at the highest level by the Board of Directors and guided by the Universal Declaration of Human Rights and the Conventions of the International Labour Organization, covers the following key points:

1. Engage with stakeholders to identify, engage, and manage human rights concerns and issues.
2. Ensure fair and equal treatment of stakeholders, placing emphasis on the diversity and inclusion of employees and avoiding discrimination based on sex, gender, age, race, ethnicity, religion, nationality, and any other non-merit-based attributes.
3. Respect labor rights and ensure full compliance with labor laws.
4. Provide and maintain a safe and healthy workplace for employees with consideration for all aspects of employee well-being (including physical, mental, emotional, social well-being), and comply with applicable safety and health laws and regulations.
5. Support human rights throughout the Company's value chain through monitoring and advocacy.
6. Educate and advocate for human rights both within the Company and among external stakeholders including business partners, suppliers, contractors, and the communities in which the Company operates.
7. Maintain a zero-tolerance policy regarding child labor, slave labor, forced labor, or any form of human trafficking.

The Company also works to ensure that no human rights violations occur anywhere within its value chain as a result of its activities and operations. Thus, the Company has developed a human rights due diligence and assessment process to help identify, mitigate and prevent human rights risks. This process begins with an examination of different areas of the Company's business, especially 1) within the organization among the Company's employees, 2) within the local communities where the Company operates, 3) at sites under construction and development, and 4) at sites in operation.



Human rights due diligence process



In addition to the universal human rights mentioned in the Universal Declaration of Human Rights, the Company’s potential human rights risks identification also covers labor rights as well as the rights of vulnerable groups. The Company also extends its commitment to respect human rights to its business partners, suppliers and other external parties through the GULF Supplier Code of Conduct.



Within the organization

- **Employees**
 - Health and safety
 - Labor rights
 - Non-discrimination
 - Gender equality



Within the local communities

- **Local communities**
 - Impacts from business operations
 - Health and safety
 - Vulnerable groups and indigenous peoples



Projects under development

- **Contractors**
 - Labor rights
 - Migrant labor
 - Child labor
 - Health and safety



Projects in operation

- **Employees**
- **Contractors**
 - Labor rights
 - Health and safety

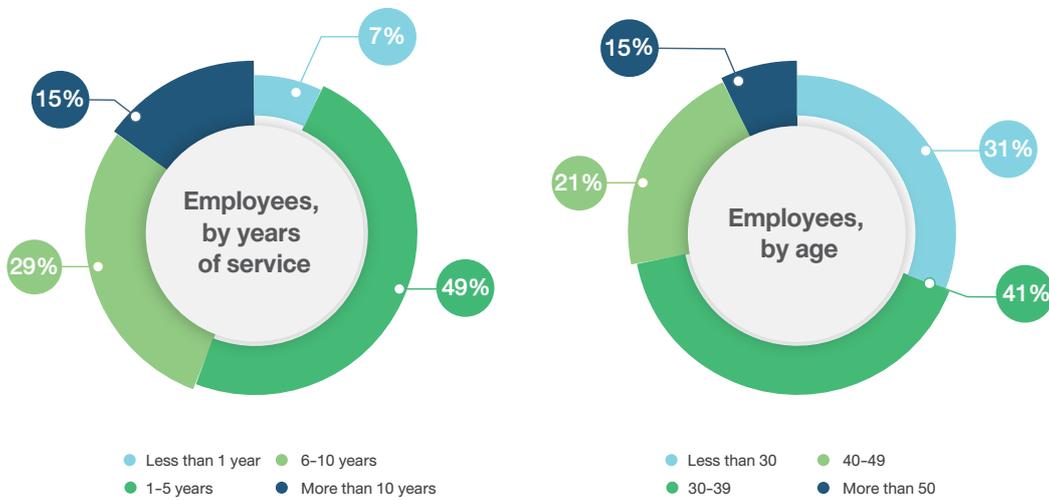
The Company’s assessments are conducted on an ongoing basis and at least annually for every key area and issue. The Company has developed a clear grievance mechanism to ensure any cases received are given immediate attention and handled by the appropriate internal departments. Findings from the due diligence process and results of grievance responses are reported to management and the SRMC on a regular basis. The Company also ensures its commitments are communicated to stakeholders including employees, regulatory agencies, and suppliers and partners.

With the strong emphasis on ethical and responsible business conduct, GULF is able to report that the Company has not received any complaints regarding human rights violations. The Company’s assessments have also determined that its internal control and human rights risk mitigation plans are adequate and appropriate at all sites.

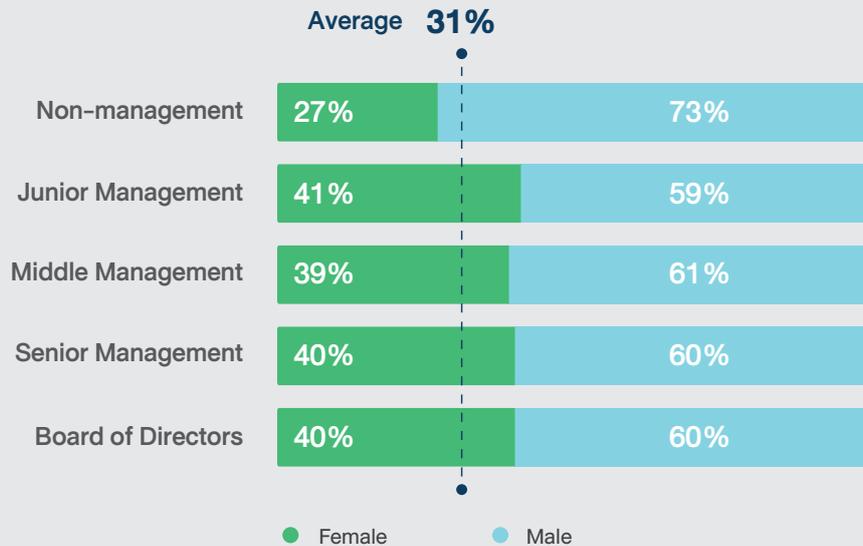


GULF FAMILY

The Company has expanded rapidly, having increased the total installed capacity of power plants in commercial operation under the Group by 3,567 MW, equivalent to 82% growth, over the past 5 years. In 2021 (information as of 31 December 2021), total number of employees of the Company and its subsidiaries was 919. From the data tracking over the last 3 years, it was found that the turnover rate was 4.60%, dropping from 4.81% in 2019. Nevertheless, as business growth cannot be achieved if the number of employees does not grow and their capabilities are not developed, the Company has therefore recruited a number of additional employees over the last 5 years in line with the increasing number of projects.



Proportion of women in each job level



Company core values

The Company regards human capital as a critical factor supporting business success. The Company believes that leading internationally-recognized companies are not those that achieve only financial success but rather are those companies that can develop “capable” and “responsible” employees who create value for and make positive contributions to society, while embracing new challenges as opportunities arise in order to continue growing. Thus, the Company has established human resources management policies and guidelines that prioritize the development of “good people” by fostering the company’s core values which emphasize dedication, teamwork, learning, and adaptation for the current and future success of the company.

The Company promotes core values that reflect what it means to be “GULF”, providing a guide for employee conduct which serves as the foundation of the business, creating a strong organizational culture and increasing stakeholders’ confidence that the Company will be able to achieve its goals with stability and sustainability.

G: Goal-oriented

Be motivated and courageous to overcome limitations

The Company encourages and supports personal development so that employees can achieve the Company’s goal and confidently push their limits and overcome obstacles together.

The Company sets clear goals and provides employees with the means and support to achieve those goals, working together to overcome obstacles. With a strong support system, employees can confidently push their personal limits and achieve greater personal development.

U: Unity

Be devoted to a common goal, work as one team for mutual success

The Company creates a work environment that facilitates knowledge-sharing and exchange, and supports activities that encourage positive interactions among employees.

The Company’s success is built on teamwork. Thus, the Company works to ensure it provides opportunities for team building and creates a work environment that facilitates knowledge-sharing and interaction among employees.

L: Learning

Love learning and be curious to initiate and explore new things

Employees are challenged to think outside the box, learn from mistakes, look for new ideas, and seek personal development through training opportunities provided throughout the year.

The Company provides a company-wide learning system to allow employees to engage in personal development training throughout the year. The Company challenges its employees to think outside the box and always look for new ideas.

F: Flexible

Be flexible and agile to all challenges

The Company and its employees must be able to adapt to an ever-changing environment, be open to new ideas and perspectives, and be resourceful and flexible in their work.

The Company is aware that the organization must be ready to adapt to the ever-changing environment. The Company places great importance on always monitoring and studying new technologies, ideas and processes to ensure employees are prepared to handle the changes that will happen in the future.

Employee care

The Company has established human resource management policies that cover all areas of employee care from the moment they start until they retire or their employee status ends. The Human Resources Department is responsible for employee care across the organization, including permanent and contract staff, interns, directors, advisors and other personnel, with emphasis on the following topics:

Compensation and Benefits

The Company has an employee compensation policy which takes into account the employees' duties and responsibilities, knowledge, capabilities, and performance in a fair and appropriate manner. Furthermore, the Company has a policy against any form of discrimination based on sex, gender, age, ethnicity or other non-merit-based factors.

The Company regularly reviews the employee compensation structure to ensure it aligns with economic conditions and business competition. In addition, the Company benchmarks against leading companies in the same industry to ensure that employee compensation is competitive against other companies. Furthermore, compensation includes incentives which reflect the Company's performance, both in the short and long term, which serve to motivate employees to remain with the Company. The short-term incentives include bonuses tied to the Company's performance and the employees' individual performance, while long-term incentives include the Provident Fund, which contributes to the employees' social security.

For the fiscal year ending 31 December 2021, total compensation paid to employees of the Company and its subsidiaries (not including Company executives) was 1,426.5 million THB, which includes salaries, bonuses, and other forms of compensation such as overtime pay, shift work pay, hazard pay, on-duty payments, Provident Fund, and other regular income for employees.

GULF Group has established a Provident Fund for Gulf Energy Development Public Company Limited and companies in the Group. The fund is managed by BBL Asset Management Co., Ltd. (BBLAM) and Bangkok Capital Asset Management Company Limited (BCAP). As of 31 December 2021, the funds members represent 99.8% of total employees eligible under the Fund's regulations.

In addition, the Company also provides other additional benefits including health insurance for employees and their spouse and children, life insurance, personal accident insurance, disability insurance, annual health checkup, vision and dental care, influenza and hepatitis B vaccines, loans and other financial assistance in line with Company policy. The Company regularly reviews and revises employee welfare and benefits to ensure it is appropriate for current conditions and employees' well-being. For example, throughout the Covid-19 pandemic, the Company has provided additional care measures including lunch boxes for all employees, Covid-19 vaccinations and testing, expansion of the self-development system through online channels, and implementation of stringent Covid-19 safety measures in all working areas.

Performance Evaluations

For compensation linked to short-term performance, the Company will set clear performance targets with the employees. Bonus payment is considered based on Key Performance Indicators (KPIs) comprising (1) corporate KPIs covering the revenue and profit of the Company and the Group each year (2) Core Competency evaluations, and (3) Functional Competency evaluations, as well as the results of performance evaluations at the department and individual levels. The Company upholds its non-discrimination policy to ensure evaluations are fair and transparent. Additionally, the Company distributes an information manual regarding the evaluation and approval process, along with details of employee welfare and benefits, via email and the internal communication system, so that all employees are aware of their rights.

Human Capital Development

In addition to determining compensation, the Company also uses the results of the performance evaluations to establish employee development plans at both the corporate and individual levels. The development plans cover employees at all levels including new employees, operations level, junior management, mid-level management, senior management, and directors of the Company. To manage human capital development effectively and sustainably, the Company has taken a holistic approach to learning which covers 4 components which serve as the pillars to support learning and enhance employee capabilities based on adult learning theory, learning organization theory, and the principles of lifelong learning, as detailed below.



Learning Foundation

The Company has restructured its learning management and long-term human capital development plan, in accordance with business needs and to support the Company's future business growth, into a new Learning & Development Roadmap which comprises 4 development pathways as follows: 1) Leading Self Program, a development plan teaching effective self-management skills for operations-level employees, 2) Leading Others Program, a development plan teaching effective people management skills for supervisors, 3) Leading Team Program, a development plan teaching effective team management for junior to mid-level management, and 4) Leading Function Program, a development plan teaching effective management of departments for senior management.



Learning Culture

The Company has implemented programs and activities to create a learning culture, such as the Leader as Coach program aimed at "people leaders", or employees in a team lead position or higher, providing knowledge and fostering a positive attitude for team development through the development of coaching skills that will not only result in continuous development within the team but will also lead to the effective knowledge management. In addition, the Company has also enhanced its approach to the Individual Development Plan (IDP) in order to instill the learning culture at the individual level through self-directed learning which encourages employees to take responsibility for their own development.



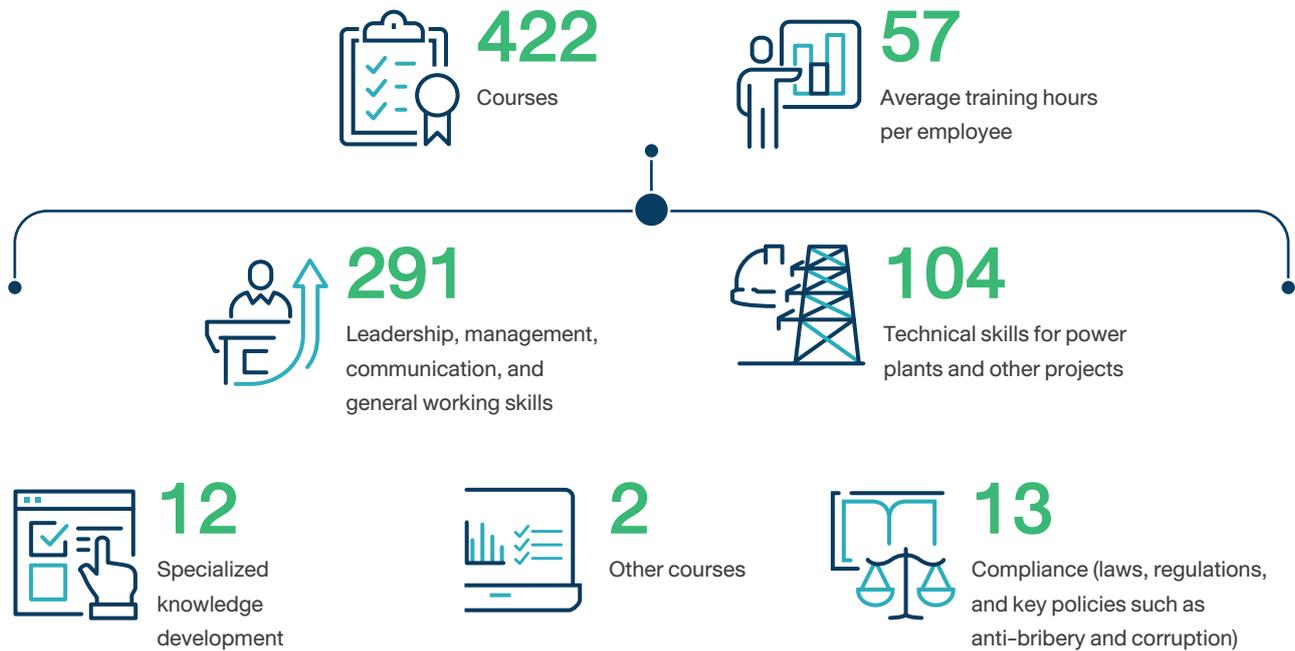
Learning Solutions

The Company has upgraded and revamped its Learning Management System (LMS), changing the name to the GULF Learning Academy, or GLA. This transformation provides enhanced opportunities for learning and expands the scope of the personal development content available, allowing employees to subscribe to various e-learning courses from the nation's leading online learning management and service providers. Employees have access to a comprehensive collection of resources with over 400 courses covering key competencies required for work, including the Core Competencies, Managerial Competencies, and Functional Competencies.



Learning Communication

The Company has enhanced learning communication through multiple channels in order to stimulate informal learning activities, with knowledge interspersed in the communications between the organization and the individual. These activities include, for example, the HR Gazette, an online newsletter issued by the Human Resources department which not only provide updates about key people in the Company and other important information, but also communicates beneficial knowledge that fosters continuous learning. In addition, key knowledge is integrated into internal activities organized throughout the year.



Occupational Health and Safety

The Company ensures that its employees are provided with a safe and healthy work environment. Gulf workplaces include the head office, power plants, and construction sites as well as transportation and accommodation required for work. The Company has an Occupational Health and Safety Committee (OHSC), comprising plant managers, operations managers, administrative managers and employee representatives from each department who oversee the health and safety of all employees and contractors at its power plants and construction sites. The OHSC is responsible for developing policies and procedures related to employee health and safety, implementing and monitoring health and safety activities, and evaluating and improving all aspects of health and safety in the workplace. The Company has achieved its Zero Accident target, having a lost-time injury frequency rate (LTIFR) of zero for both employees and contractors.

Fatalities

0

LTIFR (employees)

0

LTIFR (contractors)

0

Employee Engagement

The Company conducts an employee engagement survey every 2 years to assess the success of its human capital management approach as well as to survey employees' needs and opinions. The Company engages external consultants to conduct the employee engagement survey in order to ensure responses are anonymous and assure employees that there will be no repercussions from giving their opinion. From the latest survey in 2021, the engagement rate was 77% and the satisfaction rate was 88%. The Company is able to report that in 2021 it did not receive any complaints regarding human rights violations, sexual harassment, or other forms of harassment, and over the past 3 years has not been involved in any labor disputes which have a significant impact on the Group's business operations.

CORPORATE SOCIAL RESPONSIBILITY

Sustainable business growth will only be achieved if it occurs in conjunction with community and social development. The Company places value on improving the quality of life for the communities, society and stakeholders who help form a strong society. Thus, the Company has established a strategy to support local communities across the country under the “IMPACT” framework to create positive impacts and elevate quality of life for sustainable growth and development.

I: Infrastructure – Developing basic infrastructure and public spaces for local communities and other groups

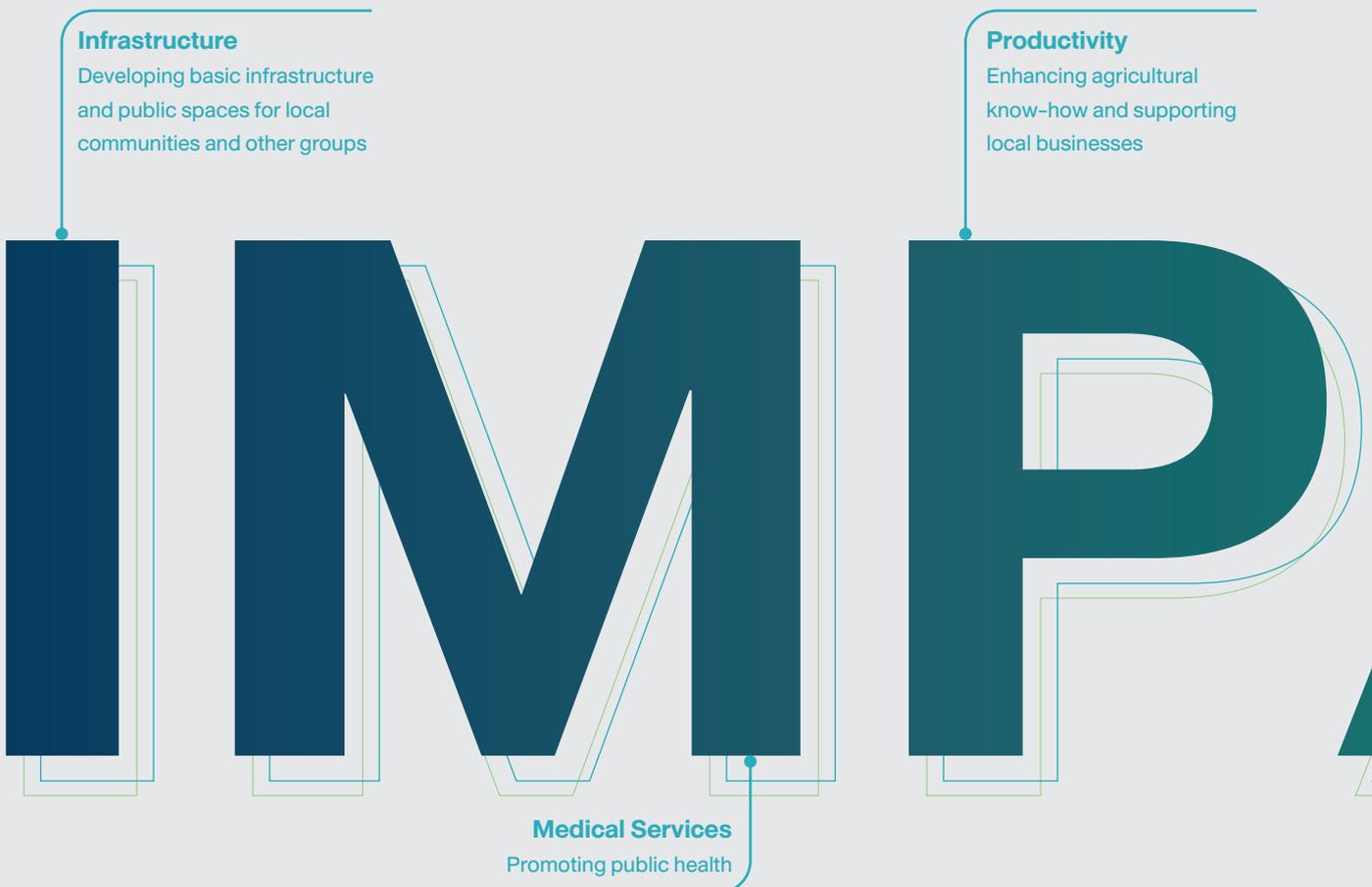
“Sky Lane Thailand Project” for public interest is a project partnered with the Siam Commercial Foundation to develop the area around Suvarnabhumi Airport for a cycling route of 23.5 kilometers in total and another area for exercising, leisure and recreation. The Sky Lane project is open for public and people of all genders and ages with no service charges. The project also provides the facilities to support the users, for instance, a food

court, a bicycle accessories shop and a view point

M: Medical Services – Promoting public health

Since the outbreak of Covid-19, Gulf Energy Development Public Company Limited has implemented projects and assisted in many sectors, having invested over 90,000,000 THB on initiatives covering the prevention of virus transmission, Covid-19 patient treatment and helping those in need, as follows.

- 1. Providing 10 million THB to the Faculty of Medicine, Ramathibodi Hospital for the procurement of**



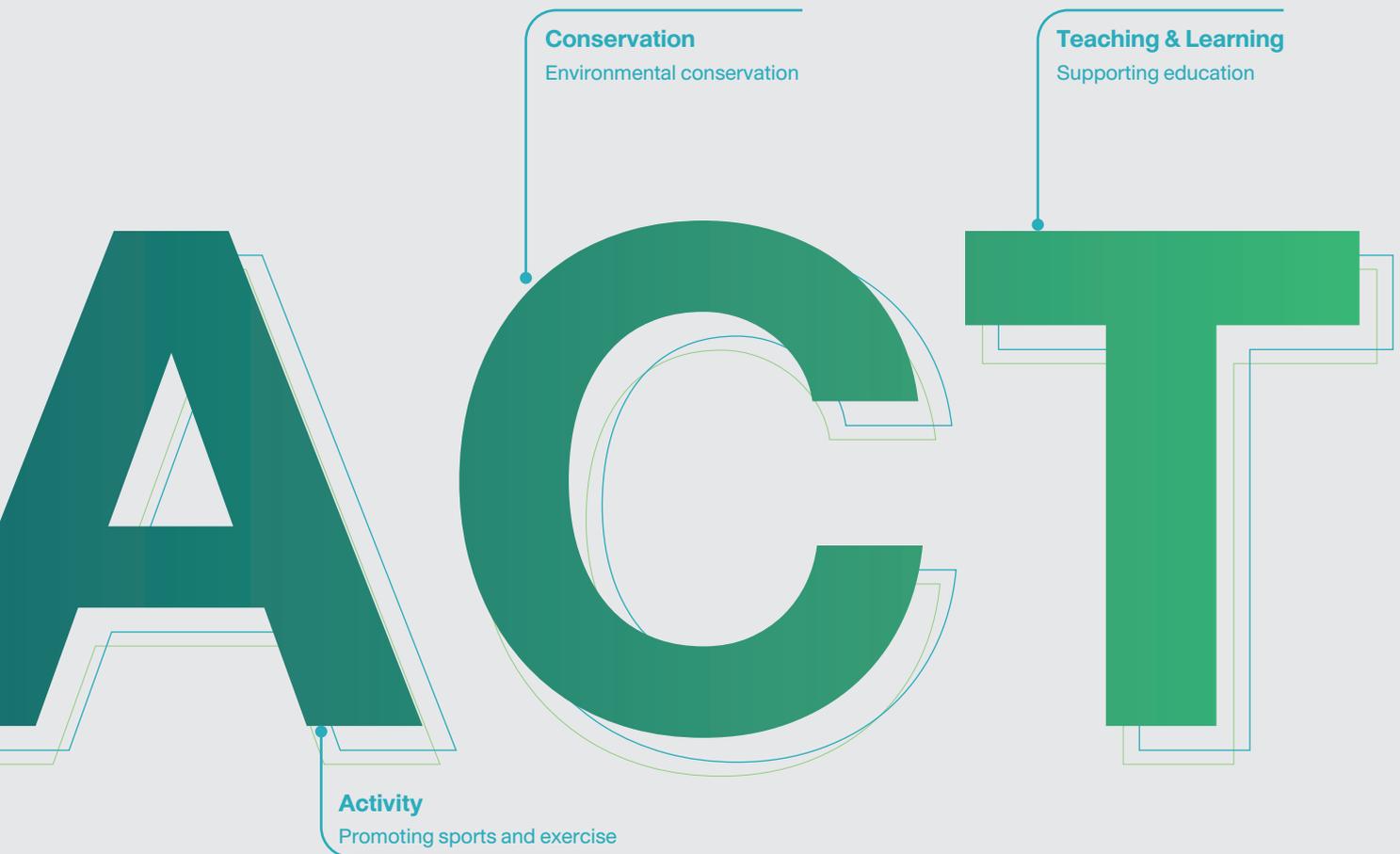
ventilators and cover costs for Covid-19 ‘hospital’ patients

With the increasing number of Covid-19 cases amid the new outbreak, many hospitals face a shortage of medical equipment and an urgent need to provide facilities for patient care. Gulf Energy Development PCL, or GULF, therefore presented a donation of 10,000,000 THB to the Faculty of Medicine, Ramathibodi Hospital to fund the procurement of high-flow oxygen systems, vital medical equipment which can be used to treat patients in serious condition with shallow and uneven respiration as well as help reduce or slow the progression of pneumonia. In addition, to support increased access to medical care during the ongoing Covid-19 pandemic, the Company also subsidized the costs for converting a

hotel near the Faculty of Medicine, Ramathibodi Hospital into a “hospital” or dedicated Covid-19 ward for patients with mild symptoms.

2. GULF “Free Meals to Spark Community Strength”

continues for a second year Following the Company’s launch of its “Free Meals to Spark Community Strength” campaign, which provided over 150,000 pre-packed meal boxes to people in 232 communities across Bangkok’s 50 districts in April and May of last year, the Company moved forward with its decision to continue the campaign for a second year, investing over 10,000,000 THB to distribute more than 120,000 meal boxes over 60 days to help Covid-19 patients in home isolation, community isolation and field hospitals, as well as people in local communities



affected by the Covid-19 crisis. The public sector can share information about communities in need of meal boxes at the Facebook page, <https://www.facebook.com/GulfSPARK.TH/>.

3. GULF CARE Home Isolation Kits for “green” group Covid-19 patients

The “GULF CARE” kit contains medicines and medical supplies for Covid-19 patients who do not exhibit severe symptoms and are able to enter home or community isolation, or who are waiting for a hospital bed. In total, 10,000 GULF CARE Home Isolation Kits, worth 10,000,000 THB, were distributed to agencies and volunteer groups such as the Mirror Foundation, Issarachon Foundation, Operation Smile Thailand and others. Patients could also request GULF CARE kits directly via an online form. The campaign is part of the “Gulf Sparks Smiles” project that was initiated to help various groups affected by the Covid-19 pandemic.

The kits contain a fingertip pulse oximeter, digital thermometer, and a 14-day supply of paracetamol, fah talai jone (green chiretta) capsules, disposable face masks, and alcohol sanitizer, as well as recommendations for self-treatment at home.

4. Supporting communities in Bangkok with household essentials

To help people who are economically affected by the Covid-19 pandemic, GULF Group provided essentials to help alleviate the burden of those in need, particularly families with bedridden patients, the disabled, the elderly and children living in high-risk communities. The essentials, which included rice, canned fish, Chinese sausages, vegetable oil, drinking water, UHT milk, baby diapers, incontinence pads, absorbent sheets and medicine kits, were distributed to over 1,800 households in Bangkok’s 50 districts who affected by the Covid-19 pandemic. The Company also provided the communities with disinfectant fogging machines, sanitizing chemicals, temperature scanners with stands and fingertip pulse oximeters valued at over 1,300,000 THB.

5. Supporting costs for patient care and the prevention of Covid-19 transmission

The Company sent disaster relief packages, protective equipment, and food and beverages to Covid-19 testing and vaccination sites. In addition, the Company funded the renovation of hospitals, field hospitals and community isolation centers to accommodate patients, and also provided over 800,000 THB to support key entities working during the Covid-19 pandemic such as community leaders, public health volunteers, doctors, nurses and public health officials in the areas around the Company’s power plants.

6. Funding the construction of a high-efficiency Smart Hemodialysis Center, Thammasat University Hospital, Pathum Thani province

As the Covid-19 pandemic continues to have global and national impacts, Thammasat University Hospital, one of the main hospitals taking in Covid-19 patients, has allocated much of its budget to building a negative-pressure intensive care unit and field hospitals as well as procuring medical equipment, leading to insufficient budget to improve its Hemodialysis Center due to the need to prioritize spending for Covid-19 patients. Due to the lack of space and equipment, the center has increased its service rounds in order to take in more patients per day. However, this decreases the quality of service and still does not provide adequate coverage of all patients requiring dialysis. Thus, to enable patients to gain equal access to medical services, the Company provided 55,000,000 THB to fund the construction of a high-efficiency Smart Hemodialysis Center with 30 units which will help enhance the center’s capabilities, supporting it to become a center of excellence for comprehensive kidney care. The new center is under construction and expected to be completed in 2022.

P: Productivity – Enhancing agricultural know-how and supporting local businesses

New Theory Agriculture Learning Center and Demonstration Farm, Saraburi province

The New Theory Agriculture Learning Center and Demonstration located in Saraburi province consists of a 10-rai demonstration farm as well as areas for planting medium and long-term crops, mixed crops, organic herbs and vegetables; a fish pond, frog farm, and catfish pond; organic vermicast (earthworm fertilizer) and organic compost fertilizer production; an organic vegetable nursery; a melon plantation; raised-bed vegetables; hydroponic crops; a crab pond and nursery; and organic chickens and ducks. The project is entering its 8th year of operation and has successfully expanded to become a learning center demonstrating the principles of sufficiency economy for the surrounding communities and reiterates the fact that the Company's power projects have no negative impacts on local agriculture.

A: Activity – Promoting sports and exercise

Sponsorship of national football teams

GULF Group sponsors football teams in the Thai League, namely, Rayong F.C., Ayutthaya United F.C., and Pluakdaeng United F.C. to help elevate Thai football to the world stage.

C: Conservation – Environmental conservation

1. Strengthening the local community by establishing the Community Engagement Committee, Environmental Impact Assessment Committee and Environmental Inspector

The Company provides opportunities for community representatives to be involved in caring for the local environment through monitoring and checking the environmental quality in the areas surrounding the power plants to ensure compliance with the law and environmental impact assessment report. Furthermore, the Company hosts educational site visits and conducts training on environmental issues and the use of environmental quality measurement tools to enhance the committees' knowledge and capabilities.

2. Power Development Fund

Currently, the Energy Industry Act B.E. 2550 stipulates that each power plant is required to remit money into the Power Development Fund established to develop local communities that may be impacted by power plant operations. The Fund thus play a key part in helping communities to initiate developments to become robust, quality communities and fulfill their potential.

3. “Million saplings, million fish” project

The goal of this project is to increase the forest area for the community and release fish into the water resource to help create balance and restore nature. This activity not only improves the beauty of the natural area but also instill a sense of environmental responsibility in the community.

T: Teaching & Learning – Supporting education

1. Funding the construction of the Gulf Faculty Center at VISTEC in Rayong province

The Vidyasirimedhi Institute of Science and Technology, or VISTEC, is an educational institute that strives to develop a new generation of scientists through integrated education allowing students to conduct cutting edge, high quality, high impact research. The institute currently has masters and doctorate programs in molecular science, energy science, biomolecular science and engineering, and information science and technology. The Gulf Faculty Center is a 3-story building which serves as a faculty center as well as an activity center that facilitates knowledge exchange and stimulates innovation. The Company provided approximately 75,000,000 THB to fund the construction of the center.

2. Funding the construction of a new building for the Special Education Center (Kaeng Khoi), Saraburi

South See Ta temple, Kaeng Khoi subdistrict, Saraburi province donated an abandoned building in its vicinity to the Special Education Center (Kaeng Khoi), Saraburi province. However, as the building was in poor condition and unfit for use at the time, the Company funded its renovation, with employees and others volunteering their time to paint the building,

install electrical wiring, and create a small garden, breathing new life into the old building and turning it into a special education center for Kaeng Khoi sub-district which opened on 30 June 2017. In 2021, multiple cracks appeared due to soil subsidence, putting users at risk. The Company therefore decided to invest 1,800,000 THB to tear down the building and construct a new one in its place. The new building is expected to be finished in 2022.

3. Fulfilling the dreams of patients at the Princess Sirindhorn Craniofacial Center, King Chulalongkorn Memorial Hospital

Face and head disorders are conditions which are more visible and complex than many other disorders. Aside from the impact to quality of life, such disorders also impact patients' mental health. Furthermore, as many patients come from disadvantaged backgrounds, many end up leaving the education system and, eventually, society. The "Facing A Brighter Future" campaign was created to provide education funding to disadvantaged patients under the care of the Princess Sirindhorn Craniofacial Center, King Chulalongkorn Memorial Hospital to give them the opportunity to pursue the highest level of education they desire. It was found that the campaign, which started in 2019 with 30 scholarships, was able to significantly reduce the burden of debt for patients' guardians and families. The campaign was thus extended to run from 2020 to 2023, with over 5,000,000 THB given to recipients who are selected each year to increase access and opportunities for all.

4. Promoting education through various activities in multiple locations

The Company provides educational scholarships as well as funding for school lunches, educational materials, building and playground renovations, environmental training, Children's Day gifts, and other activities for various schools to increase educational opportunities for youth across the country.

5. GULF Sparks Energy program

The program instills the younger generation with an understanding of energy conservation and global green energy trends to encourage responsible energy consumption. It also teaches students about alternative energy, which many countries are adopting in parallel with environmental conservation efforts. The program was piloted in Chiang Mai province between 22 November to 2 December 2021 at 8 schools in the Chiang Mai area, namely, Baan Huay Leuk, Baan Jam Pong, Baan Pak Ing, Baan Hua Wiang, Rim Khong Witaya, Baan Pa Ka Mae Ngern, Baan Suan Dok Tha Khan Thong Samakee, and Baan Huay Giang. Students learned about electricity production through 5 activity stations – natural gas and oil, coal, wind, solar, and hydropower activity stations.

6. Power Plant Schools program

The program invites students to learn about the Company's power projects to demonstrate how gas-fired power plants work through various creative learning processes and activities aimed at developing correct understanding and positive attitudes about power plants which can be communicated to others around them.

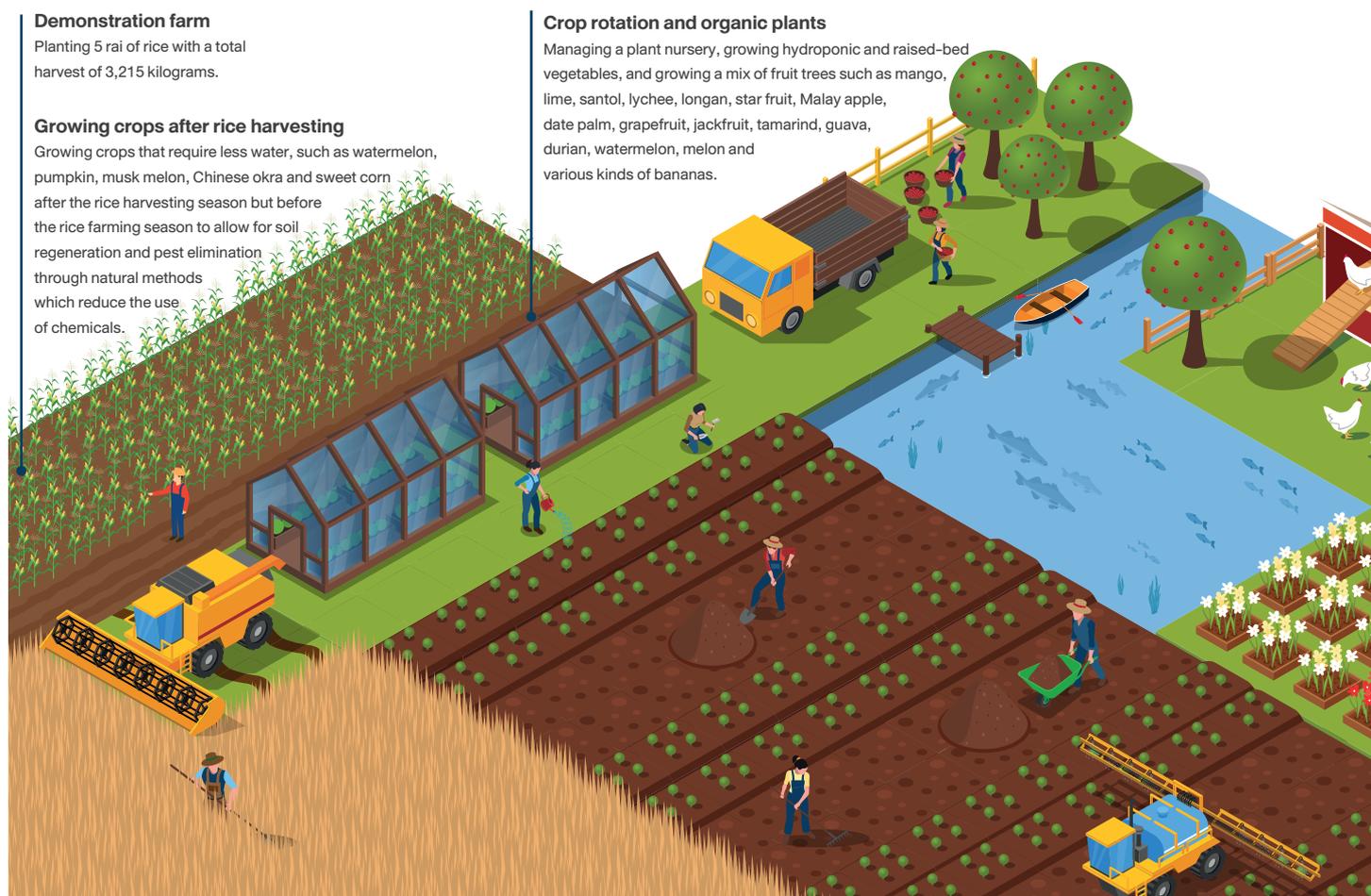


NEW THEORY AGRICULTURE LEARNING CENTER AND DEMONSTRATION FARM

New Theory Agriculture Learning Center and Demonstration Farm is situated next to the Gulf Nong Saeng (GNS) power plant, Nong Saeng district, Saraburi province. The project was established in 2015 in accordance with the Environmental Impact Assessment (EIA) requirement that the Company allocate 10 rai of land to be utilized as a green space for a study of the potential impacts the power project's operations could have on local agriculture. Today, the area has been expanded to more than four times' the EIA's requirement and serves as a center for community learning, local farmer skills development and knowledge sharing, as well as improves the well-being of the community around power plant. The success of the New Theory Agriculture Learning Center and Demonstration Farm

over the past 7 years also demonstrates that the Company's power plants and surrounding communities have been able to coexist together sustainably with no negative impacts to the agriculture in the local area.

The project area as serves as a learning center of New Theory Agriculture and organic farming, as well as a demonstration farm where a variety of plants are grown and different types of animals are raised. In addition, it also provides recreation for the local community and visitors to the farm. The Company has employed people in the community to take care of the project and has transferred agricultural knowledge and information to local farmers and other interested visitors. Furthermore, the project contributes to



income distribution to the local communities through the purchase of goods and equipment, for instance, allowing the people in the community to purchase agricultural products from the project for resale, buying agricultural products such as rice from local villagers to be made into gifts and souvenirs for the Company's special events, and hiring local community members to provide improvement and maintenance services, such as, rice farming, water pumping, and preparation of fields for planting crops.

Furthermore, the Company raises earthworms to produce organic fertilizer that can be used for various activities in the learning center, such as adding nutrients to the plants and mixing with the soil in the vegetable plots to increase fertility and looseness to the soil. The center also propagates earthworms for

sale. Additionally, the Company makes organic compost by bringing natural materials and leftovers from agricultural activities, such as leaves, straw and weeds to undergo fermentation. The staff at the learning center will provide knowledge on raising earthworms and making organic fertilizer to people who are interested.

As a learning center, the project is open to the public throughout the year and organizes activities to create awareness about environmental protection as well as an understanding on how the power projects and local community can coexist. It is the Company's hope that visitors would be able to apply the knowledge from the learning center and share their experience with others as a way to contribute to a more sustainable society.

Producing fertilizer

Raising earthworms to produce vermicast (earthworm fertilizer). The project currently produces 50-80 kilograms of vermicast and 40-50 liters of fermented vermicast water each month, as well as 3 tons of no-turn compost each year.

Growing flowers

Planting Cutter flowers.

Raising animals

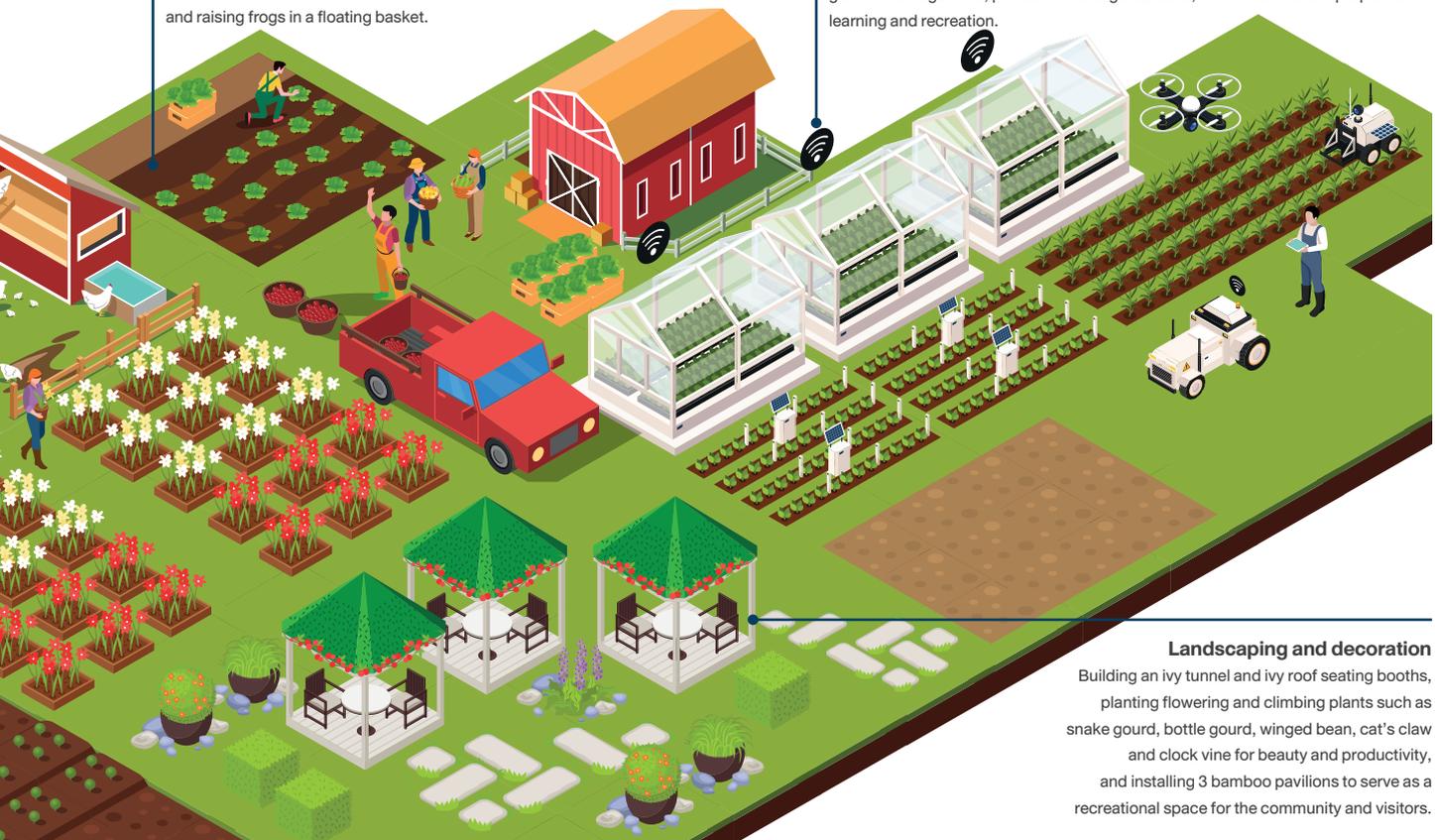
Building a crab pond and fish pond, raising chickens, raising organic ducks, and raising frogs in a floating basket.

Income distribution to the community

Hiring local people in the community to maintain the project, buying goods from local farmers and selling agricultural products from the project to local community members to resell, employing local community members to provide services to the project. In 2020, the project generated nearly 1 million baht of income for the local community.

Learning activities

Conducting agricultural and environmental activities for the local community, government agencies, private sector organizations, and visitors for the purpose of learning and recreation.



Landscaping and decoration

Building an ivy tunnel and ivy roof seating booths, planting flowering and climbing plants such as snake gourd, bottle gourd, winged bean, cat's claw and clock vine for beauty and productivity, and installing 3 bamboo pavilions to serve as a recreational space for the community and visitors.





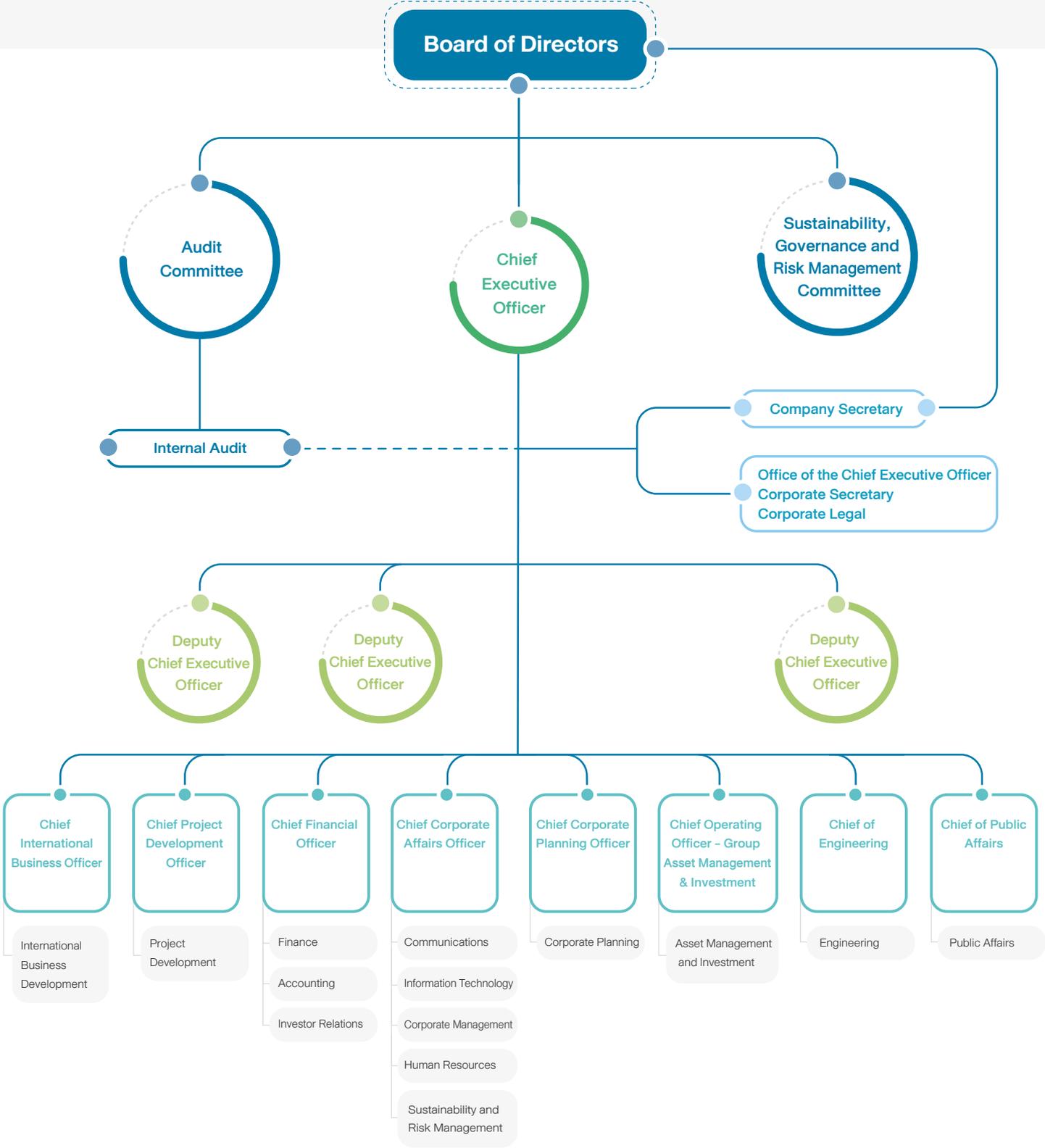
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GOVERNANCE

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ORGANIZATION CHART

As of January 20, 2022, the Company’s organization chart consists of the Board of Directors, the Subcommittees and the executives. The details of which are as follows:



BOARD OF DIRECTORS AND MANAGEMENT PROFILES



Mr. Viset Choopiban

**Independent Director and
Chairman of the Board**

Date of Appointment

May 25, 2017

Age: 76 years

Education / Training

- Honorary Doctor of Engineering, Chulalongkorn University
- Master of Engineering (Electrical Engineering), Chulalongkorn University
- Bachelor of Engineering (Electrical Engineering), Chulalongkorn University
- The Joint State - Private Sector Course, Class 8, Thailand National Defence College

Director Training

- Director Accreditation Program (DAP), Class 130/2016, Thai Institute of Directors
- Role of the Chairman Program (RCP), Class 3/2001, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2014 – 2017	Director, CUEL Company Limited
2011 – 2017	Independent Director and Chairman of the Board of Directors, Gulf Energy Development Company Limited
2005 – 2006	Minister, Ministry of Energy
2001 – 2003	President, PTT Public Company Limited
2000 – 2001	Chairman of the Board of Directors, PTT Exploration and Production Public Company Limited
1999 – 2001	Governor, Petroleum Authority of Thailand

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

2008 – Present Independent Director,
Member of the Audit Committee and
Member of the Nomination and
Remuneration Committee,
RCL Public Company Limited

• Non - Listed Companies

2015 – Present Director, TIPS Company Limited
2009 – Present Chairman of the Board of Directors,
Gulf JP Company Limited
2000 – Present Director, Petroleum Institute of Thailand

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.007%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Kasem Snidvongs

**Independent Director and
Chairman of the Audit Committee**

Date of Appointment

May 25, 2017

Age: 83 years

Education / Training

- Master of Development Economics, Williams College, Massachusetts, USA
- Bachelor of Science (Physics and Mathematics) (Honors), Sir John Cass College, London University, United Kingdom
- The National Defence, Class 21, Thailand National Defence College

Director Training

- Director Accreditation Program (DAP), Class 33/2005, Thai Institute of Directors
- Finance for Non-Finance Directors (FND), Class 15/2005, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2011 – 2017	Independent Director and Chairman of the Audit Committee, Gulf Energy Development Company Limited
2006 – 2008	Minister, Ministry of Natural Resources and Environment
2002 – 2006	Director and Chairman of the Audit Committee, Gulf Electric Public Company Limited
1996 – 2000	Senator
1992 – 1998	Permanent Secretary, Ministry of Science and Technology

Other directorship positions / Other positions at present

• Other Listed Companies

- None -

• Non - Listed Companies

Present Director, Environment Law Center
Thailand Foundation

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.005%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Sommai Phasee

**Independent Director,
Member of the Audit Committee and Chairman
of the Sustainability, Governance and
Risk Management Committee**

Date of Appointment

September 14, 2017

Age: 77 years

Education / Training

- Master of Economics (Planning and Development), Vanderbilt University, USA
- Master of Economics, Thammasat University
- Bachelor of Economics (Honors), Thammasat University
- Civil Service Executive Development Program (Program I), Class 11, Civil Executive College, Civil Service Training Institute, Office of the Civil Service Commission
- The National Defence, Class 37, Thailand National Defence College

Director Training

- Director Certification Program (DCP), Class 268/2018, Thai Institute of Directors
- Director Accreditation Program (DAP), Class 59/2006, Thai Institute of Directors
- Role of the Chairman Program (RCP), Class 9/2003, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2018 – 2021	Chairman of the Board of Directors, Rachakarn Asset Management Company Limited
2017 – 2018	Chairman of the Board of Directors and Independent Director, Nok Airlines Public Company Limited
2014 – 2015	Chairman of the Board of Directors, Crown Property Bureau
2014 – 2015	Chairman of the Board of Directors, Bank for Agriculture and Agricultural Co-operatives
2014 – 2015	Deputy Chairman of the Anti-Money Laundering Board, Anti-Money Laundering Office
2014 – 2015	Minister, Ministry of Finance
2011 – 2014	Director, Gulf Energy Development Company Limited
2006 – 2007	Deputy Minister, Ministry of Finance
2004 – 2006	Chairman of the Board of Directors, Gulf Electric Public Company Limited
1998 – 2004	Deputy Permanent Secretary, Ministry of Finance

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2020 – Present	Chairman, The Thai Bond Market Association
2019 – Present	Director, Precious Metal Refining Company Limited
2017 – Present	Director, Aroonsom Company Limited
2016 – Present	Director, Sai Nam Yen Company Limited
2016 – Present	Director, Andaman Beach Suites Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.005%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Dr. Raweporn Kuhirun

Independent Director and Member of the Audit Committee

Date of Appointment

May 25, 2017

Age: 78 years

Education / Training

- Doctor of Public Administration, Eastern Asia University
- Master of Business Administration (Accounting), Central Michigan University, USA
- Bachelor of Accountancy (Accounting), Chulalongkorn University
- Bachelor of Laws, Ramkhamheang University
- The National Defence, Class 38, Thailand National Defence College
- Civil Service Executive Development Program (Program II), Civil Executive College, Civil Service Training Institute, Office of the Civil Service Commission
- Program for Senior Executive on Justice Administration, Class 14, National Justice Academy, Office of the Judiciary
- Capital Market Leadership Program, Class 7, Capital Market Academy
- The International Auditor's Fellowship Program (Long-Term Program), Government Accountability Office (U.S. GAO), USA
- Audit of Computer System, Kingston Polytechnic, United Kingdom
- Internal Audit and Computer Audit (Long-Term Program), National Audit Office (NAO), United Kingdom
- Procurement Audit, Board of Audit and Inspection, Republic of Korea

Director Training

- Board Matters and Trends (BMT), Class 6/2018, Thai Institute of Directors
- Director Accreditation Program (DAP), Class 94/2012, Thai Institute of Directors
- Director Certification Program (DCP), Class 155/2012, Thai Institute of Directors
- Audit Committee Program (ACP), Class 38/2012, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

- | | |
|-------------|--|
| 2007 – 2019 | Committee on Overseeing the NBTC's Operation, Office of the National Broadcasting and Telecommunications Commission (NBTC) |
| 2016 – 2017 | Independent Director and Member of the Audit Committee, Gulf Energy Development Company Limited |
| 2008 – 2015 | Advisor to the Audit Committee, Thai Airways International Public Company Limited |
| 2011 – 2014 | Independent Director and Member of the Audit Committee, PTT Global Chemical Public Company Limited |
| 2011 – 2013 | Honorary Member of Special Investigation Commission, Department of Special Investigation |
| 2000 – 2006 | State Audit Commissioner, State Audit Commission, State Audit Office of the Kingdom of Thailand |

Other Directorship Positions / Other Positions at Present

- **Other Listed Companies**
- None -
- **Non - Listed Companies**
2011 – Present Honorary Member of Srinakharinwirot University Council

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.004%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Santi Boonprakub

**Independent Director and
Member of the Sustainability, Governance and
Risk Management Committee**

Date of Appointment

May 25, 2017

Age: 69 years

Education / Training

- Master of Public and Private Management Program, National Institute of Development Administration
- Bachelor of Science (Statistics), Ramkhamhaeng University
- Corporate Governance for Directors and Senior Executives of State Enterprises and Public Organizations (PDI), Class 12, King Prajadhipok's Institute
- Senior Executive Development (Program II), Class 3, Civil Executive College, Civil Service Training Institute, Office of the Civil Service Commission
- Civil Service Executive Development Program: Visionary and Moral Leadership (Program I), Class 59, Civil Executive College, Civil Service Training Institute, Office of the Civil Service Commission
- Management of Public Economics for Executives, Class 3, King Prajadhipok's Institute
- Economics for Natural Resource Management, Oregon State University, USA

Director Training

- Director Certification Program (DCP), Class 268/2018, Thai Institute of Directors
- Director Accreditation Program (DAP), Class 131/2016, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2017 – 2020	Member of the Audit and Evaluation Sub-Committee, Agricultural Research Development Agency
2017 – 2019	Advisory Member, Biodiversity-Based Economy Development Office (Public Organization)
2015 – 2017	Independent Director, Gulf Energy Development Company Limited
2011 – 2013	Secretary General, Office of Natural Resources and Environmental Policy and Planning
2010 – 2011	Inspector General, Ministry of Natural Resources and Environment
2009 – 2010	Deputy Secretary General, Office of Natural Resources and Environmental Policy and Planning
2009	Deputy Director General, Department of Mineral Resources

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2022 – Present	Director, All Waste to Energy Company Limited
2022 – Present	Director, Chiangmai Waste to Energy Company Limited
2021 – Present	Member of the Environmental Fund Committee
2021 – Present	Member of the National Environmental Board
2020 – Present	Member of Thailand Oil Palm Board
2019 – Present	Member of the National Committee on Climate Change Policy
2019 – Present	Member of the National Land Policy Committee

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.005%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Sarath Ratanavadi

Director, Vice Chairman of the Board and Chief Executive Officer

Date of Appointment

May 25, 2017

Age: 56 years

Education / Training

- Master of Science (Engineering Management), University of Southern California, USA
- Bachelor of Engineering (Civil Engineering), Chulalongkorn University
- The Program of Senior Executives on Justice Administration, Class 23, Judicial Training Institute
- Executive Development Training Program, Royal Thai Police
- Executive Management with Business Development and Investment, Class 1, Institute of Business and Industrial Development
- Rule of Law for Democracy, Class 6, College of the Constitutional Court
- The Executive Program in Energy Literacy for a Sustainable Future, Class 1, Thailand Energy Academy
- Administrative Justice for Executives Program, Class 1, Administrative Justice Institute, The Office of the Administrative Courts
- Capital Market Leadership Program, Class 7, Capital Market Academy
- The Director General Public Prosecutors, Class 6, Public Prosecutor Office Training Institute, Office of the Attorney General

Director Training

- Director Accreditation Program (DAP), Class 138/2017, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

- 2018 – 2020 Director, Gulf Energy International Company Limited
- 2008 – 2020 Director, Gulf JP Company Limited
- 2011 – 2017 Director and Chief Executive Officer, Gulf Energy Development Company Limited
- 2008 – 2017 President, Gulf JP Company Limited
- 2008 – 2017 Board Vice Chairman, NIST International School Foundation
- 2011 – 2016 Representative of Licensee, NIST International School
- 2008 – 2016 Executive Board Chairman, NIST International School
- 1994 – 2016 Director and President, Gulf Electric Public Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- 2021 – Present Director and Vice Chairman of the Board, Intouch Holdings Public Company Limited
- 2021 – Present Director, Vice Chairman of the Board and Member of Nomination and Compensation Committee, Advanced Info Service Public Company Limited

• Other Non-Listed Companies

- 2021 – Present Director, Gulf Innova Company Limited
- 2021 – Present Director, Advanced Wireless Network Company Limited
- 2021 – Present Director, GULF1 Company Limited
- 2021 – Present Director, Gulf Energy Renewable Company Limited
- 2018 – Present Board of Councilors, University of Southern California, Annenberg School for Communication and Journalism, USA
- 2017 – Present Board Chairman, NIST International School Foundation
- 2017 – Present Director, Gulf Investment and Trading Pte. Ltd.
- 2016 – Present Director, Gulf Holdings (Thailand) Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 35.550%

Spouse: 0.197%

Minor child: - None -

Juristic entities holding more than 30% of shares: 37.670%

Relationship among Family with Other Directors and Management

Brother-in-law of Mr. Tanon Tantisunthorn, Chief Corporate Affairs Officer



Mrs. Porntipa Chinvetkitvanit

Director, Member of the Sustainability, Governance and Risk Management Committee and Deputy Chief Executive Officer

Date of Appointment

May 25, 2017

Age: 59 years

Education / Training

- Master of Engineering (Industrial Engineering), Asian Institute of Technology
- Bachelor of Engineering (Mechanical Engineering), Khon Kaen University
- Rule of Law for Democracy, Class 7, College of the Constitutional Court
- Administrative Justice for Executives Program, Class 4, the Administrative Justice Institute, the Office of the Administrative Courts
- The Executive Program in Energy Literacy for a Sustainable Future, Class 3, Thailand Energy Academy
- Capital Market Leadership Program, Class 20, Capital Market Academy
- The National Defence, Class 58, Thailand National Defence College

Director Training

- Director Certification Program (DCP), Class 159/2012, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2000 – 2021	Director, Gulf Cogeneration Company Limited
2017 – 2021	Director, WHA Eastern Seaboard NGD4 Company Limited
2016 – 2021	Director, WHA Eastern Seaboard NGD2 Company Limited
2015 – 2021	Director, Gulf WHA MT Natural Gas Distribution Company Limited
2014 – 2021	Director, Gulf Solar BV Company Limited
2014 – 2021	Director, Gulf Solar TS1 Company Limited
2014 – 2021	Director, Gulf Solar TS2 Company Limited
2014 – 2021	Director, Gulf Solar KKS Company Limited
2013 – 2021	Director, Gulf MP Company Limited
2013 – 2021	Director, Gulf Solar Company Limited
2012 – 2021	Director, Gulf VTP Company Limited
2012 – 2021	Director, Gulf TS1 Company Limited
2012 – 2021	Director, Gulf TS2 Company Limited
2012 – 2021	Director, Gulf TS3 Company Limited
2012 – 2021	Director, Gulf TS4 Company Limited
2012 – 2021	Director, Gulf NC Company Limited
2012 – 2021	Director, Gulf BL Company Limited
2012 – 2021	Director, Gulf BP Company Limited
2012 – 2021	Director, Gulf NLL2 Company Limited
2012 – 2021	Director, Gulf NPM Company Limited
2012 – 2021	Director, Gulf NRV1 Company Limited
2012 – 2021	Director, Gulf NRV2 Company Limited
2009 – 2021	Director, Gulf JP NNK Company Limited
2009 – 2021	Director, Gulf JP NLL Company Limited
2009 – 2021	Director, Gulf JP CRN Company Limited
2009 – 2021	Director, Gulf JP NS Company Limited
2009 – 2021	Director, Gulf JP UT Company Limited
2008 – 2021	Director, Gulf JP KP1 Company Limited
2008 – 2021	Director, Gulf JP KP2 Company Limited
2008 – 2021	Director, Gulf JP TLC Company Limited
2008 – 2021	Director, Gulf JP NK2 Company Limited
2019 – 2020	Director, Gulf Energy (Vietnam) Limited Liability Company
2018 – 2020	Director, Gulf Energy Mauritius Company Limited

2018 – 2020	Director, Gulf Energy International Company Limited	2017 – Present	President, Gulf JP Company Limited
2017 – 2020	President, Gulf Energy Development Public Company Limited	2016 – Present	Director and President, Gulf Electric Public Company Limited
2017 – 2020	Director, Kolpos Pte. Ltd.	2011 – Present	Director, Gulf JP Company Limited
2014 – 2020	Director, Gulf Chana Green Company Limited	2004 – Present	Director, Gulf IPP Company Limited
2014 – 2020	Director, SBY Biomass Company Limited	2004 – Present	Director, Gulf Energy Company Limited
2014 – 2020	Director, Thepa Clean Energy Company Limited	2003 – Present	Director, Gulf Yala Green Company Limited
2014 – 2020	Director, Gulf Pattani Green Company Limited	2002 – Present	Director, Samutprakarn Cogeneration Company Limited
2014 – 2020	Director, Gulf SRC Company Limited	2002 – Present	Director, Nong Khae Cogeneration Company Limited
2014 – 2020	Director, Gulf PD Company Limited	2000 – Present	Director, Gulf Power Generation Company Limited
2014 – 2020	Director, Gulf International Investment (Hong Kong) Limited		
2014 – 2020	Director, Gulf International Holding Pte. Ltd.		
2012 – 2020	Director, Independent Power Development Company Limited		
2011 – 2017	Director and President, Gulf Energy Development Company Limited		
1994 – 2016	Senior Executive Vice President, Gulf Electric Public Company Limited		

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.018%

Spouse or minor children: - None -

Relationship among Family with Other Directors and Management

- None -

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2022 – Present Director, Gulf MP1 Company Limited

2021 – Present Director, Gulf JP1 Company Limited

2021 – Present Director, Gulf Renewable Energy Company Limited

2020 – Present Director, GULF1 Company Limited

2020 – Present Director, Gulf LNG Company Limited

2020 – Present Director, Gulf O&M Services Company Limited

2020 – Present Director, Gulf Engineering Services Company Limited

2020 – Present Director, Hin Kong Power Holding Company Limited

2020 – Present Director, Hin Kong Power Company Limited



Mr. Boonchai Thirati

Director and Deputy Chief Executive Officer

Date of Appointment

May 25, 2017

Age: 68 years

Education / Training

- Bachelor of Engineering (Electrical Engineering), Chulalongkorn University
- Business Administration for Executive Program, National Petrochemical Public Company Limited
- Politics and Governance in Democratic Systems for Executives Program, Class 10, King Prajadhipok's Institute
- Management of Public Economics for Executives, Class 6, King Prajadhipok's Institute
- Administrative Justice for Executives Program, Class 2, the Administrative Justice Institute, the Office of the Administrative Courts
- The Executive Program in Energy Literacy for a Sustainable Future, Class 2, Thailand Energy Academy
- Executive Management with Business Development and Investment, Class 2, Institute of Business and Industrial Development
- Environmental Governance for Executive Officer, Class 1, Department of Environmental Quality Promotion, Ministry of Natural Resources and Environment and Chulalongkorn University

Director Training

- Director Accreditation Program (DAP), Class 128/2016, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2021 – 2021	Director, Gulf Renewable Energy Company Limited
2018 – 2021	Executive Director, Gulf Energy Development Public Company Limited
2020 – 2020	Director, Gulf Tay Ninh 1 Joint Stock Company
2020 – 2020	Director, Gulf Tay Ninh 2 Joint Stock Company
2019 – 2020	Director, Mekong Wind Power Joint Stock Company
2017 – 2020	Director, Kolpos Pte. Ltd.
2017 – 2020	Director, WHA Eastern Seaboard NGD4 Company Limited
2016 – 2020	Director, WHA Eastern Seaboard NGD2 Company Limited
2016 – 2020	Director, Gulf International Investment (Hong Kong) Limited
2015 – 2020	Director, Gulf WHA MT Natural Gas Distribution Company Limited
2015 – 2020	Director, Gulf MP Company Limited
2015 – 2020	Director, Gulf JP NNK Company Limited
2015 – 2020	Director, Gulf JP NLL Company Limited
2015 – 2020	Director, Gulf JP CRN Company Limited
2015 – 2020	Director, Gulf JP KP1 Company Limited
2015 – 2020	Director, Gulf JP KP2 Company Limited
2015 – 2020	Director, Gulf JP TLC Company Limited
2015 – 2020	Director, Gulf JP NK2 Company Limited
2015 – 2020	Director, Gulf Energy Company Limited
2015 – 2020	Director, Gulf IPP Company Limited
2015 – 2020	Director, Gulf Cogeneration Company Limited
2015 – 2020	Director, Gulf Power Generation Company Limited
2015 – 2020	Director, Gulf Yala Green Company Limited

2015 – 2020	Director, Nong Khae Cogeneration Company Limited
2015 – 2020	Director, Samutprakarn Cogeneration Company Limited
2014 – 2020	Director, Gulf VTP Company Limited
2014 – 2020	Director, Gulf TS1 Company Limited
2014 – 2020	Director, Gulf TS2 Company Limited
2014 – 2020	Director, Gulf TS3 Company Limited
2014 – 2020	Director, Gulf TS4 Company Limited
2014 – 2020	Director, Gulf NC Company Limited
2014 – 2020	Director, Gulf BL Company Limited
2014 – 2020	Director, Gulf BP Company Limited
2014 – 2020	Director, Gulf NLL2 Company Limited
2014 – 2020	Director, Gulf NPM Company Limited
2014 – 2020	Director, Gulf NRV1 Company Limited
2014 – 2020	Director, Gulf NRV2 Company Limited
2014 – 2020	Director, Gulf JP NS Company Limited
2014 – 2020	Director, Gulf JP UT Company Limited
2014 – 2020	Director, Gulf PD Company Limited
2014 – 2020	Director, Gulf SRC Company Limited
2012 – 2020	Director, Independent Power Development Company Limited
2008 – 2020	Senior Executive Vice President, Gulf JP Company Limited
2017 – 2019	Senior Executive Vice President and Chief Operating Officer, Gulf Energy Development Public Company Limited
2014 – 2017	Director and Senior Executive Vice President, Gulf Energy Development Company Limited
1996 – 2008	Senior Executive Vice President, Gulf Electric Public Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

2021 – Present Director, Vice Chairman of the Board and Member of the Nomination and Compensation Committee, Thaicom Public Company Limited

• Non - Listed Companies

2022 – Present Director, All Waste to Energy Company Limited

2022 – Present Director, Chiangmai Waste to Energy Company Limited

2021 – Present Director, Gulf MTP LNG Terminal Company Limited

2019 – Present Director, Gulf Energy (Vietnam) Limited Liability Company

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.017%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Ms. Yupapin Wangviwat

Director, Member of the Sustainability, Governance and Risk Management Committee and Chief Financial Officer

Date of Appointment

October 24, 2018

Age: 53 years

Education / Training

- Master of Business Administration, University of Florida, USA
- Bachelor of Business Administration (Banking and Finance), Chulalongkorn University
- Top Executive Program in Commerce and Trade, Class 13, Commerce Academy, University of the Thai Chamber of Commerce
- Digital Transformation for CEO, Class 1, Nation Multimedia Group Public Company Limited
- Capital Market Leadership Program, Class 16, Capital Market Academy
- ABC Course, Class 5, Academy of Business Creativity, Sripatum University
- Executive Management with Business Development and Investment, Class 4, Institute of Business and Industrial Development

Director Training

- Director Certification Program (DCP), Class 164/2012, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021	Director, Gulf JP Company Limited
2020 – 2021	Director, Gulf SRC Company Limited
2020 – 2021	Director, Gulf PD Company Limited
2020 – 2021	Director, Gulf Energy Mauritius Company Limited
2019 – 2021	Director, Independent Power Development Company Limited
2016 – 2021	Executive Director, Gulf Energy Development Public Company Limited
2015 – 2021	Director, Gulf JP KP1 Company Limited
2015 – 2021	Director, Gulf JP KP2 Company Limited
2015 – 2021	Director, Gulf JP TLC Company Limited
2015 – 2021	Director, Gulf JP NNK Company Limited
2015 – 2021	Director, Gulf JP NLL Company Limited
2015 – 2021	Director, Gulf JP CRN Company Limited
2015 – 2021	Director, Gulf JP NK2 Company Limited
2014 – 2021	Director, Gulf Solar BV Company Limited
2014 – 2021	Director, Gulf Solar TS1 Company Limited
2014 – 2021	Director, Gulf Solar TS2 Company Limited
2014 – 2021	Director, Gulf Solar KKS Company Limited
2014 – 2021	Director, Gulf International Investment (Hong Kong) Limited
2013 – 2021	Director, Gulf MP Company Limited
2013 – 2021	Director, Gulf Solar Company Limited
2013 – 2021	Director, Gulf JP NS Company Limited
2013 – 2021	Director, Gulf JP UT Company Limited
2012 – 2021	Director, Gulf VTP Company Limited
2012 – 2021	Director, Gulf TS1 Company Limited
2012 – 2021	Director, Gulf TS2 Company Limited
2012 – 2021	Director, Gulf TS3 Company Limited
2012 – 2021	Director, Gulf TS4 Company Limited
2012 – 2021	Director, Gulf NC Company Limited
2012 – 2021	Director, Gulf BL Company Limited
2012 – 2021	Director, Gulf BP Company Limited
2012 – 2021	Director, Gulf NLL2 Company Limited
2012 – 2021	Director, Gulf NPM Company Limited
2012 – 2021	Director, Gulf NRV1 Company Limited

2012 – 2021	Director, Gulf NRV2 Company Limited
2011 – 2021	Director, Kolpos Pte. Ltd.
2019 – 2020	Director, Bangkok Smart Energy Company Limited
2017 – 2020	Director, Gulf WHA MT Natural Gas Distribution Company Limited
2017 – 2020	Director, WHA Eastern Seaboard NGD2 Company Limited
2017 – 2020	Director, WHA Eastern Seaboard NGD4 Company Limited
2015 – 2020	Director, Gulf Cogeneration Company Limited
2015 – 2020	Director, Samutprakarn Cogeneration Company Limited
2015 – 2020	Director, Nong Khae Cogeneration Company Limited
2015 – 2020	Director, Gulf Yala Green Company Limited
2015 – 2020	Director, Gulf Power Generation Company Limited
2015 – 2020	Director, Gulf IPP Company Limited
2015 – 2020	Director, Gulf Energy Company Limited
2014 – 2020	Director, Gulf International Holding Pte. Ltd.
2017 – 2019	Senior Executive Vice President and Chief Corporate Officer, Gulf Energy Development Public Company Limited
2014 – 2017	Senior Executive Vice President and Chief Financial Officer, Gulf Energy Development Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

2021 – Present	Director, Intouch Holdings Public Company Limited
2021 – Present	Director and Member of Sustainable Development Committee, Advanced Info Service Public Company Limited

• Non-Listed Companies

2022 – Present	Director, AIS Digital Life Company Limited
2021 – Present	Director, Gulf Innova Company Limited
2021 – Present	Director, Advanced Wireless Network Company Limited
2021 – Present	Director, GULF1 Company Limited
2019 – Present	Director, Rachakam Asset Management Company Limited
2018 – Present	Director, Gulf Renewable Energy Company Limited
2008 – Present	Senior Executive Vice President, Gulf JP Company Limited
1997 – Present	Chief Financial Officer, Gulf Electric Public Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.025%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mrs. Chotikul Sookpiromkasem

Director

Date of Appointment

April 24, 2019

Age: 46 years

Education / Training

- Bachelor of Accountancy (Accounting),
Thammasat University

Director Training

- Director Accreditation Program (DAP), Class 128/2016,
Thai Institute of Directors

Working Experience (during the recent 5 years)

and/or Important Positions

2017 – 2018	Director, Gulf Energy Development Public Company Limited
2002 – 2018	Director, Pomodoro Five Company Limited
2015 – 2017	Director, Gulf Energy Development Company Limited
2003 – 2017	Director and Vice President – Finance and Accounting, Pomodoro Group Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2018 – Present	Director, Rachakarn Asset Management Company Limited
2017 – Present	Director, Gulf Investment and Trading Pte. Ltd.
2016 – Present	Director, Gulf Holdings (Thailand) Company Limited
2012 – Present	Director, Land and Property Development Company Limited
2009 – Present	Director, B Property Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.005%

Spouse: 0.009%

Minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Rattaphol Cheunsomchit

**Deputy Chief Executive Officer and
Member of the Sustainability, Governance and
Risk Management Committee**

Date of Appointment

February 15, 2019

Age: 51 years

Education / Training

- Master of Business Administration (Finance), The George Washington University, USA
- Bachelor of Engineering (Electrical Engineering), King Mongkut's Institute of Technology Ladkrabang
- The Executive Program in Energy Literacy for a Sustainable Future, Class 4, Thailand Energy Academy
- Digital Transformation for CEO, Class 2, Nation Multimedia Group Public Company Limited

Director Training

- Director Certification Program (DCP), Class 168/2013, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021	President, Gulf Energy Development Public Company Limited
2018 – 2021	Director, Gulf Energy Mauritius Company Limited
2014 – 2021	Director, Gulf International Investment (Hong Kong) Limited
2011 – 2021	Director, Kolpos Pte. Ltd.
2018 – 2020	Director, Gulf Energy International Company Limited

2014 – 2020	Director, Gulf International Holding Pte. Ltd.
2014 – 2020	Director, Gulf Chana Green Company Limited
2014 – 2020	Director, SBY Biomass Company Limited
2014 – 2020	Director, Thepha Clean Energy Company Limited
2014 – 2020	Director, Gulf Pattani Green Company Limited
2014 – 2020	Director, Gulf Solar BV Company Limited
2014 – 2020	Director, Gulf Solar TS1 Company Limited
2014 – 2020	Director, Gulf Solar TS2 Company Limited
2014 – 2020	Director, Gulf Solar KKS Company Limited
2013 – 2020	Director, Gulf MP Company Limited
2013 – 2020	Director, Gulf Solar Company Limited
2018 – 2019	Director, Mekong Wind Power Joint Stock Company
2018 – 2019	Director, TTC Energy Development Investment Joint Stock Company
2018 – 2019	Director, TTC Green Energy Investment Joint Stock Company
2017 – 2019	Senior Executive Vice President and Chief Development Officer, Gulf Energy Development Public Company Limited
2015 – 2017	Director, SPCG Public Company Limited
2014 – 2017	Senior Executive Vice President, Gulf Energy Development Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2022 – Present	Director, All Waste to Energy Company Limited
2022 – Present	Director, Chiangmai Waste to Energy Company Limited
2022 – Present	Director, AG Korat Company Limited
2021 – Present	Director, GPC International Terminal Company Limited
2021 – Present	Director, Gulf Renewable Energy Company Limited
2021 – Present	Director, GULF1 Company Limited
2020 – Present	Director, BGSR 6 Company Limited
2020 – Present	Director, BGSR 81 Company Limited
2020 – Present	Director, Gulf LNG Company Limited
2019 – Present	Director, Gulf MTP LNG Terminal Company Limited
2008 – Present	Senior Executive Vice President, Gulf JP Company Limited
2007 – Present	Director, Pal Associate Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.026%

Spouse and minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Ms. Bung-on Suttipattanakit

Chief Corporate Planning Officer

Date of Appointment

February 15, 2019

Age: 57 years

Education / Training

- Master of Accountancy, Chulalongkorn University
- Bachelor of Accountancy, Chiang Mai University
- Certified Investment and Securities Analyst (CISA No. 0027), Securities Analysts Association
- Capital Market Leadership Program, Class 30, Capital Market Academy
- The Executive Program in Energy Literacy for a Sustainable Future, Class 14, Thailand Energy Academy
- Senior Executive Program (SEP), Class 26, Sasin Graduate Institute of Business Administration of Chulalongkorn University
- Public-Private Partnerships for Executive Program, Class 1, Institute of Research and Development for Public Enterprises
- CFO Focus on Financial Reporting (CFO 0023), Federation of Accounting Professions and the Securities and Exchange Commission, Thailand

Director Training

- Director Certification Program (DCP), Class 255/2018, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021 Director, WHA Eastern Seaboard NGD4 Company Limited

2020 – 2021 Director, WHA Eastern Seaboard NGD2 Company Limited

2020 – 2021 Director, Gulf WHA MT Natural Gas Distribution Company Limited

2020 – 2021 Director, Gulf MTP LNG Terminal Company Limited

2020 – 2021 Director, Gulf International Investment (Hong Kong) Limited

2020 – 2021 Director, Kolpos Pte. Ltd.

2018 – 2021 Director, Gulf Energy Mauritius Company Limited

2018 – 2021 Director, Gulf Energy International Company Limited

2020 – 2020 Director, Gulf International Holding Pte. Ltd.

2019 – 2020 Director, Gulf Energy (Vietnam) Limited Liability Company

2019 – 2020 Director, TTC Green Energy Investment Joint Stock Company

2019 – 2020 Director, TTC Energy Development Investment Joint Stock Company

2019 – 2020 Director, Mekong Wind Power Joint Stock Company

2018 – 2020 Director, Independent Power Development Company Limited

2008 – 2020 Director, Blue One Company Limited

2018 – 2019 Senior Executive Vice President, Gulf Energy Development Public Company Limited

2017 – 2018 Senior Executive Vice President and Chief Financial Officer, Gulf Energy Development Public Company Limited

2016 – 2017 Executive Vice President – Accounting and Finance, Gulf Energy Development Company Limited

2010 – 2016 Senior Vice President – Investment Banking, Bangkok Bank Public Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

2021 – Present Director, Intouch Holdings Public Company Limited

• Non - Listed Companies

2020 – Present Director, Gulf LNG Company Limited

2020 – Present Director, Hin Kong Power Holding Company Limited

2020 – Present Director, Hin Kong Power Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.014%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Ravi Kurmarohita

Chief International Business Officer

Date of Appointment

October 20, 2020

Age: 52 years

Education / Training

- Master of Science (Structural Steel Design), Imperial College London, United Kingdom
- Bachelor of Engineering (Civil Engineering), Imperial College London, United Kingdom
- The Executive Program in Energy Literacy for a Sustainable Future, Class 6, Thailand Energy Academy
- Executive Management with Business Development and Investment, Class 3, Institute of Business and Industrial Development (IBID)

Director Training

- None -

Working Experience (during the recent 5 years) and/or Important Positions

2019 – 2020	Chief Business Development Officer, Gulf Energy Development Public Company Limited
2015 – 2020	Director, Gulf MP Company Limited
2014 – 2020	Director, Gulf Solar Company Limited
2014 – 2020	Director, Gulf Solar BV Company Limited
2014 – 2020	Director, Gulf Solar TS1 Company Limited
2014 – 2020	Director, Gulf Solar TS2 Company Limited

2014 – 2020	Director, Gulf Solar KKS Company Limited
2014 – 2020	Director, Gulf Pattani Green Company Limited
2014 – 2020	Director, Gulf Chana Green Company Limited
2014 – 2020	Director, SBY Biomass Company Limited
2014 – 2020	Director, Thepha Clean Energy Company Limited
2014 – 2020	Director, Gulf International Holding Pte. Ltd.
2018 – 2019	Executive Vice President – International Business Development, Gulf Energy Development Public Company Limited
2008 – 2019	Executive Vice President – Business Development, Gulf JP Company Limited
2017 – 2018	Head of Investor Relations, Gulf Energy Development Public Company Limited
2017 – 2017	Director, WHA Eastern Seaboard NGD4 Company Limited
2016 – 2017	Director, WHA Eastern Seaboard NGD2 Company Limited
2015 – 2017	Director, Gulf WHA MT Natural Gas Distribution Company Limited
2015 – 2017	Executive Vice President – Business Development, Gulf Energy Development Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2022 – Present	Director, All Waste to Energy Company Limited
2022 – Present	Director, Chiangmai Waste to Energy Company Limited
2022 – Present	Director, Gulf MP1 Company Limited
2021 – Present	Director, GULF1 Company Limited
2021 – Present	Director, Gulf Renewable Energy Company Limited
2019 – Present	Senior Executive Vice President – Business Development and Chief Business Development Officer, Gulf JP Company Limited
2001 – Present	Director, Sunset Park Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.006%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Worapong Vivatanavanich

Chief Project Development Officer

Date of Appointment

November 15, 2021

Age: 50 years

Education / Training

- Master of Economics,
The University of Texas at Arlington, USA
- Master of Business Administration (Finance),
The University of Texas at Arlington, USA
- Bachelor of Business Administration,
Texas A&M University - Commerce, USA
- Bachelor of Engineering (Electrical Engineering),
King Mongkut's Institute of Technology Ladkrabang
- Chartered Financial Analyst, CFA Institute
- Licensed Financial Advisor, Association of Thai
Securities Companies

Director Training

- None -

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021	Chief Domestic Business Officer, Gulf Energy Development Public Company Limited
2020 – 2021	Director, GULF1 Company Limited
2020 – 2021	Director, Gulf Chana Green Company Limited
2020 – 2021	Director, Gulf Pattani Green Company Limited
2020 – 2021	Director, Gulf NPM Company Limited
2020 – 2021	Director, Gulf NRV1 Company Limited
2020 – 2021	Director, Gulf NRV2 Company Limited
2020 – 2021	Director, Gulf NC Company Limited
2020 – 2021	Director, Gulf MP Company Limited
2020 – 2021	Director, Gulf SRC Company Limited
2020 – 2021	Director, Gulf PD Company Limited
2019 – 2021	Director, Gulf MTP LNG Terminal Company Limited
2019 – 2021	Director, Gulf VTP Company Limited
2019 – 2021	Director, Gulf TS1 Company Limited
2019 – 2021	Director, Gulf TS2 Company Limited
2019 – 2021	Director, Gulf TS3 Company Limited
2019 – 2021	Director, Gulf TS4 Company Limited
2019 – 2021	Director, Gulf NLL2 Company Limited
2019 – 2021	Director, Gulf BL Company Limited
2019 – 2021	Director, Gulf BP Company Limited
2019 – 2021	Director, Gulf Solar Company Limited
2019 – 2021	Director, Gulf Solar BV Company Limited
2019 – 2021	Director, Gulf Solar TS1 Company Limited
2019 – 2021	Director, Gulf Solar TS2 Company Limited
2019 – 2021	Director, Gulf Solar KKS Company Limited
2018 – 2021	Director, Independent Power Development Company Limited
2019 – 2020	Chief Operating Officer, Gulf Energy Development Public Company Limited

2020 – 2020	Director, Thepha Clean Energy Company Limited	2020 – Present	Director, Burapa Power Generation Company Limited
2020 – 2020	Director, SBY Biomass Company Limited	2020 – Present	Director, Gulf Engineering Services Company Limited
2018 – 2020	Director, Mekong Wind Power Joint Stock Company	2019 – Present	Senior Executive Vice President – Operations, Gulf JP Company Limited
2018 – 2020	Director, TTC Energy Development Investment Joint Stock Company	2019 – Present	Director, Bangkok Smart Energy Company Limited
2018 – 2020	Director, TTC Green Energy Investment Joint Stock Company		
2018 – 2019	Acting Chief Operating Officer and Executive Vice President – Project Development, Gulf Energy Development Public Company Limited		
2009 – 2019	Executive Vice President – Operations, Gulf JP Company Limited		
2013 – 2018	Executive Vice President – Project Development Group, Gulf Energy Development Company Limited		

Shareholding in the Company

(as of December 30, 2021)

Personal: - None -

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2022 – Present Director, Mekong Wind Power Energy Joint Stock Company

2021 – Present Director, Gulf Renewable Energy Company Limited

2020 – Present Director, BGSR 6 Company Limited

2020 – Present Director, BGSR 81 Company Limited

2020 – Present Director, Hin Kong Power Holding Company Limited

2020 – Present Director, Hin Kong Power Company Limited

2020 – Present Director, Burapa Power Holding Company Limited



Mr. Smith Banomyong

**Chief Operating Officer –
Group Asset Management & Investment**

Date of Appointment

October 20, 2020

Age: 49 years

Education / Training

- Master of Science (Economics), The London School of Economics and Political Science (LSE), United Kingdom
- Bachelor of Arts (Economics), Reed College, USA
- Bachelor of Engineering (Industrial Engineering), Chulalongkorn University
- Capital Market Leadership Program, Class 20, Capital Market Academy
- The Executive Program in Energy Literacy for a Sustainable Future, Class 15, Thailand Energy Academy
- Thailand Insurance Leadership Program, Class 2, OIC Advanced Insurance Institute

Director Training

- Director Accreditation Program (DAP), Class 76/2008, Thai Institute of Directors
- Corporate Governance for Capital Market Intermediaries (CGI), Class 0/2014, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2021 – 2021	Director, Gulf Cogeneration Company Limited
2020 – 2020	Chief International Business Officer, Gulf Energy Development Public Company Limited
2018 – 2020	Chief Financial Officer, Gulf Energy Development Public Company Limited
2018 – 2020	Senior Executive Vice President - Finance, Gulf JP Company Limited
2018 – 2018	Chairman, Association of Investment Management Companies
2018 – 2018	Director, The Federation of Thai Capital Market Organizations
2018 – 2018	Director, Thai Financial Markets Committee, Bank of Thailand
2014 – 2018	Chief Executive Officer, SCB Asset Management Company Limited
2011 – 2014	First Executive Vice President, Head of Wealth Division, The Siam Commercial Bank Public Company Limited
2010 – 2011	Executive Vice President, Head of Corporate Strategy, The Siam Commercial Bank Public Company Limited
2008 – 2010	Director, Head of Asia Local Credit Trading, Citigroup Global Markets Asia Limited, Hong Kong
2006 – 2008	Director, Local Credit Trading, Citibank N.A., Bangkok Thailand

Other Directorship Positions / Other Positions at Present

- **Other Listed Companies**
 - 2021 – Present Director, Intouch Holdings Public Company Limited
 - 2021 – Present Director and Member of Executive Committee, Advanced Info Services Public Company Limited

• **Non - Listed Companies**

2021 – Present Director, Gulf Innova Company Limited
 2021 – Present Director, Advanced Wireless Network Company Limited
 2021 – Present Director, Gulf Renewable Energy Company Limited
 2021 – Present Director, Gulf JP Company Limited
 2021 – Present Director, Gulf JP NS Company Limited
 2021 – Present Director, Gulf JP UT Company Limited
 2021 – Present Director, Gulf JP KP1 Company Limited
 2021 – Present Director, Gulf JP KP2 Company Limited
 2021 – Present Director, Gulf JP TLC Company Limited
 2021 – Present Director, Gulf JP NNK Company Limited
 2021 – Present Director, Gulf JP NLL Company Limited
 2021 – Present Director, Gulf JP CRN Company Limited
 2021 – Present Director, Gulf JP NK2 Company Limited
 2021 – Present Director, Gulf VTP Company Limited
 2021 – Present Director, Gulf TS1 Company Limited
 2021 – Present Director, Gulf TS2 Company Limited
 2021 – Present Director, Gulf TS3 Company Limited
 2021 – Present Director, Gulf TS4 Company Limited
 2021 – Present Director, Gulf NLL2 Company Limited
 2021 – Present Director, Gulf BL Company Limited
 2021 – Present Director, Gulf BP Company Limited
 2021 – Present Director, Gulf NC Company Limited
 2021 – Present Director, Gulf NPM Company Limited
 2021 – Present Director, Gulf NRV1 Company Limited
 2021 – Present Director, Gulf NRV2 Company Limited
 2021 – Present Director, Gulf Chana Green Company Limited
 2021 – Present Director, Gulf Pattani Green Company Limited
 2021 – Present Director, Independent Power Development Company Limited
 2021 – Present Director, Gulf SRC Company Limited
 2021 – Present Director, Gulf PD Company Limited
 2021 – Present Director, Gulf MP Company Limited
 2021 – Present Director, Gulf WHA MT Natural Gas Distribution Company Limited
 2021 – Present Director, WHA Eastern Seaboard NGD2 Company Limited
 2021 – Present Director, WHA Eastern Seaboard NGD4 Company Limited
 2021 – Present Director, Gulf Solar Company Limited
 2021 – Present Director, Gulf Solar BV Company Limited
 2021 – Present Director, Gulf Solar TS1 Company Limited

2021 – Present Director, Gulf Solar TS2 Company Limited
 2021 – Present Director, Gulf Solar KKS Company Limited
 2021 – Present Director, Gulf Energy Company Limited
 2021 – Present Gulf IPP Company Limited
 2021 – Present Director, Gulf Power Generation Company Limited
 2021 – Present Director, Gulf Yala Green Company Limited
 2021 – Present Director, Nong Khae Cogeneration Company Limited
 2021 – Present Director, Samutprakarn Cogeneration Company Limited
 2021 – Present Director, PTT Natural Gas Distribution Company Limited
 2021 – Present Director, Global Mind Investment Management Pte. Ltd.
 2021 – Present Director, Bentre Import Export Joint-Stock Corporation
 2020 – Present Director, Borkum Riffgrund 2 Investor Holding GmbH
 2020 – Present Director, Borkum Riffgrund 2 Offshore Wind Farm GmbH & Co. oHG
 2020 – Present Director, Gulf LNG Company Limited
 2020 – Present Director, Gulf O&M Services Company Limited
 2020 – Present Director, Gulf Energy (Vietnam) Limited Liability Company
 2020 – Present Director, Gulf International Investment (Hong Kong) Limited
 2020 – Present Director, Kolpos Pte. Ltd.
 2020 – Present Director, Gulf International Holding Pte. Ltd.
 2018 – Present Director, Gulf Energy Mauritius Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.005%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Tanon Tantisunthorn

Chief Corporate Affairs Officer

Date of Appointment

February 15, 2019

Age: 49 years

Education / Training

- Master of Science (Management), New York University, USA
- Master of Business Administration (Finance), American University, USA
- Bachelor of Engineering (Environmental Engineering), Chulalongkorn University
- Rule of Law for Democracy, Class 8, College of the Constitutional Court
- Politics and Governance in Democratic Systems for Executives Program, Class 7, King Prajadhipok's Institute
- Administrative Justice for Executives Program, Class 3, the Administrative Justice Institute, the Office of the Administrative Courts
- Capital Market Leadership Program, Class 21, Capital Market Academy

Director Training

- Director Certification Program (DCP), Class 57/2005, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2014 – 2020	Director, Gulf Solar Company Limited
2014 – 2020	Director, Gulf Solar BV Company Limited
2014 – 2020	Director, Gulf Solar KKS Company Limited
2014 – 2020	Director, Gulf Solar TS1 Company Limited
2014 – 2020	Director, Gulf Solar TS2 Company Limited
2014 – 2020	Director, Gulf International Holding Pte. Ltd.
2017 – 2019	Executive Vice President - Corporate Affairs Group, Gulf Energy Development Public Company Limited
2008 – 2019	Executive Vice President - Corporate Affairs, Gulf JP Company Limited
2016 – 2017	Executive Vice President - Office of Chief Executive Officer, Gulf Energy Development Company Limited
2014 – 2016	First Senior Vice President - Asset Management and First Senior Vice President - Office of Chief Executive Officer, Gulf Energy Development Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

2003 - Present Director, Lanna Resources Public Company Limited

• Non - Listed Companies

2022 – Present Director, Chiangmai Waste to Energy Company Limited

2021 – Present Director, GPC International Terminal Company Limited

2020 – Present Director, BGSR 6 Company Limited

2020 – Present Director, BGSR 81 Company Limited

2019 – Present Senior Executive Vice President - Corporate Affairs, Gulf JP Company Limited

2010 – Present Director, Sarin Property Company Limited

Shareholding in the Company

(as of December 30, 2021):

Personal: 0.080%

Spouse: 0.001%

Minor child: - None -

Relationship among Family with Other Directors and Management

Brother-in-law of Mr. Sarath Ratanavadi, Director, Vice Chairman of the Board and Chief Executive Officer



Mr. Suporn Luckmunkong

Chief Public Affairs Officer

Date of Appointment

April 12, 2021

Age: 58 years

Education / Training

- Master of Business Administration, Chulalongkorn University
- Bachelor of Laws, Thammasat University
- The Program on Senior Executives on Justice Administration, Class 24, Judicial Training Institute
- The Executive Program in Energy Literacy for a Sustainable Future, Class 12, Thailand Energy Academy
- The National Defence, Class 59, Thailand National Defence College
- Executive Justice Training Course, Class 7, Justice Officials Training Institute
- Administrative Justice for Executives Program, Class 5, the Administrative Justice Institute, the Office of the Administrative Courts

Director Training

- None -

Working Experience (during the recent 5 years) and/or Important Positions

- | | |
|-------------|---|
| 2017 – 2021 | Executive Vice President – Public Affairs, Gulf Energy Development Public Company Limited |
| 2019 – 2020 | Head of Human Resources, Gulf Energy Development Public Company Limited |

Other Directorship Positions / Other Positions at Present

- **Other Listed Companies**
2021 – Present Director, Thaicom Public Company Limited
- **Non - Listed Companies**
2021 – Present Director, PTT Natural Gas Distribution Company Limited

Shareholding in the Company

(as of December 30, 2021):

Personal: 0.010%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -



Mr. Jirapat Archalaka

Chief Engineering Officer

Date of Appointment

April 12, 2021

Age: 48 years

Education / Training

- Master of Business Administration (Finance), National Institute of Development Administration
- Bachelor of Engineering (Electrical Engineering), King Mongkut's University of Technology North Bangkok

Director Training

- None -

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021	Director, GULF1 Company Limited
2020 – 2021	Director, Independent Power Development Company Limited
2020 – 2021	Director, Gulf SRC Company Limited
2020 – 2021	Director, Gulf PD Company Limited
2017 – 2021	Executive Vice President – Engineering Group, Gulf Energy Development Public Company Limited
2020 – 2020	Director, Hin Kong Power Holding Company Limited
2020 – 2020	Director, Hin Kong Power Company Limited
2016 – 2020	Director, Gulf BL Company Limited
2016 – 2020	Director, Gulf BP Company Limited
2016 – 2020	Director, Gulf NLL2 Company Limited
2015 – 2020	Director, Gulf VTP Company Limited
2015 – 2020	Director, Gulf TS1 Company Limited
2015 – 2020	Director, Gulf TS2 Company Limited
2015 – 2020	Director, Gulf TS3 Company Limited
2015 – 2020	Director, Gulf TS4 Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2022 – Present	Director, Mekong Wind Power Joint Stock Company
2021 – Present	Director, Gulf MTP LNG Terminal Company Limited
2020 – Present	Director, Bangkok Smart Energy Company Limited
2020 – Present	Director, Burapa Power Holding Company Limited
2020 – Present	Director, Burapa Power Generation Company Limited
2020 – Present	Director, Gulf Engineering Services Company Limited
2017 – Present	Executive Vice President – Engineering Group, Gulf JP Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.009%

Spouse or minor child: 0.000%

Relationship among Family with Other Directors and Management

- None -



Mr. Olarn Srivalattha

Senior Vice President II – Accounting

Date of Appointment

April 1, 2021

Age: 41 years

Education / Training

- Bachelor of Accountancy (Accounting),
Thammasat University

Director Training

- None -

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021	Senior Vice President I – Accounting, Gulf Energy Development Public Company Limited
2020 – 2021	Senior Vice President I – Accounting, Gulf JP Company Limited
2018 – 2019	Vice President – Accounting, Gulf Energy Development Public Company Limited
2018 – 2019	Vice President – Accounting, Gulf JP Company Limited
2014 – 2017	Assistant Vice President – Accounting, Gulf Energy Development Company Limited
2014 – 2017	Assistant Vice President – Accounting, Gulf JP Company Limited

Other Directorship Positions / Other Positions at Present

• Other Listed Companies

- None -

• Non - Listed Companies

2021 – Present	Senior Vice President II – Accounting, Gulf JP Company Limited
2020 – Present	Director, Gulf O&M Services Company Limited
2015 – Present	Director, Nabsib Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.000%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management

- None -

Ms. Chattawan Jaijakul

Company Secretary and Executive Vice President – Corporate Secretary

Date of Appointment

April 18, 2017

Age : 49 years

Education

- Master of Business Administration, Chapman University, USA
- Bachelor of Accountancy (Accounting), Chulalongkorn University

Training

- Company Reporting Program, Class 18/2017, Thai Institute of Directors
- Board Reporting Program, Class 19/2016, Thai Institute of Directors
- Director Accreditation Program, Class 112/2014, Thai Institute of Directors
- Fundamentals of Law for Corporate Secretaries, Year 2013, Thai Company Secretary Club, Thai Listed Companies Association
- Effective Minutes Taking, Class 18/2010, Thai Institute of Directors
- Company Secretary Program, Class 37/2010, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2018 – 2020	Senior Vice President II – Corporate Secretary, Gulf Energy Development Public Company Limited
2018 – 2020	Senior Vice President II – Corporate Secretary, Gulf JP Company Limited
2017 – 2018	Senior Vice President I – Corporate Secretary, Gulf Energy Development Public Company Limited
2015 – 2018	Senior Vice President I – Corporate Secretary, Gulf JP Company Limited

Other Directorship Positions/ Other Positions at Present

- **Other Listed Companies**
- None -
- **Non - Listed Companies**
2020 – Present Executive Vice President – Corporate Secretary, Gulf JP Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.005%

Spouse: 0.000%

Minor child: - None -

Relationship among Family with Other Directors and Management

- None -

Ms. Chotiros Likitcharoenpanich

Senior Vice President II – Internal Audit

Date of Appointment

February 1, 2021

Age : 52 years

Education

- Master of Business Administration, Thammasat University
- Bachelor of Accountancy (Accounting), Chulalongkorn University

Training

- None -

Working Experience (during the recent 5 years) and/or Important Positions

2017 – 2021	Senior Vice President I – Internal Audit, Gulf Energy Development Public Company Limited
2016 – 2021	Senior Vice President I – Internal Audit, Gulf JP Company Limited
2016 – 2017	Senior Vice President I – Internal Audit, Gulf Energy Development Company Limited

Other Directorship Positions/ Other Positions at Present

- **Other Listed Companies**
- None -
- **Non - Listed Companies**
2021 – Present Senior Vice President II – Internal Audit, Gulf JP Company Limited

Shareholding in the Company

(as of December 30, 2021)

Personal: 0.004%

Spouse: 0.000%

Minor child: - None -

Relationship among Family with Other Directors and Management

- None -

Report of Changes in Securities Holdings of Directors and Executives

Gulf Energy Development Public Company Limited
as of December 31, 2021

Directors	Position	Number of Ordinary Shares		
		December 31, 2020	December 31, 2021	Increase / (Decrease)
Mr. Viset Choopiban	Independent Director / Chairman of the Board	825,000	825,000	-
Spouse and Minor Child		-	-	-
Mr. Kasem Snidvongs	Independent Director / Chairman of Audit Committee	550,000	550,000	-
Spouse and Minor Child		91,350	-	(91,350)
Mr. Sommai Phasee	Independent Director / Member of the Audit Committee / Chairman of the Sustainability, Governance and Risk Management Committee	550,000	550,000	-
Spouse and Minor Child		-	-	-
Dr. Raweporn Kuhirun	Independent Director / Member of the Audit Committee	500,000	500,000	-
Spouse and Minor Child		-	-	-
Mr. Santi Boonprakub	Independent Director / Member of the Sustainability, Governance and Risk Management Committee	550,000	550,000	-
Spouse and Minor Child		-	-	-
Mr. Sarath Ratanavadi	Director / Vice Chairman of the Board / Chief Executive Officer	4,171,077,797	4,171,077,797	-
Spouse and Minor Child		23,100,000	23,100,000	-
Juristic persons which holding more than 30%		4,419,931,422	4,419,931,422	-
Mrs. Pornnipa Chinvetkitvanit	Director / Member of the Sustainability, Governance and Risk Management Committee / Deputy Chief Executive Officer	2,122,450	2,122,450	-
Spouse and Minor Child		-	-	-
Mr. Boonchai Thirati	Director / Deputy Chief Executive Officer	1,944,250	1,944,250	-
Spouse and Minor Child		-	-	-
Ms. Yupapin Wangviwat	Director / Member of the Sustainability, Governance and Risk Management Committee / Chief Financial Officer	2,977,700	2,977,700	-
Mrs. Chotikul Sookpiromkasem	Director	550,000	550,000	-
Spouse and Minor Child		1,045,000	1,045,000	-

Executives	Position	Number of Ordinary Shares		
		December 31, 2020	December 31, 2021	Increase / (Decrease)
Mr. Ratthaphol Cheunsomchit	Deputy Chief Executive Officer / Member of the Sustainability, Governance and Risk Management Committee	3,311,000	3,000,000	(311,000)
Spouse and Minor Child		-	-	-
Ms. Bung-on Suttipattanakit	Chief Corporate Planning Officer	1,602,700	1,602,700	-
Mr. Smith Banomyong	Chief Operating Officer - Group Asset Management & Investment	550,000	550,000	-
Spouse and Minor Child		-	-	-
Mr. Ravi Kurmarohita	Chief International Business Officer	669,350	669,350	-
Spouse and Minor Child		-	-	-
Mr. Worapong Vivatanavanich	Chief Project Development Officer	-	-	-
Mr. Tanon Tantisunthorn	Chief Corporate Affairs Officer	9,398,950	9,398,950	-
Spouse and Minor Child		113,300	113,300	-
Mr. Jirapat Archalaka*	Chief of Engineering	n/a	999,000	n/a
Spouse and Minor Child		n/a	27,000	n/a
Mr. Suporn Luckmunkong*	Chief of Public Affairs	n/a	1,134,100	n/a
Spouse and Minor Child		n/a	-	n/a

Remark * Mr. Jirapat Archalaka and Mr. Suporn Luckmunkong were appointed as the Company's executives on April 12, 2021

CORPORATE GOVERNANCE STRUCTURE

1. Board of Directors and Subcommittees

1.1 Board of Directors

As of January 20, 2022, the Board of Directors of the Company comprises of 10 directors as follows:

	Director	Position
1.	Mr. Viset Choopiban	Independent Director / Chairman of the Board of Directors
2.	Mr. Kasem Snidvongs	Independent Director / Chairman of the Audit Committee
3.	Mr. Sommai Phasee ^{(1), (3)}	Independent Director / Audit Committee Member / Chairman of the Sustainability, Governance and Risk Management Committee
4.	Dr. Raweporn Kuhirun ⁽¹⁾	Independent Director / Audit Committee Member
5.	Mr. Santi Boonprakub ⁽³⁾	Independent Director / Sustainability, Governance and Risk Management Committee Member
6.	Mr. Sarath Ratanavadi	Director / Vice Chairman of the Board of Directors
7.	Mrs. Porntipa Chinvetkitvanit ^{(2), (3)}	Director / Sustainability, Governance and Risk Management Committee Member
8.	Mr. Boonchai Thirati	Director
9.	Ms. Yupapin Wangviwat ^{(2), (3)}	Director / Sustainability, Governance and Risk Management Committee Member
10.	Mrs. Chotikul Sookpiromkasem	Director

- Note:
- ⁽¹⁾ The director who has requisite knowledge and experience to review the reliability of the financial statements of the Company.
- ⁽²⁾ The director and/or executive holds office as director and/or executive of Gulf Electric Public Company Limited ("GEC") and/or subsidiaries of GEC which operate the business having the same nature as the business of the Company, and some of which may be considered as operating the business deemed to be in competition with the business of the Company. Nonetheless, the Audit Committee Meeting No. 5/2017 dated August 11, 2017 and the Board of Directors' Meeting No. 6/2017 dated August 11, 2017 had acknowledged the details related to such holding of directorships and/or executive of such person and had resolved to require that he/she shall perform duties in accordance with the laws, the objectives and the Articles of Association with integrity and accountability as required by the relevant laws as well as his/her duty in compliance with the policy on conflict of interest of group companies. However, in case that, in the future, there is any conflict of interest under the Management Services Agreement between GEC and GJP, the Company will inform GEC and will discuss with GEC's shareholders on appropriate approach to manage such conflict of interest.
- ⁽³⁾ The Sustainability and Risk Management Committee has increased its scope of authority and responsibilities in corporate governance, and therefore has changed its name to the Sustainability, Governance and Risk Management Committee effective from January 20, 2022.

Members of the Board of Directors

As of January 20, 2022, the Company's Board of Directors comprises 10 sophisticated individuals who possess various qualifications, including skills, experience and specialized expertise, which are beneficial to the Company's operation. The Board of Directors of the Company is formed of six non-executive directors and four executive directors.

The Company has five Independent Directors, namely Mr. Viset Choopiban, Mr. Kasem Snidvongs, Mr. Sommai Phasee, Dr. Raweporn Kuhirun, and Mr. Santi Boonprakub, in the Board of Directors amounting to half of the total number of directors in the Company. All of the Independent Directors have all qualifications as required by the Company's rule on qualifications of Independent Director which exceed the requirements of the Capital Market Supervisory Board.

Authorized Directors

Authorized directors of the Company are Mr. Sarath Ratanavadi or Mrs. Porntipa Chinvetkitvanit or Mr. Boonchai Thirati or Ms. Yupapin Wangviwat or Mrs. Chotikul Sookpiromkasem, any two directors of these five directors sign together with the Company's seal affixed.

1.2 Audit Committee

As of January 20, 2022, the Audit Committee of the Company comprises of 3 members as follows:

Director	Position
1. Mr. Kasem Snidvongs	Chairman of the Audit Committee
2. Mr. Sommai Phasee ⁽¹⁾	Audit Committee Member
3. Dr. Raweporn Kuhirun ⁽¹⁾	Audit Committee Member

Note: ⁽¹⁾ The director who has requisite knowledge and experience to review the reliability of the financial statements of the Company.

The Audit Committee appointed Ms. Chotiros Likitcharoenpanich, Senior Vice President II – Internal Audit, as the secretary of the Audit Committee.

1.3 Sustainability, Governance and Risk Management Committee

As of January 20, 2022, the Sustainability, Governance and Risk Management Committee of the Company comprises of 5 members as follows:

	Director	Position
1.	Mr. Sommai Phasee	Chairman of the Sustainability, Governance and Risk Management Committee
2.	Mr. Santi Boonprakub	Sustainability, Governance and Risk Management Committee Member
3.	Mrs. Porntipa Chinvetkitvanit	Sustainability, Governance and Risk Management Committee Member
4.	Ms. Yupapin Wangviwat	Sustainability, Governance and Risk Management Committee Member
5.	Mr. Rattaphol Cheunsomchit	Sustainability, Governance and Risk Management Committee Member

Note: The Sustainability and Risk Management Committee has increased its scope of authority and responsibilities in corporate governance, and therefore has changed its name to the Sustainability, Governance and Risk Management Committee effective from January 20, 2022.

Board of Directors' Meetings

The Company is determined to hold the Board of Directors' Meeting on a monthly basis, the schedules of which are arranged in advance and submitted to each director within December of every year for the next year Board of Directors' Meeting so that all the directors can arrange their schedule for the meetings. In case of urgency, additional meetings may be held as deemed appropriate.

As of December 31, 2021, the Company held 16 Board of Directors' Meetings, 6 Audit Committee Meetings and 5 Sustainability and Risk Management Committee's Meetings. The Company also held 1 Non-Executive Directors' Meeting on December 16, 2021, which was attended by Audit Committee members, Independent Directors and non-executive directors together with the auditors. The non-executive meeting was held to discuss issues pertaining to the preparation of the Company's financial reports including problems or obstacles arising from their duties to perform the audit works etc. to ensure that the Company's directors have independence in performing duties as representatives of shareholders.

Details of each director's attendance in the past year can be found in the table below:

Director	Position	Number of Attendance / Total Meetings (During January 1 – December 31, 2021)				
		Board of Directors	Audit Committee	Sustainability and Risk Management Committee	AGM	EGM
1. Mr. Viset Choopiban	Independent Director / Chairman of the Board of Directors	16/16	-	-	1/1	0/1
2. Mr. Kasem Snidvongs	Independent Director / Chairman of the Audit Committee	15/16	6/6	-	1/1	0/1
3. Mr. Sommai Phasee	Independent Director / Audit Committee Member / Chairman of the Sustainability and Risk Management Committee	16/16	6/6	5/5	1/1	0/1
4. Dr. Raweporn Kuhirun	Independent Director / Audit Committee Member	16/16	6/6	-	1/1	0/1
5. Mr. Vinit Tangnoi	Independent Director / Audit Committee Member	4/4	1/1	-	-	-
6. Mr. Santi Boonprakub	Independent Director / Sustainability and Risk Management Committee Member	16/16	-	5/5	1/1	1/1
7. Mr. Sarath Ratanavadi	Director / Vice Chairman of the Board of Directors	13/16	-	-	1/1	1/1
8. Mrs. Pomtipa Chinvetkitvanit	Director / Sustainability and Risk Management Committee Member	16/16	-	5/5	1/1	0/1
9. Mr. Boonchai Thirati	Director	16/16	-	-	1/1	1/1
10. Ms. Yupapin Wangviwat	Director / Sustainability and Risk Management Committee Member	16/16	-	5/5	1/1	1/1
11. Mrs. Chotikul Sookpiromkasem	Director	16/16	-	-	1/1	0/1

- Note:
- (1) Director no. 5 has resigned from the directorship of the Company effective from March 4, 2021.
 - (2) AGM means the Annual General Meeting of Shareholders for the Year 2021 dated April 9, 2021.
 - (3) EGM means the Extraordinary General Meeting of Shareholders No. 1/2021 dated June 25, 2021.
 - (4) Directors who were absent from the meeting(s) are due to prior scheduled commitment.
 - (5) Directors who could not attend the EGM No. 1/2022 are due to prevention the spread of the Coronavirus Disease 2019. The Company therefore deemed it necessary to limit the number of directors attending the meeting.
 - (6) The number of attendees includes meetings via electronic media, which were held in accordance with regulations of relevant agencies.

2. Executives

As of January 20, 2022, the executives of the Company are as follows:

	Executive	Position
1.	Mr. Sarath Ratanavadi	Chief Executive Officer
2.	Mrs. Porntipa Chinvetkitvanit	Deputy Chief Executive Officer
3.	Mr. Boonchai Thirati	Deputy Chief Executive Officer
4.	Mr. Ratthaphol Cheunsomchit	Deputy Chief Executive Officer
5.	Ms. Yupapin Wangviwat	Chief Financial Officer
6.	Ms. Bung-on Suttipattanakit	Chief Corporate Planning Officer
7.	Mr. Ravi Kurmarohita	Chief International Business Officer
8.	Mr. Smith Banomyong	Chief Operating Officer - Group Asset Management & Investment
9.	Mr. Worapong Vivatanavanich	Chief Project Development Officer
10.	Mr. Tanon Tantisunthorn	Chief Corporate Affairs Officer
11.	Mr. Jirapat Archalaka	Chief Engineering Officer
12.	Mr. Suporn Luckmunkong	Chief Public Affairs Officer
13.	Mr. Olarn Srivalattha	Senior Vice President – Accounting

3. Company Secretary

Ms. Chattawan Jaijakul was appointed by the resolution of the Board of Directors as the Company Secretary whose duties and responsibilities are to prepare and keep documents of the Company as required under the applicable laws; to keep reports on the interests reported by the directors and executives; to carry out matters related to the Board of Directors' and Shareholders' Meetings; to provide advices in relation to rules and regulations that the Board of Directors and the executives should be aware of; to prepare and organize orientation to the newly appointed director; to monitor and coordinate in order for the Company to comply with the laws, the Company's Articles of Association and rules, and the resolutions of the Board of Directors and shareholders' meetings, including the Corporate Governance Policy and Code of Conduct; and to perform other acts as prescribed by the Securities and Exchange Act and the Capital Market Supervisory Board.

4. Remuneration of the Directors and the Executives

4.1 Remuneration of the Directors

The Company has policies to pay remuneration to its directors at appropriate rates in accordance with their duties, responsibilities and results of operation of the Company. Such rates are considered based on those of the companies in the same industry, size of business, revenue level, value of securities according to market value during the same period. For the performance bonus, it will be based on results of the Company's operation in each year and will be allocated to each director in accordance with the service period of each director.

(1) Monetary Remuneration

The Company's Annual General Meeting of Shareholders for the Year 2021 dated April 9, 2021 resolved to approve the fixing of remuneration of the directors and members of Subcommittees for the year 2021 in form of monthly salary without meeting allowance and the performance bonus for the year 2020 as follows:

Composition of Remuneration	Chairman	Director
A Monthly Remuneration (Baht/Month)		
• Board of Directors	100,000	65,000
• Audit Committee	30,000	20,000
• Sustainability and Risk Management Committee	20,000	15,000
B Performance Bonus for the Year 2020 (Baht/Year)	1,500,000	1,200,000
C Other Benefits	None	None

Remark: The Company pays remuneration only to non-executive directors.

The following table sets forth monetary remuneration of the Board of Directors and the Subcommittees for the fiscal year ended December 31, 2021.

Director	Monthly Remuneration from January 1 – December 31, 2021				
	Monthly Remuneration (Baht)			Bonus (Baht/Year)	Total
	Director	Audit Committee Member	Sustainability and Risk Management Committee Member		
1. Mr. Viset Choopiban	1,200,000.00	-	-	1,500,000.00	2,700,000.00
2. Mr. Kasem Snidvongs	780,000.00	360,000.00	-	1,200,000.00	2,340,000.00
3. Mr. Sommai Phasee	780,000.00	240,000.00	240,000.00	1,200,000.00	2,460,000.00
4. Dr. Raweporn Kuhirun	780,000.00	240,000.00	-	1,200,000.00	2,220,000.00
5. Mr. Vinit Tangnoi	136,290.32	41,935.48	-	1,200,000.00	1,378,225.80
6. Mr. Santi Boonprakub	780,000.00	-	180,000.00	1,200,000.00	2,160,000.00
7. Mr. Sarath Ratanavadi	-	-	-	-	-
8. Mrs. Porntipa Chinvetkitvanit	-	-	-	-	-
9. Mr. Boonchai Thirati	-	-	-	-	-
10. Ms. Yupapin Wangviwat	-	-	-	-	-
11. Mrs. Chotikul Sookpiromkasem	-	-	-	-	-

(2) Other Benefits

- None -

4.2 Remuneration of the Executives

The Company has a policy in determining the remuneration of the executives by regularly benchmarking with leading companies in the same industry to ensure the competitive remuneration with other companies. Remuneration will also be based on results of the Company's operation in each year to encourage work performance.

The remuneration of the Chief Executive Officer (CEO) is determined based on responsibilities, experience and skills, which will be considered together with the CEO's performance appraisal. The remuneration will be both short-term and long-term, e.g. salary, provident fund, welfare, in relation to abilities pertaining to business growth, strategic goal achievement and the Company's operating performance.

(1) Monetary Remuneration

As of December 31, 2021, the Company paid remuneration to its executives, exclusive of finance and accounting manager, in the form of monthly salary, annual bonus, provident fund and other remuneration in total of Baht 264.8 million.

(2) Other Remuneration

The Company provides health insurance, life insurance, accident insurance, annual medical check-up and cafeteria benefits as well as other welfare in accordance with the Company's policy.

4.3 Remuneration of the Directors and Executives of Subsidiaries Engaging in Core Business of the Company

Directors and/or executives of the Company appointed as directors and/or executives in the subsidiaries engaging in core business of the Company shall not receive remuneration as directors and/or executives in said subsidiaries.

5. Directors and Executives of Subsidiaries with Direct Shareholding and Engaging in Core Business of the Company (As of December 31, 2021)

Persons appointed by the Company as directors and executives of subsidiaries with direct shareholding and engaging in core business of the Company are as follows:

Company	Abbreviation of the Company	Director/ Executive												
		Mr. Sarath Ratanavadi	Mrs. Pornipa Chinvetkitvanit	Mr. Rattaphol Cheunsomchit	Ms. Yupapin Wangiwat	Mr. Ravi Kurmarohita	Mr. Smith Banomyong	Mr. Worapong Vivatanavanich	Mr. Supoj Piboonphitakphon	Ms. Natcharee Pongrattanadej	Mr. Pitak Sangchot	Mr. Surapong Siriumpunkul	Ms. Chuda Tantipanikoon	Mr. Chalong Jarupattarakorn
Independent Power Development Company Limited	IPD						/, Δ	/	/	/			/	
Gulf MP Company Limited	GMP						○, Δ		/		/	/	/	
Gulf Renewable Energy Company Limited	GRE	○	/	/	/	/	/	/						

Note: Symbols ○ = Chairman / = Director Δ = Managing Director

6. Employees of the Company and Subsidiaries Engaging in Core Business

6.1 Number of Employees

As of December 31, 2021, total number of employees of the Company and subsidiaries engaging in core business were 919 employees, of which employees of subsidiaries were included in Asset Management Department. The details of employees are as follows:

Department	Number of Employees for the Period Ended December 31, 2021	Number of Employees for the Period Ended December 31, 2020
Management and secretary	46	44
Business Development & Project Development	139	119
Finance and Accounting	82	78
Asset Management	514	519
Human Resources	17	18
Information Technology	18	18
Corporate Legal	16	12
Corporate Affairs	87	75
Total	919	883

6.2 Significant Change in the Number of Employees during the Past 3 Years

During the past 3 years, the subsidiaries engaging in core business has recruited new employees to operate in power plant projects, both domestic and overseas, as follows:

Domestic: Four domestic power plant projects, namely GNLL2, GNPM, GNRV1 and GNRV2, which achieved Commercial Operation Date on January 1, 2019, March 1, 2019, May 1, 2019, and July 1, 2019, respectively; one biomass power plant project, namely GCG, which achieved Commercial Operation Date on March 1, 2020; one natural gas IPP project, namely GSRC, which achieved Commercial Operation Date for Blocks 1 and 2 on March 31, 2021, and October 1, 2021, respectively. In addition, there are projects which are currently under construction, including two natural gas IPP projects, namely GSRC (Blocks 3 and 4) and GPD.

Overseas: Three power plant projects in Vietnam, namely the GTN1 and GTN2 solar power plant projects, which achieved Commercial Operation Date on March 6, 2019 and April 19, 2019, respectively, and one wind farm power plant project which is currently under construction, namely Mekong.

6.3 Remuneration of Employees

The Company has a policy in determining the remuneration of the employees that remuneration shall be commensurate with their responsibilities, capabilities, performance and fairness. The Company regularly reviews that the employee remuneration structure is consistent with the economy and business competition and benchmarks the Company against other leading companies in the same industry in order to ensure competitive remuneration. The Company also has a composition of remuneration which is in conformity with the short-term and long-term operating results of the Company and is attractive enough to retain the employees with the Company. Remuneration from short-term operating results is a bonus which correlates

with the Company's operating results and each employee's individual performance. Remuneration from long-term operating results is a provident fund which acts as a financial security to employees.

Regarding remuneration from short-term operating results, the Company, together with employees, will set clear work goals. The Key Performance Indicators (KPIs) are taken into consideration in granting annual special remuneration (bonus), comprising of appraisal results from (i) Corporate KPIs, which covers the revenue and profit of the Company and group companies each year, (ii) Core Competency and (iii) Functional Competency. The Company has publicized information regarding the appraisal manual and approval process of the performance appraisal and knowledge about welfare and various benefits for all employees to be informed of their rights via email and the Company's Intranet system.

For the period ended December 31, 2021, the Company and subsidiaries, which engage in core business, paid remuneration to employees (exclusive of executives) totalling Baht 1,370.5 million in the form of monthly salary, annual bonus and other remuneration, i.e. overtime, shift allowance, risk allowance, on call allowance, provident fund and other fixed incomes.

In addition, the Company provides other benefits such as health insurance and medical care for employees, spouses and children, life insurance, accident insurance, disability insurance, annual medical check-up, and cafeteria benefits, which offer different options for the employees, including vision care, dental care, various vaccination, and other medical check-up aside from the annual one, others include loans and financial aids in accordance with the Company's policy. The Company constantly reviews and improves the various welfare to suit the circumstances and well-being of employees.

6.4 Provident Fund

Presently, the group companies have established the registered provident fund of Gulf Energy Development Public Company Limited and Affiliate Registered Provident Fund. The fund is managed by BBL Asset Management Co., Ltd. (BBLAM) and Bangkok Capital Asset Management Company Limited (BCAP). As of December 31, 2021, a number of 858 employees are members of the fund, equivalent to 99.77% of the total number of employees who are eligible under fund regulations.

6.5 Labor Disputes

The group companies have had no labor disputes with significant impact on their business operations during the past 3 years.

6.6 Employee Development Policy

The Company promotes and recognizes the significance of developing knowledge and competencies of employees by providing continuous systematic development organization-wide, including formulating policies and strategies in developing employees' capabilities to align with the Company's business direction and growth. The Company requires employees to prepare annual Individual Development Plan (IDP) and set up a regular monitoring process of such plan and promotes a collaborative approach between employees and supervisors called Coaching Culture, which will support the Company in achieving its goals.

Regarding knowledge and competency development, the Company realizes the importance of personnel development in all groups, consisting of directors, executives and employees. For all personnel to perform their duties in accordance with Good Corporate Governance, the Company has therefore established guidelines for personnel development in 3 categories as follows:

1. Development Guidelines for Directors

- (1) The Company will arrange for directors to attend professional development training programs to develop, support and promote the duties of the Board of Directors.
- (2) The Company will disclose information regarding the participation in training and development programs of directors over the past year.
- (3) The Company encourages all directors to attend training programs and broaden their knowledge on a regular basis in terms of performance of their duties as directors for the purposes of enabling them to make a successful adaptation to potential changes in the business.
- (4) The Company encourages all directors to broaden their knowledge in terms of operation of the Company as directors for the purposes of enhancing their efficiency in discharging duties as directors.
- (5) The Company will provide an orientation course for a new director and provide documents which aim for assisting the director in discharging his/her duties as well as an induction into the Company's businesses.

In 2021, the Company's director who has attended training programs is as follows:

Director	Position	Training
Ms. Yupapin Wangviwat	Director / Sustainability and Risk Management Committee Member / Chief Financial Officer	<ul style="list-style-type: none">• TLCA CFO CPD No. 6/2021 under the theme "ESG Integration in Sustainable Investing", Thai Listed Companies Association• TLCA CFO CPD No. 7/2021 under the theme "Economic Update for CFO", Thai Listed Companies Association• TLCA CFO CPD No. 8/2021 under the theme "The modern CFO: Driving Digital Transformation of the Finance and Accounting", Thai Listed Companies Association

2. Development Guidelines for Executives

- (1) The Company has set out the Managerial Competency as a basis for developing the Company's executives with an aim to equip them with skills, knowledge and capabilities to deliver successful work.
- (2) The Company provides training programs and other development courses as deemed appropriate and in line with competency of executives.
- (3) The Company provides an orientation course for new executives for successful adaptation to new roles, responsibilities and expectations of the new position.
- (4) The Company encourages the executives to share their work experiences among executives and employees to create an environment of learning and development within the organization.

3. Development Guidelines for Employees

- (1) The Company has set out the Functional Competency as a basis for developing the Company's employees in each relevant department with an aim to equip them with skills, knowledge and capabilities to deliver successful work, for instance, professional presentation course.
- (2) The Company provides development courses for managers as deemed appropriate and in line with the Managerial Competency, for instance, leadership building course, guide on how to be a good coach and personnel management for supervisors, etc.
- (3) The Company provides an orientation course for new employees for them to understand the Company's visions, values, Code of Conduct, policies and business direction.
- (4) The Company requires employees to prepare an annual Individual Development Plan (IDP) and has established a process for monitoring such development on a regular basis.

For personnel development, the Company has fostered a culture of learning and provided various learning tools as follows:

- Development of e-Learning Management System called GLA or GULF Learning Academy to expand learning opportunities and boundaries through more than 340 e-Learning courses in which employees can enroll in lessons of their field of interest at any time.
- Enhancing a sustainable culture of coaching and team development by developing leadership skills in coaching to supervisors, managers and leaders in various departments through learning development projects under the name "Leader as Coach". In 2021, the Company provided more than 20 courses related to development of coaching skills such as DISC Model, Learning Styles and Effective Feedback etc.
- Onboarding Program includes an orientation course for all new employees for understanding of the Company's vision, values, Code of Conduct, anti-corruption policies, policies and business direction and the Buddy system. In addition, the Company features an Online Onboarding Program system to enhance the employees' learning experience and their adaptation to Gulf's organization through the online system with the concept of self-directed learning which aims to engage employees in more convenient learning programs

- Compliance Training

In addition to providing training and knowledge development pertaining to Functional Competency, the Company realizes the importance of operating business according to the principles of Good Governance with transparency and fairness. The Company provides knowledge enhancement regarding the Company's rules, regulations or standards through the self e-Learning system, which consists of:

- e-Learning: 2021 Code of Conduct
- Anti-Bribery and Corruption course which covers the Company's anti-corruption policies and practices, including matters regarding political contributions, donation, sponsorships, facilitation payment, giving or accepting gifts, holding a dinner of welcome and conflict of interest, as well as being aware of the duties and responsibilities of the Company's employees, processes to be followed upon discovering corrupted acts, reporting complaints and evidence etc.
- Cyber Security Awareness
- Business Continuity Management (BCM)

The Company requires all employees to participate in the e-Learning courses, as well as take tests to ensure that they are truly aware of and understand the Company's important policies and provides courses to employees on an annual basis.

- Environment, Health & Safety Training indicates that the Company places great emphasis on the environment, safety and health of employees. The Company provides compulsory courses which every employee stationed at power plants are required to participate, with the total environment and safety training hours of 136 hours per year, such as Business Continuity Management (BCM) course, Business Continuity Plan (BCP) course, Hazardous Area Classification course, Hazard and Operability (HAZOP) Analysis/Study course, and Working at Height course, etc.

For the year 2021, the Company and its subsidiaries which engage in core businesses provided in-house training time to employees of 8,609 training days or 51,654.38 training hours, or an average of 55.66 hours/person/year.

7. Policy on Prevention of Conflict of Interest

The Company is aware of potential conflict of interest which may arise from conflicts between (a) interest of the Company's personnel and their related persons, i.e. Board of Directors, executives, permanent employees, temporary employees and outsourced employees and (b) interest of the group companies, customers or trading partners. To effectively prevent potential conflict of interest, the Company has thus devised the policy on prevention of conflict of interest to serve as a compliance guideline for the Company's personnel which can be summarized as follows:

- (1) In making any business decision, each of the Company's personnel must take the best interest of the Company into consideration rather than his/her personal interest.
- (2) In a meeting, if any of the Company's personnel has interest in any agenda item, he/she must abstain from casting a vote or refrain from attending the meeting while such agenda item is being considered, and must neither exploit nor utilize any information derived from such agenda item for his/her personal interest.
- (3) The Company's personnel must prepare a written report disclosing his/her direct or indirect interest, and present the report in accordance with the criteria set out by the law.

- (4) The Company's directors are forbidden to operate a business of the same nature as and in competition with that of the Company, or to enter to be a partner in an ordinary partnership or a partner of unlimited liability in a limited partnership or a director of a private company or other company which operates a business of the same nature as and in competition with that of the Company, unless the meeting of shareholders had been notified prior to the appointment.
- (5) The Company's personnel must not take advantage of any inside information which he/she has obtained in capacity of his/her position and responsibility.
- (6) The Company's personnel must not take up any position outside organization or non-for-profit organization, unless he/she has been notified or has been permitted by an authorized person in accordance with the criteria set out by the Company.
- (7) The Company's personnel must not take any decision-making roles in recruiting new staff who appear to be his/her related person, such that to allow transparency in the Company's staff recruitment process as well as fair treatment to all candidates with similar calibres.
- (8) In entering into a connected transaction, the Company will apply the similar criteria used with other regular customers to such connection transactions in terms of price and commercial conditions, and a connected transaction classified as a financial assistance must also be made on fair terms and conditions to provide the best benefits for the Company.
- (9) In case that a transaction is considered a connected transaction pursuant to the relevant notifications of the Stock Exchange of Thailand, the Capital Market Supervisory Board and the Securities and Exchange Commission, the Company's personnel must strictly comply with rules set out by such regulations.

CORPORATE GOVERNANCE

1. Overview of Corporate Governance Policy and practices during the past year

The Board of Directors adheres to and places importance on compliance with the corporate governance principle, which forms part of the fundamental management of the Company. In this light, the Board of Directors, the management team, and employees all take into account their roles and responsibility to deliver systematic management with transparency and efficiency so as to foster sustainable growth of the Company, enhance the competitive edge and build confidence for shareholders, investors, and all related parties.

In the year 2021, the Company achieved score of “5 stars” or “excellent” from the “Corporate Governance Report of Thai Listed Companies 2021” conducted by Thai Institute of Directors (IOD) and achieved 100 scores from the Annual General Meeting of Shareholders Assessment conducted by Thai Investors Association. The Company has also been selected in the “Thailand Sustainability Investment (THSI)” list for the year 2021, for three consecutive years, which reflects its emphasis and commitment to developing Environmental, Social and Governance or ESG in its business operations on a continuous basis. The abovementioned results showcase the Company’s commitment and ability to conduct business according to Corporate Governance with stability and sustainable growth.

For the year 2021, the Company adhered to the corporate governance principle which was adopted from the Principle of Good Corporate Governance for Listed Companies 2012 of the Stock Exchange of Thailand and the Corporate Governance Code 2017 of the Office of the Securities and Exchange Commission, whose details are as follows:

1.1 Shareholders’ Rights

The Board of Directors is obligated to support, promote, and facilitate all shareholders whom will be provided with their basic legal rights by means and

standards, which are generally acceptable, transparent, and fair. They are entitled to equitable treatment such as the right to purchase, sell, or transfer shares, the right to participate in meetings of shareholders as well as to receive profits and sufficient information of the Company. The shareholders are entitled to freely express their opinions in Shareholders’ Meetings and take part in decision-making on significant matters, appointment or removal of directors, appointment of auditors, and issues which impact the Company such as dividend allocation, amendments to the Articles of Association, capital increase or decrease, and approval of extraordinary items. All shareholders are entitled to exercise their right to vote according to their number of shares held on a one share one vote basis.

Apart from abovementioned rights, the Company or the Board of Directors acting on behalf of the Company shall recognize and place significance on the right of shareholders and shall refrain from taking any actions which would violate or deprive the shareholders of their right. The Company determines the policy to encourage and facilitate shareholders in the following aspects.

(a) Shareholders’ Meeting

- (1) The Company shall disclose the policy to encourage all groups of shareholders to attend the meeting of shareholders.
- (2) The Company shall arrange to provide information on date, time, venue and agenda in a form of invitation letter or attachments containing clarification and rationale for each agenda and proposed resolution; and it shall refrain from taking any actions, which would restrain the opportunity of shareholders to study the information of the Company.
- (3) The Company shall encourage shareholders to exercise their right to attend the meeting and cast their vote. In case where any shareholders could not attend the meeting in

person, the Company provides an opportunity for such shareholder to appoint the Company' independent directors or any person by proxy to attend the meeting on his/her behalf.

- (4) The Company shall provide an opportunity for shareholders to submit queries regarding each meeting or other information via the email address: cs@gulf.co.th or at the Company address in line with the criteria stipulated by the Company.
- (5) The Company shall encourage shareholders to use the proxy form in a manner that each shareholder can steer the voting direction and shall nominate at least one Independent Director's name as alternative proxy of shareholder.

(b) Arrangements on the date of Shareholders' Meeting

- (1) The Company shall support and promote the use of technology such as barcode system, ballot casting, or other technology in the Shareholders' Meeting, including shareholder registration, vote counting, and result announcement in order to ensure that the meeting can proceed in a fast, correct, accurate, transparent, and auditable manner. The voting result will be disclosed in the minutes of Shareholders' Meeting, with details of approval, non-approval, and abstention votes for each agenda where voting is required. In case where an agenda requires voting of various items, the Company shall arrange for voting of each of such items to ensure transparency.

In this regard, at the Annual General Meeting of Shareholders for the Year 2021, there was neither change in the sequence nor addition of the meeting agenda. Also, there was no other matter proposed to the Meeting for consideration other than specified in the notice of the meeting.

- (2) The Company shall encourage all directors to attend the Shareholders' Meeting where shareholders can ask questions directly to the Chairman of sub-committees and all directors in related matters as deemed appropriate.
 - (3) The Company shall provide an independent person as witness for vote counting or to be the counting officer or inspector in the meeting; for example, the auditor of the Company or legal advisor; and shall disclose the result to the meeting for acknowledgement as well as recording the result in the minutes of meeting.
 - (4) The Company shall arrange the meeting in an appropriate manner and provide shareholders an opportunity to express opinions and make queries relating to the Company in the meeting.
- (c) Preparation of the minutes of the meeting and disclosure of the resolutions of Shareholders' Meeting**
- (1) The minutes of Shareholders' Meeting shall record the process of vote casting and result announcement to the meeting prior to proceeding with the meeting, including provision of an opportunity for query session where significant questions and answers thereof will be recorded as well as the voting result of each agenda and the names of Directors who attend and being absent from the meeting.
 - (2) The Company shall disclose to the public about the voting result of each agenda of the meeting within the next business day through the SET Portal.
 - (3) The Company shall prepare the minutes of Shareholders' Meeting within 14 days of the meeting date and submit to SET and/or relevant agencies within the timeframe stipulated by the law and then publish them on the website of the Company.

1.2 Equitable treatment to shareholders

The Company is determined to treat shareholders on an equitable basis, both for major and minor shareholders, institutional shareholders, including foreign shareholders in order to ensure transparency and fairness.

(a) Provision of information prior to the Shareholders' Meeting

- (1) The Company shall notify the meeting program as well as the agenda and opinion of the Board of Directors to SET and publish such details on the Company's website at least 28 days prior to the date of Shareholders' Meeting.
- (2) The Company shall notify shareholders about rules of engagement in the Meeting, the voting process, and the voting right of each type of share.
- (3) The Company shall prepare the Thai and English versions of the invitation letter to Shareholders' Meeting.

(b) Minority shareholders protection

- (1) The Company provides opportunity to one or several shareholders holding in aggregate at least 5% of total issued shares of the Company to propose agenda to the annual general meeting of shareholders. The opportunity for agenda proposal will be opened at least 3 months prior to the end of the fiscal year before presenting them to the Board of Directors for consideration. In case it is deemed appropriate to include the proposed agenda item into the meeting, the Company will specify in the notice of meeting that the agenda item was proposed by a shareholder. However, in the event the proposed agenda item is rejected, the Company will inform shareholders of the reasons at the annual general meeting of shareholders.
- (2) The Company sets up criteria for minority shareholders to nominate any qualified candidate for directorship. The nomination proposal including the information on

candidate(s)'s qualifications and consent should be made through the Nomination Committee (if any) or the Board of Directors within 3 months prior to the end of the fiscal year.

However, in the past year, the Company provided an opportunity for shareholders to propose agenda item(s) and nominate qualified candidate(s) for directorship before the Annual General Meeting of Shareholders for the Year 2022 during October 1, 2021 – December 31, 2021. The Company also disclosed the criteria and procedures on the Company's website and informed the shareholders via SET Portal. However, during the said period, no shareholder proposed any agenda item or nominated any qualified candidate for directorship.

- (3) The Company provides opportunity for minority shareholders to elect directors by person according to the criteria determined by the Company.
- (4) The minority shareholders are entitled to express comments, opinions, or file complaint with the Independent Directors at the email address: id@gulf.co.th. The Independent Directors will consider and take actions as deemed appropriate.

(c) Insider trading prevention

- (1) The Company determines the guideline in writing to keep and protect the inside information and communicate such guideline to all relevant parties to ensure adherence thereto.
- (2) The Company determines that all directors and executives have a duty to report the securities holding in the Company in accordance with the securities and exchange law. Such information will be disclosed in the annual report and reported to the Board of Directors for acknowledgement on a quarterly basis.

- (3) The Company determines that directors, executives as well as head of accounting/finance, whom are informed of significant inside information that has impact towards the Company's share price, shall refrain from trading the Company's stock for a period of 14 days prior to the disclosure of the quarterly and annual financial statements to the public, and should wait at least 24 hours after such disclosure. The Company Secretary will notify the Board of Directors, executives as well as head of accounting/finance regarding the blackout period in advance via e-mail or other channels as deemed appropriate wherein said persons would be informed.

(d) Conflict of interest by directors

- (1) The Company shall disclose the shareholding structure of the Company and subsidiaries in the annual report.
- (2) The Company determines that the directors and executives report their conflict of interest and that of related persons by reporting such information to the Company Secretary, who is obligated to submit a copy of the said conflict of interest to the Chairman of the Board and the Chairman of the Audit Committee within 7 days of the date the report is received.
- (3) The Company determines that directors are to declare the conflict of interest prior to the agenda consideration and the information shall be recorded in the minutes of the Board of Directors' Meeting.
- (4) The Company determines that any director with significant conflict of interest in a nature that may hinder him/her to provide independent opinion shall abstain from voting or refrain from attending the meeting in the agenda involved with such conflict of interest and shall not use any information which cause conflict of interest.

In addition, in case of entering into any related-party transactions, the Company will ensure that the transaction is made in compliance with the Securities and Exchange Act, Notification of the Capital Market Supervisory Board, Notification of the Securities and Exchange Commission Thailand and Notification of the Stock Exchange of Thailand. If any related-party transaction requires approval from the Board of Directors, it will be proposed to the Audit Committee for their opinion to ensure such transaction is of sound reason and in the Company's best interest. In consideration of such transaction, any director who has conflict of interest on the matter will abstain from consideration and voting.

1.3 Roles towards stakeholders

The Company adheres to business engagement with transparency and fairness, taking into account all stakeholders, while promoting social and environmental development so as to achieve business growth and sustainability.

(a) Determination of policy relating to stakeholders

- (1) The Company shall treat shareholders with fairness and equitability, taking into account the basic rights of shareholders. Benefit shall be allocated fairly and consistently with transparency while management shall be transparent and auditable with determination to deliver sound performance and continuous and sustainable growth.
- (2) The Company shall treat customers in its willingness, to the best of its ability, and with justness; and shall adhere to the expected ethics without revealing the information or confidentiality of customers while remaining dedicated to build sustainable relationship with the customers.

(3) The Company shall treat trade partners strictly in alignment with fair trade competition, honor all contracts on its end, and behave in accordance to the Code of Conduct. In addition, the Company shall promote the network of cooperation and build the supply chain as well as value chain to deliver optimal and mutual benefits. The Company has determined processes for selection of trade partners and practices for treatment of trade partners, as follows:

1. The Company shall select trade partners in a systematic and transparent manner, in accordance with the Company's regulations and procurement practices. The Company considers trade partners with proven track record and business operation. Such companies must not have a history of work abandonment for public or private agencies or the Group or had issues regarding their service quality. Such trade partners must also own a verifiable business operation.
2. The Company shall select trade partners with experience and expertise or by providing Work Certification ensuring their capability of producing or distributing quality products or providing services which meet the needs in terms of quality, price, service and delivery.
3. The Company shall select trade partners with creditable financial records or be able to submit bank guarantee as a guarantee to the Company.
4. The Company shall select trade partners with reliable management system such as ISO certification or other acceptable standards.
5. Regarding practice guidelines towards trade partners, personnel of the Company shall operate business by considering the best interest of the Company, and not that of themselves or related parties.

6. The Company shall not act in any way that will limit or hinder trade competition, which is contrary to the law.

7. Personnel of the Company shall refrain from requesting, accepting, or paying for any unethical trade deals with customers.

8. Doing business with trade partners with illegal behaviors or those which are in conflict against peace, orders, and ethics is prohibited.

9. The Company shall legally enter into agreements with all types of trade partners in an equal, fair, and transparent manner.

10. The Company shall ensure repayment of loans and interest thereof to all trade partners on a timely basis as per the agreed timeline.

(4) The Company shall treat competitors strictly in alignment with fair trade competition by adhering to fair business engagement under the laws and Code of Conduct of the Company.

(5) The Company shall care for communities surrounding the area of its operations with accountability and focus on promoting activities to uplift the quality of life of the community members in respect of education, occupation, art, and technology, including provision of relief in time of any disaster.

(6) The Company shall strictly treat creditors with ethics, equality and fairness by honoring the agreement and obligations on its end, including purposes for uses of funds, debt service payments, quality of transactions guaranteed by the Company and any other matters agreed between the Company and creditors based upon fairness parties.

The Company places great emphasis on capital management to maintain its financial strength in order to prevent the Company from encountering difficulties with loan repayment to creditors. The Company also underlines liquidity management to prepare for loan

repayment to creditors on a timely basis as well as regularly communicates with creditors regarding the status of the business. In case of failure to comply with such conditions, creditors shall be informed in advance in order to mutually consider solutions.

- (7) The Company shall remain political neutral in its engagement with the public agencies and government agencies as stated in the Company's Code of Conduct as well as the anti-corruption policy.
- (8) The Company shall treat employees with fairness and provide training to develop their knowledge and potential. Furthermore, the Company shall provide sound working environment and determine a standard of safety in compliance with the laws.

The Company also determined policies and practical guidelines about environmental, health and safety as follows:

- Safety in workplace is the first responsibility of all employees.
- The Company and group companies shall promote a safe workplace including any other activity in order to embrace the attitude and consciousness of safety at work.
- Supervisors at all levels shall constantly lead, supervise, and support employees to work safely.
- During work, employees must always be aware of their own safety as well as the safety of colleagues and assets of the Company and group companies.
- Employees should participate in the Company's safety & health projects and provide recommendation for improving the working environment and safe working process.
- Employees aim to achieve the targets of the zero-accident project.

In 2021, employees of the Company and its subsidiaries did not have any accident, absence or sickness caused by work.

- (9) The Company shall care for the environment in accordance with its corporate social responsibility policy, contribute in environmental conservation, and promote as well as support environmental conservation programs.

Moreover, in order to create true understanding and cultivate consciousness for environmental and natural resources conservation, the Company provides employees with trainings and knowledge on the environment and safety as follows:

- Carbon Footprint for Organization (CFO), Carbon Footprint of Product (CFP)
- Thailand Voluntary Emission Reduction Program (T-VER)
- Science-Based Targets (SBTs)
- Business Continuity Management (BCM)
- Hazard and Operability Study (HAZOP)
- Confined Spaces Entry and Confined Spaces Entry Refresher
- Hazardous Area Classification
- Boiler Operator Refresher
- Working at Height

The trainings include operations for work safety and safety of life and property of employees and those involved, social and environmental responsibility through use of raw materials and resources efficiently to reduce environmental impact, etc.

(b) Disclosure of activities in compliance with the policy as well as preparation of corporate social responsibility report

- (1) The Company shall disclose activities reflecting compliance with the corporate social responsibility policy and its mechanism to encourage employees to comply with the corporate social responsibility policy.
- (2) The Company arranges for preparation of the corporate social responsibility report of the Company, which may form part of the annual report, or a separate report.

1.4 Information disclosure and transparency

The Company shall disclose material information via appropriate channels in a correct, adequate, accountable, and timely manner, both in Thai and English versions to ensure equitable treatment to all shareholders.

(a) Information disclosure

- (1) The Company shall arrange for the mechanism to ensure that the disclosure of information is accurate and sufficient for the investors' decision making, and to prevent any misunderstanding in the essence of information.
- (2) In this sense, material information of the Company is defined as the information relating to its business operations that requires proper disclosure method due to its impact towards the share price or the investment decision of investors.
- (3) The Company delegates that only authorized persons have the right to disclose the information yet to be revealed to the public.
- (4) The Company prohibits disclosure of information in the period of 2 weeks prior to the date of significant information announcement.
- (5) The Company shall disclose the corporate governance policy, Code of Conduct, risk management policy, corporate social responsibility policy and result of compliance

thereof via various channels such as the annual report, the Company's website, and so on.

- (6) The Board of Directors shall encourage the Company to prepare the Management Discussion and Analysis or MD&A together with disclosure of the financial statements of each quarter. This is to provide investors with information and better understanding about the changes of financial position and performance of the Company in each quarter in addition to figures stated in the financial statements.
- (7) The Company shall determine the disclosure of audit fee and other service fees related to the auditors' services.
- (8) The Company shall disclose the roles and responsibilities of the Board of Directors and sub-committees, the number of meetings held and the number of attendance of each Director in the past year, their opinions, and the training sessions and professional development of the Board of Directors in the annual report.
- (9) The Company shall disclose the remuneration policy to Directors and executives as required by the law. Such policy shall reflect the duties, obligations, and responsibility of each person, including the form or nature of remuneration. In this regard, the remuneration to be disclosed shall include that provided to each Director who also assume directorship of subsidiaries.
- (10) The Company shall disclose the information in line with the requirements of the Securities and Exchange Commission (SEC), SET and related laws, including the disclosure of information to shareholders and/or the public in an equitable manner.

(b) Minimum disclosure on the Company's website

- (1) The Company discloses activities which reflect compliance with its policy whereby employee participation is encouraged.
- (2) The Company discloses the information as per requirements of SET, SEC, and related laws. Such disclosure will be made via SET's channel

and the Company's website both in Thai and English versions on a continuous basis. The information shall be the most current version and contain, at the minimum, of the following information.

- 2.1 Vision and mission of the Company
- 2.2 Nature of business
- 2.3 List of Directors and executives
- 2.4 Financial statements and report on financial position and performance of the current and previous year
- 2.5 The Annual Registration Statement (Form 56-1) and the annual report in downloadable versions
- 2.6 Direct and indirect shareholding structure
- 2.7 Group company structure, including subsidiaries
- 2.8 Direct and indirect shareholding of Directors, major shareholders, and executives as required by the law
- 2.9 Invitation letter to annual general meeting and extraordinary meeting of shareholders
- 2.10 Articles of Association and Memorandum of Association
- 2.11 Corporate governance policy of the Company
- 2.12 Risk management policy
- 2.13 Charter or responsibilities, qualifications, and term of office of the Company's Board of Directors
- 2.14 Charter or responsibilities, qualifications, and term of office of the Company's sub-committees
- 2.15 Code of Conduct
- 2.16 Contact information of department or persons responsible for investor relations function

- 2.17 Information or other documents that the Company presented to analysts, fund managers or press

In 2021, the Company published the Annual Report in both Thai and English versions within 120 days of the fiscal year end and sent to the shareholders together with the notice of the Annual General Meeting of Shareholders. Such Annual Reports and notice of the Annual General Meeting of Shareholders can also be downloaded from the Company's website.

Moreover, in the past year, the Company published the operating results in terms of finance and non-finance information to the shareholders, retail investors, institutional investors, securities analysts, credit rating agencies, and relevant regulatory agencies through various channels such as the disclosure of information via SET Link, SEC and the Company's website for interested parties. The Company organized events, attended by directors and executives, to provide information, clarify any enquiries and exchange opinions for those who participated. The events include:

- 5 Analyst Meetings, via electronic media
- 2 SET Opportunity Day events via electronic media, hosted by The Stock Exchange of Thailand
- 4 Company Visits by meeting with executives for deeper understanding of business operations, business direction and various information of the Company via electronic media
- 10 Domestic Roadshows via electronic media
- 5 Overseas Roadshows via electronic media
- 2 Meetings of Shareholders during the year 2021
- 4 newsletters publishing the Company's financial status and operating results

- 25 Press Releases providing information on the Company's operating results, business progress, various activities that the Company provides to support and assist communities and society and activities on Corporate Social and Environmental Responsibility (CSR). The Company has published such information to the press and on its website.

In addition, there were 4 Management Discussion and Analysis (MD&A), disclosed through SET Portal and the Company's website, and replies to enquiries from shareholders, investors and securities analysts via e-mail and telephone on a regular and equitable basis.

1.5 Directors' responsibilities

(a) The Board of Directors structure

- (1) Composition of the Board of Directors of the Company shall accord with the Board of Directors Charter, details are as summarized in the clause 3.1 "Board of Directors".
- (2) Qualifications of the Board of Directors of the Company shall accord with the Board of Directors Charter, details are as summarized in the clause 3.1 "Board of Directors".
- (3) Qualifications of the Independent Directors shall accord with the Board of Directors Charter, details are as summarized in the clause 3.2 "Independent Directors".
- (4) Appointment, term of office, and retirement from office shall be made in accordance with the Board of Directors Charter, details are as summarized in the clause 3.1 "Board of Directors".
- (5) Appointment of the Company Secretary and determination of responsibilities as well as the conditions for discharge and the appointment of the new Company Secretary shall be in compliance with the Board of Directors Charter and the Company Secretary Charter, the essence of which are as follows:

5.1 The Company Secretary was appointed by the Board of Directors to act on behalf of the Company or the Board of Directors.

- Prepare and maintain the Directors' register, invitation letters for the Board of Directors' meetings, the invitation letters for the Shareholders' Meetings, the minutes of the Board of Directors' meetings, the minutes of the Shareholders' Meetings and the annual report of the Company
- To maintain records of conflict of interest reported by Directors or executives
- To arrange the Board of Directors meetings and Shareholders' Meeting
- To provide recommendations about the rules and regulations to be aware by Directors and executives
- To arrange for training and orientation as well as provide information necessary for current or newly appointed Directors in performing their duties

The Company Secretary shall act as coordinator in the following matters:

- To provide information regarding business structure, Board structure, scope of duties and responsibilities under the law, and practice guidelines on Good Corporate Governance
- To arrange for discussions with the Board of Directors and executives for in-depth inquiries regarding information on the Company's business operations, as well as arrange for visits to power plants to study the production processes
- To prepare the annual report and Directors' Handbook which include relevant regulations such as rules of the governing body and various policies of the Company
- To oversee and coordinate in order to ensure that the Company complies with the laws, rules, regulations, and resolutions of the Board of Directors' and the Shareholders'

Meetings including the good corporate governance policy and the Code of Conduct

- To partake in other engagements as required by the Securities and Exchange Act as well as the Notifications of the Capital Market Supervisory Board

5.2 The Company Secretary shall perform duty with accountability, prudence, and honesty as well as ensure compliance with the laws, objectives, Articles of Association, resolutions of the Board of Directors as well as those of the Shareholders' Meeting.

5.3 The Board of Directors may pass a resolution to dismiss the Company Secretary.

5.4 In a case where the Company Secretary is dismissed from duty or could not assume the office, the Board of Directors shall appoint the new Company Secretary within 90 days of the date the existing Company Secretary is relieved from duty or could not perform duty. The Board of Directors is authorized to delegate any Director to perform the duty in lieu of the Company Secretary during the vacuum period. The Chairman of the Board of Directors shall inform the name of the Company Secretary to SEC within 14 days of the date where the position is assumed.

(b) The Subcommittees

- (1) The Board of Directors appoints the Audit Committee and/or other committees as deemed appropriate.
- (2) The Board of Directors shall ensure that performance of the sub-committees is carried out with independence and objectivity.
- (3) The Board of Directors has put in place the charter of each sub-committee to ensure that each committee perform duty effectively and deliver the objectives of their duties and responsibilities.

(c) Roles and responsibilities of the Board of Directors

(1) The Board of Directors has responsibilities as stated in the Board of Directors Charter in various aspects, details are as summarized in the clause 2.1 "Scope of authority and responsibility of the Board of Directors".

1.1 Policy and Governance

1.2 Finance

1.3 Internal Control and Audit and Risk Management

1.4 Human Resources

1.5 Conflict of Interest Management

1.6 Communication with Shareholders

1.7 Other aspects as specified in the Board of Directors Charter

(d) Directorships in other companies

For the Company's best interests in ensuring that the directors devote their time to perform their duties efficiently, it is therefore determined in the Corporate Governance Policy that each director should hold directorships in no more than 3 of listed companies.

Moreover, the Chief Executive Officer (CEO) can hold directorships in other companies, but such directorships must not affect his duties as the CEO of the Company. Such companies must not be in the same nature as the business of the Company or deemed to be in competition with the business of the Company except for that of its subsidiaries and/or joint ventures and/or other companies in the Group.

(e) Term of office of independent directors

The term of office of independent directors shall not exceed a cumulative term of 9 years from the date of first appointment as director.

(f) The Board of Directors' Meeting

- (1) The Board of Directors' Meeting shall be held at least every 3 months.
- (2) The Board of Directors shall elect a Director as the Chairman of the Board. In case where it is deemed appropriate, the Board of Directors may elect one or more Directors to be Vice Chairman of the Board.
- (3) The Chairman of the Board shall call for the Board of Directors' Meeting. In this regard, two or more Directors are entitled to request for an extraordinary meeting. In this regard, the Chairman of the Board or delegated persons shall determine the date of meeting within 14 days of the requesting date.
- (4) The Chairman of the Board or delegated person shall dispatch the invitation letter to Directors at not less than 7 days prior to the meeting, except in case of emergency to protect the right or benefit of the Company where the Company is allowed to make appointment for the meeting by other means and the meeting date could be determined sooner.
- (5) The Company Secretary shall prepare the minutes of meeting within 14 days of the meeting date.

(g) Meeting quorum

- (1) At the time of casting vote, a minimum of not less than two-thirds of the total members of the Board is required to constitute a quorum.
- (2) The Chairman of the Board shall act as the Chairman of the meeting. In a case where the Chairman of the Board is not present in the meeting or could not carry out his/her duty, the Vice Chairman, if available, shall convene the meeting as the Chairman of the meeting. In a case where the Vice Chairman of the Board is not available or could not carry out his/her duty, the members of the Board present in the meeting shall elect a member to be the Chairman of the meeting.

- (3) The absolute discretion of the Board of Directors is made by the majority whereby one Director has one vote. If the vote is even, the Chairman of the meeting shall have an extra vote as the casting vote. In this regard, a Director with conflict of interest in any agenda shall have no right to vote in that particular agenda.

(h) Self-assessment of the Board of Directors

- (1) The self-assessment of the Board of Directors and sub-committees are made both as a whole and individually on an annual basis for the Board to collaborate in considering its performance and any issues that required solution and improvement.
- (2) The Company may engage third-party advisor to assist in determining the guidelines and propose issues for performance assessment of the Board every 3 years and disclose the result in the annual report.

(i) Remuneration

The remuneration of the Board of Directors, executives, and employees of the Company shall comply with the directors' nomination and remuneration policy and the executives' and employees' compensation policy as determined by the Company.

(j) Self-development of the Board of Directors and executives

Self-development of the Board of Directors and executives shall accord with the policy on development of Directors and those of executives and employees as determined by the Company.

2. Board Structure

The Company's board structure consists of the Board of Directors and the Subcommittees with the scope of authority and responsibility as follows:

2.1 Scope of authority and responsibility of the Board of Directors

(a) Policy and corporate governance

- (1) To carry out duties in compliance with the laws, objectives, Articles of Association, and resolution of the Shareholders' Meeting with honesty and integrity while being prudent in securing the benefit of the Company
- (2) To determine the policy and endorse matters relating to the overall operations of the Company such as vision, mission, business direction, strategies as well as to approve the business plan, annual budget, investment plan, financial decisions, and so on
- (3) To monitor the performance of the Company to ensure that the operation accords with the goal and business plan
- (4) To put in place a written policy on corporate governance that suits the nature of the Company and disclose such policy in the annual report for shareholders' acknowledgement. In this regard, the Board should review the policy on a regular basis of at least on an annual basis.
- (5) To put in place the Code of Conduct in writing to serve as standards for performance of Directors, executives, and employees of the Company. In this regard, the Board should monitor to ensure compliance with the Code of Conduct on a determined basis
- (6) To encourage Directors, executives, and employees of the Company to comply with the policy on corporate governance and Code of Conduct of the Company
- (7) To put in place the filing system of documents and evidence containing information, including ensuring that the documents or evidence are maintained in a complete and correct manner

as well as auditable within a period of not less than 5 years of the date such documents or information are prepared. In this regard, the maintenance of documents and evidence, including maintenance using the computer system or other systems which make them retrievable without changes of texts

- (8) To appoint the sub-committees to provide recommendations, consider matters and perform duty as determined and deemed appropriate by the Board of Directors
- (9) In case where the Board of Directors assigns executives or employees of the Company to perform a duty on its behalf, the assignment shall be clearly made in writing or recorded as the resolution of the Board of Directors.

In this regard, the Board of Directors has reviewed, considered and approved the Company's vision, mission, strategies and business plan for the year 2021 to ensure that the executives and employees are on the same direction and that the Company's business operations are for the best interest of the Company and its shareholders. The Board of Directors will approve the Company's strategies, business plan and budget which have been reviewed by the Executive Committee, including follow-up of such plan. The management shall follow-up and report the progress of the implementation and the Company's operating results to the Executive Committee on a regular basis and report to the Board of Directors for acknowledgement of the progress as well as providing suggestions on a quarterly basis.

(b) Finance

- (1) To arrange for preparation and maintenance of the account as well as arrange for the audit thereof in compliance with the related laws
- (2) To arrange for preparation of Balance Sheet and Profit and Loss Statements at least once for every calendar year, which is the Company's annual accounting period

- (3) To arrange for preparation of the Balance Sheet and Profit and Loss Statements at least once every calendar year, which is the accounting period of the Company, and propose them to the annual general meeting of shareholders for consideration and approval. In this regard, the Board shall arrange for the audit of such statements to be completed prior to proposing them to the meeting of shareholders

(c) Internal control, internal audit, and risk management

- (1) To establish the Audit Committee consisting of at least three members, which shall comply with the following criteria:
 - 1.1 To be appointed by the Board of Directors or the Shareholders' Meeting of the Company as the Audit Committee member
 - 1.2 To be Independent Director with qualifications and without prohibited characteristics; and not to be Director assigned by the Board to make decisions on the Company's operations, parent company, subsidiaries, associated companies, same-level subsidiaries, major shareholder or shareholders with controlling person of the Company; and not to be the Director of the parent company, subsidiaries, or same-level subsidiaries solely for listed companies
 - 1.3 To perform duty in the same nature as determined by the Notification of the Stock Exchange of Thailand Re: Qualifications and Scope of Work of the Audit Committee
 - 1.4 To have adequate knowledge and experience to perform duty as the member of Audit Committee. In this regard, at least 1 member of the Audit Committee with adequate knowledge and experience to perform duty in reviewing the reliability of the financial statements

- (2) To put in place the risk management policy, as well as risk management and control throughout the organization
- (3) To review the system or assess the efficiency of the internal control system and risk management at least once a year

(d) Human resources

- (1) To arrange for recruiting and screening of appropriate persons and to ensure that the persons, who shall assume directorship or executives of significant positions, have suitable knowledge, capabilities, and experience
- (2) To arrange for appropriate remuneration of Directors and executives of key positions in order to ensure that such remuneration is appropriate for the authority, duty, scope of responsibility, and reflect the ability to perform such duties
- (3) To endorse the succession plan for key positions to ensure continuity of business operations, to prevent risk from emergency, resignation, and retirement of executives in key positions and to create career path for promising employees, the Company therefore established a succession plan as follows:
 - 1. CEO: Once the CEO** position becomes vacant or the person holding such position is unable to perform duties, the Company may assign the duties to other lower or similar position as an acting person until the qualified person is elected. The consideration process is as follows:
 - 1) The Board of Directors shall provide policies regarding the selection of qualifications of the CEO's successor to the CEO for consideration and execution.
 - 2) The CEO shall determine the qualifications of the successor, by emphasizing on the vision, knowledge, skills, expertise and experience as well as suitability for culture of the organization.

- 3) The Company's Executive Committee, as well as the CEO, shall recruit, select and assess qualified person and propose to the Board of Directors to consider and approve such qualified person.

2. Executives: Once the executive position becomes vacant or the person holding such position is unable to perform duties, the Company may propose the elected successor to the Executive Committee. The consideration process is as follows:

- 1) The Company shall determine successors' qualifications and competencies (Successor Profile) as well as attitude and behavior suitable for the culture of the organization for use as reference in recruitment, nomination, and development of successors.
- 2) The Company shall establish the qualifications and competencies of successors to align with the business direction and to facilitate future business growth.
- 3) The Company shall establish a plan in recruiting, selecting, and developing of successors prior to retirement of executives in key positions to ensure continuity of performance and business operations.
- 4) The Company shall recruit, assess and select successors who are qualified for each position without any prejudice or discrimination.
- 5) The Company shall determine successors following the assessment and analysis of competencies and performance to prepare elected successors as well as determine alternate successors.

- 6) The Company shall establish individual successor development plan as well as monitor and assess such development on a regular and continuous basis. Should any unexpected events occur, the successor can be changed.

(e) Conflict of interest

- (1) A Director with conflict of interest in any agenda shall refrain from voting in that agenda.
- (2) A Director is prohibited from engaging in the business of the same nature as that of the Company and competing against the Company; or hold partnership of ordinary partnership or unlimited liability partner of limited partnership or to be a Director of a private company or other company engaging in the business of the same nature and competing against the Company's business, whether for personal or others' gains unless such engagements were notified to the Shareholders' Meeting prior to the resolution was passed to approve such appointment
- (3) The Company is prohibited from lending, guaranteeing, or agreeing to purchase or purchasing the discounted bills and provide guarantees for loans to Directors, their spouse, or minor offspring, except in line with the employee and staff welfare regulations.
- (4) The Company is prohibited from paying fund or providing other assets to Directors, except remuneration as per the Articles of Association of the Company. In case such matter is not included in the regulations of the Company, remuneration shall be made in accordance with the resolution of the Shareholders' Meeting, which consist of not less than two-third votes of the shareholders attending the meeting.

(5) Any Director purchasing the assets of the Company or sell theirs to the Company or make any transactions with the Company, whether in their name or others, is required to obtain prior consent from the Board of Directors; otherwise such trading or transactions shall not be binding to the Company.

(6) Directors are to notify the following matters to the Board without delay.

6.1 Any conflict of interest, whether directly or indirectly, in any agreements entered into by the Company during the accounting year by specifying the facts of agreement, name of counterparts, and the conflict of interest of such Director in the agreement (if any)

6.2 Any shares or debentures of the Company and group companies held whereby the total volumes, which may increase or decrease during the accounting period (if any)

(f) Communications with shareholders

(1) To arrange for organizing the annual general meeting of shareholders within 4 months of the ending date of the accounting year of the Company. Other meetings shall be called an extraordinary general meeting of shareholders

(2) To arrange for disclosure of significant information for shareholders in the financial statements and reports prepared for shareholders. Such information should first and foremost be disseminated through SET Portal prior to publishing on the company website. Also, the Investor Relations function shall be established to provide information to investors

(g) Others

(1) To appoint a Company Secretary as required by the Securities and Exchange Act

(2) To establish the Board of Directors Charter and Subcommittees Charter and approve any amendments to the Charters in order to ensure that they are up-to-date and suitable with the applicable rules, regulations and changing environment

(3) To perform other duties as stated in the notifications, rules, acts or other laws governing the Company

2.2 Scope of authority and responsibilities of the Audit Committee

(1) The Audit Committee can seek for report or recommendations from independent professionals for matters within its scope of authority as necessary. Any related fee incurred shall be borne by the Company.

(2) The Audit Committee may invite Directors or employees of the Company to attend the meeting in order to consult with or clarify about the business operations of the Company and projects of subsidiaries, joint venture, and trade partner, which fall within the scope of duty and responsibility of the Audit Committee

(3) The Audit Committee is entitled to consider and perform audit on any matter necessary for business operations of the Company

(4) To consider and review correctness and adequacy of disclosure of annual or interim financial reporting of the Company to ensure appropriateness and compliance with the accounting standards by coordinating with the external auditors and executives responsible for preparation of the annual and quarterly financial reports. In this regard, the Audit Committee may arrange for the external auditors to perform review or audit of any transactions deemed necessary and significant during the preparation of the Company's financial statements

(5) To consider and review to ensure the efficiency of the internal control system of the Company, including the IT security control system

- (6) To study and understand the scope of review of the internal control system of the Company relating to financial reporting conducted by the internal and external auditors; and arrange for the audit report on significant issues, opinions, or recommendations, including comments of executives
- (7) To consider and review the efficiency of the system to monitor compliance with the laws, rules and regulations
- (8) To prepare the annual Audit Committee Report, which shall be signed off by the Chairman of the Audit Committee
- (9) To provide recommendation to the Board of Directors on the appointment and dismissal of the external auditors, including the audit scope and audit fee by taking into account credibility, the adequacy of resources and experiences of the assigned auditors to perform the audit work
- (10) To consider and approve the internal audit charter, annual internal audit plan, and revision thereof
- (11) To take actions related to the Audit Committee Charter as requested by the Company
- (12) To consider and arrange for assessment of the adequacy of the Audit Committee Charter on an annual basis; and to propose any revision thereof to the Board of Directors for approval
- (13) To oversee the Company in order to ensure compliance with the public limited company law, the securities and exchange law, SET rules and regulations and those of SEC relating to listed companies, including other regulations relating to the business operations of the Company

2.3 Scope of authority and duty of the Sustainability, Governance and Risk Management Committee

- (1) Provide oversight as well as advice and recommendations relating to the economic, social and environmental dimensions, as

well as corporate governance, for long-term sustainable business growth

- (2) Monitor sustainability performance against various indicators and provide advice on reporting data related to sustainability
- (3) Provide recommendations in developing and reviewing policies and practices related to corporate sustainability and corporate governance, such as the Corporate Governance Policy, the Code of Conduct, policies related to the environment, risk management and human rights
- (4) Support, monitor and follow up on the Company's compliance with the laws, rules and regulations of the Company, relevant government agencies and regulators as well as good corporate governance practices in accordance with both Thai and international standards
- (5) Establish risk assessment criteria and frameworks for managing risks that may impact the Company
- (6) Facilitate risk assessment, risk prioritization and mitigation strategies to ensure corporate risks are managed to an appropriate level
- (7) Oversee and monitor implementation of risk management plans as well as provide advice and recommendations to management on risk management to ensure alignment with the Company's business strategy and objectives as well as changing contexts
- (8) Be authorized to appoint and mandate the responsibilities of sub-committees or working teams as needed. The Sustainability, Governance and Risk Management Committee shall be responsible for overseeing and monitoring the progress of its various sub-committees and working teams.
- (9) Be able to engage, in accordance with Company regulations and at the Company's expense, consultants or independent experts to provide opinions or advice

- (10) Recommend, encourage and support the Board of Directors, management and employees to develop knowledge and understanding related to sustainability, corporate governance and risk management
- (11) Perform other duties as assigned by the Board of Directors

2.4 Scope of authority and duty of Chairman of the Board of Directors

To achieve balance of power and authority in the management, the Company has deemed that the positions of the Chairman of the Board of Directors and the Chief Executive Officer (CEO) are held by different individuals. The Chairman of the Board of Directors is an independent director, according to Principle of Good Corporate Governance for Listed Companies of the Office of Securities and Exchange Commission, and the Stock Exchange of Thailand, and he/she shall not have any relations with the executives. The scope of authority and duty of the Chairman of the Board of Directors shall include the following aspects and affairs.

- (1) Set the Board meeting agenda in consultation with the CEO.
- (2) Chair meetings of the Board.
 - a) Conduct Board meetings in accordance with the agenda, the Company's Articles of Association, and relevant laws and regulations.
 - b) Allocate sufficient time for the directors to thoroughly discuss important matters and exercise their independent judgment during the meeting.
 - c) Achieve meeting resolutions and clearly state any necessary further actions.
- (3) Chair meetings of the Shareholders. Conduct the meetings in accordance with the agenda, the Company's Articles of Association, and relevant laws and regulations by allocating proper amount of time and providing shareholders an opportunity to express

opinions. Ensure that the shareholders' inquiries are met with appropriate, thorough and transparent responses.

- (4) Promote and encourage the directors to perform their duties in full capacity as their directorships and in accordance with their scope of duty, responsibility and good corporate governance.
- (5) Ensure the efficient performance of the Board in fulfilling the Company's objectives and main goals.
- (6) Foster harmonious relations between the Board and the management. Support the management's administration without interfering in its day-to-day basis.

2.5 Scope of authority and duty of Chief Executive Officer

The Chief Executive Officer (CEO) is appointed by the Board of Directors and authorized with the authority and responsibility to manage company affairs as assigned by the Board. In this regard, CEO shall strictly run the Company following the business plan or the budget approved by the Board in an honest and prudent nature so as to protect the interest of the Company and shareholders. The scope of authority and duty of CEO shall include the following aspects and affairs.

- (1) Daily operations of the Company
- (2) Formulation of business policy, strategic plan, and annual budget as proposed by the management team and Executive Committee for further proposal for consideration to the Board of Directors
- (3) Appointment and removal of Executive Committee members and Executive Committee to take actions in different aspects of the Company management, both of whom report directly to the CEO
- (4) Determination of scope of duty of the Executive Committee members and the Executive Committee

- (5) Taking actions in line with the business plan and budget approved by the Board of Directors
- (6) Preparation of financial reporting and financial statements of the Company, which are proposed to the Board of Directors on a quarterly basis
- (7) Formulation of policy and entering into or termination of agreements or obligations related to engagements on behalf of the Company in the present and future within the scope of authority determined and approved by the Board of Directors
- (8) Entering into or termination of agreements or obligations other than stated in Clause (5) within the scope of authority determined and approved by the Board of Directors
- (9) Hiring, appointment, removal, transfer, promotion, demotion, salary or pay cut, take disciplinary action, or employment termination on behalf of the Company, including appointment and determination of remuneration of any other officers in the management team and all subordinates assuming positions lower than the CEO as well as delegation of authority and duties assigned to such officers as deemed appropriate
- (10) Performing other duties as assigned by the Board of Directors on a periodical basis

In addition, the Board of Directors authorizes the CEO with management authority in accordance with the following principles and scope of authority.

- (a) The authority to manage the operations of the Company as per the objectives, Articles of Association, policy, regulations, requirements, directives, and resolutions of the Board of Directors Meeting and/or the meeting of shareholders of the Company in all aspects
- (b) The authority to take command, contact, order, take actions, and sign off on legal transactions, agreements, directives, notifications, or any letters utilized to contact the government agencies, state enterprises, and other parties, including the authority to take actions deemed appropriate and necessary to accomplish any of the aforementioned activities
- (c) The authority to delegate his authority and/or assign any or several persons to carry out certain tasks on his behalf under supervision of the CEO. Such delegation and/or assignment shall be within the scope of delegation as per the Power of Attorney form and/or the Articles of Association, regulations, requirements, or directives of the Board of Directors and/or as determined by the Company

3. Nomination and appointment of Directors, Subcommittees, and CEO

3.1 The Board of Directors

The Board determines that the Board of Directors should be composed of directors with diverse qualifications (Board Diversity) including gender, age, educational background, professional skills, expertise, knowledge and experiences which beneficial to the Company's operations.

Director Nomination Criteria and Procedure

Criteria	At present, there is no Nomination Committee appointed by the Company. However, the Board of Directors, excluding directors with conflict of interest, has jointly considered qualifications of candidates to be nominated as the Company's directors in accordance with the Board of Directors Charter whereby capability, knowledge, expertise, experience and necessary skills which conform with the Company's business strategy are being taken into consideration.
Selection	<ul style="list-style-type: none"> - Recommendation from the directors - External Consultant - Qualified candidates nominated by the shareholders prior to the annual general meeting of shareholders pursuant to the criteria set out by the Company - Director Pool of Thai Institute of Directors
Appointment	The Board of Directors, excluding directors with conflict of interest, will jointly consider the qualifications of candidates pursuant to the criteria set out by the Company and review the Board Skill Matrix to identify skills which are necessary and conform with the Company's business strategy and propose to the shareholders' meeting.
Re-Appointment	Various factors will be taken into consideration such as performance in the past, meeting attendance and contribution in the meetings, etc.

The composition and qualifications of the Board of Directors are determined in the Board of Directors Charter, the essence of which can be summarized as follows:

(1) Composition

- (a) Directors of the Company shall be elected by the meeting of shareholders and in compliance with the methods prescribed in the Articles of Association of the Company as well as other related laws.
- (b) The Board of Directors shall consist of a minimum of 5 Directors and not less than half of the Board must reside in the Kingdom of Thailand.

- (c) The Independent Directors must account for at least one-third of the Board of Directors, and there must be at least 3 of them.

- (d) The Board of Directors shall elect a Director to serve as the Chairman of the Board; and may elect Vice Chairman of the Board as well as other positions as deemed appropriate

(2) Qualifications of Directors

- (a) A natural person and of maturity age
- (b) Not being bankrupted, incompetent, or quasi-incompetent
- (c) Never being imprisoned due to a final judgement for an offence committed through assets acquired by fraud and never being dismissed or discharged from the civil service or public agencies on the charge of fraud

- (d) Duly qualified and having no prohibited characteristics in accordance with the Public Limited Company Act, and shall not possess any inappropriate nature that restrains him from being entrusted to manage a business whose shares are held by the public as stipulated by SEC
- (e) Being an expert with knowledge, capability, experience and diversity of skills that are beneficial to the Company's operation and can fully dedicate his/ her time for the responsibility
- (f) Do not engage in the business of the same nature as that of the Company and competing against the Company; or hold partnership of ordinary partnership or unlimited liability partner of limited partnership or to be a Director of a private company or other company engaging in the business of the same nature and competing against the Company's business, whether for personal or others' gains unless such engagements were notified to the Shareholders' Meeting prior to the resolution was passed to approve such appointment

(3) Appointment, term of office, and removal from office

- (a) The meeting of shareholders shall appoint Directors whereby the persons receiving the highest votes and the following ranks shall be elected as Directors until all the seats are occupied. In a case where persons elected receiving equal votes, but the number of elected persons exceed the number of Directors required, a lot drawing method shall be applied until all the seats are occupied.
- (b) In each annual general meeting of shareholders, one-thirds of Directors shall retire by rotation. If the one-third proportion could not be made, the closest numbers shall apply. Directors who shall retire by rotation shall be the ones with the longest serving period. However, the retired Directors may be re-elected for another term.

- (c) The meeting of shareholders may pass the resolution to remove any Director prior to his/ her end of office term by the votes representing not less than three-fourths of number of shareholders attending the meeting with the right to vote; and total shares shall not be less than half of number of shares held by shareholders attending the meeting with the right to vote.

- (d) Directors shall vacate the office upon:

- Death
- Resignation
- Being disqualified or having prohibited characteristics as stipulated by the laws
- Being dismissed by the resolution of shareholders
- Being dismissed by the court order

- (e) To resign, Director shall tender the resignation letter to the Company and resignation would become effective on the date the resignation letter is delivered to the Company.

3.2 Independent Directors

The Board of Directors shall mutually consider the qualifications of candidates to serve as the Independent Directors with reference to qualifications and prohibited characteristics as per the Public Company Limited Act, the Securities and Exchange Act, Notifications of the Capital Market Supervisory Board, including related announcements and/or regulations. In addition, the Board of Directors shall select Independent Directors based on experience and suitability in other aspects. Then, the candidates shall be nominated to the meeting of shareholders for further consideration and nomination. The Company has policy to appoint Independent Directors which accounts for at least one-third of total Directors and to have a minimum of 3 Independent Directors. In this regard, the Board of Directors has determined the qualifications of the Independent Directors to exceed the requirements of the Notifications of the Capital Market Supervisory Board as follows:

- (1) Hold no more than 0.9% of all shares with voting right of the Company, the parent company, a subsidiary, an associated company, a major shareholder or an entity with controlling authority. This is inclusive of shares held by anyone who is related to such Independent Director.
- (2) Do not involve in the management, employees, staff, consultant with monthly salary or entities with controlling authority over the Company, the parent company, a subsidiary, an associated company, a same-level subsidiary, a major shareholder or an entity with controlling authority, unless he/she is free from such condition not less than two years prior to his/her appointment as an Independent Director. In this regard, the said prohibited characteristics do not include cases where the Independent Director who served as civil servant or advisor to public agencies, who is major shareholder or entities with controlling authority over the Company.
- (3) Have no connection by blood or legal registration as father, mother, spouse, sibling, son/daughter or spouse of son/daughter of another Director, executive, a major shareholder, and an entity with controlling authority or an individual who will be nominated as Director, executive or entity with controlling authority over the Company or the subsidiary.
- (4) Have no business relationship with the Company, the parent company, a subsidiary, an associated company, a major shareholder or an entity with controlling authority in such a manner that may obstruct their exercise of independent discretion. Further, an Independent Director is not or was a significant shareholder or an entity with controlling authority over a party with business relationship with the Company, the parent company, a subsidiary, an associated company, a major shareholder or an entity with controlling authority, unless he/she is free from such condition at not less than two years

prior to his/her appointment as Independent Director.

Such business relationship is inclusive of a trading transaction occurring on a conventional basis for the conduct of business; a rent or lease of property; a transaction involving assets or services; a provision or an acceptance of financial assistance through means of a loan, a guarantee, a use of an asset as collateral against debt; and, other similar actions which result in the Company or the party to the contract having a debt to be repaid to another party for the amount from 3% of net tangible assets (NTA) of the Company or from 20 Million Baht, whichever is lower. This amount is determined by the calculation of Related Transaction value as per the Notification of the Capital Market Supervisory Board. It is inclusive of debt(s) arising within one year prior to the day of business relationship with the same party.

- (5) Never serve nor was an auditor of the Company, the parent company, a subsidiary, an associated company, a major shareholder or an entity with controlling authority, and, not a significant shareholder, an entity with controlling authority or a partner to the audit office with which the auditors of the Company, the parent company, a subsidiary, an associated company, a major shareholder or an entity with controlling authority are associated, unless he/she is free from such condition at not less than two years prior to his/her appointment as Independent Director.
- (6) Never serve as nor was not a person rendering any professional service or a legal or financial consultant who is paid more than Two Million Baht in service fee per year by the Company, the parent company, a subsidiary, an associated company, a major shareholder or an entity with controlling authority, and, not a significant shareholder or an entity with controlling authority over the partner to such professional service provider, unless he/she

is free from such condition at not less than two years prior to his/her appointment as Independent Director.

- (7) Not being a Director who is appointed to be a nominee of a Director of the company, a major shareholder or a shareholder who is connected to a major shareholder
- (8) Do not engage in a business of the same nature as and which is significantly competitive to that of the Company or a subsidiary. An Independent Director is not a significant partner to a partnership or a Director with involvement in the management, employees, staff, consultant with monthly salary, or, who holds more than 1% of all shares with voting rights of another company which is engaged in a business of the same nature as and which is significantly competitive to that of the Company or a subsidiary.
- (9) Do not have any other characteristic which prevents him/her from opining freely on the operation of the Company.

The term of office of Independent Directors should not exceed a cumulative term of 9 years from the date of first appointment as director. In the year 2021, no Independent Director held more directorships than specified in the Company's Policy.

3.3 The Audit Committee

The composition and qualifications of the Audit Committee of the Company are determined in the Audit Committee Charter, the essence of which can be summarized below.

- (1) The Board of Directors of the Company appoints the Audit Committee, which includes the Chairman of the Audit Committee and members, and comprises not less than 3 Independent Directors with qualifications in compliance with public limited laws, the securities and exchange law, rules and regulations related to listed companies of SET and SEC as well as the Articles of Association of the Company.

- (2) The Head of Internal Audit function of the Company shall serve as the Secretary of the Audit Committee.
- (3) Each member of the Audit Committee has a 3-year term of office. In this regard, the retired members of the Audit Committee may be re-elected for another term. However, the re-election shall not be on automatic basis.
- (4) The term of office of the Audit Committee members shall end immediately when such member of the Audit Committee retires from the directorship of the Company.

3.4 The Sustainability, Governance and Risk Management Committee

Composition and Qualifications of the Sustainability, Governance and Risk Management Committee (SGRC) have been determined in the Charter of the SGRC, whose details could be summarized as follows:

- (1) The SGRC shall be appointed by the Board of Directors and shall consist of no fewer than three directors, of whom at least one shall be an Independent Director.
- (2) The Chairman of the SGRC shall be selected by the members of the SGRC.
- (3) Members of the SGRC must possess the knowledge, expertise and understanding in matters regarding risk management, sustainability and good corporate governance.
- (4) The SGRC has the authority to appoint a secretary to the SGRC.
- (5) A member of the SGRC shall hold their position for as long as they hold their directorship in the Board of Directors, or in accordance with the term of appointment specified by the Board of Directors.
- (6) Members of the SGRC who retired by rotation and were re-elected as the Company's directors for another term may be appointed as the members of the SGRC.

3.5 Chief Executive Officer

The nomination process for the Chief Executive Officer is determined in the Chief Executive Officer Charter, i.e. the Board of Directors appoints the Chief Executive Officer and authorizes him with the authority and duty related to management of company affairs as assigned by the Board as stated in the clause 2.5 “Scope of authority and duty of Chief Executive Officer”.

4. Overseeing of Operations of Subsidiaries and Associated Companies

The Company has adopted a policy on corporate governance for the purpose of overseeing and managing the operations of its subsidiaries and associated companies which operate core businesses of the group (the “Policy”). The purpose of the Policy is to prescribe a direct and indirect mechanism to ensure that the Company is able to oversee and

manage the operations of its subsidiaries and associated companies (as the case may be) and to monitor that the subsidiaries and associated companies (as the case may be) of the Company are in compliance with the Company’s measures, procedures and policies, including the Public Limited Company Act, the Civil and Commercial Code of Thailand, the Securities law and any other relevant laws, notifications, regulations and rules of the Capital Market Supervisory Board, SEC, the Office of the SEC and SET. In addition, in order to protect the Company’s interest in the investment in the subsidiaries and associated companies, the Company has adopted the Policy, and prescribed that all of the directors, executives and/or employees appointed by the Company to be director and/or executive of the subsidiaries and associated companies are required to acknowledge the content of the Policy by signing the acknowledgement of the Policy.

5. Performance assessment

Performance assessment of the Board of Directors

The Board of Directors arrange for the annual assessment of overall performance of the Board of Directors and the Subcommittees as a whole and on individual bases. This is for the Board to mutually consider its performance and problem for further improvement and efficiency.

The self-assessment process of the Board of Directors and the Subcommittees is as follows:

(1) the Company Secretary and the Secretary of the Subcommittees submit the assessment form to all Directors to perform the assessment. (2) Such form containing the assessment, opinions and suggestions shall be collected and returned to the Company Secretary and the Secretary of the Subcommittees to process the result and summarize the score. (3) The score and suggestions shall be reported to the meeting of the Board of Directors and the Subcommittees for acknowledgement.

The key performance assessment topics are as follows:

	Assessment as a whole			Individual assessment		
	Board of Directors	Audit Committee	Sustainability and Risk Management Committee	Board of Directors	Audit Committee	Sustainability and Risk Management Committee
(1) Structure and qualifications	★	★	★	★	★	★
(2) Board/Committee meetings	★	★	★	★	★	★
(3) Roles, duties, and responsibilities of Directors	★	★	★	★	★	★
(4) Others such as relationship between the Board and management, self-development of Directors and executives	★					

In 2021, the result of the performance assessment of the Board of Directors and the Subcommittees can be summarized as follows:

	Assessment as a whole (Percent)	Individual assessment (Percent)
The Board of Directors	97.1	97.7
The Audit Committee	95.0	93.1
The Sustainability and Risk Management Committee	95.0	94.8

Performance assessment of the CEO

The Board of Directors arranges for the assessment of CEO's performance with reference to the assessment topics as per SET guideline as follows: (1) leadership; (2) strategy formulation; (3) strategy implementation; (4) financial planning and results; (5) relationship with the Board; (6) relationship with third parties; (7) management and relationship with staff; (8) succession plan; (9) knowledge on products and services; and (10) personal attributes

6. Regulations on approval authority and actions taken to enter into transactions

The Company determines that the Board of Directors has the authority to approve matters of the Company in accordance with the scope of duty determined by the law, the Articles of Association of the Company, the Board of Directors Charter, and the resolution of meeting of shareholders, including the revision of vision, mission, and the operating strategy on an annual basis. The duties extend to improvement of the action plan, annual budget, investment plan and budget, and administrative budget of the Company as well as monitoring and assessment of operating result to ensure alignment with the plans, approval of significant related transactions. The CEO also is obligated to attend to the Company affairs as assigned by the Board of Directors and approved transactions within annual budget approved by the Board of Directors.

7. Oversight on the use of inside information

The Company and subsidiaries recognized the importance of confidentiality of their information and that of their customers, which is essential to the operations and reflect the level of reliability of the Company and subsidiaries. As such, the Company has formulated the Confidentiality policy for the guideline on treatment of confidential information. The policy is applicable to all personnel of the Company and subsidiaries, namely the Board of Directors, executives, permanent and temporary employees, and contract staff. The Company puts in place level of clearance for use of personal or classified information so as to ensure specific use solely for determined objectives. The Company shall separate the confidential information and restrict access only to authorized persons or those with authority granted by the Company. Such authorized personnel are obliged to use the information in an honest and just manner.

In addition, the Company prohibits staff of the Company and subsidiaries from disclosing their confidential information, which is not publicly available (especially trade secrets) without clearance from the Company. Any disclosure or use of such

information by third parties shall cause damages towards the Company, subsidiaries, and related parties.

The Company has formulated policy to prevent the use of inside information. It is determined that directors, executives, head of accounting/finance area, as well as executives and officers of investor relations area whom are informed of significant inside information, which has impact towards the price fluctuation of the Company's stock, shall refrain from trading the Company's stock for a period of 14 days (Blackout Period) prior to the disclosure of the quarterly and annual financial statements to the public, and should wait at least 24 hours after such disclosure. The disclosure of information to the public during a period of 2 weeks prior to the date specified for disclosure of important information, such as the Company's operating results, is also prohibited. Executives and officers of investor relations area shall not accept appointments or answer enquiries related to the operating results in the foreseeable future to stakeholders such as investors, securities analysts, the media, etc.

The Directors, executives, and employees of the Company and subsidiaries are obligated to comply with the guidelines on the use of inside information as stipulated in the Securities and Exchange Act and the Public Company Limited Act, and other relevant laws.

8. Respect for intellectual property rights

The Company places great importance in respect of intellectual property rights. Personnel of the Company shall refrain from utilizing the Company's assets including technical knowhow, technology, data, title document, royalty, patent, privileges, concessionaire, or any inventions in an illegal and unethical manner; or in a way where no benefit is gained by the Company; or misuse them for gains of themselves or others.

In addition, the Company's personnel are obligated to maintain secrecy of trade secrets and prevent data leakage, as well as to refrain from infringing on the

intellectual property rights of others, whether royalty, patent, trademark, trade secrets, etc. The Company also encourages its personnel to comply with the laws relating to intellectual property, for instance the use of copyrighted computer programs, which are verified and installed by the Information Technology Department.

9. Auditor fee

Audit Fee

For the fiscal year ended December 31, 2021, the Company and its subsidiaries paid the audit fee of Baht 14,909,800, comprising the Company's and its subsidiaries' audit fees of Baht 2,800,000 and Baht 12,109,800, respectively.

Non-Audit fee

The Company and its subsidiaries obtained other non-audit services from the auditors and other related parties to the auditors with total fees of Baht 1,440,000, comprising non-audit fees relating to the Company's investment structure and financial agreements, totaling Baht 680,000 and non-audit fees relating to implementation of the Company's subsidiaries in accordance with BOI certificates totaling Baht 760,000.

The auditors and the office of auditors have no relationship or conflict of interest with the Company, its subsidiaries, major shareholder, executives or their respective related persons. Thus, the auditors have independent audit performance and express the opinion on the financial statements of the Company.

10. Compliance Unit

The Company has established a compliance unit to support the Company in ensuring that the operations of executives, employees, as well as various departments of the Company are in accordance with the laws and regulations of regulatory agencies, such as the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET), as well as liaise with regulatory agencies to ensure that the Company's operations are in compliance with related laws and regulations.

In the year 2021, Ms. Chattawan Jaijakul, Company Secretary, was the supervisor of the Company's Compliance Unit and there was no violation of any laws, rules and regulations of SEC and SET.

11. Application of Corporate Governance Code for Listed Companies 2017: CG Code

In 2021, the Company has reviewed compliance with the current Corporate Governance Code in comparison with the Principles of Corporate Governance for Listed Companies 2012 issued by SET and the Corporate Governance Code 2017 issued by the Office of SEC. It was deemed that the Company applied most of the governance guidelines recommended by the CG Code. However, for some guidelines which are not inapplicable or not suitable with the business operation of the Company, the Board of Directors shall consider possibility of adopting CG Code or explore appropriate alternative measures. In the past year, guidelines which have not yet been adopted by the Company are summarized as follows:

Inapplicable Guidelines	Explanation
The Company should determine cumulative voting as the method of voting for directors.	The Company did not determine cumulative voting as the method of voting for directors as it was considered that the Company already has a process of recruiting qualified persons and operating its business while taking into consideration the rights of minority shareholders. In addition, the Company provides the opportunity for shareholders to nominate qualified persons as directors in accordance with the Company's policy.
The Company should establish a policy for directors and executives to notify the Board of Directors or the person assigned by the Board to oversee the trading of the Company's shares about the transaction at least 1 day in advance before such transaction is made.	The Company did not set a policy regarding this matter as there are regulations regarding the use of inside information. The Board of Directors and executives shall not trade, transfer or accept any transfer of the Company's securities for a period of 14 days prior to the disclosure of the Company's financial statements to the public and should wait at least 24 hours after such disclosure. Moreover, in some cases, trading of securities is made using information available at that time, as a result, the notification cannot be made in advance.
The Company should prepare an integrated report.	The Company did not prepare an integrated report as it deemed that the disclosure of information in both the Annual Registration Statement or the annual report is sufficient.
The Board should establish the Nomination and Remuneration Committees.	The Company determined that the Board of Directors, excluding directors with conflict of interest, performs the duties of the Nomination and Remuneration Committees.

12. Other compliance with good corporate governance

Anti-Bribery and Corruption

The Company is committed to conducting business in an honest, transparent and just manner while taking into consideration all stakeholders. The Company is aware that corruption and bribery may occur in business activities and during contact with stakeholders, potentially influencing the decision-making and operations of the Company. For this reason, in December 2021, the Company submitted a request for membership of the Thai Private Sector Collective Action Against Corruption (CAC) to demonstrate its intention and commitment to being a part of opposing corruption and bribery in all forms. The Company's request is currently under consideration for approval from CAC. In addition, the Company also provides risk assessment of businesses at risk of being involved in corruption, determines guidelines and measures in preventing such risks and reviews the sufficiency of the internal control system as well as provides in-house training and internal and external communication.

Policy

The Board of Directors determines Anti-Bribery and Corruption Policy, which were revised in 2021, to be upheld by the Company's and its subsidiaries' personnel as guidelines for conducting business in a transparent manner, with no involvement in corruption, whether by bribe solicitation, acceptance, or payment. The Company has disclosed such policy and measures on the Company's website at www.gulf.co.th.

Implementation

The Company's implementation in accordance with the anti-corruption policy is as follows:

1. Risk assessment

The Company shall, at least once a year or when there are changes in the business structure, monitor and assess risks regarding corruption. The results of the risk assessment shall be reported to the Sustainability, Governance and Risk Management Committee and the Board of Directors for acknowledgement. In addition, the Company shall review such risk management policy and risk management measures on a regular basis to ensure they are appropriate, rigorous and adequate.

2. Determination of guidelines to control, prevent and monitor risks regarding corruption

The Company shall establish work plans and operating procedures to control, prevent and monitor potential risks.

3. Communication and training

The Company shall provide training and knowledge regarding policies and measures related to anti-bribery and corruption, Code of Conduct to its directors, executives and employees. It shall also provide an orientation for new employees to raise awareness of the various forms of corruption, the risks resulting from engaging in corruption, as well as methods of reporting suspected or witnessed incidences of corruption. In 2021, the Company provided communication and training on anti-corruption as follows:

- Training on the topic “Anti-Corruption and Sustainable Development of Organization” by speakers from external organization, with both pre and post assessment tests, which was attended by both executives and employees
- Training through e-Learning lessons with courses on “Anti-Bribery and Corruption Policy” and “Code of Conduct” (e-Learning: 2021 Code of Conduct)
- Preparation of electronic newsletters or journals to communicate anti-corruption matters through various channels in the organization

The Company shall communicate the Anti-Bribery and Corruption Policy to business representatives, business alliances, trade partners and associates by publishing on the Company’s website or by electronic mail for their acknowledgement and endorsement on such policy.

4. Follow-up and evaluation of the implementation of anti-corruption policy and review on the adequacy of the process

The Internal Audit Department shall conduct regular audits of the internal control system and various procedures to ensure the effectiveness of such system in preventing bribery and corruption. The Department may discuss findings of their audit with relevant individuals to seek appropriate solutions and shall report such findings to the management and directors for further acknowledgment such as the Audit Committee, etc.

Whistleblowing or grievance reporting

In the event that stakeholders questioned or witnessed actions which may consider to be corrupted or fraudulent, such persons may file any leads or complaint following procedures and measures established by the Company. The whistleblower shall be protected as per his/her right.

Complaint channel

Whistleblowers may file any leads or complaint on corrupted and fraudulent actions and wrongdoings anonymously, by downloading the form at the website www.gulf.co.th and submit it via various channels below as deemed appropriate.

1. Inform the manager of the reporter or Head of Internal Audit Department
2. By telephone directly to the unit responsible for receiving complaints at 02-080-4500
3. By email to the Internal Audit Department at ia@gulf.co.th or to the Chairman of the Audit Committee at ac@gulf.co.th
4. By post to the Chairman of the Audit Committee or the directors of the Company at the following address:

87 M Thai Tower, 11th floor
All Seasons Place, Wireless Road, Lumpini Sub-District, Pathumwan District, Bangkok 10330

Actions taken subsequent to receiving complaints

The Internal Audit Department shall carry out the investigation of the complaints on corrupted and fraudulent actions and wrongdoings with independence and fairness so as to acquire evidence which could be used in verification or dispute with received information, including taking disciplinary actions and/or taking legal actions against wrongdoers. The Internal Audit Department has the duty to report progress and result of the complaints to the whistleblower who provides the name and contact details, except for cases where it is necessary to keep confidential the personal information that refrain the Company from providing complete details on the progress and result to the whistleblower. In this regard, the working group or those responsible for related matters shall report the result to the CEO, the Chairman of the Audit Committee, and the Board of Directors for acknowledgement as the case maybe. In case where the investigation result discovers that the complaint is made with mal-intent or deliberation to damage the Company or any person or that it is false statement, the whistleblower, who is the employee of the Company, will be subject to the disciplinary action. The Company will take legal actions against any external whistleblower that cause damages to the Company.

Whistleblower protection

The Company shall not reveal the name, surname, address, or other information which leads to identification of the whistleblower or persons cooperating with the fact-finding process. The Company shall keep confidentiality and make solely necessary disclosure by prioritizing the safety and damages of the whistleblowers or cooperating parties. In addition, the whistleblower may request the Company to implement the security measures as deemed appropriate in case they feel unsafe or troubled or damaged; or the Company may determine the measure to protect the whistleblower without request. In this light, the whistleblower who suffers damages shall be relieved with the just and appropriate process; and the Company shall refrain from taking any actions which are unfair for the whistleblowers whether by transfer of positions, types of job, workplace, career suspension, threatening, disruption of work, employment termination or other actions which are considered unfair treatment against the whistleblower.

In 2021, the Company did not identify any corrupted actions or bribery, as well as any form of ethical misconduct.

INTERNAL CONTROL AND RISK MANAGEMENT

Summary of the Board of Directors' evaluation of adequacy and appropriateness of internal control system

The Board of Directors is responsible for appointing an Audit Committee to review the adequacy and appropriateness of the Company's internal control system to ensure the processes comply with internationally accepted guidelines set by The Committee of Sponsoring Organizations of the Treadway Commission (COSO). The review process of internal control covers management control, operation control, accounting and financial control and compliance control, and also takes into consideration the internal and external auditors' reports on the Company's internal control system.

In the Board of Directors' Meeting No. 2/2022 held on February 18, 2022, with the presence of 3 members of the Audit Committee, the Board of Directors evaluated the internal control system through interviews with the Company's management, review of the internal auditors' reports, and acknowledgement of annual results of risk management. The Board of Directors and the Audit Committee were in agreement that the Company's internal control systems were adequate and appropriate, with sufficient monitoring of subsidiary companies' operations to safeguard the assets of the Company and its subsidiaries from misuse by directors or management, as well as to prevent transactions with individuals that may represent conflicts of interest.

The Audit Committee has appointed the internal audit department, which works independently from the management, to audit and review the operations of the various departments within the Company and its subsidiaries to ensure that said departments are operating within the framework of internal control set by the Company, utilizing the following guidelines to evaluate the adequacy and appropriateness of its internal control system in accordance with the principles of good internal control:

1. Control Environment

The Company supports and promotes a positive internal control environment by formally establishing the Company's objectives and operational direction, corporate governance policies, code of conduct and employee manuals. This information, along with relevant punitive measures, is communicated to employees at all levels to ensure awareness and strict compliance. There is a clear organizational structure with a checks and balances mechanism, as well as an internal audit department that works independently and reports directly to the Audit Committee to review and verify operations. All these components together promote a strong internal control environment.

2. Risk Assessment

The Company has implemented a system for risk assessment comprising a risk management team responsible for setting out a policy framework and risk management guidelines in accordance with COSO principles and considering risk management processes and measurement to control any potential damage within an acceptable limit. The team is also responsible for promoting operational practices compliant with risk management policies across the entire organization.

3. Control Activities

The Company has established in writing a framework detailing the authorization of transactions and activities with appropriate segregation of duties and verification processes. The Company has also established administrative procedures for transactions that meet the conditions for connected transactions or transactions that may present a conflict of interest. The internal audit department is responsible for reviewing operations and ensuring compliance with laws and regulations.

4. Information and Communication

The Company has established a consistent and effective information system to provide adequate key information to support the decision-making process of the Board of Directors and management. Documents are securely stored for a specified length of time as per legal requirements. Quarterly and annual financial reports are reviewed and audited to ensure that adequate financial information is made available promptly for the benefit of shareholders, investors and other concerned parties by the Company's auditor. In addition, the Company has established both an internal and external communication system to allow employees to receive information necessary for completing tasks, as well as a team responsible for monitoring and sharing through appropriate channels general information, financial information and information which may affect the Company's share price.

5. Monitoring

The Company monitors performance against its key performance indicators (KPIs) and provides reports, which include analysis of performance gaps to make rectifications in a timely manner, to the management and Board of Directors. With regards to internal control, the Company has tasked the internal audit department with reviewing measures and reporting their findings to the Audit Committee in a timely and consistent manner.

Appointment of the internal audit supervisor

The Company has an internal audit department which reports directly to the Audit Committee and is responsible for overseeing internal audit operations, ensuring that auditing is conducted independently, efficiently and effectively. The Audit Committee's Meeting No. 2/2017 held on April 18, 2017, passed a resolution naming Ms. Chotiros Likitcharoenpanich as the Company's Head of Internal Audit Department, as the Audit Committee determined that she possesses the necessary knowledge and capability, appropriate qualifications, experience in internal auditing, understanding of the Company's business, and ability to effectively monitor and assess the internal control system. That said, the appointment, dismissal and transference, as well as the assessment of independence of Head of the Internal Audit Department, must be approved by the Audit Committee.

RELATED PARTY TRANSACTIONS

The Company and its subsidiaries have entered into transactions with related parties or persons who may have conflicts of interest. Such transactions were carried out in accordance with the ordinary course of business and at market prices or at arm's length basis which was comparable with the prices and conditions that were granted to non-related parties.

Significantly related party transactions and necessity and appropriateness of the transactions are as described below.

Related entities and relationship	Characteristics of transactions	Transaction size (THB Million) for the year ended 31 December			Necessity and appropriateness of the transaction
		2019	2020	2021	
1. Pomodoro Group Co., Ltd. (Pomodoro) Pomodoro is a related party, having a common major shareholder.	<ul style="list-style-type: none"> Service expenses Other payables 	5.85 1.40	8.90 3.40	16.35 4.70	The Company and its subsidiaries purchased food and beverages from Pomodoro Group Co., Ltd. The price and payment terms were in accordance with the terms which Pomodoro applied to third parties. In addition, the Company and its subsidiaries used facilities for catering and seminars from Pomodoro Group Co., Ltd. The price and conditions were comparable to the price and conditions granted by other service providers.
2. Group of Mitsui & Co., Ltd. (Mitsui) Mitsui is a shareholder of GMP and IPD, the Company's subsidiaries	<ul style="list-style-type: none"> Administrative expenses Administrative expenses Short-term loans Interest expenses Interest payables 	4.20 4.53 324.90 9.75 16.66	4.20 4.20 - 2.43 -	4.20 4.20 - - -	GMP incurred administrative expenses in relation to advisory services in business operation, procurement, and rendering engineering services from Group of Mitsui & Co., Ltd. pursuant to a management service agreement entered into between GMP and MIT-Power Capital (Thailand) Limited. IPD incurred administrative expenses in relation to advisory services in business operation, procurement, and rendering engineering services from Group of Mitsui & Co., Ltd. pursuant to a management service agreement between IPD and MIT-Power Capital (Thailand) Limited. The Group of Mitsui & Co., Ltd. provided a short-term loan to IPD in accordance with its shareholding proportion for IPD's business operations. The interest charged was fixed per annum and in line with market rates.

Related entities and relationship	Characteristics of transactions	Transaction size (THB Million) for the year ended 31 December			Necessity and appropriateness of the transaction
		2019	2020	2021	
	<ul style="list-style-type: none"> • Finance cost • Assets under construction • Accrued expenses 	13.06	2.15	-	<p>IPPs under IPD</p> <p>incurred advisory fees in relation to the development of power plant projects, which were recorded as assets under construction. These were payable to the Group of Mitsui & Co., Ltd., in accordance with the service agreement.</p> <p>SPPs under GMP and IPPs under IPD</p> <p>incurred guarantee fees, which were recorded as finance costs and assets under construction. These were payable to the Group of Mitsui & Co., Ltd as Mitsui & Co., Ltd. guaranteed shareholders' investment under the relevant facility agreements of SPPs projects, and guaranteed credit facilities with financial institutions pursuant to its shareholding proportion in IPPs projects, which is in accordance with the provisions of the Shareholders' agreements.</p>
		53.18	109.57	80.29	
		248.80	189.66	269.95	
<p>3. Group of WHA Industrial Development PLC. (WHA)</p> <p>WHA is a shareholder of 6 SPPs, subsidiaries under GMP, and a shareholder of GSL, subsidiary under GRE</p>	<ul style="list-style-type: none"> • Cost of sale • Administrative expenses • Trade accounts payable • Other payables • Revenue from sale • Trade accounts receivable • Other receivables 	170.16	156.86	169.30	<p>SPPs under GMP</p> <ul style="list-style-type: none"> • used utilities and incurred right of way and waste disposal fees, which were recorded as cost of sale and administrative expenses, payable to the Group of WHA Industrial Development Public Company Limited. Such expenses were in the same rate that the Group of WHA Industrial Development Public Company Limited applied to other operators in the industrial estates. • incurred revenue from sales to entities in WHA group. Sales were carried out in accordance with normal course of business with no difference from sales to other customers.
		16.16	19.45	19.14	
		12.71	11.29	15.65	
		1.27	1.08	-	
		-	-	0.91	
		-	-	0.52	
		-	-	0.26	

Related entities and relationship	Characteristics of transactions	Transaction size (THB Million) for the year ended 31 December			Necessity and appropriateness of the transaction
		2019	2020	2021	
4. Group of Thai Industrial Estate Co., Ltd. (Hitech) Hitech is a shareholder of 2 SPPs which are subsidiaries under GMP	<ul style="list-style-type: none"> • Cost of sale • Administrative expenses • Trade accounts payables • Other payables 	53.69 35.92 4.86 6.02	51.09 34.59 4.64 4.46	57.30 38.61 5.61 7.15	SPPs under GMP used utilities and incurred right of way and waste disposal fees, which were recorded as cost of sale and administrative expenses, payable to the Group of Thai Industrial Estate Co., Ltd. Such expenses were in the same rate that the Group of Thai Industrial Estate Co., Ltd. applied to other operators in the industrial estates.
5. PTT Tank Terminal Co., Ltd. (PTT Tank) PTT Tank is a shareholder of GMTP, the Company's subsidiary	<ul style="list-style-type: none"> • Cost from service concession arrangement 	-	18.78	18.78	GMTP incurred project development cost in relation to technical advisory services, procurement and contract negotiation from PTT Tank Terminal Co., Ltd., in accordance with the service agreement.

Procedures and Approval Process for Entering into Related Party Transactions

Entry into any related party transactions of the Company and its subsidiaries must be processed under the same approval procedures and regulations of the Company as other normal transactions. The entry into such transactions must be approved and endorsed by the Audit Committee and the Board of Directors to eliminate the conflict of interest, and to ensure that the transactions are transparent, reasonable, and in compliance with the Notification of Capital Market Supervisory Board and Notification of Board of Governors of the Stock Exchange of Thailand, including the relevant laws and regulations.

Trends for Future Related Party Transactions

The Company and its subsidiaries' transactions with related parties incurred in accordance with the ordinary course of business; therefore, such transactions are likely to recur in the future. The policy and trend for future related party transactions will adhere to the same principles as the previous year, in which transactions will be carried out in accordance with the ordinary course of business whereby no benefits will be transferred within the parties, and upholding the utmost benefits to the Company and its shareholders as a priority.

The disclosure of the Company's related party transactions complies with the laws and requirements of the Office of the Securities and Exchange Commission and the Stock Exchange of Thailand and also with the accounting standards prescribed by the Federation of Accounting Professions.

REPORT OF THE AUDIT COMMITTEE

The Audit Committee of Gulf Energy Development Public Company Limited (the “Company”) was appointed by the Board of Directors of the Company. The Audit Committee consists of three Independent Directors with varied areas of expertise, including adequate expertise and experience to review the credibility of the financial statements. The Audit Committee comprises committee members whose traits and qualifications meet the requirements of the Stock Exchange of Thailand and the Notification of Capital Market Supervisory Board, as follows:

- | | | |
|----|--------------------------------|---------------------------------|
| 1. | Mr. Kasem Snidvongs na Ayudhya | Chairman of the Audit Committee |
| 2. | Mr. Sommai Phasee | Member of the Audit Committee |
| 3. | Dr. Raweporn Kuhirun | Member of the Audit Committee |

With Miss Chotiros Likitcharoenpanich, Senior Vice President – Internal Audit, serving as the Secretary of the Audit Committee.

All members of the Audit Committee carried out their duties independently within the scope of responsibility stated in the Audit Committee Charter, which is in alignment with the regulations of the Stock Exchange of Thailand. The audit was performed, and corporate governance was promoted, while a risk management system was put in place, and the adequacy of the internal audit and internal control system was assured so as to ensure that the Company runs its operations with transparency, honesty and fairness to achieve sustainable development and enhance its value, which would be beneficial to shareholders. The Audit Committee received full cooperation from executives, employees, internal auditors and external auditors.

In 2021, the Audit Committee held a total of six meetings, with all meetings attended by Audit Committee members to constitute a quorum, to perform duties as stated in the Audit Committee Charter, the essence of which are summarized as follows.

1. Review of financial statements

The Audit Committee conducted a review of the quarterly and annual financial statements as well as the consolidated financial statements, including related party transactions. The auditors were asked about the scope of the audit, the audit plan, accuracy and completeness of the financial statements as well as the independence of the auditors, and clarifications on significant issues were provided from both the auditors and the Company’s executives, in order to ensure that the financial statements were prepared in a correct manner in compliance with the laws and generally accepted accounting principles whereby the financial statements were disclosed in a complete, correct, adequate and timely manner for the interest of their users.

In addition, the Audit Committee monitors new Thai Financial Reporting standards to ensure that the Company will be able to implement such changes in the preparation of the financial statements in a timely manner.

2. Connected transactions of the Company on a quarterly and annual basis

The Audit Committee conducted a review of the connected transactions of the Company on a quarterly and annual basis to ensure that the transactions are entered into in a reasonable manner on an arm’s length basis and that they are ordinary business support transactions which are appropriate and reasonable,

as well as in compliance with the regulations of the Stock Exchange of Thailand and The Securities and Exchange Commission.

3. Review of adequacy and appropriateness of the internal control system

The Audit Committee arranged to put in place internal audit plans for the parent company and subsidiaries which are appropriate for the nature of business operations in different phases of the Group companies, including projects in the preparation phase, the construction phase and the commercial operations phase whereby the audit focuses on different areas for each phase in order to ensure, to a reasonable degree, that the Company has an adequate and appropriate internal control system in accordance with that of The Securities and Exchange Commission of Thailand and the Stock Exchange of Thailand. In this light, the Audit Committee was of the opinion that the Company has an adequate and appropriate internal control system relative to the size and current state of the Company's business, as well as proper monitoring and control of its operations in a manner that allows the Company to safeguard its assets and that of its subsidiaries against abusive or unauthorized utilization by executives or employees.

4. Review of compliance with the SEC's laws and SET's regulations and other laws related to the Company's businesses

The Audit Committee reviewed and oversaw that the Company and its subsidiaries are in compliance with SEC's laws, SET's regulations and other laws related to the Company's businesses, including the Company's Articles of Association, policy and corporate governance. The Audit Committee found no indication of any non-compliance and/or practices that conflict with relevant laws and regulations.

5. Appointment of auditors for the year 2021

The Audit Committee considered and selected the auditors of the Company based on the qualifications, independence of the auditor, expertise, experience, performance, scope of audit as well as the appropriateness of the quoted audit fee. The Audit Committee proposed to the Board of Directors Meeting to approve the appointment as follows:

Proposed to appoint Mr. Waiyawat Kosamarnchaiyakij, Certified Public Accountant No. 6333, and/or Mr. Natthaphong Tantichattanon, Certified Public Accountant No. 8829, and/or Miss Sophit Prompol, Certified Public Accountant No. 10042 of KPMG Phoomchai Audit Limited as the auditor of the Company for 2021.

6. Oversight of Internal Audit

The Audit Committee oversaw the performance of the Internal Audit Department through consideration and approval of the annual internal audit plan to ensure the propriety of the plan as well as its alignment to and comprehensiveness over the internal control system of the Company and companies in the Group, including its appropriateness towards different phases of business operations. The Audit Committee has considered the internal audit results and ensured that the internal audit plan of the Internal Audit Department was accomplished by providing recommendations for the Company, such as to provide adequate and appropriate hygiene measures for COVID-19 pandemic for the Company and all its affiliates and provide guidelines for improving the operational processes to be more stringent in accordance with the internal regulations and appropriate framework with respect to the size of the business.

7. Good corporate governance

The Audit Committee emphasized that the Company's operations be conducted in accordance with good corporate governance and considered the Company's good corporate governance from several factors such as the Company's rapid expansion, Company's commitment to sustainability, social and political impacts, as well as the enhancement of corporate governance to correspond to governance assessments by domestic and international regulators such as The Securities and Exchange Commission, Thailand, The Stock Exchange of Thailand, S&P Global and Morgan Stanley Capital International (MSCI). The Audit Committee, therefore, considered putting in place additional good corporate governance practices as follows:

- 7.1 The amendment of the Corporate Governance Policy
- 7.2 The amendment of the Code of Conduct
- 7.3 The amendment of the Audit Committee Charter
- 7.4 The amendment of the Director Nomination and Remuneration Policy
- 7.5 The amendment of the Anti-Bribery and Corruption Policy
- 7.6 The amendment of the Whistleblowing Policy
- 7.7 The amendment of the Cash Investment Policy
- 7.8 The amendment of the Procurement Policy
- 7.9 The Tax Policy

8. Audit Committee's self-assessment

The Audit Committee conducted a self-assessment of its performance, both on an individual and a committee basis, in order to ensure that its performance was effective and supportive of good corporate governance of the Company as well as to ensure that its composition, qualifications and performance are appropriate within its authority and scope of responsibility. Based on such assessment, it was found that the composition and qualifications of the Audit Committee were appropriate, and the performance was effective and aligned with its authority and scope of responsibility as stated in the Audit Committee Charter.

In conclusion, the Audit Committee fulfilled its duties and responsibilities as stated in the Audit Committee Charter by leveraging its knowledge, caution, prudence and independence, and provided opinions and recommendations which are constructive and in the interest of the stakeholders in an equitable manner. The Audit Committee was of the opinion that the Board of Directors, executives and employees of all levels of the Company are determined to perform their duties to achieve the goals of the Company in an efficient and professional manner, especially with regards to the importance placed on transparent and auditable operation, proper risk management, good corporate governance. The Audit Committee opined that the Company has an internal control system that is appropriate, prudent and sufficient in accordance with the Company's goals, objectives, laws and relevant regulations, assets are well safeguarded from fraud and any damages, and financial statements are accurate and reliable.

On behalf of the Audit Committee



Mr. Kasem Snidvongs na Ayudhya

Chairman of the Audit Committee

REPORT OF THE SUSTAINABILITY AND RISK MANAGEMENT COMMITTEE

The Sustainability and Risk Management Committee (SRMC) of Gulf Energy Development Public Company Limited (the “Company”) was appointed by the Board of Directors of the Company to provide oversight on matters relating to sustainability and risk management to ensure that the business activities align with the Company’s policies, strategies and business plans, as well as international standards and regulations, which will lead to sustainable business growth.

The Committee consists of five members with expertise, knowledge and experience in various areas, including two independent directors and three senior executives of the Company, namely:

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|----|-------------------------------|--|
| 1. | Mr. Sommai Phasee | Chairman of the Sustainability and Risk Management Committee |
| 2. | Mr. Santi Boonprakub | Member of the Sustainability and Risk Management Committee |
| 3. | Mr. Ratthaphol Cheunsomchit | Member of the Sustainability and Risk Management Committee |
| 4. | Mrs. Porntipa Chinvetkitvanit | Member of the Sustainability and Risk Management Committee |
| 5. | Ms. Yupapin Wangviwat | Member of the Sustainability and Risk Management Committee |

In 2021, the SRMC held five meetings. All members of the SRMC carried out their duties within the scope of responsibility stated in the SRMC Charter, which is in alignment with the regulations of the Stock Exchange of Thailand. The key issues covered in the meetings can be summarized as follows.

1. Guidance on Company policies related to sustainability and risk management

The SRMC supported the Company’s efforts to ensure good corporate governance on matters of sustainability and risk management with the consideration and approval of two policy updates, namely, the Company’s Biodiversity policy and the Human Rights policy. In addition, the SRMC also considered the update of the Company’s Risk Management Manual to reflect the Company’s commitment and ensure alignment with corporate sustainability assessment criteria.

2. Sustainability oversight

The SRMC seeks to enhance the Company’s sustainability-related work to comply with legal and regulatory requirements and align with international standards. The SRMC thus reviewed, monitored, and provided guidance on the management of various sustainability-related topics such as environmental management at various projects, human rights management, and anti-bribery and corruption. In addition, the SRMC reviewed the Company’s participation in various Thai and international sustainability assessments including the S&P Global Corporate Sustainability Assessment, the Thailand Sustainability Investment (THSI) questionnaire by the Stock Exchange of Thailand, and the CDP Climate Change and Water Security questionnaires. The SRMC also reviewed and provided recommendations for the Company’s Sustainability Report 2020.

3. Risk management oversight and risk monitoring

The SRMC supports enhancing the Company's risk management practices. The SRMC reviewed the corporate risk assessment which covers business risks, ESG risks, and emerging risks. It also followed up on the management of such risks, as well as acknowledged reports on corporate risks and other key issues throughout the year. In addition, the SRMC also reviewed and provided recommendations related to specific risks such as risks arising from the Company's purchase of shares in Intouch Holdings Public Company Limited and corruption risks. The SRMC reviewed and endorsed the corruption risk assessment which was a key step in the Thai Private Sector Collective Action Against Corruption (CAC) membership application process, in line with the Company's earlier declaration of its intention to join the CAC.

4. Fostering understanding about sustainability and risk management

The SRMC was able to leverage its combined knowledge and experience to provide guidance and support the achievement of the Company's vision related to sustainability and risk management, placing great importance on encouraging all employees to engage in sustainability and risk management-related work. As such, the SRMC fostered the creation of a risk management culture across the organization, providing support for risk management and business continuity management training as well as the development of a business continuity management e-learning course for the Company's employees. In addition, the SRMC provided direction on communicating key issues related to sustainability and risk management to employees and other stakeholders, which will help improve employees' capabilities and increase the Company's resilience in the long term, leading to sustainable success.

In conclusion, the SRMC fulfilled its duties and responsibilities as stated in the SRMC Charter and closely monitored the Company's sustainability and risk management work. The SRMC was able to leverage its knowledge, experience, and prudence in providing opinions and recommendations as well as pushing the Company to achieve its operational targets and plans in a way which aligns with the Company's internal controls and the principles of good corporate governance. The SRMC is of the opinion that the Board of Directors, executives, and employees of all levels of the Company provided full cooperation and gave appropriate and adequate importance to sustainability and risk management-related matters, having performed their duties professionally with the aim of helping the Company to develop and grow sustainably.

On behalf of the Sustainability and Risk Management Committee



Mr. Sommai Phasee

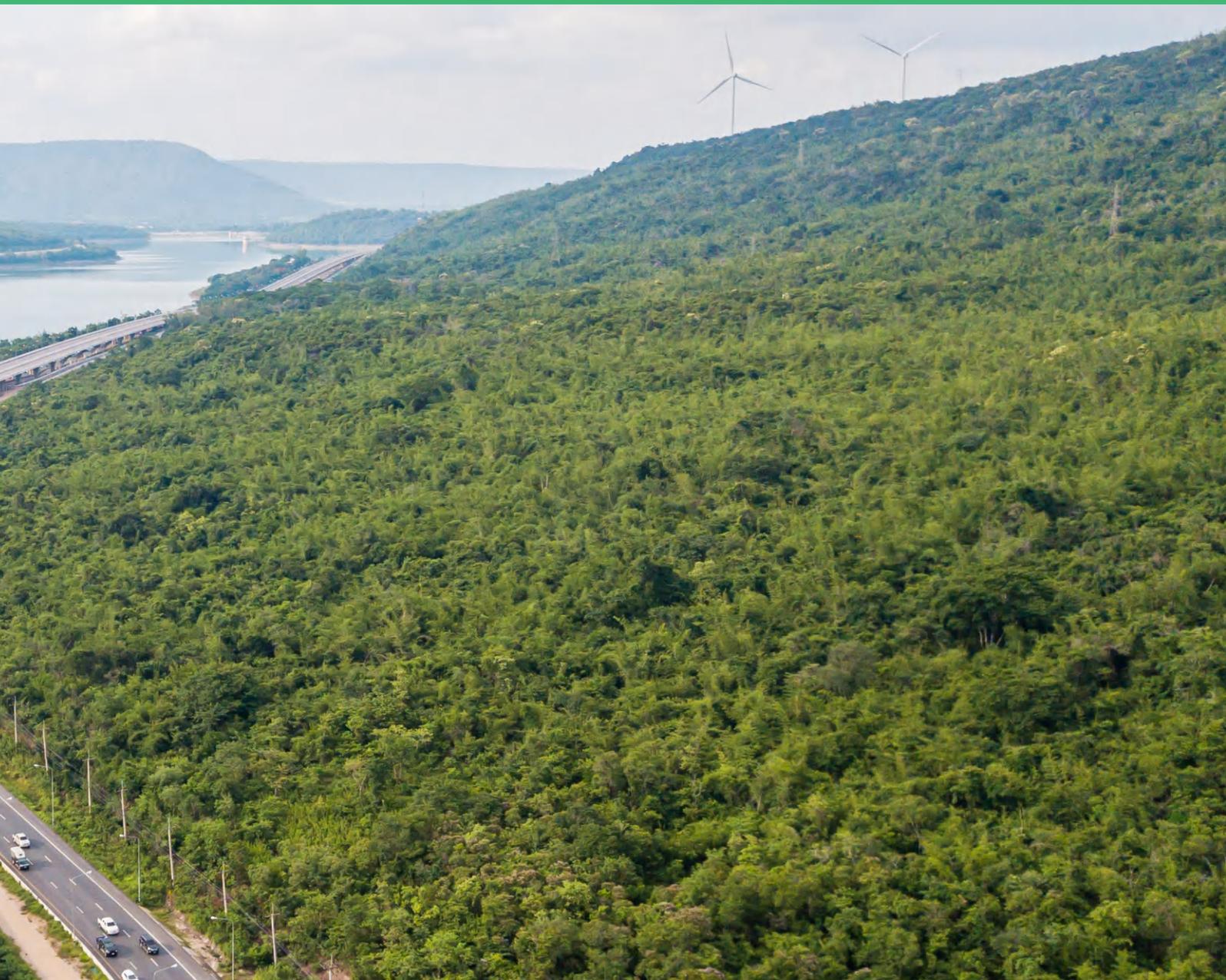
Chairman of the Sustainability and Risk Management Committee



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OTHER INFORMATION





INVESTMENT IN SUBSIDIARIES, ASSOCIATES, JOINT VENTURES AND JOINT OPERATIONS MATERIAL TO THE COMPANY'S BUSINESS (as of December 31, 2021)

Company Name	Type of Business	Registered Capital	Paid-Up Capital	Direct and Indirect Shareholding Percentage (%)	Office Location
Subsidiaries					
Thailand					
Gulf Renewable Energy Company Limited	Invest in power generation business from renewable energy	5,891.75 Million Baht	5,891.75 Million Baht	100.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf MP Company Limited	Invest in power generation business	13,515.00 Million Baht	13,515.00 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf VTP Company Limited	Production and distribution of electricity and steam	1,610.00 Million Baht	1,610.00 Million Baht	52.49	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf TS1 Company Limited	Production and distribution of electricity and steam	1,685.00 Million Baht	1,685.00 Million Baht	52.49	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf TS2 Company Limited	Production and distribution of electricity and steam	1,690.00 Million Baht	1,690.00 Million Baht	52.49	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf TS3 Company Limited	Production and distribution of electricity and steam	1,520.00 Million Baht	1,520.00 Million Baht	52.49	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf TS4 Company Limited	Production and distribution of electricity and steam	1,470.00 Million Baht	1,470.00 Million Baht	52.49	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf NC Company Limited	Production and distribution of electricity and steam	1,486.00 Million Baht	1,486.00 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok

Company Name	Type of Business	Registered Capital	Paid-Up Capital	Direct and Indirect Shareholding Percentage (%)	Office Location
Gulf BL Company Limited	Production and distribution of electricity and steam	1,515.00 Million Baht	1,515.00 Million Baht	52.50	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf BP Company Limited	Production and distribution of electricity and steam	1,510.00 Million Baht	1,510.00 Million Baht	52.50	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf NLL2 Company Limited	Production and distribution of electricity and steam	1,440.00 Million Baht	1,440.00 Million Baht	52.49	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf NPM Company Limited	Production and distribution of electricity and steam	1,405.00 Million Baht	1,405.00 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf NRV1 Company Limited	Production and distribution of electricity and steam	1,625.00 Million Baht	1,625.00 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf NRV2 Company Limited	Production and distribution of electricity and steam	1,495.00 Million Baht	1,495.00 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Independent Power Development Company Limited	Invest in power generation business	11,128.67 Million Baht	8,196.41 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf SRC Company Limited	Production and distribution of electricity	9,740.00 Million Baht	6,542.00 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf PD Company Limited	Production and distribution of electricity	1,500.00 Million Baht	1,459.15 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf Solar Company Limited	Invest in solar power business	50.44 Million Baht	50.44 Million Baht	74.99	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok

Company Name	Type of Business	Registered Capital	Paid-Up Capital	Direct and Indirect Shareholding Percentage (%)	Office Location
Gulf Solar BV Company Limited	Production and distribution of electricity from solar PV rooftop	7.66 Million Baht	7.66 Million Baht	74.99	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf Solar KKS Company Limited	Production and distribution of electricity from solar PV rooftop	29.67 Million Baht	29.67 Million Baht	74.99	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf Solar TS1 Company Limited	Production and distribution of electricity from solar PV rooftop	7.38 Million Baht	7.38 Million Baht	74.99	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf Solar TS2 Company Limited	Production and distribution of electricity from solar PV rooftop	5.55 Million Baht	5.55 Million Baht	74.99	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf Chana Green Company Limited	Production and distribution of electricity from biomass	643.00 Million Baht	643.00 Million Baht	100.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf Pattani Green Company Limited	Production and distribution of electricity from biomass	1.00 Million Baht	0.25 Million Baht	100.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf O&M Services Company Limited	Provider of services related to the operation and maintenance of the power plants	2.00 Million Baht	2.00 Million Baht	100.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf Engineering Services Company Limited	Provider of services related to engineering work of the power plants	2.00 Million Baht	2.00 Million Baht	100.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
GULF1 Company Limited	Provider of a full range of solar energy solutions and maintenance services	100.00 Million Baht	100.00 Million Baht	100.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf LNG Company Limited	Gas-related business and natural gas distribution	50.00 Million Baht	50.00 Million Baht	100.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok

Company Name	Type of Business	Registered Capital	Paid-Up Capital	Direct and Indirect Shareholding Percentage (%)	Office Location
Gulf MTP LNG Terminal Company Limited	Infrastructure construction and service provision of liquefied natural gas receiving terminal including storage of liquefied natural gas and regasification facilities	3,500.00 Million Baht	3,500.00 Million Baht	70.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf Innova Company Limited	Invest in digital Infrastructure and digital-related services business	10.00 Million Baht	10.00 Million Baht	100.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Overseas					
Gulf International Investment (Hong Kong) Limited	Securities investment	0.10 Million USD	0.10 Million USD	100.00	14 th Floor, One Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong
Kolpos Pte. Ltd.	General wholesale trade	41.00 Million USD	40.25 Million USD	100.00	1 Raffles Place #28-02 One Raffles Place Singapore (048616)
Global Mind Investment Management Pte. Ltd.	Holding company	30.82 Million USD	30.82 Million USD	70.50	60 Paya Lebar Road #10-52 Paya Lebar Square Singapore (409051)
Gulf International Holding Pte. Ltd.	Holding company	135.90 Million USD	135.90 Million USD	100.00	1 Raffles Place #28-02 One Raffles Place Singapore (048616)
Gulf Tay Ninh 1 Joint Stock Company	Production and distribution of electricity from solar power	411,000.00 Million VND	411,000.00 Million VND	90.00	C4 Road, Thanh Thanh Cong Industrial Zone, An Hoa Ward, Trang Bang Town, Tay Ninh Province, Vietnam
Gulf Tay Ninh 2 Joint Stock Company	Production and distribution of electricity from solar power	312,000.00 Million VND	312,000.00 Million VND	90.00	C4 Road, Thanh Thanh Cong Industrial Zone, An Hoa Ward, Trang Bang Town, Tay Ninh Province, Vietnam
Mekong Wind Power Joint Stock Company	Production and distribution of electricity from solar power and wind power	1,339,730.00 Million VND	1,339,730.00 Million VND	95.00	No. 75, 30/4 Street, An Hoi Ward, Ben Tre City, Ben Tre Province, Vietnam

Company Name	Type of Business	Registered Capital	Paid-Up Capital	Direct and Indirect Shareholding Percentage (%)	Office Location
Gulf Energy (Vietnam) Limited Liability Company	Provider of managerial, financial, technical, research and other services	51,700.00 Million VND	51,700.00 Million VND	100.00	Unit 5, Level 11, Saigon Centre, Tower 1, No. 65, Le Loi Street, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam
Gulf Energy Mauritius Company Limited	Holding company	0.10 Million USD	0.10 Million USD	100.00	Suite 122, 2 nd Floor, Harbour Front Building, President John Kennedy Street, Port Louis, Mauritius
Borkum Riffgrund 2 Investor Holding GmbH	Holding company	0.025 Million EURO	0.025 Million EURO	100.00	Eschersheimer Landstrabe 14, 60322 Frankfurt am Main, Germany

Associates

Thailand

Gulf JP Company Limited	Invest in power generation business	32,890.00 Million Baht	32,890.00 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP NS Company Limited	Production and distribution of electricity	11,104.55 Million Baht	11,104.55 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP UT Company Limited	Production and distribution of electricity	11,933.00 Million Baht	11,933.00 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP KP1 Company Limited	Production and distribution of electricity and steam	1,360.00 Million Baht	1,360.00 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP KP2 Company Limited	Production and distribution of electricity and steam	1,275.00 Million Baht	1,275.00 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP TLC Company Limited	Production and distribution of electricity and steam	1,365.00 Million Baht	1,365.00 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP NNK Company Limited	Production and distribution of electricity and chilled water	1,490.00 Million Baht	1,490.00 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok

Company Name	Type of Business	Registered Capital	Paid-Up Capital	Direct and Indirect Shareholding Percentage (%)	Office Location
Gulf JP CRN Company Limited	Production and distribution of electricity and steam	1,440.00 Million Baht	1,440.00 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP NK2 Company Limited	Production and distribution of electricity and steam	1,370.00 Million Baht	1,370.00 Million Baht	40.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP NLL Company Limited	Production and distribution of electricity, steam and chilled water	1,384.00 Million Baht	1,384.00 Million Baht	30.00	87 M. Thai Tower 8 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Gulf JP1 Company Limited	Production and distribution of electricity from solar PV rooftop	24.00 Million Baht	24.00 Million Baht	40.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
PTT Natural Gas Distribution Company Limited	Natural gas distribution business	500.00 Million Baht	500.00 Million Baht	42.00	555/1, 3 rd Floor, Building A, Energy Complex, Vibhavadi Rangsit Road, Chatuchak, Bangkok
Amata Natural Gas Distribution Company Limited	Natural gas distribution business	160.00 Million Baht	160.00 Million Baht	33.60	700/2 Moo 1, Bangna-Trad Road, Khlong Tamru, Muang Chonburi, Chonburi
Intouch Holdings Public Company Limited	Investments in the telecom, media and technology sector, including digital businesses (Holding Company)	5,000.00 Million Baht	3,206.60 Million Baht	42.25	349 SJ Infinite One Business Complex, 29 th and 30 th Floors, Vibhavadi-Rangsit Road, Chompol, Chatuchak Bangkok
Advanced Info Service Public Company Limited	Operate telecommunication business including mobile network service, fixed broadband service, and digital services	4,997.46 Million Baht	2,973.93 Million Baht	17.09	AIS Tower 1, 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok
Thaicom Public Company Limited	Operate 3 main business sectors as follows: 1. Satellite and Related Services 2. Internet and Media Services 3. Telephone Business	5,499.88 Million Baht	5,480.51 Million Baht	17.38	41/103 Rattana Thibet Road, Nonthaburi

Company Name	Type of Business	Registered Capital	Paid-Up Capital	Direct and Indirect Shareholding Percentage (%)	Office Location
Joint Ventures					
Thailand					
Gulf WHA MT Natural Gas Distribution Company Limited	Invest in natural gas transmission and distribution business	454.00 Million Baht	454.00 Million Baht	35.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
WHA Eastern Seaboard NGD2 Company Limited	Natural gas transmission and distribution business	216.00 Million Baht	216.00 Million Baht	35.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
WHA Eastern Seaboard NGD4 Company Limited	Natural gas transmission and distribution business	234.00 Million Baht	234.00 Million Baht	35.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Bangkok Smart Energy Company Limited	Holding company	36.00 Million Baht	36.00 Million Baht	33.33	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Bangkok Smart Power Company Limited	Operator of the electricity distribution system	4.50 Million Baht	4.50 Million Baht	13.33	Room S10008, 87/1 M. Thai Tower, 10 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Bangkok Smart DCS Company Limited	Operator of district cooling system and provider of water cooling and distribution services	4.50 Million Baht	4.50 Million Baht	16.33	Room S10008, 87/1 M. Thai Tower, 10 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Hin Kong Power Holding Company Limited	Invest in power generation business	3,652.00 Million Baht	917.20 Million Baht	49.00	72 Ngam Wong Wan Road, Bangkhen Subdistrict, Muang Nonthaburi District, Nonthaburi
Hin Kong Power Company Limited	Production and distribution of electricity	3,624.00 Million Baht	909.00 Million Baht	49.00	72 Ngam Wong Wan Road, Bangkhen Subdistrict, Muang Nonthaburi District, Nonthaburi

Company Name	Type of Business	Registered Capital	Paid-Up Capital	Direct and Indirect Shareholding Percentage (%)	Office Location
Burapa Power Holding Company Limited	Invest in power generation business	1,412.00 Million Baht	611.75 Million Baht	35.00	206 Moo 4, Tha Tum Subdistrict, Si Maha Phot District, Prachinburi
Burapa Power Generation Company Limited	Production and distribution of electricity	1,392.00 Million Baht	606.75 Million Baht	35.00	94/1 Moo 3, Khao Hin Son Subdistrict, Phanom Sarakham District, Chachoengsao
BGSR 6 Company Limited	Design and construction of toll collection system works and operation & maintenance of civil works and system works of the intercity motorway	1,000.00 Million Baht	1,000.00 Million Baht	40.00	21 Soi Choei Phuang, Viphavadi-Rangsit Road, Chomphon, Chatuchak, Bangkok
BGSR 81 Company Limited	Design and construction of toll collection system works and operation & maintenance of civil works and system works of the intercity motorway	850.00 Million Baht	850.00 Million Baht	40.00	21 Soi Choei Phuang, Viphavadi-Rangsit Road, Chomphon, Chatuchak, Bangkok
GPC International Terminal Company Limited	Operate port facilities and handling of containers	4,000.00 Million Baht	4,000.00 Million Baht	40.00	87 M. Thai Tower, 11 th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok
Overseas					
Centralised Utilities Company L.L.C.	Invest in businesses related to utilities	7.00 Million OMR	7.00 Million OMR	49.00	P.O. Box 80, Postal Code 102, Muscat, Sultanate of Oman
Duqm Power Company L.L.C.	Production and distribution of electricity and desalinated water	6.20 Million OMR	6.20 Million OMR	49.00	P.O. Box 80, Post Code 102, Special Economic Zone at Duqm/A1-Duqm, A1 Wusta Governorate, Sultanate of Oman
Joint Operation					
Overseas					
Borkum Riffgrund 2 Offshore Wind Farm GmbH & Co. oHG	Production and distribution of electricity from offshore wind power	0.025 Million EURO	0.025 Million EURO	50.00	Am Osthafen 2, 26506 Norden, Germany

DEFINITIONS

Company	Gulf Energy Development Public Company Limited
Group	The Company and companies in Gulf Group
ADVANC	Advanced Info Service Public Company Limited
AMATA NGD	Amata Natural Gas Distribution Company Limited
BGSR 6	BGSR 6 Company Limited
BGSR 81	BGSR 81 Company Limited
BKR2	Borkum Riffgrund 2 Offshore Wind Farm GmbH & Co. oHG
BPH	Burapa Power Holding Company Limited
BPP	Burapa Power Generation Company Limited
BSD	Bangkok Smart DCS Company Limited
BSE	Bangkok Smart Energy Company Limited
BSP	Bangkok Smart Power Company Limited
BTS	BTS Group Holdings Public Company Limited
BTU	British Thermal Unit, a unit of energy which is approximately the energy required to heat one pound of water for one Fahrenheit
Captive	Private power producer who sells electricity to only one customer or a single group of customers
CHEC	China Harbour Engineering Company Limited
CPB	CPB Equity Company Limited
DIPWP	Duqm Integrated Power and Water Project
DOH	Department of Highways
DPC	Duqm Power Company SPC
DRPIC	Duqm Refinery and Petrochemical Industries Company L.L.C
EDL-Gen	EDL-Generation Public Company
EGAT	The Electricity Generating Authority of Thailand
EPPO	Energy Policy and Planning Office
EVN	Vietnam Electricity
GBL	Gulf BL Company Limited a power project operator under GMP
GBP	Gulf BP Company Limited a power project operator under GMP
GCG	Gulf Chana Green Company Limited
GCRN	Gulf JP CRN Company Limited a power project operator under GJP
GEC	Gulf Electric Public Company Limited

GHC	Gulf Holding Company Limited, whose name has currently been changed to Land and House Property Development Company Limited
GIH	Gulf International Holding Private Limited
GJP	Gulf JP Company Limited, an associate in which the Company has a 40.0% equity interest
GJP1	Gulf JP1 Company Limited, an associate under GULF1
GKP1	Gulf JP KP1 Company Limited a power project operator under GJP
GKP2	Gulf JP KP2 Company Limited a power project operator under GJP
GMP	Gulf MP Company Limited, a subsidiary in which the Company has a 70.0% equity stake
GNC	Gulf NC Company Limited a power project operator under GMP
GNK2	Gulf JP NK2 Company Limited a power project operator under GJP
GNULL	Gulf JP NLL Company Limited a power project operator under GJP
GNULL2	Gulf NLL2 Company Limited a power project operator under GMP
GNNK	Gulf JP NNK Company Limited a power project operator under GJP
GNPM	Gulf NPM Company Limited a power project operator under GMP
GNRV1	Gulf NRV1 Company Limited a power project operator under GMP
GNRV2	Gulf NRV2 Company Limited a power project operator under GMP
GNS	Gulf JP NS Company Limited a power project operator under GJP
GPC	GPC International Terminal Company Limited a joint venture in which the Company has a 40% stake
GPD	Gulf PD Company Limited a power project operator under IPD
GSRC	Gulf SRC Company Limited a power project operator under IPD
GTLC	Gulf JP TLC Company Limited a power project operator under GJP
GTN1	Gulf Tay Ninh 1 Joint Stock Company, a power project operator under GIH
GTN2	Gulf Tay Ninh 2 Joint Stock Company, a power project operator under GIH
GTS1	Gulf TS1 Company Limited a power project operator under GMP
GTS2	Gulf TS2 Company Limited a power project operator under GMP
GTS3	Gulf TS3 Company Limited a power project operator under GMP
GTS4	Gulf TS4 Company Limited a power project operator under GMP
Gulf Engineering	Gulf Engineering Services Company Limited
Gulf HK	Gulf International Investment (Hong Kong) Limited
Gulf Innova	Gulf Innova Company Limited
Gulf LNG	Gulf LNG Company Limited
Gulf Mauritius	Gulf Energy Mauritius Company Limited
Gulf MTP	Gulf MTP LNG Terminal Company Limited, an operator of Map Ta Phut Port Phase 3 Project
Gulf O&M	Gulf O&M Services Company Limited
Gulf Pattani Green	Gulf Pattani Green Company Limited

Gulf Renewable Energy	Gulf Renewable Energy Company Limited (formerly known as Gulf Energy International Company Limited)
Gulf Solar	Gulf Solar Company Limited a subsidiary in which the Company has a 75.0% equity interest
Gulf Solar BV	Gulf Solar BV Company Limited a power project operator under Gulf Solar
Gulf Solar KKS	Gulf Solar KKS Company Limited a power project operator under Gulf Solar
Gulf Solar TS1	Gulf Solar TS1 Company Limited a power project operator under Gulf Solar
Gulf Solar TS2	Gulf Solar TS2 Company Limited a power project operator under Gulf Solar
Gulf WHA MT	Gulf WHA MT Natural Gas Distribution Company Limited a joint venture in which the Company has a 35.0% equity interest
Gulf Vietnam	Gulf Energy (Vietnam) Limited Liability Company
GULF1	GULF1 Company Limited
GUT	Gulf JP UT Company Limited a power project operator under GJP
GVTP	Gulf VTP Company Limited a power project operator under GMP
HKH	Hin Kong Power Holding Company Limited
HKP	Hin Kong Power Company Limited
IEAT	Industrial Estate Authority of Thailand
INTUCH	Intouch Holdings Public Company Limited
IPD	Independent Power Development Company Limited, a subsidiary in which the Company has a 70.0% equity interest
IPP	Independent Power Producer in which capacity sold to EGAT exceeds 90 megawatts
JPHT	J-Power Holdings (Thailand) Company Limited
J-Power	Electric Power Development Company Limited together with its consolidated subsidiaries, including GJP. J-Power is one of the world's largest coal-fired power plant developers and operators.
Kolpos	Kolpos Private Limited
LIBOR	The London Interbank Offered Rate
Marafiq	Centralised Utilities Company L.L.C.
Mekong	Mekong Wind Power Joint Stock Company
MIT-Power	Mit-Power Capitals (Thailand) Limited
MITG	MITG (Thailand) Company Limited
Mitsui & Co.	Mitsui & Co., Limited and its companies, including MIT-Power
MTP3	Map Ta Phut Industrial Port Development Phase 3 (Phase 1)
NPS	National Power Supply Public Company Limited
One Bangkok	Large-scale real estate project jointly invested by TCC Assets (Thailand) Company Limited and Frasers Property Holdings (Thailand) Company Limited
One DCS	One DCS Services Company Limited

One Power	One Power Services Company Limited
OQ	OQ SAOC.
Ørsted	Ørsted Wind Power A/S
Ørsted Group	Ørsted Salg & Service A/S
PAT	Port Authority of Thailand
PEA	The Provincial Electricity Authority
PPP Contract	Public Private Partnership Contract
PTT	PTT Public Company Limited
PTT NGD	PTT Natural Gas Distribution Company Limited
PTT Tank	PTT Tank Terminal Company Limited
RATCH	RATCH Group Public Company Limited
Singtel	Singapore Telecommunications Limited
SPCG	SPCG Public Company Limited
SPP	Small Power Producer in which capacity sold to EGAT exceeds 10 megawatts but less than 90 megawatts
STEC	Sino-Thai Engineering and Construction Public Company Limited
TFRIC 4	Revenue recognition standard applied for the IPPs to record revenue from availability payment as income from finance lease
TGES	Tokyo Gas Engineering Solutions Corporation
THCOM	Thaicom Public Company Limited
TTC Group	Thanh Thanh Cong Group
UDA	Utility Development Agreement
VSP	Very Small Power Producer in which capacity sold to PEA or MEA is less than 10 megawatts
WHA Energy	WHA Energy Company Limited
WHA Group	WHA Corporation Public Company Limited, together with its consolidated subsidiaries
WHA NGD2	WHA Eastern Seaboard NGD2 Company Limited
WHA NGD4	WHA Eastern Seaboard NGD4 Company Limited

04

ATTACHMENTS





PROFILES OF BOARD OF DIRECTORS, MANAGEMENT, CONTROLLERS, THE PERSON TAKING THE HIGHEST RESPONSIBILITY IN FINANCE AND ACCOUNTING, THE PERSON SUPERVISING ACCOUNTING AND COMPANY SECRETARY

Profiles of the Board of Directors, Management, Controllers, the Person Taking the Highest Responsibility in Finance and Accounting, the Person Supervising Accounting and Company Secretary are shown in the section of Governance, the Board of Directors and Management Profiles.

Profiles of Directors and Management of the Company' Direct Subsidiaries undertaking the Company's Core Business

Independent Power Development Company Limited

1. Mr. Junta Sasaji

Position: Director and Chairman of the Board

Date of Appointment: June 15, 2021

Age: 56 years

Education / Training

- Bachelor of Engineering (Mechanical Engineering), Waseda University, Japan

Director Training - None -

Working Experience (during the recent 5 years) and/or Important Positions

- 2019 – 2021 Deputy General Manager, Division III (South America), Infrastructure Projects Business Unit, Mitsui & Co., Ltd.
 2017 – 2019 Deputy General Manager, Japan Projects Development Division, Infrastructure Projects, Business Unit, Mitsui & Co., Ltd.
 2015 – 2017 Senior Auditing Manager, Planning & Administration Department, Internal Auditing Division, Mitsui & Co., Ltd.

Directorship Positions / Other Positions at Present

- **Listed Companies** - None -

- **Non - Listed Companies**

- 2021 – Present Director, Gulf MP1 Company Limited
- 2021 – Present Director and Chairman of the Board, Independent Power Development Company Limited
- 2021 – Present Director, Gulf SRC Company Limited
- 2021 – Present Director, Gulf PD Company Limited
- 2021 – Present Director, Gulf MP Company Limited
- 2021 – Present Director, Gulf WHA MT Natural Gas Distribution Company Limited
- 2021 – Present Director, Bangkok Smart Energy Company Limited
- 2021 – Present Director and Managing Director, Mit-Power Capitals (Thailand) Company Limited
- 2021 – Present Director, MITG (Thailand) Company Limited
- 2021 – Present Director, Mit-Power (Thailand) Company Limited

Shareholding in the Company (as of December 30, 2021):

Personal: - None -

Spouse or minor child: - None -

260 Relationship among Family with Other Directors and Management: - None -

Independent Power Development Company Limited

2. Mr. Smith Banomyong

Position: Director and Managing Director

Date of Appointment: September 3, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

3. Ms. Natcharee Pongrattanadej

Position: Director

Date of Appointment: September 3, 2021

Age: 46 years

Education / Training

- Master of Arts, Faculty of Liberal Arts, Thammasat University
- Bachelor of Accountancy, Faculty of Commerce and Accountancy, Chulalongkorn University
- Certified Public Accountant, Federation of Accounting Professions Thailand

Director Training

- Director Certification Program (DCP), Class 267/2018, Thai Institute of Directors

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021 Head of Asset Management – International, Gulf Energy Development Public Company Limited

2016 – 2020 Deputy Head of Internal Audit, The Siam Commercial Bank Public Company Limited

Directorship Positions / Other Positions at Present

• Listed Companies

2021 – Present Head of Asset Management – International and Deputy COO - Group Asset Management & Investment, Gulf Energy Development Public Company Limited

• Non - Listed Companies

2021 – Present Director, Gulf JP NS Company Limited

2021 – Present Director, Gulf JP UT Company Limited

2021 – Present Director, Gulf JP KP1 Company Limited

2021 – Present Director, Gulf JP KP2 Company Limited

2021 – Present Director, Gulf JP TLC Company Limited

2021 – Present Director, Gulf JP NNK Company Limited

2021 – Present Director, Gulf JP NLL Company Limited

2021 – Present Director, Gulf JP CRN Company Limited

2021 – Present Director, Gulf JP NK2 Company Limited

2021 – Present Director, Gulf MP Company Limited

2021 – Present Director, Gulf VTP Company Limited

2021 – Present Director, Gulf TS1 Company Limited

2021 – Present Director, Gulf TS2 Company Limited

2021 – Present Director, Gulf TS3 Company Limited

2021 – Present Director, Gulf TS4 Company Limited

2021 – Present Director, Gulf NLL2 Company Limited

2021 – Present Director, Gulf BL Company Limited

2021 – Present Director, Gulf BP Company Limited

2021 – Present Director, Gulf NC Company Limited

2021 – Present Director, Gulf NPM Company Limited

2021 – Present Director, Gulf NRV1 Company Limited

Independent Power Development Company Limited

3. Ms. Natcharee Pongrattanadej (Continued)

2021 – Present	Director, Gulf NRV2 Company Limited
2021 – Present	Director, Gulf Chana Green Company Limited
2021 – Present	Director, Gulf Pattani Green Company Limited
2021 – Present	Director, Independent Power Development Company Limited
2021 – Present	Director, Gulf SRC Company Limited
2021 – Present	Director, Gulf PD Company Limited
2021 – Present	Director, Gulf WHA MT Natural Gas Distribution Company Limited
2021 – Present	Director, WHA Eastern Seaboard NGD2 Company Limited
2021 – Present	Director, WHA Eastern Seaboard NGD4 Company Limited
2021 – Present	Director, Gulf Solar Company Limited
2021 – Present	Director, Gulf Solar BV Company Limited
2021 – Present	Director, Gulf Solar TS1 Company Limited
2021 – Present	Director, Gulf Solar TS2 Company Limited
2021 – Present	Director, Gulf Solar KKS Company Limited
2021 – Present	Director, PTT Natural Gas Distribution Company Limited
2021 – Present	Director, Global Mind Investment Management Pte. Ltd.
2021 – Present	Director, Gulf International Investment (Hong Kong) Limited
2021 – Present	Director, Kolpos Pte. Ltd.
2021 – Present	Director, Gulf Energy Mauritius Company Limited
2020 – Present	Director, Gulf Tay Ninh 1 Joint Stock Company
2020 – Present	Director, Gulf Tay Ninh 2 Joint Stock Company
2020 – Present	Director, Mekong Wind Power Joint Stock Company

Shareholding in the Company (as of December 30, 2021):

Personal: - None -

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management: - None -

4. Mr. Pitak Sangchot

Position: Director

Date of Appointment: September 3, 2021

Age: 56 years

Education / Training

- Master of Engineering (Industrial Management), King Mongkut's University of Technology North Bangkok
- Bachelor of Industrial Education (Electrical Engineering), King Mongkut's University of Technology North Bangkok

Director Training - None -

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021	Director, Gulf Cogeneration Company Limited
2020 – 2021	Director, Gulf WHA MT Natural Gas Distribution Company Limited
2020 – 2021	Director, WHA Eastern Seaboard NGD2 Company Limited
2020 – 2021	Director, WHA Eastern Seaboard NGD4 Company Limited
2020 – 2021	Deputy Head of Asset Management (Operation & Maintenance), Gulf Energy Development Public Company Limited
2020 – 2020	Deputy Head of Asset Optimization (Operation & Maintenance), Gulf Energy Development Public Company Limited
2019 – 2019	Head of Asset Management Group, Gulf Energy Development Public Company Limited

Independent Power Development Company Limited

4. Mr. Pitak Sangchot (Continued)

2018 – 2018 Vice President – Plant Operation & Maintenance (IPPs), Gulf Energy Development Public Company Limited

2013 – 2018 Plant Manager, Gulf Power Generation Company Limited

Directorship Positions / Other Positions at Present

• Listed Companies

2021 – Present Head of Asset Management – Domestic, Gulf Energy Development Public Company Limited

• Non - Listed Companies

2021 – Present Director, Gulf O&M Services Company Limited

2020 – Present Director, Gulf Energy Company Limited

2020 – Present Director, Gulf IPP Company Limited

2020 – Present Director, Gulf Power Generation Company Limited

2020 – Present Director, Nong Khae Cogeneration Company Limited

2020 – Present Director, Samutprakarn Cogeneration Company Limited

2020 – Present Director, Gulf Yala Green Company Limited

Shareholding in the Company (as of December 30, 2021):

Personal: 0.000%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management: - None -

5. Mr. Supoj Piboonphitakphon

Position: Director

Date of Appointment: September 23, 2021

Age: 46 years

Education / Training

- Master of Business Administration, Sasin Graduate Institute of Business Administration, Chulalongkorn University
- Bachelor of Business Administration (General Management), Assumption University

Director Training - None -

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2020 Senior Vice President II – Finance, Gulf Energy Development Public Company Limited

2018 – 2019 Senior Vice President I – Finance, Gulf Energy Development Public Company Limited

2016 – 2018 Vice President – Finance, Gulf Energy Development Public Company Limited

Directorship Positions / Other Positions at Present

• Listed Companies

2021 – Present Executive Vice President – Finance, Gulf Energy Development Public Company Limited

• Non - Listed Companies

2021 – Present Director, GPC International Terminal Company Limited

2021 – Present Director, Independent Power Development Company Limited

2021 – Present Director, Gulf SRC Company Limited

2021 – Present Director, Gulf PD Company Limited

2020 – Present Director, Gulf Engineering Services Company Limited

Shareholding in the Company (as of December 30, 2021):

Personal: - None -

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management: - None -

Independent Power Development Company Limited

6. Mr. Chalong Jarupattarakorn

Position: Director

Date of Appointment: September 23, 2021

Age: 42 years

Education / Training

- Bachelor of Engineering (Mechanical Engineering), Chulalongkorn University

Director Training - None -

Working Experience (during the recent 5 years) and/or Important Positions

2018 – 2021 Senior Vice President I – Engineering, Gulf Energy Development Public Company Limited

2015 – 2018 Vice President – Engineering, Gulf Energy Development Public Company Limited

2015 – 2018 Vice President – Engineering, Gulf JP Company Limited

Directorship Positions / Other Positions at Present

• **Listed Companies**

2021 – Present Head of Engineering, Gulf Energy Development Public Company Limited

• **Non - Listed Companies**

2021 – Present Director, Independent Power Development Company Limited

2021 – Present Director, Gulf SRC Company Limited

2021 – Present Director, Gulf PD Company Limited

2021 – Present Director, Gulf MP Company Limited

2021 – Present Director, Gulf VTP Company Limited

2021 – Present Director, Gulf TS1 Company Limited

2021 – Present Director, Gulf TS2 Company Limited

2021 – Present Director, Gulf TS3 Company Limited

2021 – Present Director, Gulf TS4 Company Limited

2021 – Present Director, Gulf NLL2 Company Limited

2021 – Present Director, Gulf BL Company Limited

2021 – Present Director, Gulf BP Company Limited

2021 – Present Director, Gulf NC Company Limited

2021 – Present Director, Gulf NPM Company Limited

2021 – Present Director, Gulf NRV1 Company Limited

2021 – Present Director, Gulf NRV2 Company Limited

Shareholding in the Company (as of December 30, 2021):

Personal: 0.002%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management: - None -

Independent Power Development Company Limited

7. Mr. Kazumichi Homma

Position: Director

Date of Appointment: October 1, 2021

Age: 41 years

Education / Training

- Bachelor of Arts (Social Sciences), Hitotsubashi University, Japan

Director Training - None -

Working Experience (during the recent 5 years) and/or Important Positions

- 2020 – 2021 General Manager, Third Department, Division II (Middle East, Africa, Russia & CIS, India), Mitsui & Co., Ltd.
- 2019 – 2020 Deputy General Manager, First Department, Division II (Middle East, Africa, Russia & CIS, India), Mitsui & Co., Ltd.
- 2017 – 2019 Manager of Strategic Planning Department, Infrastructure Projects Business Unit, Mitsui & Co., Ltd.
- 2011 – 2017 Manager of Fourth Department, Division I (South East Asia), Mitsui & Co., Ltd.

Directorship Positions / Other Positions at Present

- **Listed Companies** - None -

- **Non - Listed Companies**

- 2021 – Present Director, Gulf MP1 Company Limited
- 2021 – Present Director, Independent Power Development Company Limited
- 2021 – Present Director, Gulf MP Company Limited
- 2021 – Present Director, Bangkok Smart Energy Company Limited
- 2021 – Present Director, Mit-Power Capitals (Thailand) Limited
- 2021 – Present General Manager, Third Department, Division I (Asia), Mitsui & Co., Ltd.

Shareholding in the Company (as of December 30, 2021):

Personal: - None -

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management: - None -

Gulf MP Company Limited

1. Mr. Smith Banomyong

Position: Director, Chairman of the Board and Managing Director

Date of Appointment: September 3, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

2. Mr. Junta Sasaji

Position: Director

Date of Appointment: June 15, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles of IPD.

3. Ms. Natcharee Pongrattanadej

Position: Director

Date of Appointment: September 3, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles of IPD.

4. Mr. Surapong Sirumpukul

Position: Director

Date of Appointment: September 3, 2021

Age: 50 years

Education / Training

- Bachelor of Engineering (Mechanical Engineering), Ubon Ratchathani University

Director Training - None -

Working Experience (during the recent 5 years) and/or Important Positions

2020 – 2021	Senior Vice President I – Power Generation, Gulf Energy Development Public Company Limited
2020 – 2020	Senior Vice President – Project Development, Gulf Energy Development Public Company Limited
2020 – 2020	Vice President – Project Development, Gulf Energy Development Public Company Limited
2019 – 2020	Vice President – Plant Operation and Maintenance (IPPs), Gulf Energy Development Public Company Limited
2016 – 2019	Plant Manager, Gulf JP UT Company Limited

Directorship Positions / Other Positions at Present

Listed Companies

- 2021 – Present Head of Asset Management - Domestic, Gulf Energy Development Public Company Limited

Gulf MP Company Limited

4. Mr. Surapong Siriumpunkul (Continued)

• Non - Listed Companies

2021 – Present	Director, Gulf MP Company Limited
2021 – Present	Director, Gulf VTP Company Limited
2021 – Present	Director, Gulf TS1 Company Limited
2021 – Present	Director, Gulf TS2 Company Limited
2021 – Present	Director, Gulf TS3 Company Limited
2021 – Present	Director, Gulf TS4 Company Limited
2021 – Present	Director, Gulf NLL2 Company Limited
2021 – Present	Director, Gulf BL Company Limited
2021 – Present	Director, Gulf BP Company Limited
2021 – Present	Director, Gulf NC Company Limited
2021 – Present	Director, Gulf NPM Company Limited
2021 – Present	Director, Gulf NRV1 Company Limited
2021 – Present	Director, Gulf NRV2 Company Limited
2021 – Present	Director, Gulf Solar Company Limited
2021 – Present	Director, Gulf Solar BV Company Limited
2021 – Present	Director, Gulf Solar TS1 Company Limited
2021 – Present	Director, Gulf Solar TS2 Company Limited
2021 – Present	Director, Gulf Solar KKS Company Limited
2021 – Present	Director, Gulf Chana Green Company Limited
2021 – Present	Director, Gulf Pattani Green Company Limited
2021 – Present	Director, Gulf WHA MT Natural Gas Distribution Company Limited
2021 – Present	Director, WHA Eastern Seaboard NGD2 Company Limited
2021 – Present	Director, WHA Eastern Seaboard NGD4 Company Limited

Shareholding in the Company (as of December 30, 2021):

Personal: - None -

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management: - None -

5. Ms. Chuda Tantipanitkoon

Position: Director

Date of Appointment: September 23, 2021

Age: 47 years

Education / Training

- Master of Business Administration (Corporate Finance), Virginia Polytechnic Institute & State University
- Bachelor of Business Administration (Finance and Banking), Chulalongkorn University

Director Training - None -

Working Experience (during the recent 5 years) and/or Important Positions

2021 – 2021	Chief Financial Officer, Gulf Holdings (Thailand) Company Limited
2020 – 2020	Head of Corporate Finance, Asia Era One Company Limited
2018 – 2019	Senior Vice President – Finance, Gulf Energy Development Public Company Limited
2015 – 2018	Vice President – Finance, Gulf Energy Development Public Company Limited

Gulf MP Company Limited

5. Ms. Chuda Tantipanitkoon (Continued)

Directorship Positions / Other Positions at Present

- **Listed Companies**

2021 – Present Head of Finance Operation/ Management, Gulf Energy Development Public Company Limited

- **Non - Listed Companies**

2021 – Present Director, Gulf MP Company Limited
2021 – Present Director, Gulf VTP Company Limited
2021 – Present Director, Gulf TS1 Company Limited
2021 – Present Director, Gulf TS2 Company Limited
2021 – Present Director, Gulf TS3 Company Limited
2021 – Present Director, Gulf TS4 Company Limited
2021 – Present Director, Gulf NLL2 Company Limited
2021 – Present Director, Gulf BL Company Limited
2021 – Present Director, Gulf BP Company Limited
2021 – Present Director, Gulf NC Company Limited
2021 – Present Director, Gulf NPM Company Limited
2021 – Present Director, Gulf NRV1 Company Limited
2021 – Present Director, Gulf NRV2 Company Limited

Shareholding in the Company (as of December 30, 2021):

Personal: 0.001%

Spouse or minor child: - None -

Relationship among Family with Other Directors and Management: - None -

6. Mr. Chalong Jarupattarakorn

Position: Director

Date of Appointment: September 23, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles of IPD.

7. Mr. Kazumichi Homma

Position: Director

Date of Appointment: October 1, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles of IPD.

Gulf Renewable Energy Company Limited

1. Mr. Sarath Ratanavadi

Position: Director and Chairman of the Board

Date of Appointment: September 1, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

2. Mrs. Pornnipa Chinvetkitvanit

Position: Director

Date of Appointment: September 1, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

3. Ms. Yupapin Wangviwat

Position: Director

Date of Appointment: April 11, 2018

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

4. Mr. Ratthaphol Cheunsomchit

Position: Director

Date of Appointment: September 1, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

5. Mr. Ravi Kurmarohita

Position: Director and Chief Executive Officer

Date of Appointment: September 1, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

6. Mr. Worapong Vivatanavanich

Position: Director

Date of Appointment: October 15, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

7. Mr. Smith Banomyong

Position: Director

Date of Appointment: September 1, 2021

Details on education, training, working experience, shareholding in the Company and relationship among family with other directors and management are shown in the Board of Directors and Management Profiles.

Information of the Company's representative directors and executives who are directors and executives in the subsidiaries, associates, joint ventures and joint operation of which their operations are significant (as of December 31, 2021)

Subsidiaries	Director/Executive							
	Mr. Viset Choopiban	Mr. Kasem Snidvongs	Mr. Sommai Phasee	Dr. Raweporn Kuhirun	Mr. Santi Boonprakub	Mr. Sarath Ratanavadi	Mrs. Pornnipa Chinvetkitvanit	Mr. Boonchai Thirati
GED	★	●	●	●	●	●, //	●, //	●, //
IPD								
GSRC							//	//
GPD								
GMP								
GVTP							//	//
GTS1							//	//
GTS2							//	//
GTS3							//	//
GTS4							//	//
GNLL2							//	//
GNC							//	//
GNPM							//	//
GNRV1							//	//
GNRV2							//	//
GBL							//	//
GBP							//	//
GRE						★	●	
GSL								
GSBV							//	//
GSKKS							//	//
GSTS1							//	//
GSTS2							//	//
GULF1						★	●	
GCG							//	//
GPNG								
GULF O&M							★	
GES							★	
GULF LNG							★	
GULF MTP								●
GULF INNOVA						★		
GULF HK								
KOLPOS								
GMIM								
GIH								
GTN1								
GTN2								
MEKONG								
GULF VN								★
GULF MAURITIUS								
BKR2 HOLDING								

Information of the Company's representative directors and executives who are directors and executives in the subsidiaries, associates, joint ventures and joint operation of which their operations are significant (as of December 31, 2021)

Associates, Joint Ventures And Joint Operation	Director/Executive							
	Mr. Viset Choopiban	Mr. Kasem Snidvongs	Mr. Sommai Phasee	Dr. Raweporn Kuhirun	Mr. Santi Boonprakub	Mr. Sarath Ratanavadi	Mrs. Porntipa Chinvetkitvanit	Mr. Boonchai Thirati
GJP	★						●	
GNS								
GUT								
GKP1								
GKP2								
GTLC								
GNNK								
GCRN								
GNK2								
GNLL								
GJP1							●	
PTT NGD								
AMATA NGD								
INTUCH						●		
ADVANC						●		
THCOM								●
GWHAMT								
WHA NGD2								
WHA NGD4								
BSE								
BSD								
BSP								
HKH							●	
HKP							●	
BPH								
BPP								
BGSR6								
BGSR81								
GPC								
MARAFIQ								
DPC								
BKR2								

Remark ★ = Chairman of the Board ● = Director // = Executive

INFORMATION OF THE DIRECTORS OF A SUBSIDIARY OF WHICH ITS REVENUES EXCEED 10% OF THE TOTAL REVENUES IN THE CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(as of December 31, 2021)

Gulf SRC Company Limited (“GSRC”)

As of December 31, 2021, the Board of Directors of GSRC consists of 5 directors as follows:

	Name - Surname	Position
1.	Mr. Smith Banomyong*	Chairman of the Board
2.	Mr. Junta Sasaji	Director
3.	Mr. Supoj Piboonphitakphon*	Director
4.	Ms. Natcharee Pongrattanadej*	Director
5.	Mr. Chalong Jarupattarakorn*	Director

Remark * The Company's representative directors in the subsidiary

ASSETS USED IN OPERATIONS

1. Fixed assets

The Group conducts its main business in the generation and distribution of electricity and steam, gas storage and regasification and other related businesses domestically and overseas. Consequently, the fixed assets tabulated below comprise fixed assets of the Company and its subsidiaries at net book value (included the impact from adoption of TFRS 16) as stated in the consolidated financial statements as at 31 December 2021 and 2020. Details are as below.

Items	Book value (THB million)		Encumbrance value (THB million)
	31 December 2020	31 December 2021	
1 Land	3,445	3,445	3,417
2 Power plants	93,310	91,109	54,676
3 Tools, equipment, and vehicles	209	195	-
4 Assets under construction	32,754	35,379	27,536
Total	129,718	130,128	85,629

Land, future constructions, power plants, machinery, and certain power plant equipment with total net book value of 85,629 million Baht (including the impact from adoption of TFRS 16) were mortgaged and pledged as collaterals for loans from financial institutions.

2. Intangible assets

As at 31 December 2021 and 2020, the book value of intangible assets of the Company and its subsidiaries, as stated in the consolidated financial statements, are as described below.

Item	Book value (THB million)	
	31 December 2020	31 December 2021
1 Software licenses	37	37
2 Rights to the Power Purchase Agreement	9,637	9,445
3 Rights to use substation	-	660
4 Rights to use gas pipeline	-	912
5 Intangible assets under development	-	7
Total	9,674	11,061

3. Business operations agreements

As at 31 December 2021, the Company and its subsidiaries entered into agreements, which are necessary for business operation of each company. Details are as summarized below.

Lessee	Agreement	Lessor	Purpose	Term	Start date – End date
The Company	Office rental agreement	All Seasons Property Company Limited	To use as business workplace or office	3 years	18 April 2019 - 23 September 2024
GSRC	Agreement to use land for laying gas pipelines	WHA Eastern Seaboard Industrial Estate Company Limited	To lay gas pipeline and relevant equipment	29 years	4 October 2018 - 30 September 2047
GVTP	Agreement to use land for laying gas pipelines	Eastern Seaboard Industrial Estate (Rayong) Company Limited	To lay gas pipeline system and equipment	26 years, 8 months, and 9 days	23 December 2015 - 31 August 2042
GVTP	Agreement to use land for laying transmission lines and steam pipelines	Eastern Seaboard Industrial Estate (Rayong) Company Limited	To lay transmission line system and steam pipelines	26 years, 4 months, and 8 days	23 December 2015 - 30 April 2042
GTS1	Agreement to use land for laying gas pipelines	Eastern Seaboard Industrial Estate (Rayong) Company Limited	To lay gas pipeline system and equipment	26 years, 8 months, and 9 days	23 December 2015 - 31 August 2042
GTS1	Agreement to use land for laying transmission lines and steam pipelines	Eastern Seaboard Industrial Estate (Rayong) Company Limited	To lay transmission line system and steam pipelines	26 years, 6 months, and 8 days	23 December 2015 - 30 June 2042
GTS2	Agreement to use land for laying transmission lines and steam pipelines	Eastern Seaboard Industrial Estate (Rayong) Company Limited	To lay transmission line system and steam pipelines	26 years, 8 months, and 9 days	23 December 2015 - 31 August 2042
GTS3	Agreement to use land for laying gas pipelines	WHA Eastern Seaboard Industrial Estate Company Limited	To lay gas pipeline system and equipment	26 years, 7 months, and 13 days	19 May 2016 - 31 December 2042
GTS3	Agreement to use land for laying transmission lines and steam pipelines	WHA Eastern Seaboard Industrial Estate Company Limited	To lay transmission line system and steam pipelines	26 years, 5 months, and 13 days	19 May 2016 - 31 October 2042
GTS4	Agreement to use land for laying a transmission line and a steam pipeline	WHA Eastern Seaboard Industrial Estate Company Limited	To lay transmission line system and steam pipelines	26 years, 7 months, and 13 days	19 May 2016 - 31 December 2042
GNC	Agreement to use land for laying gas pipelines	Saha Pathana Inter-Holding Public Company Limited	To lay gas pipeline system and equipment	26 years and 2 months	31 December 2016 - 28 February 2043
GNC	Agreement to use land for laying raw water pipelines, gas pipelines and transmission lines	Saha Pathana Inter-Holding Public Company Limited	To lay raw water pipelines, gas pipelines and transmission lines	26 years and 2 months	31 December 2016 - 28 February 2043

Lessee	Agreement	Lessor	Purpose	Term	Start date - End date
GNC	Agreement to use land for laying steam pipelines, and 2 nd phase transmission lines	Saha Pathana Inter-Holding Public Company Limited	To lay steam pipelines, and 2 nd phase transmission lines	25 years and 2 months	31 December 2017 - 28 February 2043
GNC	Agreement to use land for laying transmission lines	Kabinburi Industrial Zone Limited	To lay transmission lines	22 years and 2 months	1 January 2021 - 28 February 2043
GBL	Agreement to use land for laying gas pipelines	Thai Industrial Estate Corporation Limited	To lay gas pipeline system and equipment	25 years, 10 months, and 20 days	20 October 2017 - 31 August 2043
GBL	Agreement to use land for laying transmission lines, steam pipelines and wastewater pipelines	Thai Industrial Estate Corporation Limited	To lay transmission lines, steam pipelines and wastewater pipelines	25 years, 10 months, and 20 days	20 October 2017 - 31 August 2043
GBP	Agreement to use land for laying gas pipelines	Thai Industrial Estate Corporation Limited	To lay gas pipeline system and equipment	25 years, 10 months, and 20 days	20 October 2017 - 31 August 2043
GBP	Agreement to use land for laying transmission lines, steam pipelines and wastewater pipelines	Thai Industrial Estate Corporation Limited	To lay transmission lines, steam pipelines and wastewater pipelines	25 years, 10 months, and 20 days	20 October 2017 - 31 August 2043
GNLL2	Agreement to use land for laying electrical conduit pipelines and installing 22kV and 115kV transmission lines	WHA Rayong Industrial Land Company Limited	To lay electrical conduit pipelines and install 22kV and 115kV transmission lines	30 years	1 January 2019 - 31 December 2048
GNPM	Agreement to use land for laying gas pipelines	WHA Saraburi Industrial Land Company Limited	To lay gas pipeline system and relevant equipment	27 years	11 September 2017 - 10 September 2044
GNPM	Agreement to use land for laying steam pipelines, electrical conduit and electricity poles	WHA Saraburi Industrial Land Company Limited	To lay steam pipelines, electrical conduit, electricity poles and relevant equipments	26 years	1 August 2018 - 31 July 2044
GNRV2	Agreement to use land for installing electricity transmission and distribution system	Mrs. Chaweewan Leegomonchai	To lay poles for electric wire and construct electricity poles	25 years	1 July 2019 - 30 June 2044
GNRV2	Agreement to use land for laying gas pipelines	Mr. Sumitr Laowansiri	To lay gas pipeline system	25 years, 4 months, and 13 days	18 February 2019 - 30 June 2044
Gulf Solar TS1	Agreement to use land for installing solar panels	WHA Eastern Seaboard Industrial Estate Company Limited	To use rooftop area, building, and land for installation of solar panels and relevant equipment	24 years and 8 months	21 April 2014 - 30 December 2038

Lessee	Agreement	Lessor	Purpose	Term	Start date – End date
Gulf Solar TS2	Agreement to use land for installing solar panels	Eastern Seaboard Industrial Estate (Rayong) Company Limited	To use rooftop area, building, and land for installation of solar panels and relevant equipment	24 years and 3 months	19 September 2014 - 30 December 2038
Gulf Solar BV	Agreement to use land for installing solar panels	WHA Industrial Development Public Company Limited	To use rooftop area, building, and land for installation of solar panels and relevant equipment	24 years and 8 months	9 April 2014 - 30 December 2038
Gulf Solar KKS	Agreement to use land for installing solar panels	WHA Industrial Building Company Limited	To use rooftop area, building, and land for installation of solar panels and relevant equipment	24 years and 3 months	19 September 2014 - 30 December 2038
Gulf Solar KKS	Agreement to install rooftop photovoltaic systems (Chamchuri Square and Wittayakit Building)	Chulalongkorn University	To install and manage rooftop photovoltaic systems	15 years	1 September 2021 - 31 August 2036
Gulf Solar KKS	Agreement to install rooftop photovoltaic systems (CU Terrace and CU Ihouse)	Chulalongkorn University	To install and manage rooftop photovoltaic systems	15 years	21 December 2021 - 20 December 2036
GTN1	Land use right	People's Committee of Tay Ninh Province	To install solar panels and relevant equipment	40 years and 5 months	9 July 2018 - 26 December 2058
GTN2	Land use right	People's Committee of Tay Ninh Province	To install solar panel and relevant equipment	40 years and 5 months	9 July 2018 - 26 December 2058
MKW	Sea use right	People's Committee of Ben Tre Province	To use sea area to install wind turbines and relevant equipment	22 years	15 September 2019 - 14 September 2041
GMTP	Public Private Partnership Contract in Map Ta Phut Industrial Port Development Phase 3	Industrial Estate Authority of Thailand (IEAT)	To construct infrastructure and LNG terminal	35 years	28 December 2021 - 27 December 2056
GEV	Office rental agreement	Anphu Company Limited	To use as business workplace or office	3 years	14 February 2020 - 13 February 2023

THE CHARTER OF BOARD OF DIRECTORS

The Board of Directors is the representative of the shareholders responsible for management and operations of the company, whose roles include defining the company's direction, business policies, fair treatment to the stakeholders, and ensuring operating transparency for the best interest of the company.

1. General provision

1.1 "Company" is defined as Gulf Energy Development Public Company Limited and subsidiaries under management of Gulf Energy Development Public Company Limited.

1.2 "Parent company" is defined as a company with any of the following natures.

- (1) Company having control over the business;
- (2) Company having control of the business as stated in (1);
- (3) Company having control over the business as stated in (2) in respective order, commencing from having control over the business as stated in (2)

1.3 "Subsidiary" is defined as a company with any of the following natures.

- (1) Company with control over the business
- (2) Company as stated in (1) with control over business
- (3) Company under control of company as stated in (2) in respective order, commencing from being under control of a company as stated in (2)

1.4 "Sister companies" is defined as 2 or more subsidiaries having the same parent company regardless of their tier in the business group.

1.5 "Associated company" is defined as a company or subsidiary with authority to make joint decisions relating to financial and operating policies of the company, but without control over such policies, which is neither deemed a subsidiary nor a joint venture.

In case where a company or subsidiary holds total shares, directly or indirectly, representing more than 20 percent but not exceeding 50 percent of total voting shares, such company or subsidiary shall be assumed to have the authority to make joint decision, unless the evidence states otherwise.

1.6 "Related person" is defined as person or ordinary partnership having relationship with person in any of the following natures.

- (1) Spouse of such person;
- (2) Underage child(ren) of such person;
- (3) Ordinary partnership of which such person or person as stated in (1) or (2) is partner;
- (4) Ordinary partnership of which person as stated in (1) or (2) is unlimited liability partner or limited liability partner holding shares of exceeding 30 percent of total shares of the said ordinary partnership;

- (5) Limited company or public limited company or person as stated in (1) or (2) or ordinary partnership as stated in (3) or (4) holding shares totaling more than 30 percent of total sold shares of the company;
 - (6) Limited company or public limited company or person as stated in (1) or (2) or ordinary partnership as stated in (3) or (4); or company as stated in (5) holding shares totaling more than 30 percent of total sold shares of the company; and
 - (7) Juristic person of which such person is authorized to act as its representative.
- 1.7 “Executive” is defined as Chief Executive Officer or CEO (Manager), or 4 executives down from CEO, or all executives holding the title equivalent to the executive of 4th tier, including executives in accounting department holding title of Department Manager or equivalent.
- 1.8 “Significant shareholder” is defined as the shareholder holding more than 10 percent of the total voting shares of the Company, including the shares held by related persons.
- 1.9 “Controlling Interest shareholder” is defined as a shareholder or other person who de facto has significant influence over policies, management, or operations of the Company, whether such influence comes from shareholdership or authorization based on an agreement or by other means, especially a person of any of the following natures.
- (1) Person directly or indirectly holding more than 25 percent of total voting shares of the Company;
 - (2) Person who de facto has influence to control the appointment or removal of directors of the Company;
 - (3) Person who de facto has control over employees responsible for determination of policy, management, or operations of the company to follow his order in relation to policy, management, or operations of the Company; and
 - (4) Person who de facto engages in the operations of the Company or is responsible for the operations of the Company in the same manner as director or executive, including a person holding a title with authority similar to such person of the Company
- 1.10 “Executive director” is defined as any director holding title of executive director and being responsible for engagement as an executive, including signatory director, unless it is clearly stated that the signatory engagement is carried out in accordance with the approved items as per the resolution of the Board of Directors and that it is joint signing with other directors.
- 1.11 “Significant shareholder” is defined as shareholders holding more than 10 percent of total voting shares of the Company, including the shares held by related persons.
- 1.12 “Independent Director” is defined as non – executive director who does not engage in normal operations and who is not the major shareholder of the Company. In addition, he shall work independently from the major shareholder or the group of major shareholder or other stakeholders i.e. he shall not represent major shareholder or the group of major shareholder or other stakeholders and shall be qualified as required by the law.

2. Board structure

2.1 Composition

- 2.1.1 Director of the Company shall be elected by the meeting of shareholders in compliance with the criteria and methods stated in the article of association of the Company and related legal requirements.
- 2.1.2 The Board of Directors shall comprise a minimum of 5 Directors and not less than half of the Board shall reside in the kingdom.
- 2.1.3 The Board of Director shall comprise Independent Directors at a minimum of one-third of the Board, provided that there are not less than 3 Independent Directors.
- 2.1.4 The Board of Directors shall elect a Director as the Chairman of the Board and may elect the Vice Chairman of the Board and other positions as deemed appropriate.

2.2 Directors

- 2.2.1 A Director shall be an individual; and
- (1) is of legal age;
 - (2) shall not be a bankrupted, or incompetent, or quasi-incompetent person;
 - (3) was never imprisoned by the final verdict of being guilty in a fraudulent charge; and
 - (4) was neither dismissed nor discharged from public office, government agencies or public authorities due to fraudulent charge.
- 2.2.2 A Director shall be qualified without any forbidden trait as prescribed in the public company law, including any inappropriate characteristic which makes such person being distrusted from managing a business of which its share is held by the public as defined by the Securities and Exchange Commission or SEC.
- 2.2.3 A Director should be of knowledge, competency, expertise, and diverse skills as well as experience, which are beneficial to the business. He shall be able to fully devote his time.
- 2.2.4 A Director shall not engage in similar business, which competes against the Company, or be a partner to the ordinary partnership or unlimited liability partnership or a Director of a private company or other companies engaging in similar business, which competes against that of the Company, whether it is for the benefit of himself or others, unless such engagement was previously informed to the meeting of shareholders prior to approving the appointment.

2.3 Independent Director

- 2.3.1 An Independent Director shall hold shares of not exceeding 0.9 percent of total voting shares of the Company, the parent company, subsidiaries, associated companies, major shareholder, or controlling interest of the Company, including shareholding of related persons of the said Independent Director.

2.3.2 An Independent Director neither is nor was an executive director, nor employee, staff, salaried advisor, nor person with control over the Company, subsidiaries, associated companies, sister companies, major shareholder, or controlling interest of the Company, unless such state was terminated for more than 2 years. In this regard, such forbidden characteristics exclude the case of the Independent Director serving as a government official or government advisor, who is a major shareholder or controlling interest of the Company.

2.3.3 An Independent Director is not related by blood or by law in a paternal, maternal, matrimonial, sibling, descendent or spouse thereof relationship with other Directors, executives, major shareholder, controlling interest, control persons or persons to be nominated as Director, executive, or control person of the Company or subsidiaries.

2.3.4 An Independent Director neither has nor had business relationship with the Company, parent company, subsidiaries, associated companies, major shareholder, or controlling interest of the Company in a manner that may interfere with independent exercise of his discretion; and neither is nor was a significant shareholder nor control interest of person in business relationship with the Company, parent company subsidiaries, associated companies, major shareholder, or controlling interest of the Company, unless such state was terminated not less than 2 years prior to the appointment.

Such business relationship includes trading transactions carried out at arm length, renting or letting of properties, transactions related to assets or services, or provision or acceptance of financial assistance by means of lending or borrowing or guarantee or asset collateralization, including other similar acts resulting in liabilities to be settled to or from the Company or counterparty to the agreement and vice versa, at the rate of 3 percent of the net tangible asset of the Company or 20 million baht, whichever is lower. In this regard, calculation of such liabilities shall comply with the calculation method for related transactions as per the notification of the Capital Market Supervisory Board RE: Criteria on conducting related transactions, mutatis mutandis. However, such calculation shall include liabilities incurred during 1 year prior to the commencing date of such business relationship with the same person.

2.3.5 An Independent Director neither is nor was the auditor of the Company, parent company, subsidiaries, associated companies, major shareholder, or controlling interest of the Company, nor significant shareholder, controlling interest, or partner of the audit firm whose employees are auditors of the Company, parent company, subsidiaries, associated companies, major shareholder, or controlling interest of the Company, unless such state was terminated not less than 2 years prior to the appointment.

2.3.6 An Independent Director neither is nor was professional service provider, including legal or financial advisor, receiving service fee of more than 2 million baht per year from the Company, parent company, subsidiaries, associated companies, major shareholder, or controlling interest of the Company, nor significant shareholder, controlling interest, or partner of such professional service provision firm, unless such state was terminated not less than 2 years prior to the appointment.

- 2.3.7 An Independent Director is not the Director appointed to represent Directors of the Company, major shareholder or shareholders related to major shareholder.
- 2.3.8 An Independent Director neither engages in similar business, which substantially competes against the Company or subsidiaries, nor is a significant partner or executive director, employees, staff, salaried advisor, nor holds more than 1 percent share of the total voting shares of companies engaging in similar business, which substantially compete against the Company or subsidiaries.
- 2.3.9 An Independent Director does not carry other traits which impede him from independent view about the business operations.

2.4 Appointment, term of office, and removal

- 2.4.1 The meeting of shareholders shall elect Directors whereby the numbers of elected persons receiving the highest tallies shall follow the required quota. In case the candidates received equal votes, which will exceed the required numbers of Director to be elected, they shall draw lot to ensure the number of elected Directors fit the required quota.
- 2.4.2 One-third of the Board of Directors shall retire at each annual general meeting of shareholders. If total numbers of Directors could not be divided by 3, the closest numbers shall be adopted. Retiring Directors shall be ones with the longest length of service. However, they maybe re-elected for another term.
- 2.4.3 The meeting of shareholders may resolve to remove any Director prior to his end of term, provided that the votes are not less than three-fourth of all the attending shareholders with the voting right, and that total shares are not less than half of all shares held by shareholders with voting rights who attend the meeting.
- 2.4.4 Director shall end the term of office in the following events.
- (1) Death;
 - (2) Resignation;
 - (3) Becoming disqualified or forbidden by law;
 - (4) Being removed by the resolution of the shareholders meeting;
 - (5) Being removed by the court order.
- 2.4.5 Any Director could resign by tendering resignation with the Company, which shall be deemed effective on the date the document is received by the Company.
- 2.4.6 In case where the numbers of the Directors could not constitute a quorum, the remaining Directors are allowed to act on behalf of the Board of Directors only to call for a meeting of shareholders in order to elect new Directors to fill in such vacancy. Such election shall be made within 1 month of such vacancy and the substituting Directors shall serve for a period equivalent to the remaining term of the previous Directors.

2.4.7 In case of vacancy due to reasons other than retirement by rotation, the Board of Directors shall select qualified persons without any forbidden characteristics as stated in the public limited company law to fill in such vacancy in the following meeting of the Board (except in a case where the remaining term of office of such Director is less than 2 months) or in a case where the remaining numbers of the Directors could not constitute a quorum as stated in clause 2.4.6). The resolution of the Board of Directors shall constitute not less than three-fourth of the remaining Directors. Such substituting Directors shall serve for a period equivalent to the remaining term of office of the previous Directors.

2.4.8 In a case where the entire Board of Directors is removed, such removed Directors shall remain in the position to continue the business as deemed necessary until the new Board of Directors commences its duty, unless ordered otherwise by the court order in a case where the Board of Directors is terminated following the court order. In this regard, the terminated Board of Directors shall call for the meeting of shareholders to elect the new Board of Directors within 1 month of the termination, provided that the invitation to the meeting of shareholders are delivered not less than 14 days prior to the meeting date.

2.5 Company Secretary

2.5.1 Company secretary is appointed by the Board of Directors to act on behalf of the Company or the Board of Directors.

- (1) To prepare and maintain the register of the Board, invitation to the Board of Directors meetings, invitation to the meeting of shareholders, minutes of the Board meeting, minutes of the meeting of shareholders, and annual report of the Company
- (2) To maintain the stakeholder report presented to the meeting of shareholders
- (3) To take actions following the notifications of the Capital Market Supervisory Board.

2.5.2 The company secretary shall fulfill duty with accountability, prudence, and honesty in compliance with laws, articles of association, resolution of the Board of Directors as well as the resolution of the shareholders meeting.

2.5.3 The Board of Directors may resolve to dismiss the company secretary.

2.5.4 In case the company secretary is terminated or could not continue his/her duty, a new company secretary shall be appointed within 90 days of the date the former company secretary is dismissed or could not continue to serve. The Board of Directors shall assign any Director to fill in such vacancy on a temporary basis. The Chairman of the Board is required to notify the name of the person assuming the responsibility of the company secretary within 14 days of the assigned date.

3. Scope of authority, duties, and responsibilities of the Board of Directors

3.1 Policies and corporate governance

- 3.1.1 To ensure compliance with the laws, article of association, and resolutions of the shareholders meeting with honesty and prudence for the best interest of the Company
- 3.1.2 To determine overall policies and endorse operations of the Company such as vision, directions, strategies, including approval of business plan, annual budget, investment plans, and financial decisions
- 3.1.3 To follow up on the performance of the Company to ensure that the operations are in line with the business goals and plans
- 3.1.4 To issue policies on corporate governance in writing and disclose such policies to shareholders in the annual report, which should be reviewed by the Board of Directors at least on an annual basis
- 3.1.5 To put in place the Code of Conduct and business ethics in writing, which will be referred to as the operating standard by Directors, executives, and employees; and to closely monitor compliance thereof
- 3.1.6 To encourage Directors, executives, and employees to comply with the corporate governance policies and Code of Conduct of the Company
- 3.1.7 To put in place maintenance of documents and evidence relating to disclosure of information, to ensure correctness and completeness of such documents or evidence for a period of not less than 5 years of the date they were issued, as well as maintenance of the same by the computer or any systems which allow retrieval without any changes in content
- 3.1.8 To put in place subcommittees to recommend, consider as well as act on matters as determined and endorsed by the Board of directors
- 3.1.9 To authorize any executives or employees to act on behalf of the Board of Directors in writing or in written records following the resolution of the Board of Directors meeting

3.2 Finance

- 3.2.1 To ensure bookkeeping and audit thereof as required by the law
- 3.2.2 To prepare the balance sheet and the profit and loss statement at least once every calendar year which falls on the accounting period of the Company
- 3.2.3 To prepare the balance sheet and profit and loss statement at of the ending date of the calendar year in the accounting year of the Company, which will be proposed to the shareholders in the annual general meeting of shareholders for approval, provided that the Board of Directors arranged for them to be audited by auditors prior to such proposal.

3.3 Control and audit and risk management

3.3.1 To put in place the Audit Committee which consists of at least 3 committee members following the criteria below;

- (1) Members are appointed by the Board of Directors or the meeting of shareholders.
- (2) Members are Independent Directors who are qualified without any forbidden characteristics; and they are neither Directors assigned by the Board of Directors to engage in business decisions of the Company, parent company, subsidiaries, affiliated companies, sister companies, major shareholder, or control persons of the Company, nor Directors of the parent company, subsidiaries, or listed sister companies.
- (3) Members have duties as prescribed by the Stock Exchange of Thailand or SET regarding the qualification and scope of engagement of the Audit Committee.
- (4) Members have qualified knowledge and experience to serve as the members of the Audit Committee. In this regard, at least a member of the Audit Committee shall have sufficient knowledge and experience to review the reliability of the financial statements.

3.3.2 To put in place the risk management policy, management and control thereof of the entire organization

3.3.3 To review the system or evaluate the efficiency of the internal control system and risk management at least on an annual basis

3.4 Human resources

3.4.1 To recruit and screen for the right candidates and to ensure that the persons to serve as Directors or key executives are of suitable knowledge, competency, and experience

3.4.2 To determine appropriate remuneration for Directors and key executives, which reflects their authority, duty, and scope of responsibility as well as competency for the job

3.4.3 To endorse the succession plan for key executive positions

3.5 Conflict of interest management

3.5.1 To prohibit Directors with conflict of interest in an agenda to vote in such agenda

3.5.2 To prohibit Directors from engaging in similar business, which competes against the Company; or being partner of ordinary partnership or unlimited liability partner of a limited partnership; or serving as Directors of a private or other company engaging in similar business, which competes against the Company, whether for their own interest or that of others, unless so notified to the meeting of shareholders prior to the appointment

3.5.3 To prohibit the Company from lending, providing guarantee for sale or purchase of clean bill discount and guarantee for borrowing of Directors as stated below;

- (1) Lending, providing guarantee for sale or purchase of clean bill discount, and guarantee for loans to spouse or underage child(ren) of Directors
- (2) Lending, providing guarantee for sale or purchase of clean bill discount, and guarantee for loans to ordinary partnership where Directors, spouse, or underage child(ren) of Directors are partners
- (3) Lending, providing guarantee for sale or purchase of clean bill discount, and guarantee for loans to limited partnership where Directors, spouse, or underage child(ren) of Directors are unlimited liability partners
- (4) Lending, providing guarantee for sale or purchase of clean bill discount, and guarantee for loans to any other or private company where Directors, spouse, or underage child(ren) of Directors hold shares totaling more than half of total shares of such company

Exception is made to lending, guarantee for sale or purchase of clean bill discount, and guarantee for loans in compliance with the regulations on employee and staff welfare.

3.5.4 To prohibit the Company from settle payment or assets to Directors, except for remuneration as stated in the article of association. If it is not so stated in the article of association, remuneration shall be made in accordance with the resolution of shareholders meeting, which consists of not less than two-third of the votes of shareholders attending the meeting

3.5.5 To consent on purchase or sale of any assets from or to the Company by any Director, or transaction made between the said parties, regardless of such being made on behalf of that Director or other persons; otherwise, such transaction shall not be binding to the Company

3.5.6 A Director shall immediately notify the following events to the Company.

- (1) Any direct or indirect stake in any contracts entered into by the Company during the accounting year, with facts on type of agreement, name of counterparty to the agreement, and stake of Director in that contract (if any)
- (2) Increased or decreased numbers of held shares or debentures of the Company and group companies during the accounting period (if any)

3.6 Communication with shareholders

3.6.1 To organize the annual general meeting of shareholders within 4 months of the end of accounting year of the Company. Other meetings shall be called an extraordinary meeting

3.6.2 To disclose significant information to shareholders in the financial statements and reports prepared for shareholders. Such information should be disclosed through the SET systems first; and afterwards on the website of the Company. The Investor Relations Department should be established to be responsible for information disclosure

3.7 Others

- 3.7.1 To appoint company secretary in compliance with the securities and exchange laws
- 3.7.2 To put in place the charter of the Board of Directors, and subcommittees as well as to endorse matters proposed by subcommittees to revise the charter so as to ensure it is up-to-date and corresponding to the changing rules, requirements, and situations
- 3.7.3 To fulfill other duties as determined in the notifications, requirements, acts, or laws governing the Company

4. Meeting

- 4.1 The meeting of Board of Directors shall be organized at a minimum of every 3 months.
- 4.2 The Board of Directors shall elect a Director to serve as Chairman of the Board. If deemed appropriate, the Board could choose one or more Directors to serve as Vice Chairman of the Board.
- 4.3 The Chairman of the Board shall call for the meeting of Board of Directors. It takes 2 or more Directors to request for an extraordinary meeting. In this regard, the Chairman of the Board or assigned persons shall determine the meeting date within 14 days of the request.
- 4.4 The Chairman of the Board or assigned persons shall submit the invitation to the meeting to Directors not less than 7 days prior to the meeting date, except for any urgent matter to protect the right or interest of the Company whereby other methods may be adopted in making meeting appointment or earlier meeting date could be set.
- 4.5 The company secretary shall prepare the minutes of meeting within 14 days of the meeting date.

5. Quorum

- 5.1 At the time of casting vote, a minimum of not less than two-thirds of the total members of the Board is required to constitute a quorum.
- 5.2 The Chairman of the Board shall act as the Chairman of the meeting. In a case where the Chairman of the Board is not present in the meeting or could not carry out his/her duty, the Vice Chairman, if available, shall convene the meeting as the Chairman of the meeting. In a case where the Vice Chairman of the Board is not available or could not carry out his/her duty, the members of the Board present in the meeting shall elect a member to be the Chairman of the meeting.
- 5.3 The final decision of the meeting of the Board of Directors shall be by the majority voting, whereby a Director has 1 vote. If the tallies are tie, the Chairman shall have the deciding vote. In this regard, any vested Director is not entitled to vote in the agenda where he has conflict of interest.

CHARTER OF THE AUDIT COMMITTEE

1. Purpose

To assist the Board of Directors in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control, risk management, the audit process, and the Company's process for monitoring compliance with laws and regulations and the Code of Conduct

2. Composition and Qualification

2.1 The Audit Committee, the Chairman and the members, shall be appointed by the Board of Directors and shall consist of at least three independent directors whose qualifications meet the requirements of the Public Limited Companies Act, Securities and Exchange Act, the Stock Exchange of Thailand's regulations, the Securities and Exchange Commission of Thailand's regulations, and Article of Association.

2.2 The secretary to the Audit Committee shall be the head of the Internal Audit Function.

3. Term

3.1 The term of office of each Audit Committee member shall be three years. The Audit Committee members shall be eligible for re-election by the Board of Directors. However, renewal of the term of the Audit Committee members shall not be done automatically.

3.2 The term of office shall be expired automatically when retired from directorship of the Board of Directors.

4. Meetings

4.1 Quorum of the Audit Committee Meeting shall consist of more than half of the Audit Committee member.

4.2 Meeting of the Audit Committee shall meet at least four times a year. Additional meetings will be convened as the Chairman deems appropriate.

4.3 The Audit Committee shall have the authority to invite management, auditors, or others to attend meetings and provide pertinent information as necessary.

5. Voting Right

Each member of the Audit Committee can cast only 1 vote. Any Audit Committee member with conflict of interest on the considered matter shall be excluded for the session.

6. Authorities

6.1 The Audit Committee shall have authority to obtain independent professional opinions or advices for the matter related to its duties and responsibilities, as necessary, at the expense of the Company.

- 6.2 The Audit Committee may invite the directors or the employees of the Company to attend a meeting to discuss or clarify the businesses of the Company's and its subsidiaries, joint ventures and partnership projects under the duties and responsibilities of the Audit Committee.
- 6.3 The Audit Committee could inspect and examine in any matters as necessary to accommodate its business.

7. Duties and Responsibilities

- 7.1 To review the Company's interim / annual financial reports to ensure accuracy and adequate disclosure and appropriateness in accordance with accounting standards, by coordinating with the external auditor and the management who are responsible for preparing the quarterly and yearly financial reports. The Audit Committee may suggest that the external auditor review or examine any transaction which is considered necessary and significant during the audit of the Company's accounts
- 7.2 To review and ensure the effectiveness of the Company's internal control system including information technology security and control
- 7.3 To understand the scope of internal and external auditors' review of internal control over financial reporting, and obtain reports on significant findings and recommendations, together with management's responses
- 7.4 To review the effectiveness of the system for monitoring compliance with laws and regulations
- 7.5 To prepare annual report of the Audit Committee which shall be signed by the Chairman of the Audit Committee
- 7.6 To endorse and provide recommendation to the Board of Directors on the selection, appointment and dismissal of an external auditor of the Company, including audit scope and remuneration of the external auditor by taking into account the credibility and adequacy of resources, as well as experience of personnel assigned to perform the audit work
- 7.7 To review and approve Internal Audit Charter, annual audit plan and all major changes to the plan
- 7.8 To perform other activities related to this Charter as requested by the Board of Directors
- 7.9 To review and assess the adequacy of the Audit Committee Charter annually and request Board of Directors' approval for proposed changes
- 7.10 To ensure the Company's corporate practices comply with Public Limited Companies Act, Securities and Exchange Act, the Stock Exchange of Thailand's regulations, the Securities and Exchange Commission of Thailand's regulations, as well as other law pertaining to the Company's business

CHARTER OF THE SUSTAINABILITY, GOVERNANCE AND RISK MANAGEMENT COMMITTEE

1. Purpose

Gulf Energy Development Public Company Limited (the “Company”) aims to grow its business sustainably, placing great importance on conducting its business activities with corporate social responsibility and upholding the principles of good governance. The Company has therefore established the Sustainability, Governance and Risk Management Committee (the “SGRC”) to provide oversight and ensure its business activities are appropriately aligned with the business direction and strategy set by the Company.

2. Composition and Qualifications

- 2.1 The SGRC shall be appointed by the Board of Directors and shall consist of no fewer than three directors, of whom at least one shall be an independent director.
- 2.2 The Chairman of the SGRC shall be selected by the members of the SGRC.
- 2.3 Members of the SGRC must have knowledge, experience and understanding related to risk management, sustainability and corporate governance.
- 2.4 The SGRC has the authority to appoint a secretary to the SGRC.

3. Term of Appointment

- 3.1 A member of the SGRC shall hold their position for as long as they hold their directorship in the Board of Directors, or in accordance with the term of appointment specified by the Board of Directors.
- 3.2 Members of the SGRC may be appointed by the Board of Directors to continue to serve on the SGRC after their directorship expires.

4. Meetings of the SGRC

- 4.1 The SGRC shall meet no less than twice per year, or as deemed appropriate. The SGRC may invite relevant management or employees to attend the meetings to provide information or opinions.
- 4.2 The meetings of the SGRC shall be attended by not less than half of the members to constitute a quorum.
- 4.3 Meetings of the SGRC shall be convened by the Chairman or secretary of the SGRC.
- 4.4 In the event the Chairman of the SGRC is not able to attend the meeting or perform their duties and no Acting Chairman has been designated, the SGRC members present in the meeting shall choose one person from amongst themselves to chair the meeting.

- 4.5 Decisions of the SGRC shall be taken by a simple majority. Each member of the SGRC shall have one vote except if a member of the SGRC has a conflict of interest in the matter, in which case said member shall be excluded from the vote. In the event of a tie, the Chairman shall cast an additional vote which shall be taken as the deciding vote.
- 4.6 The SGRC may invite directors, management, heads of function, or other relevant individuals to attend meetings of the SGRC as appropriate.

5. The Scope of Authority and Responsibilities of the SGRC

- 5.1 Provide oversight as well as advice and recommendations relating to the economic, environmental, and social dimensions, as well as corporate governance, for long-term sustainable business growth.
- 5.2 Monitor sustainability performance against various indicators, and provide advice on reporting data related to sustainability.
- 5.3 Provide recommendations in developing and reviewing policies and practices related to corporate sustainability and corporate governance, such as the Corporate Governance Policy, the Code of Conduct, policies related to the environment, risk management policies, and human rights policies.
- 5.4 Support, monitor and follow up on the Company's compliance with the laws, rules and regulations of relevant government agencies and regulators as well as good corporate governance practices in accordance with both Thai and international standards.
- 5.5 Establish risk assessment criteria and frameworks for managing risks that may impact the Company.
- 5.6 Facilitate risk assessment and mitigation strategies to ensure corporate risks are managed to an appropriate level.
- 5.7 Oversee and monitor implementation of risk management plans as well as provide advice and recommendations to management on risk management to ensure alignment with the Company's business strategy and objectives as well as changing contexts.
- 5.8 Have the authority to appoint and mandate the responsibilities of sub-committees or working teams as needed. The SGRC shall be responsible for overseeing and monitoring the progress of its various sub-committees and working teams.
- 5.9 Be able to engage, in accordance with Company regulations and at the Company's expense, consultants or independent experts to provide opinions or advice.
- 5.10 Recommend, encourage and support the Board of Directors, management and employees to develop knowledge and understanding related to sustainability, corporate governance and risk management.
- 5.11 Perform other duties as assigned by the Board of Directors.

6. Performance Evaluation

The SGRC shall be responsible for conducting an annual self-assessment of its performance, the results of which shall be reported to the Board of Directors each year.

7. Review of the Charter

The SGRC shall be responsible for conducting regular reviews of the Charter and shall refer any proposed changes to the Board of Directors for consideration.

8. Reporting

The SGRC shall report to the Board of Directors at least once per year on the performance of work related to sustainability, corporate governance and risk management.

CORPORATE GOVERNANCE POLICY

Gulf Energy Development Public Company Limited (the “Company”) determines to conduct business with responsibilities toward society and all stakeholders and to create energy stability for the community and the country. The Company also aims for sustainable growth and shareholders’ wealth. Meanwhile, the Company places importance on the good corporate governance and adheres to the principles for the listed company, Securities and Exchange Act, law, and applicable regulations and guidelines of the Stock Exchange of Thailand (“SET”) and the Securities and Exchange Commission (“SEC”). In this light, the Board of Directors is responsible for determining and monitoring the compliance with the Company’s Corporate Governance Policy and ethic.

The Company therefore determined this Corporate Governance Policy which could be summarize as follows:

1. Shareholders’ Rights

The Board of Directors is obligated to support, promote, and facilitate all shareholders whom will be provided with their basic legal rights by means and standards, which are generally acceptable, transparent, and fair. They are entitled to equitable treatment such as the right to purchase, sell, or transfer shares, the right to participate in meetings of shareholders as well as to receive profits and sufficient information of the Company. The shareholders are entitled to freely express their opinions in Shareholders’ Meetings and take part in decision-making on significant matters, appointment or removal of directors, appointment of auditors, and issues which impact the Company such as dividend allocation, amendments to the Articles of Association, capital increase or decrease, and approval of extraordinary items. All shareholders are entitled to exercise their right to vote according to their number of shares held on a one share one vote basis.

Apart from abovementioned rights, the Company or the Board of Directors acting on behalf of the Company shall recognize and place significance on the right of shareholders and shall refrain from taking any actions which would violate or deprive the shareholders of their right. The Company determines the policy to encourage and facilitate shareholders in the following aspects.

1.1 Shareholders’ Meeting

- 1.1.1 The Company shall disclose the policy to encourage all groups of shareholders to attend the meeting of shareholders.
- 1.1.2 The Company shall arrange to provide information on date, time, venue and agenda in a form of invitation letter or attachments containing clarification and rationale for each agenda and proposed resolution; and it shall refrain from taking any actions, which would restrain the opportunity of shareholders to study the information of the Company.
- 1.1.3 The Company shall encourage shareholders to exercise their right to attend the meeting and cast their vote. In case where any shareholders could not attend the meeting in person, the Company provides an opportunity for such shareholder to appoint the Company’ independent directors or any person by proxy to attend the meeting on his/her behalf.

1.1.4 The Company shall provide an opportunity for shareholders to submit queries regarding each meeting or other information via the email address: cs@gulf.co.th or at the Company address in line with the criteria of stipulated by the Company.

1.1.5 The Company shall encourage shareholders to use the proxy form in a manner that each shareholder can steer the voting direction and shall nominate at least one Independent Director's name as alternative proxy of shareholder.

1.2 Arrangements on the date of Shareholders' Meeting

1.2.1 The Company shall support and promote the use of technology such as barcode system, ballot casting, or other technology in the Shareholders' Meeting, including shareholder registration, vote counting, and result announcement in order to ensure that the meeting can proceed in a fast, correct, accurate, transparent, and auditable manner. The voting result will be disclosed in the minutes of Shareholders' Meeting, with details of approval, non-approval, and abstention votes for each agenda where voting is required. In case where an agenda requires voting of various items, the Company shall arrange for voting of each of such items to ensure transparency.

1.2.2 The Company shall encourage all directors to attend the Shareholders' Meeting where shareholders can ask questions directly to the Chairman of sub-committees and all directors in related matters as deemed appropriate.

1.2.3 The Company shall provide an independent person as witness for vote counting or to be the counting officer or inspector in the meeting; for example, the auditor of the Company or legal advisor; and shall disclose the result to the meeting for acknowledgement as well as recording the result in the minutes of meeting.

1.2.4 The Company shall arrange the meeting in an appropriate manner and provide shareholders an opportunity to express opinions and make queries relating to the Company in the meeting.

1.3 Preparation of the minutes of the meeting and disclosure of the resolutions of Shareholders' Meeting

1.3.1 The minutes of Shareholders' Meeting shall record the process of vote casting and result announcement to the meeting prior to proceeding with the meeting, including provision of an opportunity for query session where significant questions and answers thereof will be recorded as well as the voting result of each agenda and the names of Directors who attend and being absent from the meeting.

1.3.2 The Company shall disclose to the public about the voting result of each agenda of the meeting within the next business day through the SET Portal.

1.3.3 The Company shall prepare the minutes of Shareholders' Meeting within 14 days of the meeting date and submit to SET and/or relevant agencies within the timeframe stipulated by the law and then publish them on the website of the Company.

2. Equitable treatment to shareholders

The Company is determined to treat shareholders on an equitable basis, both for major and minor shareholders, institutional shareholders, including foreign shareholders in order to ensure transparency and fairness.

2.1 Provision of information prior to the Shareholders' Meeting

2.1.1 The Company shall notify the meeting program as well as the agenda and opinion of the Board of Directors to SET and publish such details on the Company's website at least 28 days prior to the date of Shareholders' Meeting.

2.1.2 The Company shall notify shareholders about rules of engagement in the Meeting, the voting process, and the voting right of each type of share.

2.1.3 The Company shall prepare the Thai and English versions of the invitation letter to Shareholders' Meeting.

2.2 Minority shareholders protection

2.2.1 The Company provides opportunity to one or several shareholders holding in aggregate at least 5% of total issued shares of the Company to propose agenda to the annual general meeting of shareholders. The opportunity for agenda proposal will be opened at least 3 months prior to the end of the fiscal year before presenting them to the Board of Directors for consideration. In case it is deemed appropriate to include the proposed agenda item into the meeting, the Company will specify in the notice of meeting that the agenda item was proposed by a shareholder. However, in the event the proposed agenda item is rejected, the Company will inform shareholders of the reasons at the annual general meeting of shareholders.

2.2.2 The Company sets up criteria for minority shareholders to nominate any qualified candidates for directorship. The nomination proposal including the information on candidate(s)'s qualifications and consent should be made through the Nomination Committee (if any) or the Board of Directors within 3 months prior to the end of the fiscal year.

2.2.3 The Company provides opportunity for minority shareholders to elect directors by person according to the criteria determined by the Company.

2.2.4 The minority shareholders are entitled to express comments, opinions, or file complaint with the Independent Directors at the email address: id@gulf.co.th. The Independent Directors will consider and take actions as deemed appropriate.

2.3 Insider trading prevention

2.3.1 The Company determines the guideline in writing to keep and protect the inside information and communicate such guideline to all relevant parties to ensure adherence thereto.

2.3.2 The Company determines that all Directors and executives have a duty to report the securities holding in the Company in accordance with the securities and exchange law. Such information will be disclosed in the annual report.

2.3.3 The Company determines that Directors, executives as well as Head of Accounting/Finance, whom are informed of significant inside information that has impact towards the Company's share price, shall refrain from trading the Company's stock for a period of 14 days prior to the disclosure of the quarterly and annual financial statements to the public, and should wait at least 24 hours after such disclosure.

2.4 Conflict of interest by directors

2.4.1 The Company shall disclose the shareholding structure of the Company and subsidiaries in the annual report.

2.4.2 The Company determines that the Directors and executives report their conflict of interest and that of related persons by reporting such information to the Corporate Secretary, who is obligated to submit a copy of the said conflict of interest to the Chairman of the Board and the Chairman of the Audit Committee within 7 days of the date the report is received.

2.4.3 The Company determines that Directors are to declare the conflict of interest prior to the agenda consideration and the information shall be recorded in the minutes of the Board of Directors' Meeting.

2.4.4 The Company determines that any Directors with significant conflict of interest in a nature that may hinder him/her to provide independent opinion shall abstain from voting or refrain from attending the meeting in the agenda involved with such conflict of interest and shall not use any information which cause conflict of interest.

3. Roles towards stakeholders

The Company adheres to business engagement with transparency and fairness, taking into account all stakeholders, while promoting social and environmental development so as to achieve business growth and sustainability.

3.1 Determination of policy relating to stakeholders

3.1.1 The Company shall treat shareholders with fairness and equitability, taking into account the basic rights of shareholders. Benefit shall be allocated fairly and consistently with transparency while management shall be transparent and auditable with determination to deliver sound performance and continuous and sustainable growth.

- 3.1.2 The Company shall treat customers in its willingness, to the best of its ability, and with justness; and shall adhere to the expected ethics without revealing the information or confidentiality of customers while remaining dedicated to build sustainable relationship with the customers.
 - 3.1.3 The Company shall treat trade partners strictly in alignment with fair trade competition, honor all contracts on its end, and behave in accordance to the Code of Conduct. In addition, the Company shall promote the network of cooperation and build the supply chain as well as value chain to deliver optimal, mutual benefits.
 - 3.1.4 The Company shall treat competitors strictly in alignment with fair trade competition by adhering to fair business engagement under the laws and Code of Conduct of the Company.
 - 3.1.5 The Company shall care for communities surrounding the area of its operations with accountability and focus on promoting activities to uplift the quality of life of the community members in respect of education, occupation, art, and technology, including provision of relief in time of any disaster.
 - 3.1.6 The Company shall treat creditors with ethics by honoring the agreement or contract on its end and ensure just treatment for both parties. In case of failure to comply with the conditions, the creditors shall be informed in advance in order to mutually consider remedy. Also, the Company shall not demand for, or accept any fraudulent benefits.
 - 3.1.7 The Company shall treat public agencies and government authorities with political objectivity as stated in the Company's Code of Conduct as well as the anti-corruption policy.
 - 3.1.8 The Company shall treat employees with fairness and provide training to develop their knowledge and potential. Furthermore, the Company shall provide sound working environment and determine a standard of safety in compliance with the laws.
 - 3.1.9 The Company shall care for the environment in accordance with its corporate social responsibility policy, contribute in environmental conservation, and promote as well as support environmental conservation programs.
- 3.2 Disclosure of activities in compliance with the policy as well as preparation of corporate social responsibility report
- 3.2.1 The Company shall disclose activities reflecting compliance with the corporate social responsibility policy and its mechanism to encourage employees to comply with the corporate social responsibility policy.
 - 3.2.2 The Company arranges for preparation of the corporate social responsibility report of the Company, which may form part of the annual report, or a separate report.

4. Information disclosure and transparency

The Company shall disclose material information via appropriate channels in a correct, adequate, accountable, and timely manner, both in Thai and English versions to ensure equitable treatment to all shareholders.

4.1 Information disclosure

- 4.1.1 The Company shall arrange for the mechanism to ensure the correctness of information disclosure, which is sufficient for the investors' decision making, and to prevent any misunderstanding in the essence of information.
- 4.1.2 In this sense, material information of the Company is defined as the information relating to its business operations that requires proper disclosure method due to its impact towards the share price or the investment decision of investors.
- 4.1.3 The Company delegates that only authorized persons have the right to disclose the information yet to be revealed to the public.
- 4.1.4 The Company prohibits disclosure of information in the period of 2 weeks prior to the date of significant information announcement.
- 4.1.5 The Company shall disclose the corporate governance policy, Code of Conduct, risk management policy, corporate social responsibility policy and result of compliance thereof via various channels such as the annual report, the Company's website, and so on.
- 4.1.6 The Board of Directors shall encourage the Company to prepare the Management Discussion and Analysis or MD&A together with disclosure of the financial statements of each quarter. This is to provide investors with information and better understanding about the changes of financial position and performance of the Company in each quarter in addition to figures stated in the financial statements.
- 4.1.7 The Company shall determine the disclosure of audit fee and other service fees related to the auditors' services.
- 4.1.8 The Company shall disclose the roles and responsibilities of the Board of Directors and sub-committees, the number of meetings held and the number of attendance of each Director in the past year, their opinions, and the training sessions and professional development of the Board of Directors in the annual report.
- 4.1.9 The Company shall disclose the remuneration policy to Directors and executives as required by the law. Such policy shall reflect the duties, obligations, and responsibility of each person, including the form or nature of remuneration. In this regard, the remuneration to be disclosed shall include that provided to each Director who also assume directorship of subsidiaries.

4.1.10 The Company shall disclose the information in line with the requirements of the Securities and Exchange Commission (SEC), SET and related laws, including the disclosure of information to shareholders and/or the public in an equitable manner.

4.2 Minimum disclosure on the Company's website

4.2.1 The Company discloses activities which reflect compliance with its policy whereby employee participation is encouraged.

4.2.2 The Company discloses the information as per requirements of SET, SEC, and related laws. Such disclosure will be made via SET's channel and the Company's website both in Thai and English versions on a continuous basis. The information shall be the most current version and contain, at the minimum, of the following information.

4.2.2.1 Vision and mission of the Company

4.2.2.2 Nature of business

4.2.2.3 List of Directors and executives

4.2.2.4 Financial statements and report on financial position and performance of the current and previous year

4.2.2.5 The Annual Registration Statement (Form 56-1) and the annual report in downloadable versions

4.2.2.6 Direct and indirect shareholding structure

4.2.2.7 Group company structure, including subsidiaries

4.2.2.8 Direct and indirect shareholding of Directors, major shareholders, and executives as required by the law

4.2.2.9 Invitation letter to annual general meeting and extraordinary meeting of shareholders

4.2.2.10 Articles of Association and Memorandum of Association

4.2.2.11 Corporate governance policy of the Company

4.2.2.12 Risk management policy

4.2.2.13 Charter or responsibilities, qualifications, and term of office of the Company's Board of Directors

4.2.2.14 Charter or responsibilities, qualifications, and term of office of the Company's sub-committees

4.2.2.15 Company Code of Conduct

4.2.2.16 Contact information of department or persons responsible for investor relations function

4.2.2.17 Information or other documents that the Company presented to analysts, fund managers or press

5. Directors' responsibilities

5.1 The Board of Directors structure

- 5.1.1 Composition of the Board of Directors of the Company shall accord with the Board of Directors Charter.
- 5.1.2 Qualifications of the Board of Directors of the Company shall accord with the Board of Directors Charter.
- 5.1.3 The qualifications of the Independent Directors shall accord with the Board of Directors Charter.
- 5.1.4 The appointment, term of office, and retirement from office shall be made in accordance with the Board of Directors Charter.
- 5.1.5 Appointment of the Corporate Secretary and determination of responsibilities as well as the conditions for discharge and the appointment of the new Corporate Secretary shall be in compliance with the Board of Directors Charter.

5.2 The sub-committees

- 5.2.1 The Board of Directors appoints the Audit Committee and/or other committees as deemed appropriate.
- 5.2.2 The Board of Directors shall ensure that performance of the sub-committees is carried out with independence and objectivity.
- 5.2.3 The Board of Directors has put in place the charter of each sub-committee to ensure that each committee perform duty effectively and deliver the objectives of their duties and responsibilities.

5.3 Roles and responsibilities of the Board of Directors

- 5.3.1 The Board of Directors has responsibilities as stated in the Board of Directors Charter in various aspects as follows:
 - 5.3.1.1 Policy and Governance
 - 5.3.1.2 Finance
 - 5.3.1.3 Internal Control and Audit and Risk Management
 - 5.3.1.4 Human Resources
 - 5.3.1.5 Conflict of Interest Management
 - 5.3.1.6 Communication with Shareholders
 - 5.3.1.7 Other aspects as specified in the Board of Directors Charter

5.4 Directorships in other companies

For the Company's best interests in ensuring that the directors devote their time to perform their duties efficiently, it is therefore determined in the policy that each director should hold directorships in no more than 3 of listed companies.

Moreover, the Chief Executive Officer (CEO) can hold directorships in other companies, but such directorships must not affect his duties as the CEO of the Company and such companies must not be in the same nature as the business of the Company or deemed to be in competition with the business of the Company except for the Company's subsidiaries and/or the Company's associated companies and/or the Company's affiliated companies.

5.5 Tenure of Independent Director

The term of office of Independent Directors should not exceed a cumulative term of 9 years from the date of first appointment as director.

5.6 The Board of Directors' Meeting

5.6.1 The Board of Directors' Meeting shall be held at least every 3 months.

5.6.2 The Board of Directors shall elect a Director as the Chairman of the Board. In case where it is deemed appropriate, the Board of Directors may elect one or more Directors to be Vice Chairman of the Board.

5.6.3 The Chairman of the Board shall call for the Board of Directors' Meeting. In this regard, two or more Directors are entitled to request for an extraordinary meeting. In this regard, the Chairman of the Board or delegated persons shall determine the date of meeting within 14 days of the requesting date.

5.6.4 The Chairman of the Board or delegated person shall dispatch the invitation letter to Directors at not less than 7 days prior to the meeting, except in case of emergency to protect the right or benefit of the Company where the Company is allowed to make appointment for the meeting by other means and the meeting date could be determined sooner.

5.6.5 The Corporate Secretary shall prepare the minutes of meeting within 14 days of the meeting date.

5.7 Meeting quorum

- 5.7.1 At the time of casting vote, a minimum of not less than two-thirds of the total members of the Board is required to constitute a quorum.
- 5.7.2 The Chairman of the Board shall act as the Chairman of the meeting. In a case where the Chairman of the Board is not present in the meeting or could not carry out his/her duty, the Vice Chairman, if available, shall convene the meeting as the Chairman of the meeting. In a case where the Vice Chairman of the Board is not available or could not carry out his/her duty, the members of the Board present in the meeting shall elect a member to be the Chairman of the meeting.
- 5.7.3 The absolute discretion of the Board of Directors is made by the majority whereby one Director has one vote. If the vote is even, the Chairman of the meeting shall have an extra vote as the casting vote. In this regard, a Director with conflict of interest in any agenda shall have no right to vote in that particular agenda.

5.8 Self-assessment of the Board of Directors

- 5.8.1 The self-assessment of the Board of Directors and sub-committees are made both as a whole and individually on an annual basis for the Board to collaborate in considering its performance and any issues that required solution and improvement.
- 5.8.2 The Company may engage third-party advisor to assist in determining the guidelines and propose issues for performance assessment of the Board every 3 years and disclose the result in the annual report.

5.9 Remuneration

- 5.9.1 The remuneration of the Board of Directors, executives, and employees of the Company shall comply with the directors' nomination and remuneration policy and the executives' and employees' compensation policy as determined by the Company.

5.10 Self-development of the Board of Directors and executives

- 5.10.1 Self-development of the Board of Directors and executives shall accord with the policy on development of Directors and those of executives and employees as determined by the Company.

CODE OF CONDUCT

Gulf Energy Development Public Company Limited (“the Company”) is determined to achieve sustainability of the business; to ensure social responsibility towards all stakeholders; to bring about stability of communities and the country, taking into account the sustainable environment, business growth, and interest of shareholders.

To reflect the Company’s recognition of honest and fair business operation, the Code of Conduct is established as the guideline for compliance of the Company and its employees, which comprises the Board of Directors, executives, and personnel of the Company. Details are as described below.

1. Shareholders

- 1.1. Business shall be operated with prudence, caution, honesty, and fairness toward all shareholders for their utmost interest; and no actions shall be taken without legitimate grounds, which would be deemed violation or deprivation of right of shareholders.
- 1.2. Personnel of the Company shall not seek interest from internal and unpublicized information, which such person becomes aware due to his roles and responsibilities.
- 1.3. Efficient internal control policy, internal audit, and risk management are to be established.
- 1.4. Reporting of financial position and operating results of the Company shall be prepared in a transparent, accountable, correct and complete manner.
- 1.5. Provision of clarification related to shareholder’s meeting as well as all information for shareholders to make decision shall be arranged at least seven days prior to the meeting date or as prescribed by the relevant laws.

2. Public sector

- 2.1. Personnel of the Company shall ensure strict compliance with the law.
- 2.2. Personnel of the Company shall facilitate and support of operations as well as cooperate in activities held by the public sector.

3. Customers

- 3.1. Personnel of the Company shall refrain from requesting, accepting, or paying for any unethical trade deals with customers.
- 3.2. Customer information shall be safeguarded in a safe and systematic manner to prevent any abuse.
- 3.3. Product and service pricing shall be made at fair rates.
- 3.4. Systems and processes shall be established to provide information, recommendation, consultation, and receipt of complaints to ensure the highest level of customer satisfaction in our products and services.

4. Employees

- 4.1. Nomination process defined by primarily taking into consideration the knowledge, expertise, and qualifications of each position as well as compatibility to the organization, without any prejudice.
- 4.2. Employment terms and conditions, remuneration and welfare are established in a fair manner.
- 4.3. Personnel training shall be arranged in a result-oriented manner, aiming at the benefit of business operation and that of the trained employees.
- 4.4. Appointment, transfer, rewarding, and punishment shall be imposed upon employees on a fair basis based on their knowledge, expertise, and appropriateness.
- 4.5. The workplace environment shall be cared for to ensure compliance with the occupational health principle as prescribed by the law.
- 4.6. Whistleblowing channel is made available for cases where fairness could not be delivered by the systems and processes of the Company. Personnel is protected against any bully or punishment as a result of such reporting.
- 4.7. The Company shall support fair and equitable treatment of its Personnel, without discrimination based on sex, gender, race, ethnicity, religion, nationality, or any other non-merit-based attributes.

5. Trade partners

- 5.1. Personnel of the Company shall operate business by considering the ultimate interest of the Company, and not that of themselves or related parties.
- 5.2. The Company shall not act in any way that may constitute monopoly, which contradicts against the law.
- 5.3. Personnel of the Company shall refrain from requesting, accepting, or paying for any unethical trade deals with customers.
- 5.4. Doing business with partners with illegal behaviors or those which are in conflict against peace, orders, and ethics is prohibited.
- 5.5. The Company shall enter into legal agreements with all types of trade partners in an equal, fair, and transparent manner.
- 5.6. The Company shall ensure repayment of loans and interest thereof to all trade partners on a timely basis as per the agreed timeline.

6. Competitor

- 6.1. Personnel of the Company shall conform to fair rules of engagement.
- 6.2. Personnel of the Company shall refrain from seeking trade secret of the customers in dishonest, improper, and illegal manner.
- 6.3. Personnel of the Company shall refrain from taking any actions deemed violation of intellectual trade property of competitors.
- 6.4. Personnel of the Company shall refrain from spreading foul words against competitors without solid grounds.

7. Society

- 7.1. The Company shall determine to operate business to achieve its goals, taking into consideration the impact toward stakeholders.
- 7.2. The Company shall develop knowledge and ability of its personnel, promote constant self-development as well as adherence to the Code of Conduct, and bring about sustainable growth to the community and society.
- 7.3. The Company shall adapt and change in alignment with the changing circumstances so as to minimize any impact toward the environment, community, and society.

8. Behavior related to the Company

8.1. Social behavior

- 8.1.1. Personnel of the Company shall protect the reputation, pride, honor, and dignity of themselves to ensure social acceptance; refrain from any misconduct which may damage their position, duties, and honor of the Company; and have accountability and express hospitality and courtesy to the society in general. Employees are free to join in social activities, provided that they do not negatively affect the reputation or benefit of the Company or conflict against their own duties.

8.2. Political right

The Company shall establish political objectivity, refraining from taking any politically biased actions and from adopting a policy to subsidize and provide other forms of interests to political parties, political coalition, political authorities, or candidates for political elections, directly or indirectly, at the local, regional, or national level. Nevertheless, the Company shall respect the political rights of its personnel as good citizens in accordance with the constitution.

- 8.2.1. The Company shall respect the legal rights of its personnel and shall not intervene with the freedom to exercise their political right, which is entitled to them as prescribed by the law, except in the case where the exercise of political rights or expressions by any means by the Company's personnel cause anyone to believe or understand that the exercise of rights or such expressions are on behalf of the Company or that the Company is associated with, interested in, or supports political actions, political parties, political coalition, political authorities, or candidates for political elections.
- 8.2.2. Personnel of the Company shall not take advantage of their position or job duties assigned by the Company to carry out any of the following actions, which tarnish the image or the reputation of the Company, directly or indirectly.
- 1) Persuading, ordering, or convincing other personnel of the Company by any means to support any political activities of political parties, political coalition, political authorities, or candidates for political elections, which may provoke conflicts within the organization and negatively affect the business operation of the Company, directly or indirectly.
 - 2) By any means taking actions to leverage the status as personnel of the Company in the interests of the process related to applying or campaigning for elections.
 - 3) By any means taking actions to leverage the status as personnel of the Company or to cause the public to believe or understand that the Company supports, is associated with, or is interested in political parties, political coalition, political authorities, or candidates for political elections, directly or indirectly, in the direct or indirect interests of themselves, related parties, or any person.
- 8.2.3. Personnel of the Company shall not engage in political expressions in premises of the Company or during business hours, which may provoke conflicts at work or negatively affect the business operation of the Company, directly or indirectly. Personnel shall not utilize any telecommunications devices provided by the Company or dress in uniform, use any symbol, or reveal the name or the Company's logo in any case, which causes others to perceive them as personnel of the Company, to attend political meetings or to gather in any public place, which could be deemed political.

8.3. Honesty

- 8.3.1. Personnel of the Company shall be honest to their duties and accountable for their assignments.
- 8.3.2. Personnel of the Company are refrained from involving in any kinds of deceptive or fraudulent acts related to the Company or other stakeholders such as trade partners, customers, government officials and so on.
- 8.3.3. Personnel of the Company are refrained from providing false or misleading information, or that which is intended to conceal facts or document falsification. Committing frauds is an implicit crime, whereby wrongdoers may be subject to disciplinary action, immediate employment termination and criminal proceedings.

8.4. Discipline

8.4.1. The Company establishes rules and regulations in compliance with the laws and the rules of ethics. Therefore, personnel of the Company shall ensure strict compliance with the policies, requirements, regulations, directives, and notifications of the Company.

8.5. Company asset maintenance

8.5.1. Personnel of the Company is responsible for the use and maintenance of the Company's assets and to prevent its loss.

8.5.2. Personnel of the Company shall refrain from utilizing the Company's assets whether moveable or immovable properties, or technical knowhow, technology, data, title document, royalty, patent, privileges, concessionaire, or any inventions in an illegal and unethical manner; or in a way where no benefit is gained by the Company; or misuse them for gains of themselves or others.

8.6. Company confidentiality

8.6.1. Personnel of the Company shall refrain from revealing confidential information of the Company, especially trade secret. Confidential information is defined as any information, which is not publicized and which its disclosure may lead to any abuse that results in damages to the Company.

8.6.2. In case of employment termination, personnel of the Company shall return confidential information and documents in their possession without being requested prior to end of employment term. Terminated employees shall remain bound by the confidentiality obligations.

8.6.3. Personnel of the Company shall comply with the Company's policies and regulations regarding IT and cybersecurity to prevent breaches of confidentiality, data leakage or data loss.

8.7. Refrain from abuse of authority, information, and document of the Company for personal gains or that of others

8.7.1. Personnel of the Company are prohibited from abusing their position, or data, or documents of the Company, customers or those dealing business with the Company for the gain of themselves, family, or others, or in a way that deters the gain of the Company, directly or indirectly.

8.7.2. Personnel of the Company shall refrain from using their position or knowledge about the Company to facilitate insider trading or dealing.

8.8. Behavior contradictory to the Company's gain

8.8.1. Personnel of the Company are prohibited from taking any actions, which are contradictory to the gain of the Company or deter such gain in any aspect.

8.8.2. In case where the personnel of the Company hold shares of other companies or those deemed a competitor to the Company, such person shall be accountable to prevent any impact on themselves to act or neglect to fulfill their duties as personnel of the Company.

8.9. Devotion of effort and time

8.9.1. Personnel of the Company shall devote their time and effort on tasks under their responsibility to the fullest and to the best of their ability. They shall refrain from engaging in other business, personal jobs, or other works irrelevant to the Company during business hours, which could negatively impact their performance or the benefit of the Company.

9. Relationship and conflict of interest

9.1. Personnel of the Company shall avoid and prevent personal gain or that of their family or relatives to conflict against that of the Company, its customers, or trade partners. In case such event is unavoidable, they shall so report to the concerned internal parties for acknowledgement and refrain from involving in any information which is critical for relevant consideration and approval of such event.

9.2. Gift and entertainment for customers, trade partners, or other persons having business relationship with the Company shall conform to the business norm and be arranged based on appropriateness of occasions and festive periods. Personnel of the Company shall comply with the following scope.

9.2.1. They shall not violate against existing and future policies, rules and regulations of the Company.

9.2.2. They shall comply with the laws.

9.2.3. They shall be reported to authorized personnel of the Company for prior acknowledgement and approval.

9.3. Personnel of the Company shall neither request nor accept gift and entertainment of all forms. If necessary to do so and they are arranged by customers, trade partners, or other persons, they shall be carried out in the context of business contact of the Company only; and each of such matter shall be reported to the authorized personnel of the Company for acknowledgement. In this regard, prior approval from the authorized personnel of the Company may be required in some cases in compliance with current and future regulations of the Company.

10. Colleagues

10.1 Subordinates

10.1.1. Personnel of the Company shall be a role model, and a good supervisor with mercy and integrity that would earn others' respect, who treat all subordinates with fairness. They shall encourage and support progress of subordinates, be a good listener, and assist in solving any issues as well as provide facilitation, as the case maybe. They shall ensure sound understanding of employees towards the Company.

10.2. Supervisors

10.2.1. Personnel of the Company shall respect, obey, and comply with direct and righteous orders of their supervisor, and focus on achieving their goals. They shall propose creative ideas related to business as well as have the good attitude towards the supervisor and adapt to work well with the supervisor.

10.3. Peers

10.3.1. Personnel of the Company shall encourage and maintain harmony, understanding, and empathy by being hospitable and generous to each other.

10.3.2. Personnel of the Company shall respect each other, support teamwork spirit, and participate in discussions with an open and honest mind. They shall respect others' opinions and feedbacks as well as listen to the feedbacks and suggestions of others without prejudice.

10.3.3. Personnel of the Company shall neither blame nor threaten peers in any nature, whether in or outside of the Company's premises.

10.3.4. Personnel of the Company shall not threaten peers in any forms, including sexual harassment of any kinds whether verbally, physically, or by any media.

11. Occupational Health, Safety and Environment

11.1. The safety management system shall be put in place in compliance with the law and occupational health requirements as well as related international standards.

11.2. Recognition and maintenance shall be ensured for occupational health principle to control and prevent hazards from business operation, which may impact the welfare and asset of the Company and its personnel.

11.3. Resources shall be allocated to ensure continuous development of the occupational health management system.

11.4. The following occupational health guidelines are established.

11.4.1. Occupational health is the first priority of all personnel of the Company.

11.4.2. The Company shall support the improvement of the workplace environment to ensure safety and minimize accident risk exposure as well as support and encourage safety activities to build awareness and attitude for occupational health so as to maintain the occupational health standard, aiming for zero accident.

11.4.3. Supervisors of all levels shall lead, oversee, and support personnel of the Company to ensure uninterrupted occupational health.

11.4.4. Personnel of the Company shall consider about the safety of themselves, colleagues, and the Company's assets throughout the operating period.

11.4.5. Personnel of the Company shall cooperate in occupational health projects and propose ideas for further safety and operations improvement.

11.5. The Company shall comply with relevant environmental laws and regulations throughout the life cycle of its projects.

11.6. The Company shall take into consideration as part of its decision-making and risk assessment processes potential environmental and social impacts, including issues related to the health and safety of employees, local communities and other relevant stakeholders.

12. Compliance governance

12.1. Personnel of the Company shall acknowledge, understand, and strictly comply with the Code of Conduct.

12.2. Personnel of the Company has a duty to promote and comply with the Code of Conduct. Any violation will be subject to disciplinary action; or criminal proceedings in case of violation of law.

12.3. The Company should make available the channels to receive complaints, leads, and whistleblowing complaints as well as that for receipt of complaints, suggestion, or recommendation of stakeholders.

12.4. The Company should ensure that direct reporting of compliance governance to the Audit Committee is assigned to the Internal Audit and Compliance Department.

12.5. The Company should arrange for review of the Code of Conduct every 2 years to ensure it is appropriate, update and compatible with any changes in business scenes.

12.6. In the event of any confirmed incidences of violations, the relevant departments or persons in the Company shall be responsible for developing, reviewing and improving preventive or control measures. Such measures may be examined by the Internal Audit department as required, in line with the authority afforded to said department.

12.7. The Company shall support regular training and education related to the Code of Conduct for its employees. Training materials shall be reviewed and updated regularly to include lessons learned from any incidences which may have occurred.

LEGAL DISPUTES

The Company or its subsidiaries are not currently engaged in any pending cases or legal disputes which may have adverse effect on assets of the Company or its subsidiaries in the amount greater than 5 percent of the shareholder equity. However, certain subsidiaries of the Company (i.e., Independent Power Development Company Limited (IPD), Gulf SRC Company Limited (GSRC), and Gulf PD Company Limited (GPD)) were involved in an administrative lawsuit whereby IPD, GSRC and GPD, in 2015, filed an administrative case with the Central Administrative Court of Thailand (the Administrative Court) and as of the date of this document, the judgement of the Supreme Administrative Court has been rendered and the lawsuit is final. Details of which are summarized as follows:

During 2014, the Monitoring and Auditing Committee of Fiscal Expenditures (MACFE) resolved to appoint the Energy Regulatory Commission (ERC) to initiate an investigation into the bidding process of the 2012 Independent Power Producer (IPP) Bidding Solicitation (IPP Bidding Solicitation) in which IPD won and, through its wholly-owned subsidiaries, GSRC and GPD, entered into Power Purchase Agreements (PPAs) with the Electricity Generating Authority of Thailand (EGAT). The investigation was initiated upon an allegation that process of the IPP Bidding Solicitation was not in compliance with Thailand's Power Development Plan, the relevant ERC regulations and the Request for Proposals (RFP). The ERC then established a sub-committee to conduct an investigation and report its findings to the MACFE. The MACFE, later, assigned the Ministry of Energy (MOE) to further investigate the IPP Bidding Solicitation in which the MOE appointed an Ad Hoc Committee from the MOE to further investigate and provide solutions to be taken with respect to the matter of the IPP Bidding Solicitation. Subsequently, the MOE submitted letters to the Company requesting to negotiate to cancel the IPP project of GPD awarded from the IPP Bidding Solicitation, of which the PPA with the EGAT was signed. In addition, the MOE then sent a letter requesting the Board of Investment of Thailand (BOI) to delay the approval process of both IPP projects of GSRC and GPD.

However, on 23 July 2015, IPD, GSRC, and GPD (collectively, the Plaintiffs) filed an administrative lawsuit to the Administrative Court against (i) ERC, (ii) the Office of the ERC, (iii) the MOE and (iv) the Ad Hoc Committee (collectively, Defendants) that the investigation of the 2012 IPP Bidding Solicitation was not performed in accordance with the applicable laws, some of the Defendants who had authority to conduct the investigation had conflicts of interest, information considered by the Defendants during the investigation was distorted and the Plaintiffs suffered damages arising from an inability to develop the IPP projects as a result of the investigation by the Defendants which was a tort action against the Plaintiffs. The Plaintiffs requested the Administrative Court to issue an order to restrain the Defendants from conducting any further unlawful investigation on the IPP Bidding Solicitation, or to stop using the result of such unlawful investigation whether internally or externally with other government authorities.

On 8 December 2016, the Administrative Court judged that the Defendants had authority to conduct the investigation, but exceeded the scope of their powers in their use of the result of such investigation which caused damages to the Plaintiffs. The Administrative Court also ordered the MOE to revoke its letter requesting the BOI to delay the approval process of the IPP projects. Subsequently, on 24 March 2017, GSRC and GPD finally obtained the BOI's approval.

On 4 January 2017, the MOE submitted an appeal to the Supreme Administrative Court; and on 20 June 2017, the Plaintiffs already submitted a petition to the appeal to the Supreme Administrative Court.

On 14 December 2021, the Supreme Administrative Court judged that the MOE's actions, both by sending the letter to the BOI and by requesting to negotiate with the Plaintiffs to cancel one of the PPAs, abused and caused damages to the Plaintiffs. As such, the Supreme Administrative Court ordered the MOE to revoke its letter requesting the BOI to delay the BOI approval process of the IPP Projects, and to inform the BOI within 7 days from the date on which the court judgement was rendered. The Supreme Administrative Court also prohibited the MOE from using the result of such investigation to negotiate with the Plaintiffs to cancel the PPA. The Supreme Administrative Court's judgement is final. Currently, the PPAs entered into by the EGAT with GSRC and GPD remain in force.

Except as disclosed above, the Group is not currently engaged or being a party to any other material unresolved litigation, court proceedings, arbitration or administrative proceedings.



LRQA Independent Assurance Statement

Relating to Gulf Energy Development Public Company Limited's SH&E Data for the calendar year 2021

This Assurance Statement has been prepared for Gulf Energy Development Public Company Limited in accordance with our contract but is intended for the readers of this Report.

Terms of engagement

LRQA was commissioned by Gulf Energy Development Public Company Limited (GULF) to provide independent assurance on its safety health and environment (SH&E) data ("the report") against the assurance criteria below to a limited level of assurance and at the materiality of the professional judgement of the verifier using LRQA's verification procedure. LRQA's verification procedure is based on current best practice, is in accordance with ISAE 3000 and ISAE 3410 and uses the following principles of - inclusivity, materiality, responsiveness and reliability of performance data.

Our assurance engagement covered GULF's operations and activities at 25 power plants within Thailand and Vietnam and specifically the following requirements:

- Reviewing whether the SH&E data has taken account of GRI Sustainability Reporting Standards
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:

Environmental

- 302-1 : Energy consumption within the organization
- 302-2 : Energy consumption outside of the organization
- 302-3 : Energy intensity
- 303-3 : Water withdrawal (2018)
- 303-4 : Water discharge (2018)
- 303-5 : Water consumption (2018)
- 305-1 : Direct (Scope 1) GHG emissions
- 305-2 : Energy indirect (Scope 2) GHG emissions
- 305-3 : Other indirect (Scope 3) GHG emissions
- 305-4 : GHG Emissions intensity
- 305-7 : Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions
- 306-3 : Waste generated (2020)
- 306-4 : Waste diverted from disposal (2020)
- 306-5 : Waste directed to disposal (2020)
- 306-3 : Significant spills (2016)
- 306-4 : Transport of hazardous waste (2016)

Social

- 403-8 : Workers covered by occupational health and safety management system (2018)
- 403-9 : Work-related injuries
- 403-10 : Work-related ill health

Our assurance engagement excluded the data and information of GULF's suppliers, contractors and any third parties mentioned in the report.

LRQA's responsibility is only to GULF. LRQA disclaims any liability or responsibility to others as explained in the end footnote. GULF'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 GULF.

LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that GULF has not, in all material respects:

- Met the requirements above
- Disclosed accurate and reliable datasets as no errors or omissions were detected.



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.

LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks were undertaken as part of the evidence gathering process for this assurance engagement:

- Auditing GULF'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.
 - Reviewing the organizational and operational boundaries.
 - Interviewing relevant employees responsible for managing and compiling the SH&E data at a sample of locations, namely GUT, GSRC, GCG, GNS, as well as speaking with people at the corporate office.
 - Verifying historical SH&E data and records at an aggregated level for January-December 2021.

Observations

Further observations and findings, made during the assurance engagement, are:

- GULF has a documented data collection manual in place for its GHG inventory. However, we believe that GULF should establish and implement a similar documentation and QA/QC program for its other sustainability indicators; the benefits being:
 - reducing the error and inconsistency of data reported by facilities
 - increasing the accuracy and reliability of the corporate office's aggregated performance data and information.

LRQA's standards, competence and independence

LRQA 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 LRQA for GULF.

Dated: 26 February 2022

Nit Tanasuthiseri
LRQA Lead Verifier

On behalf of LRQA Ltd.
LRQA (Thailand) Limited
22nd Floor, Sirinrat Building, 3388/78 Rama IV Road
Klongton, Klongtoey, Bangkok 10110 Thailand

LRQA reference: BGK49705101120666

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Gulf Energy Development Public Company Limited



**Financial Statements
2021**

REPORT OF THE BOARD OF DIRECTORS' RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS

The Board of Directors is responsible for the consolidated financial statements of Gulf Energy Development Public Company Limited (the "Company") and its subsidiaries, and the Company's separate financial statements, which are prepared in accordance with the Thai Accounting Standards and Thai Financial Reporting Standards. The Board of Directors has considered adopting the appropriate and consistent accounting policies and arranged for adequate disclosure in the notes to the financial statements to be beneficial to shareholders and other investors.

The Board of Directors has established good corporate governance, maintained appropriate and effective risk management and internal control system to provide reasonable assurance that the accounting information is accurate, complete, presents material facts, and sufficient to maintain assets and to prevent fraud and material irregularities.

The Board of Directors has appointed an Audit Committee, comprised of Independent Directors, to oversee and review the reliability and accuracy of the financial statements, internal control and internal audit, and risk management, including the disclosure of related party transactions. The comments of the Audit Committee on these matters are presented in the Audit Committee Report in this annual report.

The Board of Directors holds the opinion that the Company's internal control and internal audit provides reasonable assurance that the consolidated financial statements of the Company and its subsidiaries, and the Company's separate financial statements for the year ended December 31, 2021 are reliable and have been prepared in accordance with generally accepted accounting principles, related laws and regulations as reported by the auditor in the Auditor's Report in this annual report.



Mr. Viset Choopiban
Chairman of the Board



Mr. Sarath Ratanavadi
Chief Executive Officer

INDEPENDENT AUDITOR'S REPORT

To the Shareholders of Gulf Energy Development Public Company Limited

Opinion

I have audited the consolidated and separate financial statements of Gulf Energy Development Public Company Limited and its subsidiaries (the "Group") and of Gulf Energy Development Public Company Limited (the "Company"), respectively, which comprise the consolidated and separate statements of financial position as at 31 December 2021, the consolidated and separate statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the accompanying consolidated and separate financial statements present fairly, in all material respects, the financial position of the Group and the Company, respectively, as at 31 December 2021 and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements section of my report. I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants issued by the Federation of Accounting Professions that is relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the consolidated and separate financial statements of the current period. These matters were addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

IMPAIRMENT TESTING FOR CASH GENERATING UNITS CONTAINING GOODWILL

Refer to Note 12 to the consolidated and separate financial statements.

The key audit matter	How the matter was addressed in the audit
<p>The Group has recognised significant amounts of goodwill from business combinations which the carrying values of the Group's goodwill balances might exceed its recoverable amount.</p> <p>The annual impairment testing of goodwill requires the significant judgement of management in determining the assumptions to estimate the recoverable amount. Key assumptions applied include estimates of future sales volumes and prices, operating costs, long-term growth rates and the weighted average cost of capital (discount rate). I considered this as a key audit matter because of the significant amounts and significant judgement involved.</p>	<p>My audit procedures in this area included, among others:</p> <ul style="list-style-type: none">• Obtain an understanding of management's operational plan, the identification of cash generating units and the impairment testing process;• Understanding management's process and key assumptions to determine the recoverable amount;• Evaluating the appropriateness of the assumptions regarding key inputs such as sales volumes and prices, operating costs, long-term growth rates and weighted average cost of capital (discount rate) which included comparing these inputs with externally derived data as well as my knowledge of the Group and the industry;• Performing a sensitivity analysis, which included assessing the possible effect in growth rates and forecast cash flows and the discount rate;• Evaluating the adequacy of the disclosures in accordance with the relevant Thai Financial Reporting Standards.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the correction be made.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate Financial Statements

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

In preparing the consolidated and separate financial statements, management is responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's and the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate Financial Statements

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Waiyawat v.

(Waiyawat Kosamarnchaiyakij)
Certified Public Accountant
Registration No. 6333

KPMG Phoomchai Audit Ltd.
Bangkok
18 February 2022

STATEMENT OF FINANCIAL POSITION

Gulf Energy Development Public Company Limited and its Subsidiaries

Assets	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2021	2020	2021	2020
(in Baht)					
Current assets					
Cash and cash equivalents	6	19,846,840,823	15,902,240,379	7,458,644,053	6,751,942,912
Short-term deposits at financial institutions					
used as collateral	7	2,786,671,658	5,869,798,671	-	-
Trade receivables	5, 24	9,568,860,514	5,660,444,975	9,495,184	36,000,000
Current portion of lease receivable					
under power purchase agreement	8	596,304,323	-	-	-
Other receivables	5	1,392,194,763	1,086,528,579	169,818,298	125,250,858
Short-term loans to related parties	5	-	-	-	20,871,055
Other current financial assets	24	2,313,723,064	317,595,680	4,815,754	4,807,189
Spare parts		1,302,602,018	331,024,464	-	-
Refundable VAT		1,003,964,006	1,186,733,848	5,927,052	-
Total current assets		38,811,161,169	30,354,366,596	7,648,700,341	6,938,872,014
Non-current assets					
Deposits at financial institutions used as collateral	7	1,319,895,458	1,225,672,457	-	-
Other non-current financial assets	24	3,340,462,078	28,522,567,870	-	26,010,306,169
Investments in subsidiaries	9	-	-	24,810,796,180	18,609,634,073
Investments in associates	10	130,220,564,707	20,526,925,077	128,238,725,061	20,405,866,677
Investments in joint ventures	10	5,352,845,166	1,552,013,875	3,174,440,460	1,203,947,960
Non-current trade receivables	5, 24	-	-	598,166,407	410,826,558
Other non-current receivables	5	1,267,476,498	430,883,624	1,122,733,664	745,553,047
Lease receivable under power purchase agreement	8	20,334,769,541	-	-	-
Receivable from service concession arrangement	26	334,368,975	159,296,457	-	-
Long-term loans to related parties	5	6,655,122,189	4,638,469,127	30,688,572,497	28,331,479,843
Investment properties		112,610,681	112,610,681	44,719,594	44,719,594
Advance payments for property, plant and equipment		3,016,651,509	6,701,112,911	-	-
Property, plant and equipment	11	130,128,001,170	129,718,338,780	65,335,599	63,688,050
Right-of-use assets		656,817,272	787,421,073	144,061,654	53,511,535
Goodwill	12	7,902,916,581	7,679,921,617	-	-
Intangible assets	13	11,061,470,794	9,674,012,116	19,674,433	17,472,309
Deferred tax assets	21	1,896,538,631	3,018,475,716	45,542,078	-
Refundable VAT		85,940,340	366,123,681	-	180,730
Other non-current assets		176,236,488	112,294,808	137,256,914	16,111,814
Total non-current assets		323,862,688,078	215,226,139,870	189,090,024,541	95,913,298,359
Total assets		362,673,849,247	245,580,506,466	196,738,724,882	102,852,170,373

The accompanying notes form an integral part of the financial statements.

STATEMENT OF FINANCIAL POSITION

Gulf Energy Development Public Company Limited and its Subsidiaries

Liabilities and equity	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2021	2020	2021	2020
		<i>(in Baht)</i>			
Current liabilities					
Short-term loans from financial institutions	14, 24	9,927,032,459	11,500,000,000	9,927,032,459	11,500,000,000
Short-term loans from related parties	5	70,612,500	-	70,612,500	-
Trade payables	5, 24	3,080,401,696	1,353,459,743	-	-
Construction payable	24	8,155,325,940	7,169,896,350	-	-
Other payables	5, 24	3,574,444,534	2,754,713,642	1,007,352,058	763,739,688
Current portion of long-term loans from financial institutions	14, 24	3,003,968,412	2,392,234,351	-	-
Current portion of lease liabilities	24	75,982,484	73,249,999	56,085,621	29,181,902
Current portion of debentures	14, 24	6,524,028,585	4,394,487,445	1,999,954,421	-
Current income tax payable		92,140,561	4,588,722	-	-
Other current financial liabilities	24	512,295,846	-	-	-
Total current liabilities		35,016,233,017	29,642,630,252	13,061,037,059	12,292,921,590
Non-current liabilities					
Other non-current payables	24	700,639,166	632,266,558	201,557,400	212,141,300
Other non-current financial liabilities	24	9,169,266,960	13,904,329,680	685,550,506	550,624,978
Long-term loans from financial institutions	14, 24	138,761,244,105	83,543,580,497	38,529,762,092	-
Lease liabilities	24	666,883,890	780,914,660	89,912,904	25,508,213
Debentures	14, 24	64,534,354,462	39,033,910,754	45,467,706,512	17,486,384,231
Deferred tax liabilities	21	3,821,798,470	3,648,222,575	-	144,196,089
Provisions for employee benefits		259,700,332	231,234,387	203,538,125	187,670,234
Provision for decommissioning costs	15	2,234,592,917	2,083,601,009	-	-
Total non-current liabilities		220,148,480,302	143,858,060,120	85,178,027,539	18,606,525,045
Total liabilities		255,164,713,319	173,500,690,372	98,239,064,598	30,899,446,635

The accompanying notes form an integral part of the financial statements.

STATEMENT OF FINANCIAL POSITION

Gulf Energy Development Public Company Limited and its Subsidiaries

Liabilities and equity	Note	Consolidated financial statements		Separate financial statements	
		31 December		31 December	
		2021	2020	2021	2020
		(in Baht)			
Equity					
Share capital	16				
Authorised share capital (11,733.15 million ordinary shares, par value at Baht 1 per share)		11,733,150,000	11,733,150,000	11,733,150,000	11,733,150,000
Issued and paid-up share capital (11,733.15 million ordinary shares, par value at Baht 1 per share)		11,733,149,998	11,733,149,998	11,733,149,998	11,733,149,998
Share premium	16	51,822,145,000	51,822,145,000	51,822,145,000	51,822,145,000
Surplus from business combination under common control		(316,239,277)	(316,239,277)	-	-
Changes in proportion of investment/interests in subsidiaries		1,489,752,705	1,489,752,705	-	-
Retained earnings					
Appropriated					
Legal reserve	17	951,608,732	657,723,756	951,608,732	657,723,756
Unappropriated		35,979,569,979	7,310,125,037	33,992,640,595	6,993,330,668
Other components of equity	17	(5,064,040,864)	(8,669,509,824)	115,959	746,374,316
Equity attributable to owners of the parent		96,595,946,273	64,027,147,395	98,499,660,284	71,952,723,738
Non-controlling interests		10,913,189,655	8,052,668,699	-	-
Total equity		107,509,135,928	72,079,816,094	98,499,660,284	71,952,723,738
Total liabilities and equity		362,673,849,247	245,580,506,466	196,738,724,882	102,852,170,373

The accompanying notes form an integral part of the financial statements.

STATEMENT OF COMPREHENSIVE INCOME

Gulf Energy Development Public Company Limited and its Subsidiaries

	Note	Consolidated financial statements		Separate financial statements	
		Year ended 31 December		Year ended 31 December	
		2021	2020	2021	2020
		<i>(in Baht)</i>			
Revenue					
Revenue from sale	5, 18	45,372,842,451	32,298,096,090	-	-
Revenue from lease contracts under power purchase agreement	18	1,457,600,210	-	-	-
Revenue from service concession arrangement	18, 26	162,734,215	157,526,328	-	-
Revenue from management fee	5, 18	474,148,482	407,511,238	1,258,573,652	1,238,667,263
		47,467,325,358	32,863,133,656	1,258,573,652	1,238,667,263
Cost of sale	5	(34,026,842,986)	(23,369,047,329)	-	-
Cost from service concession arrangement	26	(146,124,319)	(145,857,711)	-	-
Cost of management fee		(215,074,166)	(187,333,769)	(533,752,320)	(459,634,000)
Gross profit		13,079,283,887	9,160,894,847	724,821,332	779,033,263
Interest income	5	83,207,688	83,275,550	1,065,911,688	661,594,700
Other income		7,559,619	19,856,347	3,317,867	15,674,699
Dividend income	5	2,425,651,390	440,174,152	6,657,810,861	4,932,229,279
Administrative expenses	5	(2,297,355,131)	(2,115,910,484)	(1,232,382,129)	(910,553,882)
Net gain (loss) on exchange rate		(1,074,784,250)	(133,761,124)	516,494,308	166,386,466
Profit from operating activities		12,223,563,203	7,454,529,288	7,735,973,927	5,644,364,525
Share of profit of associates and joint ventures	10	2,886,043,290	2,462,072,001	-	-
Finance costs	20	(5,595,646,301)	(3,664,984,826)	(1,778,438,796)	(568,914,855)
Profit before income tax expense		9,513,960,192	6,251,616,463	5,957,535,131	5,075,449,670
Tax (expense) income	21	(346,895,137)	(107,278,789)	(79,835,610)	3,602,001
Profit for the year		9,167,065,055	6,144,337,674	5,877,699,521	5,079,051,671

The accompanying notes form an integral part of the financial statements.

STATEMENT OF COMPREHENSIVE INCOME

Gulf Energy Development Public Company Limited and its Subsidiaries

	Note	Consolidated financial statements		Separate financial statements	
		Year ended 31 December		Year ended 31 December	
		2021	2020	2021	2020
		(in Baht)			
Other comprehensive income (expense)					
<i>Items that will be reclassified subsequently to profit or loss</i>					
Exchange differences on translating financial statements		193,818,728	695,072,251	-	-
Gain (loss) on cash flow hedges		4,015,995,987	(2,199,642,532)	-	-
Gain on investments in debt instruments designated at fair value through other comprehensive income (expense)		17,711	41,590	6,852	16,090
Share of other comprehensive income (expense) of associates and joint ventures	10	1,125,912,556	(489,830,507)	-	-
Total items that will be reclassified subsequently to profit or loss		5,335,744,982	(1,994,359,198)	6,852	16,090
<i>Items that will not be reclassified subsequently to profit or loss</i>					
Gain (loss) on sales of investment in equity instruments designated at fair value through other comprehensive income (expense)		(122,463,368)	32,083,231	-	32,858,757
Gain on investments in equity instruments designated at fair value through other comprehensive income (expense)		25,469,646,733	793,307,257	25,127,772,107	746,265,209
Share of other comprehensive income (expense) of associates and joint ventures	10	7,673,254	-	-	-
Total items that will not be reclassified subsequently to profit or loss		25,354,856,619	825,390,488	25,127,772,107	779,123,966
Other comprehensive income (expense) for the year, net of tax		30,690,601,601	(1,168,968,710)	25,127,778,959	779,140,056
Total comprehensive income (expense) for the year		39,857,666,656	4,975,368,964	31,005,478,480	5,858,191,727
Profit attributable to:					
Owners of the parent		7,670,297,904	4,282,113,585	5,877,699,521	5,079,051,671
Non-controlling interests		1,496,767,151	1,862,224,089	-	-
Profit for the year		9,167,065,055	6,144,337,674	5,877,699,521	5,079,051,671
Total comprehensive income (expense) attributable to:					
Owners of the parent		37,027,340,812	3,698,576,435	31,005,478,480	5,858,191,727
Non-controlling interests		2,830,325,844	1,276,792,529	-	-
Total comprehensive income (expense) for the year		39,857,666,656	4,975,368,964	31,005,478,480	5,858,191,727
Basic earnings per share	22	0.65	0.39	0.50	0.46

The accompanying notes form an integral part of the financial statements.

STATEMENT OF CHANGES IN EQUITY

Gulf Energy Development Public Company Limited and its Subsidiaries

Consolidated financial statements														
Other components of equity														
Note	Issued and paid-up share capital	Share premium	Surplus from business combination under common control	Change in proportion of investment/ interests in subsidiaries	Legal reserve	Unappropriated reserve	Transition reserve	Hedging reserve	Fair value reserve	Share of other comprehensive income (expense) of associates and joint ventures	Total other components of equity		Total equity	
											Equity attributable to owners of the parent	Non-controlling interests		
Year ended 31 December 2020														
	10,666,500,000	20,889,295,058	(316,239,277)	1,489,752,705	403,771,172	6,023,165,098	(102,782,734)	(5,241,459,363)	(315,475,960)	(2,394,171,386)	(8,053,889,443)	31,102,355,313	7,858,434,531	38,960,779,844
	Balance at 1 January 2020													
Transactions with owners, recorded directly in equity														
<i>Contributions by and distributions to owners of the parent</i>														
16	1,066,649,998	30,932,849,942	-	-	-	-	-	-	-	-	-	31,999,499,940	-	31,999,499,940
23	-	-	-	-	-	(2,773,284,293)	-	-	-	-	-	(2,773,284,293)	(1,573,358,727)	(4,346,643,020)
	1,066,649,998	30,932,849,942	-	-	-	(2,773,284,293)	-	-	-	-	-	29,226,215,647	(1,573,358,727)	27,652,856,920
<i>Total contributions by and distributions to owners of the parent</i>														
Changes in ownership interests in subsidiaries														
	-	-	-	-	-	-	-	-	-	-	-	-	490,810,366	490,810,366
	-	-	-	-	-	-	-	-	-	-	-	-	490,810,366	490,810,366
	1,066,649,998	30,932,849,942	-	-	-	(2,773,284,293)	-	-	-	-	-	29,226,215,647	(1,082,548,361)	28,143,667,286
Total transactions with owners, recorded directly in equity														
Comprehensive income (expense) for the year														
	-	-	-	-	-	4,282,113,585	-	-	-	-	-	4,282,113,585	1,862,224,089	6,144,337,674
	-	-	-	-	-	32,083,231	695,072,251	(1,614,204,439)	793,342,314	(489,830,507)	(615,620,381)	(583,537,150)	(585,431,560)	(1,168,968,710)
	-	-	-	-	-	4,314,196,816	695,072,251	(1,614,204,439)	793,342,314	(489,830,507)	(615,620,381)	3,698,576,435	1,276,792,529	4,975,368,964
	-	-	-	-	-	253,952,584	-	-	-	-	-	253,952,584	-	253,952,584
	11,733,149,998	51,822,145,000	(316,239,277)	1,489,752,705	657,723,756	7,310,135,037	892,289,517	(6,855,663,802)	477,866,354	(2,884,001,893)	(8,669,509,824)	64,027,147,395	8,052,668,699	72,079,816,094
	Balance at 31 December 2020													

The accompanying notes form an integral part of the financial statements.

STATEMENT OF CHANGES IN EQUITY

Gulf Energy Development Public Company Limited and its Subsidiaries

	Consolidated financial statements													
	Retained earnings					Other components of equity								
	Issued and paid-up share capital	Share premium	Surplus from business combination under common control	Change in proportion of investment/ interests in subsidiaries	Legal reserve	Unappropriated reserve	Translation reserve	Hedging reserve	Fair value reserve	Share of other comprehensive income (expense) of associates and joint ventures	Total other components of equity	Equity attributable to owners of the parent	Non-controlling interests	Total equity
Year ended 31 December 2021														
Balance at 1 January, 2021	11,733,149,998	51,822,145,000	(316,239,277)	1,489,752,705	657,723,756	7,310,125,037	592,289,517	(6,855,663,802)	477,866,354	(2,884,001,893)	(8,649,509,824)	64,027,147,395	8,052,668,699	72,079,816,094
Transactions with owners, recorded directly in equity														
<i>Distributions to owners of the parent</i>														
Dividends	-	-	-	-	-	(4,458,541,934)	-	-	-	-	(4,458,541,934)	(4,458,541,934)	(1,834,044,540)	(6,292,586,474)
<i>Total distributions to owners of the parent</i>	-	-	-	-	-	(4,458,541,934)	-	-	-	-	(4,458,541,934)	(4,458,541,934)	(1,834,044,540)	(6,292,586,474)
<i>Changes in ownership interests in subsidiaries</i>														
Call for additional paid-up capital	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Total changes in ownership interests in subsidiaries</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Comprehensive income (expense) for the year														
Profit	-	-	-	-	-	7,670,297,904	-	-	-	-	-	7,670,297,904	1,496,767,151	9,167,065,055
Other comprehensive income (expense)	-	-	-	-	(122,463,368)	(193,818,728)	193,818,728	2,682,440,077	25,469,661,661	1,133,585,810	29,479,506,276	29,357,042,908	1,333,558,693	30,690,601,601
Total comprehensive income (expense) for the year	-	-	-	-	-	7,547,834,536	193,818,728	2,682,440,077	25,469,661,661	1,133,585,810	29,479,506,276	37,027,340,812	2,830,325,844	39,857,666,656
Transfer to legal reserve	-	-	-	-	293,884,976	(293,884,976)	-	-	-	-	-	-	-	-
Transfer to retained earnings	-	-	-	-	25,874,037,316	(25,874,037,316)	-	-	(25,874,037,316)	-	(25,874,037,316)	-	-	-
Balance at 31 December 2021	11,733,149,998	51,822,145,000	(316,239,277)	1,489,752,705	951,608,732	35,979,569,979	786,108,245	(4,173,223,725)	73,490,699	(1,750,416,083)	(5,064,040,864)	96,595,946,273	10,913,189,655	107,509,135,928

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The accompanying notes form an integral part of the financial statements.

STATEMENT OF CHANGES IN EQUITY

Gulf Energy Development Public Company Limited and its Subsidiaries

	Note	Separate financial statements						Total equity
		Issued and paid-up share capital	Share premium	Retained earnings		Other components of equity		
				Legal reserve	Unappropriated <i>(in Baht)</i>	Fair value reserve		
Year ended 31 December 2020								
Balance at 1 January 2020		10,666,500,000	20,889,295,058	403,771,172	4,908,657,117	93,017	36,868,316,364	
Transactions with owners, recorded directly in equity								
<i>Contributions by and distributions to owners of the parent</i>								
Issuance of ordinary shares	16	1,066,649,998	30,932,849,942	-	-	-	31,999,499,940	
Dividends	23	-	-	-	(2,773,284,293)	-	(2,773,284,293)	
Total contributions by and distributions to owners of the parent		1,066,649,998	30,932,849,942	-	(2,773,284,293)	-	29,226,215,647	
Comprehensive income (expense) for the year								
Profit		-	-	-	5,079,051,671	-	5,079,051,671	
Other comprehensive income (expense)		-	-	-	32,858,757	746,281,299	779,140,056	
Total comprehensive income (expense) for the year		-	-	-	5,111,910,428	746,281,299	5,858,191,727	
Transfer to legal reserve	17	-	-	253,952,584	(253,952,584)	-	-	
Balance at 31 December 2020		11,733,149,998	51,822,145,000	657,723,756	6,993,330,668	746,374,316	71,952,723,738	

The accompanying notes form an integral part of the financial statements.

STATEMENT OF CHANGES IN EQUITY

Gulf Energy Development Public Company Limited and its Subsidiaries

	Note	Separate financial statements					Total equity
		Issued and paid-up share capital	Share premium	Retained earnings		Other components	
				Legal reserve	Unappropriated	of equity	
					Fair value		
Year ended 31 December 2021							
Balance at 1 January 2021		11,733,149,998	51,822,145,000	657,723,756	6,993,330,668	746,374,316	71,952,723,738
Transactions with owners, recorded directly in equity							
<i>Distributions to owners</i>							
Dividends	23	-	-	-	(4,458,541,934)	-	(4,458,541,934)
Total distributions to owners		-	-	-	(4,458,541,934)	-	(4,458,541,934)
Comprehensive income (expense) for the year							
Profit		-	-	-	5,877,699,521	-	5,877,699,521
Other comprehensive income (expense)		-	-	-	-	25,127,778,959	25,127,778,959
Total comprehensive income (expense) for the year		-	-	-	5,877,699,521	25,127,778,959	31,005,478,480
Transfer to legal reserve	17	-	-	293,884,976	(293,884,976)	-	-
Transfer to retained earnings	4.2	-	-	-	25,874,037,316	(25,874,037,316)	-
Balance at 31 December 2021		11,733,149,998	51,822,145,000	951,608,732	33,992,640,595	115,959	98,499,660,284

The accompanying notes form an integral part of the financial statements.

STATEMENT OF CASH FLOWS

Gulf Energy Development Public Company Limited and its Subsidiaries

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2021	2020	2021	2020
	(in Baht)			
Cash flows from operating activities				
Profit for the year	9,167,065,055	6,144,337,674	5,877,699,521	5,079,051,671
<i>Adjustments to reconcile profit to cash receipts (payments)</i>				
Tax (income) expense	346,895,137	107,278,789	79,835,610	(3,602,001)
Finance costs	5,595,646,301	3,664,984,826	1,778,438,796	568,914,855
Depreciation and amortisation	4,988,945,262	3,431,384,043	83,362,742	68,808,939
(Gain) loss from disposal and write-off plant, property and equipment	17,177,429	1,454,935	-	(206,098)
Loss from disposal of investment in subsidiaries	-	-	12,830,786	-
Provisions for employee benefits obligation	31,394,585	-	18,796,531	-
Unrealised (gain) loss on exchange rate	1,674,811,055	773,064,263	(514,816,369)	(166,448,078)
Reversal of impairment loss of investment properties	-	(15,015,094)	-	(15,015,094)
Share of profit of associates and joint ventures	(2,886,043,290)	(2,462,072,001)	-	-
Dividend income	(2,425,651,390)	(440,174,152)	(6,657,810,861)	(4,932,229,279)
Interest income	(83,207,688)	(83,275,550)	(1,065,911,688)	(661,594,700)
	16,427,032,456	11,121,967,733	(387,574,932)	(62,319,785)
<i>Changes in operating assets and liabilities</i>				
Trade receivables	(3,871,152,294)	470,211,098	26,504,816	(36,000,000)
Lease receivable under power purchase agreement	212,179,947	-	-	-
Other receivables	(402,719,659)	(312,479,939)	(9,184,805)	41,896,985
Spare parts	(971,577,554)	(174,142,461)	-	-
Refundable VAT	182,769,842	-	(5,746,321)	(10,500)
Non-current trade receivables	-	-	(187,339,849)	(255,494,120)
Other non-current receivables	(808,499,705)	(64,955,287)	(322,628,144)	24,408
Receivable from service concession arrangement	(162,734,215)	(157,526,328)	-	-
Other non-current assets	216,241,661	(156,929,237)	(121,145,101)	(1,699,054)
Trade payables	1,726,941,953	(335,629,504)	-	-
Other payables	1,251,270,646	194,878,517	70,869,514	66,962,299
Other current liabilities	259,993,006	(34,549,900)	-	-
Provisions for employee benefits obligation	(2,928,640)	27,750,352	(2,928,640)	11,770,701
Cash from (used in) operating activities	14,056,817,444	10,578,595,044	(939,173,462)	(234,869,066)
Taxes received (paid)	(42,102,632)	182,956	(118,893,150)	6,321,363
Net cash from (used in) operating activities	14,014,714,812	10,578,778,000	(1,058,066,612)	(228,547,703)

The accompanying notes form an integral part of the financial statements.

STATEMENT OF CASH FLOWS

Gulf Energy Development Public Company Limited and its Subsidiaries

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2021	2020	2021	2020
	<i>(in Baht)</i>			
<i>Cash flows from investing activities</i>				
Deposits at financial institutions used as collateral	2,988,904,012	(4,931,170,042)	-	-
Advance payment for share subscription	-	(154,445,000)	-	(154,445,000)
Payments for investment in subsidiaries	-	(18,529,341,749)	(6,904,738,793)	(2,384,109,990)
Proceeds from disposal of investment in subsidiaries	-	-	690,745,900	-
Payments for investment in associate	(139,599,990)	(2,475,859,996)	(160,304,600)	(2,475,859,996)
Payments for investment in joint ventures	(3,489,582,708)	(1,205,414,007)	(1,970,492,500)	(1,044,047,980)
Proceeds from advance payments to subsidiaries	-	-	-	5,368,182
Payments for short-term loans to related parties	-	-	(16,408,852)	(1,356,948,254)
Proceeds from short-term loans to related parties	-	-	40,586,265	2,307,048,821
Payments for long-term loans to related parties	(1,424,518,541)	(2,457,674,219)	(3,595,289,788)	(23,798,604,380)
Proceeds from long-term loans to related parties	-	-	1,852,755,786	939,517,800
Payments for other financial assets	(59,406,447,002)	(26,203,804,078)	(56,799,611,685)	(25,698,271,529)
Proceeds from sale of other non-current financial assets	908,955,719	939,942,663	-	701,919,603
Acquisition of property, plant and equipment	(20,847,800,898)	(10,846,266,808)	(15,277,918)	(32,204,598)
Payments for borrowing costs				
capitalised in property, plant and equipment	(1,235,008,235)	(1,010,600,544)	-	-
Acquisition of intangible assets	(25,934,272)	(10,589,620)	(11,040,685)	(6,967,445)
Payments for advance payments for land				
and power plant construction	(87,118,608)	(6,743,675,651)	-	-
Dividend received	4,482,307,390	3,137,154,152	6,657,810,861	4,932,229,279
Interest received	69,588,402	81,582,385	1,066,648,231	278,652,984
Net cash used in investing activities	(78,206,254,731)	(70,410,162,514)	(59,164,617,778)	(47,786,722,503)

The accompanying notes form an integral part of the financial statements.

STATEMENT OF CASH FLOWS

Gulf Energy Development Public Company Limited and its Subsidiaries

	Consolidated		Separate	
	financial statements		financial statements	
	Year ended 31 December		Year ended 31 December	
	2021	2020	2021	2020
	(in Baht)			
Cash flows from financing activities				
Proceeds from short-term loans	67,127,032,459	78,005,200,000	63,227,032,459	78,000,000,000
Payments for short-term loans	(68,700,000,000)	(66,898,100,000)	(64,800,000,000)	(66,500,000,000)
Proceeds from short-term loan from related party	70,612,500	-	1,190,612,500	-
Payment for short-term loan from related party	-	-	(1,120,000,000)	-
Proceeds from long-term loans	66,862,192,501	21,721,328,275	48,611,851,470	-
Payments for long-term loans	(14,334,052,978)	(4,100,881,318)	(10,000,000,020)	-
Payments for deferred financing fees for loans	-	(405,085,435)	(380,045,099)	-
Payments for lease liabilities	(114,356,868)	(83,596,679)	(58,414,690)	(51,517,400)
Proceeds from issuance of debentures	30,000,000,000	10,000,000,000	30,000,000,000	10,000,000,000
Payments for debentures	(2,985,278,362)	-	-	-
Payments for deferred financing fee for debentures	(24,000,000)	(10,000,000)	(24,000,000)	(10,000,000)
Proceed from call for additional paid-up capital of subsidiary	1,864,239,652	490,810,366	-	-
Proceeds from issuance of shares	-	31,999,499,940	-	31,999,499,940
Dividend paid	(4,458,541,934)	(2,773,284,293)	(4,458,541,934)	(2,773,284,293)
Dividend paid to non-controlling interests	(1,834,044,540)	(1,573,358,727)	-	-
Payments for finance costs	(5,345,665,498)	(3,271,945,848)	(1,259,109,155)	(447,309,476)
Net cash from financing activities	68,128,136,932	63,100,586,281	60,929,385,531	50,217,388,771
Net increase in cash and cash equivalents, before effect of exchange rate changes	3,936,597,013	3,269,201,767	706,701,141	2,202,118,565
Effect of exchange rate changes on cash and cash equivalents	8,003,431	(12,756,647)	-	-
Net increase in cash and cash equivalents	3,944,600,444	3,256,445,120	706,701,141	2,202,118,565
Cash and cash equivalents at 1 January	15,902,240,379	12,645,795,259	6,751,942,912	4,549,824,347
Cash and cash equivalents at 31 December	19,846,840,823	15,902,240,379	7,458,644,053	6,751,942,912
Non-cash transactions				
Increase in construction in progress from advance payment for power plant construction	3,966,632,193	3,549,139,101	-	-
Accounts payable for property, plant, equipment and intangible assets	8,170,203,413	7,186,611,502	5,763,181	929,385
Increase from provision for decommissioning costs capitalised in assets	127,510,856	41,946,004	-	-
Increase in investment in associate from reclassification of investments in equity instruments designated at fair value through other comprehensive income (expense)	107,702,859,684	-	107,702,859,684	-

The accompanying notes form an integral part of the financial statements.

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Gulf Energy Development Public Company Limited and its Subsidiaries

For the year ended 31 December 2021

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These notes form an integral part of the financial statements.

The financial statements issued for Thai statutory and regulatory reporting purposes are prepared in the Thai language. These English language financial statements have been prepared from the Thai language statutory financial statements, and were approved and authorised for issue by the Board of Directors on 18 February 2022.

1 General information

Gulf Energy Development Public Company Limited (the “Company”) is a public company limited. The Company is incorporated and resides in Thailand. The address of its registered office is 87 M Thai Tower 11th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan, Bangkok.

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 operations of the Group are to generate and sell electricity and steam, storing and converting natural gas from liquid to gas and other business in domestic and international.

2 Basis of preparation of the financial statements

(a) Statement of compliance

The financial statements are prepared in accordance with Thai Financial Reporting Standards (“TFRS”), guidelines promulgated by the Federation of Accounting Professions and applicable rules and regulations of the Thai Securities and Exchange Commission.

(b) Functional and presentation currency

The financial statements are presented in Thai Baht, which is the Company’s functional currency.

(c) Use of judgements and estimates

The preparation of financial statements in conformity with TFRS requires management to make judgements, estimates and assumptions that affect the application of the Group’s accounting policies. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

(1) Judgements

Information about judgements made in applying accounting policies that have the most significant effects on the amounts recognised in the financial statements is included in the following note:

4	Acquisitions of associate and joint venture determining the acquisition date and determining whether the Group has jointly control or significant influence to acquiree
8	Lease receivables under power purchase agreement determining whether an arrangement contains a lease

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For the year ended 31 December 2021

(2) Assumptions and estimation uncertainties

Information about assumption and estimation uncertainties at 31 December 2021 that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities in the next financial year is included in the following notes:

3(a) and 4	Acquisitions of associate and joint venture: fair value of the consideration transferred and fair value of the assets acquired and liabilities assumed, measured on a provisional basis;
3(o) and 12	Impairment test of goodwill: key assumptions underlying recoverable amounts;
3(q) and 15	Provision for decommissioning cost and future inflation rate: based on future removal cost estimates and incorporate many assumptions made by management
3(w) and 21	Recognition of deferred tax assets: and availability of future taxable profit against which deductible temporary differences and tax losses carried forward can be utilised.

3 Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these financial statements.

(a) Basis of consolidation

The consolidated financial statements relate to the Company and its subsidiaries and joint operations (together referred to as the “Group”) and the Group’s interests in associates and joint ventures.

Business combinations

The Group applies the acquisition method for all business combinations when control is transferred to the Group, (as describe in the subsidiaries section), other than business combinations with entities under common control.

The acquisition date is the date on which control is transferred to the acquirer.

Goodwill is measured at the date of acquisition as the fair value of the consideration transferred, less the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed, all measured as at the acquisition date. Any gain on bargain purchase is recognised in profit or loss immediately.

Consideration transferred includes the fair values of the assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, and equity interests issued by the Group. Consideration transferred also includes the fair value of any contingent consideration.

Any contingent consideration is measured at fair value at the date of acquisition, and remeasured at fair value at each reporting date. Subsequent changes in the fair value are recognised in profit or loss.

A contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

Transaction costs that the Group incurs in connection with a business combination, such as legal fees, professional and other consulting fees are expensed as incurred.

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If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Step acquisition

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to its acquisition-date fair value and the resulting gain or loss is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

Acquisitions from entities under common control

Business combination under common control are accounted for using a method similar to the pooling of interest method. Under that method the acquirer recognises assets and liabilities of the acquired businesses at their carrying amounts in the consolidated financial statements of the ultimate parent company at the moment of the transaction. The difference between the carrying amount of the acquired net assets and the consideration transferred is recognised as surplus or discount from business combinations under common control in shareholder's equity. The surplus or discount will be transferred to retained earnings upon divestment of the businesses acquired.

The results from operations of the acquired businesses will be included in the consolidated financial statements of the acquirer from the beginning of the comparative period or the moment the businesses came under common control, whichever date is later, until control ceases.

Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

Non-controlling interests

At the acquisition date, the Group measures any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

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. The Group has assessed the nature of its joint arrangements and determined them to be joint ventures and joint operations as follows:

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For the year ended 31 December 2021

Joint ventures

Joint arrangement is classified as joint venture when the Group has rights to the net assets of the arrangement in the consolidated financial statements.

Joint operations

The Group has classified its investments in the joint arrangements in which the group has the rights to the assets, and obligations for the liabilities relating to the arrangement as joint operations. The Group recognised for its share of assets, liabilities, revenues and expenses relating to the joint operations in accordance with the Group's accounting policies which relate to those assets, liabilities, revenues and expenses.

The Group has not recognised its share of profit or loss resulting from the purchase of assets from the joint operations until the assets are sold to an independent third party.

Interests in equity-accounted investees

The Group's interests in equity-accounted investees comprise interests in associates and a joint venture.

Associates are those entities in which the Group has significant influence, but not control or joint control, over the financial and operating policies.

Interests in associates and joint ventures are accounted for using the equity method. They are initially recognised at cost, which includes transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity-accounted investees, until the date on which significant influence or joint control ceases.

Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income or expenses arising from intra-group transactions, are eliminated. Unrealised gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(b) *Investments in subsidiaries, associates and joint ventures*

Investments in subsidiaries, associates and joint ventures in the separate financial statements of the Company are measured at cost less allowance for impairment losses. Initial recognition includes transaction costs.

Disposal of investments in the separate financial statements

On disposal of an investment, the difference between net disposal proceeds and the carrying amount is recognised in profit or loss.

If the Company disposes of part of its holding of a particular investment, the deemed cost of the part sold is determined using the weighted average method applied to the carrying value of the total holding of the investment.

NOTES TO THE FINANCIAL STATEMENTS

Gulf Energy Development Public Company Limited and its Subsidiaries

For the year ended 31 December 2021

(c) *Foreign currencies*

Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency at exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies are translated to the functional currency at the exchange rate at the reporting date.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to the functional currency at the exchange rates at the dates of the transactions.

Foreign currency differences are generally recognised in profit or loss. However, foreign currency differences arising from the translation of the following items are recognised in other comprehensive income:

- an investment in equity securities designated as at FVOCI (except on impairment, in which case foreign currency differences that have been recognised in other comprehensive income are reclassified to profit or loss);
- qualifying cash flow hedges to the extent the hedge is effective.

Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to Thai Baht at the exchange rates at the reporting date.

The revenues and expenses of foreign operations are translated to Thai Baht at average rate.

Foreign exchange differences are recognised in other comprehensive income and accumulated in the translation reserve until disposal of the investment, except to the extent that the translation difference is allocated to non-controlling interests.

When a foreign operation is disposed of in its entirety or partially such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. If the Group disposes of part of its interest in a subsidiary but retains control, then the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of an investment in associate or joint venture while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

When the settlement of a monetary item receivables from or payables to a foreign operation is neither planned nor likely in the foreseeable future, exchange gains and losses arising from such a monetary item are considered to form part of a net investment in a foreign operation and are recognised in other comprehensive income, and presented in the foreign currency translation reserve in equity until disposal of the investment.

NOTES TO THE FINANCIAL STATEMENTS

Gulf Energy Development Public Company Limited and its Subsidiaries

For the year ended 31 December 2021

(d) Financial instruments

(1) Recognition and initial measurement

Trade receivables, debt securities that the Group issued and trade payables are initially recognised when they are originated. Other financial assets and financial liabilities are initially recognised when the Group becomes a party to the contractual provisions of the instrument, and measured at fair value, taking into account for transaction costs that are directly attributable to its acquisition or issue of the securities, except for financial assets and financial liabilities measured at FVTPL, which are initially and subsequently measured at fair value, and any transaction costs that are directly attributable to its acquisition or issue of the securities are recognised in profit or loss.

On initial recognition, a financial asset is classified as measured at: amortised cost; fair value through other comprehensive income (FVOCI); or fair value through profit or loss (FVTPL). Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified prospectively from the reclassification date.

On initial recognition, financial liabilities are classified as measured at amortised cost using the effective interest method or FVTPL. Interest expense, foreign exchange gains and losses and any gain or loss on derecognition are recognised in profit or loss.

Financial assets measured at amortised costs are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by expected credit losses. Interest income, foreign exchange gains and losses, expected credit loss and any gain or loss on derecognition are recognised in profit or loss.

Debt investments measured at FVOCI are subsequently measured at fair value. Interest income, calculated using the effective interest method, foreign exchange gains and losses and expected credit loss are recognised in profit or loss. Other net gains and losses are recognised in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

Equity investments measured at FVOCI are subsequently measured at fair value. Dividends income are recognised as income in profit or loss on the date on which the Group's right to receive payment is established, unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and are never reclassified to profit or loss.

(2) Derecognition and offset

The Group derecognises a financial asset when the contractual rights to receive the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

The difference between the carrying amount extinguished and the consideration received or paid is recognised in profit or loss.

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Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and the Group intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(3) *Derivatives*

Derivatives are recognised at fair value and remeasured at fair value at each reporting date. The gain or loss on remeasurement to fair value is recognised immediately in profit or loss, except where the derivatives qualify for cash flow hedge accounting or hedges of net investment in a foreign operation, in which case recognition of any resultant gain or loss depends on nature of the item being hedged (see note 3 (d)(4)).

(4) *Hedging*

The Group designates certain derivatives as hedging instruments to hedge the variability in cash flows associated with foreign exchange rates and interest rates.

At inception of designated hedging relationships, the Group documents the risk management objective and strategy for undertaking the risk, the economic relationship between the hedged item and the hedging instrument, including consideration of the hedge effectiveness at the inception of the hedging relationship and throughout the remaining period to determine the existence of economic relationship between the hedged item and the hedging instrument.

Cash flow hedges

When a derivative is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognised in OCI and accumulated in the hedging reserve. The effective portion of changes in the fair value of the derivative that is recognised in OCI is limited to the cumulative change in fair value of the hedged item, determined on a present value basis, from inception of the hedge. Any ineffective portion of changes in the fair value of the derivative is recognised immediately in profit or loss.

When the hedged forecast transaction subsequently results in the recognition of a non-financial item such as inventory, the amount accumulated in the hedging reserve and the cost of hedging reserve is included directly in the initial cost of the non-financial item when it is recognised.

For all other hedged forecast transactions, the amount accumulated in the hedging reserve and the cost of hedging reserve is reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss.

If the hedge no longer meets the criteria for hedge accounting or the hedging instrument is sold, expires, is terminated or is exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the hedging reserve remains in equity until, for a hedge of a transaction resulting in the recognition of a non-financial item, it is included in the non-financial item's cost on its initial recognition or, for other cash flow hedges, it is reclassified to profit or loss in the same period or periods as the hedged expected future cash flows affect profit or loss.

If the hedged future cash flows are no longer expected to occur, then the amounts that have been accumulated in the hedging reserve and the cost of hedging reserve are immediately reclassified to profit or loss.

NOTES TO THE FINANCIAL STATEMENTS

Gulf Energy Development Public Company Limited and its Subsidiaries

For the year ended 31 December 2021

(5) *Impairment of financial assets other than trade receivables*

The Group recognises ECLs equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition or credit-impaired financial assets, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

ECLs are a probability-weighted estimate of credit losses based on forward-looking and historical experience. Credit losses are measured as the present value of all cash shortfalls discounted by the effective interest rate of the financial asset.

The Group considers a financial asset to be in default when:

- the debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- the financial asset is more than 90 days past due.

(6) *Write offs*

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering. Subsequent recoveries of an asset that was previously written off, are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

(7) *Interest*

Interest income and expense is recognised in profit or loss using the effective interest method. In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortised cost of the liability.

(8) *Fair value measurement*

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

When measuring the fair value of an asset or a liability, the Group uses observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

If an asset or a liability measured at fair value has a bid price and an ask price, then the Group measures assets and asset positions at a bid price and liabilities and liability positions at an ask price.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price - i.e. the fair value of the consideration given or received. If the Group determines that the fair value on initial recognition differs from the transaction price, the financial instrument is initially measured at fair value adjusted for the difference between the fair value on initial recognition and the transaction price and the difference is recognised in profit or loss immediately. However, for the fair value categorised as level 3, such difference is deferred and will be recognised in profit or loss on an appropriate basis over the life of the instrument or until the fair value level is transferred or the transaction is closed out.

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For the year ended 31 December 2021

(e) Cash and cash equivalents

Cash and cash equivalents in the statements of cash flows comprise cash balances, deposits and highly liquid short-term investments.

(f) Trade and other receivables

A receivable is recognised when the Group has an unconditional right to receive consideration.

A receivable is measured at transaction price less allowance for expected credit loss which is determined based on an analysis of payment histories and future expectations of customer payments. Bad debts are written off when incurred.

(g) Lease receivables under power purchase agreement

Lease receivables under power purchase agreement are stated outstanding balance net of unearned interest income less allowance for expected credit loss.

The Group determines whether an arrangement that does not take the legal form of a lease, convey right to control the use of underlying asset during the arrangement period in return of a payment or series of payments. The underlying asset is a specific asset that is subject for a lease arrangement.

(h) Receivable from service concession arrangement

The Group recognises a financial asset arising from a service concession arrangement when it has an unconditional right to receive cash or another financial asset from or at the direction of the grantor for the construction or upgrade services provided. Such financial assets are measured at fair value upon initial recognition. Subsequent to initial recognition, the financial assets are measured at amortised cost.

(i) Spare parts

Spare parts are measured at the lower of cost and net realisable value.

Cost of spare parts is determined by the moving average method. Cost of spare parts comprise all purchase cost and costs directly attributable to the acquisition of the inventory less all attributable discounts. Spare parts are common spare parts. They are subsequently recognised at cost less allowance for obsolete, slow-moving and defective.

The Group reviews its allowance for obsolete, slow-moving and defective spare parts on specific cases.

(j) Investment properties

Investment properties are land which are held for capital appreciation, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purposes.

Investment properties are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the investment property and other costs directly attributable to bringing the investment property to a working condition for its intended use and capitalised borrowing costs.

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Any gains and losses on disposal of investment properties are determined by comparing the proceeds from disposal with the carrying amount of investment property, and are recognised in profit or loss.

No depreciation is provided on freehold land.

(k) Property, plant and equipment

Recognition and measurement

Owned assets

Property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located, and capitalised borrowing costs. Cost also may include transfers from other comprehensive income of any gain or loss on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Any gains and losses on disposal of item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised in profit or loss.

Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

Depreciation

Depreciation is calculated based on the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value.

Depreciation is charged to profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. The estimated useful lives are as follows:

Power plant	10 - 25 years
Tools, equipment and vehicle	5 years

No depreciation is provided on freehold land or assets under construction.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

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For the year ended 31 December 2021

(l) *Intangible assets*

Goodwill

Goodwill that arises upon the acquisition of subsidiaries is included in intangible assets. The measurement of goodwill at initial recognition is described in note 3(a). Subsequent to initial recognition, goodwill is measured at cost less accumulated impairment losses. In respect of equity-accounted investee, the carrying amount of goodwill is included in the carrying amount of the investment, and an impairment loss on such an investment is not allocated to any asset, including goodwill, that forms part of the carrying amount of the equity-accounted investee.

Right in Power Purchase Agreements

Right in Power Purchase Agreements acquired as part of the acquisition is recognised at fair less accumulated amortisation and impairment.

Other intangible assets

Other intangible assets that are acquired by the Group and have finite useful lives are measured at cost less accumulated amortisation and accumulated impairment losses.

Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, is recognised in profit or loss as incurred.

Amortisation

Amortisation is based on the cost of the asset, or other amount substituted for cost, less its residual value.

Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use, since this most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. The estimated useful lives are as follows:

Software licenses	not more than 10 years
Right in Power Purchase Agreement	not more than 20 years

Amortisation methods, useful lives and residual value are reviewed at each financial year-ended and adjusted if appropriate.

(m) *Leases*

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. To assess whether a contract conveys the right to control the use of an identified asset, the Group uses the definition of a lease in TFRS 16.

As a lessee

At commencement or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices. However, for the leases of property the Group has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

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For the year ended 31 December 2021

The Group recognises a right-of-use asset and a lease liability at the lease commencement date, except for leases of low-value assets and short-term leases which is recognised as an expense on a straight-line basis over the lease term.

Right-of-use asset is measured at cost, less any accumulated depreciation and impairment loss, and adjusted for any remeasurements of lease liability. The cost of right-of-use asset includes the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of restoration costs, less any lease incentives received. Depreciation is charged to profit or loss on a straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. The lease payments included fixed payments less any lease incentive receivable and also include amount under purchase, extension or termination option if the Group is reasonably certain to exercise option. Variable lease payments that do not depend on index or a rate are recognised as expenses in the accounting period in which they are incurred.

The Group determines its incremental borrowing rate by obtaining interest rates from external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in lease term, change in lease payments, change in the estimate of the amount expected to be payable under a residual value guarantee, or a change in the assessment of purchase, extension or termination options. When the lease liability is remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

(n) Impairment of financial assets

The Group recognises allowances for expected credit losses (ECLs) on financial assets measured at amortised cost (including cash and cash equivalents, trade receivables, other receivables, lease receivables under power purchase agreement and receivables from service concession agreement, including loans to others and related parties), debt investments measured at FVOCI.

Measurement of ECLs

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

ECLs are measured on either of the following bases:

- 12-month ECLs: these are losses that are expected to result from possible default events within the 12 months after the reporting date; or
- lifetime ECLs: these are losses that are expected to result from all possible default events over the expected lives of a financial instrument.

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Loss allowances for trade receivables lease receivables under power purchase agreement and receivable from service concession agreement are always measured at an amount equal to lifetime ECLs. ECLs on these financial assets are estimated using a provision matrix based on the group's historical credit loss experience, adjusted for factors that are specific to the debtors and an assessment of both current and forecast general economic conditions at the reporting date.

Loss allowances for all other financial instruments, the Group recognises ECLs equal to 12-month ECLs unless there has been a significant increase in credit risk of the financial instrument since initial recognition or credit-impaired financial assets, in which case the loss allowance is measured at an amount equal to lifetime ECLs.

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due, significant deterioration in financial instruments's credit rating, significant deterioration in the operating results of the debtor and existing or forecast changes in the technological, market, economic or legal environment that have a significant adverse effect on the debtor's ability to meet its obligation to the Group.

The Group considers a financial asset to be in default when the debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held)

Depending on the nature of the financial instruments, the assessment of a significant increase in credit risk is performed on either an individual basis or a collective basis. When the assessment is performed on a collective basis, the financial instruments are grouped based on shared credit risk characteristics, such as past due status and credit risk ratings.

ECLs are remeasured at each reporting date to reflect changes in the financial instrument's credit risk since initial recognition. Increased in loss allowance is recognised as an impairment loss in profit or loss. Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets. For debt securities at FVOCI, the Group recognises an impairment loss in profit or loss with the corresponding entry in other comprehensive income.

Credit-impaired financial assets

At each reporting date, the Group assesses whether financial assets carried at amortised cost and debt securities at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Evidence of credit-impairment includes significant financial difficulty, a breach of contract such as more than 90 days past due, probable the debtor will enter bankruptcy.

Write-off

The gross carrying amount of a financial asset is written off when the Group has no reasonable expectations of recovering. Subsequent recoveries of an asset that was previously written off, are recognised as a reversal of impairment in profit or loss in the period in which the recovery occurs.

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(o) Impairment of non-financial assets

The carrying amounts of the Group's assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the assets' recoverable amounts are estimated. For goodwill and intangible assets that have indefinite useful lives or are not yet available for use, the recoverable amount is estimated each year at the same time.

An impairment loss is recognised if the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. The impairment loss is recognised in profit or loss unless it reverses a previous revaluation credited to equity, in which case it is charged to equity.

Calculation of recoverable amount

The recoverable amount of a non-financial asset is the greater of the asset's value in use and fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Reversals of impairment

An impairment loss in respect of goodwill is not reversed. Impairment losses recognised in prior periods in respect of other non-financial assets are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

(p) Employee benefits

Defined contribution plan

Obligations for contributions to defined contribution plans are expensed as the related service is provided.

Defined benefit plans

The Group's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount.

The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a potential asset for the Group, the recognised asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any application minimum funding requirements.

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Remeasurements of the net defined benefit liability, actuarial gain or loss are recognised immediately in OCI. The Group determines the interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognised in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

Short-term employee benefits

Short-term employee benefits such as wages, salaries, leaves, bonus and other benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(q) Provisions

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as a finance cost.

Provision for decommissioning costs

The Group recognises provision for decommissioning costs based on present value of estimated costs of removal the power plants at the end of project's contracts. The 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 costs are included as part of the power plants.

(r) Fair value measurement

'Fair value' is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Group has access at that date. The fair value of a liability reflects its non-performance risk.

A number of the Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

The Group measures the fair value of an instrument using the quoted price in an active market for that instrument. A market is regarded as 'active' if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

If there is no quoted price in an active market, then the Group uses valuation techniques that maximise the use of relevant observable inputs and minimise the use of unobservable inputs. The chosen valuation technique incorporates all of the factors that market participants would take into account in pricing a transaction.

If an asset or a liability measured at fair value has a bid price and an ask price, then the Group measures assets and long positions at a bid price and liabilities and short positions at an ask price.

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The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price - i.e. the fair value of the consideration given or received. If the Group determines that the fair value on initial recognition differs from the transaction price and the fair value is evidenced neither by a quoted price in an active market for an identical asset or liability nor based on a valuation technique for which any unobservable inputs are judged to be insignificant in relation to the measurement, then the financial instrument is initially measured at fair value, adjusted to defer the difference between the fair value on initial recognition and the transaction price. Subsequently, that difference is recognised in profit or loss on an appropriate basis over the life of the instrument but no later than when the valuation is wholly supported by observable market data or the transaction is closed out.

The Group uses maximum observable input for fair value measurement of assets or liabilities. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: inputs for the asset or liability that are based on unobservable input.

If the inputs used to measure the fair value of an asset or liability might be categorised in different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Group recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

(s) *Share capital*

Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares and share options are recognised as a deduction from equity, net of any tax effects.

(t) *Revenue*

Revenue is recognised when a customer obtains control of the goods or services in an amount that reflects the consideration to which the Group expects to be entitled, excluding those amounts collected on behalf of third parties which is value added tax.

Revenue from rendering and consulting services

The Group recognises revenue from continuous rendering and consulting services as the percentage of services performed up until the reporting date over the contract term.

Revenue under the Power Purchase Agreements (PPA)

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 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.

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- 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.

Revenue under the PPA which are classified as lease

- Finance lease income under the Power Purchase Agreements is recognised on an effective interest method over the period of the agreements.
- Service income under finance lease agreements related to Power Purchase Agreements, which comprises revenue for maintaining availabilities of power plants received from financial lease receivables with respect to the leased assets, is recognised when the services are rendered.

Revenue under the steam purchase agreements and other products

Revenue under the steam purchase agreements and other products are recognised at a point in time when the controls over the products are transferred to customers at destinations as stated in the agreements. The revenue under the steam purchase agreements is recognised based on transaction price net of output tax, rebates and discounts.

Revenue from service concession arrangement

Revenue related to construction or upgrade services under a service concession arrangement is recognised over time. Operation or service revenue is recognised in the period in which the services are provided by the Group. If the service concession arrangement contains more than one performance obligation, then the consideration received is allocated with reference to the relative stand-alone selling prices of the services delivered.

(u) Other income

Other income comprises dividend and others. Dividend income is recognised in profit or loss on the date on which the Group's right to receive payment is established. Other income is recognised as it accrues.

(v) Interest

Effective Interest Rate (EIR)

Interest income or expense is recognised using the effective interest method. The EIR is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to:

- the gross carrying amount of the financial asset; or
- the amortised cost of the financial liability.

In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortised cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortised cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

(w) Income tax

Income tax expense for the year comprises current and deferred tax. Current and deferred tax are recognised in profit or loss except to the extent that they relate to a business combination, or items recognised directly in equity or in other comprehensive income.

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Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the following temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and joint ventures to the extent that it is probable that they will not reverse in the foreseeable future.

The measurement of deferred tax reflects the tax consequences that would follow the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

In determining the amount of current and deferred tax, the Group takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believes that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilised. Future taxable profits are determined based on the reversal of relevant taxable temporary differences. If the amount of taxable temporary differences is insufficient to recognise a deferred tax asset in full, then future taxable profits, adjusted for reversals of existing temporary differences, are considered, based on the business plans for individual subsidiaries in the Group. Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is no longer probable that the related tax benefit will be realised.

(x) *Earnings per share*

The Group presents basic earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Company by the weighted average number of ordinary shares outstanding during the year.

(y) *Related parties*

A related party is a person or entity that has direct or indirect control or joint control or has significant influence over the financial and managerial decision-making of the Group; a person or entity that are under common control or under the same significant influence as the Group; or the Group has direct or indirect control or joint control has significant influence over the financial and managerial decision-making of a person or entity.

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(z) *Segment reporting*

Segment results that are reported to the Group's chief operating decision maker, which has been identified as Chief Executive Officer and president, include items directly attributable to a segment as well as those that can be allocated on a reasonable basis.

4 Acquisition of associate and joint venture

4.1 Investment in Global Mind Investment Management Pte. Ltd.

In February 2021, Kolpos Pte. Ltd., a subsidiary of the Company, has acquired 70.5% of share capital amounting to USD 40 million or equivalent to Baht 1,202 million in Global Mind Investment Management Pte. Ltd. which is incorporated in Singapore and is a holding company in the People's Republic of China and Vietnam that makes both direct and indirect investments in renewable energy businesses, infrastructure businesses as well as agriculture-related businesses. The investment is classified as investment in joint venture.

Details of the identifiable net assets acquired on the acquisition date are summarised below;

Identifiable assets acquired and liabilities assumed

	<i>(in million Baht)</i>
Cash and cash equivalents	118
Other current assets	43
Investments in associates	946
Current liabilities	(93)
Total net identifiable assets	1,014
Net assets and liabilities acquired by the Group (70.5%)	715
Goodwill and intangible assets	487
Consideration transferred	1,202

The Group has continuously made an assessment during the measurement period, which must not exceed one year from the joint venture acquisition date, and the Group shall reconsider the provisional amounts at the joint venture acquisition date to reflect new information obtained about facts and circumstances that existed as of the joint venture acquisition date which may impact the value of intangible assets and goodwill which include in investment in joint ventures.

4.2 Investment in Intouch Holdings Public Company Limited

On 25 June 2021, the Extraordinary Meeting of Shareholders approved the commencement of the tender offer for all securities of Intouch Holdings Public Company Limited which is incorporated in Thailand and is a holding company that has investments in satellite business, internet business, telecommunications business, technology, media and advertisement business. Such investment will help transform its business operation into a digitalisation era and creates its business value from the optimisation of its existing infrastructure and its digitalised infrastructure.

On 5 August 2021, the Company submitted the result of the Tender Offer of Intouch Holdings Public Company Limited ("INTUCH") to the Securities and Exchange Commission and the Stock Exchange of Thailand. The Company accepted the shares offered of INTUCH for sale totalling 747.87 million shares, representing 23.32% of the total issued and paid-up shares. As a result, the Company's ownership interests in INTUCH is 42.25% of the total issued and paid-up shares and on 11 August 2021, the Company paid entire amount of the share offered.

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On 1 October 2021, at the Extraordinary General Meeting of Shareholders of INTUCH, the shareholders approved the appointment of the Group's management as the Board of Directors of INTUCH. The Group's management determined that having the representative in Board of Directors of INTUCH resulted that the Group has significant influence in INTUCH and changed its recognition from investments in equity instruments designated at fair value to other comprehensive income to investments in associate.

Details of the identifiable net assets acquired on the significant influence date are summarised below;

Identifiable assets acquired and liabilities assumed

	<i>(in million Baht)</i>
Cash and cash equivalents	4,345
Trade and other receivables	1,983
Other current financial assets	6,355
Other current assets	1,098
Investment in associates	235,130
Investment in joint ventures	1,475
Investment in venture capital	1,155
Property, plant and equipment	2,846
Right-of-use assets	1,503
Intangible assets	1,486
Other non-current assets	1,877
Loans	(7,430)
Lease liabilities	(1,273)
Deferred tax liabilities	(287)
Other non-current liabilities	(1,216)
Non-controlling interests	(6,573)
Total net identifiable assets	242,474
Net assets and liabilities acquired by the Group (42.25%)	102,443
Goodwill	5,260
Consideration transferred	107,703

The Group is in the process of concluding the measurement the amount of the identifiable assets acquired, the liabilities assumed, including goodwill from business acquisition from independent appraisal.

The Group has continuously made an assessment during the measurement period, which must not exceed one year from the associate acquisition date, and the Group shall reconsider the provisional amounts at the associate acquisition date to reflect new information obtained about facts and circumstances that existed as of the associate acquisition date which may impact the value of intangible assets and goodwill which include in investment in associates.

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5 Related parties

Relationships with subsidiaries, associates and joint ventures are described in notes 9 and 10. Other related parties that the Group had significant transactions with during the year were as follows:

Name of entities	Nature of relationships
Pomodoro Group Company Limited	Common shareholder
Group of Mitsui & Co., Ltd.	Holding ordinary shares in subsidiaries of the Group
Mr. Sarath Ratanavadi	Major stakeholder and Chief Executive Officer
Key management personnel	Persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of the Group.

The pricing policies for transactions with related parties are explained further below:

Transactions	Pricing policies
Sale of goods	Contractually agreed prices
Rendering of service / management fee	Contractually agreed prices
Interest income	Contractually agreed interest rate
Other income	Contractually agreed prices
Loans	Contractually agreed credit facilities and interest rates
Dividend income	From approval of shareholders of dividend distributor
Management fee	From approval of shareholders and directors

<i>Significant transactions with related parties</i>	Consolidated		Separate	
	financial statements		financial statements	
<i>For the year ended 31 December</i>	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Subsidiaries				
Revenue from management fee	-	-	786	831
Interest income	-	-	1,052	650
Dividend income	-	-	2,252	1,941
Associates				
Revenue from sales	268	154	-	-
Revenue from management fee	343	320	342	320
Dividend income	-	-	2,057	2,697
Cost of sales	238	212	-	-
Joint ventures				
Revenue from management fee	46	36	46	36
Interest income	2	-	2	-
Other related parties				
Revenue from management fee	85	51	85	51
Administrative expenses	31	8	10	7

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<i>Significant transactions with related parties</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
<i>For the year ended 31 December</i>				
	<i>(in million Baht)</i>			
Key management personnel				
Key management personnel compensation				
Short-term employee benefits	125	127	125	127
Post-employment benefits	6	6	6	6

Balances as at 31 December with related parties were as follows:

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Trade receivables				
Associates	28	29	1	-
Joint ventures	9	36	9	36
Total	37	65	10	36
Less allowance for expected credit loss	-	-	-	-
Net	37	65	10	36
Other receivables				
Subsidiaries	-	-	21	15
Less allowance for expected credit loss	-	-	-	-
Net	-	-	21	15
Short-term loans to				
Subsidiaries	-	-	-	21
Less allowance for expected credit loss	-	-	-	-
Net	-	-	-	21
Non-current trade receivables				
Subsidiaries	-	-	598	441
Less allowance for expected credit loss	-	-	-	-
Net	-	-	598	441
Other non-current receivables				
Subsidiaries	-	-	643	589
Joint ventures	-	-	1	-
Total	-	-	644	589
Less allowance for expected credit loss	-	-	-	-
Net	-	-	644	589
Long-term loans to				
Subsidiaries	-	-	30,670	28,374
Joint ventures	6,682	4,663	62	-
Total	6,682	4,663	30,732	28,374
Less allowance for expected credit loss	(27)	(25)	(43)	(43)
Net	6,655	4,638	30,689	28,331

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	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Short-term loans from				
Joint ventures	71	-	71	-
Trade payables				
Associates	43	27	-	-
Other payables				
Associates	1	28	1	1
Other related parties	5	3	1	2
Total	6	31	2	3

Significant agreements with related parties

Loan to agreements

As at 31 December 2021, the Group had net outstanding long-term loans to Centralized Utilities Company LLC and Bangkok Smart Energy Company Limited amounting to Baht 6,593 million and Baht 62 million, respectively. The interest rate is fixed per annum and expected to be repaid following the expected future cashflows of the projects. (2020: Centralized Utilities Company LLC amounting to Baht 4,638 million).

As at 31 December 2021, the Company had net outstanding long-term loans to Gulf International Investment (Hong Kong) Limited, Gulf International Holding Pte. Ltd., Gulf Renewable Energy Company Limited, Gulf 1 Company Limited and Bangkok Smart Energy Company Limited amounting to Baht 1,899 million, Baht 21,733 million, Baht 5,845 million, Baht 1,150 million and Baht 62 million, respectively. The interest rate is fixed per annum and expected to be repaid following the expected future cashflows of the projects. (2020: Gulf International Investment (Hong Kong) Limited, Gulf International Holding Pte. Ltd. and Gulf Renewable Energy Company Limited amounting to Baht 2,381 million, Baht 21,737 million and Baht 4,213 million, respectively).

Loan from agreements

As at 31 December 2021, the Company had outstanding short-term loan from Burapa Power Generation Company Limited amounting to Baht 71 million. Such loan has fixed interest rate per annum (2020: Nil).

Development Service Agreements

On 1 August 2019, the Company and Mitsui & Co., Ltd., entered into Development Services Agreements with Gulf SRC Company Limited, a subsidiary of Independent Power Development Company Limited, which operates as an independence power producer, to assist in the project development phase and advice on significant agreements and raise capital for the project. The agreement charges a success fee totaling Baht 500 million. The agreement would be terminated when either party in each agreement gives a written notice of termination to another party in advance in the event of the defaulting party commits a material breach of the agreement.

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8 Lease receivable under power purchase agreement

	Consolidated financial statements					
	Maturity within one year 2021	Maturity within one year 2020	Maturity after one year but within five years 2021	Maturity after five years 2020	2021	2020
Lease receivable under power purchase agreement	3,594	-	13,908	46,888	64,390	-
Less unearned interest income	(2,998)	-	(11,071)	(29,390)	(43,459)	-
	596	-	2,837	17,498	20,931	-
Less allowance for expected credit loss	-	-	-	-	-	-
Net	596	-	2,837	17,498	20,931	-

(in million Baht)

As at 31 December 2021, the Group has no overdue balance of lease receivable under power purchase agreement.

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9 Investments in subsidiaries

	Separate financial statements	
	2021	2020
	<i>(in million Baht)</i>	
At 1 January	18,610	16,226
Capital increase and additional paid-up	6,905	2,407
Disposals	(704)	-
Allowance for impairment	-	(23)
At 31 December	24,811	18,610

Details of the capital increase, additional paid-up and disposals during the year ended 31 December are as follows:

	Separate financial statements	
	2021	2020
	<i>(in million Baht)</i>	
Capital increase and additional paid-up		
Independent Power Development Co., Ltd.	2,450	1,050
Kolpos Pte. Ltd.	1,198	-
Gulf Solar Co., Ltd.	9	-
Gulf Renewable Energy Co., Ltd.	1,360	1,036
Gulf Pattani Green Co., Ltd.	-	23
Gulf Chana Green Co., Ltd.	-	263
Gulf MTP LNG Terminal Co., Ltd.	1,838	-
Gulf LNG Co., Ltd.	40	10
Gulf 1 Co., Ltd.	-	25
Gulf Innova Co., Ltd.	10	-
Total	6,905	2,407
Disposals		
Gulf Solar Co., Ltd.	36	-
Gulf Chana Green Co., Ltd.	643	-
Gulf 1 Co., Ltd.	25	-
Total	704	-

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	Type of business	Country of operation	Ownership interest (%)		Paid-up capital		Separate financial statements (in million Baht)				Dividend income for the year		
			2021	2020	2021	2020	Cost	Impairment	Cost - Net	2021	2020	2021	2020
Direct subsidiaries (continued)													
Gulf International Investment (Hong Kong) Limited	Investing in electricity generating	Hong Kong	100.00	100.00	3	3	3	-	3	3	3	-	-
GulfMTP LNG Terminal Co., Ltd.	Storing and converting natural gas	Thailand	70.00	70.00	3,500	875	2,450	612	2,450	612	612	-	-
Gulf LNG Co., Ltd.	Supplying, delivering and selling natural gas	Thailand	99.99	99.99	50	10	50	10	50	10	10	-	-
Gulf I Co., Ltd.*	Electricity generating	Thailand	-	99.99	-	25	-	25	-	25	-	-	-
Gulf Innova Co., Ltd.	Operating a digital infrastructure	Thailand	99.99	-	10	-	10	-	-	10	-	-	-
Total					24,859	18,658	(48)	24,811	18,610	2,252	1,941		

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		Separate financial statements		
		Country of operation	Ownership interest	
Type of business	2021		2020	
		(%)		
Indirect subsidiaries				
Subsidiaries of Independent Power Development Co., Ltd.:				
Gulf SRC Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Gulf PD Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Subsidiaries of Gulf MP Co., Ltd.:				
Gulf VTP Co., Ltd.	Electricity generating	Thailand	74.99	74.99
Gulf TS1 Co., Ltd.	Electricity generating	Thailand	74.99	74.99
Gulf TS2 Co., Ltd.	Electricity generating	Thailand	74.99	74.99
Gulf TS3 Co., Ltd.	Electricity generating	Thailand	74.99	74.99
Gulf TS4 Co., Ltd.	Electricity generating	Thailand	74.99	74.99
Gulf NC Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Gulf BL Co., Ltd.	Electricity generating	Thailand	75.00	75.00
Gulf BP Co., Ltd.	Electricity generating	Thailand	75.00	75.00
Gulf NLL2 Co., Ltd.	Electricity generating	Thailand	74.99	74.99
Gulf NPM Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Gulf NRV1 Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Gulf NRV2 Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Subsidiaries of Gulf Solar Co., Ltd.:				
Gulf Solar TS1 Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Gulf Solar TS2 Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Gulf Solar KKS Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Gulf Solar BV Co., Ltd.	Electricity generating	Thailand	99.99	99.99
Subsidiaries of Gulf Renewable Energy Co., Ltd.:				
Gulf International Holding Pte. Ltd.	Investment in electricity generating	Singapore	100	100
Gulf Energy Mauritius Company Limited	Investment in electricity generating	Mauritius	100	100
Gulf Solar Co., Ltd. *	Investment in electricity generating	Thailand	74.99	-
Gulf Chana Green Co., Ltd. *	Electricity generating	Thailand	99.99	-
Gulf 1 Co., Ltd. *	Electricity generating	Thailand	99.99	-
Others	Electricity generating from renewable sources	Thailand	99.99	-

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		Separate financial statements		
		Country of operation	Ownership interest	
Type of business			2021	2020
			(<i>%</i>)	
Indirect subsidiaries (continued)				
Subsidiaries of Gulf International Holding Pte. Ltd.:				
Gulf Tay Ninh 1 Joint Stock Company	Electricity generating	Vietnam	90	90
Gulf Tay Ninh 2 Joint Stock Company	Electricity generating	Vietnam	90	90
Mekong Wind Power Joint Stock Company	Electricity generating	Vietnam	95	95
Gulf Energy (Vietnam) Limited Liability Company	Providing managerial, and technical supporting services	Vietnam	100	100
Borkum Riffgrund 2 Investor Holding GmbH	Investing in electricity generating	Germany	100	100

**During 2021, the Group has restructured its share structure by selling share of Gulf Solar Co., Ltd., Gulf Chana Green Co., Ltd. and Gulf 1 Co., Ltd. to Gulf Renewable Energy Co., Ltd.*

None of the Company's subsidiaries is publicly listed and consequently does not have published price quotations.

10 Investments in associates and joint ventures

Note	Consolidated financial statements		Separate financial statements		
	2021	2020	2021	2020	
<i>(in million Baht)</i>					
At 1 January		22,079	18,887	21,610	17,847
Acquisition of investment in associate and joint ventures	4.1	1,332	2,841	130	2,841
Transfer from investments in equity instruments designated at fair value to other comprehensive income	4.2	107,703	-	107,703	-
Capital increase and additional paid-up Share of profit from associates and joint ventures		2,296	1,085	1,970	922
Share of other comprehensive income (expense) from associates and joint ventures		2,886	2,462	-	-
Dividend income		1,134	(489)	-	-
Exchange differences on translating financial statements		(2,057)	(2,697)	-	-
		200	(10)	-	-
At 31 December		135,573	22,079	131,413	21,610

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Details of the acquisitions, capital increase, additional paid-up and reclassification of investment during the year ended 31 December are as follows:

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Global Mind Investment Management Pte. Ltd.	1,202	-	-	-
PTT Natural Gas Distribution Co., Ltd.	130	2,719	130	2,719
Intouch Holdings Public Company Limited	107,703	-	107,703	-
Centralized Utilities Company LLC	316	163	-	-
Bangkok Smart Energy Co., Ltd.	-	11	-	11
Hin Kong Power Holding Co., Ltd.	299	150	299	150
Burapa Power Holding Co., Ltd.	71	143	71	143
BGSR 6 Co., Ltd.	-	400	-	400
BGSR 81 Co., Ltd.	-	340	-	340
GPC International Terminal Co., Ltd.	1,600	-	1,600	-
Gulf JP1 Co., Ltd.	10	-	-	-
Total	111,331	3,926	109,803	3,763

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Consolidated financial statements										
	Type of business	Country of operation	Ownership interest (%)		Paid-up capital		Cost		Equity	
			2021	2020	2021	2020	2021	2020	2021	2020
<i>(in million Baht)</i>										
Associates										
Gulf JP Co., Ltd.	Investing in electricity generating and providing management service	Thailand	40.00	40.00	32,890	32,890	17,687	17,687	18,633	17,805
PTT Natural Gas Distribution Company Limited	Natural gas distribution	Thailand	42.00	40.00	500	500	2,849	2,719	2,752	2,722
Intouch Holdings Public Company Limited <i>(Note 4.2)</i>	Telecommunication, media and technology, and digital business	Thailand	42.25	-	3,207	-	107,703	-	108,826	-
Gulf JP1 Co., Ltd.	Electricity generating	Thailand	40.00	-	24	-	10	-	10	-
Joint ventures										
Gulf WHA MT Natural Gas Distribution Co., Ltd.	Investing in gas distribution and transmission	Thailand	35.00	35.00	454	454	159	159	151	147
Centralized Utilities Company LLC	Providing infrastructure service and investing in electricity generating	Oman	49.00	49.00	574	574	799	418	790	375
Bangkok Smart Energy Co., Ltd.	Investing in power distribution system and district cooling system	Thailand	33.33	33.33	36	36	12	12	3	4
Hin Kong Power Holding Co., Ltd.	Investing in electricity generating	Thailand	49.00	49.00	917	305	449	150	428	142
Burapa Power Holding Co., Ltd.	Investing in electricity generating	Thailand	35.00	35.00	612	410	214	143	215	144
BGSR 6 Co., Ltd.	Investing in operation and maintenance the Intercity Motorway Projects	Thailand	40.00	40.00	1,000	1,000	400	400	399	400
							20,406		20,527	

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Gulf Energy Development Public Company Limited and its Subsidiaries

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	Country of operation	Ownership Interest (%)	Paid-up capital		Cost		Impairment		Cost - Net		Dividend income for the year	
			2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
			<i>(in million Baht)</i>									
Associates												
Gulf JP Co., Ltd.	Thailand	40.00	32,890	32,890	17,687	17,687	-	-	17,687	17,687	1,658	2,697
PTT Natural Gas Distribution Co., Ltd.	Thailand	42.00	500	500	2,849	2,719	-	-	2,849	2,719	399	-
Intouch Holdings Public Company Limited <i>(Note 4.2)</i>	Thailand	42.25	-	3,207	107,703	107,703	-	-	107,703	107,703	-	-
					128,239	20,406			128,239	20,406	2,057	2,697
Joint ventures												
Gulf WHA MT Natural Gas Distribution Co., Ltd.	Thailand	35.00	454	454	159	159	-	-	159	159	-	-
Bangkok Smart Energy Co., Ltd.	Thailand	33.33	36	36	12	12	-	-	12	12	-	-
Hin Kong Power Holding Co., Ltd.	Thailand	49.00	917	305	449	150	-	-	449	150	-	-
Burapa Power Holding Co., Ltd.	Thailand	35.00	612	410	214	143	-	-	214	143	-	-
BGSR 6 Co., Ltd.	Thailand	40.00	1,000	1,000	400	400	-	-	400	400	-	-

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As at 31 December 2021, the fair value of publicly listed stock of Intouch Holdings Public Company Limited which fair value is Baht 108,719 million.

None of the Group's other associates and joint ventures is publicly listed and consequently does not have published price quotations.

The following table summarises the financial information of the significant associates as included in its own financial statements, adjusted for fair value adjustments at acquisition and differences in accounting policies. The table also reconciles the summarised financial information to the carrying amount of the Group's interest in associates.

	Gulf JP Company Limited		Intouch Holdings Public Company Limited
	2021	2020	For the period 1 October 2021 to 31 December 2021
	<i>(in million Baht)</i>		
Statement of income			
Revenue	40,452	37,786	3,374
Profit from continuing operations	3,335	6,165	2,572
Other comprehensive income (loss)	2,818	(1,229)	18
Total comprehensive income (loss) for the year (100%)	6,153	4,936	2,590
Group's share of total comprehensive income	2,646	2,155	1,122
As at 31 December			
Statement of financial position			
Current assets	24,735	21,363	11,655
Non-current assets	92,656	97,486	247,885
Current liabilities	(8,648)	(6,973)	(4,441)
Non-current liabilities	(65,226)	(70,305)	(3,457)
Net assets (100%)	43,517	41,571	251,642
Group's share of assets	16,976	16,148	103,566
Goodwill	1,657	1,657	5,260
Carrying amount of interest in associate	18,633	17,805	108,826

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Gulf Energy Development Public Company Limited and its Subsidiaries

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11 Property, plant and equipment

	Consolidated financial statements				
	Land	Power plant	Tools, equipments and vehicle <i>(in million Baht)</i>	Assets under construction	Total
For the year ended 31 December 2020					
Net book value at beginning of the year	3,445	61,951	180	15,385	80,961
Additions	-	12	65	19,601	19,678
Increase in assets from decommissioning costs	-	42	-	-	42
Acquisitions through business combination	-	32,336	-	-	32,336
Transfers	-	2,042	25	(2,213)	(146)
Effect of movements in exchange rates	-	18	-	(19)	(1)
Depreciation charge for the year	-	(3,091)	(61)	-	(3,152)
Net book value at end of the year	<u>3,445</u>	<u>93,310</u>	<u>209</u>	<u>32,754</u>	<u>129,718</u>
As at 31 December 2020					
Cost	3,445	103,425	334	32,754	139,958
Less Accumulated depreciation	-	(10,115)	(125)	-	(10,240)
Net book value at end of the year	<u>3,445</u>	<u>93,310</u>	<u>209</u>	<u>32,754</u>	<u>129,718</u>
For the year ended 31 December 2021					
Net book value at beginning of the year	3,445	93,310	209	32,754	129,718
Additions	-	75	51	25,756	25,882
Disposals	-	-	-	(17)	(17)
Increase in assets from decommissioning costs	-	128	-	-	128
Transfers	-	563	6	(23,481)	(22,912)
Effect of movements in exchange rates	-	1,246	1	367	1,614
Depreciation charge for the year	-	(4,213)	(72)	-	(4,285)
Net book value at end of the year	<u>3,445</u>	<u>91,109</u>	<u>195</u>	<u>35,379</u>	<u>130,128</u>
As at 31 December 2021					
Cost	3,445	105,574	392	35,379	144,790
Less Accumulated depreciation	-	(14,465)	(197)	-	(14,662)
Net book value at end of the year	<u>3,445</u>	<u>91,109</u>	<u>195</u>	<u>35,379</u>	<u>130,128</u>

NOTES TO THE FINANCIAL STATEMENTS

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	Separate financial statements		
	Office equipment	Assets under construction <i>(in million Baht)</i>	Total
For the year ended 31 December 2020			
Net book value at beginning of the year	33	17	50
Additions	26	-	26
Transfers	15	(15)	-
Depreciation charge for the year	(12)	-	(12)
Net book value at end of the year	62	2	64
As at 31 December 2020			
Cost	81	2	83
Less Accumulated depreciation	(19)	-	(19)
Net book value at end of the year	62	2	64
For the year ended 31 December 2021			
Net book value at beginning of the year	62	2	64
Additions	15	4	19
Transfers	6	(6)	-
Depreciation charge for the year	(18)	-	(18)
Net book value at end of the year	65	-	65
As at 31 December 2021			
Cost	102	-	102
Less Accumulated depreciation	(37)	-	(37)
Net book value at end of the year	65	-	65

Finance cost

Capitalised borrowing costs relating to the construction of new power plant for the Group are amounted to Baht 1,263 million (2020: Baht 1,124 million), with a capitalisation rate of 1.93% per annum to 3.98% per annum (2020: 2.13% per annum to 4.31% per annum).

Security

As at 31 December 2021, the Group pledged land, future construction thereon, power plant, machinery and power plant equipment as collateral for loans from financial institutions as disclosed in Note 14 amounting Baht 85,629 million (2020: Baht 94,356 million).

NOTES TO THE FINANCIAL STATEMENTS

Gulf Energy Development Public Company Limited and its Subsidiaries

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12 Goodwill

	Consolidated financial statements	
	2021	2020
	<i>(in million Baht)</i>	
Cost		
At 1 January	7,680	109
Acquired through business combinations	-	7,386
Effect of movements in exchange rates	223	185
At 31 December	7,903	7,680
Impairment losses		
At 1 January	-	-
At 31 December	-	-
Net book value		
At 31 December	7,903	7,680

Impairment testing for CGUs containing goodwill

For the purposes of impairment testing, goodwill has been allocated to the Group's CGUs (operating divisions) as follows.

	Consolidated financial statements	
	2021	2020
	<i>(in million Baht)</i>	
Wind power business in Germany	7,780	7,571
Solar power business in Vietnam	123	109
Total	7,903	7,680

The recoverable amount of this CGU was based on value in use, estimated using discounted cash flows from future operation. The fair value measurement was categorised as a Level 3 fair value.

The key assumptions used in the estimation of the value in use are set out below. The values assigned to the key assumptions represent management's assessment of future trends in the relevant industries and have been based on historical data from both external and internal sources.

	Consolidated financial statements	
	2021	2020
	<i>(%)</i>	
Discount rate	3.0 - 8.9	3.0 - 11.2
Inflation rate	2.0 - 3.1	1.4 - 3.0

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The discount rate was a post-tax measure estimated based on the historical industry average weighted-average cost of capital. The cash flow projections for total revenue generated from power plant assets was estimated from Power Purchase Agreement terms and conditions and forecast revenue after expiration of the Power Purchase Agreement was obtained from external source. Management has analyst sensitivity of discount rate, increasing in discount rate 1% per annum does not result is less recoverable amount that carrying value.

13 Intangible assets

	Consolidated financial statements				Total
	Software licenses	Right to Power Purchase Agreements	Right to use substation and natural gas pipeline <i>(in million Baht)</i>	Software under installation	
For the year ended 31 December 2020					
Net book value					
at beginning of the year	46	958	-	-	1,004
Additions	10	-	-	-	10
Acquisition through business combinations	-	8,841	-	-	8,841
Effect of movements in exchange rates	-	5	-	-	5
Amortisation for the year	(19)	(167)	-	-	(186)
Net book value at end of the year	37	9,637	-	-	9,674
At 31 December 2020					
Cost	71	9,818	-	-	9,889
Less Accumulated amortisation	(34)	(181)	-	-	(215)
Net book value at end of the year	37	9,637	-	-	9,674
For the year ended 31 December 2021					
Net book value					
at beginning of the year	37	9,637	-	-	9,674
Additions	12	-	-	14	26
Transfer	7	-	1,618	(7)	1,618
Effect of movements in exchange rates	1	354	-	-	355
Amortisation for the year	(20)	(546)	(46)	-	(612)
Net book value at end of the year	37	9,445	1,572	7	11,061
At 31 December 2021					
Cost	91	10,186	1,618	7	11,902
Less Accumulated amortisation	(54)	(741)	(46)	-	(841)
Net book value at end of the year	37	9,445	1,572	7	11,061

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For the year ended 31 December 2021

	Separate financial statements		
	Software licenses	Asset under construction <i>(in million Baht)</i>	Total
For the year ended 31 December 2020			
Net book value at beginning of the year	16	2	18
Additions	2	4	6
Transfer	6	(6)	-
Amortisation for the year	(7)	-	(7)
Net book value at end of the year	17	-	17
At 31 December 2020			
Cost	26	-	26
Less Accumulated amortisation	(9)	-	(9)
Net book value at end of the year	17	-	17
For the year ended 31 December 2021			
Net book value at beginning of the year	17	-	17
Additions	3	9	12
Transfer	5	(5)	-
Amortisation for the year	(9)	-	(9)
Net book value at end of the year	16	4	20
At 31 December 2021			
Cost	34	4	38
Less Accumulated amortisation	(18)	-	(18)
Net book value at end of the year	16	4	20

14 Interest-bearing liabilities

	Consolidated financial statements						
	Secured	2021		Total	2020		
		Secured	Unsecured		Secured	Unsecured	Total
		<i>(in million Baht)</i>					
Short-term loans from financial institutions	4,927		5,000	9,927	-	11,500	11,500
Long-term loans from financial institutions	141,765		-	141,765	85,936	-	85,936
Debentures	-		71,058	71,058	-	43,428	43,428
Total interest-bearing liabilities	146,692		76,058	222,750	85,936	54,928	140,864
	Separate financial statements						
	Secured	2021		Total	2020		
		Secured	Unsecured		Secured	Unsecured	Total
		<i>(in million Baht)</i>					
Short-term loans from financial institutions	4,927		5,000	9,927	-	11,500	11,500
Long-term loans from financial institutions	38,530		-	38,530			
Debentures	-		47,467	47,467	-	17,486	17,486
Total interest-bearing liabilities	43,457		52,467	95,924	-	28,986	28,986

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As at 31 December 2021 the Group and the Company had short-term and long-term unutilised credit facilities totalling Baht 27,247 million and Baht 23,430 million, respectively (2020: Baht 38,365 million and Baht 39,620 million, respectively).

Detail of long-term loans from financial institutions were as follow:

Number	31 December 2021 (in million Baht)	31 December 2020 (in million Baht)	Currency	Interest rate (%)	Interest payment period
Company					
1	26,612	-	Baht	Fixed tranche facility	Payment every three months
2	7,000	-	Baht	3MBIBOR plus a certain fixed margin per annum	Payment every three months
3	5,000	-	Baht	BIBOR plus a certain fixed margin per annum	Payment every three months
Subsidiaries					
4	67,745	61,822	Baht	THBFIX plus a certain fixed margin per annum	Payment every three months
5	954	1,058	Baht	Fixed tranche facility	Payment every six months
6	25,613	18,482	U.S. Dollar	LIBOR plus a certain fixed margin per annum	Payment every three months
7	9,320	5,086	U.S. Dollar	LIBOR plus a certain fixed margin per annum	Payment every six months
8	744	708	U.S. Dollar	Fixed tranche facility	Payment every six months
Total	142,988	87,156			

These long-term loans are secured by the land, future construction thereon, machinery and power plant equipment as discussed in Note 7 and 11. In addition, the rights to Power Purchase Agreements, Supply Agreements, Construction Agreements, Deposit Accounts, Insurance Policies, investments, debentures and the pledge of shares of subsidiaries have been assigned to the lenders as collateral in accordance with the Credit Facilities Agreement. These subsidiaries are also required to comply with certain terms and conditions, such as maintaining of debt to equity ratio and debt service coverage ratio. In addition, under the conditions the Credit Facilities Agreements, these subsidiaries must enter into forward contract relating to Supply Agreements and Construction Agreements to prevent the fluctuation of exchange rates in SEK, EUR, USD, and JPY, and interest rate swap contracts to swap the interest rate from float interest rate to fixed interest rate to prevent the cash flow risk of these subsidiaries. Whereas the principal will be payable on maturity date as specified in the agreement.

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Changes in liabilities arising from financing activities for the year ended 31 December 2021 are as follows;

	Consolidated financial statements	Separate financial statements
	<i>(in million Baht)</i>	
Short-term loans from financial institutions		
As at 1 January 2021	11,500	11,500
Cash flow:		
Proceeds from short-term loans from financial institutions	67,127	63,227
Payments for short-term loans from financial institutions	(68,700)	(64,800)
As at 31 December 2021	9,927	9,927
Long-term loans from financial institutions		
As at 1 January 2021	85,936	-
Cash flow:		
Proceeds from long-term loans from financial institutions	66,862	48,612
Payments for long-term loans from financial institutions	(14,334)	(10,000)
Other non-cash movements:		
Additional deferred financing fee	(104)	(104)
Amortisation of deferred financing fee	113	22
Loss on unrealised exchange rate	3,002	-
Currency translation differences	290	-
As at 31 December 2021	141,765	38,530
Less Current portion of long-term loans from financial institutions	(3,004)	-
Long-term loans from financial institutions - net	138,761	38,530

As at 31 December 2021, short-term loans from financial institution amounting Baht 4,927 million and long-term loans from various financial institutions amounting Baht 38,612 million are secured by ordinary shares of Intouch Holdings Public Company Limited amounting 88 million share and 533 million shares, respectively.

	Consolidated financial statements	Separate financial statements
	<i>(in million Baht)</i>	
Debentures		
As at 1 January 2021	43,428	17,486
Proceeds from debentures	30,000	30,000
Repayment of debentures	(2,985)	-
Increase in deferred financing fee of debentures	(24)	(24)
Amortisation of guarantee of debentures	5	5
Currency translation differences	634	-
As at 31 December 2021	71,058	47,467
Less Current portion of debentures	(6,524)	(2,000)
Debentures - net	64,534	45,467

During the year 2021, the Company issued unsubordinated and unsecured debentures, denominated in Baht currency amounting to Baht 30,000 million. Maturity term of the debentures are between 3 - 10 years. The Company has to maintain debt to equity ratio according to terms and conditions specified in the agreement.

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15 Provision for decommissioning costs

	Consolidated financial statements	
	2021	2020
	<i>(in million Baht)</i>	
At 1 January	2,084	673
Increase during the year	128	49
Increase from acquisition of subsidiaries	-	1,354
Decrease during the year	-	(7)
Finance cost	(14)	13
Effect of movements in exchange rates	37	2
At 31 December	2,235	2,084

16 Share capital and share premium

	Par value Per share <i>(in Baht)</i>	2021		2020	
		Number	Baht <i>(million shares /in million Baht)</i>	Number	Baht
Authorised shares at 31 December					
- ordinary shares	1	11,733	11,733	11,733	11,733
Issued and paid-up shares					
At 1 January					
- ordinary shares	5	-	-	2,133	10,667
- ordinary shares	1	11,733	11,733	-	-
Reduction in par value					
- from Baht 5 to Baht 1	1	-	-	10,667	10,667
Increase of new shares	1	-	-	1,066	1,066
At 31 December					
- ordinary shares	1	11,733	11,733	11,733	11,733

Change in par value of the ordinary share capital

On 8 April 2020, at the Annual General Shareholders' Meeting, the shareholders passed a resolution to approve change in par value of the Company from of Baht 5 each to Baht 1 each. The Company has registered change in share capital with the Ministry of Commerce on 9 April 2020. The ordinary shares were changed from 2,133 million ordinary shares to 10,667 million ordinary shares.

Increase, issuance and offering of new ordinary share capital

On 27 August 2020, at the Extraordinary Shareholders' Meeting of the Company, the shareholders passed a resolution to approve an increase in the authorised share capital from Baht 10,667 million to Baht 11,733 million by issuing 1,066 million new ordinary shares at a par value of Baht 1 each. The subscription price is Baht 30 each and the Company received the paid-up capital amounting to Baht 32,000 million on 23 September 2020.

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17 Reserves

Reserves comprise

Appropriations of profit and retained earning

Legal reserve

Section 116 of the Public Companies Act B.E. 2535 Section 116 requires that a public company shall allocate not less than 5% of its annual net profit, less any accumulated losses brought forward, to a reserve account (“legal reserve”), until this account reaches an amount not less than 10% of the registered authorised capital. The legal reserve is not available for dividend distribution.

Other components of equity

Translation reserve

The translation reserves comprises all foreign currency differences arising from the translation of the financial statements of foreign operations.

Hedging reserve

The hedging reserve comprises the effective portion of the cumulative net change in the fair value of hedging instruments used in cash flow hedges pending subsequent recognition in profit or loss or directly included in the initial cost or other carrying amount of a non-financial asset or non-financial liability.

Cost of hedging reserve

The cost of hedging reserve reflects gain or loss on the portion excluded from the designated hedging instrument that relates to the forward element of forward contracts. It is initially recognised in OCI and accounted for similarly to gains or losses in the hedging reserve.

Fair value reserve

The fair value reserve comprise:

- the cumulative net change in the fair value of equity securities designated at FVOCI; and
- the cumulative net change in fair value of debt securities at FVOCI until the assets are derecognised or reclassified. This amount is adjusted by the amount of loss allowance.

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18 Segment information and disaggregation of revenue

Management determined that the Group has three reportable segments which are the Group's strategic divisions, and are managed separately because they require different technology and marketing strategies. Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker quarterly. The following summary describes the operations in each of the Group's reportable segments.

- Segment 1 Power business
- Segment 2 Consulting business
- Segment 3 Infrastructure business

Each segment's performance is measured based on segment revenue and profit, as included in the internal management reports that are reviewed by the Group's CODM. Segment revenue and profit is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries. Inter-segment pricing is determined on an arm's length basis.

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Assets, revenue and profit of the reportable segments in the consolidated financial statements for year ended 31 December 2021 and 2020 are as follows:

	Power business		Consulting business*		Infrastructure business (in million Baht)		Eliminations		Total	
	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
For the year ended 31 December										
External revenue	46,830	32,298	474	407	163	158	-	-	47,467	32,863
Inter-segment revenue	-	-	816	895	-	-	(816)	(895)	-	-
Total	46,830	32,298	1,290	1,302	163	158	(816)	(895)	47,467	32,863
Disaggregation of revenue										
Primary geographical markets										
Thailand	40,890	29,846	1,262	1,276	163	158	(788)	(869)	41,527	30,411
Others	5,940	2,452	28	26	-	-	(28)	(26)	5,940	2,452
Total	46,830	32,298	1,290	1,302	163	158	(816)	(895)	47,467	32,863
Timing of revenue recognition										
At a point in time	39,081	26,751	-	-	-	-	-	-	39,081	26,751
Over time	7,749	5,547	1,290	1,302	163	158	(816)	(895)	8,386	6,112
Total	46,830	32,298	1,290	1,302	163	158	(816)	(895)	47,467	32,863
Profit (loss) from operations	13,229	8,042	12,057	8,867	10	7	(12,005)	(9,348)	13,291	7,568
Other income									8	20
Net loss on exchange rate									(1,075)	(134)
Share of profit from associates and joint ventures									2,886	2,462
Finance cost									(5,596)	(3,665)
Tax expense									(347)	(107)
Profit for the year									9,167	6,144
Segment fixed assets	155,293	134,272	72	64	93	69	(25,330)	(4,687)	130,128	129,718
Unallocated assets									232,546	115,863
Total assets									362,674	245,581

*Major revenue derives from dividend income and from management fee

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(a) Major customer

Revenues from a customer of the Group's segment 1 represents approximately Baht 32,822 million (2020: Baht 23,065 million) of the Group's total revenue.

(b) Promotional privileges

The Group has been granted promotional certificates by the Office of the Board of Investment for the electricity generating business. The Group has been granted several privileges including exemption and/or reduction from payment of income tax on the net profit derived from promoted operations with certain terms and conditions prescribed in the promotional certificates. Majority of revenue from power business segment in Thailand are promotional revenue.

19 Expenses by nature

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Cost of sales	26,374	18,210	-	-
Depreciation and amortisation	4,989	3,431	83	69
Repair and maintenance	1,969	1,200	1	-
Employee benefit expenses	1,801	1,556	1,186	996
Cost from service concession arrangement	146	146	-	-
Others	1,406	1,275	496	305
Total	36,685	25,818	1,766	1,370

20 Finance costs

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Interest expense	5,000	3,358	1,378	555
Upfront fee	361	55	298	-
Commitment fee	162	160	63	-
Guarantee fee	37	22	22	6
Others	36	70	17	8
Total	5,596	3,665	1,778	569

21 Income tax

<i>Income tax recognised in profit or loss</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Current tax	(177)	(1)	83	-
Deferred tax	(170)	(106)	(3)	4
Total tax (expense) income	(347)	(107)	80	4

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Reconciliation of effective tax rate

	Consolidated financial statements				Separate financial statements			
	2021	2020	2021	2020	2021	2020	2021	2020
	Rate (%)	(in million Baht)	Rate (%)	(in million Baht)	Rate (%)	(in million Baht)	Rate (%)	(in million Baht)
Profit before income tax expense		<u>9,514</u>		<u>6,252</u>		<u>5,957</u>		<u>5,075</u>
Income tax using corporation tax rate	20	1,903	20	1,250	20	1,191	20	1,015
Difference in effective tax rate of share of profit (loss) of associates and joint ventures		(577)		(492)		-		-
Income subject to tax under the Revenue Code		240		143		240		143
Income not subject to tax		(1,314)		(1,069)		(1,331)		(987)
Expenses not deductible for tax purposes		542		261		26		10
Expenses deductible at a greater amount		(141)		(56)		(1)		(2)
Utilisation of previously unrecognised tax losses		(242)		(245)		(45)		(183)
Tax losses for which no deferred income tax asset was recognised		69		68		-		-
(Gain) loss on exchange rate		(99)		260		-		-
Others		(34)		(13)		-		-
Total	<u>3.64</u>	<u>347</u>	<u>1.71</u>	<u>107</u>	<u>1.34</u>	<u>80</u>	<u>(0.08)</u>	<u>(4)</u>

Deferred tax At 31 December	Consolidated financial statements				Separate financial statements			
	2021	Assets 2020	Liabilities 2021	Liabilities 2020	2021	Assets 2020	Liabilities 2021	Liabilities 2020
	(in million Baht)							
Total	3,877	4,535	(5,802)	(5,165)	46	42	-	(186)
Set off of tax	<u>(1,980)</u>	<u>(1,517)</u>	<u>1,980</u>	<u>1,517</u>	<u>-</u>	<u>(42)</u>	<u>-</u>	<u>42</u>
Net deferred tax assets (liabilities)	<u>1,897</u>	<u>3,018</u>	<u>(3,822)</u>	<u>(3,648)</u>	<u>46</u>	<u>-</u>	<u>-</u>	<u>(144)</u>

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<i>Deferred tax</i>	Consolidated financial statements					At 31 December
	(Charged) / Credited to					
	At 1 January	Profit or loss	Other comprehensive income <i>(in million Baht)</i>	Acquired from business combination	Exchange differences	
2021						
Deferred tax assets						
Employee benefit obligation	44	5	-	-	-	49
Elimination of fixed assets	443	17	-	-	-	460
Allowance for impairment	5	-	-	-	-	5
Provision for decommissioning	526	22	-	-	11	559
Cost from service concession arrangement	29	30	-	-	-	59
Unrealised loss on exchange rate for long-term loans	30	24	-	-	-	54
Derivatives: Interest rate swaps	2,627	-	(1,198)	-	-	1,429
Interest carry forward	693	357	-	-	20	1,070
Loss carry forward	138	50	-	-	4	192
Total	4,535	505	(1,198)	-	35	3,877
Deferred tax liabilities						
Receivable from service concession arrangement	(32)	(35)	-	-	-	(67)
Property, plant and equipment (Useful lives increment)	(536)	(262)	-	-	(15)	(813)
Property, plant and equipment (Accelerated depreciation scheme)	(1,333)	(453)	-	-	(38)	(1,824)
Commissioning expense	(103)	-	-	-	-	(103)
Decommissioning expense	(125)	7	-	-	-	(118)
Financial assets measured at FVOCI (Increase in fair value)	(187)	-	187	-	-	-
Right in Power Purchase Agreements	(2,846)	162	-	-	(96)	(2,780)
Unrealised gain on exchange rate for construction payable	-	(9)	-	-	-	(9)
Lease receivable under power purchase agreement	-	(85)	-	-	-	(85)
Interest payable and deferred financing fee from application of effective interest rate method	(3)	-	-	-	-	(3)
Total	(5,165)	(675)	187	-	(149)	(5,802)
Net	(630)	(170)	(1,011)	-	(114)	(1,925)

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<i>Deferred tax</i>	At 1 January	Separate financial statements (Charged) / Credited to		At 31 December
		Profit or loss <i>(in million Baht)</i>	Other comprehensive income	
2021				
Deferred tax assets				
Allowance for impairment	5	-	-	5
Employee benefit obligation	37	4	-	41
Total	42	4	-	46
Deferred tax liabilities				
Financial assets measured at FVOCI (Increase in fair value)	(186)	-	186	-
Total	(186)	-	186	-
Net	(144)	4	186	46
2020				
Deferred tax assets				
Allowance for impairment	4	1	-	5
Employee benefit obligation	35	2	-	37
Total	39	3	-	42
Deferred tax liabilities				
Financial assets measured at FVOCI (Increase in fair value)	-	-	(186)	(186)
Total	-	-	(186)	(186)
Net	39	3	(186)	(144)
Unrecognised deferred tax assets				
	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Loss carry forward	254	393	-	41
Total	254	393	-	41

The taxable losses will expire during 2022 to 2026. The Group has not recognised such unexpired deductible temporary differences under current tax legislation as deferred tax assets because it is not probable that the Group will have sufficient future taxable profit to utilise the benefits therefrom.

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22 Basic earnings per share

The calculation of basic earnings per share for the year ended 31 December 2021 and 2020 were based on the profit for the year attributable to ordinary shareholders of the Company and the weighted average number of ordinary shares outstanding during the year, adjusted by the impact from change in par value of shares for comparative purpose as follows:

<i>For the year ended 31 December</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(million Baht / million shares)</i>			
Profit attributable to owners of the parent	7,670	4,282	5,878	5,079
Number of ordinary shares by weighted average method	11,733	10,959	11,733	10,959
Basic earnings per share (in Baht)	0.65	0.39	0.50	0.46

23 Dividends

Dividend payments to shareholders are as follows:

	Approved date	Payment schedule	Dividend rate per share <i>(Baht)</i>	Amount <i>(in million Baht)</i>
2021				
Dividend for year 2020	9 April 2021	April 2021	0.38	4,459
2020				
Dividend for year 2019	8 April 2020	April 2020	1.30	2,773

24 Financial instruments

(a) Carrying amounts and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy. It does not include fair value information for financial assets and financial liabilities measured at amortised cost if the carrying amount is a reasonable approximation of fair value.

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<i>At 31 December 2020</i>	Carrying amount			Consolidated financial statements (in million Baht)				Fair value		
	Fair value - Hedging instruments	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortised cost	Total	Level 1	Level 2	Level 3	Total	
Financial assets										
Investment in debt instruments	-	-	12	-	12	-	12	-	12	
Investment in equity securities	-	-	28,223	-	28,223	28,223	-	-	28,223	
Derivatives assets	405	-	-	-	405	-	405	-	405	
Total financial assets	405	-	28,235	-	28,640	28,223	405	-	28,223	405
Financial liabilities										
Debentures	-	-	-	43,428	43,428	-	45,294	-	45,294	
Derivatives liabilities	13,354	551	-	-	13,905	-	13,905	-	13,905	
Total financial liabilities	13,354	551	-	43,428	57,333	-	13,905	-	13,905	45,294

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	Separate financial statements					Total (in million Baht)	Level 1	Level 2	Level 3	Total
	Carrying amount			Fair value						
	Fair value - Hedging instruments	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortised cost						
At 31 December 2021										
Financial assets										
Investment in debt instruments	-	-	5	-	5	-	5	-	5	
Total financial assets	-	-	5	-	5					
Financial liabilities										
Debentures	-	-	-	47,467	47,467	-	47,702	-	47,702	
Derivatives liabilities	-	686	-	-	686	-	686	-	686	
Total financial liabilities	-	686	-	47,467	48,153					

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<i>At 31 December 2020</i>	Carrying amount			Separate financial statements				Fair value			
	Fair value - Hedging instruments	Financial instruments measured at FVTPL	Financial instruments measured at FVOCI	Financial instruments measured at amortised cost	Total	Level 1	Level 2	Level 3	Total		
				<i>(in million Baht)</i>							
Financial assets											
Investment in debt instruments	-	-	5	-	5	-	5	-	5		
Investment in equity securities	-	-	26,010	-	26,010	26,010	-	-	26,010		
Total financial assets	-	-	26,015	-	26,015	26,010	-	-	26,010		
Financial liabilities											
Debentures	-	-	-	17,486	17,486	-	17,906	-	17,906		
Derivatives liabilities	-	551	-	-	551	-	551	-	551		
Total financial liabilities	-	551	-	17,486	18,037	-	17,906	-	17,906		

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Financial instruments measured at fair value

Type	Valuation technique
Marketable equity and debt securities	The fair value of the securities at recent quoted prices to the public at the last working day of the reporting period or net asset value at reporting date.
Forward exchange contracts	The fair value is determined using quoted forward exchange rates at the reporting date and present value calculations based on high credit quality yield curves in the respective currencies.
Interest rate swaps	The fair value is calculated as the present value of the estimated future cash flows.
Cross currency swap	Discounted cash flows, using model from observable market data
Debt instruments and other financial liabilities	Discounted cash flows

(b) *Financial risk management policies*

Risk management framework

The Group's board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The board of directors has established the risk management committee, which is responsible for developing and monitoring the Group's risk management policies. The committee reports regularly to the board of directors on its activities.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to maintain a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group audit committee oversees how management monitors compliance with the Group's risk management policies and procedures, and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group audit committee is assisted in its oversight role by internal audit. Internal audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the audit committee.

(b.1) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Group's receivables from customers and investments in debt securities.

(b.1.1) Trade receivables

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the factors that may influence the credit risk of its customer base, including the default risk associated with the industry and country in which customers operate. Detail of concentration of revenue are included in note 18.

The risk management committee has established a credit policy under which each new customer is analysed individually for creditworthiness before the Group's standard payment and delivery terms and conditions are offered. The Group's review includes external ratings, if they are available, financial statements, credit agency information, industry information and in some

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cases bank references. Sale limits are established for each customer and reviewed quarterly. Any sales exceeding those limits require approval from the risk management committee.

The Group limits its exposure to credit risk from trade receivables by establishing a maximum payment period of three months.

The following table provides information about the exposure to credit risk and ECLs for trade receivables.

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Within credit terms	9,142	5,104	608	411
Overdue:				
31-90 days	14	293	-	36
181 - 365 days	143	-	-	-
More than 365 days	270	263	-	-
Total	9,569	5,660	608	447
Less allowance for expected credit loss	-	-	-	-
Net	9,569	5,660	608	447

The normal credit term granted by the Group is 30 days.

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Allowance for expected credit loss				
At 1 January	-	-	-	-
At 31 December	-	-	-	-

(b.1.2) Cash and cash equivalent and derivatives

The Group's exposure to credit risk arising from cash and cash equivalents and derivative assets is limited because the counterparties are reliable banks and financial institutions with a reliable credit rating for which the Group considers to have low credit risk.

(b.2) Liquidity risk

The Group monitors its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Group's operations and to mitigate the effects of fluctuations in cash flows.

The following table are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted and include contractual interest payments and exclude the impact of netting agreements.

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	Consolidated financial statements				
	Carrying amount	Contractual cash flows			Total
		1 year or less	More than 1 year but less than 5 years	More than 5 years	
			(in million Baht)		
At 31 December 2021					
Non-derivative financial liabilities					
Trade payables	3,080	(3,080)	-	-	(3,080)
Construction payable	8,155	(8,155)	-	-	(8,155)
Other payable	601	(144)	(387)	(70)	(601)
Loans from financial institutions	151,951	(15,578)	(66,336)	(87,673)	(169,587)
Lease liabilities	755	(102)	(245)	(706)	(1,053)
Debentures	71,783	(8,650)	(46,399)	(25,382)	(80,431)
	<u>236,325</u>	<u>(35,709)</u>	<u>(113,367)</u>	<u>(113,831)</u>	<u>(262,907)</u>
Derivative financial liabilities					
Interest rate swaps contracts used for hedging	8,147	(2,434)	(9,314)	(12,763)	(24,511)
Forward exchange contracts used for hedging	868	(537)	(456)	-	(993)
	<u>9,015</u>	<u>(2,971)</u>	<u>(9,770)</u>	<u>(12,763)</u>	<u>(25,504)</u>
At 31 December 2020					
Non-derivative financial liabilities					
Trade payables	1,353	(1,353)	-	-	(1,353)
Construction payable	7,177	(6,671)	(506)	-	(7,177)
Other payable	570	(157)	(230)	(183)	(570)
Loans from financial institutions	97,610	(17,068)	(22,668)	(77,811)	(117,547)
Lease liabilities	853	(77)	(151)	(661)	(889)
Debentures	43,990	(5,913)	(26,492)	(16,635)	(49,040)
	<u>151,553</u>	<u>(31,239)</u>	<u>(50,047)</u>	<u>(95,290)</u>	<u>(176,576)</u>
Derivative financial liabilities					
Interest rate swaps contracts used for hedging	13,158	(2,672)	(12,009)	(19,146)	(33,827)
Forward exchange contracts used for hedging	196	-	(238)	-	(238)
	<u>13,354</u>	<u>(2,672)</u>	<u>(12,247)</u>	<u>(19,146)</u>	<u>(34,065)</u>
Separate financial statements					
	Contractual cash flows				Total
	Carrying amount	1 year or less	More than 1 year but less than 5 years	More than 5 years	
			(in million Baht)		
		At 31 December 2021			
Non-derivative financial liabilities					
Loans from financial institutions	48,482	(10,903)	(39,167)	-	(50,070)
Lease liabilities	146	(60)	(92)	-	(152)
Debentures	47,881	(3,248)	(33,158)	(17,859)	(54,265)
	<u>96,509</u>	<u>(14,211)</u>	<u>(72,417)</u>	<u>(17,859)</u>	<u>(104,487)</u>
At 31 December 2020					
Non-derivative financial liabilities					
Short-term loans from financial institutions	11,507	(11,507)	-	-	(11,507)
Lease liabilities	55	(30)	(27)	-	(57)
Debentures	17,705	(545)	(12,990)	(6,388)	(19,923)
	<u>29,267</u>	<u>(12,082)</u>	<u>(13,017)</u>	<u>(6,388)</u>	<u>(31,487)</u>

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The Group and the Company have derivatives liabilities from cross-currency swap contracts which carrying amount is Baht 686 million. The contractual cash flows depends on cashflows from loan arrangement which its risk is managed by these contracts which are less than 8 years.

The cash flows disclosed in the above table represent the contractual undiscounted cash flows relating to derivative financial liabilities held for risk management purposes and which are not usually closed out before contractual maturity.

(b.3) Market risk

The Group is exposed to normal business risks from changes in market interest rates and currency exchange rates and from non-performance of contractual obligations by counterparties. The Group does not hold or issue derivatives for speculative or trading purposes.

(b.3.1) Foreign currency risk

The Group is exposed to foreign currency risk relating to construction and maintenance agreements which are denominated in foreign currencies. The Group primarily utilises forward exchange contracts to hedge such financial liabilities denominated in foreign currencies.

<i>Exposure to foreign currency at 31 December</i>	Consolidated financial statements					
	2021			2020		
	U.S. Dollar	Euro	Others	U.S. Dollar	Euro	Others
	<i>(in million Baht)</i>					
Financial assets	356	1,324	63	464	1,342	60
Financial liabilities	(29,540)	(37)	(71)	(26,014)	(148)	(1,962)
Statement of financial position exposure	(29,184)	1,287	(8)	(25,550)	1,194	(1,902)
Contractual commitment	(2,650)	(804)	(12,767)	(2,382)	(1,006)	(14,491)
Total	(31,834)	483	(12,775)	(27,932)	188	(16,393)
Currency swaps contracts	-	(9,083)	-	-	(9,219)	-
Forward exchange contracts	2,650	804	12,767	2,382	1,117	16,387
Net exposure	(29,184)	(7,796)	(8)	(25,550)	(7,914)	(6)

<i>Exposure to foreign currency at 31 December</i>	Separate financial statements			
	2021		2020	
	U.S. Dollar	Others	U.S. Dollar	Others
	<i>(in million Baht)</i>			
Financial assets	345	21,889	97	22,285
Financial liabilities	(235)	(32)	(249)	(23)
Statement of financial position exposure	110	21,857	(152)	22,262
Currency swaps contracts	-	(9,083)	-	(9,219)
Net exposure	110	12,774	(152)	13,043

Sensitivity analysis

Strengthening (weakening) of foreign currencies at 31 December 2021 would have affected the measurement of financial instruments denominated in foreign currencies and affected profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular interest rates, remain constant and ignores any impact of forecast sales and purchases.

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	Movement (%)	Consolidated financial statements	
		Strengthening (in million Baht)	Weakening (in million Baht)
Profit or loss			
At 31 December 2021			
U.S. Dollar	10	(2,918)	2,918
At 31 December 2020			
U.S. Dollar	10	(2,555)	2,555
Separate financial statements			
Profit or loss			
	Movement (%)	Strengthening (in million Baht)	Weakening (in million Baht)
At 31 December 2021			
U.S. Dollar	10	11	(11)
At 31 December 2020			
U.S. Dollar	10	(15)	15

(b.3.2) Interest rate risk

Interest rate risk is the risk that future fluctuations in market interest rates will affect the results of the Group's operations and its cash flows because loan interest rates are mainly variable. The Group is primarily exposed to interest rate risk from its borrowings (see note 14). The Group mitigates this risk by ensuring that the majority of its borrowings are at fixed interest rates by utilising interest rate swaps to manage exposure to fluctuations in interest rates on specific borrowings.

The Group adopts a hedge policy to ensure that between 80 - 90% of its interest rate risk exposure is at fixed rates. This is achieved partly by entering fixed-rate agreements and partly by borrowing at floating rate and using interest rate swaps as hedges of the variability in cash flows attributable to movements in interest rates. The Group applies a hedge ratio of 1:1.

The Group determines the existence of a relationship between the hedging instrument and hedged item based on the reference interest rates, tenors, repricing dates and maturities and the notional or par amounts.

The Group assesses whether the derivative designated in each hedging relationship is expected to be effective in offsetting changes in cash flows of the hedged item using the critical-terms-match approach.

In these hedge relationships, the ineffectiveness are mainly attributed to:

- the effect of the counterparty's and the Group's own credit risk on the fair value of the swaps, which is not reflected in the change in the fair value of the hedged cash flows attributable to the change in interest rates; and
- differences in repricing dates between the swaps and the borrowings.

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<i>Exposure to interest rate risk at 31 December</i>	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
	<i>(in million Baht)</i>			
Financial instruments with variable interest rates				
Financial liabilities	(114,505)	(83,626)	(11,976)	-
Undrawn down facility	(6,119)	(2,346)	-	-
Exposure	(120,624)	(85,972)	(11,976)	-
Interest rate swaps contracts	89,246	80,212	-	-
Net exposure	(31,378)	(5,760)	(11,976)	-

Interest rate swap contract

The Group enters into interest rate swaps contracts 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 and the notional amount of the swaps. As all critical terms match, the economic relationship remains throughout the year.

As at 31 December 2021, the Group has outstanding interest rate swap contracts which disclosed in Note 24 (b.4).

Cash flow sensitivity analysis for variable-rate instruments

The sensitivity of cash flows from variable rate instruments is analysed from the Group's net exposure. A change in 1% in interest rates, which is reasonable possible at the reporting date, would have increased or decreased in profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency exchange rates, remain constant.

<i>Effect to profit or loss</i>	Consolidated financial statements		Separate financial statements	
	Profit or loss		Equity, net of tax	
	Interest rate increases by 1%	Interest rate decreases by 1%	Interest rate increases by 1%	Interest rate decreases by 1%
	<i>(in million Baht)</i>			
At 31 December 2021				
Financial instruments with variable interest rate	(314)	314	(119)	119
At 31 December 2020				
Financial instruments with variable interest rate	(58)	58	-	-

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(b.4) Cash flow hedges

At 31 December 2021, the Group held the following financial instruments to hedge exposures to changes in foreign currency and interest rates.

	Consolidated financial statements		
	Less than 1 year	Maturity 1-5 years	More than 5 years
At 31 December 2021			
Foreign currency risk			
<i>Forward exchange contracts</i>			
Net exposure (in million Baht)	-	503	-
EUR:USD forward exchange contracts rate	-	1.15 - 1.18	-
Net exposure (in million Baht)	184	6,080	-
YEN:USD forward exchange contracts rate	0.01	0.01	-
Net exposure (in million Baht)	1,711	1,704	-
YEN:THB forward exchange contracts rate	0.31 - 0.32	0.30	-
Net exposure (in million Baht)	1,080	1,411	-
USD:THB forward exchange contracts rate	31.31 - 31.41	29.56 - 29.73	-
Net exposure (in million Baht)	115	168	-
EUR:THB forward exchange contracts rate	39.22 - 39.56	35.75 - 35.95	-
Net exposure (in million Baht)	451	-	-
SEK:THB forward exchange contracts rate	3.44 - 3.48	-	-
Interest rate risk			
<i>Interest rate swaps</i>			
Net exposure (in million Baht)	2,754	20,120	86,851
Fixed interest rate (%)	1.38 - 3.74	1.38 - 3.74	1.38 - 3.74
At 31 December 2020			
Foreign currency risk			
<i>Forward exchange contracts</i>			
Net exposure (in million Baht)	335	503	-
EUR:USD forward exchange contracts rate	1.22 - 1.24	1.15 - 1.18	-
Net exposure (in million Baht)	5,686	6,263	-
YEN:USD forward exchange contracts rate	0.01	0.01	-
Net exposure (in million Baht)	1,711	1,704	-
YEN:THB forward exchange contracts rate	0.31 - 0.32	0.30	-
Net exposure (in million Baht)	971	1,411	-
USD:THB forward exchange contracts rate	31.31 - 31.41	29.56 - 29.73	-
Net exposure (in million Baht)	112	168	-
EUR:THB forward exchange contracts rate	39.56	35.95	-
Net exposure (in million Baht)	447	575	-
SEK:THB forward exchange contracts rate	3.65 - 3.67	3.44 - 3.48	-
Interest rate risk			
<i>Interest rate swaps</i>			
Net exposure (in million Baht)	2,552	16,005	88,245
Fixed interest rate (%)	1.74 - 3.74	1.52 - 3.74	1.52 - 3.74

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The amounts at the reporting date relating to items designated as hedged items were as follows.

	Consolidated financial statements	
	Cash flow hedge reserve	Costs of hedging
	<i>(in million Baht)</i>	
At 31 December 2021		
Foreign currency risk		
Variable foreign currency rate instruments	(442)	-
Interest rate risk		
Variable-rate instruments	(3,731)	-
Total	(4,173)	-
At 31 December 2020		
Foreign currency risk		
Variable foreign currency rate instruments	(78)	-
Interest rate risk		
Variable-rate instruments	(6,778)	-
Total	(6,856)	-

The following table provides a reconciliation by risk category and analysis of OCI items, net of tax, resulting from hedge accounting.

	Consolidated financial statements
	<i>(in million Baht)</i>
Balance at 1 January 2021	(6,856)
Cash flow hedges	
Changes in fair value:	1,963
Amount reclassified to profit or loss	960
Amount included in the cost of non – financial items	576
Tax changes in reserves during the year	(816)
Balance at 31 December 2021	(4,173)
Balance at 1 January 2020	(5,241)
Cash flow hedges	
Changes in fair value:	(1,488)
Amount reclassified to profit or loss	(671)
Amount included in the cost of non – financial items	(105)
Tax changes in reserves during the year	649
Balance at 31 December 2020	(6,856)

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25 Capital management

The Board of Directors' policy is to maintain a strong capital base as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board monitors the return on capital, which the Group defines as result from operating activities divided by total shareholders' equity, excluding non-controlling interests and also monitors the level of dividends to ordinary shareholders.

26 Commitments with non-related parties

Commitments with non-related parties as at 31 December are as follows;

	Consolidated financial statements		Separate financial statements	
	2021	2020	2021	2020
<i>Capital commitments</i>				
Engineering services agreement, supply agreement and power plant construction agreement				
Million Baht	1,671	7,171	-	-
Million U.S. Dollar	246	469	-	-
Million Euro	21	27	-	-
Million Yen	42,376	55,420	-	-
Design and infrastructure construction agreement				
Million Baht	9,832	8,143	-	-
<i>Other commitments</i>				
Guarantees				
Million Baht	38,875	14,298	31,086	6,525
Million Yen	7,138	-	7,138	-
Million U.S. Dollar	206	-	206	17
Standby Letter of Credit				
Million Euro	54	54	54	54

Significant agreement

Public Private Partnership Contract in Map Ta Phut Industrial Port Development Phase 3 Projects

The Group has entered into Public Private Partnership Contract ("PPP Contract") in Map Ta Phut Industrial Port Development Phase 3 Projects which contract term is 30 years. The project comprised of design and construction of the infrastructure and the right to construct the port and LNG terminal (Superstructure) to facilitate shipment of LNG volume.

The Group recognised revenue from service concession agreement amounting to Baht 163 million and cost from service concession arrangement amounting to Baht 146 million in consolidated financial statement for the year ended 31 December 2021 (2020: Baht 158 million and Baht 146 million, respectively) and recognised receivable from service concession arrangement amounting to Baht 334 million as at 31 December 2021 (31 December 2020: Baht 159 million).

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Power Purchase Agreements

The Group has Power Purchase Agreements (PPAs) with the Electricity Generating Authority of Thailand, Provincial Electricity Authority, Vietnam Electricity and private companies in Thailand and overseas. The PPAs are effective for the periods of 5 - 25 years whereby the Group will supply the electric and other energy to counterparties at the agreed quantity and price. The Group shall comply with conditions and restrictions as stipulated in these agreements.

Operation and maintenance agreements

The Group has obligation commitment from operation and maintenance agreements for power plants with counterparties, the service fees are stipulated in the agreements. These agreements are for period of 20 to 25 years.

27 Litigation

During 2014, the Monitoring and Auditing Committee of Fiscal Expenditures (MACFE) resolved to appoint the Energy Regulatory Commission (ERC) to initiate an investigation on the bidding process of the 2012 Independent Power Producer (IPP) Bidding Solicitation, which was alleged to be non-compliance with Thailand's Power Development Plan and the relevant ERC regulations. The ERC then established a sub-committee to conduct an investigation and report its findings to the MACFE. The MACFE, later, assigned the Ministry of Energy (MOE) to further investigate the IPP Bidding Solicitation in which the MOE appointed an Ad Hoc Committee from the MOE to further investigate and provide solutions to the IPP Bidding Solicitation. Subsequently, the MOE submitted letters to the Group requesting to negotiate with the Group to cancel one of the IPP projects, of which the Power Purchase Agreement (PPA) with Electricity Generating Authority of Thailand (EGAT) was signed. In addition, the MOE sent a letter requesting the Board of Investment of Thailand (BOI) to delay approval process of both bidding IPP projects of the Group.

However, on 23 July 2015, Independent Power Development Company Limited (IPD), Gulf SRC Company Limited (GSRC), and Gulf PD Company Limited (GPD) (collectively Plaintiffs) filed an administrative lawsuit to the Central Administrative Court of Thailand (the Administrative Court) against (i) ERC, (ii) the Office of the ERC, (iii) MOE and (iv) the Ad Hoc Committee (collectively Defendants) that the investigation was not performed in accordance with the applicable laws, some of the Defendants who had authority for the investigation had conflicts of interest, information determined by the Defendants during the investigation was distorted and the Plaintiffs were obstructed to develop the IPP projects by the action of the Defendants. The Plaintiffs requested the Administrative Court to issue an order to prohibit the Defendants from conducting any further unlawful investigation on the IPPs Bidding Solicitation, or to stop using the result of such unlawful investigation whether internally or externally with other government authorities.

On 8 December 2016, the Administrative Court judged that the investigation conducted by the Defendants was lawful, however, the use of investigation or reference of the result of investigation or any action causing damages to the Plaintiffs were prohibited. The Central Administrative Court also ordered the MOE to revoke its letter requesting the BOI to delay approval process of the IPP projects. Subsequently, on 24 March 2017, GSRC and GPD finally obtained BOI approval.

On 4 January 2017, the MOE submitted an appeal to the Supreme Administrative Court and the Plaintiffs had to submit a petition of appeal to the Supreme Administrative Court by 5 June 2017.

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On 5 June 2017, the Plaintiffs submitted a request for an extension of a petition to appeal for 15 days, which was due on 20 June 2017. On 20 June 2017, the Plaintiffs already submitted a petition to appeal to the Supreme Administrative Court.

On 14 December 2021, the Supreme Administrative Court judged that the MOE's actions, both by sending the letter to the BOI and by requesting to negotiate with the Plaintiffs to cancel the PPA, violated and caused damages to the Plaintiffs. As such, the Supreme Administrative Court ordered the MOE to revoke its letter requesting the BOI to delay the BOI approval process of the IPP Projects, and to inform the BOI within 7 days from the date of the ruling. The Supreme Administrative Court also prohibited the MOE from using the result of such investigation with the Plaintiffs to cancel the IPP Projects. The Supreme Administrative Court's ruling is final.

28 Events after the reporting period

Investment in subsidiary

Capital increase and additional paid-up

Gulf Renewable Energy Co., Ltd.

(in million Baht)

300

Investment in associate and joint venture

Acquisition of investment in joint ventures

Hin Kong Power Co., Ltd.

(in million Baht)

445

Consideration for dividend payment

On 18 February 2022, at the Board of Directors' Meeting of the Company, the Board of Directors approved a proposal to Annual General Shareholders' Meeting for the year 2022 to consider the payment of dividends at Baht 0.44 per share to the shareholders who are entitled to receive the dividend. The Company will propose the payment of dividend at the next Annual General Shareholders' Meeting of the Company.

Investment in the municipal waste-to-energy project

On 24 January 2022, Gulf Renewable Energy Company Limited, a subsidiary in which the Company holds 100% equity stake, has entered into a share purchase agreement with a local businessman to invest in 99.99% equity interest in All Waste To Energy Company Limited, which holds 99.99% equity interest in Chiangmai Waste To Energy Company Limited ("CM WTE"), who received the right to manage waste disposal system from Chiang Mai Provincial Administrative Organization ("Chiang Mai PAO"). The Project plans to start the power plant construction after the Power Purchase Agreement has been signed with the PEA, with an expected construction period of approximately 3 years.

Investments in solar business

On 14 January 2022, the Group invested 70% of the ownership interest in Gulf MP1 Co., Ltd.. The objective of this company is to operate solar rooftop.

On 14 February 2022, the Group invested 50% of the ownership interest in AG Korat Co., Ltd.. The objective of this company is to operate solar rooftop and solar farm.

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29 Reclassification of accounts

Certain accounts in the 2020 financial statements have been reclassified to conform to the presentation in the financial statements for the year ended 31 December 2021. The reclassification is because the opinion of management that the new reclassification is more appropriate to the Group's business.

	31 December 2020					
	Consolidated financial statements			Separate financial statements		
	Before reclass	Reclass	After reclass	Before reclass	Reclass	After reclass
	<i>(in million Baht)</i>					
Statement of financial position						
Trade receivables	-	-	-	-	36	36
Other receivables	676	410	1,086	75	50	125
Refundable VAT	-	1,187	1,187	-	-	-
Other current assets	1,597	(1,597)	-	86	(86)	-
Non-current trade receivables	-	-	-	-	411	411
Other non-current receivables	356	75	431	1,156	(411)	745
Refundable VAT	-	366	366	-	-	-
Other non-current assets	554	(441)	113	-	-	-
Other current liabilities	303	(303)	-	-	-	-
Other payables	1,020	1,735	2,755	93	671	764
Accrued expense	1,425	(1,425)	-	671	(671)	-
Accounts payable for power plant construction	7,177	(7)	7,170	-	-	-
		<u>-</u>			<u>-</u>	
Statement of income						
Revenue from management fee	372	36	408	-	-	-
Administrative expenses	(2,080)	(36)	(2,116)	-	-	-
		<u>-</u>			<u>-</u>	

30 Thai Financial Reporting Standards (TFRS) not yet adopted

Revised TFRS due to Interbank Offer Rate (IBOR) reform - Phase 2, which are relevant to the Group's operations, expected to have material impact on the consolidated and separate Company's financial statements when initially adopted, and will become effective for the financial statements in annual reporting periods beginning on or after 1 January 2022, are as follows:

TFRS	Topic
TFRS 7	Financial Instruments: Disclosures
TFRS 9	Financial Instruments
TFRS 16	Leases

The amendments are applicable when an existing interest rate benchmark is replaced by another interest rate benchmark. The amendments provide a practical expedient that modifications to asset and liability values as a direct consequence of the interest rate benchmark reform and the new basis for determining the contractual cash flows is economically equivalent to the previous basis (i.e. the basis immediately preceding the change), can be accounted for by only updating the effective interest rate.

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Additionally, hedge accounting is not discontinued solely because of the replacement of another interest rate benchmark. Hedging relationships (and related documentation) must instead be amended to reflect modifications to the hedged item, hedging instrument and hedged risk.

The amendments to these standards are effective for the financial statements in annual reporting periods beginning on or after 1 January 2022. Management is currently considering the potential impact from these amendment in the initial period adopted.



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